

Lafayette *Metropolitan Expressway*

Technical Memorandum 2

TRAFFIC & TOLL REVENUE

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HNTB

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**Lafayette
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INTRODUCTION

The Traffic and Toll Revenue Technical Memorandum summarizes the following tasks outlined in the scope of services for the Lafayette Metropolitan Expressway (LME) Toll Feasibility Study: Tolling System, Traffic and Toll Revenue Estimates, Traffic Operational Analysis and Economic Development Assessment. The LME Toll Feasibility Study is being coordinated by the Lafayette Metropolitan Expressway Commission (LMEC), which is responsible pursuing alternative and innovate funding sources, including but not limited to tolls, to supplement public revenue sources for the construction, maintenance, and operation of a safe and efficient limited access highway system exclusively within Lafayette Parish.

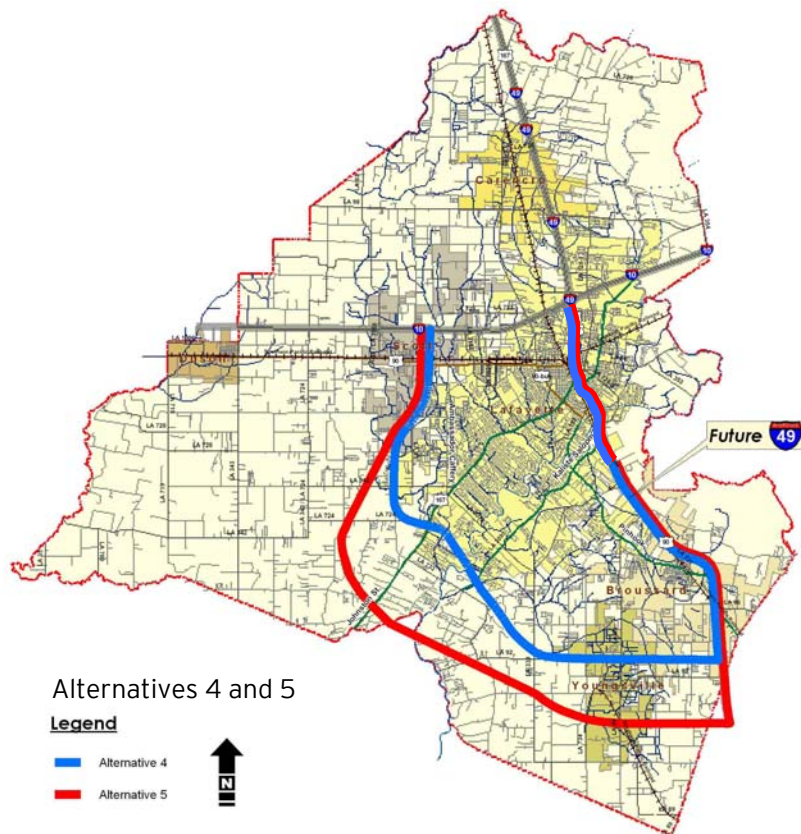
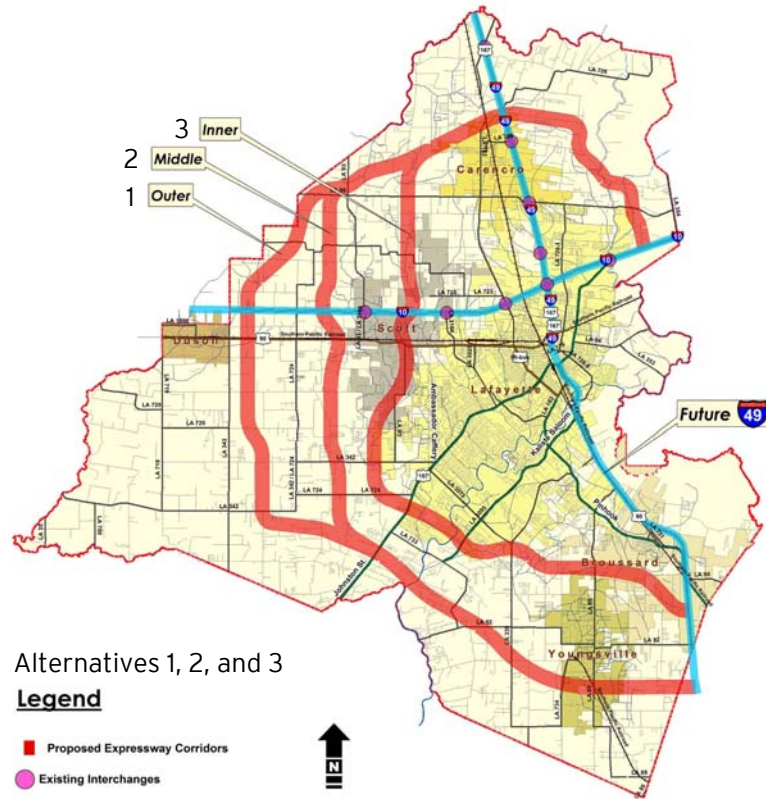
The Toll Collection Concepts section will cover the tolling system. A summary of toll rates made by other toll agencies will be included, along with a discussion of the type of toll collection schemes envisioned for the LME. The next section, Project Methodology, provides information on how traffic volumes will be developed and for the alternative project arrangements under consideration. The Economic Development Analysis section includes a verification of forecasts of socioeconomic data made by the Lafayette Consolidated Government (LCG) Metropolitan Planning Organization (MPO) as well as an assessment of areas that may be candidates for additional development. The final section presents data on Traffic and Toll Revenue, showing the toll revenue that can be expected and providing an estimate of the capital and operating costs associated with the selected toll collection system. Included in the discussion on Traffic and Toll Revenue will be a discussion of the Traffic Operational Analysis. That is, a few brief statements will be made concerning potential congestion on the project as well as the effect of the proposed project on other area roadways.

The study area is represented graphically in *Figure 2-1*. This area represents the boundaries of the Lafayette MPO and includes all of Lafayette Parish and portions of St. Martin, Iberia, Vermilion, and Acadia Parishes. The alternative corridors that are to be considered as part of this study are presented in this figure; however, details regarding each alternative may be found in the Traffic and Toll Revenue Analysis section.

This technical memorandum summarizes traffic and toll revenue analyses for several toll road systems. Wilbur Smith Associates (WSA) initially studied Alternatives 1, 2 and 3 for toll sensitivity to select one corridor for further analysis. Alternative 1 (Segments B, C1, C2 and D) was selected. Based on the traffic and toll revenue analysis of this corridor, a decision was made to concentrate on Segment B which is located in the southwest quadrant. This quadrant has the highest population density and vehicle trip volume. Segment B for Alternatives 1 and 3 were then analyzed for traffic and toll revenue.

The LMEC then provided additional guidance to identify two additional corridors in the southwest quadrant that are a combination of Segment B from Alternatives 1 and 3. These additional corridors are called Alternatives 4 and 5. Also, the proposed I-49 corridor section south of I-10 to the Parish line were included in the analysis with Alternatives 4 and 5. The I-49 section includes Segments A1 and A2.

Figure 2-1: Study Corridor Maps



TOLL COLLECTION CONCEPTS

The interest in use of tolls has dramatically grown in recent years, as funding from traditional federal and state sources has become increasingly scarce. Policymakers are looking for new options to assist in transportation finance, and tolls are also increasingly being considered as a strategy to “manage demand” to achieve more efficient operation of our existing transportation resources.

Perhaps the biggest problem with tolls has been the methods used to collect them. Traditional cash collection facilities have typically required motorists to stop and pay; sometimes resulting in extensive delays and congestion. Indeed, on many of the nation’s more heavily used toll facilities, the toll plaza has become a major constraint to traffic and revenue growth and a major “flash point” in arguments against the use of the toll concept. Provided in *Figure 2-2* are sample mainline and ramp plaza configurations from various tolling facilities in the United States.

Figure 2-2: Sample Barrier and Ramp Plazas



Illinois Tollway

Mainline Barrier with
Express ETC Lanes



**Greenville Southern
Connector**

Ramp Unattended with
Mixed Use Lane



Oklahoma Turnpike

Ramp Plaza Unattended
with Express ETC Lane

TRADITIONAL TOLLING CONCEPTS

This section discusses the traditional cash toll collection concepts, followed by a discussion of new developments in electronic toll collection. Historically, there have been three general types of cash collection toll concepts used on toll road facilities. These include:

- Closed ticket systems;
- Closed barrier systems; and
- Open barrier systems.

Closed Ticket Systems

In a closed ticket system, users obtain a toll ticket on entry and surrender the ticket on exit. The toll amount is based on actual distance traveled, and, of course, classification of vehicle. There are typically no mainline toll plazas along the route, except at each end of the turnpike facility.

Examples of closed ticket systems include the New Jersey Turnpike, Pennsylvania Turnpike, Ohio Turnpike and Indiana Toll Road. Ticket systems are most commonly used on longer-distance, inter-city toll facilities without closely spaced interchanges. In most cases, the use of a ticket system requires complex “trumpet” interchange configurations, where all possible travel movements at a given interchange are funneled through a single toll collection location. This could be extremely costly and right-of-way intensive, and is not well adapted for urban environments. The primary advantages of a ticket system are maximization of toll equity between different users of the toll road and the elimination of the need for frequent stops at mainline toll plazas.

Since most new toll facilities in the United States are typically being built in urban areas, it is no longer common to use the closed ticket system of collection. In several cases, such as the Oklahoma and Maine Turnpike Systems, facilities originally constructed as ticket systems have been converted to barrier operations.

Closed Barrier Systems

In a closed barrier system, a series of mainline and ramp toll collection facilities are constructed. At each of the toll plaza locations, a fixed toll amount (for a given vehicle class) is collected, regardless of points of entry or exit. All tolls are collected at the fixed collection locations. Ramp tolls are typically provided to “close the system” and prohibit “toll-free” travel between mainline barriers. In many cases, ramp toll collection facilities are operated in an unattended “honor-system” mode with coin machines, electronic toll collection or both.

Examples of closed barrier systems in the United States include the Richmond Expressway System, the Illinois Tollway and the Harris County Tollway System in Texas. Mainline and ramp plazas typically include manual lanes and, in many cases, automatic coin machines for passenger vehicles with exact change. In recent years, electronic toll collection has been added to help speed the flow of traffic through the barrier locations.

Open Barrier System

The open barrier concept is the same as the closed barrier system, except that no ramp plazas are constructed. This permits some level of toll-free travel between mainline locations. It has the advantage of significantly reducing the number of collection points and operating costs, but may have implications on revenue potential. The open barrier system is also generally considered the least equitable type of system, since some users pay a very high toll at a limited number of locations while many other users pay no toll at all.

Examples of open barrier systems include the Delaware and Maryland Turnpikes, as well as the Miami-Dade Expressway System in Florida. Either the open or closed barrier system is much more likely to be applicable on urban toll facilities which have been constructed in recent years and likely to be constructed

in the future. Both types of systems allow for relatively simple interchange design and relatively fast transaction processing (as compared to ticket systems). However, the longer a toll facility is, the more mainline plazas which may be required, thus increasing the number of stops required on a typical trip resulting in a decrease in patron convenience.

Barrier systems (open or closed) tend to have lower operating costs per transaction than ticket systems. However, depending on the overall toll facility configuration, the ticket system may have lower total operating costs since barrier systems on longer toll facilities typically result in a larger number of transactions.

ELECTRONIC TOLL COLLECTION

The advent of the current generation of electronic toll collection in the 1980s has had a profound impact on the toll industry. The vast majority of existing toll facilities in the United States now have at least added electronic toll collection to the menu of options for toll payment. More importantly, electronic toll collection has proven to be extremely popular among patrons. For example, after ETC was introduced in the greater New York region, more than 50 percent of all transactions had been converted from cash to electronic within three years, and in peak periods the ETC market share reached as much as 75-80 percent. This dramatically reduced congestion at toll plazas on facilities such as the TBTA Bridges in New York, New Jersey Turnpike, New York Thruway and more.

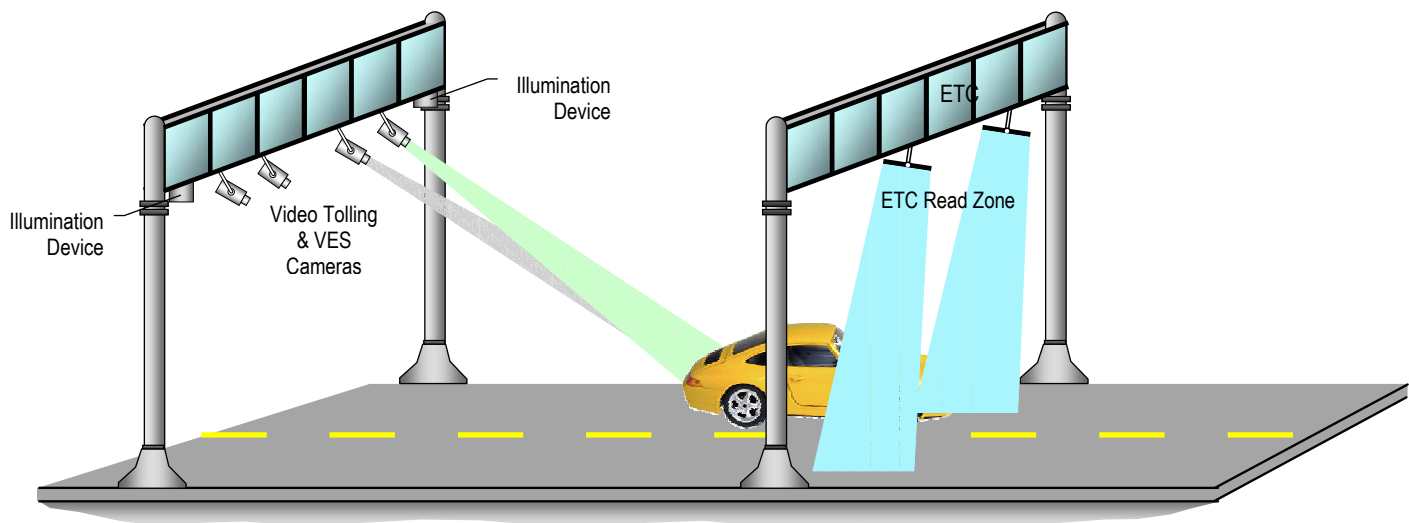
The real potential impact of electronic toll collection is just now being seen. New toll facilities such as Highway 407 in Toronto and the CityLink project in Melbourne, Australia are operated entirely with electronic toll collection with no toll plazas or toll collectors at all. The Toronto system collects over \$200 million per year in revenue without a single toll attendant. Electronic toll collection has also enabled deployment of value pricing, and the emergence of managed lanes and other demand management strategies. Indeed, ETC has certainly broadened, and brightened, the outlook for expanded use of tolls throughout America.

OVERVIEW

Electronic toll collection systems have been widely deployed throughout the United States, although no absolute interoperability standard has been established at the national level. Regional interoperability standards have been established throughout the Northeast, known as E-ZPass (which includes the Maryland toll facilities), in California and (defacto) in the Texas/Oklahoma/Kansas region. The state of Florida also has a statewide SUNPASS system which is now used on each of the many toll facilities in the state of Florida through a centralized clearinghouse operation. However, regionally, different technologies are used, not always fully interoperable or compatible with each other.

All the technologies currently in use in North America fall within an overall category of Dedicated Short-Range Communication (DSRC) type. Simply stated, this involves roadside equipment, such as an antenna and reader, which communicates with a small transponder device typically mounted on the vehicle windshield. In most cases, pre-paid accounts are opened by patrons participating in the ETC program. The transponder communicates the account number to the roadside reader and the appropriate toll amount is deducted from a centrally maintained account balance. *Figure 2-3* provides a graphical depiction of how a vehicle equipped with a transponder would traverse an ETC tolling location.

Figure 2-3: Typical Open Road Tolling Zone and Enforcement Process



DSRC-type electronic toll collection systems have been generally reliable, with most systems exceeding 98 percent reliability, or much higher. Violation experience in electronic toll lanes ranges from facility to facility, but generally averages 2-7 percent. Effective violation enforcement systems (VES) can substantially reduce violation potential and actually can be “revenue positive” when combined with a program of administrative fees assessed to violators.

ALTERNATIVE DEPLOYMENT METHODS

For the most part, today’s ETC systems have been retroactively deployed onto existing toll facilities, which historically had been using exclusively cash collection. There are generally three alternative approaches which have been used by existing toll agencies:

- Mixed operation, in which ETC and cash patrons share the same toll lanes;
- Dedicated ETC lanes, in which certain toll lanes at a particular toll plaza are dedicated to ETC traffic, with cash vehicles using other lanes; and
- ETC express lanes, in which ETC patrons can typically pass through toll plazas at high speeds, in some cases full freeway speeds, with some degree of physical separation from adjacent lanes used to process cash vehicles.

The earliest deployments were mostly “mixed” operations. Toll facility operators were concerned that ETC utilization rates would not be sufficient to warrant dedicated capacity. In most cases, these same agencies have ultimately shifted to at least dedicated lanes, and in some cases, express lanes.

There are some disadvantages to mixed operation. First of all, much of the time savings advantages of the electronic toll collection process can be lost if ETC customers need to wait in the same lines as cash paying customers. There also tends to be an increased risk of accidents in the toll lanes, in cases where most users have electronic toll collection but an occasional cash customer comes to a surprising stop.

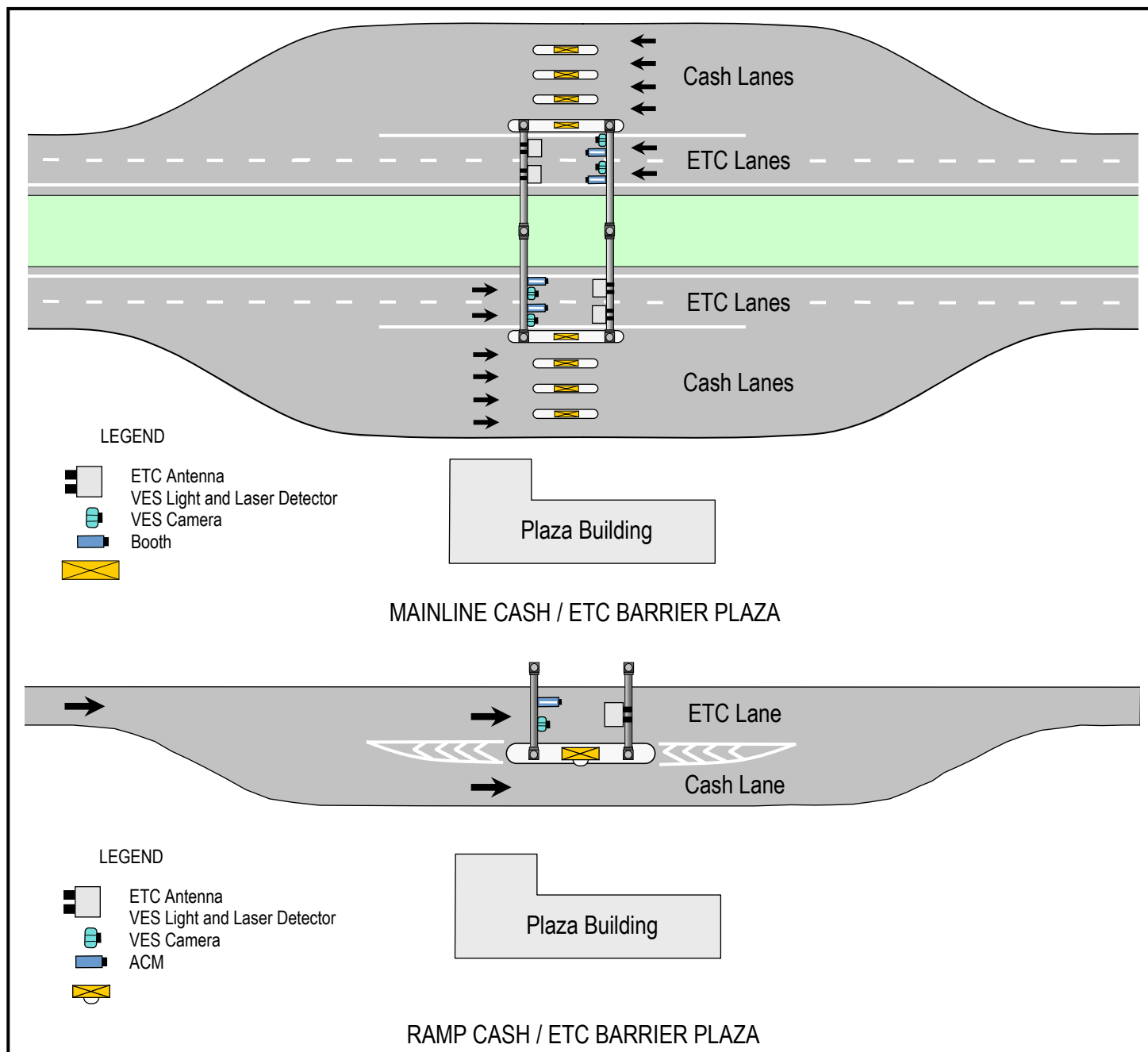
Mixed use lanes are still common, even where agencies have gone to dedicated lanes. These are used to handle “spill over” from the dedicated lanes, as well as in special cases where there are “close-in” entry or exit ramps making it difficult to weave to or from dedicated ETC lanes.

Most toll agencies have at least begun to deploy dedicated lanes, and in some cases more than one in each travel direction. Dedicated ETC lanes typically involve only minimal modifications to the physical toll lane itself, are designed for low speed, non-stop operation and have only minimal physical separation between the ETC lanes and cash-paying queues. It is important, however, to the maximum extent possible to provide a “clear channel” access to the dedicated ETC lanes, thereby providing a potential time savings incentive for motorists to switch to electronic collection.

Dedicated lanes can have some disadvantages. In most cases, they have been deployed in toll plazas which may require toll attendants and other plaza personnel to walk between toll booths, creating some additional safety risk. They are also typically relatively narrow in width and, despite signing and other strategies, ETC users tend to pass through the lanes at relatively high speeds.

The newer generation of toll facilities constructed during the 1990s have mostly been designed in the post-ETC era. As such, most of these facilities have been designed with ETC express lanes, where motorists in the electronic toll program pass through or around the toll plazas at full freeway speeds. Examples include the San Joaquin, Foothill Eastern toll facilities in Orange County, California, the new Pocahontas Parkway in Virginia and several more. *Figure 2-4* represents typical mainline plaza and ramp plaza layouts expected for the LME toll system.

Figure 2-4: Typical Toll Plaza and Ramp Layouts



Express lanes typically have a capacity limited only by the capacity of the roadway itself. Express lanes are normally constructed with a cross-section of two or more lanes in each direction. In most cases, express lanes may be opened to all vehicle classes. This fully electronic toll operation presents some challenges for automatic vehicle classification and enforcement, but has been relatively successful overall. The high-speed, multi-lane environment of express lanes has proven to be difficult for some ETC technologies, and in some cases is requiring system or software redesigns. However, in planning for future toll facilities, it is

reasonable to assume that express lanes at barrier plazas “will be the norm” and necessary improvements in vehicle collection and violation enforcement technologies will be made.

Express lanes have also been retroactively deployed on some older toll facilities in the United States. In many cases, this has proven to be quite costly, especially where long physical separations between the express lanes and the traditional cash lanes have evolved. Depending on the ultimate design, it may not be possible to deploy high-speed express lanes on certain types of toll facilities, such as ramp interchanges on ticket systems or barrier plazas immediately adjacent to toll bridges or tunnels. Express lanes are most ideally suited for mainline toll plazas with relatively good sight distance.

Most new toll facilities being planned for barrier collection will likely be designed with express lanes. In fact, in many cases, electronic toll collection facilities will simply be constructed over the mainline travel lanes while limited cash collection facilities will be constructed to the side of the pavement. This makes the toll collection process virtually transparent to frequent users of the toll facility, while still providing limited cash collection facilities for non-local or less frequent users.

ADVANTAGES OF ELECTRONIC TOLL COLLECTION

Regardless of the method of deployment, electronic toll collection has been an overwhelming success in most cases. The toll collection process has shifted from cash in the toll lane to back office account management and electronic funds transfers. In most cases, patrons select to link ETC accounts directly to credit cards, and as account balances decline, additional funds are automatically obtained from a credit card account, with virtually no action required on the part of the patron. Electronic toll collection operating costs will, ultimately, prove to be less costly than cash collection, although in the early “ramp-up” phase of most systems, this has proven to not be the case.

Electronic toll collection brings with it a whole new set of operating challenges, principally related to violation enforcement, customer service centers and back office account management operations. Since ETC systems have been deployed mostly in parallel with cash systems, this has resulted in “two systems” for most agencies, thereby sometimes resulting in an increase in operating cost, at least over the short term. Over the longer term, and especially if one considers the capital cost associated with expanding cash collection plazas, electronic toll collection will prove to be more cost-effective.

CAPITAL COSTS

In contemplating the future toll collection system for a new toll facility, capital cost reflects the cost of the toll plaza facility itself, the toll technology systems and associated software and incremental right-of-way or other design changes which may be needed to accommodate a certain type of toll collection. For example, use of the ticket system concept is rated “poor” because it is likely to have the highest capital cost both in terms of toll systems and, most notably, the high cost of interchange design to accommodate ramp toll plazas. A closed barrier system will be somewhat less costly, depending on ultimate project configuration, since it would normally permit relatively simple interchange configurations. An open barrier system would include less toll plazas and have no impact on interchange design.

In terms of electronic toll collection deployment, the least costly method is through mixed operations while the most costly method is to retroactively construct express lanes to existing plazas. However,

express lanes may actually be less costly if integrated into the original design of a new toll facility. Video tolling will have a relatively high capital cost due to requirement for dozens of relatively expensive video cameras and high data communications system costs due to the high amount of video data traffic. However, it has relatively low cost implications on right-of-way and construction.

OPERATING COSTS

Ticket systems would typically have the highest operating costs of the traditional cash systems, except on very long intercity facilities with long distances between interchanges. In such cases, there would be a substantially reduced number of transactions, as compared with a barrier system alternative, may offset the higher per-transaction cost associated with ticket system operations. The least costly is an ETC only electronic system; the highest operating cost would typically be associated with any type of video tolling operation, although that may improve in the future.

PROJECT METHODOLOGY

ASSUMPTIONS

The preparation of traffic and revenue forecasts necessarily involves certain assumptions which could be invalidated by future events. For example, WSA must assume that LMEC would construct the proposed projects in forms identical to those shown here, especially with regard to:

- Alignment (location and limits)
- Number of lanes
- Access points
- Toll rates and tolling system
- Permitted vehicle types
- Opening year

Future toll rate changes will be limited to approximately 10 percent every four years. This rate of increase in toll charges is consistent with the an assumed annual rate of inflation of 2.33 percent; this rate of inflation assumption is based on the annual rate of increase in the Consumer Price Index for southern urban areas in the United States over the last five years. Toll collection was assumed to be based on a conventional closed-barrier toll system.

Good management is also needed for any toll road to achieve its forecasted revenue potential. This includes the following:

- Adequate signage
- Effective marketing
- Enforcement of violation penalties

The traffic and revenue forecasts presented here could be rendered invalid by future events over which LMEC may have little or no control. These include:

- Unplanned transportation system modifications by other agencies

- Departures of inflation rates from expectations
- Unexpected changes in socioeconomic growth patterns and trends
- Unexpected changes in fuel prices and average fuel economy
- Major local, regional, or national emergencies
- Fundamental shifts in technology making highway use obsolete

These hypothetical future events, while possible, cannot be reliably predicted, and are therefore assumed not to occur. The inflation rate is assumed to be 2.33 percent per annum, and vehicle operating costs are expected to rise at this same rate. It would be very difficult to predict major departures from these assumptions. However, if such departures were to occur, WSA would be more than willing to provide estimates of their impact upon the traffic and revenue forecasts shown here.

TRANSCAD MODEL

The Lafayette MPO recently went through a process in which their travel forecasting models were updated based on 2000 data. These models created forecasts of network configuration and travel demand through 2030. In addition, the platform on which the forecast estimates were based was upgraded from TRANPLAN to TRANSCAD. The Lafayette MPO provided the updated TRANSCAD-based network and forecast data to HNTB. The updated information not only provided data for 2000 and 2030, but also for all the years in between. It also indicated which of the projects yet to be built had actually been funded and which had not.

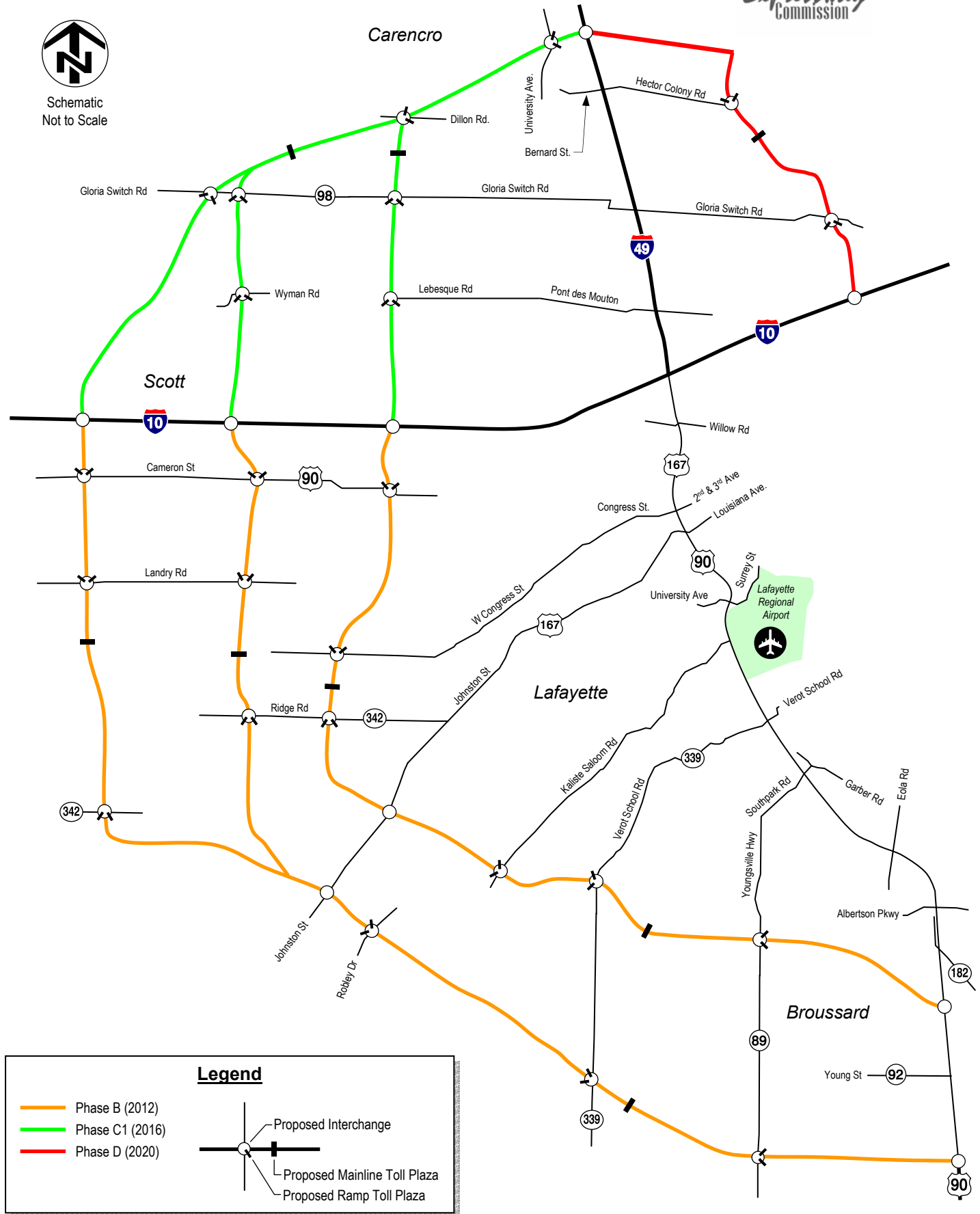
In order to prepare forecasts of traffic and revenue that could be expected from a toll facility, however, WSA must use a diversion model that runs as part of a TRANPLAN application. For that reason, it was necessary to translate the TRANSCAD network supplied by the MPO into a TRANPLAN network.

TOLL PLAZA LOCATIONS AND RATES

Figure 2-5 presents a schematic showing the toll plaza locations assumed in the analysis of three alternative routing plans for the LME.



Schematic
Not to Scale



In order to provide useful information for deciding on facility location and rates, toll sensitivity curves were created for each of the three alternative routings using each of five possible toll rate schedules. These schedules were based on nominal rates of \$0.05, \$0.10, \$0.15, \$0.20 and \$0.25 per mile. The system was designed with several tolling zones, all of which had the following characteristics:

1. Each tolling zone would have a toll-free interchange on each end of it (for example one of the tolling zones lies between Johnston Street and I-10). The tolling zones are selected so that they will be between five and fifteen miles in length and the interchanges on each end of them represent connections to other major arteries. The advantage of this is that ramps at busy interchanges can be kept free of toll barriers.
2. The toll for the mainline plaza in the tolling zone is set at the nominal per mile rate multiplied by the length of the zone and then rounded up to the next \$0.25 increment. As a result, the actual rate per mile will generally be higher than the nominal rate by a small amount. An advantage is that patrons using cash need only use quarters to pay exact change – nickels and dimes are not required.
3. The toll plazas at each ramp are placed so that it not possible to get a free ride. For example, the toll plazas on the ramps at LA 342 are set so that patrons traveling northbound on the project will need to pay a toll upon exiting. This is because they could have entered the facility at Johnston Street without paying a toll and should pay one when exiting. Similarly, patrons entering the project in the southbound direction at LA 342 should pay the toll needed to travel to Johnston Street. Patrons traveling the opposite directions in each case need not pay a toll; they would have paid or will pay at the main line plaza just to the north.
4. The amount of toll to be paid at each ramp plaza is the distance from it to the free interchange that is in the opposite direction from the nearest main line plaza, with the amount round up to the next quarter.

Based on the preceding rules, the toll schedules were developed for each of the alternative alignments and nominal rates per mile. *Table 2-1* shows the toll rates for all toll rate schedules and alignment options. For comparison purposes, *Table 2-2* provides information on current toll rates charged for various similar facilities around the country. As that table shows, rates ranging form five to twenty-five cents per mile cover the existing range quite well.

Table 2-1: Toll Rates in Toll Sensitivity Analysis

Location of Toll Plaza	Alternative Alignment 1					Alternative Alignment 2					Alternative Alignment 3				
	Toll Scenario					Toll Scenario					Toll Scenario				
	5 ct/mi	10 ct/mi	15 ct/mi	20 ct/mi	25 ct/mi	5 ct/mi	10 ct/mi	15 ct/mi	20 ct/mi	25 ct/mi	5 ct/mi	10 ct/mi	15 ct/mi	20 ct/mi	25 ct/mi
Gloria Switch Rd (East)	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Mainline Northeast	\$0.50	\$0.75	\$1.00	\$1.50	\$1.75	\$0.50	\$0.75	\$1.00	\$1.50	\$1.75	\$0.50	\$0.75	\$1.00	\$1.50	\$1.75
Hector Colony Rd	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75
University Ave	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Ira St	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75
Mainline Northwest	\$0.50	\$1.00	\$1.50	\$2.00	\$2.50	\$0.50	\$1.00	\$1.50	\$2.00	\$2.50	\$0.50	\$0.75	\$1.25	\$1.50	\$2.00
Gloria Switch Rd (West)	\$0.25	\$0.50	\$0.75	\$1.00	\$1.25	---	---	---	---	---	\$0.25	\$0.50	\$0.75	\$0.75	\$1.00
Wyman Rd	---	---	---	---	---	\$0.25	\$0.25	\$0.50	\$0.50	\$0.50	---	---	---	---	---
Dugas Rd	---	---	---	---	---	---	---	---	---	---	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75
Cameron St	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Ole Colony Rd	---	---	---	---	---	---	---	---	---	---	\$0.25	\$0.25	\$0.50	\$0.50	\$0.50
Landry Rd	\$0.25	\$0.25	\$0.50	\$0.50	\$0.75	\$0.25	\$0.25	\$0.50	\$0.50	\$0.75	---	---	---	---	---
Mainline West	\$0.50	\$1.00	\$1.50	\$2.00	\$2.50	\$0.50	\$0.75	\$1.00	\$1.50	\$1.75	\$0.50	\$0.75	\$1.00	\$1.50	\$1.75
Ridge Rd	\$0.25	\$0.50	\$0.75	\$1.00	\$1.25	\$0.25	\$0.50	\$0.50	\$0.50	\$0.75	\$0.25	\$0.25	\$0.50	\$0.50	\$0.75
Golden Grain Rd	\$0.25	\$0.50	\$0.75	\$0.75	\$1.00	---	---	---	---	---	---	---	---	---	---
Breaux Rd	---	---	---	---	---	\$0.25	\$0.25	\$0.50	\$0.50	\$0.75	---	---	---	---	---
Lagneaux Rd	\$0.25	\$0.25	\$0.25	\$0.50	\$0.50	---	---	---	---	---	---	---	---	---	---
Robley Dr	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
E Milton Rd	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75
Mainline Southwest	\$0.50	\$1.00	\$1.50	\$2.00	\$2.50	\$0.50	\$1.00	\$1.50	\$2.00	\$2.50	\$0.50	\$1.00	\$1.50	\$2.00	\$2.50
Guillot Rd	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75	\$0.25	\$0.50	\$0.50	\$0.75	\$0.75

Table 2-2: Toll Comparison Between Contemporary Facilities

Facility	Length (miles)	Thru Trip Toll		Rate Per Mile	
		Passenger Car	5-axle	Passenger Car	5-axle
Louisiana DOTD Crescent City Connection	2.8	\$ 1.00	\$2.50	\$0.3570	\$ 0.8000
California - San Joaquin	15.0	4.00	9.00	0.2667	0.6000
California - Foothill Eastern	13.5	2.50	10.00	0.1852	0.7000
South Carolina Hilton Head Cross Island Pkwy	5.6	1.00	3.75	0.1786	0.6000
Delaware Turnpike	11.2	2.00	5.00	0.1786	0.4000
Lake Pontchartrain Greater New Orleans Expwy	24.0	3.00	7.50	0.1250	0.3100
Texas - Sam Houston w/o Exact Change	64.3	8.00	--	0.1244	--
Virginia - Richmond Express	6.3	0.70	1.30	0.1111	0.2000
Texas - DNT	21.0	2.25	5.40	0.1071	0.2500
Texas - Sam Houston Exact Change	64.3	6.00	27.00	0.0933	0.4000
Texas - Hardy - w/o Exact Change	21.7	2.00	--	0.0922	--
Texas - Hardy - Exact Change	21.7	1.50	7.50	0.0691	0.3000
Oklahoma - Cherokee Turnpike	32.9	2.25	7.50	0.0684	0.2200
Colorado - E-470	49.0	2.75	2.75	0.0561	0.0560
Oklahoma - Muskogee Turnpike	53.1	2.50	8.00	0.0471	0.1500
Oklahoma - Indian Nation Turnpike	105.2	4.75	16.00	0.0452	0.1520
New Jersey Turnpike	122.4	5.50	20.55	0.0449	0.1600
Oklahoma - Cimarron Turnpike	59.2	2.50	10.00	0.0422	0.1600
Oklahoma - Turner Turnpike	86.0	3.50	14.25	0.0407	0.1600
Oklahoma - Will Rogers Turnpike	88.5	3.50	14.25	0.0395	0.1600
New Hampshire - Central Turnpike	44.7	1.50	6.00	0.0336	0.1340
Kansas Turnpike	231.0	7.75	23.25	0.0335	0.1000
New Hampshire - Spaulding Turnpike	33.3	1.00	5.00	0.0300	0.1500

TOLL SENSITIVITY ANALYSIS

In order to assist in selecting an alignment option, potential revenue from each alignment was estimated for each toll rate schedule. The highway network procured from the MPO was used as a starting point for preparing the estimates of future volume on the planned facilities. The 2000 network, the 2030 network, and the list of changes that have been identified as funded were provided. Generally, forecasts are based on the existing network plus improvements for which funding has already been identified. As all funded projects are expected to be completed by 2012, all future networks were identical, except for project links.

The socioeconomic data provided with the MPO's model were interpolated between 2000 and 2030 in order to develop the trip tables for 2012, 2016, and 2020. These trip tables were then assigned to the network, supplemented by project links as defined earlier. Tolls on the links were set in accordance with the rates shown in *Table 2-3*. Assignments used the proprietary diversion curve that has been successfully applied to a wide variety of projects in the past. As the curve considers the generalized costs of traveling

via the tolled route and non-tolled routes, it is necessary to understand the value of time (VOT) and the vehicle operating cost (VOC) for the year in which the assignment is made.

Table 2-3: Toll Rates for Alternative 1

Location Toll Plaza	Phase B (2012)	Phase C1 (2016)	Phase D (2020)	Phase D (2030)
Gloria Switch Rd (East)	---	---	\$0.25	\$0.25
Mainline Northeast	---	---	\$1.00	\$1.00
Hector Colony Rd	---	---	\$0.50	\$0.50
University Ave	---	\$0.25	\$0.25	\$0.25
Dillon Rd	---	\$0.50	\$0.50	\$0.50
Mainline Northwest	---	\$1.25	\$1.50	\$1.75
Gloria Switch Rd (West)	---	\$0.50	\$0.75	\$0.75
Cameron St	\$0.25	\$0.25	\$0.25	\$0.25
Landry Rd	\$0.25	\$0.50	\$0.50	\$0.50
Mainline West	\$1.00	\$1.25	\$1.25	\$1.50
LA 342	\$0.50	\$0.75	\$0.75	\$0.75
Robley Dr	\$0.25	\$0.25	\$0.25	\$0.25
Verot School Rd	\$0.75	\$0.75	\$0.75	\$1.00
Mainline Southwest	\$1.25	\$1.25	\$1.50	\$1.75
LA 89	\$0.50	\$0.50	\$0.50	\$0.50

The resulting revenues were then summed so that the relationship between toll rate and total revenue could be developed for each alternative. These relationships are depicted in *Figures 2-6 through 2-8*.

Figure 2-6 shows a pair of charts that provides the relationship between transactions and toll rates for Alternative 1. As the revenue curve shows, maximum revenue would be generated at a rate between \$0.10 and \$0.15 per mile. *Figures 2-7 and 2-8* show transactions and revenue for Alternatives 2 and 3, respectively. In each of those cases, maximum revenues occur at a rate between \$0.10 and \$0.15 per mile.

Clearly, Alternative 3 provides that largest amount of revenue. However, a large part of its margin is based on the ability of motorists to obtain access efficiently to residential and commercial areas along Johnston Street that are already developed. To the extent that opening new capacity along Alternative 3 would stimulate new development which is not already planned, that corridor could generate additional revenue. Once this study moves beyond a preliminary assessment, an independent economist will assess the extent to which new highway capacity could stimulate such development. In this particular case, no additional development beyond that expected already has been assumed. For additional analysis, the LMEC has selected Alternative 1. This corridor, while not generating the largest amount of revenue, may have the best potential for stimulating growth.

Figure 2-6: Toll Sensitivity Curves for Alternative 1

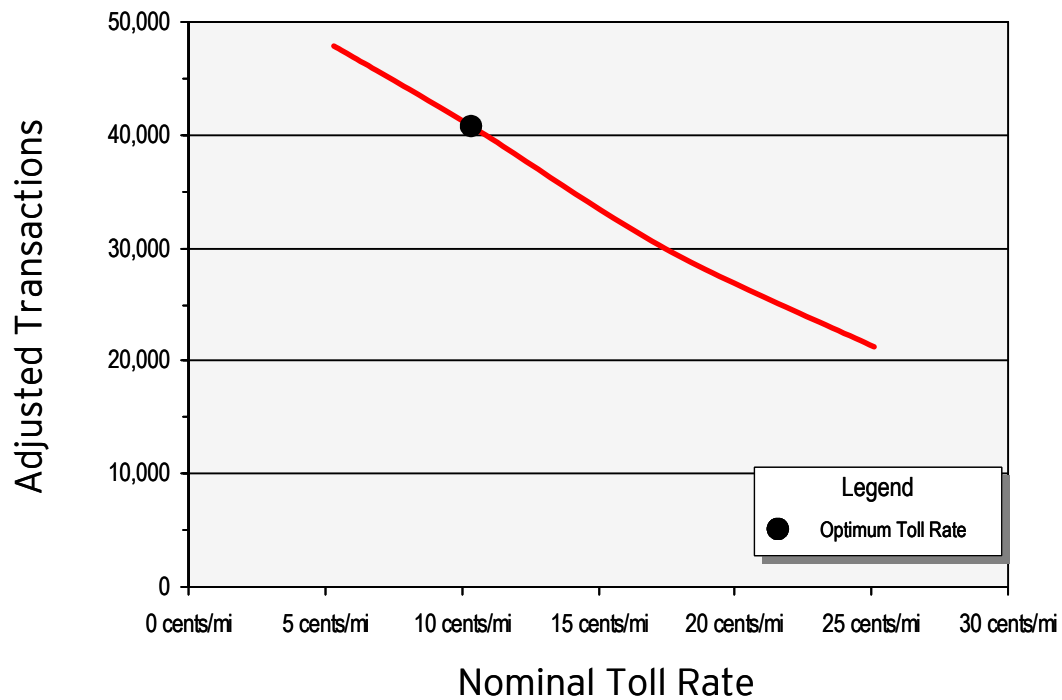
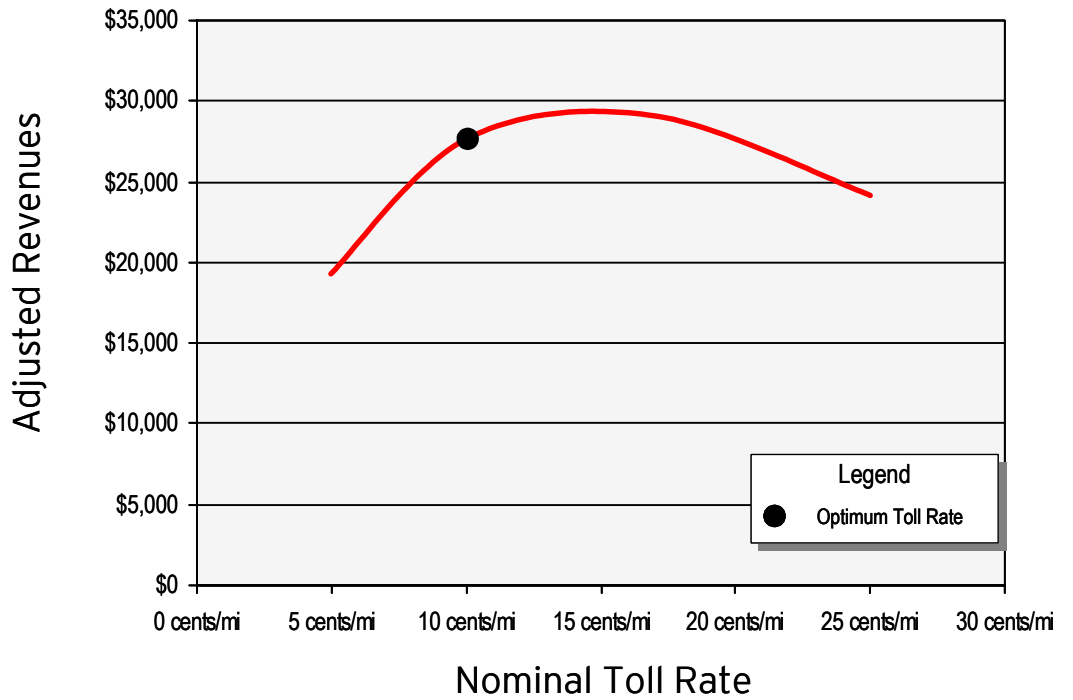


Figure 2-7: Toll Sensitivity Curves for Alternative 2

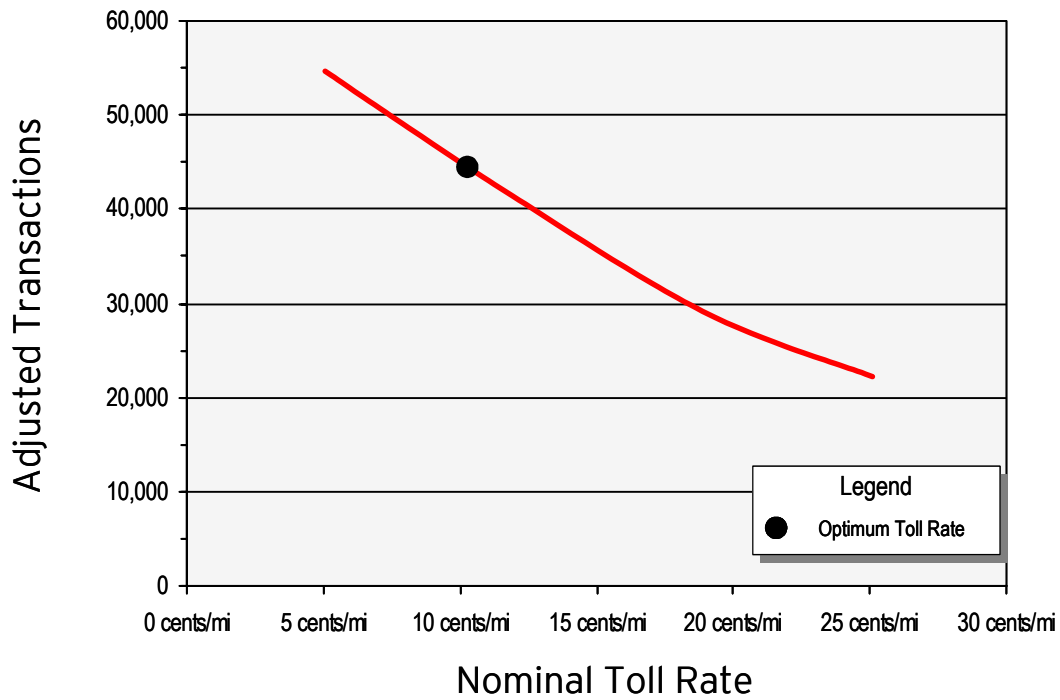
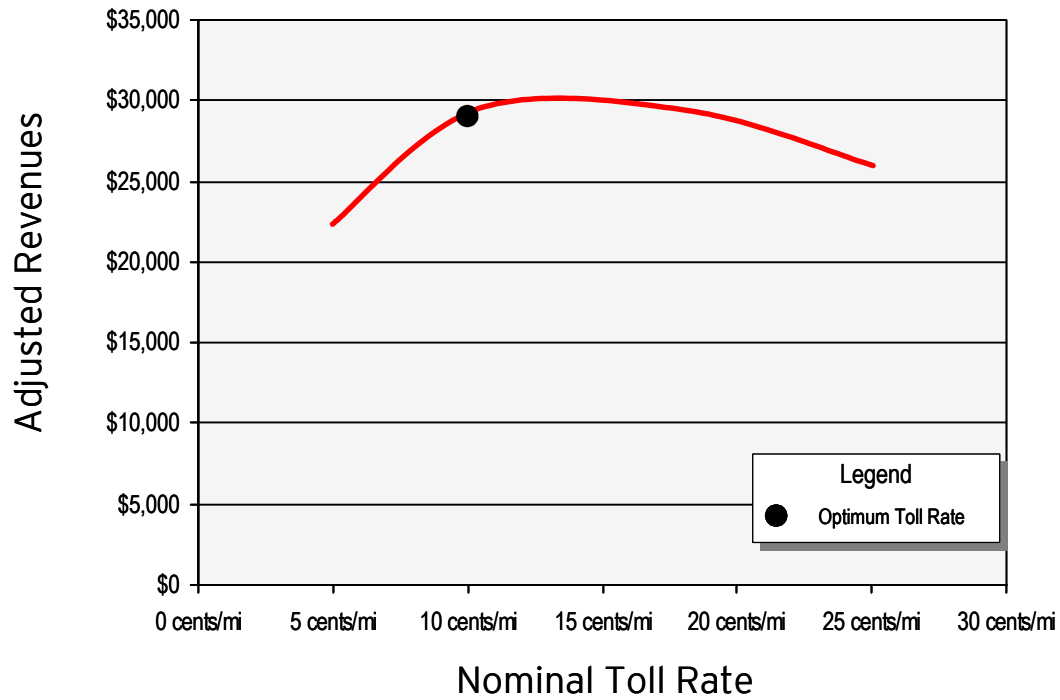
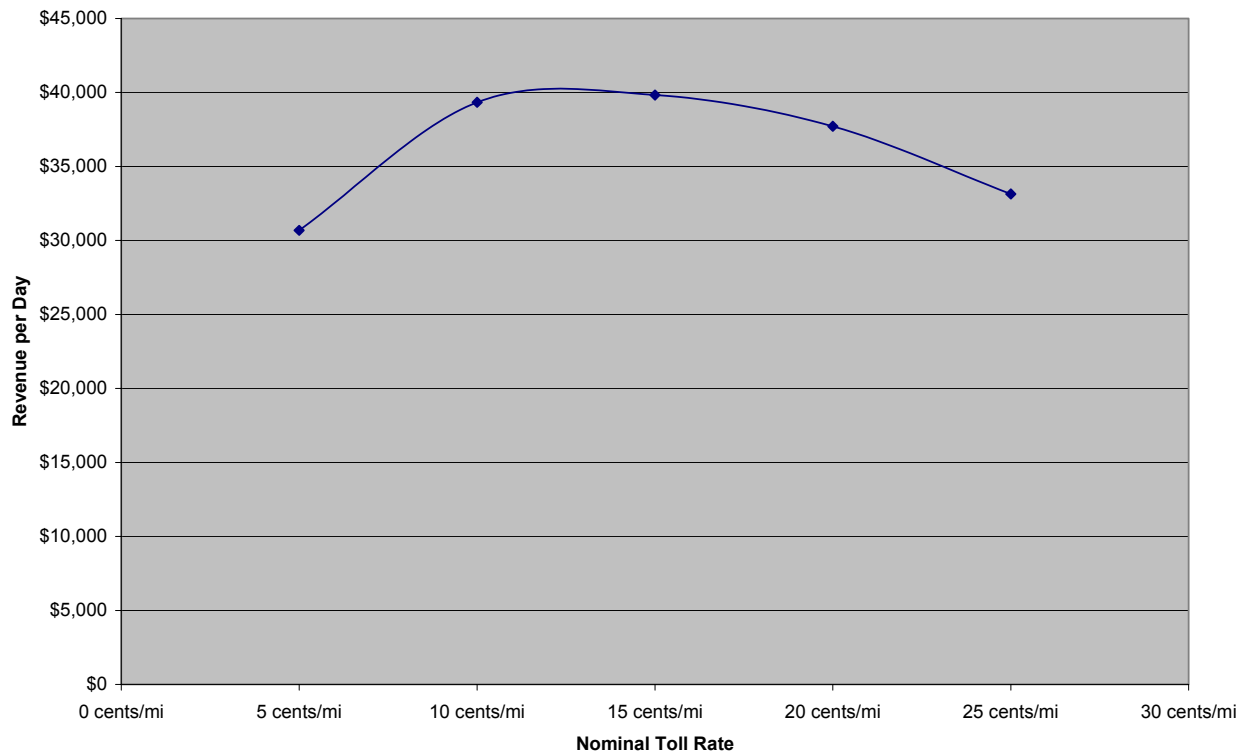
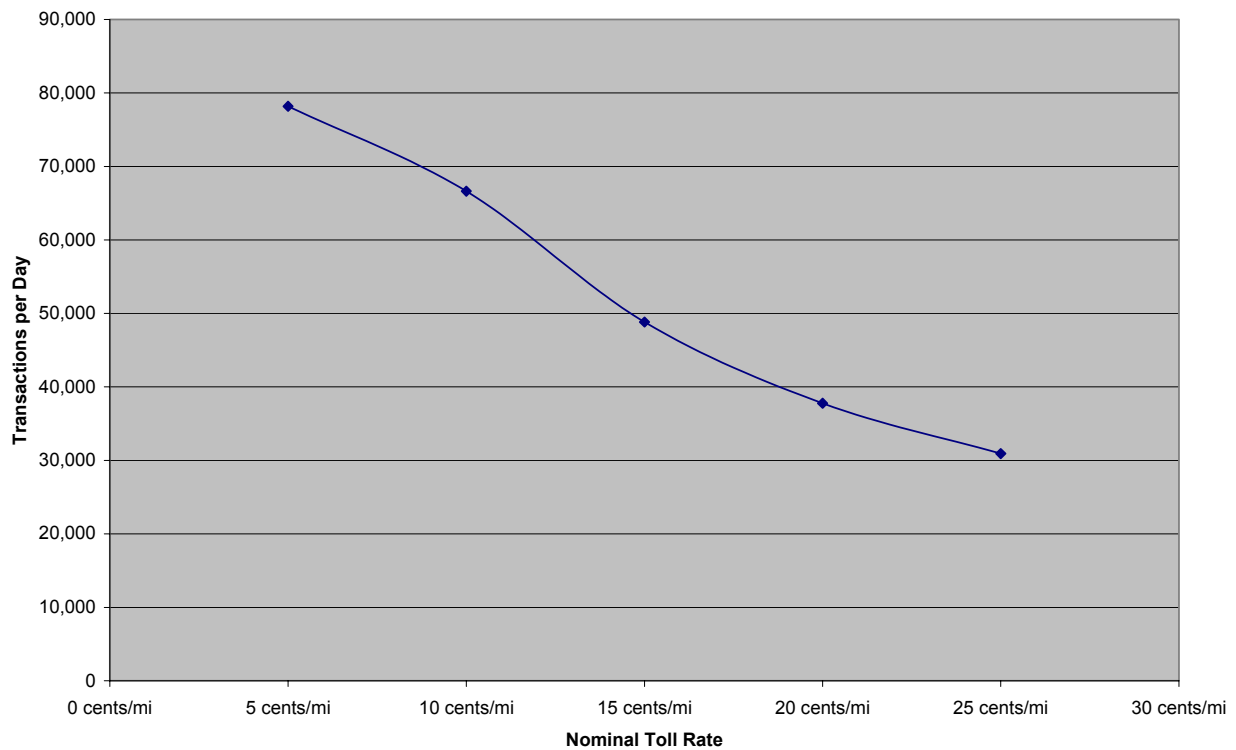


Figure 2-8: Toll Sensitivity Curves for Alternative 3

Adjusted Revenue Sensitivity -- Alternative 3



Adjusted Transactions Sensitivity -- Alternative 3



SELECTED TOLL RATE

The toll rate given consideration for further analysis is one that is close to but does not exceed the one yielding maximum revenue. This approach is a conservative one as it allows for the following:

1. If future conditions result in the LMEC needing additional funds, they can be raised by increasing the toll.
2. If a recession were to occur that lowers travel demand or decreases the value of time then demand for the facility would decline and so would the optimum toll rate.

By selecting a rate that is slightly below optimum, LMEC will maintain needed flexibility. As the toll sensitivity curves show, the optimum rate would be at about a nominal \$0.12 per mile. In light of flexibility needs, WSA would recommend a rate of \$0.10 per mile. This rate compares reasonably with one that was used in an earlier study of the I-49 extension. That study indicated that a rate of about \$0.07 per mile would be good for 2000. With the opening year for this project being 2012 and the rate of inflation being 2.33 percent annually, that translates into a bit more than \$0.09 per mile.

Commercial vehicles are assumed to have a rate that is, on average, 2.5 times the rate of the passenger car. The assignment of vehicles to the Lafayette network assumes a value of time that is 3.0 times that of the passenger car, an operating cost that is 5.5 times that of the passenger car. These factors for toll rate, VOT, and operating cost are based on similar amounts chosen in previous studies.

PROJECT PHASING

In addition to showing corridors for all three alternatives, *Figure 2-5* provides information on project phasing. As *Figure 2-5* shows, the LME would encircle about three quarters of the City of Lafayette.

The three corridors vary by the lateral position of the links on the west side. Alternative 1 lies farthest west, Alternative 2 lies in the center, and Alternative 3 lies farthest east. All three routes share east-west segments on the north and northeast sides of the city.

On the south side of the city, Alternatives 1 and 2 follow the same east/west path while Alternative 3 follows a more northerly course, closer to the city.

In 2012, Segment B will be open to traffic. That segment includes all of the miles in the southwest section connecting I-10 with future I-49. In 2016, Segment C1 will be constructed. It includes the portion of the facility connecting I-10 with I-49 in the northwest. Segment D, which is common to all three alignments, will be constructed and open by 2020.

One important element for determining the corridor to be selected for further analysis is the amount of revenue that it could generate. For that part of the analysis, it was assumed that all segments would be constructed and open to traffic by 2012. Then a comparison of toll revenue at the optimum toll rate was made to see which alternative would have the capacity for the largest amount of revenue so that the revenue-generation potential could be considered when selecting a corridor.

Once an alternative had been selected, it was analyzed with construction proceeding according to the planned segments. This resulted in a year-by-year cash flow estimate for the facility.

ECONOMIC DEVELOPMENT ASSESSMENT

This section begins with an evaluation of the forecasts of employment and population made by the Lafayette MPO. Forecasts of population and employment play a vital role in the creation of traffic and revenue estimates for toll facilities. Population and employment cause the underlying demand for transportation and form the basis by which growth in traffic volumes occur. Population and employment are also the underlying cause for changes in the distribution of traffic in the future. MPOs, such as the Lafayette Consolidated Government (LCG), periodically undertake forecasts of demographic variables. These forecasts are used for many purposes, one of which is long-range transportation planning.

For the socioeconomic data review portion of this study, Wilbur Smith Associates (WSA) had two major tasks. The first was to review the population and employment forecasts prepared by the LCG. WSA also assessed the potential land development that could be induced as a result of constructing the Lafayette Metropolitan Expressway. That assessment was made on a qualitative basis, providing the MPO with an understanding of the types of development that may be attracted as a result of the roadway's construction.

In order to review the LCG's forecasts of population and employment for the region WSA first gathered population data on Lafayette Parish. The table shows population for the entire Parish, broken down into incorporated and unincorporated areas. This information is presented in *Table 2-4*.

Table 2-4: Lafayette Parish Historical Population Growth

	1970	AAPC	1980	AAPC	1990	AAPC	2000
Broussard	1,707	5.53	2,923	0.95	3,213	6.22	5,874
Carencro	2,302	4.89	3,712	3.88	5,429	1.21	6,120
Duson	1,199	0.44	1,253	0.31	1,292	0.71	1,387
Lafayette	68,908	1.75	81,961	1.43	94,440	1.56	110,257
Scott	1,334	5.31	2,239	8.17	4,912	4.83	7,870
Youngsville	1,102	-0.45	1,053	1.27	1,195	12.82	3,992
Incorporated Subtotal	76,552	1.98	93,141	1.72	110,481	2.06	135,500
Unincorporated Areas	35,091	4.95	56,876	-0.47	54,281	0.13	55,003
Total	111,643	3.00	150,017	0.94	164,762	1.46	190,503

As shown, population growth in Lafayette parish has been strong over the last 30 years. Growing by almost two percent a year, the population in the incorporated areas of the Lafayette Parish has increased by nearly 60,000 people. After growing at a very robust rate of nearly five percent annually between 1970 and 1980, population in the unincorporated areas of the Parish remained nearly unchanged at about 56,000 between 1980 and 2000. Overall, population growth has remained steady, growing by almost 1.5 percent annually from 1990 to 2000.

For comparison purposes, WSA also compared the population growth rate contained in the Lafayette Consolidated Government's forecast to that of Woods and Poole Economists, Inc. WSA typically uses sources such as Woods and Poole to verify and compare growth rates produced by the local MPO. *Table 2-5* shows this comparison.

Table 2-5: Comparison of Average Annual Percent Change in Population

	2000	AAPC	2010	AAPC	2020	AAPC	2030
Lafayette Consolidated Government	218,895	1.16%	245,619	0.96%	270,203	0.80%	292,596
Woods and Poole Economics, Inc.	239,250	0.94%	262,720	0.99%	290,010	1.00%	320,430

The comparison shows that both the LCG and Woods and Poole, Inc are anticipating similar growth for the region through 2030. While the forecast produced by the LCG shows slightly higher growth between 2000 and 2010 than does the Woods and Poole forecast, the growth rate is still much lower than population growth between 1990 and 2000 in Lafayette Parish.

Based on the Lafayette Region's historical population growth and the comparison between forecasts for the region, WSA feels comfortable with the growth assumed in the LCG's forecast. WSA has therefore utilized the LCG's forecasted population and employment for the purpose of this preliminary-level study.

POTENTIAL LAND DEVELOPMENT

In the Lafayette Consolidated Government's long-range planning document, *Lafayette in a Century*, it was noted that by increasing industry within the community, an increase in population is likely to follow. This process then continues to businesses such as retail, which are necessary to serve the additional population. In order to stimulate this process, a strong emphasis has been placed on economic development in Lafayette Parish. Many economic development tools such as Tax Increment Financing (TIF) and Seed/Venture Capital are discussed as potential options. As stated in *Lafayette in a Century*, the responsible implementation of TIF in Lafayette Parish can be used for encouraging specific development in targeted areas.

The plan also includes recommendations about infrastructure development as it pertains to economic development. The plan recognizes that the development of infrastructure can have a significant impact on economic development. For example, businesses cannot locate in the area unless the infrastructure needed to service their basic requirements (for example, water lines) is readily available. Another example of basic infrastructure needs is provision of adequate transportation infrastructure.

The factors that influence the decision-making process that a business would use to determine location are unique to that business. Each company must determine which factors are most important in the placement of their business. Transportation infrastructure can be a key factor though, for many reasons. Companies in which transportation costs accounting for a large portion of their total costs may be more likely to invest in a location that has the transportation infrastructure in place to lower their transportation costs. Businesses that require large numbers of employees but cannot pay large salaries would be very interested in locating where a large labor force exists as well as the transportation infrastructure that would allow employees to get to and from the work site quickly and easily.

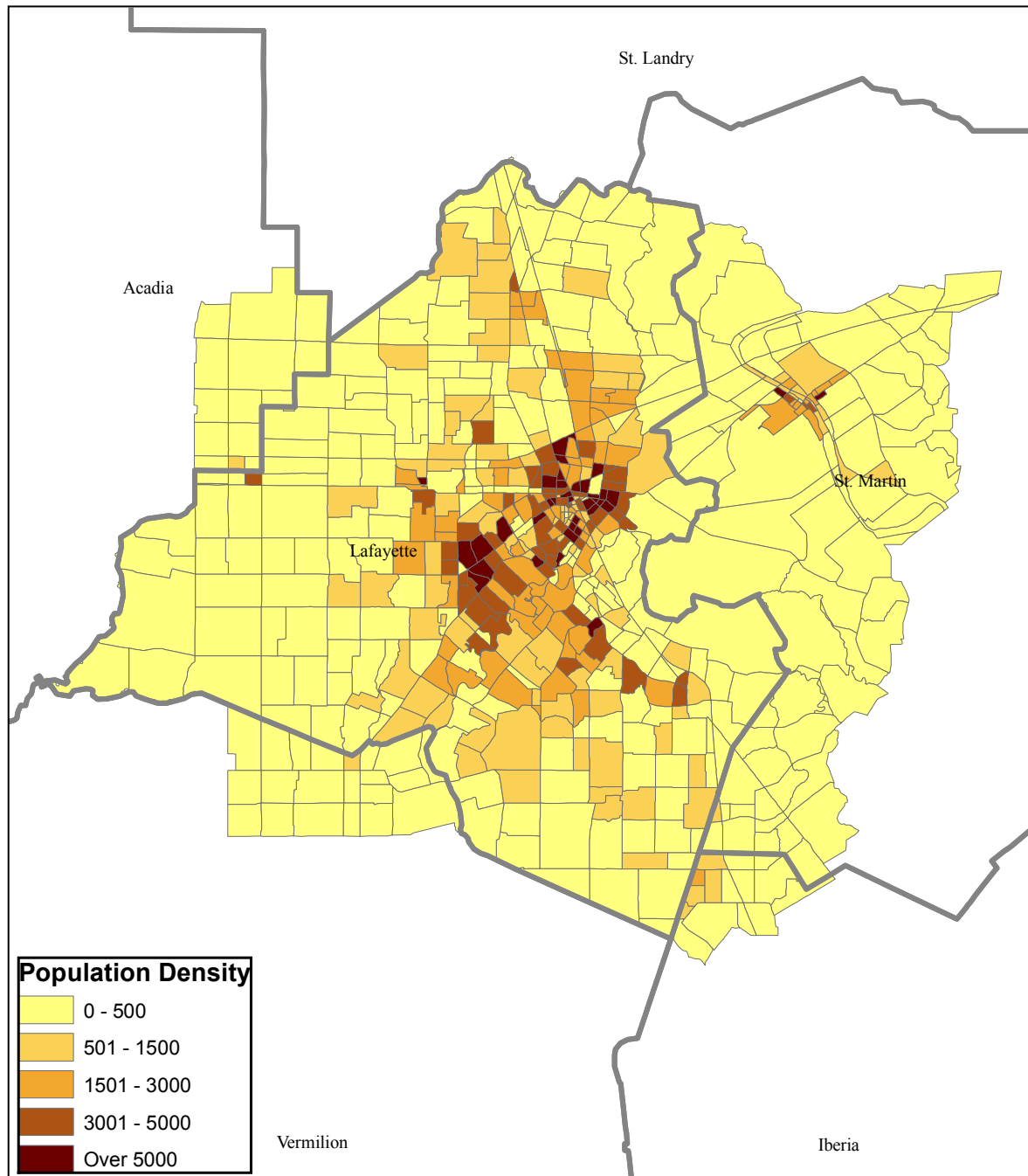
Also, when considering transportation in the context of making a location decision, companies which use a just-in-time (JIT) manufacturing approach will consider the transportation system's impact on the timely arrival of goods. In order to effectively implement a JIT system, the transportation system must not hinder the delivery of manufacturing inputs or the shipment of completed goods. Therefore,

companies that depend on the shipment of goods may place a high importance on transportation infrastructure.

Also, transportation infrastructure plays a vital role in location decisions by improving, or hindering, access to the business. For retail businesses, having an effective transportation system is important in ensuring customers can reach your business. Transportation systems can also have an impact on how easy it is for employees to travel to work. Better transportation systems allow businesses to attract employees from further distances.

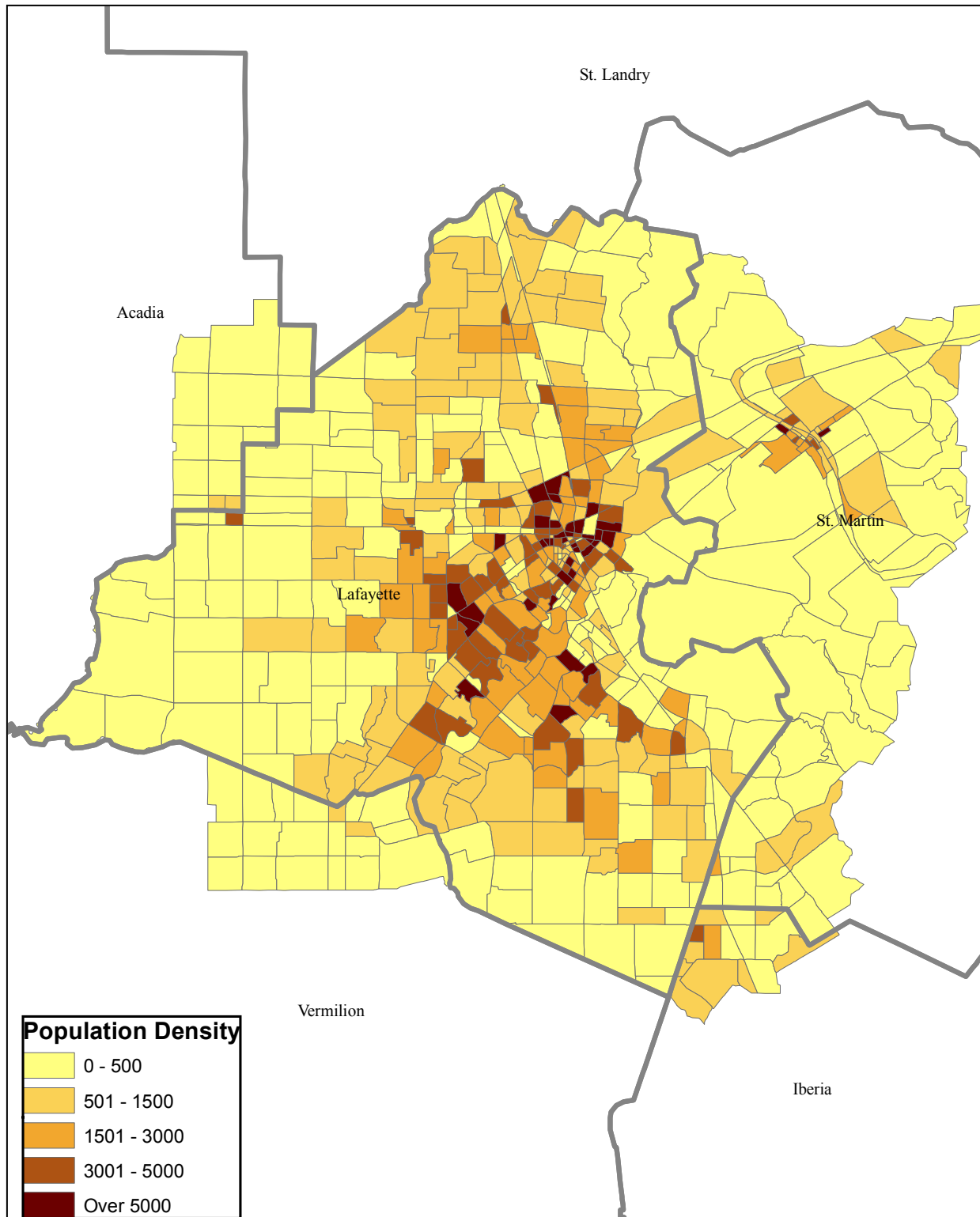
For this project, the anticipated growth in the various transportation analysis zones of the Lafayette area was closely examined. As is demonstrated by the 2000 and 2030 population density maps, *Figures 2-9 and 2-10*, higher density population areas will already be reaching the location of the project, regardless of the alignment alternative selected, by 2030. This shows that not only can the project be viewed as a tool to stimulate growth in the region, but also as a necessary transportation artery to serve the growth that is already anticipated.

Figure 2-9: Lafayette Area Population Density, 2000



Source: 2000 U.S. Census Bureau.

Figure 2-10: Lafayette Area Population Density, 2030



Source: Lafayette Consolidated Government MPO.

The west side of the proposed toll road is primarily located in low density areas of Lafayette Parish. Compared to the other parts of the parish, the TAZs in the western corridor are not expected to see significant population growth in the next 25 years. Construction of the toll road could make additional growth more likely in this area. The transportation system improvements in the area could stimulate additional residential and business development. Depending on the amount of residential development, retail and service oriented businesses might locate to the area to serve the expanding population. The amount of such additional growth would be difficult to determine.

The northern and southern corridors of the proposed toll road are also located in primarily low density areas of the parish, but are denser than the western corridor of the project. These two areas are forecasted to gain more population than will the western portion of the parish. This means that the toll road would not only provide a stimulus for development, but also serve to meet the travel needs of the future population in these areas. Because these areas are expected to have a higher population density than the western part of Lafayette Parish, business development might be more likely to happen in these corridors due to the additional transportation capacity provided by the toll road.

Another consideration when evaluating the amount of development which may occur as a result of the toll road is the amount of the corridor which is in a 100-year flood plain. In the western corridor, all three alternatives are at least partially located within a 100-year flood plain. Development on a flood plain is generally held to standards that are stricter than development not located in a flood plain. The additional cost of flood insurance may also have an impact on the development that might occur in these areas

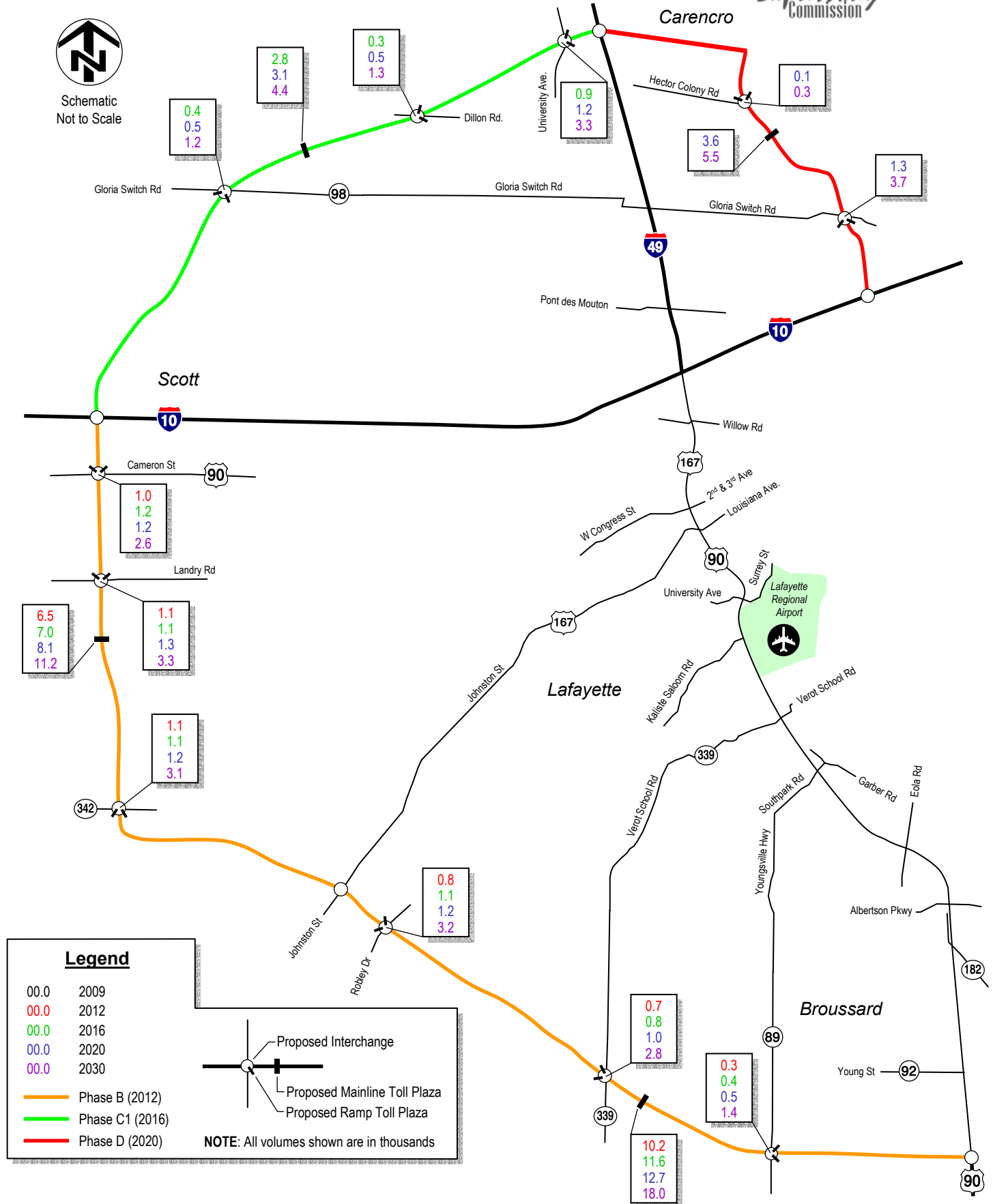
While the western portion of the project could see the largest amount of attracted growth, it also has the most difficulty with respect to development occurring on a flood plain. While the construction of the toll road may provide a stimulus for the development of land in western Lafayette Parish, this study does not account for this potential development. By not including any additional growth that might occur due to the toll road's construction, WSA believes that the socioeconomic data used in this study are a conservative estimate of future growth in Lafayette Parish.

TRAFFIC AND TOLL REVENUE ANALYSIS

TRAFFIC AND TOLL REVENUE FOR ALTERNATIVE 1

Based on input from the LMEC, Alternative 1 was studied in more detail for traffic and toll revenue. Results of these studies are to be used in preliminary financial feasibility analyses. *Figure 2-11* shows the estimated traffic on the toll facilities for 2012, 2016, and 2020 and 2030 as alternative alignment 1 is constructed in its various segments. These segments are as follows:

- Segment B, to be open to traffic by 2012: the southwest portion of the facility, between I-10 on the west side and the extension of I-49.
- Segment C1, to be open by 2016: the northwest portion of the facility, between I-49 on the north side and I-10 on the west side.
- Segment D, to be open by 2020: the northeast portion of the facility, between I-49 on the north side and I-10 on the east side.



ESTIMATED VOLUMES FOR ALTERNATIVE 1

The volumes shown in the figure are in thousands of vehicles per day for each of the project links that carry a toll. To determine the revenue at each tolling location, it is important to consider passenger cars and commercial vehicles separately. *Tables 2-6 and 2-7* summarize this information. *Table 2-6* provides expected daily volumes for both passenger cars and commercial vehicles at each toll plaza. *Table 2-7* shows the annual revenue at each location, calculated by adding the daily passenger car tolls collected with the daily commercial vehicle tolls collected and multiplying by 365.

Table 2-6: Tolled Volumes for Alternative 1

	2012			2016			2020			2030		
Plaza location	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
LA 89	600	100	700	700	100	800	900	100	1,000	1,300	100	1,400
Mainline Southwest	8,600	1,600	10,200	9,900	1,700	11,600	10,900	1,800	12,700	15,900	2,200	18,100
Verot School Rd	1,000	400	1,400	1,200	500	1,700	1,400	500	1,900	2,500	600	3,100
Robley Dr	1,400	300	1,700	1,900	300	2,200	2,100	400	2,500	3,000	400	3,400
LA 342	1,300	800	2,100	1,300	800	2,100	1,500	900	2,400	2,600	1,000	3,600
Mainline West	4,500	2,000	6,500	4,900	2,200	7,100	5,800	2,300	8,100	8,700	2,600	11,300
Landry Rd	1,800	400	2,200	1,800	400	2,200	2,100	400	2,500	3,000	500	3,500
Cameron St	1,500	400	1,900	1,900	500	2,400	2,000	500	2,500	2,400	500	2,900
Gloria Switch Rd (West)	---	---	---	500	400	900	500	400	900	900	400	1,300
Mainline Northwest	---	---	---	1,900	900	2,800	2,000	1,000	3,000	3,200	1,200	4,400
Dillon Rd	---	---	---	600	100	700	700	200	900	1,100	200	1,300
University Ave	---	---	---	1,700	200	1,900	2,100	300	2,400	3,100	400	3,500
Hector Colony Rd	---	---	---	---	---	---	100	---	100	300	100	400
Mainline Northeast	---	---	---	---	---	---	2,800	800	3,600	4,500	1,000	5,500
Gloria Switch Rd (East)	---	---	---	---	---	---	2,300	400	2,700	3,500	400	3,900

	2012			2016			2020			2030		
Section	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
Phase B (2012)	20,600	6,000	26,600	23,600	6,500	30,100	26,600	6,800	33,400	39,300	7,900	47,200
Phase C1 (2016)	---	---	---	4,700	1,600	6,300	5,400	1,900	7,300	8,400	2,300	10,700
Phase D (2020)	---	---	---	---	---	---	5,200	1,200	6,400	8,200	1,400	9,600
Grand Total	20,600	6,000	26,600	28,300	8,100	36,400	37,200	9,900	47,100	55,900	11,600	67,500

Table 2-7: Annual Revenues for Alternative 1

	2012			2016			2020			2030		
Plaza location	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
LA 89	\$111,000	\$35,000	\$146,000	\$132,000	\$38,000	\$170,000	\$159,000	\$42,000	\$201,000	\$237,000	\$54,000	\$291,000
Mainline Southwest	\$3,916,000	\$1,861,000	\$5,777,000	\$4,530,000	\$1,952,000	\$6,482,000	\$5,955,000	\$2,458,000	\$8,413,000	\$10,132,000	\$3,433,000	\$13,565,000
Verot School Rd	\$273,000	\$283,000	\$556,000	\$337,000	\$319,000	\$656,000	\$396,000	\$329,000	\$725,000	\$916,000	\$543,000	\$1,459,000
Robley Dr	\$126,000	\$60,000	\$186,000	\$170,000	\$73,000	\$243,000	\$190,000	\$84,000	\$274,000	\$271,000	\$92,000	\$363,000
LA 342	\$243,000	\$365,000	\$608,000	\$363,000	\$552,000	\$915,000	\$403,000	\$583,000	\$986,000	\$722,000	\$671,000	\$1,393,000
Mainline West	\$1,625,000	\$1,846,000	\$3,471,000	\$2,213,000	\$2,467,000	\$4,680,000	\$2,635,000	\$2,618,000	\$5,253,000	\$4,736,000	\$3,544,000	\$8,280,000
Landry Rd	\$162,000	\$94,000	\$256,000	\$336,000	\$196,000	\$532,000	\$382,000	\$205,000	\$587,000	\$548,000	\$249,000	\$797,000
Cameron St	\$138,000	\$92,000	\$230,000	\$170,000	\$120,000	\$290,000	\$180,000	\$116,000	\$296,000	\$217,000	\$118,000	\$335,000
Gloria Switch Rd (West)	---	---	---	\$95,000	\$166,000	\$261,000	\$144,000	\$258,000	\$402,000	\$256,000	\$302,000	\$558,000
Mainline Northwest	---	---	---	\$863,000	\$989,000	\$1,852,000	\$1,121,000	\$1,392,000	\$2,513,000	\$2,028,000	\$1,897,000	\$3,925,000
Dillon Rd	---	---	---	\$108,000	\$48,000	\$156,000	\$132,000	\$82,000	\$214,000	\$207,000	\$110,000	\$317,000
University Ave	---	---	---	\$152,000	\$53,000	\$205,000	\$191,000	\$68,000	\$259,000	\$284,000	\$87,000	\$371,000
Hector Colony Rd	---	---	---	---	---	---	\$24,000	\$23,000	\$47,000	\$46,000	\$26,000	\$72,000
Mainline Northeast	---	---	---	---	---	---	\$1,008,000	\$721,000	\$1,729,000	\$1,644,000	\$871,000	\$2,515,000
Gloria Switch Rd (East)	---	---	---	---	---	---	\$210,000	\$83,000	\$293,000	\$318,000	\$94,000	\$412,000

0	2012			2016			2020			2030		
Section	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
Phase B (2012)	\$6,593,000	\$4,635,000	\$11,228,000	\$8,252,000	\$5,718,000	\$13,970,000	\$10,300,000	\$6,434,000	\$16,734,000	\$17,779,000	\$8,704,000	\$26,483,000
Phase C1 (2016)	---	---	---	\$1,219,000	\$1,256,000	\$2,475,000	\$1,587,000	\$1,800,000	\$3,387,000	\$2,775,000	\$2,396,000	\$5,171,000
Phase D (2020)	---	---	---	---	---	---	\$1,242,000	\$826,000	\$2,068,000	\$2,008,000	\$992,000	\$3,000,000
Grand Total	\$6,593,000	\$4,635,000	\$11,228,000	\$9,471,000	\$6,974,000	\$16,445,000	\$13,128,000	\$9,061,000	\$22,189,000	\$22,562,000	\$12,092,000	\$34,654,000

Table 2-8 provides a summary of annual revenue for the entirety of Alternative 1 for the LME for all years from 2012 through 2030. Revenues in intermediate years are calculated with constant growth factors from one known year to the next.

Table 2-8: Cash Flow for Alternative 1, 2012-2030

Year	Toll Revenue
2012	\$ 11,229,000
2013	\$ 11,580,000
2014	\$ 11,942,000
2015	\$ 12,315,000
2016	\$ 16,445,000
2017	\$ 16,955,000
2018	\$ 17,481,000
2019	\$ 18,022,000
2020	\$ 22,189,000
2021	\$ 23,207,000
2022	\$ 24,268,000
2023	\$ 25,378,000
2024	\$ 26,537,000
2025	\$ 27,748,000
2026	\$ 29,012,000
2027	\$ 30,332,000
2028	\$ 31,711,000
2029	\$ 33,151,000
2030	\$ 34,654,000

Construction of the LME will result in other area roadways carrying either more or less traffic depending on whether tolls placed on existing routes will divert traffic from them or whether construction of new capacity will result in diversion of traffic from the non-toll roadways onto the new capacity.

Several locations where an effect may be noticeable are of concern to the local government agencies:

1. Ambassador Caffery Parkway at Johnston Street
2. Johnston Street and South College Drive
3. Kaliste-Saloom at Pinhook Road
4. Ambassador Caffery Parkway at Congress Street

In order to determine how the proposed facilities will affect traffic at those locations, the assignment for 2030 was examined. This assignment shows the number of vehicles that are estimated to traverse those locations on a daily basis in that year. Since one assignment was made with no facilities built and one assignment with the LME built (Alternative 1), it will be possible to make a preliminary investigation of the effect of the facility construction on volumes in those locations.

This effect is summarized in *Table 2-9*. That table shows the raw assignment volumes for each direction over each link at the intersections in question. A difference between the volumes and a ratio is provided in each case. For Alternative 1, none of the links in the intersection appear to enjoy significant congestion relief as a result of the project being constructed. Alternative 3, which is closer to the existing congested areas, would be expected to have a more noticeable benefit.

Table 2-9: Effect of Alternative 1 Toll System on Other Routes

Intersection	Approach Volumes				Departure Volumes			
	Ambassador-Caffery Parkway		Johnston Street		Ambassador-Caffery Parkway		Johnston Street	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	47,360	23,900	40,360	20,940	48,390	23,710	40,590	19,860
Volume with LME	45,030	21,060	41,850	21,990	45,960	21,010	41,960	20,990
Volume Difference	-2,330	-2,840	1,490	1,050	-2,430	-2,700	1,370	1,130
Volume Ratio	95.1%	88.1%	103.7%	105.0%	95.0%	88.6%	103.4%	105.7%
Johnston Street and College Road	Johnston Street		College Road		Johnston Street		College Road	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	18,520	13,580	24,020	17,580	17,760	13,890	24,000	18,050
Volume with LME	21,030	13,700	24,800	16,720	19,760	17,490	22,600	16,410
Volume Difference	2,510	120	780	-860	2,000	3,600	-1,400	-1,640
Volume Ratio	113.6%	100.9%	103.2%	95.1%	111.3%	125.9%	94.2%	90.9%
Kaliste Saloom Road at Pinhook Rd	Kaliste Saloom Rd		Pinhook Rd		Kaliste Saloom Rd		Pinhook Rd	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	30,280	6,380	38,800	18,060	30,480	8,770	36,600	17,680
Volume with LME	29,990	6,230	38,680	17,870	30,150	10,180	34,720	17,730
Volume Difference	-290	-150	-120	-190	-330	1,410	-1,880	50
Volume Ratio	99.0%	97.6%	99.7%	98.9%	98.9%	116.1%	94.9%	100.3%
Ambassador-Caffery Parkway at Congress Street	Ambassador-Caffery Parkway		Congress Street		Ambassador-Caffery Parkway		Congress Street	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	30,730	37,040	8,330	16,820	30,570	37,230	8,450	16,670
Volume with LME	29,490	36,270	8,550	17,020	29,340	36,410	8,710	16,880
Volume Difference	-1,240	-770	220	200	-1,230	-820	260	210
Volume Ratio	96.0%	97.9%	102.6%	101.2%	96.0%	97.8%	103.1%	101.3%

No final judgment about any capacity problems that may exist can be made until one considers manual adjustments to the raw assignments that may be required to add realism. These adjustments would need to consider the effects of design characteristics of the intersection at hand as well as other routes that could service the volumes here. In addition, a more thorough understanding of the individual turning movements and the design characteristics of each intersection are needed to provide a thorough review of the detailed capacity impacts for these locations. A more thorough analysis of facility impacts on non-tolled links should be prepared before making any final conclusions.

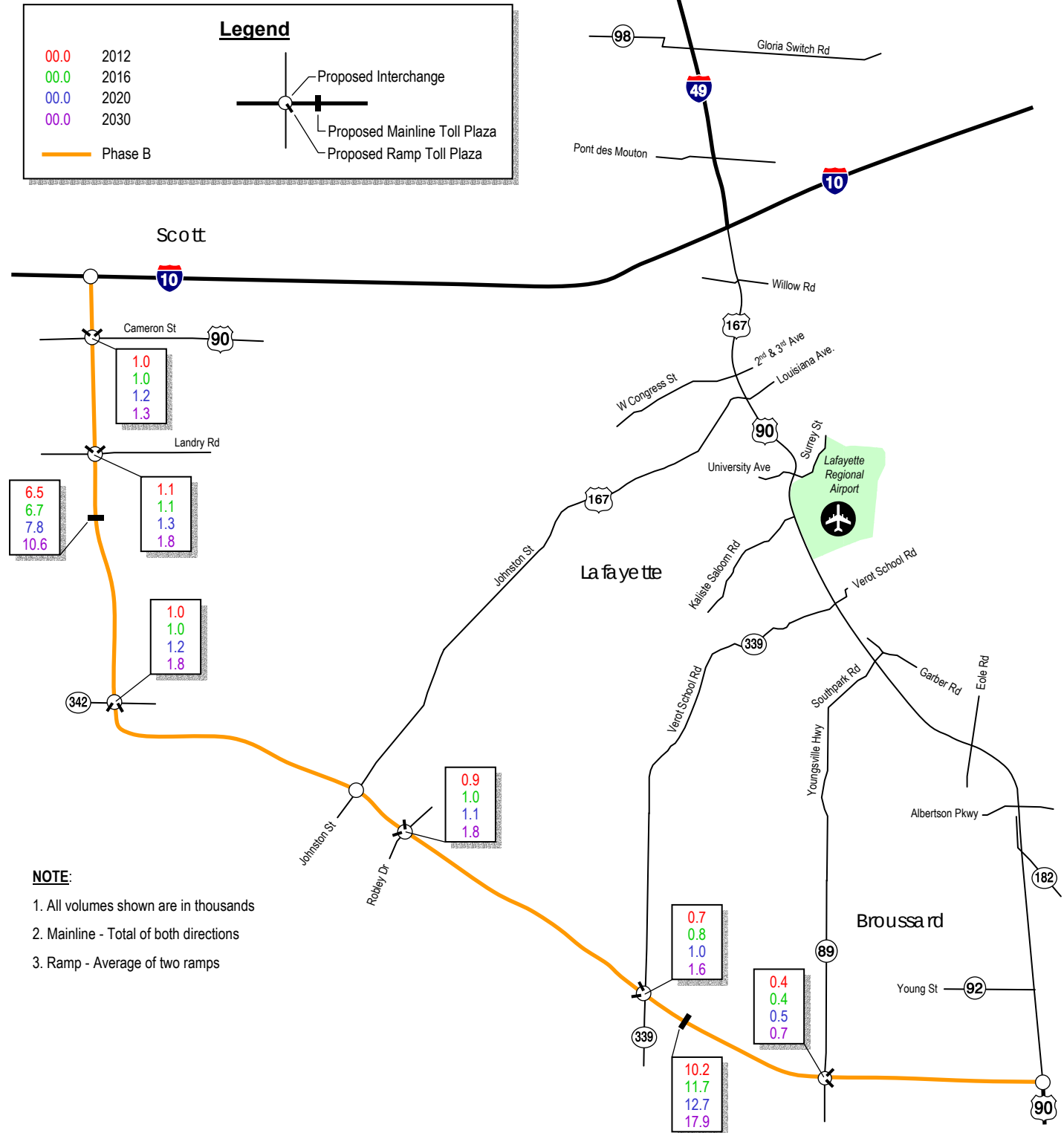
TRAFFIC AND TOLL REVENUE ANALYSIS FOR SEGMENT B ONLY

The traffic and toll revenue potential for the construction of only Segment B of the LME was analyzed for Alternative 1 and Alternative 3. *Figure 2-12* shows the estimated traffic on Alternative 1 for Segment B only, for the years 2012, 2016, 2020 and 2030. Similarly, *Figure 2-13* shows the estimated traffic on Alternative 3 for Segment B only for the same years. It is assumed that Segment B will open as a fully built facility in 2012 for both alternatives. Alternative 3 exhibits much higher volumes as compared to Alternative 1 due to Alternative 3 being much closer to current development.



Schematic
Not to Scale

C a r e n c r o



ESTIMATED DAILY VOLUMES FOR LME - SEGMENT B, ALTERNATIVE 1

FIGURE 2-12

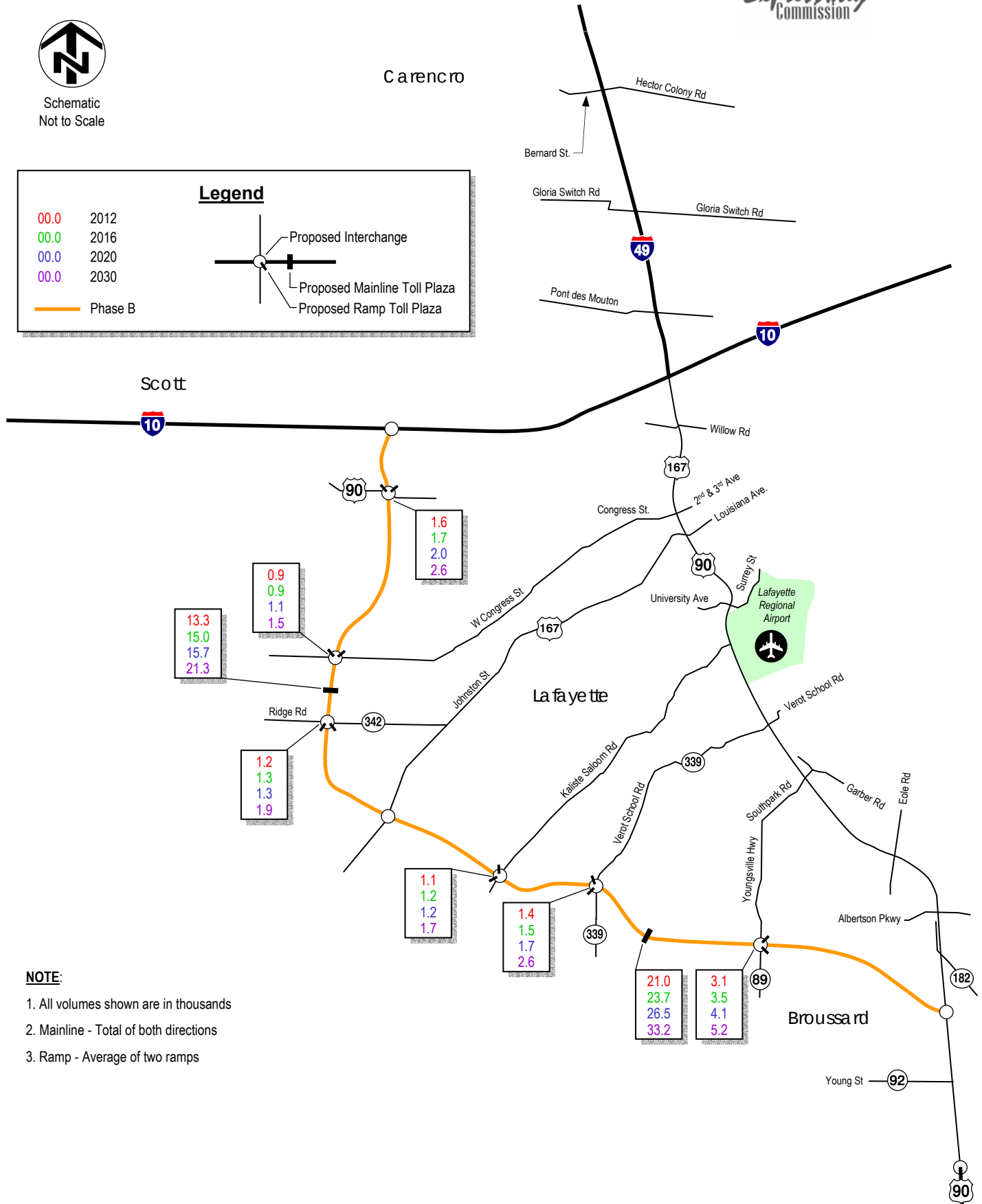
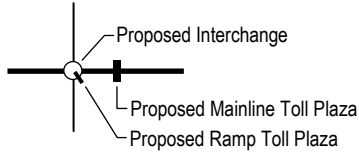


Schematic
Not to Scale

Legend

00.0 2012
00.0 2016
00.0 2020
00.0 2030

Phase B



NOTE:

1. All volumes shown are in thousands
2. Mainline - Total of both directions
3. Ramp - Average of two ramps

ESTIMATED DAILY VOLUMES FOR LME - SEGMENT B, ALTERNATIVE 3

FIGURE 2-13

Table 2-10 shows the daily traffic for each ramp and mainline plaza for Segment B, Alternative 1 and Table 2-11 displays the same information for Segment B, Alternative 3. Tables 2-12 and 2-13 show resulting revenues for Alternative 1 and Alternative 3, respectively, detailed to the vehicle type. As noted previously, Alternative 3 captures much more traffic and therefore produces more revenue than Alternative 1. Table 2-14 displays this, showing gross expected toll revenue for both Alternatives from 2012 through 2030.

Table 2-10: Tolled Volumes for Segment B, Alternative 1

Plaza Location	2012			2016			2020			2030		
	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
LA 89	600	100	700	700	100	800	900	100	1,000	1,300	100	1,400
Mainline Southwest	8,600	1,600	10,200	10,000	1,700	11,700	10,900	1,800	12,700	15,800	2,100	17,900
Verot School Rd	1,000	400	1,400	1,200	400	1,600	1,500	500	2,000	2,500	600	3,100
Robley Dr	1,400	300	1,700	1,700	300	2,000	1,800	300	2,100	3,100	400	3,500
LA 342	1,300	800	2,100	1,300	800	2,100	1,500	900	2,400	2,600	1,000	3,600
Mainline West	4,500	2,000	6,500	4,700	2,000	6,700	5,600	2,200	7,800	8,200	2,400	10,600
Landry Rd	1,800	400	2,200	1,900	400	2,300	2,100	400	2,500	3,000	500	3,500
Cameron St	1,500	400	1,900	1,600	400	2,000	1,900	400	2,300	2,200	400	2,600
Grand Total	20,600	6,000	26,600	23,100	6,200	29,300	26,100	6,600	32,700	38,800	7,600	46,400

Table 2-11: Tolled Volumes for Segment B, Alternative 3

Plaza Location	2012			2016			2020			2030		
	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
LA 89	5,800	400	6,200	6,600	400	7,000	7,600	500	8,100	9,800	600	10,400
Mainline Southwest	18,000	3,000	21,000	20,500	3,200	23,700	23,100	3,400	26,500	29,400	3,800	33,200
Verot School Rd	2,000	700	2,700	2,200	700	2,900	2,500	800	3,300	4,200	900	5,100
Kaliste Saloom Rd	1,800	300	2,100	2,100	300	2,400	2,100	300	2,400	2,900	500	3,400
LA 342	1,500	800	2,300	1,700	900	2,600	1,700	900	2,600	2,800	900	3,700
Mainline West	10,300	3,000	13,300	11,800	3,200	15,000	12,400	3,300	15,700	17,600	3,700	21,300
Congress St	1,500	200	1,700	1,600	200	1,800	1,900	200	2,100	2,700	300	3,000
Cameron St	2,900	300	3,200	3,100	300	3,400	3,600	300	3,900	4,800	300	5,100
Grand Total	43,700	8,600	52,300	49,700	9,200	58,900	54,900	9,700	64,600	74,100	11,000	85,100

Table 2-12: Annual Revenues for Segment B, Alternative 1

Plaza Location	2012			2016			2020			2030		
	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
LA 89	\$111,000	\$35,000	\$146,000	\$132,000	\$38,000	\$170,000	\$158,000	\$42,000	\$200,000	\$238,000	\$54,000	\$292,000
Mainline Southwest	\$3,916,000	\$1,861,000	\$5,777,000	\$4,544,000	\$1,956,000	\$6,500,000	\$5,974,000	\$2,454,000	\$8,428,000	\$10,122,000	\$3,416,000	\$13,538,000
Verot School Rd	\$273,000	\$283,000	\$556,000	\$338,000	\$306,000	\$644,000	\$399,000	\$324,000	\$723,000	\$918,000	\$518,000	\$1,436,000
Robley Dr	\$126,000	\$60,000	\$186,000	\$151,000	\$67,000	\$218,000	\$165,000	\$75,000	\$240,000	\$282,000	\$96,000	\$378,000
LA 342	\$243,000	\$365,000	\$608,000	\$368,000	\$556,000	\$924,000	\$402,000	\$588,000	\$990,000	\$721,000	\$686,000	\$1,407,000
Mainline West	\$1,625,000	\$1,846,000	\$3,471,000	\$2,135,000	\$2,334,000	\$4,469,000	\$2,537,000	\$2,480,000	\$5,017,000	\$4,510,000	\$3,314,000	\$7,824,000
Landry Rd	\$162,000	\$94,000	\$256,000	\$340,000	\$183,000	\$523,000	\$377,000	\$193,000	\$570,000	\$546,000	\$234,000	\$780,000
Cameron St	\$138,000	\$92,000	\$230,000	\$146,000	\$89,000	\$235,000	\$174,000	\$101,000	\$275,000	\$200,000	\$99,000	\$299,000
Grand Total	\$6,593,000	\$4,635,000	\$11,229,000	\$8,153,000	\$5,530,000	\$13,684,000	\$10,186,000	\$6,258,000	\$16,444,000	\$17,535,000	\$8,418,000	\$25,954,000

Table 2-13: Annual Revenues for Segment B, Alternative 3

Plaza Location	2012			2016			2020			2030		
	PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
LA 89	\$1,066,000	\$179,000	\$1,245,000	\$1,206,000	\$196,000	\$1,402,000	\$1,389,000	\$218,000	\$1,607,000	\$1,781,000	\$273,000	\$2,054,000
Mainline Southwest	\$8,200,000	\$3,426,000	\$11,626,000	\$9,336,000	\$3,645,000	\$12,981,000	\$10,559,000	\$3,879,000	\$14,438,000	\$18,763,000	\$6,103,000	\$24,866,000
Verot School Rd	\$358,000	\$311,000	\$669,000	\$397,000	\$330,000	\$727,000	\$447,000	\$358,000	\$805,000	\$1,153,000	\$602,000	\$1,755,000
Kaliste Saloom Rd	\$163,000	\$66,000	\$229,000	\$194,000	\$80,000	\$274,000	\$379,000	\$147,000	\$526,000	\$529,000	\$208,000	\$737,000
LA 342	\$136,000	\$182,000	\$318,000	\$155,000	\$195,000	\$350,000	\$319,000	\$396,000	\$715,000	\$514,000	\$430,000	\$944,000
Mainline West	\$2,821,000	\$2,062,000	\$4,883,000	\$3,240,000	\$2,194,000	\$5,434,000	\$4,537,000	\$3,009,000	\$7,546,000	\$8,018,000	\$4,207,000	\$12,225,000
Congress St	\$266,000	\$87,000	\$353,000	\$301,000	\$90,000	\$391,000	\$341,000	\$102,000	\$443,000	\$743,000	\$178,000	\$921,000
Cameron St	\$265,000	\$62,000	\$327,000	\$287,000	\$63,000	\$350,000	\$324,000	\$68,000	\$392,000	\$434,000	\$79,000	\$513,000
Grand Total	\$13,275,000	\$6,376,000	\$19,651,000	\$15,116,000	\$6,794,000	\$21,909,000	\$18,296,000	\$8,178,000	\$26,474,000	\$31,936,000	\$12,080,000	\$44,017,000

Table 2-14: Cash Flow for Segment B, Alternatives 1 and 3

Year	Toll Revenue	
	Alternative 1	Alternative 3
2012	\$ 11,229,000	\$ 19,651,000
2013	\$ 11,916,000	\$ 20,193,000
2014	\$ 12,646,000	\$ 20,749,000
2015	\$ 13,420,000	\$ 21,321,000
2016	\$ 13,684,000	\$ 21,909,000
2017	\$ 14,937,000	\$ 23,135,000
2018	\$ 15,665,000	\$ 24,430,000
2019	\$ 16,429,000	\$ 25,797,000
2020	\$ 16,444,000	\$ 26,474,000
2021	\$ 17,212,000	\$ 27,855,000
2022	\$ 18,015,000	\$ 29,308,000
2023	\$ 18,857,000	\$ 30,836,000
2024	\$ 19,737,000	\$ 32,445,000
2025	\$ 20,659,000	\$ 34,137,000
2026	\$ 21,623,000	\$ 35,917,000
2027	\$ 22,633,000	\$ 37,790,000
2028	\$ 23,690,000	\$ 39,761,000
2029	\$ 24,796,000	\$ 41,835,000
2030	\$ 25,954,000	\$ 44,017,000

Table 2-15 and 2-16 show the effects that each of the two alternatives has on specific intersections in Lafayette in the 2030 forecast year. These are the same intersections examined earlier in this section. It would appear that Segment B, Alternative 3 may reduce the traffic in some of these locations by a larger amount than Segment B, Alternative 1.

Table 2-15: Effect of Segment B, Alternative 1 on Other Routes

<i>Intersection</i>	<i>Approach Volumes</i>				<i>Departure Volumes</i>			
Ambassador Cafferey Parkway and Johnston Street	Ambassador-Cafferey Parkway		Johnston Street		Ambassador-Cafferey Parkway		Johnston Street	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	47,360	23,900	40,360	20,940	48,390	23,710	40,590	19,860
Volume with LME	45,190	21,070	42,070	21,990	46,170	20,990	42,150	21,000
Volume Difference	-2,170	-2,830	1,710	1,050	-2,220	-2,720	1,560	1,140
Volume Ratio	95.4%	88.2%	104.2%	105.0%	95.4%	88.5%	103.8%	105.7%
Johnston Street and College Road	Johnston Street		College Road		Johnston Street		College Road	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	18,520	13,580	24,020	17,580	17,760	13,890	24,000	18,050
Volume with LME	17,860	13,520	22,530	16,860	17,110	13,840	22,590	17,210
Volume Difference	-660	-60	-1,490	-720	-650	-50	-1,410	-840
Volume Ratio	96.4%	99.6%	93.8%	95.9%	96.3%	99.6%	94.1%	95.3%
Kaliste Saloom Road at Pinhook Rd	Kaliste Saloom Rd		Pinhook Rd		Kaliste Saloom Rd		Pinhook Rd	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	30,280	6,380	38,800	18,060	30,480	8,770	36,600	17,680
Volume with LME	30,030	7,066	37,780	17,750	30,140	10,030	34,790	17,670
Volume Difference	-250	686	-1,020	-310	-340	1,260	-1,810	-10
Volume Ratio	99.2%	110.8%	97.4%	98.3%	98.9%	114.4%	95.1%	99.9%
Ambassador-Cafferey Parkway at Congress Street	Ambassador-Cafferey Parkway		Congress Street		Ambassador-Cafferey Parkway		Congress Street	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	30,730	37,040	8,330	16,820	30,570	37,230	8,450	16,670
Volume with LME	29,500	36,410	8,550	17,030	29,630	36,550	8,720	16,859
Volume Difference	-1,230	-630	220	210	-940	-680	270	189
Volume Ratio	96.0%	98.3%	102.6%	101.2%	96.9%	98.2%	103.2%	101.1%

Table 2-16: Effect of Segment B, Alternative 3 on Other Routes

<i>Intersection</i>	<i>Approach Volumes</i>				<i>Departure Volumes</i>			
Ambassador Cafferey Parkway and Johnston Street	Ambassador-Cafferey Parkway		Johnston Street		Ambassador-Cafferey Parkway		Johnston Street	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	47,360	23,900	40,360	20,940	48,390	23,710	40,590	19,860
Volume with LME	42,830	21,190	36,960	21,260	43,630	21,110	37,230	20,260
Volume Difference	-4,530	-2,710	-3,400	320	-4,760	-2,600	-3,360	400
Volume Ratio	90.4%	88.7%	91.6%	101.5%	90.2%	89.0%	91.7%	102.0%
Johnston Street and College Road	Johnston Street		College Road		Johnston Street		College Road	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	18,520	13,580	24,020	17,580	17,760	13,890	24,000	18,050
Volume with LME	17,450	13,450	22,270	16,990	16,640	13,750	22,430	17,340
Volume Difference	-1,070	-130	-1,750	-590	-1,120	-140	-1,570	-710
Volume Ratio	94.2%	99.0%	92.7%	96.6%	93.7%	99.0%	93.5%	96.1%
Kaliste Saloom Road at Pinhook Rd	Kaliste Saloom Rd		Pinhook Rd		Kaliste Saloom Rd		Pinhook Rd	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	30,280	6,380	38,800	18,060	30,480	8,770	36,600	17,680
Volume with LME	29,630	7,480	37,980	18,570	29,930	8,220	37,410	18,870
Volume Difference	-650	1,100	-820	510	-550	-550	810	1,190
Volume Ratio	97.9%	117.2%	97.9%	102.8%	98.2%	93.7%	102.2%	106.7%
Ambassador-Cafferey Parkway at Congress Street	Ambassador-Cafferey Parkway		Congress Street		Ambassador-Cafferey Parkway		Congress Street	
	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
Volume without LME (no-build)	30,730	37,040	8,330	16,820	30,570	37,230	8,450	16,670
Volume with LME	26,670	33,110	8,220	16,600	26,120	33,460	8,450	16,540
Volume Difference	-4,060	-3,930	-110	-220	-4,450	-3,770	0	-130
Volume Ratio	86.8%	89.4%	98.7%	98.7%	85.4%	89.9%	100.0%	99.2%

TRAFFIC AND TOLL REVENUE ANALYSIS FOR SEGMENT B and I-49

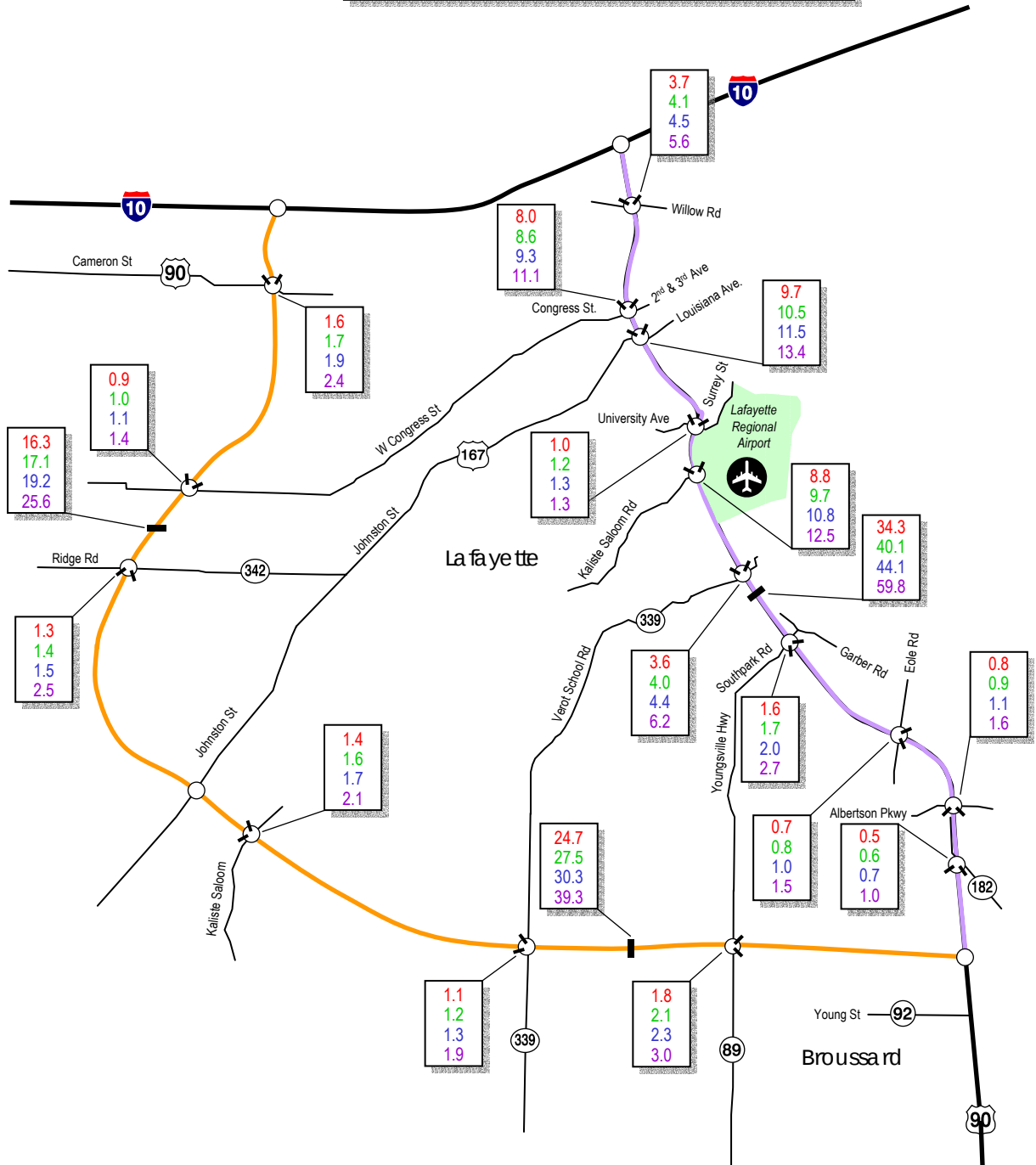
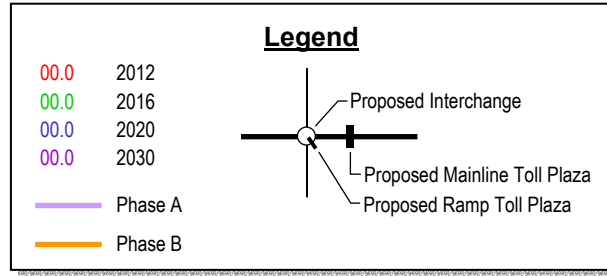
The traffic and revenue potential of constructing Segment B in addition to Segment A (I-49) was studied for Segment B, Alternatives 4 and 5. Under this idea, I-49 has the potential to be tolled from I-10 to near LA 92. Segment A1, which runs from I-10 to just south of the Lafayette Regional Airport, was assumed to open in 2009. Segment A2, which runs from just south of the Lafayette Airport to near LA 92, was assumed to open in 2011. Regardless of alternative, Segment B was assumed to open in 2012, later than both portions of I-49. As such traffic and revenue are shown starting in 2012.

SEGMENTS B4, A1 and A2

Figure 2-14 shows the estimated daily volumes for Segments B4, A1, and A2 for the four model years of 2012, 2016, 2020 and 2030. *Table 2-17* also presents estimated daily volumes but shows the total volume for each interchange, not for an individual ramp as is shown in *Figure 2-14*. *Table 2-18* shows the corresponding estimated annual revenues that would be generated under this scenario. *Table 2-19* shows gross expected toll revenue, by Segment, from 2012 to 2030.



Schematic
Not to Scale



ESTIMATED DAILY VOLUMES - ALTERNATIVES B4, A1 AND A2

Table 2-17: Tolloed Volumes for Segment B, Alternative 4 and Segments A1 and A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Willow Rd	6,600	800	7,400	7,300	900	8,200	8,000	1,000	9,000	10,000	1,100	11,100
I-49 Extension	Congress St (I-49Ext)	14,000	2,000	16,000	15,100	2,000	17,100	16,400	2,100	18,500	19,600	2,500	22,100
I-49 Extension	Johnston St/Louisiana Ave	17,300	2,000	19,300	18,800	2,100	20,900	20,800	2,200	23,000	24,200	2,600	26,800
I-49 Extension	University/Surry St	1,800	200	2,000	2,000	300	2,300	2,300	300	2,600	2,300	300	2,600
I-49 Extension	Kaliste Saloom Rd (I-49Ext)	15,200	2,300	17,500	16,800	2,500	19,300	18,800	2,700	21,500	21,900	3,100	25,000
I-49 Extension	Verot School Rd (I-49Ext)	5,800	1,400	7,200	6,500	1,500	8,000	7,200	1,600	8,800	10,600	1,800	12,400
I-49 Extension	Mainline East	30,300	4,000	34,300	35,700	4,400	40,100	39,700	4,400	44,100	54,300	5,500	59,800
I-49 Extension	Southpark Rd	3,000	200	3,200	3,100	300	3,400	3,700	300	4,000	4,900	400	5,300
I-49 Extension	Eola St	1,200	100	1,300	1,400	100	1,500	1,800	200	2,000	2,700	200	2,900
I-49 Extension	Albertson Pkwy	1,300	200	1,500	1,600	200	1,800	1,900	300	2,200	2,900	300	3,200
I-49 Extension	Moulin Rd	800	200	1,000	900	200	1,100	1,100	200	1,300	1,700	300	2,000
I-49 Extension	Grand Total	98,300	13,600	111,900	110,300	14,700	125,000	123,100	15,600	138,700	157,100	18,400	175,500
LME	LA 89	3,300	200	3,500	3,800	300	4,100	4,300	300	4,600	5,600	400	6,000
LME	Mainline Southwest	21,200	3,500	24,700	23,800	3,700	27,500	26,400	3,900	30,300	34,900	4,400	39,300
LME	Verot School Rd	1,700	500	2,200	1,800	500	2,300	2,000	500	2,500	3,200	600	3,800
LME	Kaliste Saloom Rd	2,300	400	2,700	2,700	400	3,100	3,000	400	3,400	3,600	500	4,100
LME	LA 342	1,700	900	2,600	1,700	1,000	2,700	1,900	1,000	2,900	3,800	1,100	4,900
LME	Mainline West	12,600	3,700	16,300	13,300	3,800	17,100	15,100	4,100	19,200	21,100	4,500	25,600
LME	Congress St	1,500	200	1,700	1,700	200	1,900	1,900	200	2,100	2,600	200	2,800
LME	Cameron St	2,900	300	3,200	3,100	300	3,400	3,400	300	3,700	4,400	400	4,800
LME	Grand Total	47,200	9,700	56,900	51,900	10,200	62,100	58,000	10,700	68,700	79,200	12,100	91,300

Table 2-18: Annual Revenues for Segment B, Alternative 4 and Segments A1 and A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Willow Rd	\$605,000	\$193,000	\$798,000	\$664,000	\$202,000	\$866,000	\$731,000	\$218,000	\$949,000	\$915,000	\$244,000	\$1,159,000
I-49 Extension	Congress St (I-49Ext)	\$1,282,000	\$445,000	\$1,727,000	\$1,379,000	\$458,000	\$1,837,000	\$1,500,000	\$483,000	\$1,983,000	\$3,569,000	\$1,118,000	\$4,687,000
I-49 Extension	Johnston St/Louisiana Ave	\$1,581,000	\$452,000	\$2,033,000	\$1,716,000	\$476,000	\$2,192,000	\$3,787,000	\$1,018,000	\$4,805,000	\$4,412,000	\$1,172,000	\$5,584,000
I-49 Extension	University/Surry St	\$324,000	\$113,000	\$437,000	\$364,000	\$116,000	\$480,000	\$412,000	\$134,000	\$546,000	\$641,000	\$235,000	\$876,000
I-49 Extension	Kaliste Saloom Rd (I-49Ext)	\$2,767,000	\$1,047,000	\$3,814,000	\$3,071,000	\$1,131,000	\$4,202,000	\$5,159,000	\$1,835,000	\$6,994,000	\$5,994,000	\$2,104,000	\$8,098,000
I-49 Extension	Verot School Rd (I-49Ext)	\$1,588,000	\$949,000	\$2,537,000	\$1,772,000	\$1,012,000	\$2,784,000	\$1,968,000	\$1,066,000	\$3,034,000	\$3,852,000	\$1,638,000	\$5,490,000
I-49 Extension	Mainline East	\$16,578,000	\$5,481,000	\$22,059,000	\$22,817,000	\$7,006,000	\$29,823,000	\$25,368,000	\$7,050,000	\$32,418,000	\$44,605,000	\$11,318,000	\$55,923,000
I-49 Extension	Southpark Rd	\$833,000	\$171,000	\$1,004,000	\$1,132,000	\$242,000	\$1,374,000	\$1,342,000	\$272,000	\$1,614,000	\$2,251,000	\$419,000	\$2,670,000
I-49 Extension	Eola St	\$319,000	\$80,000	\$399,000	\$396,000	\$90,000	\$486,000	\$487,000	\$113,000	\$600,000	\$979,000	\$214,000	\$1,193,000
I-49 Extension	Albertson Pkwy	\$237,000	\$99,000	\$336,000	\$286,000	\$110,000	\$396,000	\$346,000	\$122,000	\$468,000	\$805,000	\$227,000	\$1,032,000
I-49 Extension	Moulin Rd	\$145,000	\$98,000	\$243,000	\$171,000	\$106,000	\$277,000	\$209,000	\$112,000	\$321,000	\$476,000	\$203,000	\$679,000
I-49 Extension	Grand Total	26,259,000	9,128,000	35,387,000	33,768,000	10,949,000	44,717,000	41,309,000	12,423,000	53,732,000	68,499,000	18,892,000	87,391,000
LME	LA 89	\$594,000	\$85,000	\$679,000	\$702,000	\$143,000	\$845,000	\$764,000	\$155,000	\$919,000	\$1,010,000	\$153,000	\$1,163,000
LME	Mainline Southwest	\$9,691,000	\$4,041,000	\$13,732,000	\$10,872,000	\$4,183,000	\$15,055,000	\$14,431,000	\$5,352,000	\$19,783,000	\$22,320,000	\$7,034,000	\$29,354,000
LME	Verot School Rd	\$462,000	\$349,000	\$811,000	\$494,000	\$335,000	\$829,000	\$546,000	\$337,000	\$883,000	\$1,166,000	\$560,000	\$1,726,000
LME	Kaliste Saloom Rd	\$208,000	\$98,000	\$306,000	\$245,000	\$88,000	\$333,000	\$275,000	\$93,000	\$368,000	\$654,000	\$222,000	\$876,000
LME	LA 342	\$157,000	\$195,000	\$352,000	\$162,000	\$227,000	\$389,000	\$171,000	\$239,000	\$410,000	\$679,000	\$479,000	\$1,158,000
LME	Mainline West	\$3,460,000	\$2,520,000	\$5,980,000	\$4,845,000	\$3,500,000	\$8,345,000	\$5,501,000	\$3,771,000	\$9,272,000	\$9,629,000	\$5,098,000	\$14,727,000
LME	Congress St	\$275,000	\$87,000	\$362,000	\$308,000	\$90,000	\$398,000	\$350,000	\$98,000	\$448,000	\$717,000	\$145,000	\$862,000
LME	Cameron St	\$262,000	\$65,000	\$327,000	\$280,000	\$68,000	\$348,000	\$309,000	\$70,000	\$379,000	\$401,000	\$87,000	\$488,000
LME	Grand Total	15,109,000	7,440,000	22,549,000	17,908,000	8,634,000	26,542,000	22,347,000	10,115,000	32,462,000	36,576,000	13,778,000	50,354,000

Table 2-19: Cash Flow for Segment B, Alternative 4 and Segments A1 and A2

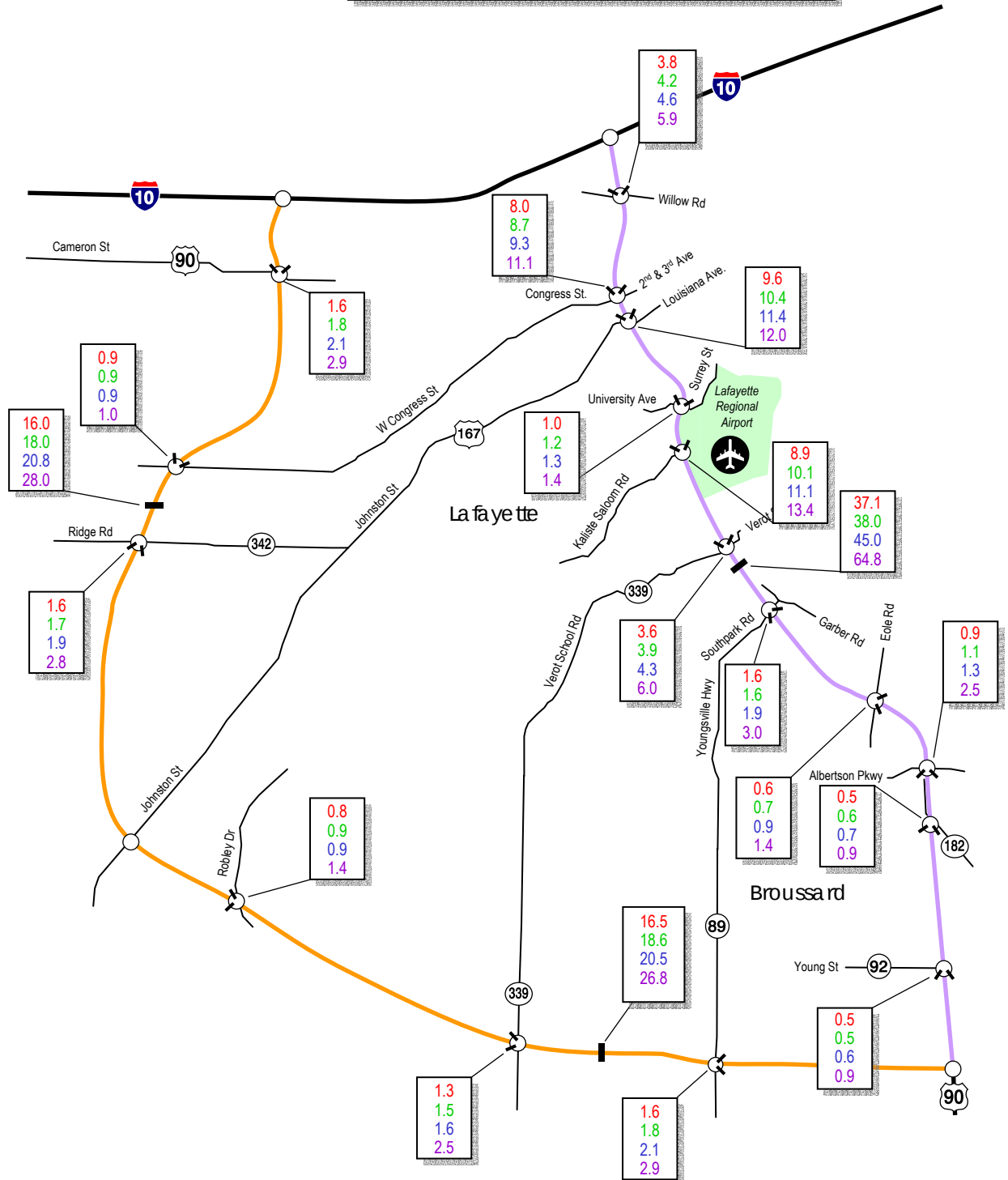
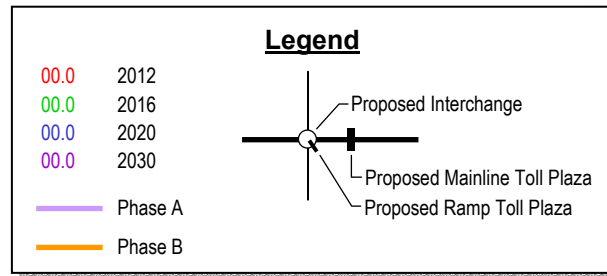
Year	Toll Revenue	
	Phase B Alternative 4	Phase A Segments 1 and 2
2012	\$ 22,549,000	\$ 35,387,000
2013	\$ 23,594,000	\$ 37,912,000
2014	\$ 24,686,000	\$ 40,618,000
2015	\$ 25,830,000	\$ 43,517,000
2016	\$ 26,542,000	\$ 44,717,000
2017	\$ 28,140,000	\$ 47,131,000
2018	\$ 29,835,000	\$ 49,676,000
2019	\$ 31,632,000	\$ 52,358,000
2020	\$ 32,462,000	\$ 53,732,000
2021	\$ 33,893,000	\$ 56,396,000
2022	\$ 35,386,000	\$ 59,193,000
2023	\$ 36,946,000	\$ 62,128,000
2024	\$ 38,574,000	\$ 65,208,000
2025	\$ 40,275,000	\$ 68,441,000
2026	\$ 42,050,000	\$ 71,835,000
2027	\$ 43,903,000	\$ 75,397,000
2028	\$ 45,838,000	\$ 79,135,000
2029	\$ 47,858,000	\$ 83,059,000
2030	\$ 50,354,000	\$ 87,391,000

SEGMENTS B5, A1 and A2

WSA also evaluated Segment B, Alternative 5 assuming that both portions of I-49 (A1 and A2) were tolled. *Figure 2-15* and *Table 2-20* present the estimated daily volumes under this condition. Comparing volumes between Alternatives 4 and 5 shows that Alternative 4 would experience higher volumes, as a whole, than would Alternative 5. This is likely due to Alternative 4's closer spatial location to the City of Lafayette. Additionally, Alternative 5 is approximately two miles longer than Alternative 4 from I-10 to I-49. As a result of lower volumes, estimated revenues for Alternative 5 are lower than Alternative 4, as shown in *Tables 2-21 and 2-22*.



Schematic
Not to Scale



ESTIMATED DAILY VOLUMES - ALTERNATIVES B5, A1 AND A2

Table 2-20: Tolled Volumes for Segment B, Alternative 5 and Segments A1 and A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Willow Rd	6,700	900	7,600	7,400	900	8,300	8,100	1,000	9,100	10,600	1,200	11,800
I-49 Extension	Congress St (I-49Ext)	14,100	1,900	16,000	15,300	2,000	17,300	16,500	2,100	18,600	19,700	2,400	22,100
I-49 Extension	Johnston St/Louisiana Ave	17,200	2,000	19,200	18,700	2,100	20,800	20,500	2,200	22,700	21,700	2,300	24,000
I-49 Extension	University/Surry St	1,800	200	2,000	2,000	300	2,300	2,300	300	2,600	2,400	400	2,800
I-49 Extension	Kaliste Saloom Rd (I-49Ext)	15,500	2,300	17,800	17,500	2,600	20,100	19,400	2,700	22,100	23,500	3,200	26,700
I-49 Extension	Verot School Rd (I-49Ext)	5,800	1,300	7,100	6,400	1,400	7,800	7,100	1,500	8,600	10,300	1,600	11,900
I-49 Extension	Mainline East	30,700	6,400	37,100	31,600	6,400	38,000	37,900	7,100	45,000	56,100	8,700	64,800
I-49 Extension	Southpark Rd	2,900	200	3,100	2,900	300	3,200	3,500	300	3,800	5,500	400	5,900
I-49 Extension	Eola St	1,000	100	1,100	1,300	100	1,400	1,600	200	1,800	2,500	200	2,700
I-49 Extension	Albertson Pkwy	1,600	200	1,800	1,900	300	2,200	2,300	300	2,600	4,400	500	4,900
I-49 Extension	Moulin Rd	800	200	1,000	1,000	200	1,200	1,200	200	1,400	1,400	300	1,700
I-49 Extension	Young St	800	100	900	900	100	1,000	1,100	100	1,200	1,700	100	1,800
I-49 Extension	Grand Total	98,900	15,800	114,700	106,900	16,700	123,600	121,500	18,000	139,500	159,800	21,300	181,100
LME	LA 89	3,000	200	3,200	3,200	400	3,600	3,800	400	4,200	5,300	400	5,700
LME	Mainline Southwest	14,100	2,400	16,500	16,100	2,500	18,600	17,900	2,600	20,500	23,900	2,900	26,800
LME	Verot School Rd	2,000	600	2,600	2,400	600	3,000	2,600	600	3,200	4,200	700	4,900
LME	Robley Dr	1,400	200	1,600	1,500	200	1,700	1,600	200	1,800	2,500	200	2,700
LME	LA 342	2,000	1,100	3,100	2,300	1,100	3,400	2,600	1,200	3,800	4,300	1,300	5,600
LME	Mainline West	12,200	3,800	16,000	14,000	4,000	18,000	16,500	4,300	20,800	23,300	4,700	28,000
LME	Congress St	1,500	200	1,700	1,500	200	1,700	1,600	200	1,800	1,800	200	2,000
LME	Cameron St	2,900	300	3,200	3,300	400	3,700	3,800	400	4,200	5,200	500	5,700
LME	Grand Total	39,100	8,800	47,900	44,300	9,400	53,700	50,400	9,900	60,300	70,500	10,900	81,400

Table 2-21: Annual Revenues for Segment B, Alternative 5 and Segments A1 and A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Willow Rd	\$609,000	\$196,000	\$805,000	\$673,000	\$211,000	\$884,000	\$739,000	\$227,000	\$966,000	\$963,000	\$283,000	\$1,246,000
I-49 Extension	Congress St (I-49Ext)	\$1,288,000	\$444,000	\$1,732,000	\$1,396,000	\$457,000	\$1,853,000	\$1,509,000	\$479,000	\$1,988,000	\$3,592,000	\$1,080,000	\$4,672,000
I-49 Extension	Johnston St/Louisiana Ave	\$1,573,000	\$449,000	\$2,022,000	\$1,710,000	\$472,000	\$2,182,000	\$3,749,000	\$1,005,000	\$4,754,000	\$3,966,000	\$1,035,000	\$5,001,000
I-49 Extension	University/Surry St	\$327,000	\$114,000	\$441,000	\$369,000	\$118,000	\$487,000	\$416,000	\$137,000	\$553,000	\$654,000	\$244,000	\$898,000
I-49 Extension	Kaliste Saloom Rd (I-49Ext)	\$2,835,000	\$1,070,000	\$3,905,000	\$3,189,000	\$1,166,000	\$4,355,000	\$5,310,000	\$1,865,000	\$7,175,000	\$6,429,000	\$2,185,000	\$8,614,000
I-49 Extension	Verot School Rd (I-49Ext)	\$1,575,000	\$924,000	\$2,499,000	\$1,744,000	\$959,000	\$2,703,000	\$1,936,000	\$1,026,000	\$2,962,000	\$3,742,000	\$1,421,000	\$5,163,000
I-49 Extension	Mainline East	\$16,812,000	\$8,718,000	\$25,530,000	\$20,198,000	\$10,261,000	\$30,459,000	\$24,192,000	\$11,325,000	\$35,517,000	\$46,038,000	\$17,846,000	\$63,884,000
I-49 Extension	Southpark Rd	\$799,000	\$169,000	\$968,000	\$1,060,000	\$235,000	\$1,295,000	\$1,271,000	\$263,000	\$1,534,000	\$2,503,000	\$501,000	\$3,004,000
I-49 Extension	Eola St	\$277,000	\$80,000	\$357,000	\$345,000	\$85,000	\$430,000	\$426,000	\$106,000	\$532,000	\$900,000	\$211,000	\$1,111,000
I-49 Extension	Albertson Pkwy	\$284,000	\$112,000	\$396,000	\$353,000	\$127,000	\$480,000	\$425,000	\$141,000	\$566,000	\$1,201,000	\$311,000	\$1,512,000
I-49 Extension	Moulin Rd	\$152,000	\$91,000	\$243,000	\$177,000	\$99,000	\$276,000	\$218,000	\$106,000	\$324,000	\$394,000	\$190,000	\$584,000
I-49 Extension	Young St	\$71,000	\$20,000	\$91,000	\$84,000	\$24,000	\$108,000	\$101,000	\$25,000	\$126,000	\$151,000	\$34,000	\$185,000
I-49 Extension	Grand Total	26,602,000	12,387,000	38,989,000	31,298,000	14,214,000	45,512,000	40,292,000	16,705,000	56,997,000	70,533,000	25,341,000	95,874,000
LME	LA 89	\$540,000	\$134,000	\$674,000	\$567,000	\$152,000	\$719,000	\$691,000	\$162,000	\$853,000	\$978,000	\$198,000	\$1,176,000
LME	Mainline Southwest	\$6,432,000	\$2,724,000	\$9,156,000	\$7,348,000	\$2,841,000	\$10,189,000	\$9,821,000	\$3,602,000	\$13,423,000	\$15,237,000	\$4,659,000	\$19,896,000
LME	Verot School Rd	\$542,000	\$407,000	\$949,000	\$661,000	\$427,000	\$1,088,000	\$723,000	\$415,000	\$1,138,000	\$1,518,000	\$630,000	\$2,148,000
LME	Robley Dr	\$126,000	\$48,000	\$174,000	\$138,000	\$50,000	\$188,000	\$147,000	\$43,000	\$190,000	\$225,000	\$42,000	\$267,000
LME	LA 342	\$376,000	\$532,000	\$908,000	\$431,000	\$505,000	\$936,000	\$480,000	\$524,000	\$1,004,000	\$1,192,000	\$875,000	\$2,067,000
LME	Mainline West	\$4,458,000	\$3,486,000	\$7,944,000	\$6,382,000	\$4,595,000	\$10,977,000	\$7,508,000	\$4,882,000	\$12,390,000	\$12,770,000	\$6,444,000	\$19,214,000
LME	Congress St	\$275,000	\$89,000	\$364,000	\$274,000	\$99,000	\$373,000	\$291,000	\$90,000	\$381,000	\$495,000	\$135,000	\$630,000
LME	Cameron St	\$263,000	\$69,000	\$332,000	\$300,000	\$86,000	\$386,000	\$347,000	\$91,000	\$438,000	\$476,000	\$116,000	\$592,000
LME	Grand Total	13,012,000	7,489,000	20,501,000	16,101,000	8,755,000	24,856,000	20,008,000	9,809,000	29,817,000	32,891,000	13,099,000	45,990,000

Table 2-22: Cash Flow for Segment B, Alternative 5 and Segments A1 and A2

Year	Toll Revenue	
	Phase B Alternative 5	Phase A Segments 1 and 2
2012	\$ 20,501,000	\$ 38,989,000
2013	\$ 21,663,000	\$ 40,682,000
2014	\$ 22,891,000	\$ 42,448,000
2015	\$ 24,189,000	\$ 44,291,000
2016	\$ 24,856,000	\$ 45,512,000
2017	\$ 26,184,000	\$ 48,635,000
2018	\$ 27,582,000	\$ 51,973,000
2019	\$ 29,055,000	\$ 55,539,000
2020	\$ 29,817,000	\$ 56,997,000
2021	\$ 31,112,000	\$ 60,047,000
2022	\$ 32,462,000	\$ 63,261,000
2023	\$ 33,872,000	\$ 66,646,000
2024	\$ 35,342,000	\$ 70,213,000
2025	\$ 36,877,000	\$ 73,970,000
2026	\$ 38,478,000	\$ 77,929,000
2027	\$ 40,148,000	\$ 82,099,000
2028	\$ 41,891,000	\$ 86,492,000
2029	\$ 43,710,000	\$ 91,121,000
2030	\$ 45,990,000	\$ 95,874,000

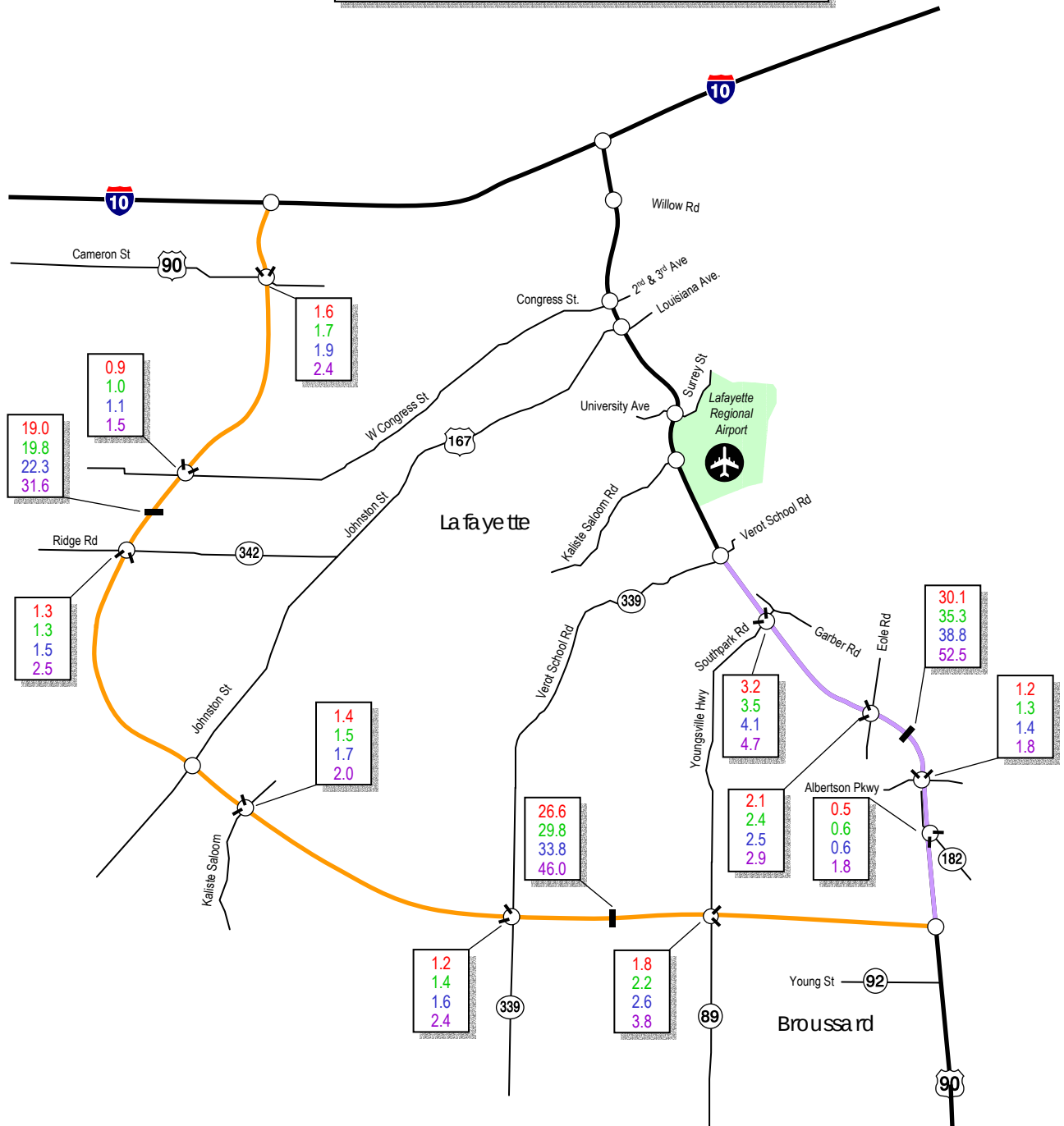
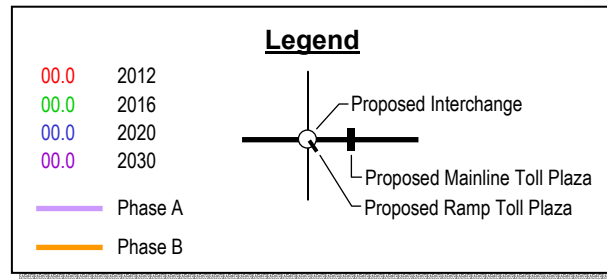
Segment B, Alternatives 4 and 5 were also studied under a scenario which tolled only Segment A2 of I-49, which runs from south of the Lafayette Airport to near LA 92.

SEGMENTS B4 AND A2

The estimated daily traffic for alternative 4 for this scenario is shown in *Figure 2-16* and *Table 2-23*. Corresponding annual revenue is shown in *Table 2-24* and the annual revenue stream is shown in *Table 2-25*. As shown, both volumes and revenue are higher on Segment B under this scenario compared to the scenario where all of I-49 is tolled. Tolling the northern portion of I-49 would likely result in greater travel time savings which would in turn pull patrons off of Segment B4 and onto I-49.



Schematic
Not to Scale



ESTIMATED DAILY VOLUMES - ALTERNATIVES B4 AND A2

Table 2-23: Tolled Volumes for Segment B, Alternative 4 and Segment A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Southpark Rd	5,300	1,100	6,400	5,700	1,200	6,900	6,700	1,400	8,100	7,700	1,600	9,300
I-49 Extension	Eola St	3,300	800	4,100	3,800	900	4,700	4,000	900	4,900	4,600	1,100	5,700
I-49 Extension	Mainline East	26,600	3,500	30,100	31,400	3,900	35,300	34,900	3,900	38,800	47,700	4,800	52,500
I-49 Extension	Albertson Pkwy	1,800	500	2,300	2,000	600	2,600	2,200	600	2,800	2,700	800	3,500
I-49 Extension	Moulin Rd	700	300	1,000	800	300	1,100	900	300	1,200	1,300	300	1,600
I-49 Extension	Grand Total	37,700	6,200	43,900	43,700	6,900	50,600	48,700	7,100	55,800	64,000	8,600	72,600
LME	LA 89	3,300	200	3,500	4,100	200	4,300	4,900	200	5,100	7,200	300	7,500
LME	Mainline Southwest	22,600	4,000	26,600	25,600	4,200	29,800	29,300	4,500	33,800	40,700	5,300	46,000
LME	Verot School Rd	1,800	600	2,400	2,100	700	2,800	2,400	700	3,100	3,900	800	4,700
LME	Kaliste Saloom Rd	2,300	400	2,700	2,600	400	3,000	2,900	400	3,300	3,500	400	3,900
LME	LA 342	1,700	900	2,600	1,700	900	2,600	1,900	1,000	2,900	3,800	1,100	4,900
LME	Mainline West	14,500	4,500	19,000	15,200	4,600	19,800	17,400	4,900	22,300	26,000	5,600	31,600
LME	Congress St	1,500	200	1,700	1,700	200	1,900	1,900	200	2,100	2,700	200	2,900
LME	Cameron St	2,900	300	3,200	3,100	300	3,400	3,400	300	3,700	4,400	400	4,800
LME	Grand Total	50,600	11,100	61,700	56,100	11,500	67,600	64,100	12,200	76,300	92,200	14,100	106,300

Table 2-24: Annual Revenues for Segment B, Alternative 4 and Segment A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Southpark Rd	\$481,000	\$262,000	\$743,000	\$522,000	\$281,000	\$803,000	\$612,000	\$315,000	\$927,000	\$706,000	\$368,000	\$1,074,000
I-49 Extension	Eola St	\$603,000	\$366,000	\$969,000	\$693,000	\$407,000	\$1,100,000	\$725,000	\$425,000	\$1,150,000	\$845,000	\$502,000	\$1,347,000
I-49 Extension	Mainline East	\$9,724,000	\$3,239,000	\$12,963,000	\$11,457,000	\$3,554,000	\$15,011,000	\$12,751,000	\$3,598,000	\$16,349,000	\$21,767,000	\$5,424,000	\$27,191,000
I-49 Extension	Albertson Pkwy	\$322,000	\$230,000	\$552,000	\$369,000	\$263,000	\$632,000	\$605,000	\$426,000	\$1,031,000	\$734,000	\$520,000	\$1,254,000
I-49 Extension	Moulin Rd	\$127,000	\$121,000	\$248,000	\$148,000	\$126,000	\$274,000	\$165,000	\$132,000	\$297,000	\$241,000	\$146,000	\$387,000
I-49 Extension	Grand Total	11,257,000	4,218,000	15,475,000	13,189,000	4,631,000	17,820,000	14,858,000	4,896,000	19,754,000	24,293,000	6,960,000	31,253,000
LME	LA 89	\$624,000	\$86,000	\$710,000	\$766,000	\$93,000	\$859,000	\$890,000	\$102,000	\$992,000	\$1,332,000	\$120,000	\$1,452,000
LME	Mainline Southwest	\$10,308,000	\$4,598,000	\$14,906,000	\$11,671,000	\$4,848,000	\$16,519,000	\$16,049,000	\$6,191,000	\$22,240,000	\$26,008,000	\$8,470,000	\$34,478,000
LME	Verot School Rd	\$493,000	\$425,000	\$918,000	\$577,000	\$464,000	\$1,041,000	\$658,000	\$466,000	\$1,124,000	\$1,425,000	\$731,000	\$2,156,000
LME	Kaliste Saloom Rd	\$209,000	\$85,000	\$294,000	\$240,000	\$91,000	\$331,000	\$264,000	\$97,000	\$361,000	\$644,000	\$192,000	\$836,000
LME	LA 342	\$150,000	\$215,000	\$365,000	\$158,000	\$219,000	\$377,000	\$181,000	\$226,000	\$407,000	\$693,000	\$500,000	\$1,193,000
LME	Mainline West	\$3,976,000	\$3,080,000	\$7,056,000	\$5,537,000	\$4,187,000	\$9,724,000	\$6,354,000	\$4,491,000	\$10,845,000	\$11,870,000	\$6,360,000	\$18,230,000
LME	Congress St	\$271,000	\$87,000	\$358,000	\$313,000	\$91,000	\$404,000	\$344,000	\$97,000	\$441,000	\$743,000	\$145,000	\$888,000
LME	Cameron St	\$264,000	\$64,000	\$328,000	\$284,000	\$67,000	\$351,000	\$311,000	\$70,000	\$381,000	\$402,000	\$87,000	\$489,000
LME	Grand Total	16,295,000	8,640,000	24,935,000	19,546,000	10,060,000	29,606,000	25,051,000	11,740,000	36,791,000	43,117,000	16,605,000	59,722,000

Table 2-25: Cash Flow for Segment B, Alternative 4 and Segment A2

Year	Toll Revenue	
	Phase B Alternative 4	Phase A Segment 2
2012	\$ 24,935,000	\$ 15,475,000
2013	\$ 26,165,000	\$ 16,074,000
2014	\$ 27,456,000	\$ 16,696,000
2015	\$ 28,811,000	\$ 17,342,000
2016	\$ 29,606,000	\$ 17,820,000
2017	\$ 31,556,000	\$ 18,284,000
2018	\$ 33,635,000	\$ 18,760,000
2019	\$ 35,850,000	\$ 19,249,000
2020	\$ 36,791,000	\$ 19,754,000
2021	\$ 38,607,000	\$ 20,670,000
2022	\$ 40,512,000	\$ 21,628,000
2023	\$ 42,512,000	\$ 22,631,000
2024	\$ 44,610,000	\$ 23,681,000
2025	\$ 46,812,000	\$ 24,779,000
2026	\$ 49,123,000	\$ 25,928,000
2027	\$ 51,547,000	\$ 27,130,000
2028	\$ 54,091,000	\$ 28,388,000
2029	\$ 56,761,000	\$ 29,704,000
2030	\$ 59,722,000	\$ 31,253,000

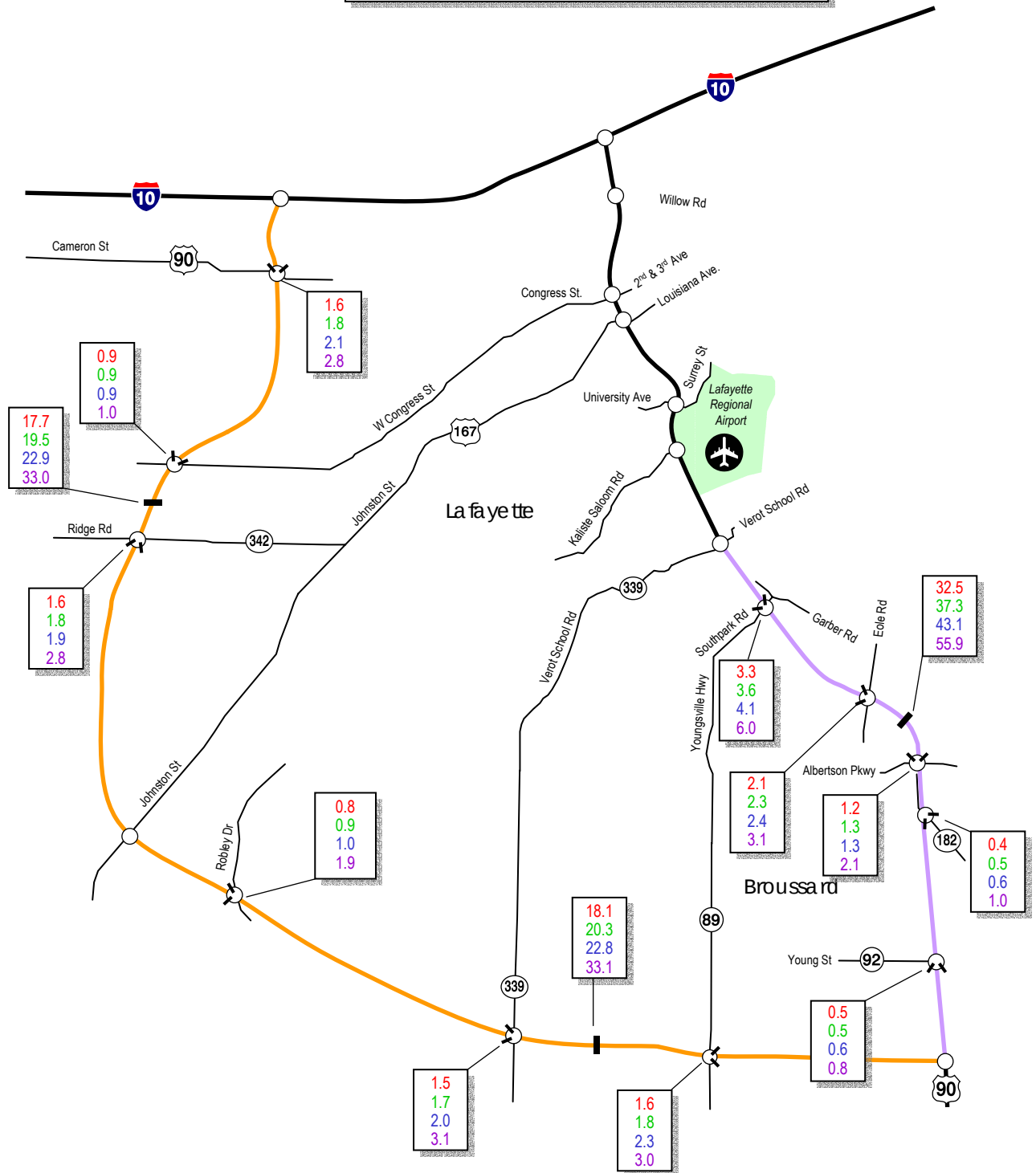
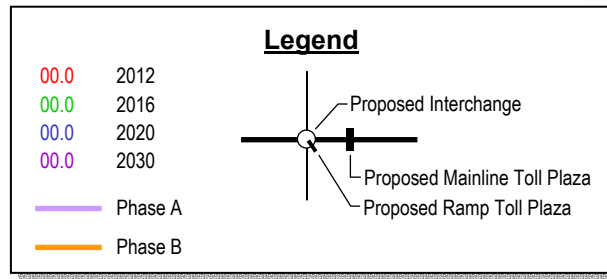
Segment B, Alternative 5 carries less traffic, and therefore generates smaller revenues, than Segment B, Alternative 4 in this scenario. The main factor continues to be Alternatives 5's distance from the City of Lafayette and greater distance from I-10 to I-49. This additional distance makes through trips less likely to use Alternative 5 than Alternative 4.

SEGMENTS B5 AND A2

Estimated daily average volumes are presented in *Figure 2-17* and *Table 2-26*. Estimated revenue by interchange and annual revenue streams are shown in *Tables 2-27 and 2-28*. Volumes and revenues are higher under this scenario, for Segment B, than the scenario where both segments of I-49 are tolled.



Schematic
Not to Scale



ESTIMATED DAILY VOLUMES - ALTERNATIVES B5 AND A2

Table 2-26: Tolled Volumes for Segment B, Alternative 5 and Segment A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Southpark Rd	5,300	1,200	6,500	5,900	1,300	7,200	6,700	1,400	8,100	10,000	1,900	11,900
I-49 Extension	Eola St	3,300	800	4,100	3,600	900	4,500	3,900	900	4,800	4,900	1,300	6,200
I-49 Extension	Mainline East	28,700	3,800	32,500	33,300	4,000	37,300	38,800	4,300	43,100	50,900	5,000	55,900
I-49 Extension	Albertson Pkwy	1,800	500	2,300	2,000	600	2,600	2,000	600	2,600	3,300	800	4,100
I-49 Extension	Moulin Rd	600	200	800	700	200	900	900	200	1,100	1,600	300	1,900
I-49 Extension	Young St	800	100	900	900	100	1,000	1,100	100	1,200	1,400	100	1,500
I-49 Extension	Grand Total	40,500	6,600	47,100	46,400	7,100	53,500	53,400	7,500	60,900	72,100	9,400	81,500
LME	LA 89	3,000	200	3,200	3,300	400	3,700	4,100	400	4,500	5,600	400	6,000
LME	Mainline Southwest	15,500	2,600	18,100	17,600	2,700	20,300	19,900	2,900	22,800	29,700	3,400	33,100
LME	Verot School Rd	2,200	700	2,900	2,600	700	3,300	3,100	800	3,900	5,200	900	6,100
LME	Robley Dr	1,400	200	1,600	1,500	200	1,700	1,700	200	1,900	2,600	200	2,800
LME	LA 342	2,000	1,100	3,100	2,300	1,100	3,400	2,600	1,100	3,700	4,300	1,300	5,600
LME	Mainline West	13,500	4,200	17,700	15,200	4,300	19,500	18,200	4,700	22,900	27,700	5,300	33,000
LME	Congress St	1,500	200	1,700	1,600	200	1,800	1,600	200	1,800	1,800	200	2,000
LME	Cameron St	2,900	300	3,200	3,200	400	3,600	3,700	400	4,100	5,100	500	5,600
LME	Grand Total	42,000	9,500	51,500	47,300	10,000	57,300	54,900	10,700	65,600	82,000	12,200	94,200

Table 2-27: Annual Revenues for Segment B, Alternative 5 and Segment A2

Project	Plaza location	2012			2016			2020			2030		
		PC	CV	Total	PC	CV	Total	PC	CV	Total	PC	CV	Total
I-49 Extension	Southpark Rd	\$487,000	\$263,000	\$750,000	\$542,000	\$286,000	\$828,000	\$614,000	\$316,000	\$930,000	\$916,000	\$435,000	\$1,351,000
I-49 Extension	Eola St	\$594,000	\$363,000	\$957,000	\$661,000	\$396,000	\$1,057,000	\$720,000	\$421,000	\$1,141,000	\$899,000	\$579,000	\$1,478,000
I-49 Extension	Mainline East	\$10,492,000	\$3,511,000	\$14,003,000	\$12,160,000	\$3,657,000	\$15,817,000	\$14,176,000	\$3,933,000	\$18,109,000	\$23,219,300	\$5,691,400	\$28,910,700
I-49 Extension	Albertson Pkwy	\$330,000	\$236,000	\$566,000	\$368,000	\$263,000	\$631,000	\$549,000	\$411,000	\$960,000	\$891,000	\$521,000	\$1,412,000
I-49 Extension	Moulin Rd	\$117,000	\$88,000	\$205,000	\$125,000	\$91,000	\$216,000	\$170,000	\$99,000	\$269,000	\$299,000	\$133,000	\$432,000
I-49 Extension	Young St	\$74,000	\$21,000	\$95,000	\$79,000	\$23,000	\$102,000	\$98,000	\$27,000	\$125,000	\$127,000	\$34,000	\$161,000
I-49 Extension	Grand Total	12,094,000	4,482,000	16,576,000	13,935,000	4,716,000	18,651,000	16,327,000	5,207,000	21,534,000	26,351,300	7,393,400	33,744,700
LME	LA 89	\$535,000	\$132,000	\$669,000	\$622,000	\$146,000	\$768,000	\$751,000	\$162,000	\$913,000	\$1,028,000	\$192,000	\$1,250,000
LME	Mainline Southwest	\$7,059,000	\$2,930,000	\$10,380,000	\$8,042,000	\$3,114,000	\$11,574,000	\$10,916,000	\$3,946,000	\$15,431,000	\$18,968,000	\$5,406,000	\$25,159,000
LME	Verot School Rd	\$589,000	\$465,000	\$1,203,000	\$710,000	\$489,000	\$1,370,000	\$835,000	\$551,000	\$1,560,000	\$1,902,000	\$798,000	\$2,978,000
LME	Robley Dr	\$126,000	\$44,000	\$185,000	\$139,000	\$45,000	\$201,000	\$152,000	\$42,000	\$216,000	\$235,000	\$48,000	\$313,000
LME	LA 342	\$358,000	\$479,000	\$860,000	\$411,000	\$504,000	\$947,000	\$464,000	\$526,000	\$1,030,000	\$1,192,000	\$887,000	\$2,158,000
LME	Mainline West	\$4,943,000	\$3,807,000	\$9,102,000	\$6,946,000	\$4,879,000	\$12,315,000	\$8,316,000	\$5,340,000	\$14,192,000	\$15,148,000	\$7,260,000	\$23,178,000
LME	Congress St	\$273,000	\$97,000	\$354,000	\$293,000	\$85,000	\$372,000	\$290,000	\$89,000	\$370,000	\$493,000	\$135,000	\$612,000
LME	Cameron St	\$265,000	\$72,000	\$327,000	\$292,000	\$85,000	\$362,000	\$338,000	\$90,000	\$411,000	\$464,000	\$114,000	\$553,000
LME	Grand Total	14,148,000	8,026,000	23,100,000	17,455,000	9,347,000	27,925,000	22,062,000	10,746,000	34,145,000	39,430,000	14,840,000	56,201,000

Table 2-28: Cash Flow for Segment B, Alternative 5 and Segment A2

Year	Toll Revenue	
	Phase B Alignment 5	Phase A Segment 2
2012	\$ 23,100,000	\$ 16,576,000
2013	\$ 24,386,000	\$ 17,085,000
2014	\$ 25,743,000	\$ 17,609,000
2015	\$ 27,176,000	\$ 18,150,000
2016	\$ 27,925,000	\$ 18,651,000
2017	\$ 29,604,000	\$ 19,398,000
2018	\$ 31,385,000	\$ 20,175,000
2019	\$ 33,272,000	\$ 20,983,000
2020	\$ 34,145,000	\$ 21,534,000
2021	\$ 35,886,000	\$ 22,507,000
2022	\$ 37,715,000	\$ 23,523,000
2023	\$ 39,637,000	\$ 24,585,000
2024	\$ 41,658,000	\$ 25,696,000
2025	\$ 43,782,000	\$ 26,856,000
2026	\$ 46,013,000	\$ 28,069,000
2027	\$ 48,359,000	\$ 29,337,000
2028	\$ 50,824,000	\$ 30,662,000
2029	\$ 53,415,000	\$ 32,120,000
2030	\$ 56,201,000	\$ 33,744,711