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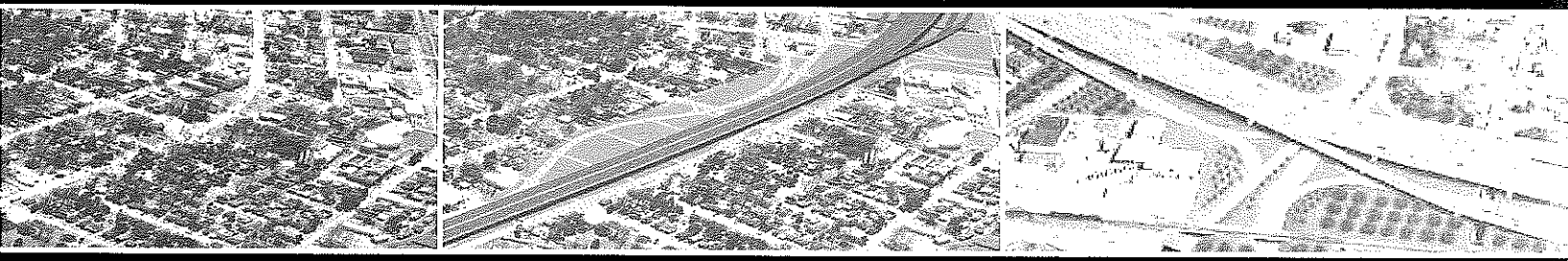


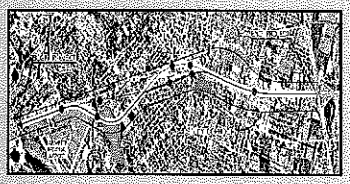
FINAL ENVIRONMENTAL IMPACT STATEMENT

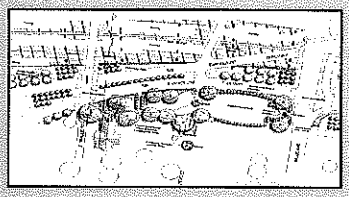
I-49 CONNECTOR

Lafayette, Louisiana

August, 2002

VOLUME I - Text





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SUMMARY

SUMMARY

S.1 DESCRIPTION OF PROPOSED PROJECT

In 1987, the U.S. Congress authorized and funded a demonstration study "to provide limited continuous access between an interstate route and a highway on the Federal-Aid primary system in Lafayette, Louisiana." In October, 1990, the Louisiana Department of Transportation and Development (LaDOTD) began a comprehensive Environmental Impact Statement (EIS) study of potential transportation improvements in the U.S. 90/U.S. 167 Evangeline Thruway corridor in Lafayette. A Draft EIS was approved for public distribution and circulated in May 1992 and a Public Hearing was held on July 1, 1992. Following the Public Hearing, the Draft EIS was withdrawn on December 11, 1992. In December 1997, LaDOTD restarted the project with a reconciled set of alternatives and the second Notice of Intent for the project was issued on April 14, 1998.

Given that no construction funding is currently available for the identified alternative, a staged approach for project implementation is being taken. The first stage, completed, is the adoption by the Lafayette Consolidated Government of the Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment that will allow for the project to be placed in the MPO's Financially Constrained Plan. Once the project is in the Financially Constrained Plan, this will enable the development of a signed Record of Decision (ROD) at the conclusion of the EIS process. As funding becomes available, design and construction will be implemented. These elements represent the second and third stages of the project. Public involvement will be performed throughout this process.

The proposed project is in Lafayette Parish, Louisiana, within the city limits of Lafayette (1990 pop. 94,440). Now called the I-49 Connector, the proposed action includes construction in the Evangeline Thruway U.S. 90/U.S. 167 corridor of a freeway with accompanying interchanges and flanking collector/ distributor roadways for local traffic circulation and land access. The LaDOTD has previously studied the freeway concept that would be compatible with its long-range statewide highway goal for U.S. 90 south of Lafayette. Between the time when the proposed project was withdrawn in 1992 and restarted in 1997, a preliminary Major Investment Study (MIS) was conducted. The study recommended a freeway on the Evangeline Thruway alignment in lieu of several by-pass alignments to the east and west of the Thruway. The MIS/Mode Meeting concluded that the development of a freeway in the Evangeline Thruway corridor should be implemented as transit improvements alone could not accommodate the existing and projected trips.

The existing Evangeline Thruway is a north-south arterial passing through the older part of Lafayette, serving local residential and business traffic and also functioning as an integral part of the federal-aid primary highway network servicing south Louisiana. Construction and freeway implementation would begin just south of the Lafayette Regional Airport (commercial service) and continue north to the current southern terminus of I-49 at the I-10/I-49 interchange, a length of approximately five miles. Exhibit S-1 presents the Evangeline Thruway study corridor.

The existing Thruway alignment and several partially new alignments within the corridor are being considered for implementation of the freeway. A "no-build" alternative has been established as a base for comparison.

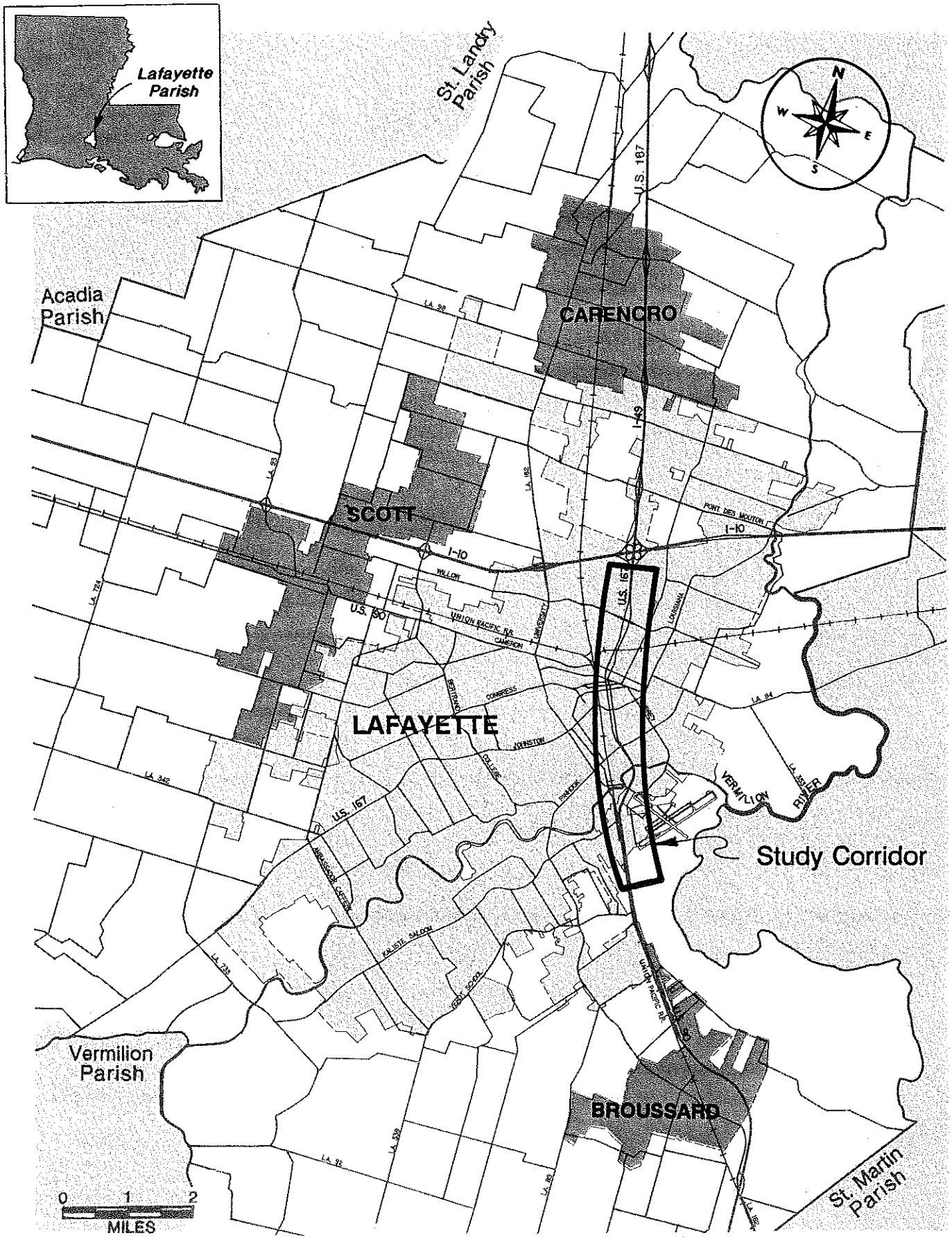


Exhibit S-1
PROJECT LOCATION

S.2 OTHER MAJOR ACTIONS PROPOSED BY GOVERNMENT AGENCIES

Several other government-sponsored projects having a bearing on the I-49 Connector, each with differing degrees and time frames of likely implementation, have been proposed and are in various stages of development. Generally, these other projects and the proposed I-49 Connector freeway complement each other well. The I-49 Connector and most of these other projects also could stand alone in serving their intended purpose.

The most important other proposed government-sponsored actions are noted below:

- **U.S. 90 South Freeway Upgrade** - U.S. 90 from Lafayette to New Orleans has been targeted in the LaDOTD's long-range planning to become a part of the state's freeway system, effectively serving as a southeasterly extension of I-49 (which currently terminates at its junction with I-10). Federal highway legislation enacted in 1998 (TEA-21) has designated this route as "Future I-49". Construction to freeway standards has been completed in some sections and is under study on other sections of the highway. As shown on Exhibit 1-2, implementation of the I-49 Connector would provide the critical connecting link through Lafayette from existing I-49 to the planned freeway upgrade to the south.

- **Loop Freeway** - A loop freeway around the metropolitan Lafayette area has been discussed and conceptually designed in prior studies. In the late 1970's, a Draft EIS with specific alternatives and associated impacts of the proposed loop was prepared. The Lafayette MPO has recently abandoned the plan for a loop freeway and has instead identified a loop "beltway", an arterial roadway. Generally, the beltway would traverse the southwest and possibly northwest and northeast quadrants of the grid formed by I-10 and I-49/Evangeline Thruway.

- **I-10 Frontage Roads** - Frontage roads along each side of I-10 between Ambassador Caffery Parkway and the Vermilion River, crossing Evangeline Thruway/I-49 at the northern boundary of the I-49 Connector study area, have been included in the Lafayette area TIP and are currently under design. Improvements along I-10 in the area of the I-10/I-49 interchange would be important to planning the operational characteristics and system linkage of the I-49 Connector.

Other government-sponsored proposals and their relationship to the Connector freeway proposal are detailed in Section 1.3.1 and shown on Exhibit 1-3.

S.3 REASONABLE ALTERNATIVES CONSIDERED

S.3.1 TYPES OF IMPROVEMENTS

No-Build

The no-build option would consist of the Thruway continuing to operate as it does now, with few capacity or operational improvements of any magnitude. Localized projects aimed at particularly troublesome areas, such as turning lanes, new signalized intersections, etc., could evolve over time. Included in the no-build alternative is the planned addition of a third lane and intersection improvements on the Thruway each direction between the Union Pacific Railroad spur and I-10. The planned intersection improvements will be implemented at Donlon, Willow, and Castille Streets and are expected to improve traffic operations in these areas.

Full Freeway

Implementation of a freeway concept in the study corridor is the preferred action, consistent with local and statewide goals. The freeway would be continuous within the study limits and be accompanied by a continuous parallel arterial roadway system for land access and local traffic circulation. Traffic on the freeway would flow non-stop while the one-way parallel arterials would operate similar to the existing Evangeline Thruway. Numerous interchanges with ramp connections would be provided to enable traffic flow to and from the freeway. For the fully developed central core part of the study area along the Thruway between Pinhook Road and the Union Pacific spur crossing, four continuously elevated freeway options are being considered to allow free passage on the many crossing streets. Also being considered are two alternatives with selected overpass locations that would produce an undulating profile, rather than be continuously elevated.

S.3.2 FREEWAY ALTERNATIVES

Four alignment alternatives have been identified for the study corridor. These include the existing alignment (EA) and various combinations of the existing alignment and area directly adjacent to the Union Pacific Railroad (RR). Six freeway alternatives are under consideration on these four alignments:

- EA-1 Elevated
- EA-1 Selected Overpasses
- RR-3 Elevated
- RR-3 Selected Overpasses
- RR-4 Elevated
- RR-5 Elevated

Exhibit S-2 presents the alignment alternatives with interchange/access locations noted. Plates 1 through 5 in Appendix A show the alternatives in more detail.

The difference between the EA-1 and RR-3 Elevated and Selected Overpasses alternatives is in the core part of the study area between Pinhook Road and the Union Pacific spur crossing. The Elevated alternatives would be continuously on bridge through this area, with all major cross streets remaining open to traffic below. The Selected Overpasses alternatives would be at-

grade in the core area, with overpasses provided at Pinhook Road, Johnston Street, and Mudd Avenue. Other major crossing streets would be severed and closed by the freeway. The Elevated and Selected Overpasses alternatives would be equivalent outside of the core area.

The area between Willow Street and I-10 has been identified for four subalternatives that could be utilized for any of the six freeway options previously described. In this area, the four subalternatives provide at-grade and continuously elevated freeway options for consideration.

In the Lafayette central core area, five subalternatives can be utilized depending on which alternative is being considered. Two of the subalternatives call for a half diamond interchange north of Mudd Avenue. The other three subalternatives call for a full diamond interchange at 2nd and 3rd Streets. The half diamond interchange at Mudd Avenue and the full diamond interchange at 2nd and 3rd Streets cannot be utilized together. The 2nd and 3rd Street interchange cannot be used for the Selected Overpasses alternatives.

Two additional subalternatives, which could be utilized for either the RR-3 Elevated or Selected Overpasses alternative, would provide either an at-grade freeway in the Pinhook Road area, with Pinhook passing above, or an elevated freeway in this area, with Pinhook passing below.

The range of estimated costs for the various freeway alternatives and subalternatives, including construction and right-of-way acquisition, would be $202 to $345 million.

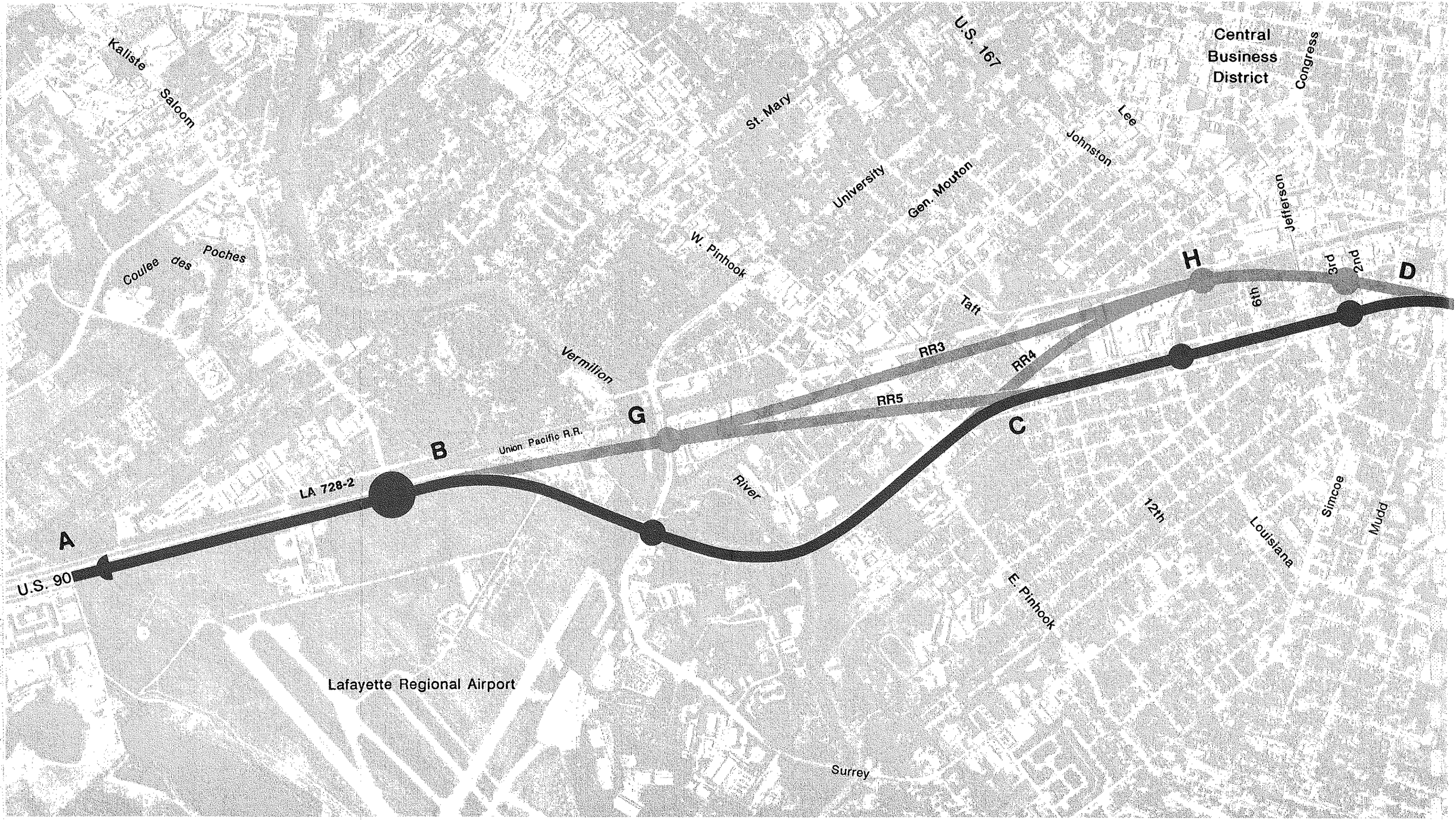
S.3.3 TYPICAL SECTIONS

Two basic typical sections are being considered depending on the alternative. These are schematically represented on Exhibit S-3.

For areas where the freeway alternatives would utilize the existing Thruway alignment, flanking parallel one-way arterials with periodic slip ramp connections would be provided (between Willow Street and I-10 one-way and two-way parallel roadways are being considered).

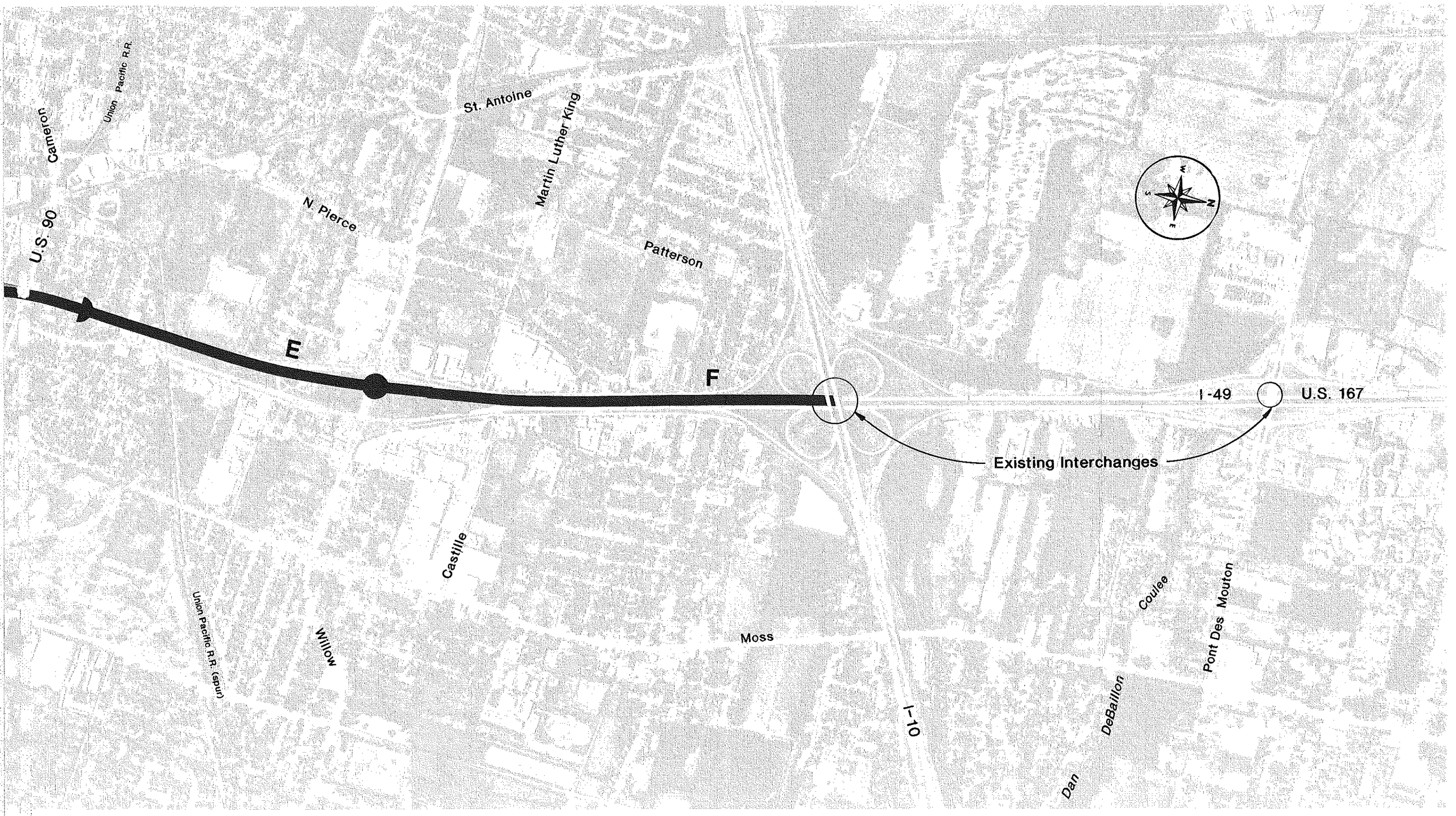
In areas where the RR-3, RR-4, and RR-5 alternatives are adjacent to the Union Pacific Railroad, no parallel roadways directly adjacent to the freeway would be provided. Rather, the existing Evangeline Thruway approximately one and one-half blocks to the east would serve as a collection and distribution system. The slip ramp concept would be replaced by point access interchanges at up to three locations (University, Johnston and 2nd/3rd).

A 130,000 average daily traffic (ADT) assignment has been adopted for the Draft EIS study as the year 2025 corridor traffic volume to be used for planning and impacts analyses for the freeway alternatives. Additionally, a generalized 70%/30% freeway/parallel roadway traffic split has been utilized. These figures are based on the MPO traffic model, operations on other similar projects, and development characteristics of the Connector corridor. These traffic volumes indicate the need for a six lane freeway with four or six lane parallel roadways (two or three lanes each direction).



Alignment Alternatives

EA1	Nodes A-B-C-D-E-F
RR3	Nodes A-B-G-H-D-E-F
RR4	Nodes A-B-C-H-D-E-F
RR5	Nodes A-B-G-C-D-E-F



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SCALE IN FEET

Legend

or — Proposed Interchange

New Alignments

Existing Alignment

Exhibit S-2
ALIGNMENT ALTERNATIVES

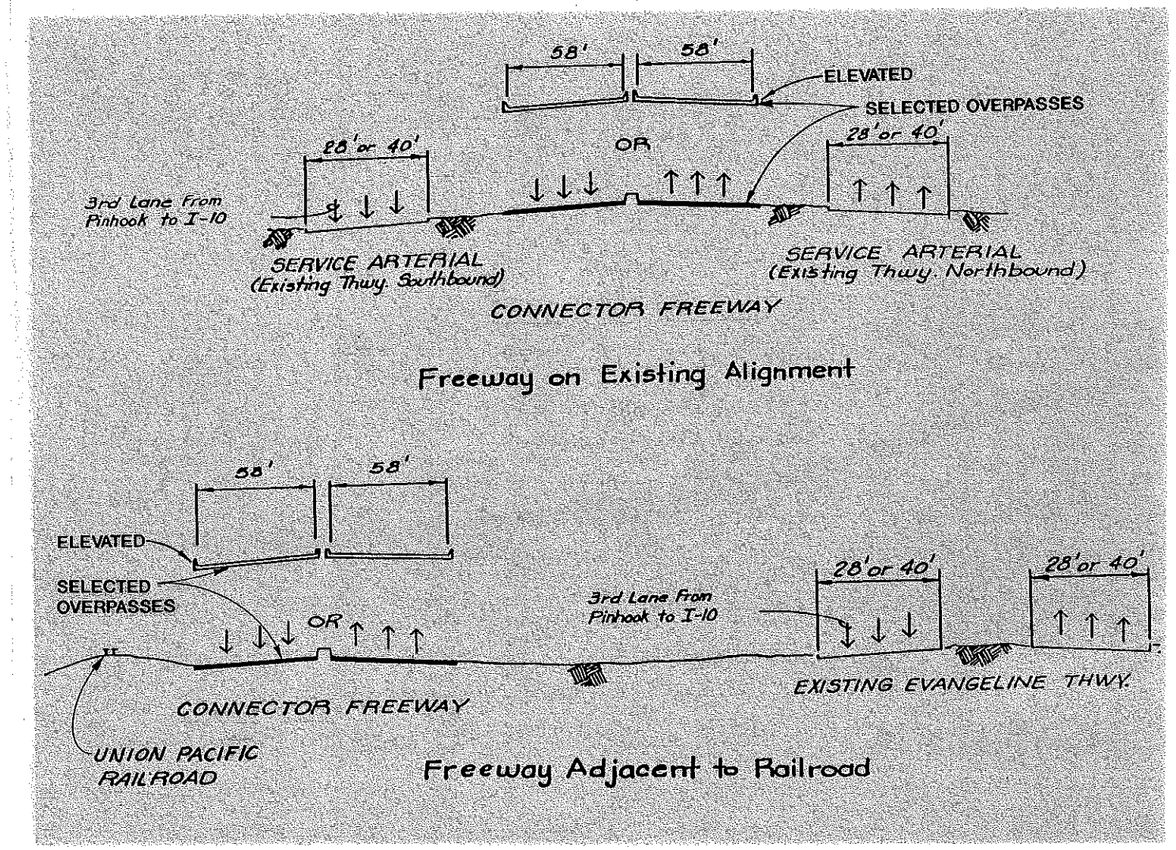


Exhibit S-3

SCHEMATIC TYPICAL SECTIONS

S.4 MAJOR IMPACTS OF PROJECT

S.4.1 AREAS OF CONCERN

As a part of the information gathering process and as the I-49 Connector study has developed, several community concerns and other issues have been identified for various reasons as worthy of consideration in the development of highway alternatives and mitigating measures which might be available. These are reviewed following:

- Central Business District (CBD) - The Lafayette Downtown Development Authority (DDA), through its Growth Management Program study report, has expressed interest in the provision of adequate access to the CBD to stimulate redevelopment in this area.

- Churches - Several churches lie in the path of or directly adjacent to the proposed project.

- Sterling Grove Historic District - This National Register Historic District is directly adjacent to the existing Thruway in the central core area.
- Trappey's Plant Complex – This property, identified as eligible for listing on the National Register of Historic Places, is directly adjacent to the existing Thruway between Pinhook Road and the Vermilion River.
- Wallis Estate - This property, also identified as eligible for listing on the National Register of Historic Places, is directly adjacent to the Union Pacific Railroad tracks between Kaliste Saloom Road and the Vermilion River.
- Traffic Circulation and Access - Will the Connector provide adequate opportunities for the movements of local traffic? Can circulation and access be improved in areas, such as between Willow and I-10, where problems may currently exist?
- Lafayette Regional Airport – Runway 11-29 will need to be displaced 350′ to the southeast for Alternatives EA-1 and RR-4.
- Beaver Park - This property is situated near the southern end of the proposed project and flanks each side of the existing Thruway.
- Displacements - Residential and business displacements would occur as a result of the project.
- Corridor Preservation and Management Action Plan – Construction funding is not immediately available; the Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment was adopted by the LCG in March 2002 and was incorporated into a Joint Cooperative Endeavor Agreement amongst the LCG, LaDOTD, and FHWA. This plan will be implemented to preserve right-of-way for the selected alternative.

S.4.2 ADVERSE IMPACTS

Displacements

For each of the freeway alternatives, the most apparent impact of the project is the displacement of many residences and businesses, especially in the central core area between Pinhook Road and the Union Pacific Railroad spur. A summary of the estimated required displacements is presented in Table S-1.

Residential Displacements

The character of the neighborhoods through which the project passes is generally lower to lower-middle income, with a generalized 44% owner-occupancy ratio. Demographic and socioeconomic characteristics in the study area as established by 1970, 1980, 1990, and 2000 U.S. Census data indicate an out-migration of residents and a general decline of the study area as a residential environment over the last 20 to 30 years. In addition to residential units displaced by the proposed project, the noise, visual presence, and scale of the freeway may impact remaining neighborhoods. The study area has the highest concentration of minority residents in the Lafayette area

Table S-1

SUMMARY OF ALL DISPLACEMENTS
BY PROPOSED ALTERNATIVE

	EA-1 Elev.	Extra w/ Sub.D	EA-1 Sel. Over.	RR-3 Elev.	RR-3 Sel. Over.	Extra w/ Sub.F	RR-4 Elev.	RR-5 Elev.
Residential Structures	154 (402)	9(24)	156 (407)	143 (376)	143 (376)	10(27)	109 (285)	207 (544)
Business Structures	49 (436)	7(43)	54 (461)	*67 (1111)	*70 (1173)	9(103)	54 (469)	*54 (964)
Churches	1		1	1	1		1	2
Total Structures	204	16	211	211	214	19	164	263

Note: Numbers in parenthesis represent residents or employees displaced. Displacements for the alternatives are the number of units taken without using Subalternatives D and F. Displacements under "Extra with Subalternative D" are the number of extra units added to EA-1 and RR-5 Elevated when using Subalternative D. Displacements under "Extra with Subalternative F" are the number of extra units added to RR-3 and RR-4 Elevated when using Subalternative F.

Refer to Section 4.5.4 for a discussion on the MPO Subalternative displacements.

* Includes the Lafayette Consolidated Government Public Works Facility.

Source: I-49 Connector Study Team, 1998. Updated 2002

(some areas are more than 75% non-white with the majority of these being black); therefore, the project will have a greater percentage of black displacements than the percentage of blacks in the region as a whole. Overall, there is no significant difference in the impact to blacks from one alternative to another.

Replacement Housing

Research shows that adequate affordable replacement housing for the majority of homeowners currently exists within an approximate three mile radius of the project, but rental housing for non-owners is not currently sufficient in Lafayette within the ranges displaced tenants can afford.

Social Impacts

The Lafayette Consolidated Government (LCG) in coordination with the LaDOTD has instituted an extensive community out-reach program, through its Community Design Workshop, involving neighborhood organizations along with an association of neighborhood organizations called Neighborhood Pride. This out-reach program focuses on many issues including environmental justice regarding impacts to minorities. By using active participation from neighborhood groups representing minorities, the LaDOTD and FHWA plans to accomplish the following environmental justice principles:

- avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;

- ensure the full and fair participation by all potentially affected communities in the transportation decision-making process;

- prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Business Displacements

Business displacements could range from many small retailers located predominantly in the median area of the existing Thruway to several industrial or heavy commercial operations located along the Union Pacific Railroad. The number of displaced employees would range from an estimated 436 (EA-1 Elevated with Subalternative C) to 1204 (RR-3 Elevated with Subalternative F). Businesses on the existing Thruway that would be displaced by the EA-1 and RR-5 alternatives can be considered more neighborhood-oriented and less likely to re-establish at a new location. Some of the businesses near the railroad that would be displaced by the RR-3, RR-4, and RR-5 alternatives are dependent on rail access and would necessarily have to relocate to a new location outside the study area. Although no displacements would occur, the business community between Willow Street and I-10 would experience a change in traffic circulation patterns and access due to the closure of two median openings currently providing access from the existing Evangeline Thruway. Four subalternatives for this area have been developed to provide alternative access.

A search of the local market shows generally adequate space in and around the study area for the relocation and re-establishment of displaced businesses. One exception might be several gasoline retailers, who depend on their location on the high traffic volume Thruway to capture drive-by customers.

Two churches could be displaced by the project, with one church, Christ the King, displaced by all alternatives. Each of these churches are about 1,000 square feet wood frame buildings.

The I-49 Connector in the Willow Street area would require relocation of the Lafayette Convention and Visitors Bureau visitors center buildings located in the wide median area between the northbound and southbound Thruway. These buildings and accompanying landscaping comprise what is known locally as Gateway Lafayette. Gateway is situated in LaDOTD right-of-way and permitted as a joint use facility with the understanding that the joint use permit would be terminated and the Gateway Lafayette would be removed if so requested by LaDOTD.

LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment

The Lafayette Consolidated Government (LCG) passed an ordinance in March 2002 which will provide the mechanisms needed to preserve right-of-way in the corridor until construction funding becomes available. The LCG will be responsible for implementing the plan, managing development along the selected alignment where possible and acquiring rights-of-way as funding levels allow. The LCG Corridor Preservation and Management Action Plan to Preserve the

I-49 Alignment will be a primary basis for the Record of Decision (ROD) associated with the I-49 Connector project. The plan has been incorporated into a Joint Cooperative Endeavor Agreement amongst the LCG, LaDOTD, and FHWA.

Cultural Resources

None of the alternatives would relocate any properties on or eligible for listing on the National Register of Historic Places (NRHP).

It was determined that all alternatives would have an adverse visual effect to the Sterling Grove Historic District. Mitigation measures have been developed in cooperation with the State Historic Preservation Officer (SHPO). These mitigation measures have been included as part of the Memorandum of Agreement (MOA), which is contained in Appendix F.

No recorded archaeological sites would be affected by any of the alternatives. However, SHPO has recommended that further archaeological investigations should be conducted in those portions of the project area that have been occupied for at least 50 years and are in the vicinity of the former Ile Copale plantation. A Plan of Archaeological Investigations for the Selected Alternative has also been established as part of the Memorandum of Agreement (MOA) previously mentioned. The document provides a plan for completing the archaeological investigations required under Section 106 of the National Historic Preservation Act in conjunction with the LCG Corridor Preservation and Management Action Plan and the anticipated gradual acquisition of right-of-way.

Noise

The peak hour noise levels modeled for this study indicate that there is little acoustical difference between the various alternatives. There is one area where the alignments, between Taft Street and the Vermilion River, are many city blocks away from each other, such that noise levels differ by as much as ten decibels. Generally, the noise levels for the alternatives are equal to or within 5 decibels of each other. Noise levels immediately adjacent to the Evangeline Thruway will decrease as through traffic will use the I-49 Connector, thus removing traffic from the local street system. Although this reduction will be noticeable, the resulting noise levels will still exceed the LaDOTD's Noise Abatement Criteria and by definition the residences, schools and churches abutting the Evangeline Thruway would still experience an acoustical impact.

The traffic noise levels immediately adjacent to the Elevated alternatives will be slightly lower than those created by an at-grade section (Selected Overpasses) in the same location. However, this advantage is lost within a few hundred feet of the elevated sections as receptors are no longer in the acoustical shadow zone created by the structure.

A slight drawback to elevated roadways is that the sound propagation path is high above the ground. Therefore, the ground level attenuation provided by buildings and ground cover is significantly

decreased. The result is that at greater distances traffic noise from an elevated road may be more audible than an at-grade roadway. Overall, there is no significant difference in the acoustical impact from one alternative to another.

An analysis of the interior noise levels at two schools within the corridor has also been performed for the selected alternative. From this analysis, the interior noise levels for LeRosen and St. Genevieve elementary schools are projected to be near or above the allowable interior noise criteria.

Air Quality

In 1995, Lafayette Parish was redesignated by EPA from ozone nonattainment to ozone attainment with limited maintenance plan requirements (40 CFR Parts 52 and 81, August 18, 1995). Since the transportation conformity rule (40 CFR Part 93 Subpart A) applies to maintenance areas, Lafayette Parish must demonstrate conformity. As an attainment area with limited maintenance plan, a quantitative analysis is not needed for Lafayette Parish to establish conformity. Accordingly, at the request of the LaDOTD and the Lafayette MPO, the FHWA by letter of February 8, 2001, issued a positive conformity determination with regard to the Clean Air Act of 1990 and stated that Lafayette Parish complies with all conformity provisions of the Louisiana State Implementation Plan (SIP). This conformity determination is valid for three years.

Waste Sites

The RR-3 and RR-5 alternatives would traverse an abandoned landfill site adjacent to the Union Pacific Railroad that is currently utilized by the LCG Department of Public Works. The RR-3 and RR-4 alternatives would traverse other potentially contaminated sites adjacent to the railroad, including a site recently rejected for development due to concerns about possible clean-up requirements. Depending on the alternative, an estimated 46 (for RR-3 Selected Overpasses) to 53 (EA-1 Elevated, EA-1 Selected Overpasses and RR-5 Elevated) active and inactive facilities (mostly storage tank sites) would be encountered.

Issues regarding the hazardous waste contamination along the locally preferred alternative (RR-4 Elevated) were addressed prior to adopting the alternative as the selected alternative. Viable construction options for the area were discussed among LaDEQ, LaDOTD, and FHWA representatives. Based on these discussions it was agreed that the elevated roadway structure could be constructed using one of the construction methodologies suggested at the meetings.

Lafayette Regional Airport

Two of the four primary alignment alternatives for the I-49 Connector freeway, would require the displacement of 350' of Runway 11-29 at the Lafayette Regional Airport. These alternatives are EA-1 and RR-4. The runway would be shortened on its northwest end and lengthened on its southeast end. The perimeter road at the southeast end would also be relocated. The purpose and need

for this runway action is because an I-49 Connector overpass at the University/Surrey interchange will encroach on the FAR Part 77 approach surface if the runway remains where it is currently located.

Wetlands

The EA-1 and RR-4 alternatives would require a 350′ extension of Runway 11-29 at Lafayette Regional Airport and thus impact up to five acres of wetlands southeast of the airport.

Only Practicable Alternative Finding

Based upon the considerations discussed in this Final EIS in compliance with the requirements of Executive Order 11990, it has been determined that there is no practical alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

Floodplains

The runway extension would also encroach into a floodway fringe area (but not the main floodway). Due to the small area affected, no appreciable increase in flood heights will occur.

Only Practicable Alternative Finding

As required by Executive Order 11988 and Federal-Aid Policy Guide 23 CFR 650A, this Final EIS has provided the reasons why the proposed action must be located in the floodplain, has discussed the alternatives considered and why they were not practicable, and has documented that the action conforms to applicable federal floodplain protection standards.

S.4.3 POSITIVE IMPACTS

The benefits of the proposed freeway would accrue due to the improved transportation system and higher levels of traffic service. Both the local transportation network and statewide system would experience benefits. Travel times would be reduced for both freeway travelers and users of the local network. In general, local circulation and access would be improved both in the Evangeline Thruway corridor and on other streets in the local system (due to an attractive alternative transportation facility that is anticipated to divert traffic). Accessibility from outlying areas to the areas serviced by the Thruway, including the CBD, would be improved. Accessibility to the southern part of the state would be improved if the Connector project were to be implemented in conjunction with the proposed U.S. 90 freeway upgrade (currently in place or under construction in some areas).

The proposed Connector would be compatible with statewide and local goals that have been established through the political and planning processes. The project, at the crossroads of I-10 and I-49, would be anticipated to provide benefits by improving the economic competitiveness of the region. The project could provide the impetus for redevelopment of the elderly core portion of the corridor study area. There would be an opportunity to use acquired right-of-way that is not used for highway purposes for landscaping and visual amenities.

S.5 SUMMARY ASSESSMENT OF ALTERNATIVES

S.5.1 SUMMARY MATRIX

Impacts to the human and natural environments that may result from implementation of the project alternatives have been evaluated and reported in detail in Chapter 4. Using this information, a generalized impact analysis matrix has been prepared to condense and summarize the positive and adverse impacts of the various freeway alternatives. This matrix is presented as Exhibit S-4.

S.5.2 LOCALLY PREFERRED ALTERNATIVE

Upon reviewing the Draft EIS (DEIS), comments received following the Public Hearing, and local agency recommendations, the LCG has adopted the RR-4 Elevated alignment as the locally preferred alternative for I-49 through Lafayette. This action is based on the ability to modify Subalternative F by depressing Jefferson and Simcoe streets and keeping them open underneath the I-49 freeway. This modified subalternative has been named the MPO Subalternative. The MPO Subalternative would have additional design and construction costs. Also, slight changes to right-of-way requirements and traffic operations would be associated with the MPO Subalternative.

S.5.3 SELECTED ALTERNATIVE

With the information gathered and studies conducted through the environmental process (documented by this report) a selected alternative has been identified for implementation in the corridor. The locally preferred alternative (RR-4 Elevated with Subalternative H and MPO Subalternative) is endorsed as the selected alternative based upon the result of supplemental studies proving the feasibility and effectiveness. The RR-4 alignment is shown on Exhibit S-5 as well as on Plates 1, 2a, 3i, and 4b in Appendix A. The implementation cost for the selected alternative (RR-4 Elevated with Subalternative H and the MPO Subalternative) is estimated to be $304 million, which includes construction, mitigation, and joint use development costs.

S.5.4 BASIS FOR RECORD OF DECISION

In order to commit an agency to action, guarantee FHWA funding, or permit an agency to proceed to further actions, such as final design or construction, FHWA must issue a Record of Decision (ROD). A ROD is a concise decision document for an EIS that states the decision (selected alternative or choice), other alternatives considered, and mitigation adopted for the selected alternative or choice and must be issued no sooner than 30 days after the approved Final EIS is distributed.

The Federal Aviation Administration (FAA) is a cooperating agency that intends to issue a separate ROD for modifications at the Lafayette Regional Airport (LRA) that are required as a part of the I-49 Connector highway project. Therefore, the separate FAA ROD is required prior to construction of the I-49 Connector.

		HUMAN ENVIRONMENT										NATURAL ENVIRONMENT							ENGINEERING							
	Notes:	1	2	3	4	5	6	7			8		9	10					11				7		12	13
	EVALUATION CRITERIA / FREEWAY ALTERNATIVE	Projected Growth, Development, And Economics	Displacements (Res./Bus.)	Sensitive Land Uses	Parks And Recreation Areas	Cultural Resources	Aesthetics	Circulation And Access	Noise	Waste Sites	Abandoned Landfill And Hazardous Waste Sites	Air Quality	Water Quality	Wetlands (Potentially Impacted Acreage)	Floodplains	Wildlife Habitat	Endangered Species	Coastal Zone Management	Right-of-Way (Additional Acreage Required)	Geometry	Implementation Costs ($Millions)	User Costs (Estimated Avg. Time Savings In 2015)	Traffic Service	Utilities	Safety	Maintenance Of Traffic
EXISTING ALIGNMENTS	EA-1 Elevated	◍	● 163/56	◍	○	◍	●	◍	◍	◍ 53	○ 0	○	○	◍ 5	○	○	○	○	● 63-68	◍	● 230-266	◍ 15 Min.	◍	○	◍	○
EXISTING ALIGNMENTS	EA-1 Selected Overpasses	◍	● 156/54	◍	○	◍	●	◍	◍	◍ 53	○ 0	○	○	◍ 5	○	○	○	○	● 58-62	◍	● 202-228	◍ 15 Min.	◍	○	◍	○
COMBINATION EXISTING AND RAILROAD ALIGNMENTS	RR-3 Elevated	◍	● 153/76	◍	○	◍	●	◍	◍	◍ 48	◍ 3	○	○	◍ 2	○	○	○	○	● 138-144	◍	● 245-345	◍ 15 Min.	◍	○	◍	○
COMBINATION EXISTING AND RAILROAD ALIGNMENTS	RR-3 Selected Overpasses	◍	● 143/70	◍	○	◍	●	◍	◍	◍ 46	◍ 3	○	○	◍ 2	○	○	○	○	● 131-136	◍	● 219-291	◍ 15 Min.	◍	○	◍	○
COMBINATION EXISTING AND RAILROAD ALIGNMENTS	RR-4 Elevated	◍	● 119/63	◍	○	◍	●	◍	◍	◍ 47	◍ 2	○	○	◍ 5	○	○	○	○	● 117-121	◍	● 240-294	◍ 15 Min.	◍	○	◍	○
COMBINATION EXISTING AND RAILROAD ALIGNMENTS	RR-5 Elevated	◍	● 216/60	◍	○	◍	●	◍	◍	◍ 53	◍ 1	○	○	◍ 2	○	○	○	○	● 100-103	◍	● 289-324	◍ 15 Min.	◍	○	◍	○

NOTES:

1 Highway construction expenditures would generate economic development. Secondary development and corridor redevelopment opportunities would be enhanced due to the improved transportation system. The project would stimulate redevelopment in the corridor.

2 The number of displacements for the Elevated Alternatives include the maximum number displacements using Subalternatives D, F and J. MPO Subalternative to keep Jefferson and Simcoe open for RR-4 increases the number of total displacements by 3. See Section 4.5.4.

3 The St. Genevieve Church in the Sterling Grove Historic District would be adjacent to the freeway. The RR-3 and RR-4 alternatives provide greater separation between the freeway and church. Gateway Lafayette potentially could be displaced by each alternative.

4 Each alternative can be expected to improve access to parks and recreation areas.

5 The existing Evangeline Thruway would be shifted away from the face of the St. Genevieve Church and School, in conjunction with a new freeway. Impacts could be positive and/or negative. No displacements would be required.

6 The Elevated alternatives would be slightly more visually imposing in the core area than would the Selected Overpasses alternatives. Care should be taken to provide long span bridges, landscaping, and joint uses to minimize negative visual impacts.

7 For each alternative, the exist. Thruway would be supplemented by a new freeway, thus providing a dual roadway system. Land access would continue to be provided by the exist. Thruway. Some access restrictions may occur along the existing Evangeline Thruway in the areas where slip ramps join the ground level roadway in advance of major intersections.

8 RR-3 and RR-5 would traverse an abandoned landfill site currently in use as the LCG DPW headquarters building and maint. facility. RR-3 and RR-4 traverse an environmentally questionable site between Johnston and Jefferson Streets near the Union Pacific Railroad. Clean-up of these sites would add cost to the project, but would be potentially positive to the human environment.

9 No impacts are anticipated to the sole source Chicot Aquifer.

10 Wetlands encroachments could occur at the Vermilion River, east of Lafayette Regional Airport, and Gateway Lafayette.

11 The additional acreage of right-of-way required includes 8 acres associated with Subalternative D and 10 acres associated with Subalternatives F.

12 Freeway inherently provide the highest possible traffic safety.

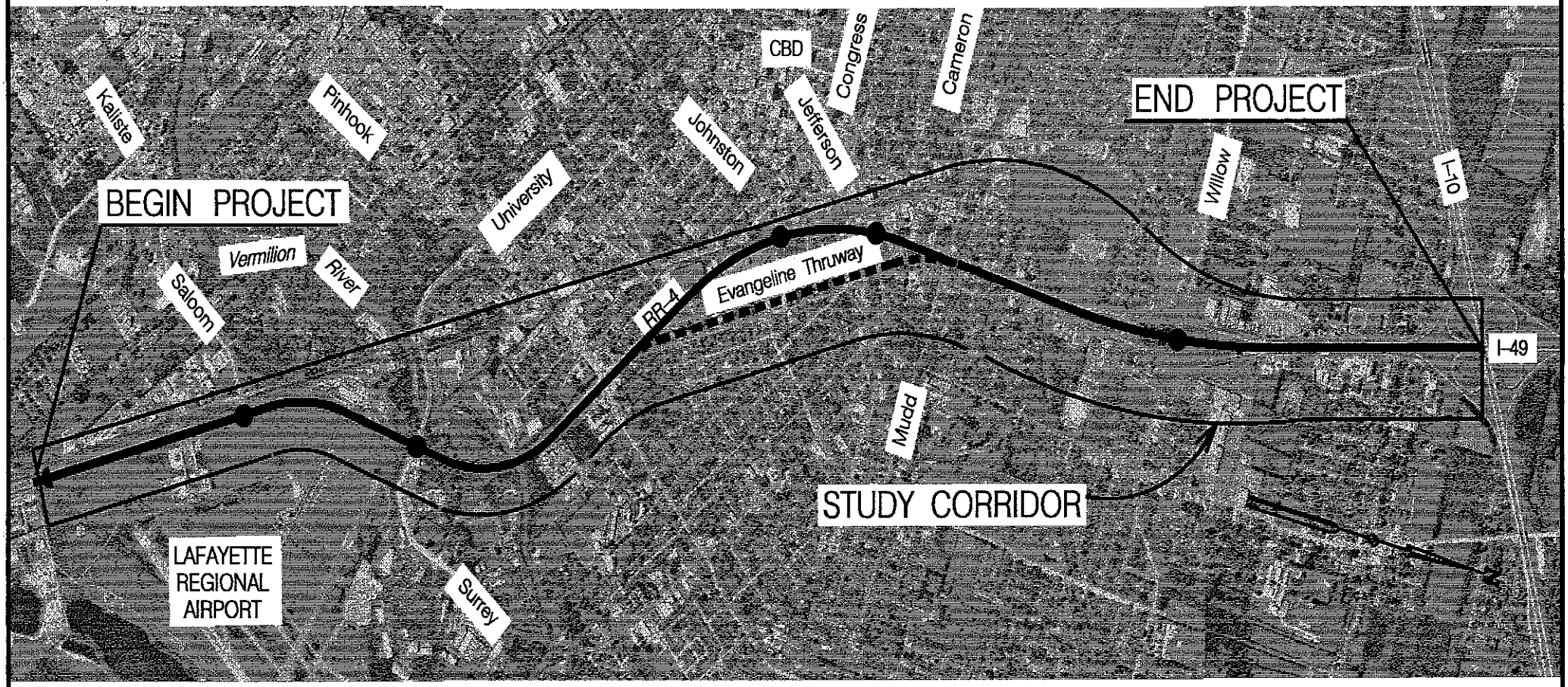
13 Proper traffic control schemes should result in no substantial negative impact to traffic flow during construction of the project.

LEGEND

POSITIVE IMPACT	◍
NO SUBSTANTIAL IMPACT OR CHANGE	○
NEGATIVE IMPACT	●
IMPACT COULD BE POSITIVE, NEGATIVE, OR NOT SUBSTANTIAL; CARE IS REQUIRED IN DESIGN	◍

Exhibit S-4

EVALUATION SUMMARY MATRIX



Legend

- Proposed Interchange
- Existing Alignment
- Selected Alignment (RR-4 Elevated)

Exhibit S-5

I-49 CONNECTOR

SELECTED ALTERNATIVE

S.6 COMMITMENTS, MITIGATION, AND ACTIONS REQUIRED FOR IMPLEMENTATION OF PROJECT

S.6.1 COMMITMENTS AND MITIGATION MEASURES

The commitments and mitigation measures presented in this section of the EIS have been established to minimize the impacts expected to occur with implementation of the project. The commitments and mitigation measures for the I-49 Connector project are listed in Table S-2. The items shown in the table have been determined based on the findings presented in this EIS (which include agency and public input). FHWA and LaDOTD will ensure that as the project moves forward the commitments and mitigation measures stated here are adhered to throughout the next phases of the project.

S.6.2 OTHER FEDERAL ACTIONS REQUIRED

In addition to this EIS, other actions required of federal agencies for project implementation include:

- Section 404 and Section 10 permits from the Corps of Engineers involving wetlands and waters of the United States are required.

- The FHWA is the lead federal agency for the I-49 Connector project. The Federal Aviation Administration (FAA) is a cooperating agency that intends to issue a separate Record of Decision (ROD) for modifications at the Lafayette Regional Airport that are required as a part of the I-49 Connector highway project. Therefore, the separate FAA ROD is required prior to the construction of the I-49 Connector. The FAA ROD will address the following actions related to the airport:

  The FAA may make a number of decisions pursuant to the Final EIS. Generally, the FAA's ROD will address the possible approval of a change to the Airport Layout Plan (ALP), upon request from the airport owner. These changes may include the depiction of actions necessary to accommodate the I-49 Connector project. Other decisions the FAA may make include the relocation of navigational aids, a change to approach procedures as required, and consideration of possible release of approximately 3.5 acres of Federally-obligated airport property, upon request by the airport property owner.

- The I-49 Connector overpass at University Avenue and the I-49 Connector interchange at Kaliste Saloom Road would penetrate a 100:1 slope off any runway. As a result, a FAA Form 7460-1, Notice of Proposed Construction or Alteration, would have to be filed with the Air Traffic Division, ASW-520, before construction.

Table S-2

COMMITMENTS AND MITIGATION MEASURES DETERMINED FROM THE EIS PROCESS

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
1	**Displacements**	• Relocations and housing needs will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. These items are addressed additionally in the Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. Provisions regarding right-of-way acquisition, relocation assistance, and last resort housing will be upheld over time by LaDOTD with oversight by FHWA as stated in the LCG Corridor Preservation and Management Action Plan. This plan is part of the Joint Cooperative Endeavor Agreement and is contained in Appendix G.	
2	**Archaeological Investigations**	• A Plan of Archaeological Investigations for the selected alternative has been established as part of the Memorandum of Agreement (MOA) which is provided in Appendix F. The plan provides for completion of the archaeological investigations required under Section 106 of the National Historic Preservation Act in conjunction with the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment and the anticipated gradual acquisition of right-of-way. • The FHWA and LaDOTD will ensure that the investigation provisions of the Plan of Archaeological Investigations are carried out as stated in the MOA.	• If needed, based on the archaeological investigations, appropriate mitigation will be coordinated in conjunction with the Louisiana State Historic Preservation Officer (SHPO).
3	**Sterling Grove Historic District**	• Additional public involvement to detail the mitigation plan for the district has been committed to in the MOA by FHWA and LaDOTD in conjunction with local agencies and the State Historic Preservation Officer. • Within the mitigation plan, LaDOTD will include provisions for landscaping and other measures that will be designed into the construction project. The types of mitigation measures that will be considered during the design process will include: ➢ Landscaping ➢ Earthberms	• The Sterling Grove Historic District has been determined to experience an adverse visual impact according to Section 106 as a result of the project. An MOA has been developed with regard to these impacts (see Appendix F). Visual impacts mitigation will be provided in accordance with the terms contained in the MOA, which is reproduced in Appendix F. Based on public involvement and agency coordination, the following stipulations have been agreed to and will be carried out by LaDOTD and FHWA:

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
		➢ Masonry walls ➢ Special lighting ➢ Long span bridges ➢ Attention to use of under bridge areas ➢ Hardscape and brick paver treatment ➢ Fencing ➢ Parks • During the development of the specific details for design and construction in the area, FHWA and LaDOTD shall seek input from Sterling Grove Historic District residents as well as from St. Genevieve Catholic Church and School. Public involvement will occur prior to the formal submittal of the specific details to the State Historic Preservation Officer (SHPO) for approval as specified in the MOA. • If a subsequent discovery or identification of additional historic properties is made, LaDOTD and FHWA, in consultation with the Louisiana SHPO, will ensure that the owners of the additional properties are made aware of the mitigation plan.	➢ The Evangeline Thruway will be realigned further away from St. Genevieve Catholic Church and School and the district to allow for better safety, traffic access, and circulation for the area. ➢ No right-of-way will be taken from the Sterling Grove Historic District (including side street work). ➢ Special lighting will be provided in the area directly in front of St. Genevieve Church and School as well as in the rights-of-way adjacent to the church and school, ➢ A plaza and green space with illumination and landscaping will be developed in the remaining area immediately adjacent to the Church and school, ➢ A simple decorative fence in the manner of wrought iron with locking gates will be provided to enclose the plaza and green space area, ➢ Upon completion of and acceptance by LaDOTD and FHWA of the installation of the improvements listed above in the area near the St. Genevieve Church and School the ownership of the property, including all future maintenance requirements for the property, will be transferred to St. Genevieve Catholic Church. ➢ The conversion of Greig Street to a one-way street extending from Elizabeth Street to a new intersection with Mudd Avenue, and the elimination of its existing intersection with Evangeline Thruway shall be implemented and more fully developed at the time of project design to enhance access to the church and school. The development of a semicircular drive west of the school with associated parking shall also be included as part of the project design and shall be incorporated into the above landscaped area as appropriate.

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
4	**Other Historic Properties (Eligible for Listing on the National Register of Historic Places)**	• Some right-of-way may be required adjacent to the Wallis Estate. During design of the project, FHWA and LaDOTD will strive to minimize right-of-way requirements in this area. • The Trappey's Plant Complex lies adjacent to the existing right-of-way that will be utilized for the RR-4 Selected Alternative. No right-of-way will be required from the Trappey's Plant Complex. • If a subsequent discovery or identification of additional historic properties is made, consultation with the Louisiana SHPO will be conducted by FHWA and LaDOTD to develop an appropriate course of action.	
5	**Noise**	• Traffic Noise - Based on the studies completed for the EIS, none of the noise barriers analyzed meet the LaDOTD's definition of reasonableness and feasibility. If it subsequently develops during final design that conditions have substantially changed, abatement measures would be re-evaluated by LaDOTD. A final decision on the reasonableness and feasibility of noise mitigation will be made by LaDOTD and FHWA upon completion of the project design and the public involvement processes. • Construction Noise – LaDOTD's project engineer will monitor the following areas during the construction period. Construction equipment powered by gasoline or diesel fueled internal combustion engines will be properly muffled and all motor panels will be closed in order to minimize the noise impacts to nearby areas. Shielding of stationary noise sources with temporary noise barriers will be considered at all times. Section 107.15 of the Louisiana Standard Specifications for Roads and Bridges and the FHWA Technical Advisory T 6160 2 dated March 13, 1984, will be referenced for further details on the sources and abatement of construction noise. • Construction Noise Near Churches - To minimize construction noise impacts to the churches along the corridor, at the beginning of project construction, the LaDOTD's project engineer will contact the churches immediately adjacent to the proposed project to obtain their schedules of regular services as well as the anticipated dates and schedules of Holy Day observances. Construction operations immediately adjacent to churches will cease	• Traffic Noise - Walls were considered to diminish the noise levels; however, analysis has shown that none of the areas within the corridor met the LaDOTD's criteria for noise barriers. Noise reduction measures within the corridor are being considered to be funded by local and/or private agencies and organizations. The use by the LCG of a Noise Impact Overlay Zone is one potential opportunity, as it would subject land within the zone not only to common regulations for that zone, but also the developed terms for the overlay zone. Physical methods being considered by LCG for sound abatement include acoustical site planning, architectural design and construction, as well as the construction of noise barriers. Acoustic site planning includes distance barriers, noise-compatible use (parking, open space and commercial) and buildings as barriers or buildings that would not face the highway. Architectural design includes concerns such as building height, room arrangement and window size, number and placement. The LCG will be responsible for any noise mitigation measures for the I-49 Connector project, except as noted in the following paragraph, notwithstanding the re-evaluation commitment made in the first bullet item at left • Interior Noise - Both the St Genevieve and LeRosen Elementary school campuses are expected to experience

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
		during weekend services (Saturday and Sunday) or special Holy Day observances. In addition, the LaDOTD will coordinate with churches along the corridor to the extent practicable for unscheduled services such as funerals. It is anticipated that it will be necessary for construction work to take place on Saturday and Sunday in the vicinity of churches in order to minimize disruption to local traffic and businesses during the Monday through Friday workweek.	noise levels higher than the impact threshold. Based on the data available at the time of this study and the results of this study, it is noted that acoustical windows installed in the LeRosen Computer Laboratory and the St. Genevieve Library would serve to mitigate noise due to the I-49 Connector project. This action should be taken prior to construction of the I-49 Connector so that benefits would accrue both for the construction period and the period of day to day freeway operations thereafter. The LaDOTD could make a direct mitigation payment to the schools based on the estimated costs of the windows as discussed above, with the concurrence of the FHWA and the written agreement of the respective school administrations to implement the installations.
6	**Air Quality**	• During construction of the proposed project, all materials resulting from the clearing and grubbing or demolition will be removed from the project and disposed of by the contractor per applicable regulations. Any burning will be done in accordance with all applicable local laws and ordinances and state laws and regulations. • Measures will be taken to control the dust generated by construction when the control of dust is necessary for the protection and comfort of motorists or area residents and the abatement of particulate emissions. • It is possible that short-term construction impacts could occur due to construction equipment and haul vehicles, depending on contractor method of operations and weather. LaDOTD standard specifications will be employed to minimize these impacts. Traffic congestion during construction is not anticipated to create an impact because the existing roadway essentially will remain in place while the new freeway facility is constructed.	

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
7	**Waste Sites**	• Special consideration will be made for construction near the area of contaminated waste site(s) along the selected alternative alignment. Construction alternatives for the elevated roadway include but are not limited to: ➢ Excavating to a depth of 15 ft and hauling contaminated soil for disposal at an appropriate offsite location, then backfilling with clean material; ➢ Excavating to depth of 5 ft, hauling excavated material to an appropriate offsite location, providing a cap over the excavated area, and replacing the excavated 5 ft with clean material; ➢ Excavating footing locations only; and ➢ Drilling (instead of pile driving) and using a slurry seal that would prevent contamination from downward migration. • It is possible that unregistered UST's will have leaked and contaminated the surrounding area. The LaDOTD will ensure that permanent closure of UST's in the project right-of-way will follow the procedures set forth in LACXI.905 and LACXI.907 (Louisiana Administrative Code). • A construction plan that includes measures to prevent the spread of hazardous contamination will be developed for review and approved by the LaDEQ. • The LaDOTD will ensure that any actions taken with regard to contaminated waste sites will be coordinated with the measures designed to protect the Chicot Aquifer from contamination.	
8	**Water Quality**	• FHWA and LaDOTD will ensure that any water wells impacted by the construction of the I-49 Connector will be dealt with in accordance with regulations set forth by LaDEQ Ground Water Protection Division (GWPD) Water Well Rules and Standards of the Water Resources Division of LaDOTD, and any other federal, state, or local regulations that may apply. This would include plugging all affected wells (and borings) to prohibit potential entry of contaminants into the Chicot Aquifer. See Items #7 (Waste Sites) and #9 (Chicot Acquifer) for commitments concerning waste sites in the corridor and the potential for contamination of the Chicot Aquifer.	

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
		• Implementation of sediment and erosion control practices such as silt fences, drainage diversions, and matting along with prompt seeding and revegetation of slopes and bare ground will be utilized to minimize temporary erosion and sedimentation problems. • Temporary erosion control procedures to control sediment-laden runoff from unstable construction embankments will be employed to minimize impacts to the Vermilion River during the construction phase of the project.	
9	**Chicot Acquifer**	• The potential for contamination through ground water/surface water interchange will be minimized through special design techniques and plan review procedures that continue to involve the EPA, LaDEQ, and other appropriate agencies. Through such coordination, adequate safeguards will be instituted to assure compliance with state and federal regulations. • The actual aquifer layer will be identified at the time of the design phase when borings are obtained for design purposes. Design measures and construction techniques will be utilized to guard against contamination of the aquifer. • During the construction phase of the project, close coordination with LaDEQ and EPA will be maintained to assure that adequate protection is maintained for the Chicot Aquifer.	
10	**Lafayette Regional Airport Runway/Taxiway Displacement**	• In order to construct the southeast extension for Runway 11-29, airspacing and obstruction evaluations will be performed before and during construction of the I-49 Connector. Special care will be taken by the contractor to see that the construction cranes do not extend above the glide slope. Only certain roadway lights can be used on the I-49 overpass at University/Surrey Streets. These lights will be pointed down and will be designed so as to not encroach into the glide slope or otherwise affect airport operations. The LaDOTD and FHWA will fund necessary airport modifications as a part of the highway project. • The FAA has conducted modeling of obstacles, primarily large tractor-trailers, on the access road for possible impacts to the Very High Frequency Omnidirectional Range (VOR) radiated signal. The modeling indicates no impacts to the operation of the VOR; however if upon completion of the I-49 Connector project, an	

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
		impact on the VOR is identified, LaDOTD/FHWA commits to funding the relocation of the VOR. • The FAA has an active project to replace the Runway 22L localizer antenna array in essentially the same location in the future. The I-49 Connector project will not require any additional right-of-way in the vicinity of the existing or the future relocated localizer antenna array. Therefore, no impact on FAA's plans should occur. • In order to minimize impacts to the Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR), for Runway 04R, that will be in place prior to commencement of design of the I-49 Connector project, the LADOTD/FHWA agrees to coordinate with the FAA on any preliminary design in the area between nodes A and B depicted in Volume I of the EIS, Exhibit S-2. • During the design phase of the project, the LaDOTD and FHWA will coordinate with the Federal Aviation Administration (FAA) Fort Worth NAS Implementation Center, ANI-600, (817-222-4500) to ensure that FAA technical specifications are met with regard to navigational aids. • The I-49 Connector overpass at University Avenue and the I-49 Connector interchange at Kaliste Saloom Road would penetrate a 100:1 slope off any runway. As a result, a FAA Form 7460-1, Notice of Proposed Construction or Alteration, will be filed with the Air Traffic Division, ASW-520, before construction.	
11	**Wetlands**	• The LaDOTD will minimize the area of wetlands to be affected for the required Lafayette Regional Airport runway extension, by utilizing design features that avoid the need to relocate Bayou Tortue. This will include embankment stabilization with riprap or other means.	• Approximately five acres of wetlands would be adversely impacted by the project. Potential methods of mitigation for wetland impacts include restoration, creation, or mitigation banking that would provide off-site locations for this mitigation. During the Section 404 permitting process, if it were determined appropriate, LaDOTD will implement mitigation by one of the above methods.
12	**Vermilion River**	• Design of the river crossing will be conducted so as to not restrict the flow of the Vermilion River for the 100 year flood. • Temporary erosion control procedures to control sediment-laden runoff from unstable construction embankments will be employed to	

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
		construction embankments will be employed to minimize impacts to the Vermilion River during the construction phase of the project.	
13	**Parks**	• LaDOTD will coordinate with the National Park Service and Lafayette Parish Recreation and Parks during the design phase to ensure that appropriate access and egress opportunities are maintained at Jean Lafitte National Historic Park and Beaver Park during construction and after completion of the project. It is not known at this time when the detailed design will commence.	
14	**Live Oak Trees**	• The three Live Oak Trees studied during this EIS process will remain in place, including Live Oak Tree No. 103 located in the median near I-10 and Willow Street. Due to the close proximity of this tree to the proposed I-49 Connector freeway, LaDOTD will consider a design for the mainline and ramps near the tree to avoid and minimize secondary impacts. (See second bullet below.) In addition, LaDOTD will: ➢ Develop tree protection plans and specifications designed by an ISA certified arborist and a registered landscape architect, ➢ Provide for site supervision and construction observation by ISA certified consulting arborist, and ➢ Provide for post construction tree survey and damage assessment. • LaDOTD will implement design and construction techniques to minimize impacts to the root zone of Live Oak Tree No. 103. Considerations to provide additional space and visual quality for Tree No. 103 may be provided by: 1. Reversing the locations of the re-aligned Evangeline Thruway and the proposed northbound entrance ramp so that the entrance ramp is to the east of Evangeline Thruway. This would provide unobstructed views of the tree from the ground level northbound Evangeline Thruway. 2. Shifting the I-49 mainline structures approximately 20-25 feet to the west. However, this may require additional right-of-way on the west side of the Evangeline Thruway southbound lanes.	

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
15	**Construction Debris**	• The removal and disposal of construction related materials will occur under the construction phase of the project and it will be the responsibility of the contractor to adhere to all applicable state and federal regulatory requirements and LaDOTD specifications.	
16	**Destination Signing and Traffic Control Plans**	• Detailed directional signing for the I-49 Connector project will be developed in compliance with Manual for Uniform Traffic Control Devices (MUTCD) and LaDOTD policy during the design phase of the project. This will include temporary detours during construction if these are needed. • Signage identifying access into the central business district (CBD) will be provided in accordance with the MUTCD and LaDOTD policy. • LaDOTD will coordinate with the National Park Service and Lafayette Parish Recreation and Parks during the design phase to ensure that appropriate access and egress opportunities are maintained including signage in accordance with the MUTCD and LaDOTD policy, at Jean Lafitte National Historic Park and Beaver Park during construction and after completion of the project. It is not known at this time when the detailed design will commence.	
17	**Local Access and Circulation**	• The following streets will remain open for local access and circulation under the proposed project: ➢ Kaliste Saloom ➢ University/Surrey ➢ Pinhook (U.S. 90 BUS) ➢ Taft ➢ Johnston (U.S. 167) ➢ Jefferson ➢ 3rd ➢ 2nd ➢ Simcoe ➢ Mudd (U.S. 90) ➢ Donlon ➢ Willow ➢ Castille • The selected alternative has identified an opportunity to keep Greig Street open under the freeway. This will be studied more closely in the Joint Use Development Plan.	

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
18	**Community Impacts and Cohesion**	• A Joint Use Development Plan will be implemented to minimize community impacts. See Item # 21 (Joint Use Development Plan). • FHWA and LaDOTD will ensure that design plans for the proposed project provide vehicular and pedestrian access across the I-49 Connector. The streets that will remain open for vehicular traffic are listed in item #17 (Local Access and Circulation). Pedestrian circulation patterns will be developed during the Joint Use Development Plan. • During the design of the proposed project, LaDOTD will provide the provision of increasing the elevation of the roadway structure above the minimum requirement in order to increase the feeling of openness under the structure and to keep cohesion within the community. • Special considerations will be made during the design of the proposed project for aesthetically enhancing the appearance of the structure piles and bents.	
19	**Corridor Preservation**	• As agreed to in the Joint Cooperative Endeavor Agreement contained in Appendix G, LaDOTD in cooperation with FHWA and Lafayette Metropolitan Planning Organization (MPO) will apply the provisions of the Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. As mentioned in Item #1 (Displacements) the plan states provisions regarding right-of-way acquisition, relocation assistance, and last resort housing. • Due to the lack of initial funding, the project will be implemented in stages. The first stage will be the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. As funding becomes available, Stage 2 (design) will then begin followed by Stage 3 (construction).	
20	**Facility Construction**	• Special care will be taken to minimize the negative impacts to vehicular and pedestrian traffic flow through the corridor through the use of detailed signing plans and construction techniques during the facility construction phase. • See Item #5 (Noise) for more specific information regarding the commitments concerning construction noise.	

NO.	ITEM	COMMITMENT	MITIGATION MEASURE
		• The removal and disposal of construction related materials will occur under the construction phase of the project and it will be the responsibility of the contractor to adhere to all applicable state and federal regulatory requirements and LaDOTD specifications.	
21	**Joint Use Development Plan**	• In conjunction with the project design process, the LaDOTD will prepare a Joint Use Development Plan for the length of the project corridor after the Record of Decision (ROD) has been signed. In addition to landscaping (which includes "hardscape" provisions and lighting), this plan will incorporate additional features to be determined in part by local agency and public input. Elements from the Section 106 mitigation plan, prepared in accordance with the signed MOA to mitigate adverse impacts to Sterling Grove Historic District, will be incorporated into the overall Joint Use Development Plan as appropriate. Refer to Item # 3 (Sterling Grove Historic District) for more detailed information on provisions agreed upon for the Section 106 mitigation plan.	
22	**Monitoring and Reporting**	• In order to monitor and report the project's activities associated with the commitments and mitigation measures discussed in the MOA, the Joint Cooperative Endeavor Agreement, and this EIS, the LaDOTD will create and maintain an Information Management System (IMS).	

Chapter 1

PURPOSE OF AND NEED FOR PROPOSED ACTION

1.1 INTRODUCTION AND OVERVIEW

The Evangeline Thruway in Lafayette, Louisiana consists of parts of U.S. Highway 90, U.S. Highway 167, and Interstate 49. A proposed freeway upgrade in the Thruway corridor linking U.S. 90 south of Lafayette to I-49 near I-10 has been assigned the name I-49 Connector. Since 1963, when newly aligned U.S. 167 north of Lafayette was connected to U.S. 90 south of the city by implementation of a one-way couplet system, the Evangeline Thruway has been a key component of Lafayette's transportation system. Traffic volumes continue to increase on the Thruway as the regional population and economic activity have increased and other transportation links (such as I-49) have come on line.

In 1968, the Thruway was identified for potential upgrading to a freeway facility from I-10 south through the metropolitan area. Various plans and studies have been conducted since then with that concept in mind. Specifically, in 1987, the U.S. Congress authorized and funded a demonstration study "to provide limited continuous access between an interstate route and a highway on the Federal-Aid primary system in Lafayette, Louisiana." In October, 1990, the Louisiana Department of Transportation and Development (LaDOTD) and Federal Highway Administration (FHWA) began work on a comprehensive location study and Environmental Impact Statement (EIS) of potential transportation improvements in the U.S. 90/U.S. 167 Evangeline Thruway corridor in Lafayette. A Notice of Intent to prepare an EIS was published in the Federal Register on January 17, 1991. The Draft EIS was approved and circulated in May 1992 and a Public Hearing was held on July 1, 1992. Following the Public Hearing, the Draft EIS was withdrawn on December 11, 1992. In December 1997, LaDOTD restarted the project with a reconciled set of alternatives and the second Notice of Intent for the project was issued on April 14, 1998.

In September 1993, the Design Team and the Lafayette Areawide Planning Commission released the Lafayette North-South Corridor Study, "Path to Progress" *(Lafayette Areawide Planning Commission, 1993)*. This was a preliminary Major Investment Study (MIS) released before Section 450.318 of the joint Federal Highway Administration (FHWA)/Federal Transit Administration (FTA) Final Rule on Statewide and Metropolitan Planning requiring MISs became effective November 29, 1993. The North-South Corridor Study made an evaluation of four alternative freeway corridors, a fifth or "no build" alternative and four alternative grade/structure alignments running north to south through Lafayette Parish, Louisiana. The North-South Corridor Study recommended a freeway on the Evangeline Thruway alignment in lieu of several by-pass alignments to the east and west of the Thruway. The study corridor for the I-49 Connector is approximately five miles in length, beginning just south of the Lafayette Regional Airport and extending north to the I-10 interchange.

The MIS/Mode Meeting held on June 24, 1998, concluded that the development of a freeway in the Evangeline Thruway corridor should be implemented as transit improvements alone could not accommodate the existing and projected trips. An MIS/Mode Meeting Report is on file with the LaDOTD, and an MIS/Mode Meeting Summary is located in Appendix C.

Given that no construction funding is currently available for the identified alternative, a staged approach for project implementation is being taken. The first stage, completed, is the adoption by the Lafayette Consolidated Government of the Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment that allows for the project to be placed in the MPO's Financially Constrained Plan. Once the project is in the Financially Constrained Plan, this will enable the development of a signed Record of Decision (ROD) at the conclusion of the EIS process. As funding becomes available, design and construction will be implemented. These represent the second and third stages of the project. Public involvement will be performed throughout this process.

Three major areas of study have been identified as engineering, human environment, and natural environment. The engineering work has developed alternatives for the type and location of a highway facility, with the potential impacts to people (human environment) and natural resources (natural environment) subsequently assessed. The results of these studies were documented and discussed in the Draft EIS (DEIS), with a Public Hearing following shortly after its publication. Documentation for comments received on the DEIS and the Public Hearing are provided in Chapter 5 and Appendix C.

This Final EIS was produced to address comments received from the Public Hearing and the DEIS and also to identify the selected alternative and any additional impacts associated with implementing it.

Policy statements of the goals and objectives for the Connector project have been established as follows:

Goals

- In accordance with federal guidelines, to determine the feasibility of improving transportation in the study corridor by comprehensively and objectively assessing the environmental and engineering factors associated with any potential project.
- Ultimately, to implement an improvement program, if the project proves feasible, which satisfies the transportation demand and system linkage requirements in the corridor and is consistent with local planning efforts.

Objectives to Attain Goals

- Public participation and input.
- Alternative alignment and highway type studies, including engineering feasibility.
- Impact studies on the natural environment and human environment to determine positive and/or adverse effects of the project.
- Documentation and publication of studies in the Draft and Final Environmental Impact Statements.
- Formal Public Hearing(s) prior to the selection of an alternative for implementation.
- Implementation of the LCG Corridor Preservation and Management Action Plan to facilitate the preservation and acquisition of right-of-way during the period until construction funding becomes available.

1.2 DESCRIPTION OF PROPOSED PROJECT

The proposed project is in Lafayette Parish, Louisiana, within the city limits of Lafayette (1990 pop. 94,440). The proposed action includes construction in the Evangeline Thruway U.S. 90/U.S. 167 corridor of a freeway with accompanying interchanges and flanking collector/distributor roadways for local traffic circulation and land access. LaDOTD has previously studied the freeway concept, which would be compatible with its long-range highway goals for U.S. 90 south of I-10 to New Orleans.

The existing Evangeline Thruway is a north-south arterial passing through the older part of Lafayette. It serves local residential and business traffic and also functions as an integral part of the federal-aid National Highway System (NHS) servicing south Louisiana. Construction and freeway implementation would begin just south of the Lafayette Regional Airport (commercial service) and continue north to the current southern terminus of I-49 at the I-10/I-49 interchange, a length of approximately five miles. This section constitutes the logical termini for the project as it is considered to have independent utility. Exhibit 1-1 presents the Evangeline Thruway study corridor.

The existing Thruway alignment and several partially new alignments within the corridor are being considered for implementation of the freeway. It has been determined that two alternatives for the freeway would require runway modifications at the Lafayette Regional Airport (LRA). Therefore, the highway project involves participation by the Federal Aviation Administration (FAA) in the planning process as more completely described in Sections S.6.2 and 4.2.12 of the EIS.

In addition to the freeway proposal, a "no build" alternative has been identified. The "no-build" alternative would establish a base for comparison of other options. This EIS describes the conceptual engineering aspects and feasibility of the freeway alternatives, and associated impacts to the natural and human environments. A "partial upgrade" alternative has been dismissed for further study as unable to meet the needs for the project (refer to Section 2.3.1). The densely developed urban setting of the older part of Lafayette has been considered duly in the highway planning, assessment of impacts, and mitigation of potential adverse impacts.

1.3 NEED FOR PROJECT

1.3.1 SYSTEM LINKAGE

The existing Evangeline Thruway (U.S. 90 and U.S. 167) is currently a vital link in both the local and regional transportation networks. Traversing a dense urban area mixed with residential and commercial development; the Thruway provides service to properties fronting directly on the highway and is a major component in Lafayette's arterial street grid. Additionally, the highway functions as U.S. 90 connecting I-10 and I-49 to south Louisiana and eventually New Orleans. U.S. 167 also utilizes part of the Thruway and provides service to areas southwest of

Lafayette. U.S. 90 and U.S. 167 are integral parts of the federal highway network and serve important roles in providing transportation to the population of south Louisiana. U.S. 90 and U.S. 167 are on the National Highway System (NHS). A freeway upgrade of the Evangeline Thruway in Lafayette accompanied by continuous parallel land service roadways would serve to improve the vital transportation role that the highway plays and also be compatible with national, state, regional, and local plans in terms of system linkage.

1.3.1.a National Plans

U.S. 90 south is a part of the National Highway System (NHS) and is mentioned in the Statewide Intermodal Transportation Plan as a State Highway of Significance (SHS). Proposals have been made to extend I-49 north from Shreveport to Kansas City. Construction and pre-construction activities are underway for certain segments of this Shreveport to Kansas City route. In Louisiana, only pre-construction activities are underway, including recent completion of an EIS for the section between Shreveport I-220 and the Arkansas state line, an EIS for the Evangeline Thruway corridor in Lafayette, and EIS's for several sections of U.S. 90 south of Lafayette. Recent federal highway legislation, TEA 21, has designated U.S. 90 from Lafayette to New Orleans a national high priority corridor. This corridor was subsequently designated as "Future Corridor I-49". The Connector freeway fits into this scheme of expanding the I-49 system.

1.3.1.b State Plans

U.S. 90 from Lafayette to New Orleans has been targeted in the LaDOTD's long range freeway system, effectively serving as a southeasterly extension of I-49 (which currently terminates at its junction with I-10). Construction to freeway standards has been completed on some sections of the highway and is continuing on other sections. As shown on Exhibit 1-2, implementation of the I-49 Connector would provide a connecting link through Lafayette from existing I-49 to U.S. 90 south of Lafayette.

1.3.1.c Regional Plans

A loop freeway around the metropolitan Lafayette area has been discussed and conceptually designed in prior studies. In the late 1970's, a Draft EIS with specific alignments and associated impacts of the proposed loop was prepared. This freeway loop concept has since been eliminated from the Metropolitan Planning Organization (MPO) Financially Constrained Transportation Plan *(Lafayette Areawide Planning Commission, 1997)*. In its place, a North/South Beltway has been added to the short and intermediate term programs in the Financially Constrained Transportation Plan, 1995-2015, adopted on May 6, 1997. The Beltway is a major arterial that will use existing rights-of-way where possible. The Beltway is proposed to traverse the northeast, northwest, and southwest quadrants of the grid formed by I-10 and I-49/Evangeline Thruway.

In the long term, when combined with the proposed Beltway arterial, the Connector would generally form the eastern leg of a full perimeter roadway system (the Connector is near the eastern perimeter of the developed urban area with marshes to the east restricting further appreciable development). Should the Beltway be implemented without the Connector freeway, the perimeter roadway would be only partial, on the western and possibly northern edges of the urban area.

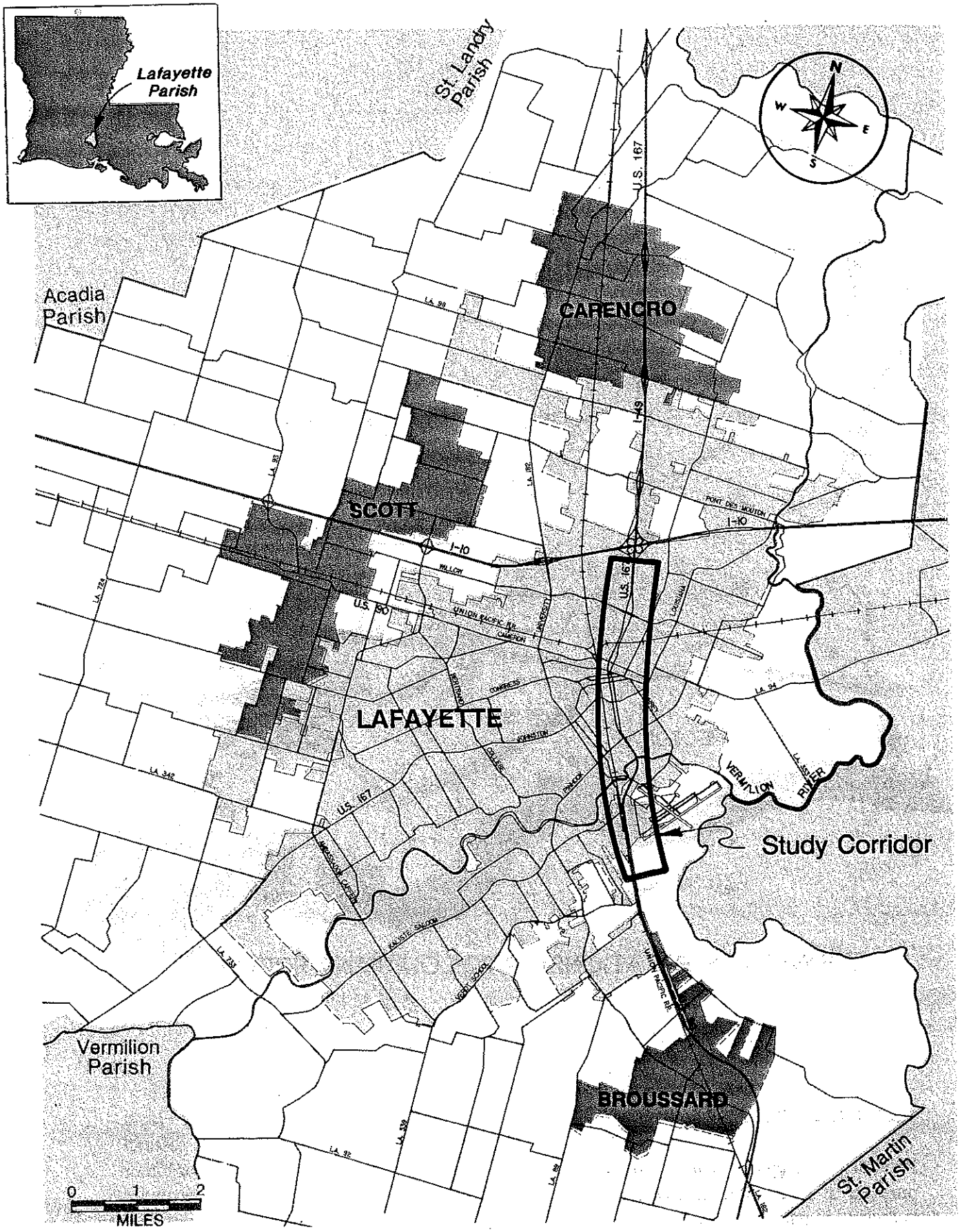


Exhibit 1-1
PROJECT LOCATION

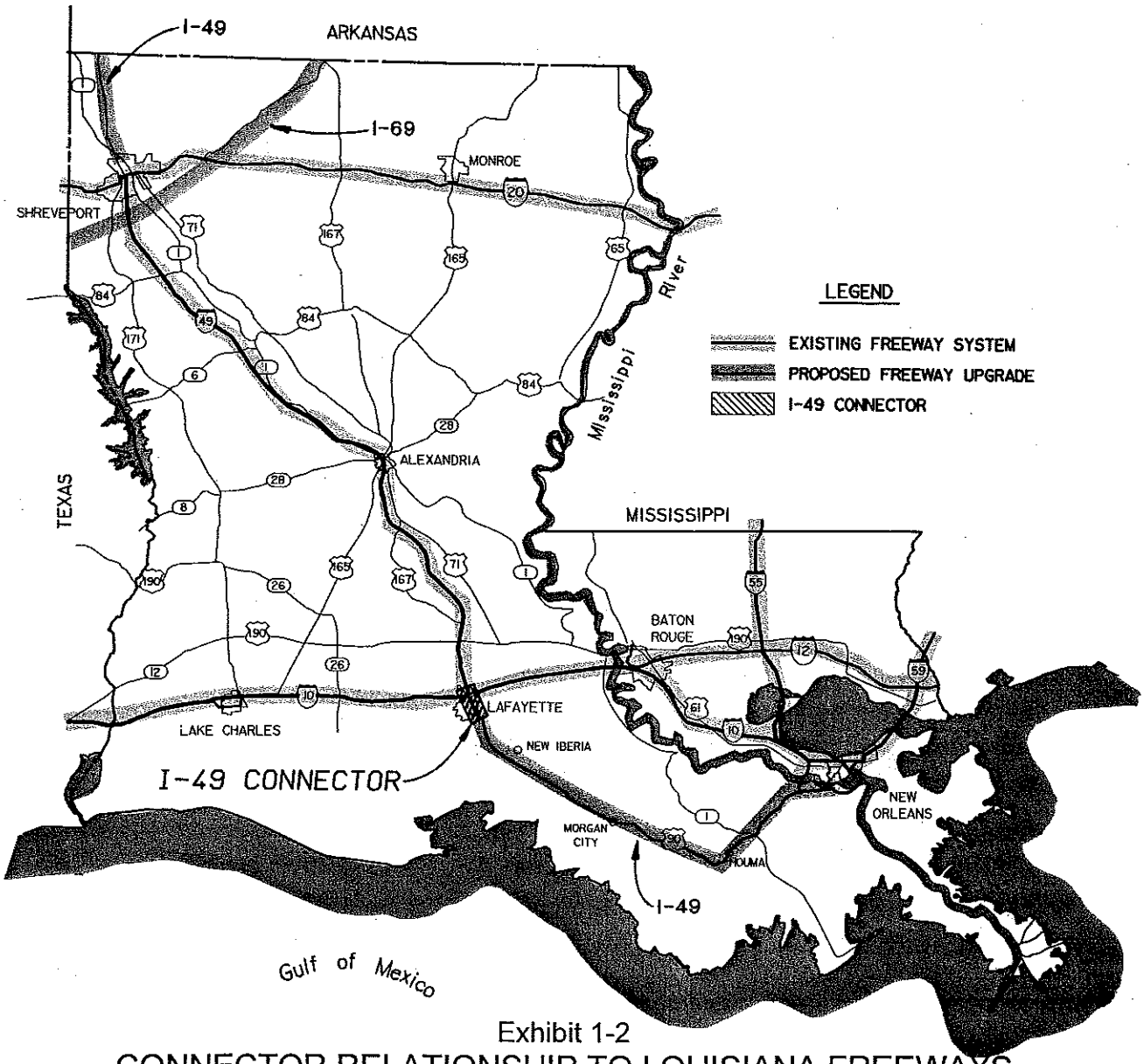


Exhibit 1-2
CONNECTOR RELATIONSHIP TO LOUISIANA FREEWAYS

1.3.1.d Local Plans

For most of the corridor parallel roadways (existing Evangeline Thruway) would serve the purpose of local land access and would become a part of Lafayette's arterial network, serving the same purpose as the existing Thruway.

Several other elements of the local highway network that have a distinct bearing on the proposed Connector either have been recently completed, are under construction, or are planned and likely will be implemented in the near future.

- The University Avenue extension across the Vermilion River in 1988 to connect with the Evangeline Thruway at Surrey Street has created a major arterial intersection. Traffic service is provided from the Thruway directly to the airport on the east (via Surrey Street) and directly to the central business district (CBD) and University of Louisiana at Lafayette (ULL) areas on the west (via the University extension).

- The recently completed Kaliste Saloom Road extension and widening project has provided a new major arterial intersection with the Thruway just south of the University/Surrey intersection and further opens access to the southwest part of Lafayette Parish.

- A new interchange is under construction on I-10 east of Moss Street for the Louisiana Avenue extension. This project would generally create a parallel corridor to the Evangeline Thruway that has a connection to and crosses to the north side of I-10.

- The Ambassador Caffery Parkway extension south from Verot School Road to U.S. 90 recently was approved with a Finding of No Significant Impact (FONSI). This would provide a continuous arterial route on the parkway from U.S. 90 to I-10 as an alternative to the Thruway.

These recently completed and ongoing major highway projects have caused/will cause some degree of change in the focus of the transportation system. This change includes more recognition of the importance on the Thruway as a key part of the local arterial network.

In addition to linkage to the various components of the existing and soon-to-be highway network, the I-49 Connector is also related to other major proposed or recently completed public projects in the area, most of these transportation oriented.

- The Lafayette Regional Airport, providing general aviation and commercial jet service to the metropolitan area, is on the Thruway alignment at the southeast corner of its intersection with Surrey Street. The Thruway is the primary ground transportation link to the airport. The newly renovated airport terminal building, which is now accessed from Surrey Street, will eventually be expanded at its existing location. On the west side of the airport property, adjacent to U.S. 90, new consolidated Petroleum Helicopter Incorporated (PHI) facilities have recently been constructed. Plans call for future expansion of the PHI facilities. A 1,320′ extension of Runway 11-29 and a bridge over the Vermilion River for Runway 4R-22L are included in the 20-year plan.

- Preliminary design has been completed for a multi-modal transit center providing a central transfer location for the city's public transit bus system, boarding facilities for AMTRAK and Greyhound, and a central location for a taxi stand. However, funding has not been obtained and is still being sought.

- The Jean Lafitte Center adjacent to Beaver Park and Vermilionville just east of the Thruway at the Vermilion River has been completed and is currently being operated by the National Park Service as a part of the statewide system of Jean Lafitte parks.

- The Lafayette Department of Planning, Zoning, and Codes (DPZC) maintains a computer transportation model that provides information on projected future traffic volumes and patterns. This model is utilized to help plan future transportation system requirements for the entire Lafayette metropolitan area. The I-49 Connector is one part of the system that has been modeled and demonstrated to be necessary in order to serve future traffic requirements. The DPZC model is currently coded with a six-lane freeway located in the Evangeline Thruway corridor.

- The provision of frontage roads along each side of I-10 between Ambassador Caffery Parkway and the Vermilion River, crossing Evangeline Thruway/I-49 within the I-49 Connector study area limits, has been included in the Lafayette Transportation Plan comprehensive study for short range implementation. These frontage roads are presently under design and are scheduled for construction to begin within the next two years. The frontage road improvements along I-10 are important to planning the operational characteristics and system linkage of the I-49 Connector.

- A new Lafayette Consolidated Government Department of Public Works administration building was constructed in 1995. This two-story building is located in the study corridor on the north side of University Avenue adjacent to the Union Pacific Railroad.

- The South College Road extension and bridge from Pinhook Road to Kaliste Saloom Road is planned and is currently under development. This project is designated to be funded by the Lafayette Consolidated Government sales tax bond proceeds.

- The Camelia Boulevard extension is designated to receive funding from the Lafayette Consolidated Government sales tax bond proceeds and is currently under development. This project will extend from Johnston Street to Verot School Road with a bridge over the Vermilion River.

- Verot School Road will be extended from Pinhook Road to Ambassador Caffery Parkway. This project, which is currently under development, is to be funded by the Lafayette Consolidated Government sales tax bond proceeds. Verot School Road is also planned to be widened to major arterial status.

Exhibit 1-3 graphically summarizes the relationship of the proposed I-49 Connector to pertinent major actions in the region (noted in the preceding text) that have recently been completed, are imminent, or are being contemplated.

1.3.2 EXISTING AND PROJECTED TRAFFIC CONDITIONS

The existing Evangeline Thruway is a four-lane or six-lane signalized arterial roadway for its limits in Lafayette until tying to I-49 at the north end of the Connector project.

The four-lane highway is characterized on its north and south ends by flanking two-way service roads (one lane each direction). On the north end, construction began spring 2002 to widen the Thruway to six lanes. In the core section, the Thruway is a one-way couplet, three

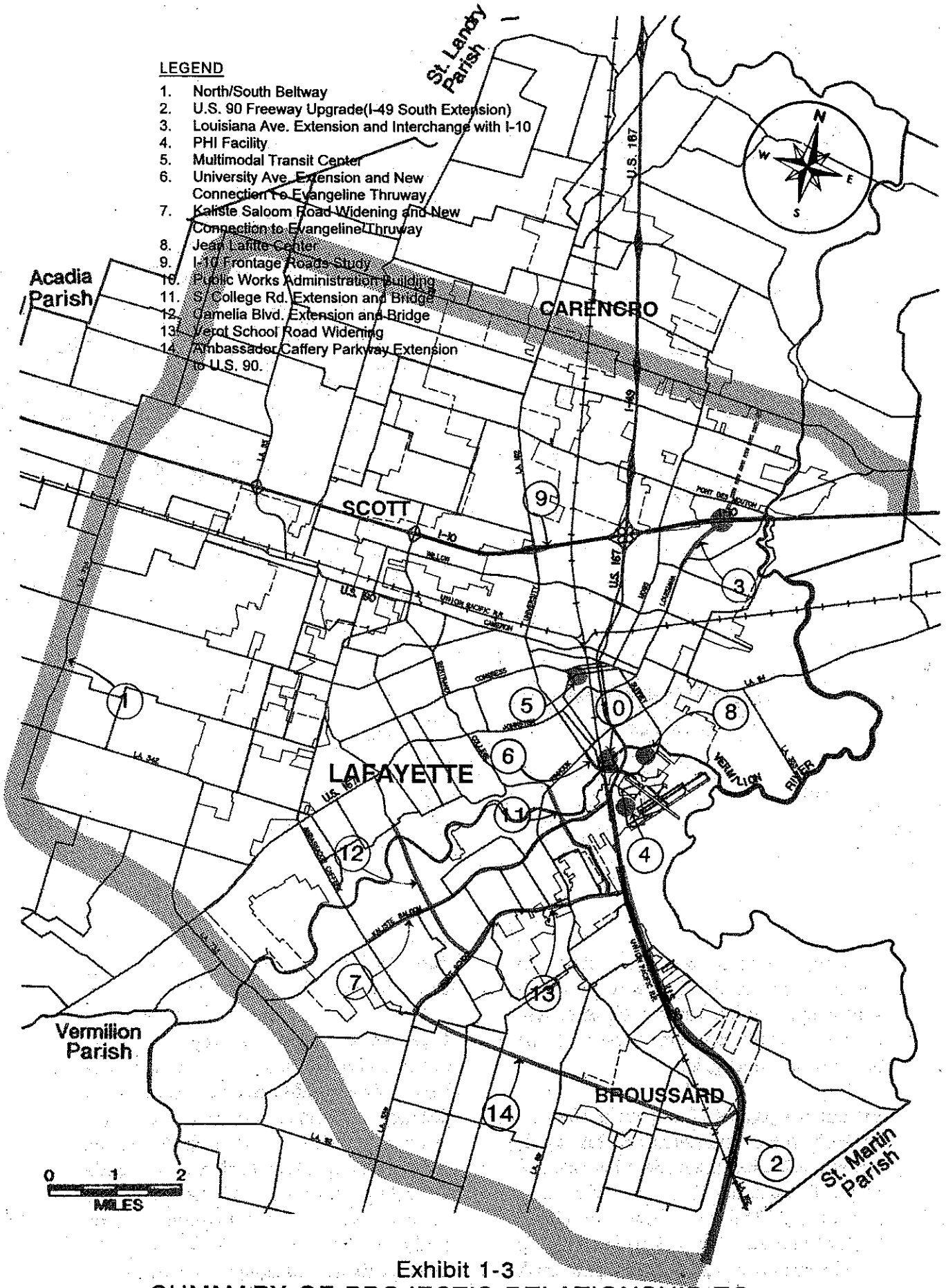
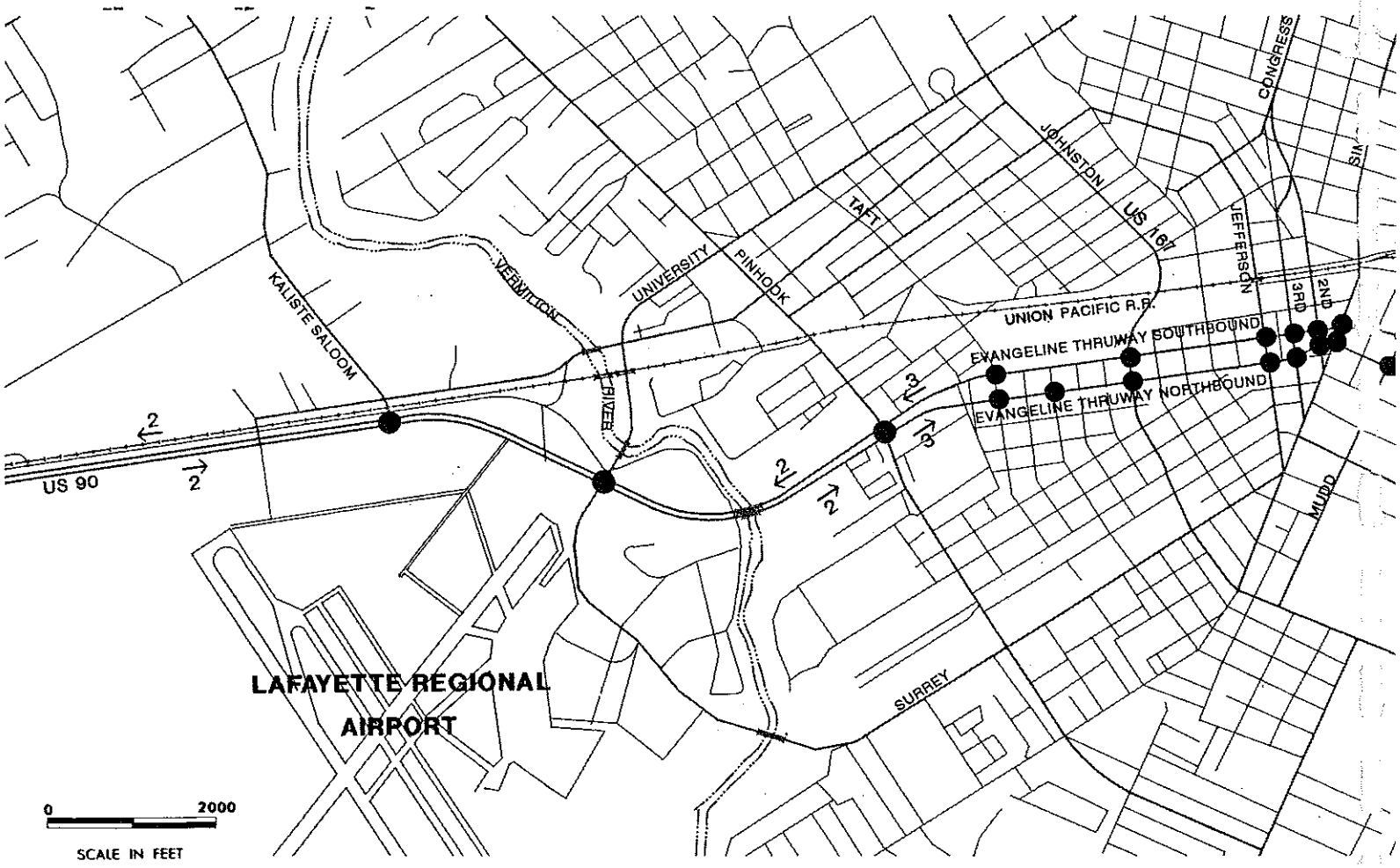


Exhibit 1-3
SUMMARY OF PROJECT'S RELATIONSHIP TO OTHER ACTIONS



lanes each direction, utilizing streets that are a part of the original city street grid.

Exhibit 1-4 presents Lafayette's roadway network in the study area and highlights signalized intersections and other features of the Evangeline Thruway. The north end of the Thruway from the Union Pacific Railroad spur to I-10 is shown in its widened condition of three lanes each direction with a new traffic signal at Castille Drive.

Like many major highways in urban areas, traffic volumes on the Thruway have grown steadily over the last several decades. Volumes currently exceed the physical capacity of the highway during peak traffic periods (volumes currently exceeding capacity in the four-lane section between the Union Pacific Railroad spur and I-10 will be temporarily alleviated upon the widening of the Thruway to six lanes). The Lafayette DPZC maintains a computerized traffic model that indicates

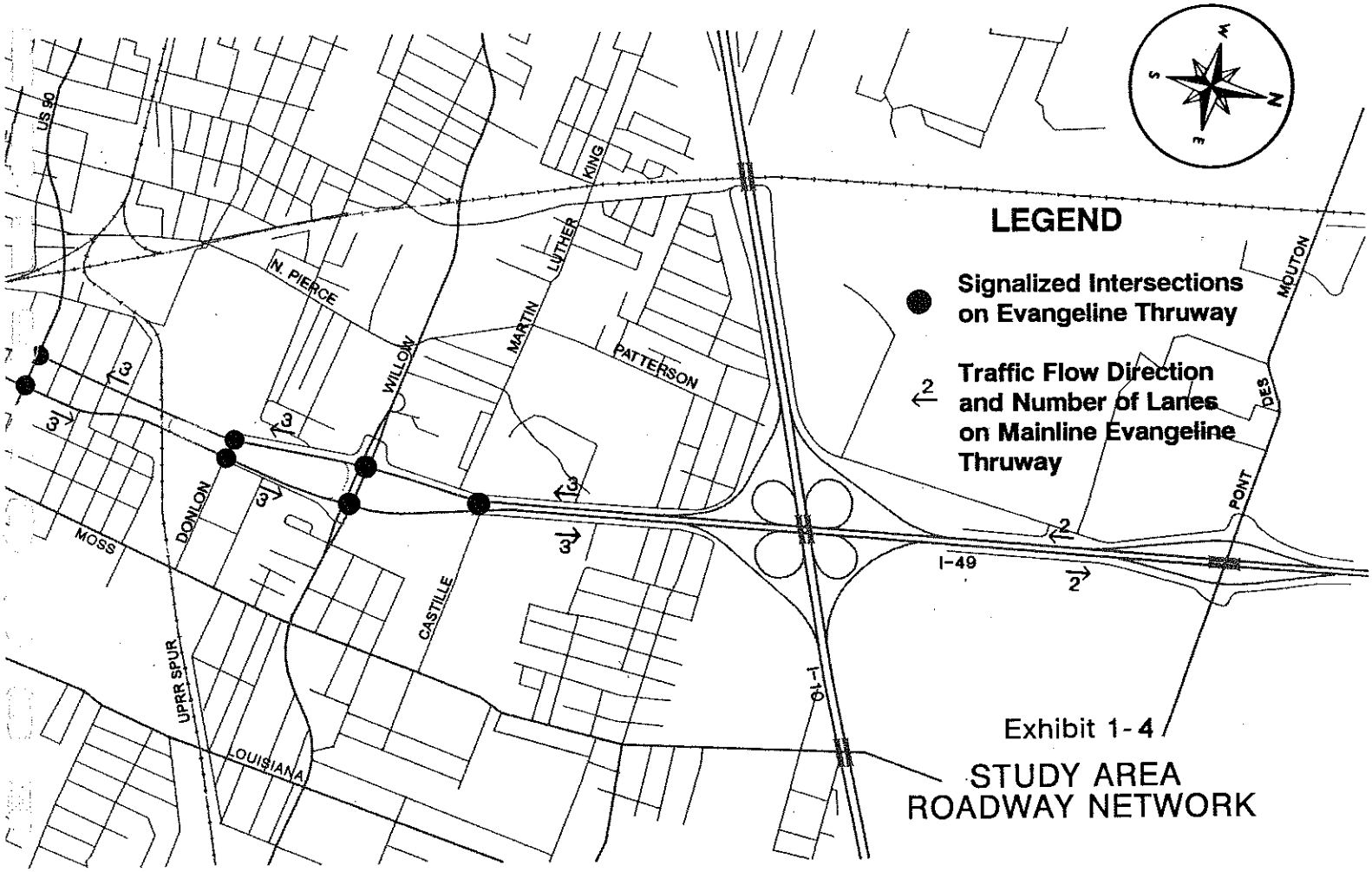


Exhibit 1-4
STUDY AREA ROADWAY NETWORK

that present and future traffic volumes warrant high type capacity improvements in the Evangeline Thruway corridor.

The Lafayette DPZC model indicates that traffic volumes on the I-10 and I-49 freeways at the northern terminus of the I-49 Connector have been rising steadily, with this trend expected to continue. In the 1995 model base year, I-49 north of I-10 has a model assignment average daily traffic (ADT) of 52,000 and 2025 assignment of 77,000 (no build) and 84,000 (freeway). I-10 west of the Evangeline Thruway has a 1995 assignment of 47,000 ADT and a 2025 assignment of 69,000 (no build) and 74,000 (freeway). These numbers are shown on Exhibit 1-5. Studies indicate that volumes on I-10 and I-49 contribute substantially to volumes on the Thruway. An estimated 36% of trips in the I-49 corridor originate from or end inside the Parish (Lafayette DPCZ). This is expected to increase to approximately 51% in the year 2025. Also, the data indicates that the combination of I-10 and the existing Evangeline Thruway is currently being used as a perimeter roadway around the northern and eastern parts of the area.

The DPZC model provides projection data for the case if no improvements are made in the Evangeline Thruway corridor (no build) and for the case if a freeway is built (freeway). The "build" assignments include the total corridor volume of both the freeway and the Evangeline Thruway parallel roadways. The 1995 model assignment between Jefferson Street and 3rd Street is 47,000 ADT while the 2025 assignment is 63,000 (no build) and 117,000 (freeway). The 1995 ADT assignment for the Evangeline Thruway at the Union Pacific Railroad spur is 53,000. The 2025 assignment is 64,000 (no build) and 135,000 (freeway). U.S. 90 south of Surrey Street has a 1995 ADT assignment of 48,000 and a 2025 assignment of 87,000 (no build) and 129,000 (freeway). Exhibit 1-5 presents the base year and year 2025 traffic assignments as discussed above.

In conjunction with high traffic volumes, operational difficulties occur at several Thruway signalized intersections and cross street/service road intersections. Between Willow Street and I-10 on the northern end of the project, traffic congestion and circulation across and/or onto the existing Thruway is a strong concern of that area's business community. However, the addition of a new signalized intersection at Evangeline Thruway and Castille Avenue along with the widening of the Thruway to six lanes in this area, scheduled for completion in Spring 2003, will provide partial relief for the operational difficulties in this area.

Through traffic on the Evangeline Thruway (to and from south Louisiana), including trucks, must mix with local traffic and pass through the residential districts in the core area of the project between Pinhook Road and the Union Pacific Railroad spur. Trucks comprise approximately 22% of total Thruway traffic in the area of the railroad spur (as counted by the LCG Department of Public Works).

On the northbound lanes just prior to Simcoe Street, reverse curvature is introduced to avoid the St. Genevieve Church and other components of the Sterling Grove Historic District. This design feature, implemented during initial construction of the Thruway couplet system, causes a posted reduction in speed to 25 mph and has been noted in some prior years as the cause for increased accidents.

The Connector freeway would be expected to provide an attractive alternative route for local traffic, thus reducing congestion on nearby city streets (such as University Avenue).

Implementation of the I-49 Connector would alleviate existing and projected future traffic capacity deficiencies, reduce travel times, and offer the opportunity to eliminate or improve other aspects of the Thruway and surrounding street system. The provision of a dual roadway system, freeway plus flanking parallel roadways, continuous for the length of the corridor, offers improved operational flexibility and capacity for traffic and maintains or improves land access for residences and businesses.

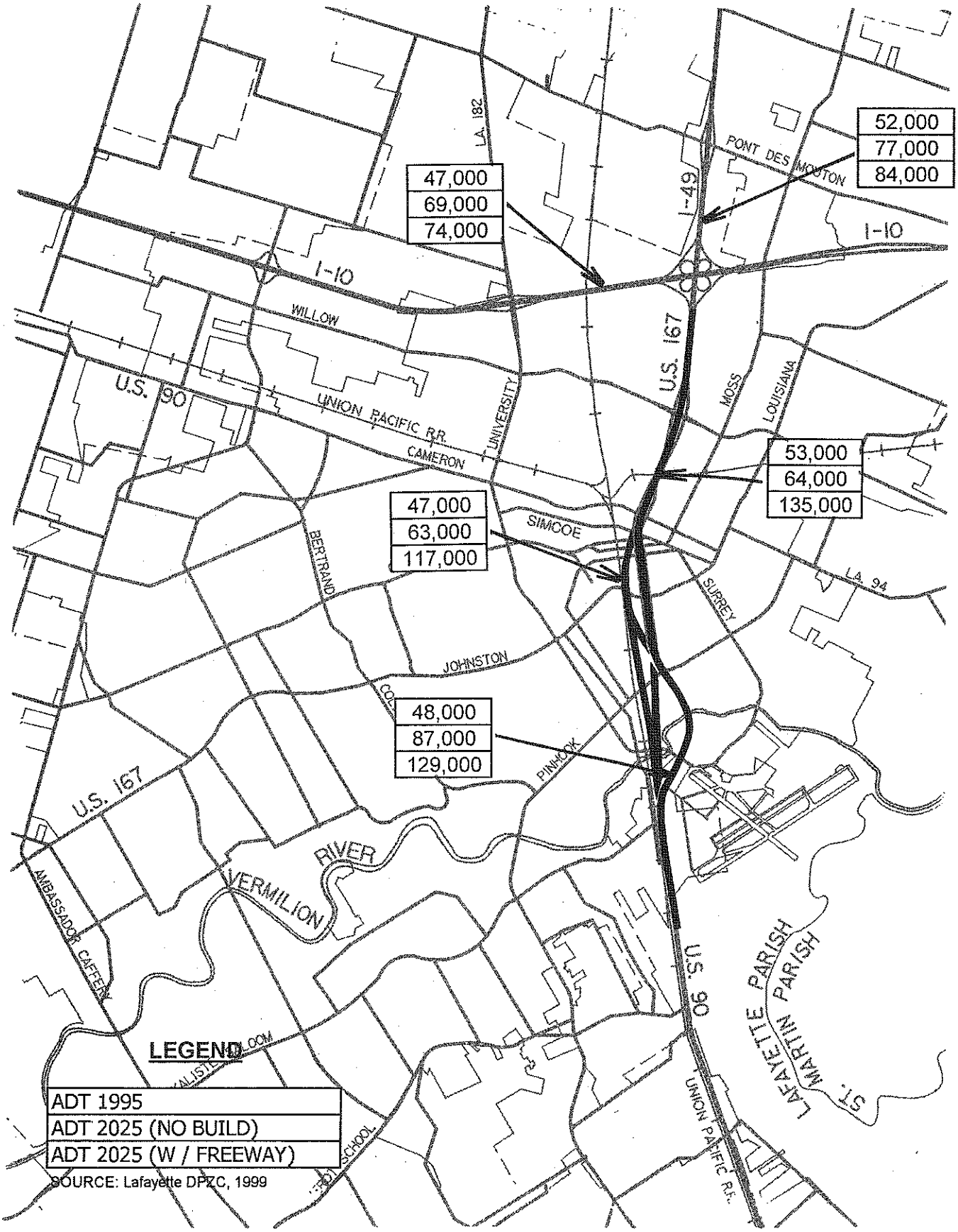


Exhibit 1-5

STUDY AREA TRAFFIC MODEL ASSIGNMENTS

The current Governor and administration of Louisiana have pledged to support and fund the construction of the I-49 south extension from Lafayette to New Orleans over a ten-year period beginning in 1998. Funding for this construction is expected to come from the increased state apportionment provided by the TEA-21 legislation as compared to Intermodal Surface Transportation Efficiency Act (ISTEA) (federal transportation legislation that is the predecessor to TEA-21, expired at the end of FY 97-98).

Prior to the establishment of the Lafayette Consolidated Government, the City Council and Mayor of Lafayette have signed resolutions of support almost annually since 1981, initially focused on the Evangeline Thruway locally and more recently on the overall I-49 extension (U.S. 90 freeway upgrade) to New Orleans.

Some of the stated justifications for the extension of I-49 include:

- Lower Louisiana south of Lafayette to New Orleans has sustained the greatest economic growth in the state over the last 25 years.

- An improved transportation system would stimulate tourism development and additional economic growth for this area.

- The Louisiana Offshore Oil Platform (LOOP) and other oil related and marine industries would be more accessible.

- A more suitable hurricane evacuation route for the coastal regions of Louisiana would be provided.

- The I-49 South Task Force Report indicates that statistics show that "U.S. 90 from Lafayette to New Orleans is one of the most dangerous highways to travel on in the State of Louisiana".

- It would increase the accessibility to five major ports in the Louisiana port system, which is one of the largest port systems in the world.

1.3.5 MODAL INTERRELATIONSHIPS

The Evangeline Thruway lies at the crossing of Interstate Highways 10 and 49, with I-10 being the most southerly of the coast-to-coast interstates in the national system. Types of transportation other than personal vehicle which would benefit to varying degrees from improved access provisions of the proposed I-49 Connector include rail, air, and transit.

The Union Pacific Railroad maintains a mainline running north-south paralleling most of the study corridor but east-west on a regional and national basis. AMTRAK runs three passenger trains weekly from Lake Charles to New Orleans with a stop in Lafayette. Approximately 18-20 freight trains run on the mainline daily. The railroad spur extending east to Breaux Bridge, Louisiana, from the mainline in Lafayette carries three freight trains per week. This railroad spur is leased to Louisiana Delta Railroad, and there are no plans for abandonment.

The Lafayette Regional Airport lies near the south end and on the east side of the Connector study corridor. The airport

provides general aviation and commercial jet services to the metropolitan area. The Connector would provide direct connections by freeway service from Interstates 10 and 49 for the terminal area.

The management of Lafayette Regional Airport has included in its long-range plan the expansion of the existing terminal at its Surrey Street location.

City of Lafayette Transit (COLT) is a public transit agency with 12 routes providing bus service, including special handicap provisions, within the city limits (refer to Exhibit 3-6). Greyhound provides inter-city bus service.

A new multi-modal transit center is planned in the Connector study area adjacent to the Union Pacific mainline on its west side between Jefferson and Johnston Streets (refer to Exhibit 1-3). This CBD-area transit center would house the COLT transfer station, Greyhound bus boarding facility, AMTRAK boarding facility, and Post Office. A provision for taxi service would also be provided. Preliminary design has been completed; however, a new funding source must be found. The close proximity of the Connector freeway to the multi-modal center complements the overall transportation system.

1.3.6 SAFETY

The proposed I-49 Connector would provide added safety to motorists on the Thruway in Lafayette due to design features of freeways which inherently provide for reduced accident rates when compared to other types of facilities. According to the LaDOTD Traffic and Planning Section, in 1996 there were seven abnormal intersections on the Evangeline Thruway within the study area. Abnormal intersections are so designated because their accident rate is more than twice the statewide average for similar type roadways.

The implementation of an interstate system in the Evangeline Thruway corridor could also help lead the way for a U.S. 90 south freeway upgrade, which would have the effect of reducing the number of accidents in the stretch of highway from Lafayette to New Orleans.

1.3.7 HURRICANE EVACUATION

Coupled with the implementation of the freeway plan on U.S. 90 south of Lafayette, the Connector can provide the highest-level evacuation facility in case of a south Louisiana hurricane or other disaster. The Lafayette DPZC estimates that the daily traffic volumes in the Thruway corridor will increase from between 34% and 61% on days which include a hurricane evacuation event. In 1992 it is estimated that over 75,000 cars utilized the Evangeline Thruway in Lafayette during a 12-hour period during evacuations associated with Hurricane Andrew. This section of the Thruway is designed to accommodate only 42,000 vehicles over a 24-hour period.

The American Red Cross is on record stating that they will not operate a shelter south of I-10 when a storm threatens the coast of Louisiana. This makes an upgraded route through Lafayette even more important to provide accessibility to storm shelters for south Louisiana citizens.

1.3.8 ECONOMIC FACTORS

Highway improvements unquestionably generate changes in the functioning of an area's economy. The proposed I-49 Connector would enhance the location of the Lafayette region at the cross-roads of I-10 and I-49 and would improve accessibility into and around the Lafayette area, perhaps the single most important economic benefit to be derived from the project.

1.3.8.a Port Facility Access

Implementing the I-49 Connector through Lafayette could help lead the way for a U.S. 90 upgrade throughout south Louisiana. The Connector would serve as a gateway to four of Louisiana's seven deep draft ports. These four ports access more navigable water miles than any other region of its size in the United States. In 1999 the Louisiana ports and the maritime industry produced $29.75 billion in primary and secondary spending. This constitutes 22.5 percent of the total Louisiana gross state product. The economic activities of port-related firms support 243,621 permanent jobs for the people of the state. This constitutes approximately one out of every 8 jobs in the state *(Ryan, 2001)*.

The I-49 Connector would serve as the link used to access the Outer Continental Shelf, which is heavily relied upon for oil and gas operations. The State of Louisiana receives substantial revenue from lease bonus payments, rentals, royalties, and severance taxes from this industry.

1.3.8.b Increased Mobility

Upgrading the present Evangeline Thruway, a one-way arterial couplet, with a freeway comprised of mainline and arterial parallel roadways, would have a positive impact on the lifestyles of many people living in the Lafayette area through improved mobility (an increase in the ability to get around in the community). Increased mobility permits more choices in locating one's place of residence relative to the place of employment. It also permits greater participation in civic and social activities available in the Lafayette area. A major concentration of these employment, civic, and social activities occurs in the nearby Lafayette central business district.

The inclusion of parallel roadways would improve local traffic circulation. Much of the through traffic would be on the mainline freeway, leaving the flanking roadways predominantly for local traffic only. The parallel roadways would be less congested than the present arterial facility.

1.3.8.c Reduced Vehicle Operating Costs

Reduction of vehicle operating costs would be a direct benefit to I-49 Connector users. Such cost reductions would be the result of improved design features, which reduce speed changes and stops, and improved capacity. Fuel consumption, accident costs, and other vehicle costs associated with stop and go traffic conditions would be reduced.

1.3.8.d Joint Development

The concept of joint development involves the utilization of a highway corridor for purposes other than a roadway. Joint development offers the opportunity to improve the urban environment through landscaping, open space, parking areas, or other amenities. The highway project (given aesthetic appeal) could serve as the stimulus to create redevelopment, economic investment, and vitality in the currently depressed areas adjacent to the corridor.

1.3.9 LAFAYETTE REGIONAL AIRPORT RUNWAY EXTENSION

The Lafayette Regional Airport lies adjacent to the existing Evangeline Thruway in the southeast quadrant of the corridor. Two of the alignments, EA-1 and RR-4, would require the displacement of Runway 11-29 by 350'. This displacement would be needed in order for the I-49 overpass at the University/Surrey Street interchange to remain under the FAR Part 77 approach surface. The various project freeway alternatives are described more completely in Chapter 2.

The displacement of Runway 11-29 is considered a "connected" action in this EIS and has been considered in Section 4.2.12.

REFERENCES

American Institute of Architects Regional Urban Design Assistance Team. 1978. *R/UDAT Lafayette, Louisiana.*

City of Lafayette, 1988. *VISION LAFAYETTE: Today/Tomorrow*. Prepared under the Administration of Mayor Dud Lastrapes.

Governor's Interstate 49 South Project Task Force, 1998. *Feasibility Analysis to Upgrade US 90 to I-49.* Prepared for Governor Mike Foster pursuant to Executive Order MJF 97-38 dated September 18, 1997.

Lafayette Areawide Planning Commission, 1993. *Lafayette North-South Corridor Study "Path To Progress".*

Lafayette Areawide Planning Commission, 1997. *Moving Lafayette, Financially Constrained Transportation Plan and Needs Plan, 1995-2015, Final Report.*

Louisiana Department of Transportation and Development, 1984. *Draft Environmental Impact Statement, I-49 Connector, Lafayette, Louisiana. EIS No. FHWA-LA-EIS-92-01-D. State Project No. 700-24-0073. Federal Aid Project No. De-0009(802).*

Louisiana Department of Transportation and Development, 1992. *Evangeline Thruway Improvements (US 90), Vermilion River to Broussard, Lafayette Parish, Feasibility Study, State Project No. 700-16-76.*

Planning Services Inc., 1968. *Lafayette Core Area Development and Improvements Program.* Prepared for City of Lafayette and Parish of Lafayette through Lafayette Regional Planning Commission.

Ryan, Timothy P., 2001. *The Economic Impacts of the Ports of Louisiana and the Maritime Industry.* University of New Orleans.

Wilbur Smith Associates, 1991. *Lafayette Transportation Plan Technical Memorandum No. 2.*

Chapter 2

ALTERNATIVES

2.1 SELECTION OF REASONABLE ALTERNATIVES

Highway improvement alternatives for study and possible implementation in the Evangeline Thruway corridor have been identified based on the overall project goal of improving transportation in the corridor in a practical manner, minimizing adverse socioeconomic impacts, and considering engineering issues. Major technical requirements of the project and other design goals that have been developed include:

- Minimum requirements for traffic service, which establish such features as number of lanes and interchange locations. Level of service (LOS) "D" in the year 2025 has been established as the minimum for the I-49 Connector project (LOS is a term qualitatively describing traffic flow and operations, ranging from LOS "A" (best) to LOS "F" (worst); refer to Appendix B for more detail on LOS descriptions).
- Design speeds for various roadway classifications, which play a major role in determining the physical shape and space requirements of a highway so that traffic can operate comfortably and safely. For the I-49 Connector project, design speeds have been established as follows:

Connector Freeway	60 mph
Parallel One Way Roadways and Other Arterials	40 mph
Ramps (near junction with freeway)	40 mph
Other Roadways	
Collector	30 mph
Local	30 mph

- Basic elements of the typical sections to determine width and safety features of the facility.
- Vertical clearances over highways of 16.5′ (except 15.5′ for collector and local streets) and over railroads of 23′. Vertical clearance under railroads of 16.5′.
- Drainage and hydraulics to meet state and federal guidelines.
- Aesthetics and joint use development opportunities to provide satisfactory transportation improvements in ways that are sensitive to community concerns and the urban setting of the project. Visual enhancement opportunities for the highway are an important part of this process.
- Local access and circulation goals to maintain or improve service to and the vitality of the existing street network and abutting properties. If this goal is to be attained, this would include the following major streets which currently intersect the Thruway and most of which cross the Union Pacific Railroad to remain open and a functioning part of the local network:

  Kaliste Saloom
  University/Surrey
  Pinhook (U.S. 90 BUS.)

Taft
Johnston (U.S. 167)
Jefferson
3rd
2nd
Simcoe
Mudd (U.S. 90)
Donlon
Willow
Castille

Any alternatives that may close one or more of the above streets can be deemed to not completely satisfy the project goals regarding access and circulation.

Lee Street/6th Street (collector street) and streets that form a T-intersection with the Thruway or other local streets have not necessarily been targeted to remain open (to allow for design flexibility). Some of the local streets may remain open depending on the design alternative chosen for implementation.

When considering the alternatives for improving transportation in the Evangeline Thruway corridor, two primary questions have been addressed: 1) What type of highway improvement is desirable and would be most effective in meeting the goals of the project? 2) Should this highway improvement remain on the same alignment as the existing Evangeline Thruway or is there another alignment that is better operationally, lessens adverse impacts, or reduces cost?

For the area within the study limits, initial work consisted of identification of numerous highway type, typical section, and alignment alternatives and then overview analysis to establish the focus of more detailed studies to be performed.

This preliminary assessment was conducted to "weed out" potential alternatives which have deficiencies such that they are considered not suitable for further consideration, thus allowing the concentration of available resources to study more prudent options. The worthiness of each preliminary alternative was gauged based on its ability to achieve the goal of practically improving transportation in the corridor while keenly considering impacts to both the human and natural environments.

Based on the results of these preliminary investigations, several typical section and alignment alternatives for a freeway project, as well as a "no-build" alternative, have been advanced for more detailed study and are the focus of this EIS. Other alternatives have been eliminated from further consideration. The final choice of an alternative for implementation, the Selected Alternative, has been made based on the evaluation of each of the alternative's impacts and comments received on the Draft EIS and at the Public Hearing.

2.2 ALTERNATIVES CONSIDERED

2.2.1 TYPES OF IMPROVEMENTS

2.2.1.a No-Build

The no-build option would generally consist of the Thruway continuing to operate as it does now, with few capacity or operational improvements of any magnitude. Localized projects aimed at particularly troublesome areas, such as turning lanes, new signalized intersections, etc., could evolve over

time. Included in the no-build alternative is the planned addition of a third lane on the Thruway each direction between the Union Pacific Railroad spur and I-10. The planned intersection improvements will be implemented at Donlon, Willow, and Castille Streets and are expected to improve traffic operations in these areas.

2.2.1.b Full Freeway

Concept Description

Implementation of a freeway in the study corridor is the selected alternative concept, consistent with local and statewide goals. The freeway would be continuous within the study limits and be accompanied by a continuous parallel arterial roadway system for land access and local traffic circulation. Traffic on the freeway would flow non-stop while the one-way parallel arterials would operate similar to the existing Thruway. Much of the existing Thruway would continue to operate as it does today with few or no modifications. Several interchanges with ramp connections would be provided to enable traffic flow to and from the freeway.

Corridor Preservation and Management Action Plan

Funding for construction of the freeway concept is not expected to be available in the immediate future. Therefore, a plan has been developed to preserve and manage right of way in the project area until construction funds become available. This approach, called the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Connector Alignment, is an integral component of the Freeway concepts described throughout the EIS. The preservation and management plan will be an important basis for the Record of Decision to be issued at the end of the EIS process.

2.2.2 ALIGNMENT AND INTER-CHANGE ALTERNATIVES

Four alignment alternatives for a freeway project have been identified using the rationale described in Section 2.1. These include the existing alignment and various combinations of the existing alignment and area directly adjacent to the Union Pacific Railroad. Six freeway alternatives are under consideration on these four alignments:

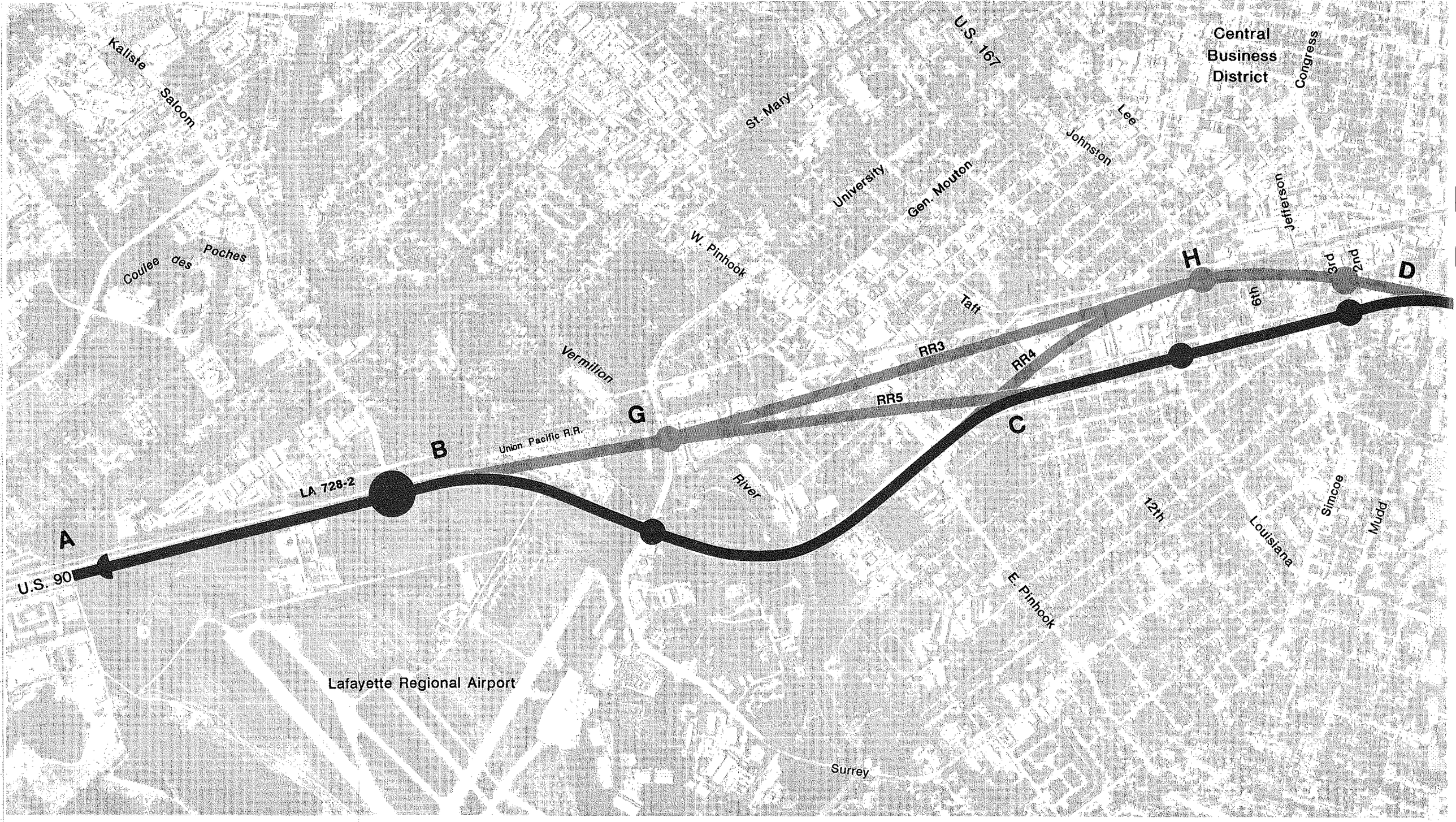
- EA-1 Elevated
- EA-1 Selected Overpasses
- RR-3 Elevated
- RR-3 Selected Overpasses
- RR-4 Elevated
- RR-5 Elevated

Exhibit 2-1 presents the alignment alternatives with proposed interchange locations noted. Ten "subalternatives" that can be used interchangeably amongst the alternatives have been identified and are described in Sections 2.2.2.a. through 2.2.2.g.

2.2.2.a EA-1 Elevated (Plates 1; 2a or b; 3a or 3b; 4a, b, c, or d; and 5; Appendix A)

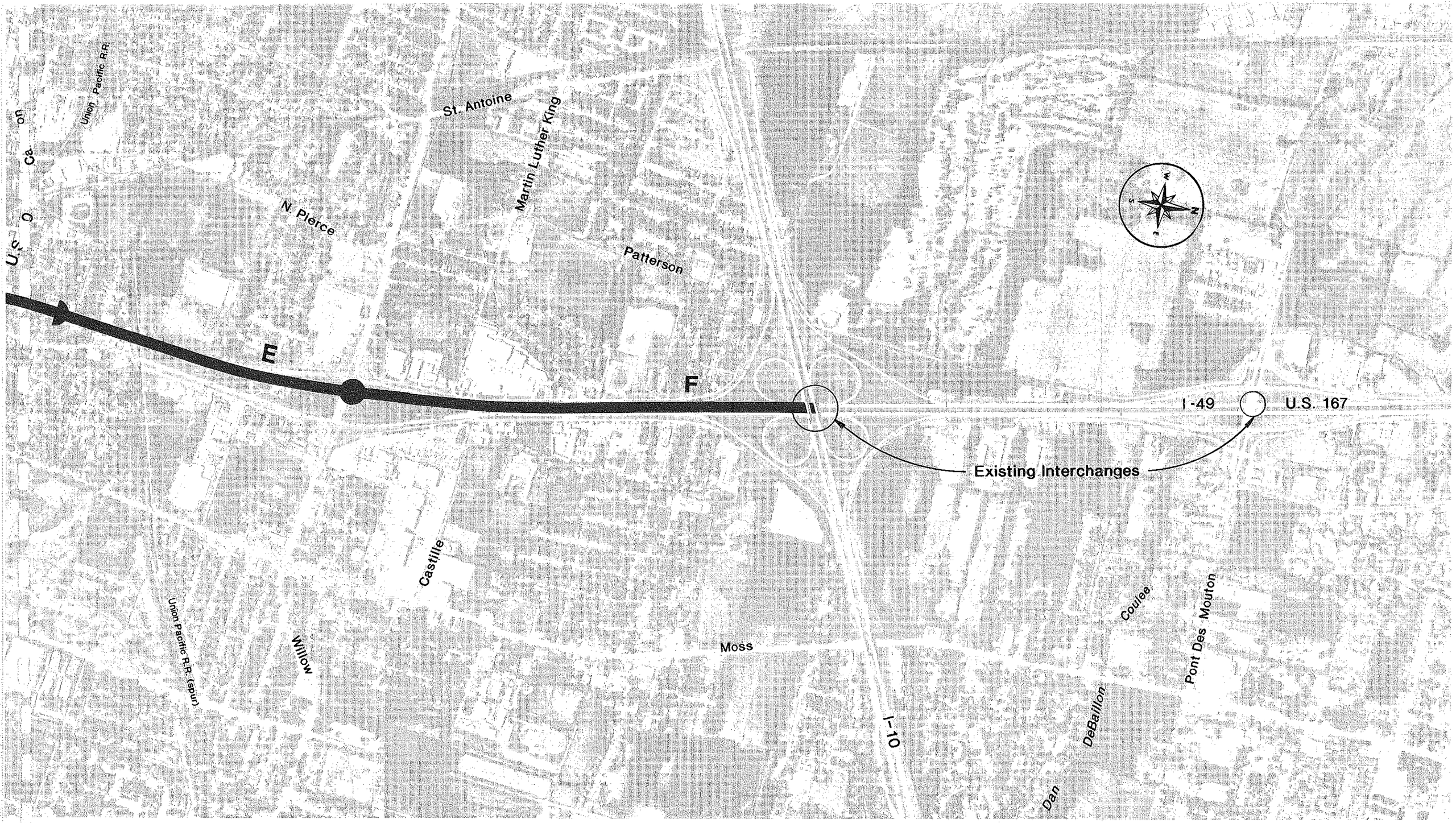
The EA-1 Elevated alternative is fully on the existing Thruway alignment as described by nodes A-B-C-D-E-F on Exhibit 2-1. Interchanges are proposed for:

- Kaliste Saloom Road
- University Avenue/Surrey Street
- Johnston Street (U.S. 167)
- Mudd Avenue (U.S. 90) -partial interchange, or 2nd/3rd Streets – full interchange
- Willow Street



Alignment Alternatives

EA1	Nodes A-B-C-D-E-F
RR3	Nodes A-B-G-H-D-E-F
RR4	Nodes A-B-C-H-D-E-F
RR5	Nodes A-B-G-C-D-E-F



0 1000 2000
SCALE IN FEET

Legend

or **Proposed Interchange**

New Alignments

Existing Alignment

Exhibit 2-1
ALIGNMENT ALTERNATIVES

The proposed interchange locations are shown on Exhibit 2-1 with additional description provided in Table 2-1 and Plates 1 through 5 in Appendix A (refer to the Plate Index in Appendix A for Plate references for each project alternative). The interchange locations have been selected with regard to traffic flow, traffic service needs, spacing requirements, physical constraints, and practicality.

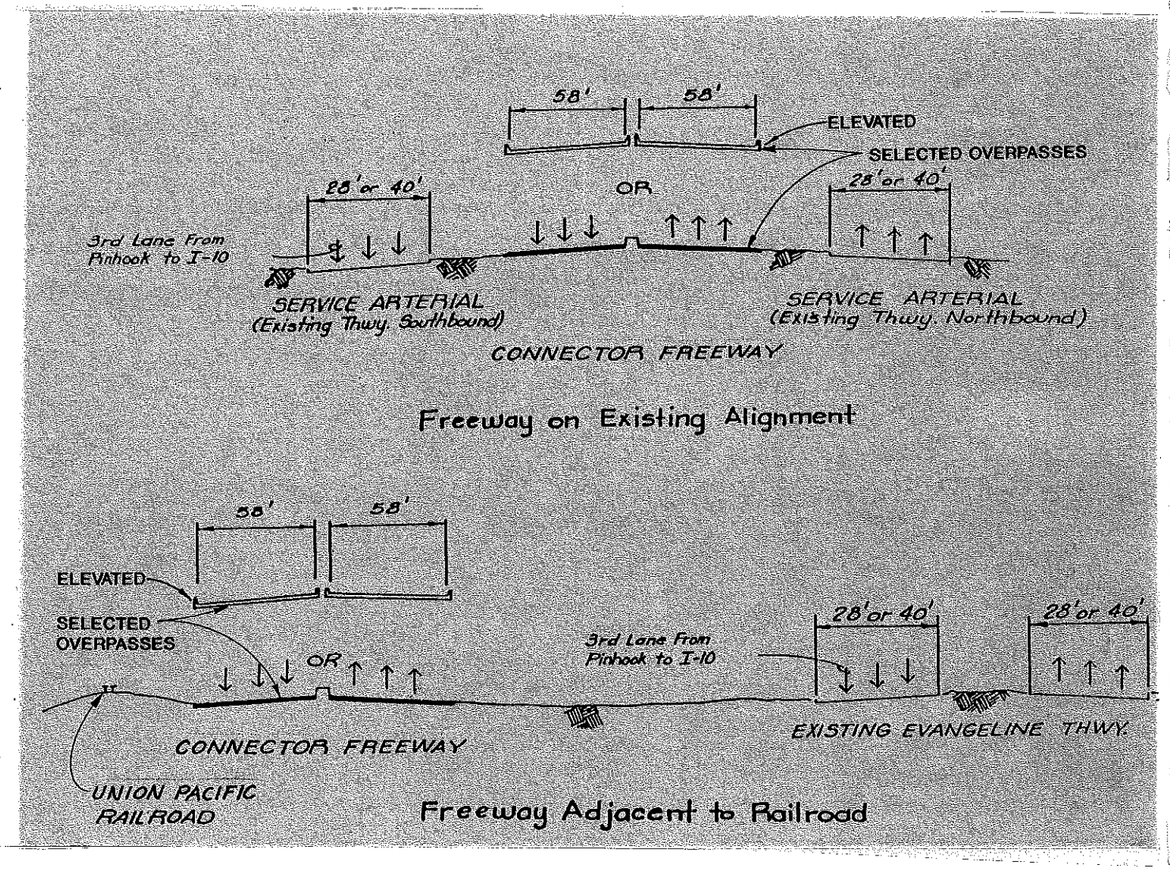


Exhibit 2-2

SCHEMATIC TYPICAL SECTIONS

Table 2-1
ALTERNATIVE EA-1 (ELEVATED AND SELECTED OVERPASSES)
INTERCHANGES/ACCESS

Appendix A Plate No.	Interchange [1] Location	Interchange Type	Service Provided
1	Begin Project	Slip Ramp* Half Diamond	Service from Connector south to parallel roadways and then Kaliste Saloom extension, Lafayette Regional Airport, and University
2a	Kaliste Saloom/ University	Combination 3 Level Directional and Slip Ramp* Full Diamond	Direct service from Connector north to Kaliste Saloom extension, Lafayette Regional Airport, and University extension; direct service from Connector south to University and airport; indirect service to other locations via one-way parallel arterials; service from Kaliste Saloom to one-way parallel arterials, then airport and University
3a, 3b or 3c	Johnston	Slip Ramp* Full Diamond	Direct service from Connector north and south to Johnston and CBD; indirect service to other locations via one-way parallel arterials; several major cross streets closed for Selected Overpasses alternative, reducing circulation
3b	2nd or 3rd	Slip Ramp* Full Diamond	Direct service from Connector north and south to a 2nd and 3rd couplet and the CBD; indirect service to other locations via one-way parallel arterials; several major cross streets closed for the extra slip ramps, reducing circulation
4a,4b, 4c or 4d	Mudd	Slip Ramp* Half Diamond	Direct service from Connector north to Mudd and CBD; indirect service to Simcoe, 2nd, 3rd, Jefferson, and CBD via parallel roadways; for Sel. Over. these streets are closed, reducing circulation. Not used in conjunction with interchange at 2nd and 3rd.
4a,4b, 4c or 4d	Willow	Slip Ramp* Full Diamond	Direct service from Connector north and south to Willow street; indirect service to other locations via one-way parallel arterials (south of Willow) and existing two-way frontage roads (north of Willow)
5	I-10	Existing Cloverleaf	Freeway to freeway service

[1] These interchange/access locations and types are the result of studies conducted based on existing physical constraints and limited traffic flow and projection data available during the EIS studies. The locations and types of interchanges envisioned, as well as other judgements made at this time, are considered valid for EIS work and have been used to assess, tabulate, and report environmental impacts of the various highway type and alignment alternatives. They should be considered open to change should this be warranted as a result of increased information and detailed engineering studies.

* "Slip Ramp" refers to a free flow mid-block ramp connection from the freeway to the one-way parallel roadway, or vice versa

Table 2-2
ALTERNATIVE RR-3 (ELEVATED AND SELECTED OVERPASSES) INTERCHANGES/ACCESS

Appendix A Plate No.	Interchange [1] Location	Interchange Type	Service Provided
1	Begin Project	Slip Ramp* Half Diamond	Service from Connector south to parallel roadways and then Kaliste Saloom extension, Lafayette Regional Airport, and University
2b or 2c	Kaliste Saloom	Combination 3 Level Directional and Slip Ramp* Half Diamond	Direct service from Connector north to Kaliste Saloom extension; service from Kaliste Saloom to one-way arterials north & south, then Lafayette Regional Airport and University
2b or 2c	University	Conventional Full Diamond	Direct service from Connector north to University and Lafayette Regional Airport; direct service from Connector south to University west and CBD; service from Connector south to airport here or at Begin Project interchange; utilize existing underpass on University at railroad
3d or 3e	Johnston	Single Point Full Diamond (Standard Diamond For RR-3 Sel. Overpasses)	Direct service from Connector north and south to Johnston and CBD; new underpass on Johnston at railroad
3g	2nd or 3rd	Single Point Full Diamond	Direct service from Connector north and south to a 2nd and 3rd couplet and the CBD; new underpass on 2nd and 3rd at railroad
4a, 4b, 4c or 4d	Mudd, Willow, I-10	Same as Table 2-1	Same as Table 2-1

Table 2-3
ALTERNATIVE RR-4 ELEVATED INTERCHANGES/ACCESS

Appendix A Plate No.	Interchange [1] Location	Interchange Type	Service Provided
1	Begin Project	Slip Ramp* Half Diamond	Service from Connector south to parallel arterials and then Kaliste Saloom extension, Lafayette Regional Airport, and University
2a	Kaliste Saloom/ University	Combination 3 Level Directional with Slip Ramp* Full Diamond	Direct service from Connector north to Kaliste Saloom extension, Lafayette Regional Airport, and University extension; direct service from Connector south to University and airport; indirect service to other locations via one-way service arterials; service from Kaliste Saloom to one-way parallel arterials north & south, then airport and University
3f	Johnston	Single Point Full Diamond	Direct service from Connector north and south to Johnston and CBD; new underpass at railroad
3g or 3i	2nd or 3rd	Single Point Full Diamond	Same as Table 2-2
4a,4b, 4c or 4d	Mudd, Willow, I-10	Same as Table 2-1	Same as Table 2-1

[1] See footnote Table 2-1

* "Slip Ramp" refers to a free flow mid-block ramp connection from the freeway to the one-way parallel roadway, or vice versa.

Table 2-4
ALTERNATIVE RR-5 ELEVATED INTERCHANGES/ACCESS

Appendix A Plate No.	Interchange [1] Location	Interchange Type	Service Provided
1	Begin Project	Slip Ramp* Half Diamond	Service from Connector south to parallel roadways and then Kaliste Saloom extension, Lafayette Regional Airport, and University
2d	Kaliste Saloom	Combination 3 Level Directional with Slip Ramp* Half Diamond	Direct service from Connector north to Kaliste Saloom extension; service from Kaliste Saloom to one-way parallel roadways north & south, then Lafayette Regional Airport and University
2d	University	Conventional Full Diamond	Direct service from Connector north to University and Lafayette Regional Airport; direct service from Connector south to University west and CBD; service from south to airport here or at Begin Project interchange; utilize existing underpass on University at railroad
3h	Johnston	Slip Ramp* Full Diamond	Direct service from Connector north and south to Johnston and CBD; indirect service to other locations via one-way parallel roadways
3b	2nd or 3rd	Same as Table 2-1	Same as Table 2-1
4a, 4b, 4c or 4d	Mudd Willow I-10	Same as Table 2-1	Same as Table 2-1

[1] See footnote Table 2-1

- "Slip Ramp" refers to a free flow mid-block ramp connection from the freeway to the one-way parallel roadway, or vice versa.

The top half of Exhibit 2-2 presents the typical section concept for the EA-1 Elevated alternative, including flanking one-way parallel arterial roadways for the full length of the project (between Willow Street and I-10 one-way and two-way parallel roadways are being considered).

Slip ramp connections would be provided in advance of each interchange crossing street ("slip ramp" refers to a free flow mid-block ramp connection from the freeway to the one-way parallel arterial, or vice-versa). For the existing alignment, this concept is believed to offer the best flexibility in providing for adequate freeway operations, providing for local land and street access, and minimizing adverse socioeconomic impacts. It also offers increased traffic capacity in case of mainline overcrowding or closure. The parallel arterial concept has been used in prior LaDOTD studies.

EA-1 Elevated From the Airport Area To Pinhook (Plates 1 and 2a; Appendix A)

Between the south end of the project and Pinhook Road, the freeway generally

would be at-grade with overpass grade separation structures at the University/Surrey interchange and the Vermilion River. The University/Surrey interchange area has to take into consideration the FAA-required Runway Protection Zone (RPZ) for Runway 11-29 at Lafayette Regional Airport. With the existing Thruway alignment just 650′ off the end of Runway 11-29, the 34:1 approach surface for the RPZ restricts the height of the I-49 Connector freeway overpass so that air traffic can operate safely.

The University/Surrey interchange concept design provides a profile on University/Surrey that meets project design speed criteria and does not require a pump station. This concept necessitates the extension of Runway 11-29 on its east end approximately 350′, with a corresponding shift in the 11-29 RPZ. This will allow the Connector mainline overpass to be raised approximately 11', to provide appropriate vertical clearance over University/Surrey.

The University/Surrey underpass would have a design speed of 40 mph and would not require pumping. Also, the University/Surrey parallel roadway intersection areas would not be extensively below grade and the need for retaining walls and/or additional right-of-way would be diminished.

Preliminary engineering investigations and contacts with airport officials indicate that the 350' runway extension could fit on currently owned airport property. Field investigations show that a portion of this airport land is considered jurisdictional wetlands (it has been de-foliated routinely in the past). Estimates are that the footprint of the embankment required for the runway would cover a maximum of five acres of these wetlands.

There is a possibility that detailed engineering would show that subsurface soils conditions in the area would require a larger embankment footprint than would fit on airport land (a prior runway extension of about 200′ constructed in 1967 has subsided up to approximately four feet and has been removed from service). Any encroachment beyond the airport property line would require additional wetlands takings and impact Bayou Tortue (a small tributary of the Vermilion River), possibly causing the need for its realignment.

A University/Surrey Street underpass alignment that would allow the Connector freeway to remain below the existing approach surface was investigated. In order for the underpass to provide proper vertical clearance for passage of vehicles beneath the freeway overpass, substandard geometric design criteria would have been used (refer to Section 2.3.2 for additional information).

Investigations were made as to the need, technical feasibility, and practicality of providing an interchange at Pinhook Road rather than University/Surrey. Results of these investigations indicate the higher practicality and greater traffic service of an interchange at University/Surrey rather than Pinhook Road (refer to Section 2.3.2 for additional information).

EA-1 Elevated In the Core Area (Plate 3a; Appendix A)

EA-1 Elevated would be continuously elevated through the core area with cross streets passing below. Its alignment would stay between the existing Thruway's directional roadways, which would be retained and utilized as the one-way parallel arterials for the Connector freeway. The existing arterial cross streets, as discussed in Section 4.2.1.b, would continue to pass unimpeded underneath the Connector freeway.

For the EA-1 Alignments, a full diamond interchange at Johnston Street would be utilized to provide direct service from the Connector freeway northbound and southbound to Johnston Street and the CBD. Indirect service to other locations will be provided via the one-way parallel arterials.

Subalternatives C and D

Subalternative C, a half diamond slip ramp interchange at Mudd Street that would provide direct service from the Connector freeway southbound to Mudd Street and the CBD. This interchange would provide indirect service to Simcoe, 2nd, 3rd, Jefferson Streets and the CBD via the one-way parallel arterials. Subalternative C would allow access to the Connector freeway northbound only at the Mudd Street interchange from the northbound parallel arterial.

Subalternative D would replace the interchange at Cameron/Mudd Streets with a full diamond interchange at a redesigned 2nd and 3rd Street couplet. Slip ramps would be utilized to provide service to and from this interchange. This interchange would work in connection with the Johnston Street interchange to provide direct access to the CBD; however, Jefferson and Simcoe Streets would be blocked off by the extra slip ramps needed for this interchange. Indirect service will be provided to Simcoe, Jefferson and Mudd Street via the one-way parallel arterials.

In developing the EA-1 Elevated alternative, some considerations were given in order to avoid impacts to the Sterling Grove Historic District, including St. Genevieve Church and Elementary School. Adjacent to the St. Genevieve Church the corridor is narrow, and the northbound ground level Thruway is located just 25′ from the face of the building. To avoid any additional undue impacts due to the Connector freeway, reverse curvature was used in the freeway design south of Mudd Street to allow for greater separation between the St. Genevieve Church and School and the Connector freeway. This design gives approximately 150′ of clearance from the elevated Connector freeway to the face of the St. Genevieve Church. Additionally, the existing ground level northbound Thruway would be relocated to the west away from the front of the Church. This not only will benefit the Church and School, but also will improve safety for motorists since the existing sharp reverse curvature, which is below design standards, will be made smoother.

With the Connector aligned more to the west to avoid the Church and School, this will create a situation where the elevated freeway will partially overhang

the southbound parallel arterial in the area around Simcoe Street.

EA-1 Elevated Between The Union Pacific Railroad Spur And I-10 (Plates 4a, 4b, 4c, and 4d; and 5; Appendix A)

All alternatives will have an elevated mainline freeway from the Union Pacific Railroad spur north to Willow Street. The Willow Street interchange area (Plates 4a, 4b, 4c and 4d, Appendix A) would establish the freeway alignment through the center of the Gateway Lafayette landscaped area and visitors information center (operated by the Lafayette Convention and Visitors Commission). Interchange ramps would approximately follow the existing ground level Thruway alignment. The Gateway is situated by joint use agreement on LaDOTD right-of-way and by terms of the agreement is subject to removal if deemed appropriate by LaDOTD.

All of the alternatives propose that the Willow Street mainline freeway overpass be continuously elevated on bridge, a feature that will maintain sight lines under the freeway. Donlon Avenue would remain open under the freeway in either case, and would provide access opportunities to the median area.

From Willow Street north to I-10, four subalternatives have been identified for the developed business area. These are described below.

Subalternatives G, H, I and J

Subalternative G (Plate 4c; Appendix A) proposes an at-grade mainline freeway for the area between Willow Street and the existing ramp connections on the south side of the I-10 interchange. Subalternative G requires the closing of two median openings between Willow Street and I-10 that provide access to the existing two-way frontage roads and developed business community on each side of the Thruway. Traffic currently using these openings (approximately 6,000 ADT for both locations) would be redirected to Willow Street. Under Subalternative G the one-way parallel roadway system flanking the freeway would end at Willow Street with the existing two-way frontage roads remaining intact between Willow Street and I-10. In addition to the increased traffic from the median openings which has been redirected to Willow Street, a closely spaced network of four frontage road and ramp intersections on Willow Street would be the result (currently four intersections of mainline Thruway and frontage roads).

Subalternative H (Plate 4b; Appendix A) proposes an elevated freeway between Willow Street and the southern ramp connections of the I-10 interchange. Subalternative H, as well as Subalternatives I and J (discussed following), would allow for the continuation of the one-way frontage road/slip ramp concept that is provided throughout the rest of the corridor to the north side of Willow Street. Subalternative H requires the closure of the northern-most median opening between Willow Street and I-10, but provides a new connection of Martin Luther King Drive and Castille Avenue at the location of the existing southern-most median opening. This is accomplished by realigning Martin Luther King Drive through part of a shopping center's

parking area. Additionally, under bridge connections and free-flow U-turn roadways would be provided on the north side of Willow Street and just south of I-10, where the Connector freeway would return to grade. North of the point where the elevated section returns to grade the existing two-way frontage roads would remain.

Subalternative I (Plate 4a; Appendix A) proposes an elevated freeway from Willow Street to just north of the proposed realigned connection between Castille Avenue and Martin Luther King Drive as discussed above for Subalternative H. The freeway would be at grade from the MLK/Castille connection to the I-10 interchange. The one-way parallel roadway concept on the north side of Willow Street would terminate at the MLK/Castille connection, with two-way frontage roads provided north of this point to the I-10 interchange. Subalternative I requires the closing of the northern-most median opening between Willow Street and I-10. Traffic currently using this median opening would be redirected to the free-flow U-turn roadways provided at Willow Street and the MLK/Castille connection.

Subalternatives G, H, and I would be compatible with any future plans for the I-10/I-49 interchange area.

Subalternative J (Plates 4d and 5; Appendix A) proposes an at-grade freeway from just north of Willow Street to the existing southern ramp connections for the I-10 interchange. Castille Avenue and Martin Luther King Drive would be realigned and connected to form an elevated crossover above the at-grade freeway. Two-way access roadways just to the north of the elevated crossover would connect MLK/Castille with the one-way parallel roadways, which would extend on the north side of Willow Street to a new U-turn roadway passing under the Connector just south of I-10. The new U-turn roadway would be constructed by partially elevating the freeway, providing short bridges on the mainline and two ramps, and partially depressing the U-turn roadway. The new U-turn and bridges just south of I-10 would be highly compatible with the soon-to-be-constructed two-way frontage roads south of I-10 as an opportunity would be provide to connect the I-10 frontage roads across the I-49 Connector. The two existing median openings would require closure.

<u>Interchangeability Amongst Subalternatives</u>

It should be noted that the concept of the MLK/Castille Connection passing over an at-grade freeway (Subalternative J) can be interchanged with the concept of an at-grade MLK/Castille Connection passing under an elevated freeway (Subalternatives H and I). Under this mix and match interchangeability, other features of the subalternatives would remain unchanged.

2.2.2.b EA-1 Selected Overpasses (Plates 1; 2a; 3c; 4a, 4b, 4c, or 4d; and 5; Appendix A)

The EA-1 Selected Overpasses horizontal alignment is described by nodes A-B-C-D-E-F. This is the same horizontal alignment as the EA-1 Elevated alternative. EA-1 Selected Overpasses

would also have the same vertical alignment, except in the core area where an undulating (up and down) profile would occur (rather than be continuously elevated). In the core area between Mudd Avenue and Pinhook Road, overpasses would be provided at designated major cross streets and the freeway would return to grade level between these overpasses. The proposed interchange locations would be the same as the EA-1 Elevated interchange locations. These are shown on Exhibit 2-1 with additional description provided in Table 2-1 and Plates 1, 2a, 3c, 4a-d, and 5 in Appendix A. The typical section concept for the EA-1 Selected Overpasses alternative in the core area, including flanking one-way parallel arterials, are shown on the top half of Exhibit 2-2.

Slip ramp connections would be provided in advance of each interchange crossing street just as for the EA-1 Elevated alternative.

EA-1 Selected Overpasses From the Airport Area To Pinhook (Plate 2a; Appendix A)

There would not be any differences between EA-1 Elevated and EA-1 Selected Overpasses alternative in this area. Both alternatives follow the same alignment and profile and would require the 350′ extension of Runway 11-29 to the southeast.

EA-1 Selected Overpasses In the Core Area (Plate 3b, Appendix A)

The EA-1 Selected Overpasses alternative would be an at-grade freeway between Pinhook Road and Mudd Avenue with overpasses at Pinhook Road, Johnston Street, and Mudd Avenue. The interchanges at Johnston Street and Mudd Avenue would remain the same as the interchanges in Subalternative C for the EA-1 Elevated alternative. Subalternative D would not apply to EA-1 Selected Overpasses. Simcoe, 2nd, 3rd, Jefferson, and Taft Streets, as well as all minor streets, are severed and continuous access across the project mainline will no longer occur. A continuous one-way ground level parallel roadway system utilizing the existing Evangeline Thruway roadway is provided to accommodate local trips and land use access. Any vehicles wanting to cross from one side of the Connector freeway to the other would utilize these one-way parallel arterials to either Pinhook Road, Johnston Street, or Mudd Avenue.

The central business district would be accessible to southbound traffic from the Mudd Avenue interchange via the southbound ground level parallel arterial to 2nd Street then Congress Street, or by exiting directly at Johnston Street. Northbound traffic on the Connector freeway would exit at Johnston Street and enter the CBD via Johnston Street or follow the one-way frontage road system utilizing the turnaround at Mudd Avenue to get to 2nd Street. Pinhook and Taft Streets could be indirectly accessed by the one-way parallel arterials via interchanges at University Avenue or Johnston Street.

Additional technical considerations must be accounted for due to several differences between the EA-1 Selected Overpasses and the EA-1 Elevated alternatives. The Connector freeway on

the EA-1 Selected Overpasses alternative would follow the same reverse curvature alignment as it does for EA-1 Elevated alternative, to provide greater separation from the St. Genevieve Church and School. For EA-1 Selected Overpasses, however, the southbound one-way parallel arterial would need to be realigned and reconstructed slightly to the west of the existing Evangeline Thruway between Mudd Avenue and Jefferson Street, requiring additional right-of-way. The realignment is required because of the narrow corridor in this area, and the fact that the freeway is at-grade and therefore will not be able to overhang the ground level parallel roadway as is the case for the EA-1 Elevated alternative. The northbound parallel roadway would be realigned for better geometry around the St. Genevieve Church just as for the EA-1 Elevated alternative.

EA-1 Selected Overpasses Between The Union Pacific Railroad Spur And I-10 (Plates 4a, b, c, or d and 5; Appendix A)

This section of the project would be identical to the EA-1 Elevated alternative in the same area. The mainline of the interstate would go through the Gateway areas, while Subalternatives G, H, I, and J would apply for the area between Willow Street and I-10.

2.2.2.c General Discussion Of The RR Alternatives

Three alignment options utilizing some of the existing Thruway and some new alignment sections adjacent to the Union Pacific Railroad have been developed for consideration. These three alignments can best be described by traversing from node to node as indicated on Exhibit 2-1. The three alignments offer four alternatives for consideration:

- RR-3 Elevated
- RR-3 Selected Overpasses
- RR-4 Elevated
- RR-5 Elevated

Each of the RR alternatives is the same as the EA-1 alternatives from the south end of the project to Kaliste Saloom Road and from Mudd Avenue to the north end of the project.

Just as for the EA-1 Elevated alternative, interchanges are proposed at Kaliste Saloom Road, University Avenue/Surrey Street, Johnston Street, Mudd Avenue or 2nd/3rd Streets, and Willow Street. Subalternatives G, H, I, or J, as described in Section 2.2.2.a, could be used interchangeably for each of the RR alternatives. Refer to Tables 2-1 through 2-4 and Plates 1 through 5 in Appendix A for additional information.

Generally, the primary reason for utilizing part of the railroad corridor for implementation of a freeway highway project would be to potentially minimize adverse socioeconomic and environmental impacts. The alignments of the RR-3 Elevated, RR-3 Selected Overpasses, and RR-4 Elevated alternatives would provide approximately 280′ of separation to the St. Genevieve Church in the Sterling Grove Historic District. This allows for more clearance between the Church and the I-49 Connector than does the EA-1 and RR-5 alternatives, which provide approximately 150′ of clearance.

Secondarily, there may be potential for improving alignment and addressing other engineering considerations. It should be recognized that development of a freeway along the Union Pacific Railroad would introduce a second urban highway in the same general corridor as the existing Thruway, with some of the same impacts attributed. From an engineering and operations standpoint, the close proximity of the freeway and railroad requires special considerations in the development of interchanges and access provisions.

The typical section concept for the freeway when it would be adjacent to the Union Pacific Railroad is shown on the bottom half of Exhibit 2-2. No parallel roadways directly adjacent to the freeway would be provided in the core area, except for the RR-3 Selected Overpasses alternative, which would require a new southbound collector-distributor roadway between Mudd Avenue and Johnston Street. Except for this, the existing Evangeline Thruway approximately one and one-half blocks to the east would serve as the collection and distribution roadways. The slip-ramp concept would be replaced by point access interchanges at up to two locations.

2.2.2.d RR-3 Elevated (Plates 1; 2b or 2c; 3d; 4a, b, c, or d; and 5; Appendix A)

The RR-3 alignment is described by nodes A-B-G-H-D-E-F on Exhibit 2-1. From south to north, this combination alignment would parallel the Union Pacific Railroad mainline to Johnston Street, then bend to rejoin the existing alignment near Mudd Avenue. Segment BGHD replaces segment BCD of EA-1. RR-3 is the most direct mainline connection from south of the airport to I-10.

The mainline roadway would be further removed from the Lafayette Regional Airport, thus providing the opportunity for a University interchange which avoids the Runway 11-29 Runway Protection Zone and eliminates the consideration of extending Runway 11-29 on its east end (refer to the discussion in Section 2.2.2.a).

For RR-3 Elevated, a two level single point diamond interchange with a new railroad underpass is proposed at Johnston Street. At this time, this configuration is considered the most functional and practical in consideration of the close proximity and requirements of the railroad and the nearby existing Evangeline Thruway signalized intersections. This underpass would require a pumping station to assist with the drainage. For the two EA-1 alternatives, no railroad underpass at Johnston is proposed because the mainline freeway alignment is far enough removed from the railroad so that the underpass is not deemed necessary for proper operations of the Connector freeway.

<u>Subalternatives A and B</u>

Subalternative A (Plates 2b and 3d; Appendix A) would provide for the Connector freeway to overpass Pinhook Road, which would maintain its existing profile. There would not be an interchange at Pinhook Road. The at-grade crossing of Pinhook Road at the Union Pacific Railroad would continue to exist.

Subalternative B (Plates 2c and 3d; Appendix A) would consist of an at-grade I-49 Connector in the Pinhook Road area. A grade separation with Pinhook Road going over the freeway would be provided. In order to accomplish this, Pinhook Road would necessarily overpass the railroad also. The length affected along an elevated Pinhook Road would be approximately 950′ to the west and 950′ to the east of the railroad tracks. The Pinhook Road overpass would cause some minor streets to be redirected. Just as for Subalternative A, there would be no interchange of the Connector with Pinhook Road. Subalternative B severs Taft Street and renders it discontinuous across the freeway.

North of University Avenue east of the Union Pacific Railroad, the RR-3 Elevated alternative traverses an abandoned landfill site that currently accommodates the LCG Department of Public Works.

Subalternatives E, F, and MPO

Subalternative E (Plate 3d; Appendix A) is similar to Subalternative C in that it provides a half-diamond interchange at Mudd Avenue along with the full diamond interchange at Johnston Street as previously mentioned in this section.

Subalternative F (as shown with RR-4 on Plate 3g; Appendix A) provides a full diamond interchange with a redesigned 2nd and 3rd Street couplet instead of an interchange with Mudd Avenue. This intersection would be depressed with 2nd and 3rd Streets going under the railroad similar to the Johnston Street underpass. A pumping station like the one associated with the Johnston Street underpass would be needed with the 2nd and 3rd underpass to aid drainage.

As with Subalternative D, this interchange would provide direct access to the CBD; however, Jefferson and Simcoe Streets would be severed due to the extra ramps needed for this interchange.

Refer to Section 2.4 for a description of the MPO Subalternative which was developed as a result of input from the local community after publication of the Draft EIS.

From Willow Street north to I-10, Subalternatives G, H, I, or J would be applicable.

2.2.2.e RR-3 Selected Overpasses (Plates 1; 2b or 2c; 3e; 4a, b, c, or d; and Plate 5; Appendix A)

This alternative has the same horizontal alignment as RR-3 Elevated and is represented on Exhibit 2-1 by nodes A-B-G-H-D-E-F. However, the RR-3 Selected Overpasses alternative is characterized by an undulating (up and down) profile between Pinhook Road and Mudd Avenue. This profile is the same as RR-3 Elevated from the south end of the project to the Vermilion River and from Mudd Avenue to the north end of the project. Between the Vermilion River and Mudd Avenue the profile is undulating to provide grade separation provisions at Pinhook Road, Johnston Street, and Mudd Avenue. The grade separations at Johnston Street and Mudd Avenue would have I-49 on bridge passing over the cross streets. Two options exist for the grade separation at Pinhook Road, one with I-49 over and one with the cross street over. These are

identified as Subalternatives A and B, which were described previously for the RR-3 Elevated alternative and also would apply for the RR-3 Selected Overpasses alternative. Subalternatives A and B both would require the closing of Taft Street, rendering it discontinuous across the Connector freeway.

RR-3 Selected Overpasses could use any one of Subalternatives G, H, I, or J in the area between Willow Street and I-10. Interchange locations and types would be the same for the RR-3 Selected Overpasses alternative as Subalternative E for the RR-3 Elevated alternative. Subalternative F would not apply to RR-3 Selected Overpasses: thus, the half diamond interchange at Mudd Street would be utilized for RR-3 Selected Overpasses.

The RR-3 Selected Overpasses alternative becomes at-grade between Johnston Street and Mudd Avenue. Simcoe, 2nd, 3rd, and Jefferson Streets, as well as all minor streets, are severed and continuous access across the project mainline will no longer occur. In order to provide indirect access to these streets, a new southbound one-way parallel roadway would be built to the west of the Connector freeway between Mudd Avenue and Johnston Street. This southbound one-way parallel roadway would fork from the existing southbound Evangeline Thruway just south of Mudd Avenue and continue south on the west side of the Connector freeway to Johnston Street. Due to this new parallel roadway, a standard diamond interchange at Johnston Street would be utilized for the RR-3 Selected Overpasses alternative, rather than a single point diamond as described for the RR-3 Elevated alternative. The existing southbound one-way parallel arterial would remain generally intact with some realignment required between 3rd Street and Mudd Avenue.

2.2.2.f RR-4 Elevated (Plates 1; 2a; 3f or 3g; 4a,b,c, or d; and 5; Appendix A)

The alignment of the RR-4 Elevated alternative is described by nodes A-B-C-H-D-E-F on Exhibit 2-1. Segment C-H-D would replace segment C-D, the core area, of the EA-1 alternatives. Impacts in the core area would be shifted more to the warehousing and other facilities along the Union Pacific Railroad.

The RR-4 Elevated alternative would be an elevated freeway from the Vermilion River to north of Willow Street. RR-4 Elevated would remain on the existing Thruway alignment in the airport area and thus requires the displacement of Runway 11-29 (see Section 2.2.2.a). Just as for the RR-3 alternatives, RR-4 Elevated would include a railroad grade separation at the Johnston Street interchange. Subalternative E (Plate 3f) or F (Plate 3g) would be used with RR-4 Elevated. These are described in Section 2.2.2.d. In the Willow Street and I-10 areas, Subalternatives G, H, I, or J would be considered.

Interchange types and locations would be the same as for the EA-1 Elevated on the northern and southern ends and RR-3 Elevated in the core area.

2.2.2.g RR-5 Elevated (Plates 1; 2d; 3h; 4a, b, c, or d; and 5; Appendix A)

The alignment of the RR-5 Elevated alternative is described by nodes A-B-G-C-D-E-F on Exhibit 2-1. Segment B-G-C

replaces B-C of the EA-1 alternatives and then the existing alignment is utilized north from near Pinhook Road. The freeway alignment would be more direct than the EA-1 alternatives. Similar to the RR-3 alternatives, RR-5 Elevated avoids the Runway 11-29 RPZ and eliminates the displacement of Runway 11-29 for the University Avenue area as described in Section 2.2.2.a. The RR-5 Elevated alternative traverses an abandoned landfill site on the north side of University Avenue east of the Union Pacific Railroad that currently accommodates the Lafayette Consolidated Government Department of Public Works. In the Core Area, either Subalternative C or D could be used. In the Willow Street and I-10 areas, Subalternatives G, H, I, or J would be considered.

2.2.3 BASIC LANEAGE AND TRAFFIC OPERATIONS

2.2.3.a Basic Laneage

The Lafayette Department of Planning, Zoning, and Codes (DPZC) maintains a transportation planning computer model for the Lafayette metropolitan region. Based on various land use projections, population growth, and other planning variables, the DPZC projects that the Average Daily Traffic (ADT) in the corridor will range between 117,000 and 135,000 in the year 2025. This projection is made on the basis that a freeway is built in the corridor. These DPZC model assignments have been utilized for planning and impacts analyses for the freeway alternatives of the EIS studies.

The DPZC further provides traffic design year estimates that indicate the split of traffic between the Connector freeway and the parallel roadways range from 87%/13% to 53%/47%. For the no-build alternative, the DPZC model indicates an ADT between 63,000 and 87,000 on the Thruway in the year 2025 (the no-build alternative would not be expected to capture traffic from other area roadways or generate as much additional traffic and thus is lower than the "build" traffic volume).

Using the generalized Connector figures of 130,000 ADT total corridor volume and 70% freeway 30% parallel roadway traffic split yields a mainline design volume of 91,000 ADT and a parallel roadway design volume of 39,000 ADT for the freeway alternative of the Connector project. As demonstrated in the following calculations, with 22% trucks, directional split D of 55%, and percent peak hour traffic K of 10%, a six lane freeway is required to service the 91,000 ADT in the year 2025 at Level Of Service D or better.

Given: 60 mph Freeway

LOS D
*D = 55%**
*K = 10%**
*T = 22%**

**From LCG Transportation Division Traffic Counts, 1998*

$$SF = MSF \times N \times f_t$$

SF=Service Flow Rate (vehicles per hour)
MSF =Maximum Service Flow Rate (passenger cars per hour)
= 1856 for LOS D

N = No. of Lanes Each Direction
= 3
f_t =Truck Adjustment factor = 0.90

SF =1856 x 3 x 0.90 = 5010 vph (one direction)

$ADT_{MAX} = SF / (K \times D)$

$ADT_{MAX} = 5010 / (.10 \times .55) = 91{,}000 \geq 91{,}000$

Using N = 2 (4 lane freeway) yields an ADT_{MAX} = 70,700, which is less than the year 2025 volume of 91,000.

Reference: 1994 Highway Capacity Manual, Updated December 1997

The calculations show that a six-lane freeway will be adequate for a LOS D through the design year. It is estimated that by the year 2030 the facility may operate at LOS E or worse. The six-lane freeway concept has been used in planning and impact analyses for the various freeway alignment and highway type alternatives. Auxiliary lanes as required would supplement the basic six lanes.

The DPZC parallel roadway traffic assignments result in an average ADT volume of 39,000. Generally, a higher ADT is anticipated to be attained near slip ramp interchanges and for the central core area where the local street grid will be heavily depended on for collection and distribution of traffic to and from the freeway. With these conditions, the basic laneage on the existing Thruway would be adequate for the parallel roadways when utilized in conjunction with the freeway system. This results in laneage on the one-way parallel arterials of two lanes each direction from the south to Pinhook Road and three lanes from Pinhook Road to the north end of project. This laneage would be supplemented with turning lanes as required at intersections and other modifications as may be necessary at the locations of the free flow slip ramp connections to the parallel roadways. The above-described configuration has been used in the impacts analyses conducted during the EIS studies. Specific geometry and laneage at differing locations should be confirmed during design.

For the no-build alternative, the six-lane core area couplet system on Evangeline Thruway could not accommodate the 2025 average 71,000 ADT unconstrained demand volume assignment. Traffic would experience level of service "F".

In addition to the freeway and no-build alternatives, a "partial upgrade" improvement alternative was considered which would maintain the existing Thruway in the core area and thus avoid displacements and other impacts. This alternative also could not accommodate the unconstrained demand volume assignment. Refer to Section 2.3.1 for more information.

2.2.3.b Traffic Operations

Schematic representations of traffic operations on the freeway alternatives are shown on Exhibits 2-3a, b, and c. For the full length of the EA-1 alternatives and most of the length of the RR alternatives, flanking parallel arterials for land service and freeway collection/distribution are provided. From the airport north to Willow Street, the parallel arterials would be one-way, with two or three lanes provided for each direction of travel. This

one-way operation would be similar to operations on the existing Evangeline Thruway and, in fact, would utilize the existing Thruway from Pinhook Road to near Willow Street. Between Willow Street and I-10, the existing Thruway would be converted to freeway operations. Subalternatives G, H, I, and J propose either to continue to use the existing two-lane, two-way frontage roads on each side or to implement a continuation of the one-way system to north of Willow Street.

As described in Section 2.1 and shown on Exhibit 2-3, for each alternative alignment many streets crossing the freeway will remain open to traffic, connecting into the flanking one-way roadways, to provide local traffic circulation and land access to abutting properties. The number and location of through crossing streets would vary between the EA-1 Elevated and the EA-1 Selected Overpasses alternatives (refer to Exhibit 2-3a). Kaliste Saloom Road, University/Surrey, Pinhook Road, Johnston Street, Mudd Avenue, Donlon Street and Willow Street would remain open for both of the EA-1 alternatives. Taft, Jefferson, 3rd, 2nd, Simcoe, 15th/16th, Grieg, Bellot, and Tissington Streets would remain open for the EA-1 Elevated, Subalternative C, alternative and would be closed for the EA-1 Selected Overpasses alternative. Jefferson, and Simcoe Streets would not remain open for Subalternative D. Additionally, a new crossover north of Willow Street connecting Martin Luther King Dr. with Castille Avenue and tying to the frontage roads is proposed for Subalternative H, I, and J. Two median openings between Willow Street and I-10 that provide partial traffic service (left and right turns from the Thruway to the frontage roads and turns from the frontage roads to the Thruway, but no direct frontage road-to-frontage road crossing of the Thruway) would be removed. Most traffic currently using the median openings would be redirected to the Willow Street interchange and then the parallel frontage roads.

For the EA-1 Elevated and EA-1 Selected Overpasses alternatives, Exhibit 2-4 shows that the freeway would be centered between the flanking parallel arterials. Slip ramps would join the two roadway systems and provide the means of travelling from the freeway to the parallel arterials and ultimately abutting properties or the city street system. Driveway access to properties on the driver's right would be unrestricted for the full length of project (except near exit or entrance ramp junctions as indicated on Exhibit 2-4). Other features of the operational concept for the EA-1 alternatives would be turn-arounds for U-turn movements provided in advance of many signalized intersections and directional movements provided at the intersections. Exhibit 2-4 demonstrates roadway operations at a typical location along the EA-1 alternatives.

The RR-3 Elevated, RR-3 Selected Overpasses, RR-4 Elevated, and RR-5 Elevated alternatives incorporate some of the slip ramp concept as described for the EA-1 alternatives. These are shown on Exhibits 2-3b and c. For new alignment sections adjacent to the Union Pacific Railroad, the more traditional (in Louisiana) diamond type interchange concept is utilized. As for the EA-1 alternatives, flanking parallel arterials (in the form of the existing Evangeline

Thruway) would be provided in the same general corridor as the freeway, offset about one and one-half blocks to the east of the freeway for varying lengths depending on the alternative.

Exhibit 2-5 demonstrates roadway operations for the RR-3, RR-4, and RR-5 alternatives at a typical diamond type interchange and this relationship to the existing Thruway. Movements from the proposed freeway to the existing Thruway would be somewhat more cumbersome when compared to slip ramp operations. For the RR-3 alternatives, two slip ramp interchanges would be replaced by diamond types (at University and Johnston). For the RR-4 Elevated and RR-5 Elevated alternatives one slip ramp interchange would be replaced by a diamond type (at Johnston for RR-4 and University for RR-5).

For alternatives paralleling the Union Pacific mainline in the core area, the RR-3 and RR-4 alternatives, an underpass on Johnston Street at the railroad would be necessary to allow proper operations of the freeway and ramp system. The railroad underpass on Johnston Street (not necessary for the EA-1 and RR-5 alternatives) would benefit traffic operations on the local network by supplementing existing underpasses at University Avenue and Jefferson Street and is consistent with city goals and prior studies indicating the need for improved crossings of the railroad. Subalternative F requires an underpass on a redesigned 2nd and 3rd Street couplet at the railroad tracks. This interchange would allow direct access to the CBD from the interstate, thus benefiting the CBD. However, the addition of an interchange at 2nd and 3rd Streets would sever Jefferson and Simcoe Streets causing a reduction in traffic circulation opportunities.

Crossing streets for the RR-3 Elevated, RR-4 Elevated, and RR-5 Elevated alternatives, as associated with Subalternatives C and E, would remain open the same as provided for the EA-1 Elevated alternative with Subalternative C. Subalternative F as associated with RR-3 and RR-4 Elevated would block off Simcoe and Jefferson Streets. Subalternative D with RR-5 Elevated would have the same traffic operations as it would with EA-1 Elevated for the core area. Taft, Jefferson, 2nd, 3rd, and Simcoe Streets, as well as some low volume local streets, would be cut off by the RR-3 Selected Overpasses alternative, the same as for the EA-1 Selected Overpasses alternative.

2.2.4 COSTS

Preliminary highway construction, utilities, and right-of-way acquisition cost estimates have been developed for each of the alternatives and subalternatives described previously (see Tables 2-5 and 2-6).

This includes six freeway alternatives on four alignments (EA-1 Elevated, EA-1 Selected Overpasses, RR-3 Elevated, RR-3 Selected Overpasses, RR-4 Elevated, and RR-5 Elevated). The cost estimates are dependent on which subalternatives are chosen for implementation and therefore are presented as ranges in Table 2-5 for the six primary alternatives. Additional costs associated with the Selected Alternative, RR-4 Elevated and MPO Subalternative, are provided in Table 4-13 and discussed in Section 4.5.4. Table 2-6 indicates the least expensive subalternative combinations

and the extra costs which would be incurred if Subalternative A is substituted for Subalternative B, Subalternative D substituted for Subalternative C, Subalternative F substituted for Subalternative E, and Subalternative H, I, or J substituted for Subalternative G. Subalternative B costs considerably less than Subalternative A because it calls for an at-grade freeway between Johnston Street and University Avenue with a Pinhook Road overpass. Subalternatives D and F would be more expensive than Subalternatives C and E, because of extra roadways and ramps. Subalternative F would require retaining walls and a pump station for the underpass at the railroad tracks. Subalternatives H, I, and J (elevated freeway north of Willow) would cost more than Subalternative G (at-grade freeway) because of the additional bridge requirements and the connection of Martin Luther King Drive and Castille Avenue.

Table 2-5
IMPLEMENTATION COST ESTIMATES
($ Millions)

Alternative	Engineering & Construction	Utilities	Right-of-Way & Acquisitions	Total Cost Range
EA-1 Elevated	$197-230	$3	$30-33	$230-266
EA-1 Selected Overpasses	$168-192	$3	$31-33	$202-228
RR-3 Elevated	$188-284	$3	$54-58	$245-345
RR-3 Selected Overpasses	$161-231	$3	$55-57	$219-291
RR-4 Elevated	$205-255	$3	$32-36	$240-294
RR-5 Elevated	$235-268	$3	$51-53	$289-324

Note: Cost estimates include construction, mitigation, and joint use development or enhancement costs.

Table 2-6
SUBALTERNATIVE INCREMENTAL COSTS
($ Millions)

	Base Conditions (Least Cost)		Extra Costs Associated With Subalternatives						
Alternative	Subalternative	Cost	A	D	F	H	I	J	Maximum Cost
EA-1 Elevated	C, G	$230	N/A	$12	N/A	$24	$12	$6	$266
EA-1 Sel. Overpasses	A, G	$202	N/A	N/A	N/A	$24	$12	$6	$228
RR-3 Elevated	B, E, G	$245	$47	N/A	$29	$24	$12	$6	$345
RR-3 Sel. Overpasses	B, G	$219	$47	N/A	N/A	$24	$12	$6	$291
RR-4 Elevated	E, G	$240	N/A	N/A	$29	$24	$12	$6	$294
RR-5 Elevated	D, G	$289	N/A	$12	N/A	$24	$12	$6	$324

Notes: Cost estimates include construction, mitigation, and joint use development or enhancement costs.
Refer to Section 4.5.6 for additional costs associated with MPO Subalternative for RR-4 Elevated.

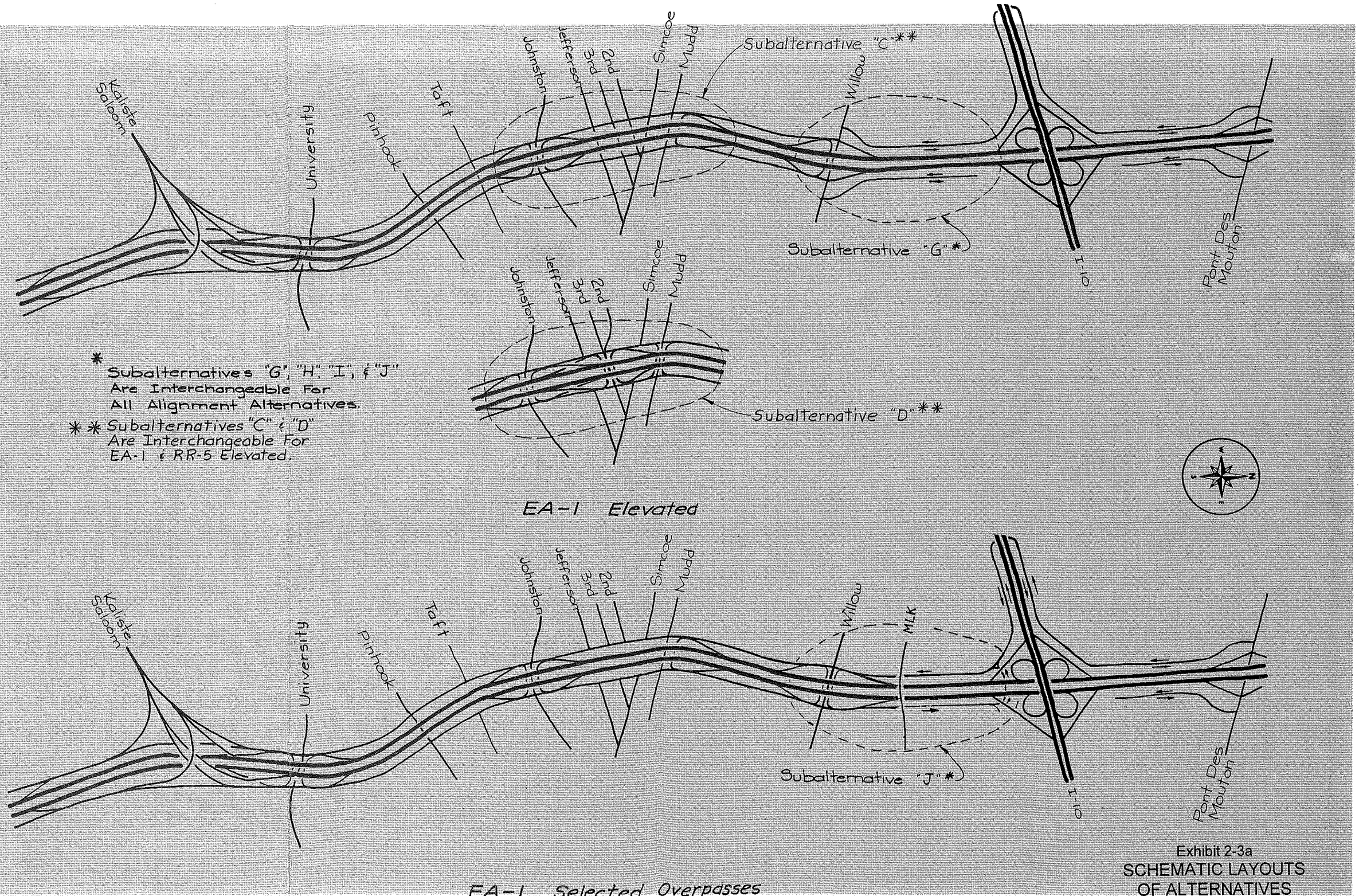
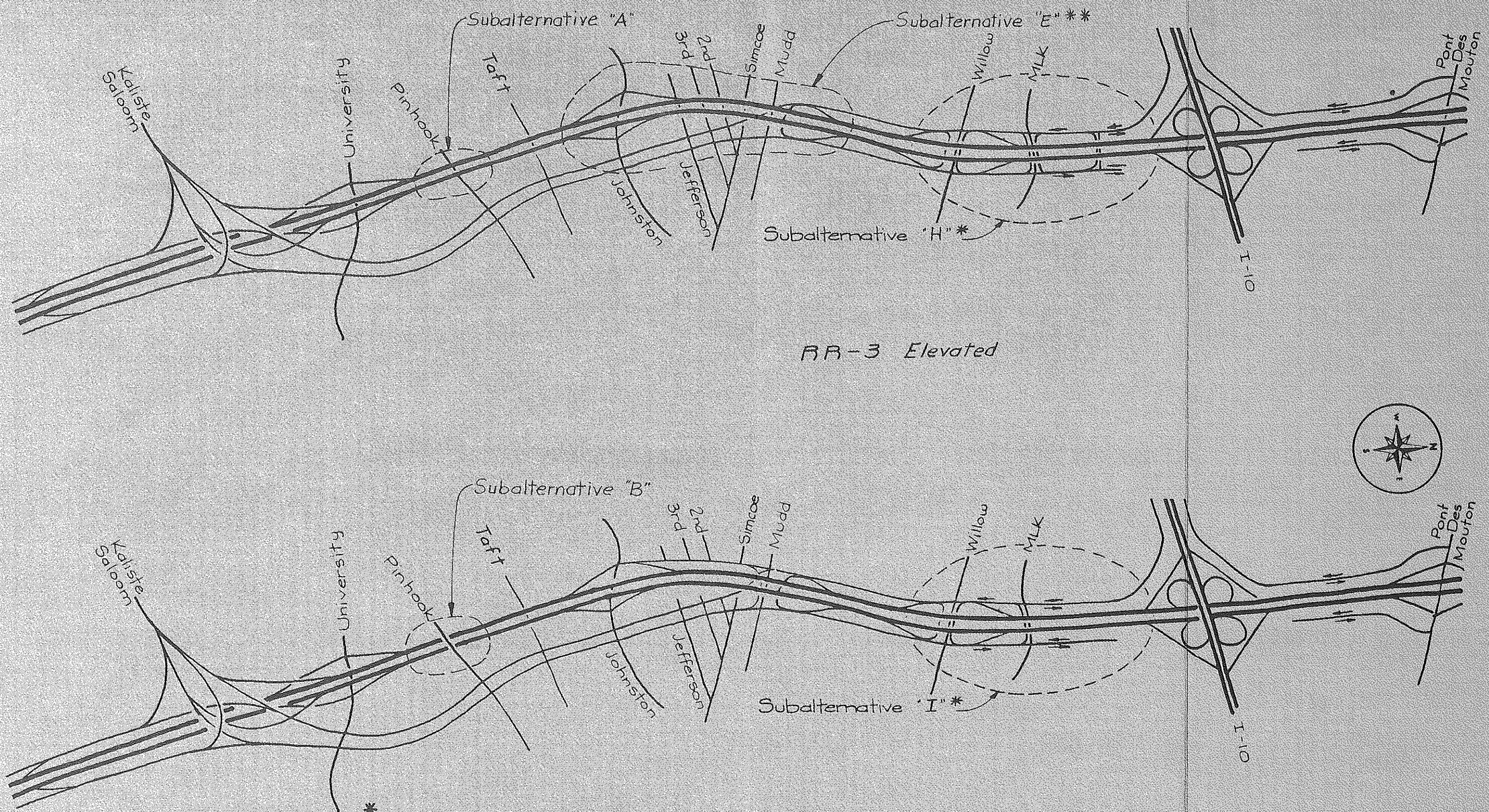


Exhibit 2-3a
SCHEMATIC LAYOUTS OF ALTERNATIVES
(EA-1 Elevated and Selected Overpasses)



* Subalternatives "G", "H", "I", & "J" Are Interchangeable For All Alignment Alternatives.

** Subalternatives "E" & "F" Are Interchangeable For RR-3 & RR-4 Elevated

Exhibit 2-3b
SCHEMATIC LAYOUTS OF ALTERNATIVES
(RR-3 Elevated and Selected Overpasses)

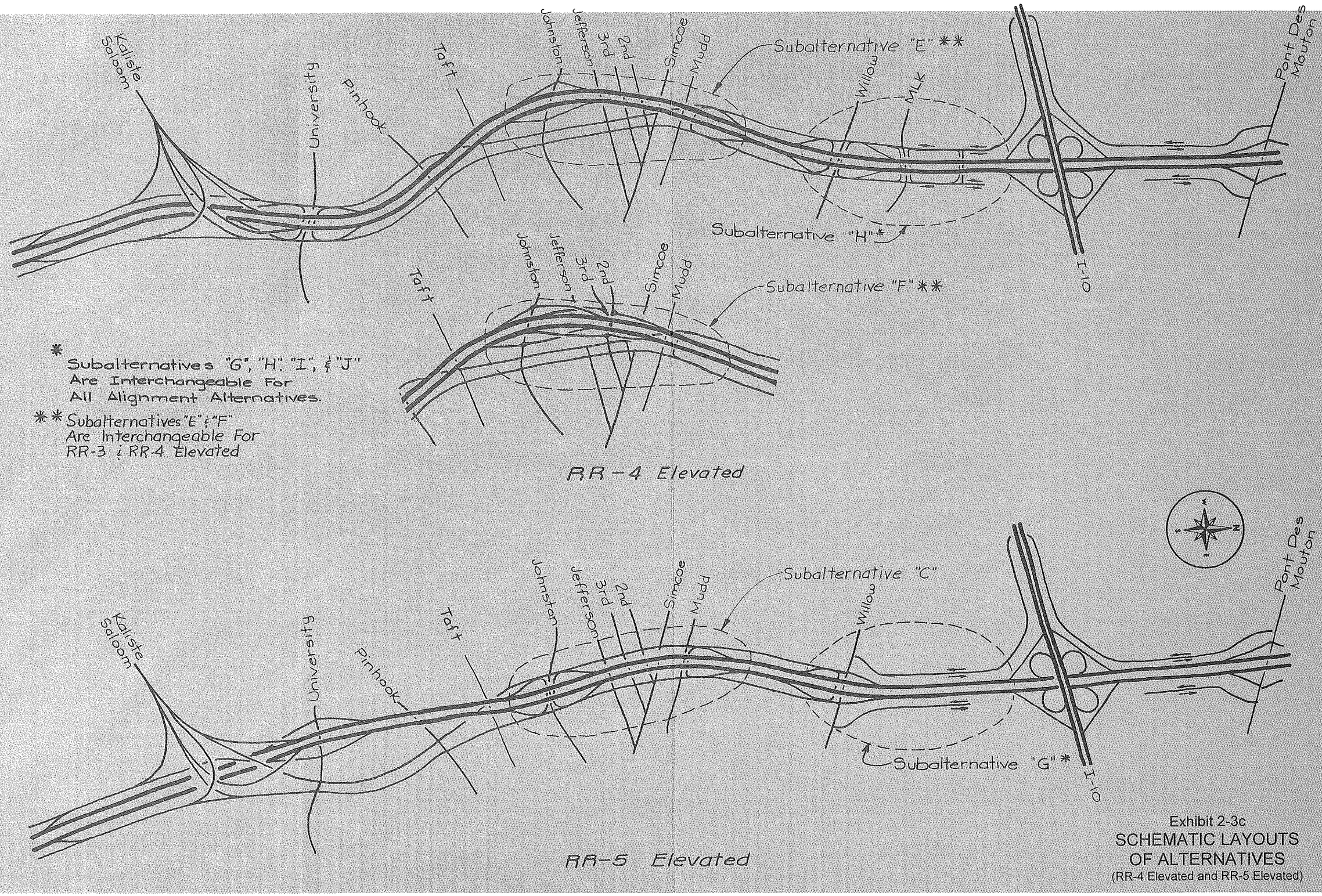


Exhibit 2-3c
SCHEMATIC LAYOUTS OF ALTERNATIVES
(RR-4 Elevated and RR-5 Elevated)

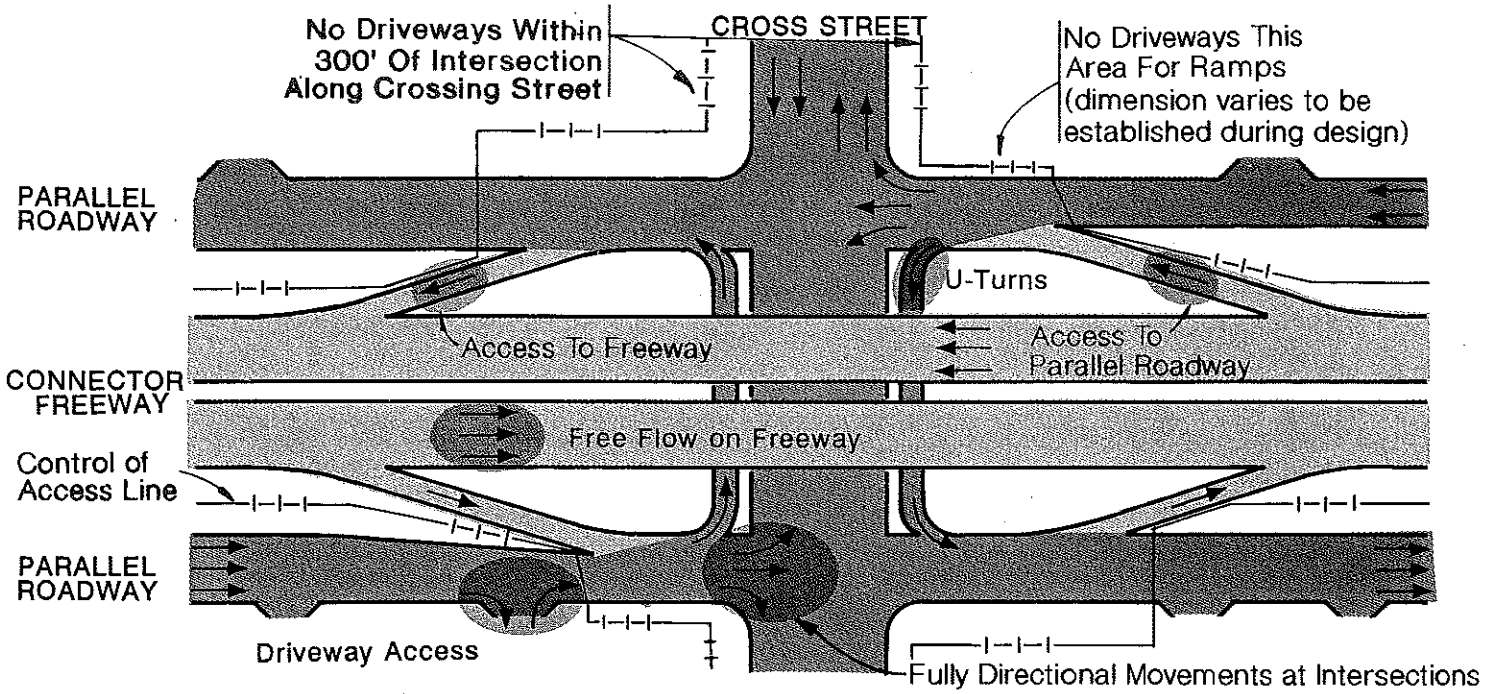


Exhibit 2-4
TYPICAL TRAFFIC OPERATIONS
FOR EXISTING ALIGNMENT OPTIONS

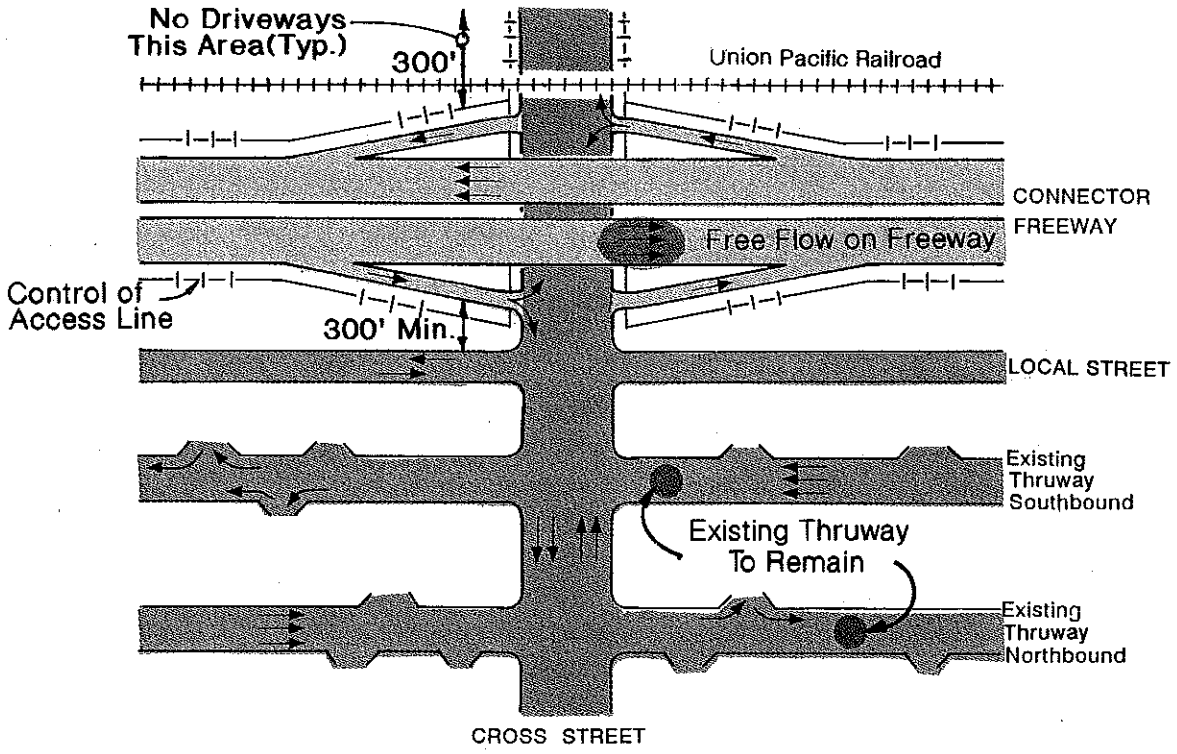


Exhibit 2-5
TYPICAL TRAFFIC OPERATIONS
FOR ALIGNMENTS ADJACENT TO RAILROAD

The precision of these cost estimates is compatible with the conceptual nature of the layouts presented in Appendix A.

Pavement ratings and LaDOTD staff evaluations indicate that the riding surface of the existing Thruway is in fair to poor condition and will most likely continue to deteriorate.

Therefore, at locations where the proposed project uses the same alignment as the existing Thruway, construction costs include reconstruction of the existing Thruway pavement. At the south and north ends of the project this pavement would be used as the freeway while in the central core area the existing Thruway would function as freeway collector/distributor roads.

For the EA-1 alternatives and RR-4 Elevated, existing bridges on the Thruway over the Vermilion River, though not structurally deficient, have been included in the cost estimates to be reconstructed for various reasons, including an allowance for widening with no clearance reduction on the river and/or mainline profile considerations.

Cost estimates for the alternatives anticipate that approximately one-half of existing utilities would be rerouted.

2.3 ALTERNATIVES ELIMINATED FROM DETAILED STUDY

Initial identification of highway improvement alternatives included several concepts in addition to those presented in Section 2.2. These additional alternatives included conceptual highway types and alignments identified by the I-49 Connector Study Team and also those offered for consideration by local officials and the general public. By virtue of an overview analysis of the apparent benefits and detriments of each alternative, some ideas have been rejected because of critical deficiencies which have caused them to be judged not worthy of additional consideration, thus allowing the concentration of study efforts on more likely alternatives. In this preliminary analysis, each alternative was gauged on the basis of technical feasibility, practicality, function, impacts to the human and natural environments, and future needs.

2.3.1 REJECTED CONCEPTUAL HIGHWAY TYPES

Partial Upgrade Alternative

In addition to the full freeway alternatives, a "partial upgrade" option was considered in order to provide the highest possible level of transportation improvements on the existing Thruway without major acquisitions of right-of-way and displacements. Essentially, this alternative would entail implementation of components of the freeway plan south of Pinhook Road and north of the Union Pacific Railroad spur, with the core area continuing to operate as a signalized one-way couplet system. This would yield

freeway – arterial – freeway roadway progression on the Thruway when proceeding south to north from the airport area to the I-10/I-49 interchange. Improvements outside of the core area would be designed in such a way as to allow for future upgrade in the core area that would yield a full freeway system through Lafayette.

The partial upgrade alternative was reviewed with regard to the needs and basis for the I-49 Connector project as these were presented in Section 1.3:

System Linkage

The partial upgrade is not compatible with the state's goal of implementing a freeway in the U.S. 90 corridor that is intended to effectively extend I-49 from Lafayette to New Orleans. Also, the partial upgrade is not as responsive locally to the increased emphasis placed on the Evangeline Thruway by the recently completed University Avenue extension, the 2nd and 3rd connection, the Willow Street widening projects and the Kaliste Saloom extension.

Traffic Conditions

Traffic on the existing Evangeline Thruway is currently exceeding or approaching the highway's capacity. Continued traffic growth is expected such that traffic level of service F will prevail in the near future unless capacity improvements are provided. Since the partial upgrade option would continue to utilize the existing Evangeline Thruway signalized one-way couplet system in the core area of the project (to minimize right-of-way and property acquisitions), it cannot provide adequate traffic service and thus does not meet the primary goal of the project — to improve transportation in the corridor.

Transportation and Land Use Plans

As discussed in Section 1.3.3, several prior studies by various authors have identified a freeway in the Evangeline Thruway corridor as a desirable action. The Consolidated Thoroughfare Plan developed by the Lafayette MPO also indicates a freeway in the Evangeline Thruway corridor. With a signalized arterial segment in the core area, the partial upgrade is not compatible with these prior studies and current plans.

Legislation and Governmental Support

The charge of the 1987 federal legislation authorizing the I-49 Connector study was "to provide limited continuous access" for any highway improvement. The Lafayette City Council and more recently the Lafayette Consolidated Government have almost annually passed resolutions of support for "the extension of I-49" in the Evangeline Thruway corridor. Since the partial upgrade option would not be a continuous freeway, and also would have traffic capacity deficiencies, it would not meet the intent of the federal and local governmental bodies for a freeway-type facility.

Other Factors

The partial upgrade option would not provide freeway service to Lafayette Regional Airport (freeway access is always a goal when considering ground transportation links to airport terminal facilities). Multi-modal service as related to the planned downtown transit center

also would not be as great. Under the partial upgrade option, the discontinuance of the freeway and accompanying traffic congestion would not as much enhance the economic potential of Lafayette as being at the crossroads of two major freeways (I-10 and extended I-49). The partial upgrade also would do nothing in the deteriorating core area to stimulate development and redevelopment.

The attractiveness of the improved Thruway as a freeway to capture traffic from area local streets and thus reduce congestion on these streets would not exist for the partial upgrade alternative.

The partial upgrade option has been rejected based on the above analysis.

At-Grade Freeway

Section 2.2 described Elevated and Selected Overpass freeway alternatives for consideration at various locations along the Thruway. The Selected Overpasses alternatives provide a rolling profile with at-grade freeway sections combined with freeway overpasses at major crossing streets. A continuously at-grade freeway alternative has been rejected along the Thruway because this would require overpasses or underpasses on the many cross streets, with construction impacts due to vertical geometry extending a minimum of 500' into the neighborhoods and other areas on each side of the Thruway. With each cross street elevated 15 - 20 feet to cross over the freeway, the existing ground level Thruway could not intersect with the cross streets to provide local traffic circulation and access or provide movements to and from the freeway. If the existing Thruway were raised to the level of the overpass crossing streets, this would require extensive right-of-way acquisitions and retaining walls, and would block access to those residential and business properties adjacent to the thruway. Traffic operating characteristics would be severely hindered and the severe relocations and other adverse socioeconomic impacts of this concept due to the cross street overpasses are over and above the impacts caused by the freeway alternatives which have been retained.

Depressed Freeway

During the development of the initial DEIS published in 1992, a depressed freeway concept was considered for the core area of the project from just south of Pinhook Road to the Union Pacific Railroad spur. It was believed that the depressed freeway could offer several opportunities to reduce certain socioeconomic impacts of the project (such as noise and visual intrusion). The 1992 DEIS considered this concept to be technically feasible pending more detailed studies to determine the ability to properly drain the roadway surface during times of heavy rain or flooding on the Vermilion River. The 1992 DEIS concluded that the depressed freeway concept should be retained for consideration with the other alternatives.

Subsequent to the issuance of the 1992 DEIS (and prior to re-opening the EIS process as witnessed in this report), the LaDOTD commissioned a drainage study by outside engineering consultants to further examine the technical feasibility of the depressed alternative. The study concluded that the depressed freeway would be technically feasible given the

recorded history of river floods and rainfall events plus Federal Emergency Management Administration flood projections and other data. The study noted that certain drainage features and safeguards would need to be incorporated into the design of the project. Also, it was noted that other issues such as constructability and potential ground water problems could exist. The study concluded that a depressed freeway on the EA-1 alignment could be built with only small additional right of way acquisitions when compared to the elevated alternative proposed for the core area. This conclusion would also be true for a depressed freeway on the RR-5 alignment, as EA-1 and RR-5 are the same in the core area and only deviate south of Pinhook Road.

Upon review of the study by state and federal agencies, it was decided that while the depressed freeway may be technically feasible as indicated by the hydraulic calculations, several issues with which a level of uncertainty regarding proper performance would exist. It was concluded that these issues coupled with the importance of the I-49 freeway as a hurricane evacuation route, was enough to make a decision that the depressed freeway alternative for the core area should be removed from consideration.

Double Deck Option

In recognition of the many displacements required by the EA-1, RR-3, RR-4, and RR-5 alternatives, a double-decked option was identified as potentially appropriate to lessen adverse socioeconomic impacts. In order to accommodate the double decking in the central core area, the existing Thruway would remain at its current location with a freeway suspended approximately 25′ above. The freeway would be supported on straddle bents (one column on each side of the existing Thruway), with a deck width of at least 62′ and up to 74′ for mainline traffic. Ramps connecting to the freeway would require additional width.

The double deck freeway concept has been rejected for several reasons. First, it is apparent that large numbers of displacements along the Thruway in the core area would be required, substantially nullifying the purpose of this concept. These displacements would occur because the deck width for each direction of the freeway (up to 74′) would generally be wider than the existing right-of-way (50′). Additionally, the development of ramp connections from the freeway to the ground level Thruway would necessitate up to 50′ additional right-of-way for up to 1500′ at each ramp.

Second, adverse quality-of-life impacts (beyond any that may be experienced under the alternatives that have been retained) due to the erection of elevated structures and columns on the frontage of residences and businesses would result. These adverse additional quality-of-life impacts would come from 1) very close proximity to freeway traffic noise for residents; 2) loss of scale and intrusion of steel/concrete structures with fewer opportunities for a pleasing appearance due to the straddle bent nature of the project; and 3) the tunnel effect created for local traffic when driving on the existing Thruway.

Third, the structure type required for construction of this kind would generally be more expensive with no gain in traffic service and increased socioeconomic impacts. Additionally, structural columns continuously directly adjacent to the ground level Thruway could pose an unnecessary safety hazard that is greater than for the alternatives that have been retained.

2.3.2 REJECTED ALIGNMENT AND INTERCHANGE ALTERNATIVES

In addition to the still-viable freeway alternatives described in Section 2.2, six other potential freeway alignments were reviewed and then rejected as not appropriate. These are shown on Exhibit 2-6 and described below. Each alternative has been rejected for further study due to the reasons cited.

RR-1 (A-B-G-H-E-F) This alignment is similar to RR-3 except with segment H-E of RR-1 replacing HDE of RR-3. Segment H-E was originally thought viable as an alignment which could reduce adverse socioeconomic impacts because of its partial path through previously undeveloped open land just southwest of the Willow Street interchange. Several factors have been identified, however, which yield segment H-E impractical. These are described in the following text.

First, ramp service to the Mudd Avenue and CBD areas from the north, and vice-versa, via half diamond slip ramps to the existing parallel service arterials would be precluded. An attempt to provide this ramp service on the H-E alignment would be impacted by the Union Pacific Railroad spur and the close proximity of the Union Pacific Railroad mainline, causing multiple costly railroad/cross street grade separations and associated adverse impacts extending into the CBD and other areas west of the railroad mainline. Additionally, Mudd Avenue would be precluded from this ramp access and Simcoe Street would be severed and rendered non-continuous across the freeway.

Second, the City of Lafayette maintains a 20 million gallons per day (MGD) water treatment plant, in direct conflict with alignment H-E. The logistics and costs (exceeding $30 million, order of magnitude) of moving this water plant indicate avoidance of the plant would be desirable.

Third, the previously undeveloped land that comprises about 50% of the H-E alignment has been recently developed as a Wal-Mart retail store.

Fourth, the mainline freeway alignment on Segment H-E is subject to relatively sharp reverse curvature when compared to other options, making alignment H-E less desirable from an operational standpoint. Finally, an overview analysis indicates that residential and business displacements are not reduced in great numbers on alignment H-E when compared to other options. This factor, then, does not atone for the encumbered access, operational, and logistical considerations described above.

RR-2 (A-B-C-H-E-F) Dismissed for the same reasons as RR-1.

RR-6 From north to south, this option would deviate from existing U.S. 167 just south of the I-10 interchange and proceed

southwest across predominantly vacant land to the railroad approximately at Willow Street, then south to meet segment H-E of RR-1. There are several reasons why RR-6 is not prudent.

First, utilization of the existing alignment between I-10 and node E can be accomplished for any type of highway improvement with few, if any, residential or business displacements. It appears that there is no overriding warrant to move from the existing alignment and cause the creation of a parallel roadway in the same corridor.

Second, the physical location of the point of departure from existing U.S. 167 between Willow Street and I-10 would affect and restrict the ability to connect the existing Thruway, the proposed roadway, I-10, and I-49 in a practical, functional, and technically correct way. Third, although RR-6 would traverse mostly through open terrain, it would encounter and impact an existing elementary school, with a high chance of relocation requirements.

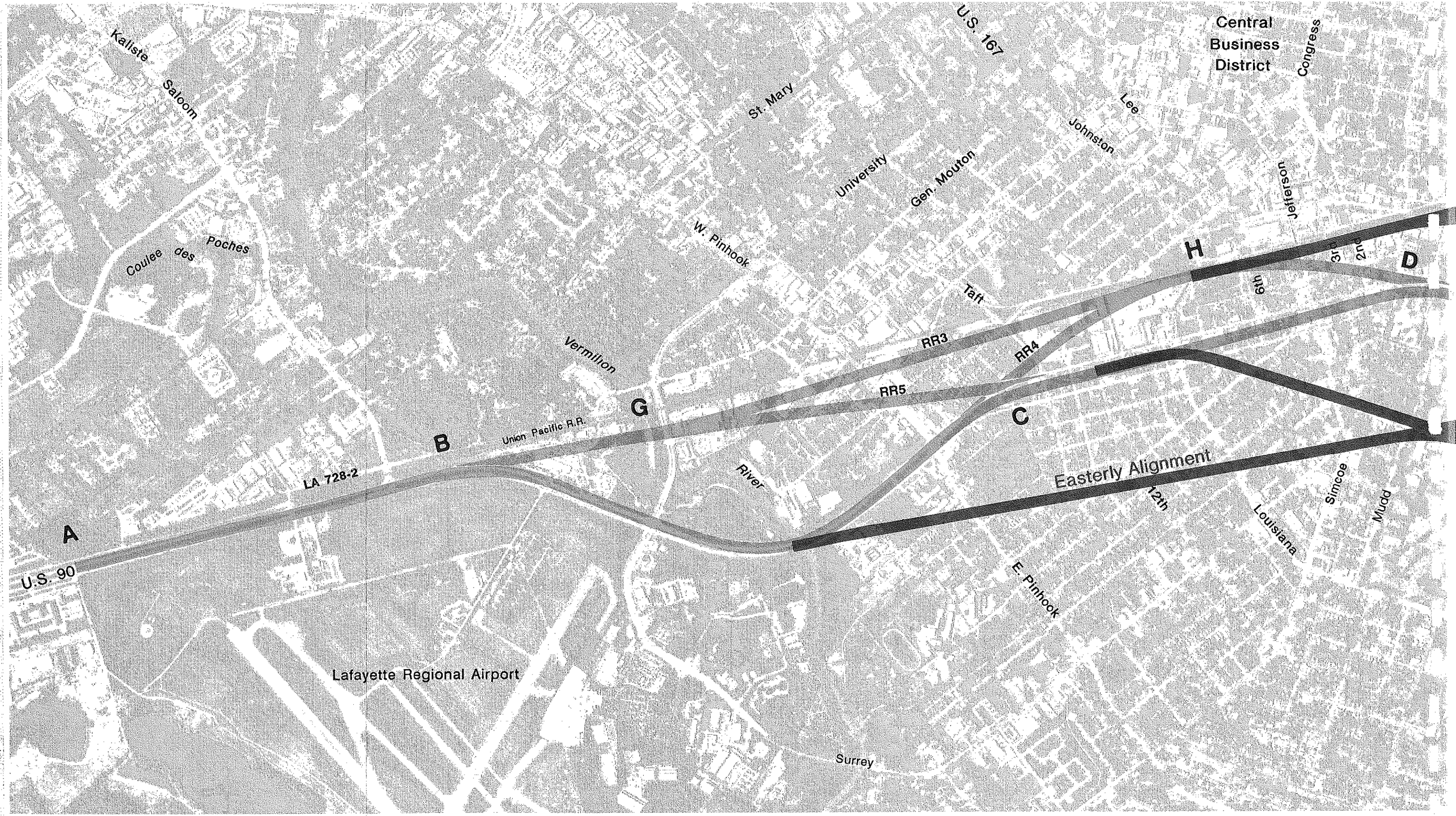
Finally, RR-6 would cause residential and maybe business displacements that otherwise would not occur as it passed through the developed areas just south and west of I-10 and adjacent to the Union Pacific Railroad just south of Willow Street.

Moss Street The Moss Street option would depart from the existing Thruway at approximately the same point as RR-6 and proceed southeast to Moss Street and then south to intersect with the existing Thruway in the central core area. It is considered not viable for the first and second reasons given above for the rejection of RR-6.

Additionally, the alignment would traverse either directly through the Northgate Mall development or the fully established residential area to the north and east and then cause substantial displacements, disruptions, and other severe impacts as it continued south along Moss Street. This includes possible adverse impacts on about 2500' frontage of City Park. Although some of the existing Thruway core area impacts would be avoided by the Moss Street alignment, it appears that more adverse impacts would be created with no gain in transportation service or other factors to offset this.

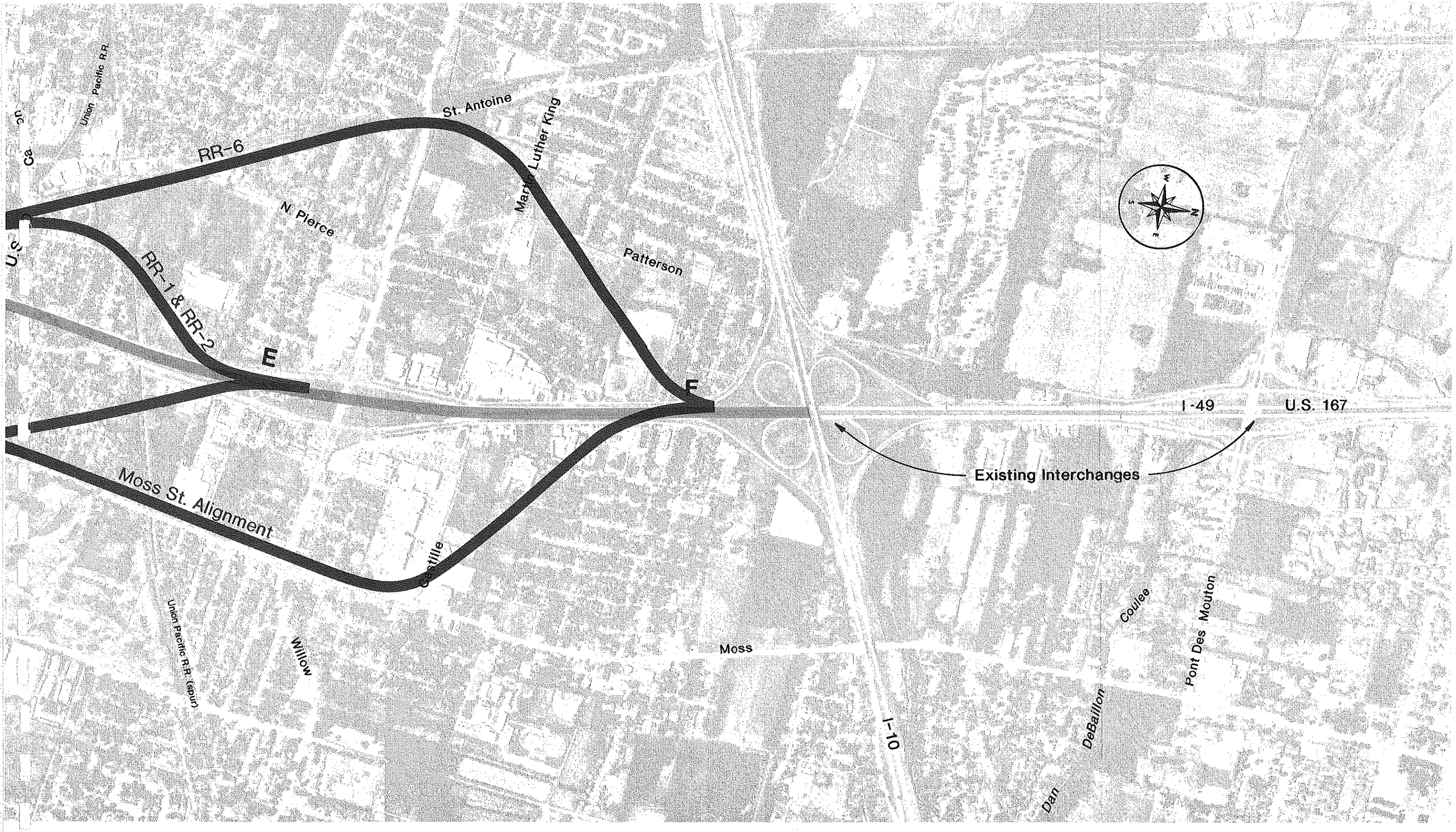
Easterly Alignment This alternative would consist of a straight-line connection from the existing Thruway just south of Willow Street to the curve at the Vermilion River. This route would traverse established neighborhoods in a mostly diagonal manner, causing many residential and some business displacements. It is apparent that displacements and other neighborhood disruptions would be more severe with the Easterly Alignment than with any other option. The creation of a parallel corridor with an increase in adverse socioeconomic impacts is not offset by the minimal gain in the marginally more direct alignment.

Moss/Easterly Alignment This combination of the above two alignments would be deficient for the same reasons that each alignment is deficient standing alone.



Alignment Alternatives

EA1	Nodes A-B-C-D-E-F
RR3	Nodes A-B-G-H-D-E-F
RR4	Nodes A-B-C-H-D-E-F
RR5	Nodes A-B-G-C-D-E-F



Legend

0 1000 2000
SCALE IN FEET

Rejected Alignments

Alignments For Additional Consideration

Exhibit 2-6
REJECTED ALIGNMENTS

Pinhook Interchange

During the investigation of interchange locations for the proposed I-49 Connector as described in Section 2.2, consideration was also given to an interchange at Pinhook Road. However, design guidelines, safety, practicality, and cost considerations would not be favorable for the location of an interchange at Pinhook Road with an interchange at University Avenue in such close proximity. When choosing between the two locations, University Avenue is considered a more desirable interchange location than Pinhook Road in part for the following reasons:

- Reduced emphasis of Pinhook Road due to the new Vermilion River crossings on University Avenue and the combination of the Thruway and Kaliste Saloom Road. Also, an additional river crossing is planned for the South College Road extension.

- Availability of and utilization of the existing railroad underpass on University Avenue to service I-49 Connector interchange traffic.

- The University Avenue interchange would provide more direct Lafayette Regional Airport access when approaching from both the south and north.

- The University Avenue interchange would provide more direct access to the ULL and CBD areas when approaching from the south (direct access from the north provided on Johnston and Mudd).

- The Pinhook Road interchange would require a roadway layout that has special geometric considerations and increased impacts in the developed area between Pinhook Road and Johnston Street. This would be true due to the close spacing between the Pinhook Road and Johnston Street interchanges and required new underpass on Pinhook at the railroad.

University/Surrey Depressed Underpass

This would have consisted of establishing the Connector freeway at its highest permissible elevation in consideration of the existing RPZ at Lafayette Regional Airport, and then developing a University/Surrey underpass profile that provides proper vertical clearance for passage of vehicles beneath the freeway overpass. The University/Surrey underpass would require a pumping facility to transport rainfall runoff to the Vermilion River and would be subject to 8% grades and a design speed of 20 mph (project design criteria calls for a design speed of 40 mph on arterial/interchange roadways such as University/Surrey). This interchange alternative was eliminated due to substandard design criteria.

2.4 LOCALLY PREFERRED ALTERNATIVE

2.4.1 Alignment and Subalternatives

Following the publication of the DEIS and the December 14, 2000, Public Hearing, the Lafayette Consolidated Government (LCG) adopted the RR-4 alignment as the locally preferred alternative for I-49 through Lafayette. This action is based on the ability to keep Jefferson and Simcoe streets open and passing underneath the I-49 freeway. A copy of the LCG Resolution for the locally preferred alternative is found in Appendix H.

A supplemental feasibility study was performed to determine that depressing Jefferson and Simcoe Streets would be geometrically viable under the RR-4 Elevated, Subalternative F alternative. The modifications to Subalternative F that allow Jefferson and Simcoe Street to remain open are known as the "MPO Subalternative".

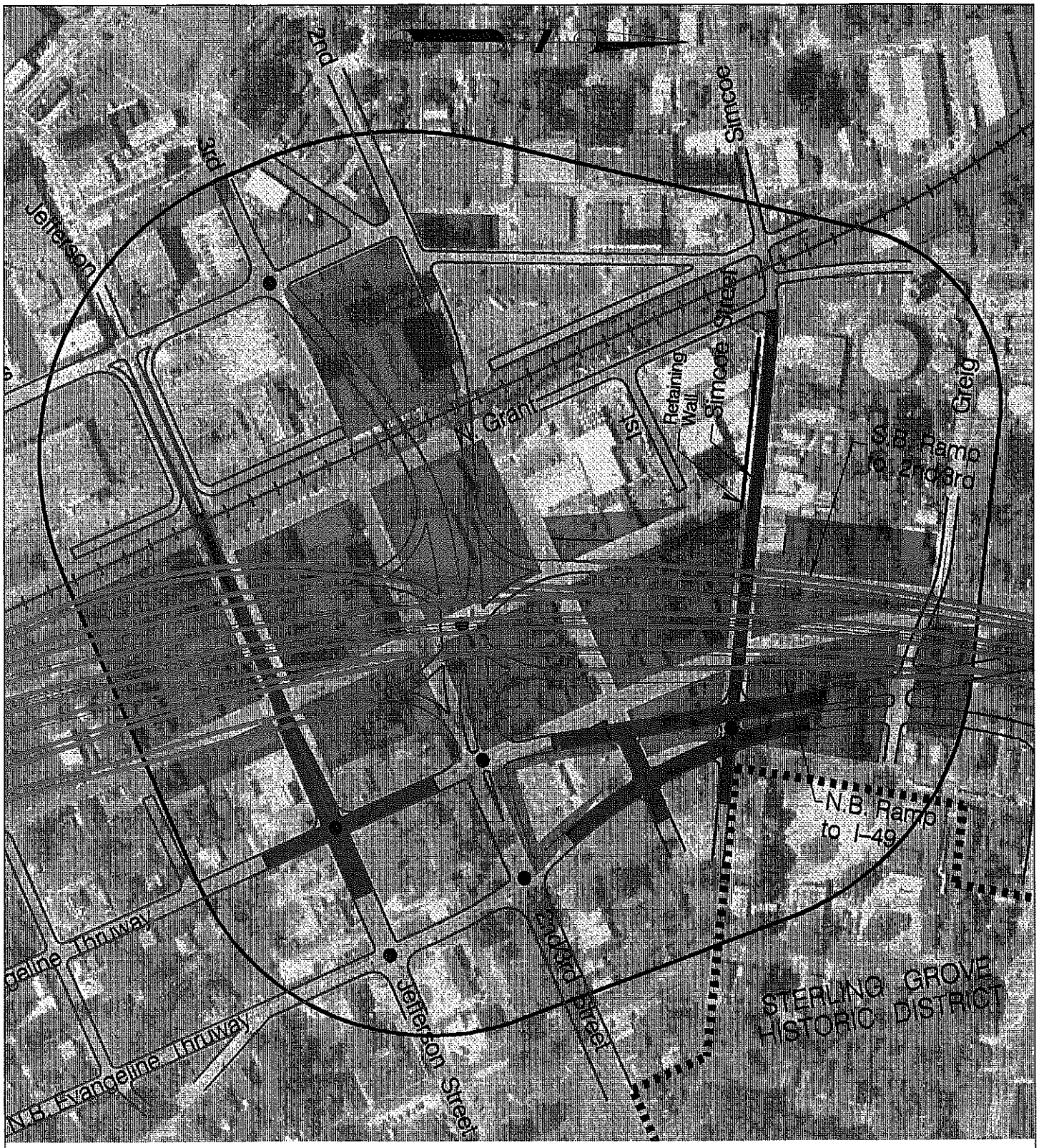
This MPO Subalternative would have additional design and construction costs. Also, slight changes to right-of-way requirements and traffic operations would be associated with the MPO Subalternative. Section 4.5 addresses these and other distinct impacts associated with using the MPO Subalternative.

In addition to recommending the MPO Subalternative, LCG recommended using Subalternative H for the area near the Willow Street interchange.

2.4.2 Description of Subalternative F Modified (MPO Subalternative)

The MPO Subalternative proposes that Jefferson and Simcoe streets remain open for access under the elevated I-49 and the at-grade Evangeline Thruway. The plan layout for the MPO Subalternative is shown in Exhibit 2-7. A plan and profile plate (Plate 3i) for the Subalternative is also provided in Appendix A.

The plan layout depicts RR-4 Elevated with the MPO Subalternative within the central core area of the project corridor. I-49, 2nd Street, Simcoe Street, Jefferson Street, Northbound Evangeline Thruway and Southbound Evangeline Thruway are shown on the layout. Also shown are the northbound and southbound ramps connecting I-49 with 2nd/3rd Street and the northbound ramp connecting 2nd/3rd with I-49. Key points of interest are the Sterling Grove Historic District and the Johnston Street, Jefferson Street and 2nd/3rd Street underpasses at the Union Pacific Railroad track. The specific area for the feasibility study for the MPO Subalternative is outlined on the plan drawing.



Legend

- Original R/W RR-4, Sub. F
- Additional R/W RR-4, MPO Sub.
- Sub. F R/W No Longer Used With MPO Sub.
- Limits of Profile Adjustments Due To MPO Sub.
- Limits of Study Area

Scale: 1" = 300'

Exhibit 2-7

RR-4 ELEVATED MPO SUBALTERNATIVE

HNTB

2.5 SELECTED ALTERNATIVE

The locally preferred alternative has been chosen as the Selected Alternative for the proposed project. It is described as Alternative RR-4 Elevated and includes the MPO Subalternative and Subalternative H. This decision is based on analyses contained in the DEIS issued in November 2000; this Final EIS; and the comments of federal and state agencies, members of the public, and elected officials.

The Selected Alternative decision represents a balance of impacts, in which certain factors were weighed against others in reaching a decision. Three factors that stand out as the most notable regarding the Selected Alternative are summarized below:

- The Selected Alternative would require the least number of residential displacements.
- The Selected Alternative moves traffic (both the proposed freeway and existing Evangeline Thruway) farther from the Sterling Grove Historic District than other alternatives (except RR-5). Thus, the Selected Alternative is more conducive for preserving and enhancing the Sterling Grove Historic District, including St. Genevieve Catholic Church and School.
- The Selected Alternative is on new alignment in the core area, and as such is geometrically able to offer more direct access opportunities to the central business district.

Upon completion of this Final EIS a Record of Decision (ROD) will be issued for the project regarding the Selected Alternative. Chapter 4 discusses the impacts associated with the Selected Alternative and the other alternatives considered in the EIS. Commitments and mitigation measures associated with these impacts are presented in Section S.6 and will be affirmed in the ROD.

Chapter 3

AFFECTED ENVIRONMENT

3.1 DESCRIPTION OF ANALYSIS AREAS

A project the magnitude of the proposed I-49 Connector freeway can have impacts not only to the immediate area surrounding the project but also to a broader region. For this reason, throughout the engineering and impact studies of the I-49 Connector EIS, two basic analysis areas have been delineated and assessed. These are the regional study area and the immediate study area adjacent to the Evangeline Thruway, or study corridor.

The regional study area has been defined as Lafayette Parish while the study corridor can best be described as running north-south from the Lafayette Regional Airport to I-10 with the western limits just west of the Union Pacific Railroad and eastern limits along Moss and then Surrey Streets.

For the purposes of gathering data and consistency of comparisons, the corridor study area has been defined more precisely as following certain U.S. census tract boundaries that as closely as possible match the general study corridor.

The Lafayette Parish and corridor study areas are presented at a scale of 1" = 2 mi. on Exhibit 3-1. The study area shown is coincident with census tract boundaries that most closely represent the designated project corridor. Throughout this report, graphical aids to depict the region are typically presented at 1" = 2 mi. or 1" = 1 mi. while the corridor study area is usually shown on 1" = 1000' aerial photography.

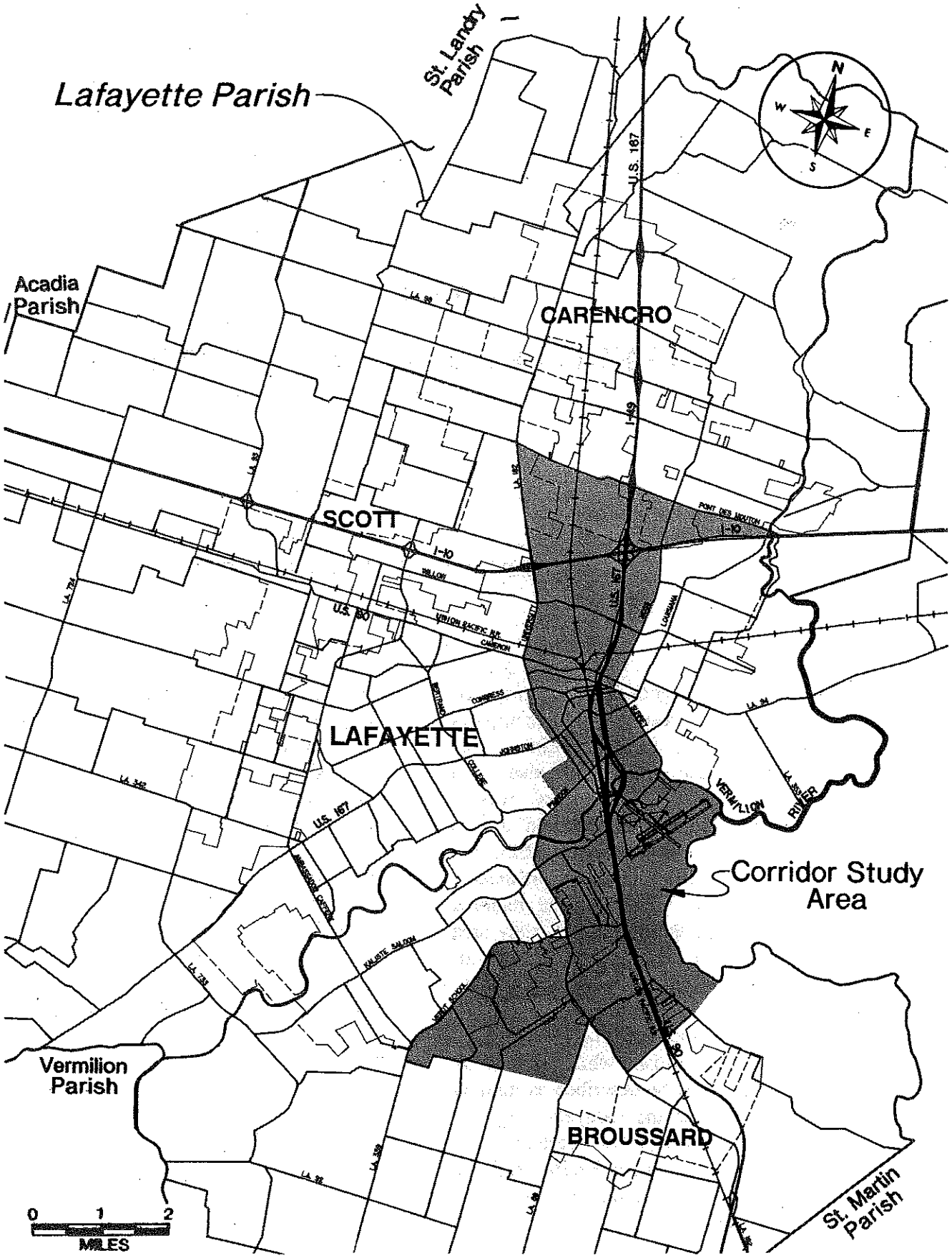


Exhibit 3-1
CORRIDOR STUDY AREA

3.2 HUMAN ENVIRONMENT

3.2.1 LAND USE AND TRANSPORTATION

3.2.1.a Existing Land Use

As of 1940, the Lafayette urbanized area included the original town of Vermilionville, the University of Louisiana at Lafayette (ULL) campus, and the surrounding neighborhoods. Little urbanization took place during the 1940's except along Johnston Street, University Avenue, Cameron Street, Moss Street and the area surrounding what is now known as the Evangeline Thruway. The Lafayette Regional Airport to the south was constructed during this decade. From 1950 to 1965, major urbanization occurred, with single family residential construction to the southwest leading all development activity. During that fifteen-year period, the City of Lafayette began to follow a pattern where populations spread into new residential developments, leaving behind substandard housing and deteriorating commercial centers.

From 1965 to 1973, the city experienced continued decentralization with development spreading in all directions. Between 1973 and 1983, the city experienced phenomenal growth in commercial, residential and especially industrial development. At the 1982 employment peak, approximately 30 percent of all Lafayette area jobs were directly related to the oil and gas industry. Indirectly, these jobs supported a substantial number of jobs in retailing, services, construction, government and other sectors of the economy. This economic growth resulted in industrial development occurring at Southpark Industrial Complex, along Cameron Street and along the corridor between U.S. 90 and Pinhook Road. The Acadiana Mall and the Northgate Mall retail shopping centers flourished during that time. During 1982, 1983 and 1984, the number of building permits issued for new housing starts were 1,421, 1,303 and 1,034, respectively.

Even though the Oil Center, the area generally bounded by Pinhook Road, South College Road, Girard Park Drive and University Avenue, was developed in 1952 and showed continued growth in the 1960's. It was during the period from 1973 to 1983 that the area emerged as a white collar support center for both on-shore and off-shore oil operations in Southern Louisiana and the Gulf of Mexico. The Oil Center is basically comprised of office complexes and serves the oil and gas industry along with other professional offices.

From 1984 to 1987, Lafayette's development (or changes in land use) has been almost negligible due mostly to the downturn in the domestic oil industry and the area's economic dependence on a single cyclical industry. A large number of existing residential, commercial and industrial units became vacant during this time as a result of the recession experienced in southwest Louisiana. The number of building permits for new home construction declined in 1985 to 497 and continued to decline in 1986 to 240 and in 1987 to 111.

Over the next several years, 1988 to 1994, the number of building permits for

new home construction increased steadily to 780 in 1994. The 1995 permits dropped to 693, while they rose again to 837 in 1996. The fluctuation continued in 1997 with the number of building permits decreasing to 761. Generally the number of building permits is on the rise. There are no signs of any major residential, commercial or industrial developments currently being planned in the corridor which would convert existing land uses.

The generalized existing land use of the corridor area is shown on Exhibit 3-2, which has been developed using two sources. One source was the 1979 Land Use Plan for Lafayette prepared by the Department of Community Development's Planning Division. This is the most recent known land use map for the City and has been utilized to show the land uses surrounding the immediate corridor. Adjustments were made to this inventory where deemed appropriate. The second source was an adjacent land use inventory performed in 1998 specifically for the I-49 Connector project. This inventory entailed a windshield survey of all the individual land uses in the immediate study area.

The land use categories employed for this study and depicted on Exhibit 3-2 are Residential, Commercial, Industrial, Public Parks, Public and Semi-Public lands and Vacant lands. The most prominent non-residential land use feature is the Lafayette Regional Airport, which is depicted on the southern portion of the land use map. Retail facilities are scattered throughout the urban area, with some clusters and strips identifiable on the land use map. The Central Business District (CBD), Northgate Mall area, Oil Center, Johnston Street area and Pinhook-Kaliste Saloom area are some prominent clusters or strips of commercial land uses. Industrial clusters or strips appear on Cameron Street and in the Southpark Industrial Complex. Residential land use is scattered throughout the area, but the southwestern portion of the City has been and probably will continue to be developed as primarily single family residential property.

In the corridor area itself, certain land use trends can be identified. Residential land uses are being replaced by commercial land uses. Section 3.2.2.b discusses population decreases in the study area over the last 20 years that support this trend. This transition is occurring in spots scattered along the Evangeline Thruway from the Lafayette Regional Airport to the Union Pacific Railroad Breaux Bridge spur. Most residences in this area are relatively inexpensive single family detached units. Most commercial uses in the corridor area are service-type facilities such as fast food restaurants, small shops and gas stations. However, the area along the Evangeline Thruway from the Union Pacific Railroad spur to Interstate 10 is considerably different. This area consists of major clustering of commercial activities such as a retail shopping mall, major department stores, and major motels as well as fast food restaurants, small businesses, and gas stations. Also located in this area is Gateway Lafayette. As shown on Exhibit 3-2, Gateway is the area between the northbound and southbound lanes of the Evangeline Thruway north of the Union Pacific Railroad spur. Gateway consists of the Lafayette Visitors and Convention Bureau Tourist Information Center and an array of landscaped areas and ponds. This tourist information and

beautification project, situated on LaDOTD right-of-way by joint use agreement (refer to Appendix D for details), was funded by both private and public contributions. Its grand opening was held on May 11, 1990.

Within the central business district (CBD), the land use map shows some typical patterns such as industrial uses located near the railroad, residential areas situated around the periphery of the downtown area, retail uses concentrating along collector streets with other retail/ commercial uses scattered along major arterials. However, the CBD does have a patchwork land use pattern with office and commercial uses found on the same block. With the increased demand for legal and other office space, downtown residential buildings are being converted in lieu of the development of standard office buildings. Another development that is directly dependent on the major transportation system is the Northpark Technology Center just north of I-10 and west of I-49. This industrial park was developed in the mid-1980's by the Lafayette Economic Development Authority as a sister site to the Southpark Development. Northpark comprises 108.9 acres of which four (4) occupants occupy approximately one-third of the park space. The largest facility is a 230,000 square foot Autozone distribution center that serves a five-state area.

Zoning

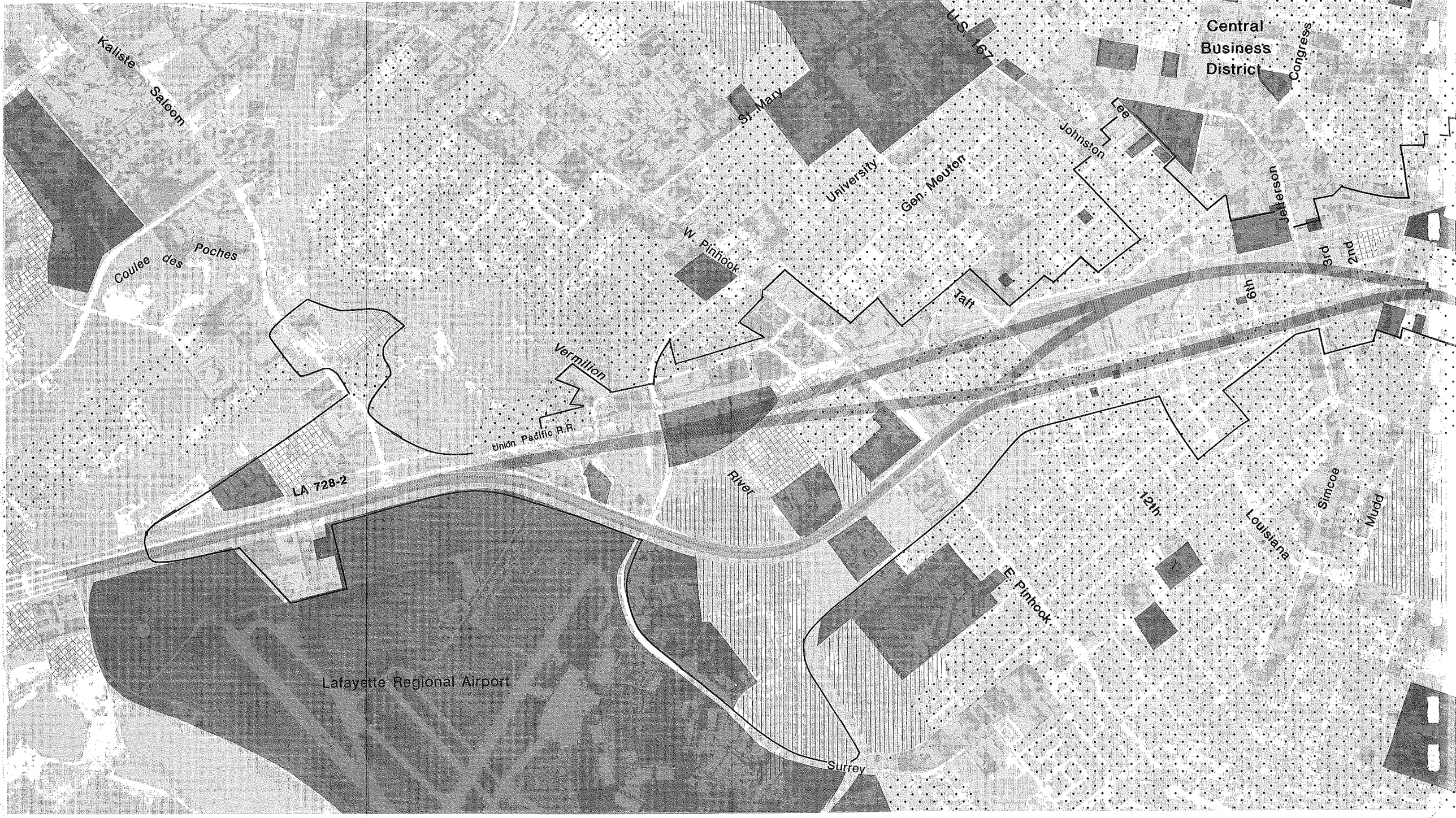
The City of Lafayette has several development control measures or instruments which regulate development. A comprehensive zoning ordinance, subdivision regulations, and building permits are the basic means employed to control development activities in the City. The City zoning ordinance has five basic classifications: Residential, Business, Industrial, Central Business District, and Growth Area District. These basic classifications are subdivided into separate districts. Each of these districts permits different types of uses, specifying the bulk of the buildings, the required yards, the necessary off-street parking and other prerequisites for development *(City of Lafayette, 1996)*. Exhibit 3-3 depicts the zoning classifications in and adjacent to the study area.

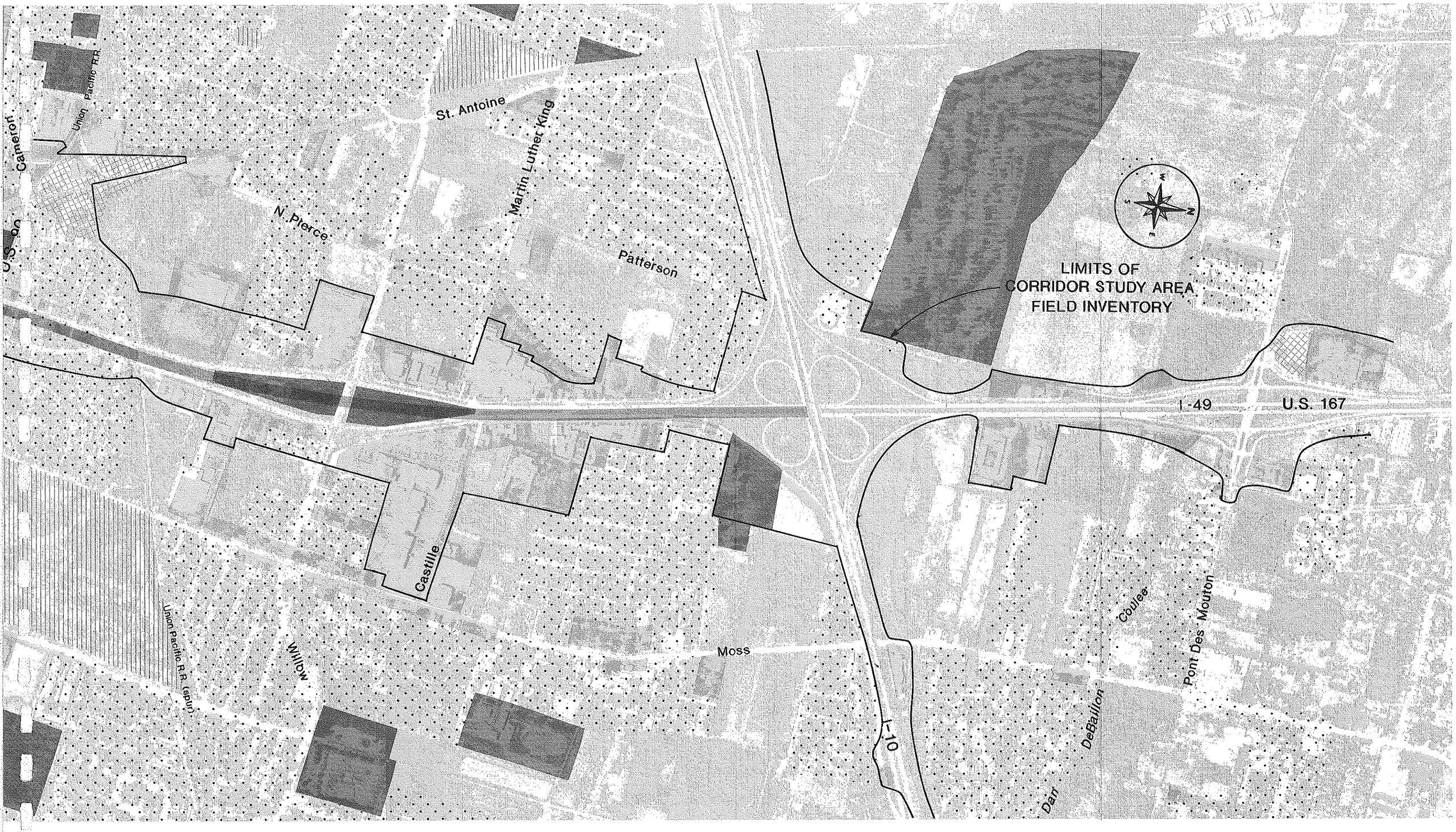
3.2.1.b Transportation

Existing System

As a small to medium-sized urban area, Lafayette is serviced by a wide spectrum of transportation modes, including personal vehicle, local bus transit, interstate bus, interstate passenger rail, commercial jet and general aviation, and even boat transportation on the Vermilion River. Personal vehicles utilizing city streets and state or federal highways, not unexpectedly, account for the major portion of all trip ends in Lafayette Parish.

To accommodate personal vehicles and bus transit, Lafayette's roadway system consists of the full hierarchy of street classifications - freeways (I-10 and I-49), major arterials (including Johnston Street and Evangeline Thruway), other arterials (such as Cameron/Mudd), collectors (Jefferson), and local streets. I-10 runs east-west in the upper half of Lafayette Parish. It was built in the 1970's


Central
Business
District
Kaliste
Saloom
Coulee des Poches
St. Mary
U.S. 167
Congress
Lee
Johnston
University
Gen. Mouton
Jefferson
W. Pinhook
Taft
6th
3rd
2nd
Vermilion
Union Pacific R.R.
LA 728-2
River
12th
Louisiana
Simcoe
Mudd
E. Pinhook
Lafayette Regional Airport
Surrey



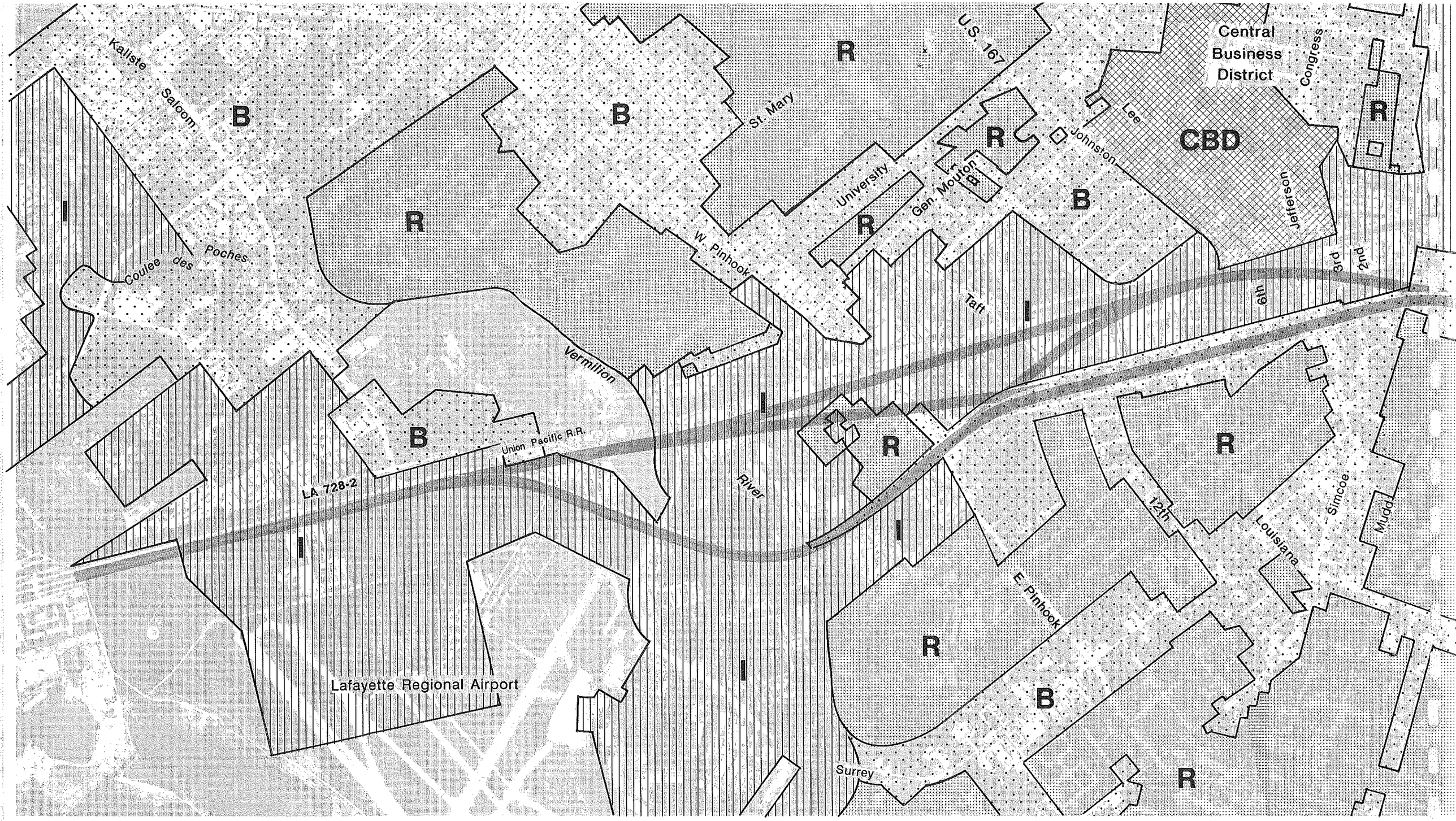
0 1000 2000
SCALE IN FEET

Source: 1979 Land Use Plan and I-49 Connector Study Team 1998 Field Inventory

Legend

- Residential
- Commercial
- Industrial
- Public Parks
- Public & Semi-Public Lands
- Vacant Lands Or Street Area

Exhibit 3-2
EXISTING LAND USES


Central
Business
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Saloom
Coulee des Poches
St. Mary
U.S. 167
Congress
Lee
Johnston
University
Gen. Mouton
W. Pinhook
Jefferson
Taft
6th
3rd
2nd
Vermilion
Union Pacific R.R.
LA 728-2
River
12th
Louisiana
Simcoe
Mudd
E. Pinhook
Lafayette Regional Airport
Surrey
R
B
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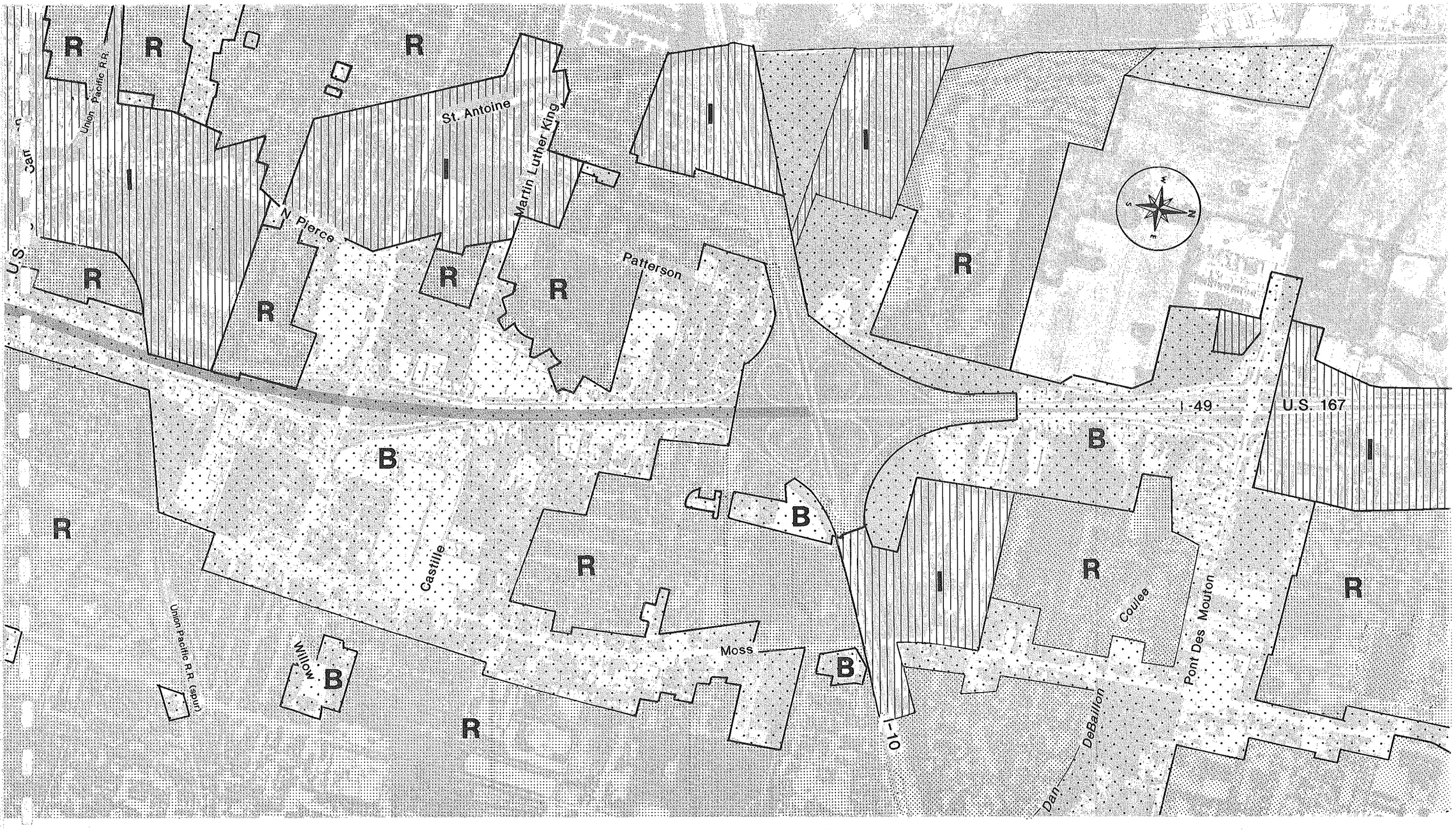


0 1000 2000
SCALE IN FEET

SOURCE: City of Lafayette

Zoning Classifications

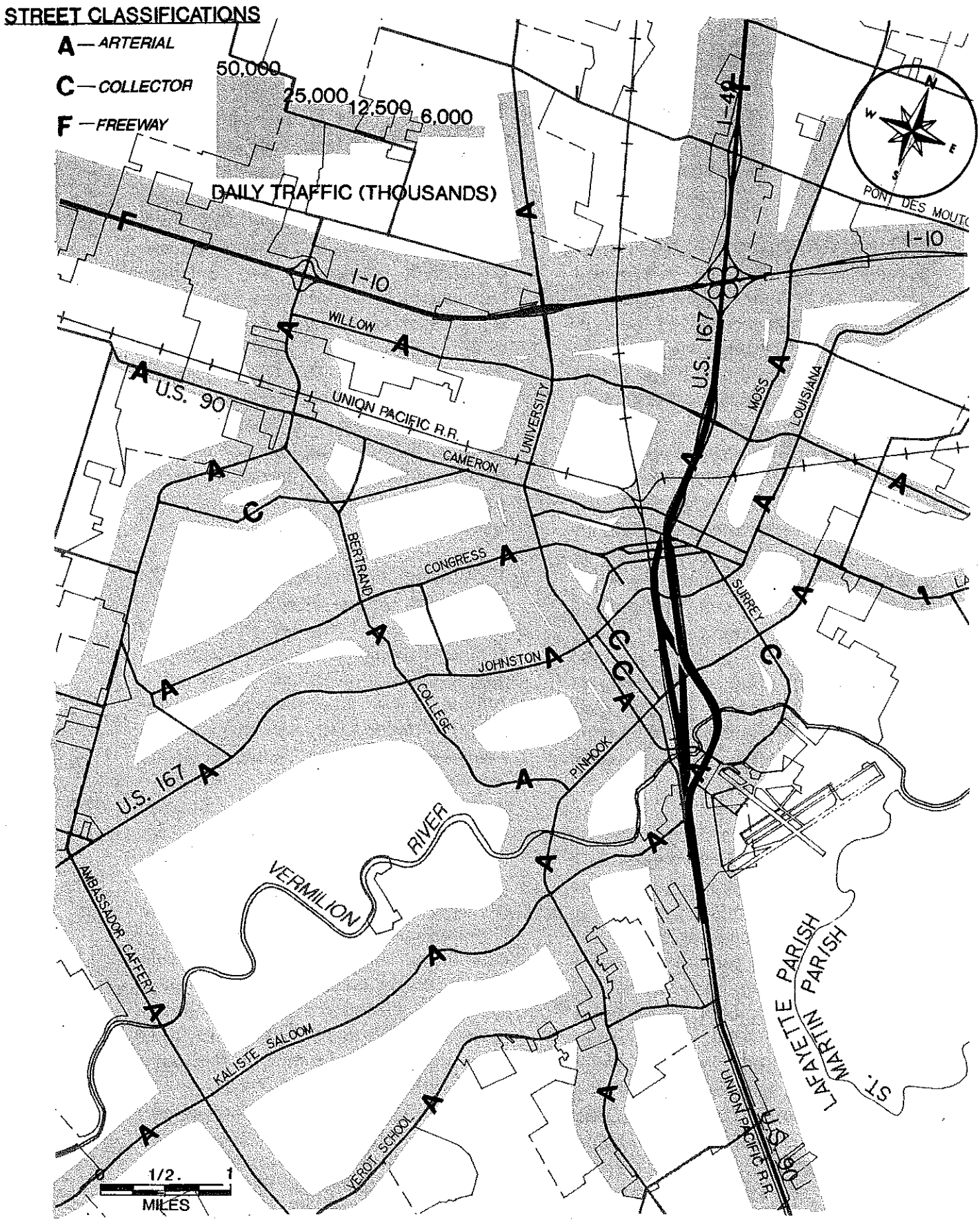
- R Residential
- B Business
- I Industrial
- CBD
- Growth Area District (none within map coverage)

Exhibit 3-3
ZONING MAP

approximately at the northern limits of developed Lafayette. I-49, upgraded from U.S. 167 and opened locally in 1981, runs north-south and ties to I-10 in the eastern half of the parish, projected south through Lafayette as the Evangeline Thruway (consisting of parts of U.S. 90 and U.S. 167). The urbanized area of Lafayette spreads predominantly to the southwest from the I-10/I-49 interchange and is serviced by an arterial network that traverses the area in random fashion. In addition to the Evangeline Thruway, other major arterials are Johnston Street (U.S. 167) radiating from the center of the city to the southwest and Ambassador Caffery Parkway, an incomplete peripheral roadway on the west side of the city. For many years, this highway network lagged behind the steady and sometimes rapid growth of the community as an oil center since the 1950's. Although great strides have been made in the last decade and progress continues today, the consensus of local planners is that the regional roadway network has not yet caught up with Lafayette's growth.

Exhibit 3-4 presents Lafayette's roadway network and highlights major traffic flows and patterns in the area. The importance of the Evangeline Thruway can be readily observed both in the geographical and physical location of the highway as an extension of I-49 and in the volume of traffic that utilizes the facility. Currently only certain sections of I-10, Ambassador Caffery Parkway, and Johnston Street carry as much traffic as the Evangeline Thruway. The Thruway traffic stream is composed of both local traffic using the roadway as a part of the arterial city street grid and regional traffic passing through the city to or from south Louisiana, which is one of the more densely populated areas of the state and heavily developed around the oil and gas industry. Information obtained from the Lafayette DPZC indicates that approximately 36% of the 47,000 daily trips made on the core section of the Thruway have either a beginning or ending inside of Lafayette Parish. 56% of the trips have both their beginning and ending within the Parish. Approximately 8% of the trips have both their beginning and ending outside of Lafayette Parish. The DPZC transportation model indicates that in the future, the trips that both begin and end inside of Lafayette Parish will decrease by approximately 10% while the trips that have one or both of their trip ends inside of Lafayette Parish will increase by approximately 10%.

The city street system in the immediate Thruway study area was presented on Exhibit 1-4. As shown, the existing Thruway traverses the older part of Lafayette in the central third of the study corridor and is the result of construction in 1963 connecting U.S. 90 south of Lafayette with U.S. 167 north of the city. The Thruway is a one-way couplet (three lanes each direction) in the core area and four or six lane divided arterial with shoulders at its south and north ends, respectively. In the core area, the Thruway passes adjacent to the eastern fringe of the Lafayette CBD and is important in providing CBD access. The Thruway has signal control on 14 intersecting streets resulting in 23 signalized intersections along the five miles being considered for construction. This includes a signal to be installed in 2002 at the reconstructed Castille Avenue intersection. These signals are linked to a computerized signal control system



Source: LCG Transportation Division

Exhibit 3-4

STREET CLASSIFICATIONS AND TRAFFIC FLOW MAP

operated by the City of Lafayette. Additionally, most of the signals provide coordinated progression along the length of the Thruway.

In the core area, driveway access to a mix of residences and business is provided frequently on both the left and right sides of each directional roadway of the one-way couplet. Intersections are spaced the distance of a typical city block (about 300′). Right-of-way is generally 50′ wide to accommodate each 40′ directional roadway, with many trees overhanging the travel lanes. Proceeding from north to south, U.S. 167 turns from the Thruway in a southwesterly direction on the major thoroughfare known locally as Johnston Street. Proceeding from south to north, U.S. 90 utilizes the Thruway and turns west at Mudd Avenue.

In the northern third of the project between the Union Pacific Railroad spur and I-10, the Thruway is flanked by two-lane, two-way frontage roads on each side.

These frontage roads service traffic to and from the enclosed Northgate Mall and the many businesses in this strip commercial area. They intercept driveways and most crossing streets and therefore provide for partially controlled access on the Thruway. Only two streets, Willow and Donlon, both at signalized intersections, fully cross the Thruway north of the railroad spur. Castille Avenue does not fully cross Evangeline Thruway but is being constructed in 2001 as a signalized three-way intersection with the Thruway. Between Castille Avenue and I-10, one median opening provides for partial movements between the Thruway and frontage roads.

The Thruway has a wide median at Willow Street, which was established during 1960's construction as the location for a future grade separation interchange. This median area recently has been developed by a citizen's group with local government support as Gateway Lafayette, a landscaped area with ponds and a visitor's information center. Access to the center is via left hand "exits" into the median area. The Gateway is an LaDOTD permitted joint use activity and by agreement subject to decisions made by LaDOTD regarding the use of the land (refer to Appendix D for details of the joint use agreement).

The southern third of the Thruway south of Pinhook Road is characterized by mostly developed frontage but relatively few driveway connections. On the west side of the Thruway south of University Avenue, a two lane two-way frontage road is provided, situated between the Thruway and Union Pacific Railroad mainline. Beginning at the south end of the project near the limits of Lafayette Regional Airport property and continuing south, a two-lane, two-way frontage road on the east side begins to accompany the frontage road on the west side. Development south of the project limits is intermittent commercial and industrial, with driveway connections to the west side frontage road crossing the railroad mainline (18-20 trains daily, on average, according to railroad company officials).

The Thruway is the predominant roadway providing ground transportation to the Lafayette Regional Airport. Other major local service areas of the Thruway include the residential/business mix adjacent to the Thruway in the central core, the CBD, the University of

Louisiana at Lafayette, and the strip commercial/ shopping area between the Union Pacific Railroad spur and I-10. Concern has been expressed by business owners in this latter area that the existing Thruway system does not provide adequate access to allow their businesses to prosper. They have pointed to an inadequate number of lanes on the mainline north of the Union Pacific Railroad spur and the two median openings between Willow Street and I-10 that allow only partial traffic movements to and from the frontage roads. Part of this problem will be alleviated with the addition of a third lane in each direction of the Thruway from the railroad spur to I-10 and a signalized intersection at Castille Avenue. Direct access will be provided to the Northgate Mall parking lot via the northbound Evangeline Thruway, and the existing east side frontage road between Willow Street and Castille Avenue will be removed.

Accident information from 1996 from the LaDOTD was reviewed and it is noted that there were several locations on the Thruway mainline that experienced at least five accidents annually and an accident rate at least twice as high as the average rate for similar type roadways in Louisiana. City officials also have observed a number of accidents on the east frontage road at its intersection with Castille Avenue, in close proximity to the Northgate Mall. The existing intersection geometry that includes components of the Thruway mainline and adjacent frontage road, plus high turning traffic volumes, may create driver confusion at this location. Studies have been conducted to identify roadway improvements in this area that would include this intersection. As a result, geometric improvements and a signalized intersection are to be constructed in 2002 at this location.

Recent and Ongoing Transportation Improvements

In the mid-1980's, recognizing deficiencies in the local street system, City of Lafayette voters approved a sales tax with proceeds dedicated to fund a $72.5 million revenue bond package in street and drainage improvements within the City. Many of the street projects included in this capital program have been completed, with others in partial stages of completion. The thrust of this City program was to provide intersection improvements, roadway widening, or new roadways to provide relief for developed areas of the city currently experiencing traffic deficiencies, with attention given to the need for more crossings of the Vermilion River.

In 1997, City-Parish voters approved a Lafayette Consolidated Government revenue bond issue for additional street, drainage, and other improvements throughout Lafayette Parish. The total value of this bond issue is $229 million, of which $172 million is dedicated to street/highway improvements. The 1997 bond issue is to be supported by the 1985 tax and a previous tax enacted in 1961.

Several of the roadway improvements in this package are associated with or have a bearing on the Evangeline Thruway and are currently under development.

Projects either completed or planned as a part of the two bond programs or key state/federal projects that have a bearing on the proposed I-49 Connector are presented on Exhibit 3-5. They are keyed by number to the descriptions below (numbers 12, 13, and 14 are not shown

since they occur outside the map coverage limits):

1. Willow Street widening to five lanes from the Thruway west to University Avenue (open to traffic) and from University Avenue to Ambassador Caffery Parkway (under development)

2. Improvements and reconstruction of 2nd and 3rd Streets to form a one-way couplet with three lanes each direction tying Congress Street (major east-west arterial) directly to the Evangeline Thruway (open to traffic)

3. Extension of University Avenue as a four-lane divided roadway from Pinhook Road under the Union Pacific Railroad and across the Vermilion River to tie into the Thruway near the airport at Surrey Street (open to traffic)

4. Widening of Surrey Street to three lanes from its intersection with the Thruway at University to Pinhook. (open to traffic)

5. Participation in the joint city/state project to widen Kaliste Saloom Road to five lanes and create a new intersection with the Thruway (open to traffic)

6. Extension of Louisiana Avenue (Johnston Street) to north of I-10 with a new LaDOTD sponsored interchange on I-10 about one and one-half miles east of I-49, creating a generally parallel new corridor to the Thruway north of Johnston Street (under final design)

7. Extension of S. College Road from Pinhook south across the Vermilion River to Kaliste Saloom Road, creating a new parallel corridor to the Thruway south of the river (under development)

8. Extension of Camellia Boulevard from Johnston Street to Verot School Road with a bridge over the Vermilion River, creating a parallel corridor to the I-49 Connector (under development)

9. Widening of Verot School Road from Pinhook Road to Ambassador Caffery Parkway, allowing improved access to U.S. 90 (under development)

10. Frontage roads on both the north and south sides of I-10 between Ambassador Caffery Parkway and Louisiana Avenue, crossing the Evangeline Thruway/I-49 corridor (under design)

11. Intersection improvements on Pinhook at the Thruway (open to traffic)

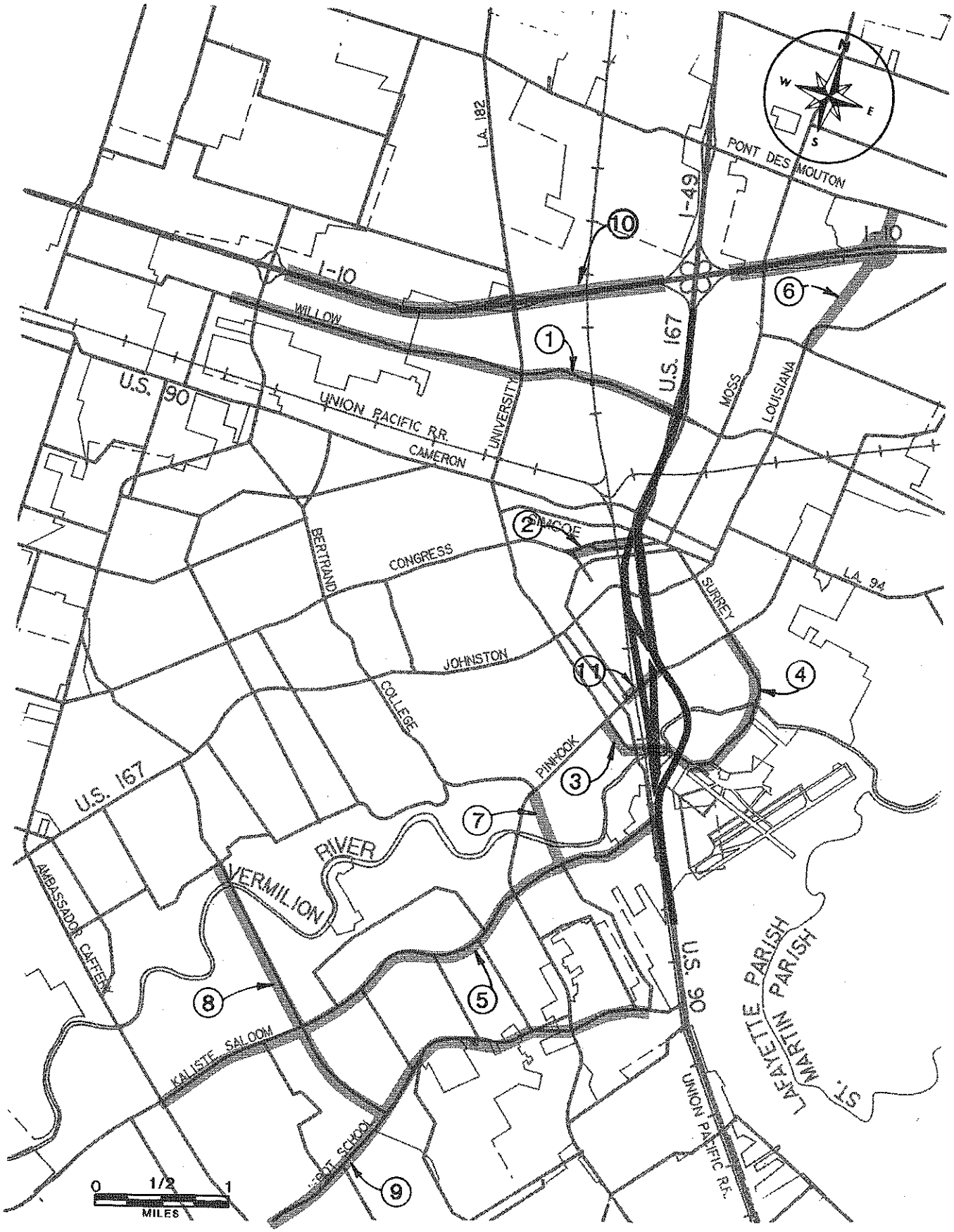


Exhibit 3-5
RECENT, ONGOING, AND PROGRAMMED
TRANSPORTATION IMPROVEMENTS

12. Intersection improvements on Pinhook at the Thruway (open to traffic)

13. The extension of Ambassador Caffery Parkway (arterial circumferential) in the southwest and northwest quadrant, providing a continuous arterial route on the Parkway from U.S. 90 to I-10 as an alternative to the Thruway (under study)

14. A west side loop arterial roadway (Beltway) connecting U.S. 90 south of Broussard to I-10 west of Scott to I-49 at Gloria Switch Road (under study)

Many of the above projects, some of which are open to traffic, serve to increase the focus of the Evangeline Thruway as an important part of the local highway network. Particularly important are the University extension to create a railroad underpass, new river crossing, and a major intersection with the Thruway and the Kaliste Saloom Road widening and new Thruway intersection. The combined effect of these projects is to reduce the dependence on Pinhook Road as the primary means of crossing the Vermilion River into the southern part of the parish by instead providing University Avenue to the Thruway southbound or the Thruway southbound to Kaliste Saloom Road west.

The Lafayette Department of Planning, Zoning, and Codes (DPZC) maintains a computer model of anticipated traffic flow volumes and patterns considering the above transportation system improvements, the I-49 Connector, and other proposed roadways throughout the parish.

Transportation Improvement Program

In June 1995 the Lafayette Areawide Planning Commission issued its five year (1995-2000) Transportation Improvement Program (TIP), which was reviewed and accepted in August 1995 by the U.S. Department of Transportation. The TIP is a document that reflects the priorities for the completion of projects as established by the Lafayette MPO's Transportation, Technical, and Policy Committees. It includes projects for road construction, transit, the multi-modal center, enhancements, maintenance, and safety. It also includes a conformity analysis as required by the 1990 Clean Air Act. The projects contained in the TIP are demonstrated to have funding commitments from local, state, or federal sources. In May of 1997, after the implementation of the Lafayette Consolidated Government, a new TIP was adopted. In essence, the 1997 TIP was the re-adoption of the 1995 TIP originally issued by the LAPC, with some amendments.

The 1995 and 1997 TIPs contain a funded project for the I-49 Connector that consists of a drainage study to determine the feasibility of the depressed freeway. This study, which has been completed, was considered the pre-cursor to re-opening the EIS process that was discontinued in 1992. The TIP contains all of the projects shown on Exhibit 3-5 that have not yet been constructed, with the exception of the North-South Beltway. The TIP notes either planning, design, or construction status for these projects.

Long-Range Plan

In January 1995 the Lafayette Areawide Planning Commission issued its 20-year (1995-2015) long-range transportation plan for Lafayette Parish, which was reviewed and accepted in May 1995 by the U.S. Department of Transportation. This long-range plan is a document (Financially Constrained Plan and Needs Plan, 1995-2015) that reflects the priorities for the completion of transportation projects within the limits of estimated funding that is anticipated to be available through local, state, and federal sources. The long-range plan includes a conformity analysis as required by the 1990 Clean Air Act. In May of 1997, after the implementation of the Lafayette Consolidated Government, a new long-range plan was adopted. In essence, the 1997 long-range plan was the re-adoption of the 1995 long-range plan originally issued by the LAPC, with some amendments. The 1995 and 1997 long-range plans did not contain any projects related to the I-49 Connector freeway. The long-range plans do contain the projects shown on Exhibit 3-5.

The most recent long-range plan issued by the Lafayette DPZC indicates a freeway in the Evangeline Thruway corridor. However, this freeway has not been added to the Financially Constrained Long-range Plan (FCTP), and will not be added until funding and/or an implementation plan is identified.

Bus Transit Service

Bus transit service within the City of Lafayette is provided by City of Lafayette Transit (COLT). Fares are forty-five cents and special handicap services are available on request (twenty cents). Operations are Monday through Saturday from 6:30 a.m. to 6:30 p.m. Bus service areas and routes are shown on Exhibit 3-6.

3.2.2 SOCIOECONOMICS

Existing socioeconomic conditions in the regional study area and the immediate study area or study corridor have been determined by utilizing data compiled by the U.S. Department of Commerce, Bureau of the Census, and information supplied by the Lafayette Consolidated Government DPZC. Much of the data is derived from the decennial census, the latest of which was completed for 1990. Where appropriate, more recent estimates and projections have been used. Subsequent to the publication of the DEIS report in November 2000, data from the 2000 Census has become available and been analyzed to determine whether the trends observed in the 1990 figures are still occurring.

3.2.2.a Neighborhoods

Neighborhoods are relatively small, residentially oriented, areas of a city with social and economic similarities with which people can identify. Neighborhoods constitute one of the major building blocks of a city. In its basic concept, a neighborhood is based on the service area of the elementary school, which at one time was based on a one-half mile walking distance. They are typically defined as areas based on walking or bicycle riding as the travel mode with a network of social activities emanating from the home to elementary schools, to small local stores, to neighbors, and perhaps to churches and nearby recreational facilities. Major arterial streets do not pass through

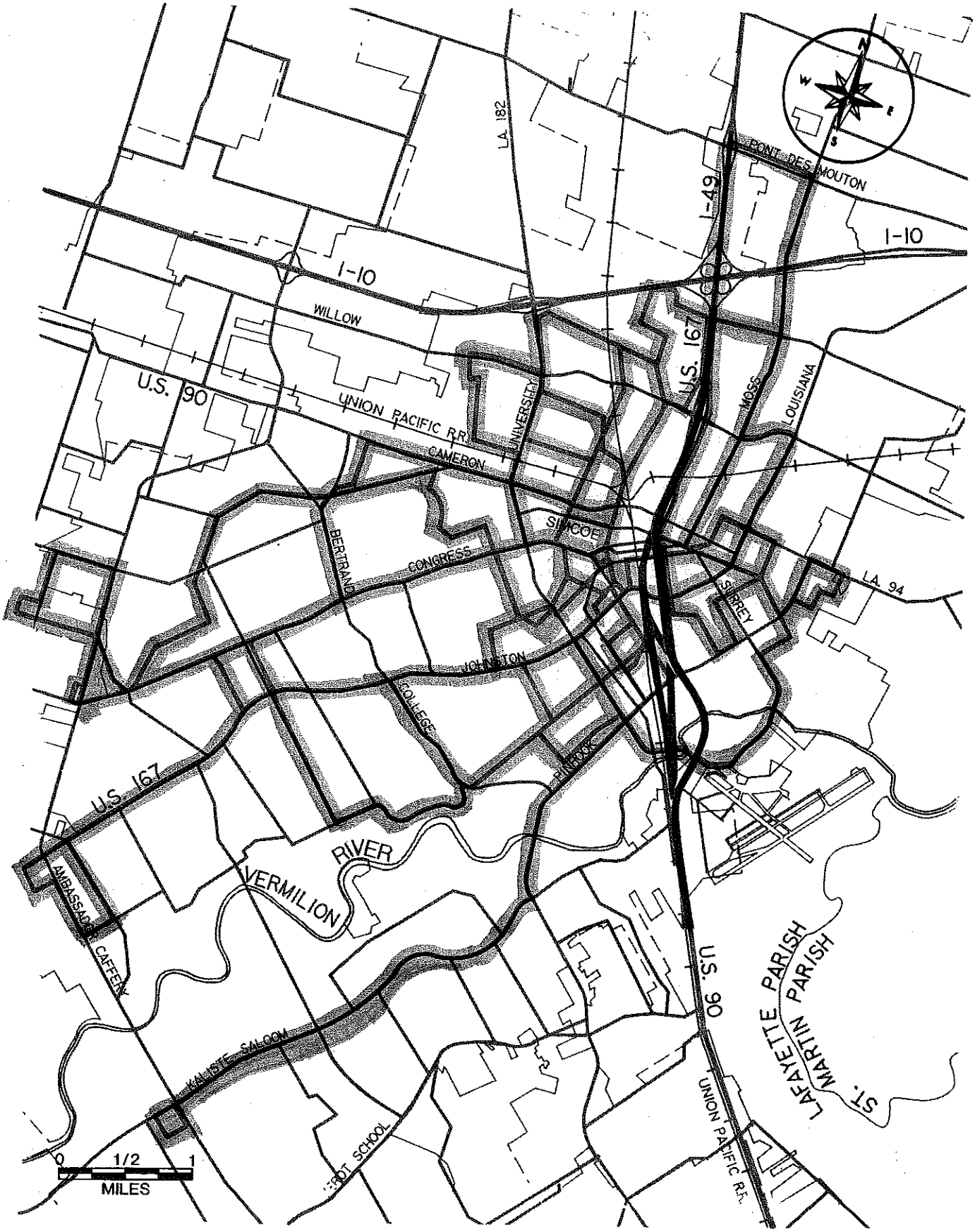


Exhibit 3-6
COLT TRANSIT SERVICE AREAS

neighborhoods, but serve as neighborhood boundaries. Interior streets are designed to encourage safe, low volume traffic necessary to serve the individual residential properties.

In this study, the term "neighborhood" is used although Lafayette has no commonly recognized neighborhood boundaries or names. Census tracts are defined as small, relatively permanent areas into which metropolitan statistical areas and certain other areas are divided. When established, they are designed to be homogeneous with respect to population characteristics, economic status, and living conditions. Census tracts generally have between 2,500 and 8,000 residents and have visible boundaries with the intention that they can be maintained over a long period of time. They thus have many of the characteristics of neighborhoods. Nine whole or partial census tracts (from the 1990 Census), or neighborhoods, constituting the corridor study area are shown on Exhibit 3-7.

Table 3-1 indicates various population characteristics of the census tracts that comprise the corridor study area, the City of Lafayette, and Lafayette Parish. The characteristics vary widely among the individual tracts. Census Tracts 2, 8, and 9 had high concentrations of non-white populations in 1990 and continue to show that trend based on 2000 Census data.

Table 3-1
POPULATION CHARACTERISTICS OF CENSUS TRACTS
WITHIN THE STUDY AREA - 1990

Census Tract / Block Group	Total Population	Non-White	Under 18	65 Years & Over
1	2759	1,170	447	365
2	3002	2,518	867	447
3.001	390	241	102	52
3.002	429	191	45	68
3.003	289	32	20	53
3.004	913	427	23	59
8	3456	3,054	1,065	570
9	2252	2,222	847	151
10.013	516	219	163	31
10.023	719	413	301	31
10.033	1159	374	364	54
11	6261	3,364	2,004	831
14.041	510	17	121	21
14.051	1948	292	613	62
14.052	1265	137	186	32
14.053	1503	121	421	26
14.054	731	93	228	32
14.081	475	17	132	38
14.082	738	81	278	25
14.083	514	38	138	33
15.001	968	116	167	209
Study Area	**30,797**	**15,137**	**8,532**	**3,190**
City	**94,440**	**27,573**	**24,872**	**8,979**
Parish	**164,762**	**39,422**	**47,895**	**13,718**

Source: U.S. Bureau of the Census, 1990.

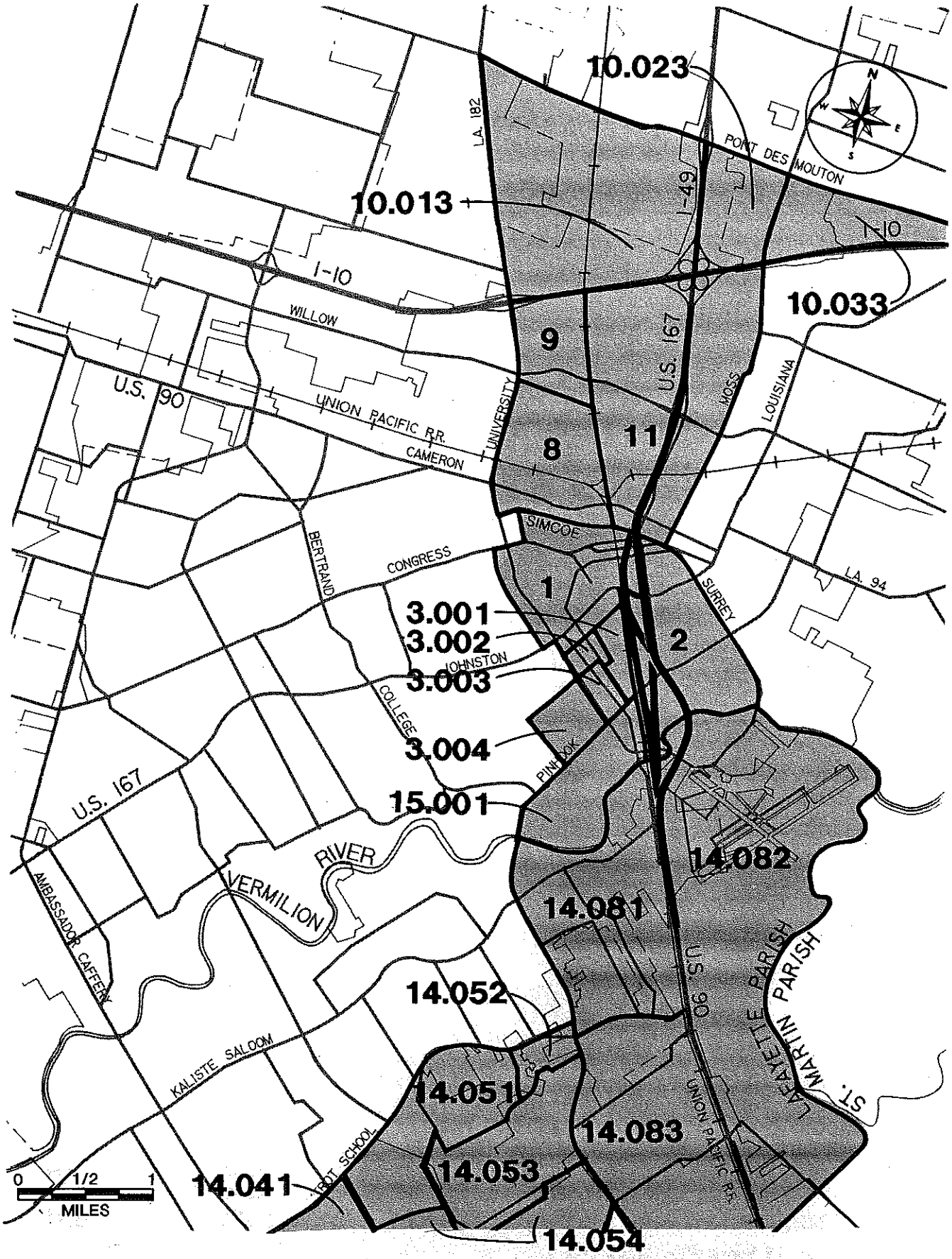


Exhibit 3-7
NEIGHBORHOOD DELINEATIONS

Elderly people tend to be less mobile and are more sensitive to impacts of a transportation facility than the general population. In 1990, 10.4 percent of the population in the corridor study area was 65 years of age or older. This compares to 9.5 percent of the City and 8.3 percent of the Parish population represented by this age group. Census Tracts 2, 8, and 11 and Census Block Group 15.001 displayed relatively large percentages of elderly in their populations. In 2000, the percentage of elderly within the corridor study area was 9.5 percent. Within the City was 11.2 percent and within the Parish was 9.5 percent. This represents a decrease in percentage for the corridor study area and an increase in percentage for the City and Parish in 2000 compared to 1990.

Home ownership is an indicator of neighborhood stability, cohesiveness, and economic welfare. Table 3-2 depicts some of the housing characteristics of the corridor study area, the City of Lafayette, and Lafayette Parish. Year 1990 data was the most current available for the DEIS. Subsequent to the DEIS, year 2000 data was analyzed and observations were made on various trends. A high owner-occupied ratio usually indicates stability and cohesiveness in a neighborhood. In the study area, 44.4 percent of the housing units were owner-occupied in 1990 and 42.3 percent were renter-occupied. In 2000, the occupied ratios were similar to those reported for 1990 with a small increase in owner occupancy (48.7 percent) and the renter occupancy (42.7 percent). Owner occupancy in 1990 ranged from 74.8 percent in Census Block Group 14.082 to 6.2 percent in Census Block Group 14.052. Generally, the suburban portions of the study area exhibited the highest percentages of owner occupancy. This occupancy ratio trend was also evident in the 2000 Census data analyzed for the study area.

Longevity of occupancy is also an indictor of the stability and cohesiveness of a neighborhood. A high percentage of housing units being occupied by the same households for ten or more years usually means that a neighborhood is stable. As of 1990, 37.6 percent of the study area householders had been living in the same housing unit since 1979 or earlier. Census Tracts 2 and 8 exhibited the highest percentage of long-term occupancy, while Census Block Group 14.041, a more suburban area, exhibited the lowest tenure. Data from the 2000 Census regarding longevity of occupancy was not publicly accessible at the time of publication of this EIS.

Similarly, data regarding median household income from the 2000 Census was also inaccessible at the time of this EIS publication, and thus only the 1990 data is reported here. Median household income and median housing unit value data are indicators of the relative economic welfare of a neighborhood. In 1990, the City of Lafayette had a median household income of $23,430 and a median owner-occupied housing unit value of $66,000. Figures for Lafayette Parish were $24,339 and $62,700 respectively. The study area had a median household income of $15,421 and a median owner-occupied housing unit value of $43,669. There is considerable variability within the study area. Median household income ranged from $8,815 in Census Tract 9 to $40,446 in Census Block Group 14.082. Median owner-occupied housing unit value within the

study area ranged from $28,600 in Census Block Group 3.001 to $86,900 in Census Block Group 15.001.

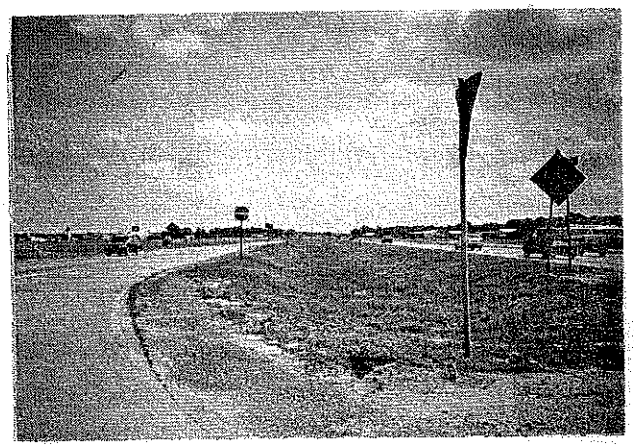
Another area that would be impacted by the proposed project is the Lafayette central business district (CBD or Lafayette Centre). Lafayette Centre is the center for many government-related activities, legal offices, professional offices, retail stores, and restaurants. Generally, the CBD is defined as the area bounded by the Evangeline Thruway, Johnston Street, University Avenue, and Congress Street, which is generally the area of Census Tract 1.

Representative photographs of the corridor study area immediately adjacent to the Evangeline Thruway are shown on the following pages.

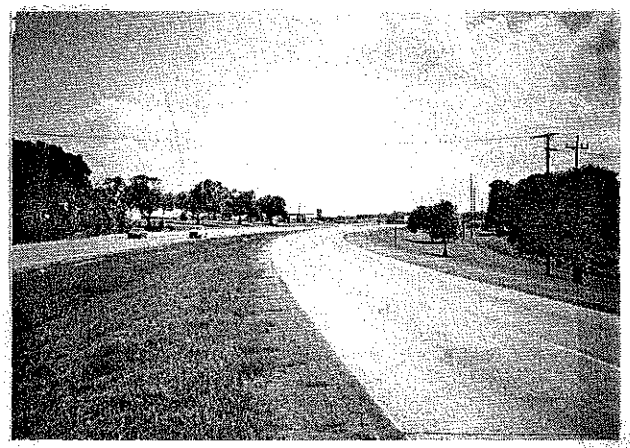
Table 3-2
HOUSING CHARACTERISTICS OF CENSUS TRACTS
WITHIN THE STUDY AREA - 1990

Census Tract/ Block Group	Persons Per House-hold	Median House Unit Value	Median House-hold Income	Percent Owner-Occupied	Percent Renter-Occupied	Percent Vacant	Percent Moved In Prior to 1980
1	2.12	$47,700	$12,028	30.2	48.6	21.4	28.2
2	2.68	$33,000	$9,393	52.8	30.9	16.3	63.9
3.001	2.44	$28,600	$10,625	31.0	44.1	24.9	49.6
3.002	2.06	$49,400	$11,645	23.4	57.8	18.8	27.7
3.003	1.73	$46,700	$10,842	18.7	55.6	25.8	40.0
3.004	1.65	$64,300	$15,208	22.7	59.9	17.4	27.2
8	2.67	$30,100	$9,692	44.7	39.2	16.0	59.2
9	3.31	$30,300	$8,815	51.0	37.9	11.1	53.7
10.013	3.05	$63,400	$20,875	68.4	19.3	12.3	53.4
10.023	3.03	$38,600	$10,000	38.0	43.2	18.8	20.2
10.033	2.69	$55,700	$25,547	44.4	45.0	10.6	22.9
11	2.73	$36,300	$12,457	49.8	40.9	9.3	44.6
14.041	2.23	$44,200	$21,653	34.3	58.0	7.7	1.7
14.051	2.85	$81,800	$37,258	60.4	31.0	8.6	20.0
14.052	1.68	$67,500	$20,410	6.2	81.9	11.9	5.6
14.053	2.42	$79,600	$30,951	39.5	51.4	9.1	10.9
14.054	2.89	$68,400	$15,000	61.8	29.2	9.0	19.2
14.081	2.60	$57,300	$20,278	56.7	31.3	12.0	48.7
14.082	2.94	$67,300	$40,446	74.8	15.4	9.8	12.2
14.083	2.46	$55,000	$26,528	69.7	17.0	13.3	30.5
15.001	2.22	$86,900	$32,440	61.6	29.8	8.6	47.4
Study Area	**2.50**	**$43,669**	**$15,421**	**44.4**	**42.3**	**13.3**	**37.6**
City	**2.50**	**$66,000**	**$23,430**	**48.0**	**42.0**	**10.0**	**34.5**
Parish	**2.66**	**$62,700**	**$24,339**	**54.9**	**34.7**	**10.4**	**34.1**

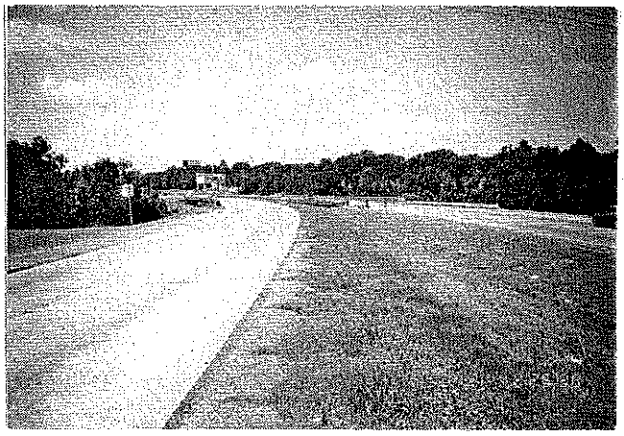
Source: U.S. Bureau of the Census, 1990



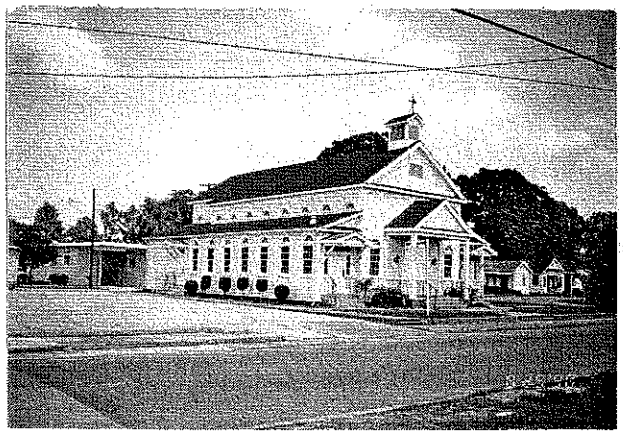
Near Lafayette Regional Airport Looking South on the Thruway.



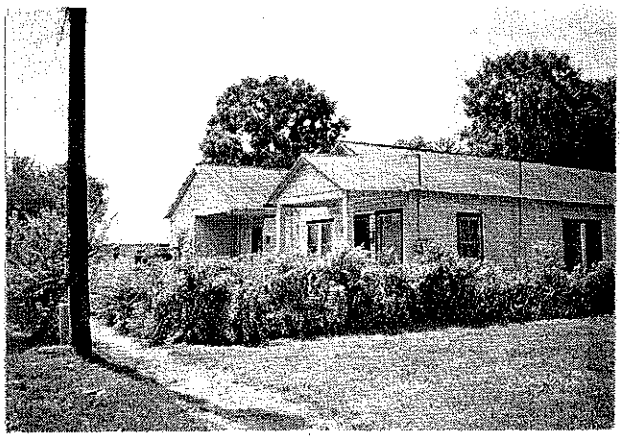
Looking South on the Thruway Flanked Both Sides by Beaver Park



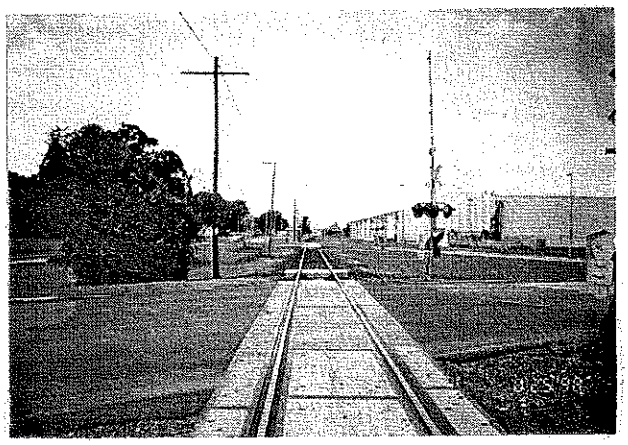
At Beaver Park Looking North on the Thruway



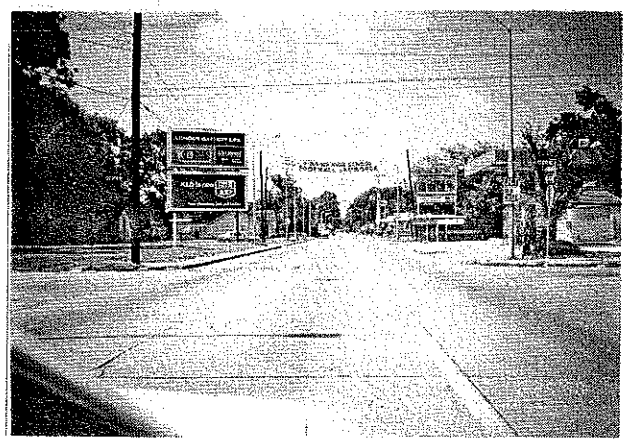
St. Patrick's Church



Between the Northbound and Southbound Thruway at 11th Street.

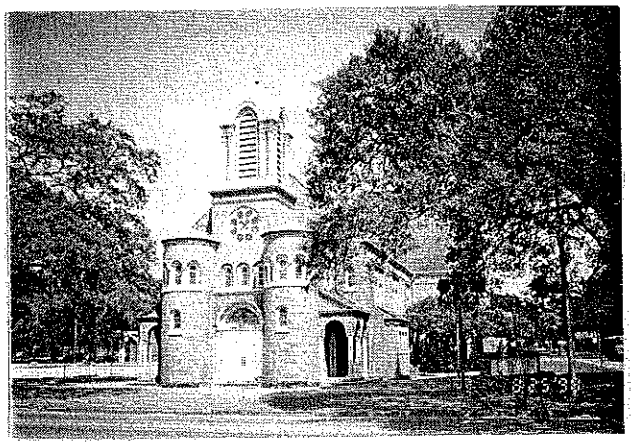


Adjacent to Union Pacific Railroad Looking North Near Taft

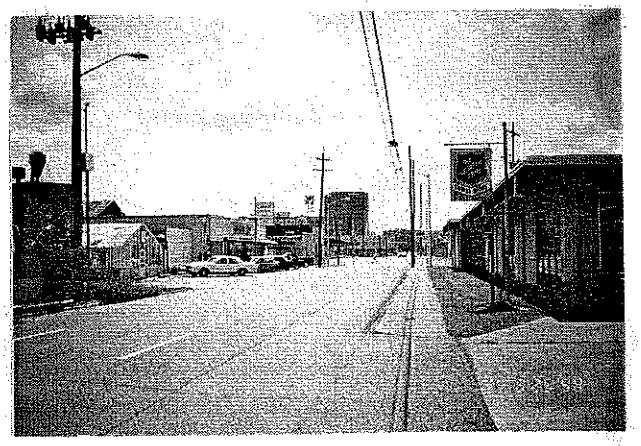


Northbound on the Thruway in the Central Core Area

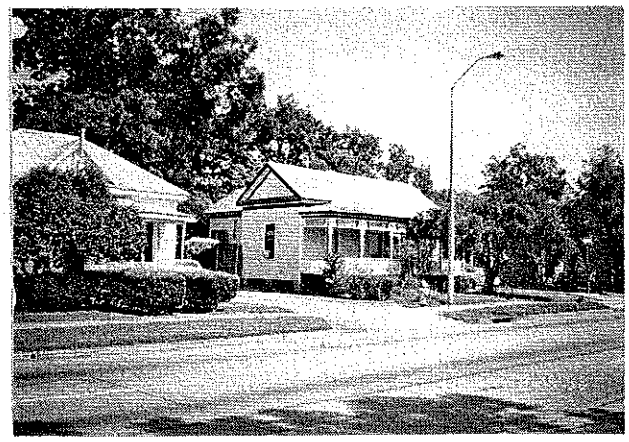
Looking South at the Corner of Jefferson and the Southbound Thruway



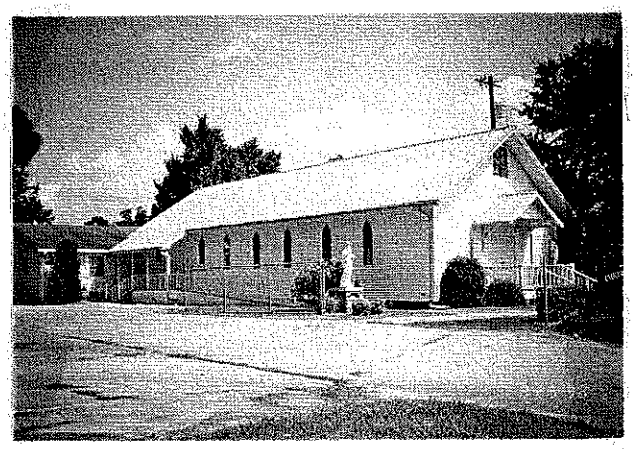
St. Genevieve Catholic Church on the East Side of the Northbound Thruway in the Sterling Grove Historic District



Looking West on 3rd Street Toward the CBD Between the Thruway and Railroad



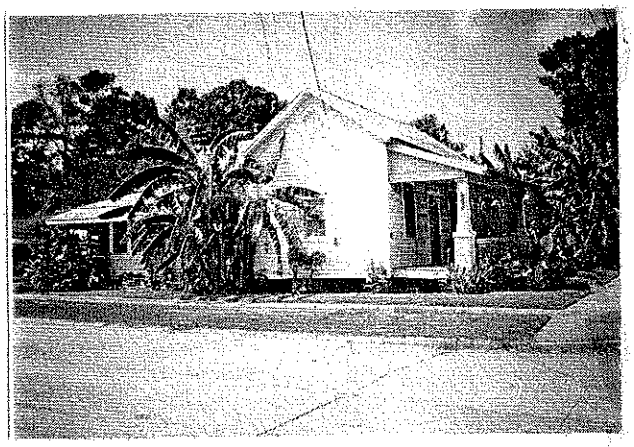
Residence Fronting the Northbound Thruway near the Sterling Grove Historic District



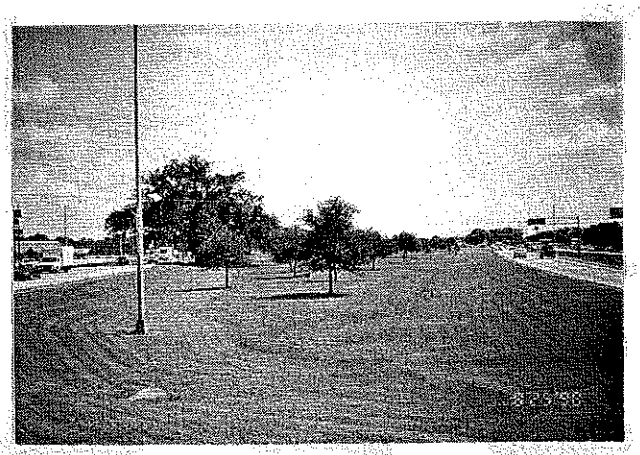
Christ The King Church on the Median Side of the Southbound Thruway Near Mudd

Looking From the Northbound Thruway West on 2nd Street.

Looking South Near Mudd and the Southbound Thruway

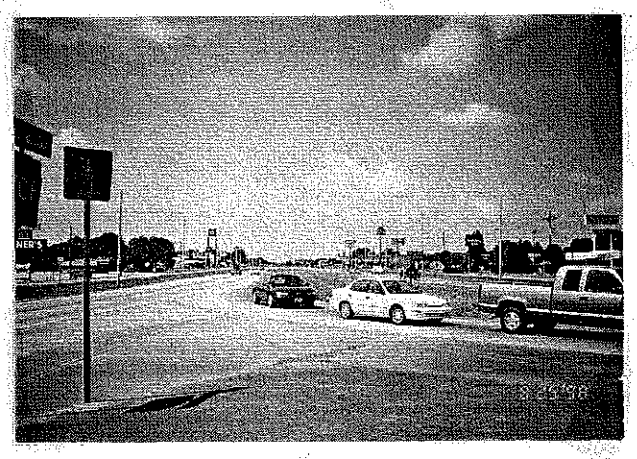


Between the Northbound and Southbound Thruway Near Mudd



Gateway Wide Median Area North of Willow Street

Gateway Visitors Center Buildings



Looking North Between Willow and I-10

3.2.2.b Population Characteristics and Trends

The population of Lafayette Parish has grown from 57,743 in 1950 to 164,762 in 1990. The estimated 1997 Parish population was 184,102 and the 2000 Census shows that the parish population is 190,894. The largest rate of growth occurred during the decade of the 1950's. The growth of 26,913 persons during the decade resulted in a 3.9 percent average annual rate of growth. The smallest rate of growth since 1950 occurred during the 1980's, when the Parish experienced a 1.4 percent average annual growth rate. This was the recession period when the oil and gas industry, a major employer in Lafayette Parish, experienced major reductions in employment. The decreased growth rate experienced by Lafayette Parish during the latter part of the 1980's was in large measure attributed to a net out-migration of people. The population of the Parish increased by 14,745 persons between 1980 and 1990. There were an estimated 26,800 births and 7,800 deaths during this period, resulting in a net out-migration of 4,255 persons. Between 1990 and 2000, the Parish experienced a 1.5 percent average annual growth rate.

While the population of Lafayette Parish and the City of Lafayette both continued to grow between 1970 and 1990, the population in the study corridor area decreased from 32,996 in 1970 to 30,797 in 1990. This population loss is directly reflective of changes in land use that have occurred during this period. In 2000, populations for the parish, city, and study area increased, consistent with the original estimates made in the DEIS. Lafayette Parish grew to 190,894 in 2000. The City of Lafayette increased to 110,257, although this figure is not quite as high as anticipated from the 1997 estimates shown in Table 3-3. And the study area grew to 32,162 which did not follow the decreasing population trend shown in Table 3-3 from 1970 to 1990.

Table 3-3 presents population growth since 1950 for the United States, Louisiana, Lafayette Parish, the City of Lafayette, and the corridor study area. Exhibit 3-8 demonstrates the relative decline of the study area as a residential base compared to the rest of the region, although this trend could be stabilizing based on the 2000 Census figures.

Growth and Projections

Population projections for Lafayette Parish have been prepared by the Lafayette City-Parish Consolidated Government Department of Planning, Zoning, and Codes for use in transportation and other planning activities. The projected population has been allocated among the 316 traffic analysis zones into which the Parish has been subdivided. The projections indicate that by the year 2015, more than 221,400 persons will be living in Lafayette Parish. These projections equate to an average annual growth rate of 1.1 percent over the 20 years between 1995 and 2015. Based on data from the 2000 Census, projection trends tabulated for population growth for the parish, city, and study corridor area, as shown in Exhibit 3-8, were consistent with the actual populations reported in 2000.

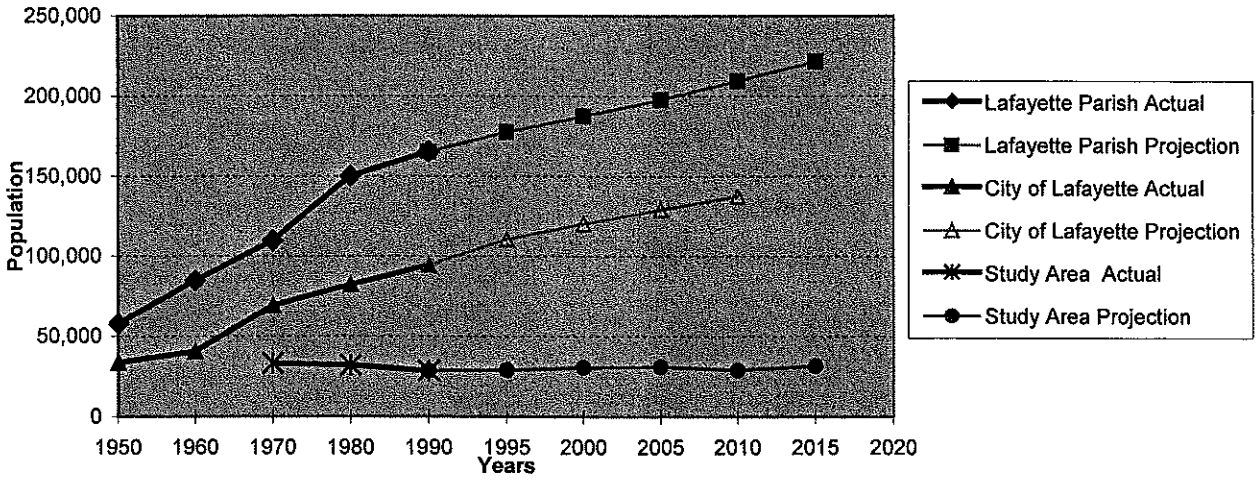
The projected population was distributed to each of the 316 traffic analysis zones on the basis of estimated holding capacity for each zone. Major growth is expected to occur primarily to the south and west of the City. Another area of significant growth will be north of I-10 and west of I-49 and in a relatively small area southeast of the Lafayette Metropolitan Airport. Exhibit 3-9 shows major population and economic development growth areas in the Parish superimposed on 1990 population densities.

Table 3-3

POPULATION GROWTH 1950 - 1997

	1950	1960	1970	1980	1990	1997
United States	151,325,798	179,323,175	203,302,031	226,542,203	248,709,873	267,636,061
Louisiana	2,683,516	3,257,022	3,644,637	4,206,116	4,219,973	4,351,765
Lafayette Parish	57,743	84,656	109,716	150,017	164,762	184,102
Lafayette City	33,541	40,400	68,908	81,961	94,460	112,018
Study Area	-----	-----	32,996	31,940	30,797	-----

Source: U.S. Bureau of the Census 1950, 1960, 1970, 1980, 1990, and July 1, 1997 estimates from Population Estimates Program, Population Division, U.S. Bureau of the Census



City of Lafayette projection by LSU Department of Sociology

Lafayette Parish and Study Area projection by the Lafayette City-Parish Consolidated Government Department of Planing, Zoning and

Exhibit 3-8
POPULATION GROWTH AND PROJECTIONS

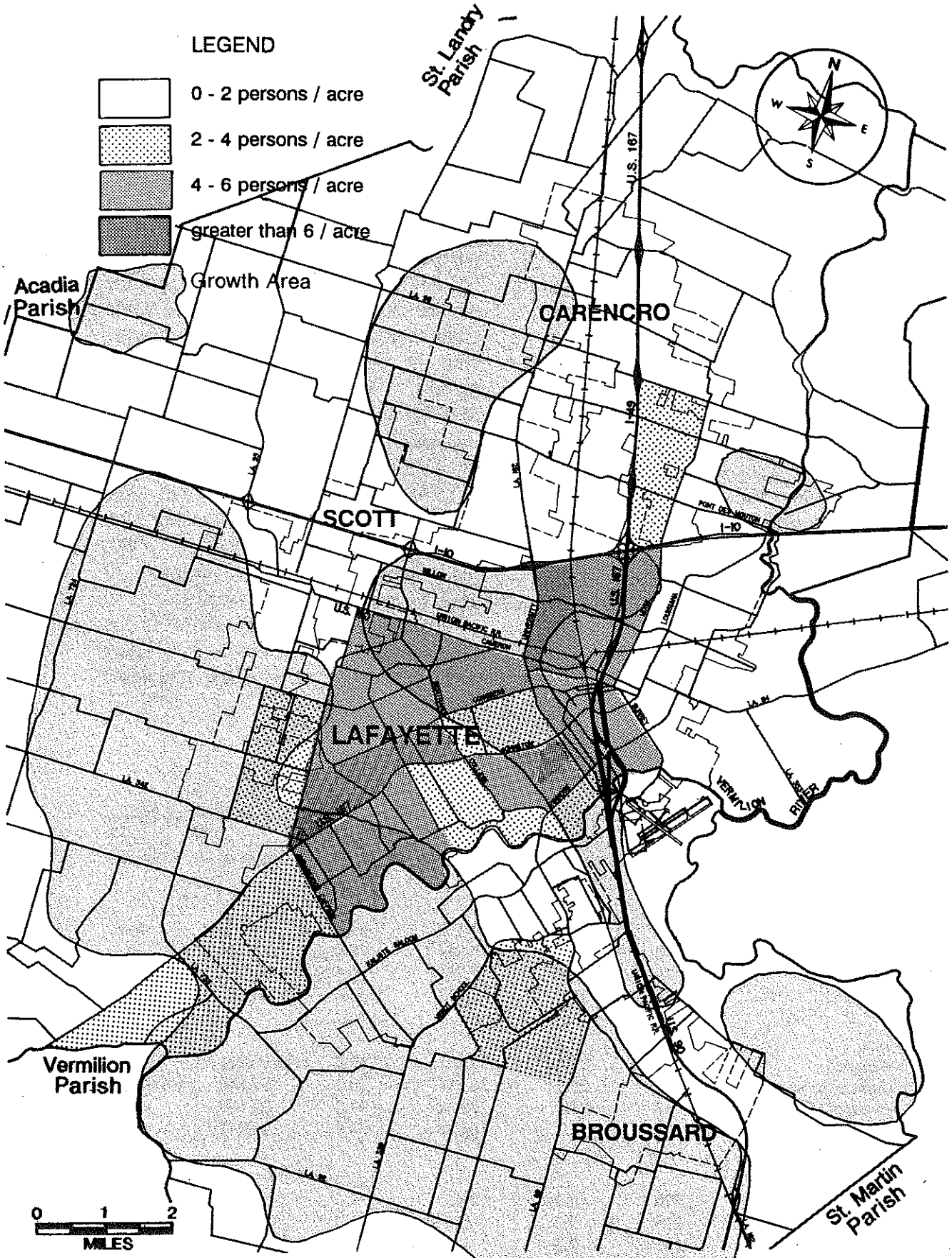
Age Distribution

A major transportation facility will affect different age groups differently. Those that tend to have the most difficulty in adapting to or relocating due to the impacts of such a project are generally the young and the elderly. Table 3-4 depicts the age composition of the State, Parish, City, and corridor study area. Lafayette Parish had 47,895 persons under 18 years of age, which accounted for 29 percent of the 1990 population. This was an increase of 1,742 persons over the 1980 figure and 5,972 persons over the 1970 figure in that age group. Within the corridor study area, there were 8,532 persons under the age of 18 in 1990. This represented 27.7 percent of the corridor study area population. Since 1970, the population in this age category has continually represented a smaller proportion of the total population. Within the study area, the actual population within this age group has been decreasing. In 2000, this trend was also evident with the percent of the population under 18 years of age in the study area decreased to 26.5 percent.

Table 3-4
AGE COMPOSITION

	1970		1980		1990	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Under 18 Years						
Louisiana	1,387,337	38.1	1,329,064	31.5	1,228,012	29.1
Laf. Parish	41,923	38.2	46,153	30.7	47,895	29.0
Laf. City	27,761	40.2	22,664	27.6	24,872	26.3
Study Area	12,369	37.4	8,906	27.8	8,532	27.7
65 Years and Older						
Louisiana	306,725	8.4	406,766	9.5	468,417	11.1
Laf. Parish	5,128	4.6	10,069	6.7	13,718	8.3
Laf. City	4,121	5.9	6,613	8.0	8,979	9.5
Study Area	2,513	7.6	2,949	9.2	3,190	10.3
Median Age (years)						
Louisiana	24.8		27.3		31.0	
Laf. Parish	22.8		25.7		29.8	
Laf. City	23.0		26.0		30.4	
Study Area			26.1		30.2	

Source: U.S. Bureau of the Census, 1970, 1980, and 1990.



Source: U.S. Bureau of the Census, 1990 and
LCG Department of Planning, Zoning, and Codes

Exhibit 3-9
POPULATION DENSITIES AND GROWTH AREAS

The population that is 65 years of age and older has been growing in both absolute terms and as a proportion of the total population in the State of Louisiana, Lafayette Parish, City of Lafayette, and the study area as of 1990. In 2000, this trend has also been observed for the State of Louisiana, Lafayette Parish, and the City of Lafayette. For the study area the percentage of population over 65 years of age actually decreased, but only within one percent. This, combined with the decreasing proportion of the population that is under 18 years of age since 1970 has resulted in an aging population, as represented by the median age. The median age of the study area population is similar to that of the City of Lafayette, and slightly younger than the median age of Lafayette Parish residents.

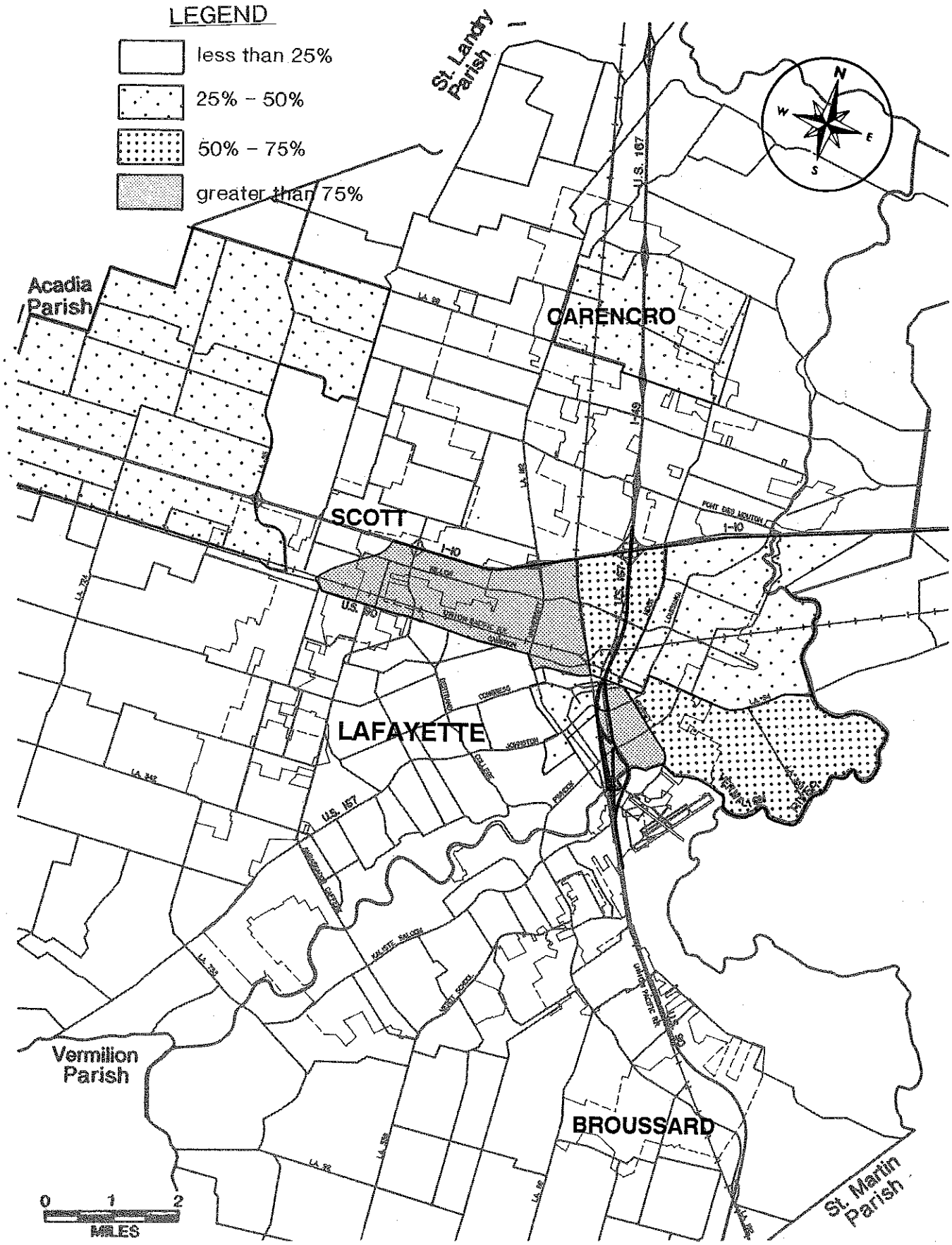
Racial and Ethnic Composition

The spatial distribution of minority populations in Lafayette Parish based on the 1990 census is shown on Exhibit 3-10. Table 3-5 depicts the racial composition of the State, Parish, City, and study area. In 1970, Lafayette Parish had 85,640 white persons, which accounted for 78.0 percent of the population. That number grew to 117,867 persons (78.5 percent of the population) in 1980. In 1990, the white population increased to 125,340 persons, with the percentage decreasing to 76.0 percent. The City of Lafayette had 51,578 white persons in 1970 (74.8 percent), 57,776 white persons in 1980 (70.4 percent), and 66,867 white persons in 1990 (70.8 percent). In the study area, 19,337 white persons accounted for 58.8 percent of the 1970 population. By 1980, the white population had dropped to 15,212 persons, accounting for 47.6 percent of the population. In 1990, the white population increased to 15,660 persons, or 50.9 percent of the total study area population. In 2000, the percent of the white population decreased within the State of Louisiana (63.9 percent), Lafayette Parish (73.4 percent), the City of Lafayette (68.2 percent), and the study area (48.2 percent).

Table 3-5
RACIAL AND ETHNIC COMPOSITION

	1970		1980		1990	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
White						
Louisiana	2,541,498	69.7	2,912,172	69.2	2,839,138	67.3
Lafayette Parish	85,640	78.0	117,867	78.5	125,340	76.1
Lafayette City	51,578	74.8	57,776	70.4	66,867	70.8
Study Area	19,337	58.6	15,212	47.6	15,660	50.9
Black						
Louisiana	1,086,832	29.8	1,238,241	29.4	1,299,281	30.8
Lafayette Parish	23,857	21.7	30,334	20.2	36,846	22.4
Lafayette City	17,162	24.9	22,832	27.9	25,679	27.2
Study Area	13,575	41.1	16,246	50.8	14,747	47.9
Other						
Louisiana	12,976	0.4	55,487	1.3	81,554	1.9
Lafayette Parish	219	0.2	1,816	1.2	2,576	1.6
Lafayette City	158	0.2	1,353	1.6	1,894	2.0
Study Area	84	0.3	591	1.8	390	1.3

Source: U.S. Bureau of the Census 1970, 1980, and 1990.



Source: U.S. Bureau of the Census, 1990

Exhibit 3-10
DISTRIBUTION OF MINORITY POPULATION

In 1970, Lafayette Parish had 23,857 black persons representing 21.7 percent of the Parish population. The black population increased to 30,334 in 1980 (20.2 percent) and rose to 36,846 persons (22.4 percent) in 1990. The City of Lafayette had 17,162 black persons in 1970 which accounted for 24.9 percent of the population and the number of black persons increased to 22,832 (27.8 percent of the population) in 1980. In 1990, the black population rose to 25,679, representing 27.2 percent of the population of the City of Lafayette. The study area had 13,575 black persons in 1970, representing 41.1 percent of the population. This group grew to 16,246 persons (representing 50.8 percent of the population) in 1980. In 1990, there were 14,747 blacks living in the study area, representing 47.9 percent of the total population. In 2000, the black population percentage for the State of Louisiana, Lafayette Parish, City of Lafayette, and the study area continued to increase. Louisiana had 32.5 percent black population, the parish had 23.8 percent, the city had 28.5 percent and the study area had 49.3 percent.

The sector of the population that is neither black nor white was very small in 1970, and accounted for only 0.19 percent of the Lafayette Parish population and 0.22 percent of the City of Lafayette population. By 1990, the proportion represented by this sector of the population was still a very small portion of the total population, 1.6 percent of the Parish, 2.0 percent of the City, and 1.3 percent of the study area. The percentages for races other than white and black showed an increase in the year 2000, ranging between 2.5 percent and 3.6 of the total population, respectively, for each geographic region. This is still a relatively small percentage of the population.

3.2.2.c Housing and Household Characteristics

Housing and household characteristics generally include information pertaining to housing values, housing ownership, housing vacancy and household size. Table 3-6 displays these characteristics for the State, Parish, City, and study area. The total number of housing units in Lafayette Parish grew from 32,057 units in 1970 to 67,431 units in 1990. The number of housing units in the Parish increased over the 20-year period by 35,374 housing units, or at an average annual rate of 3.79 percent. In 2000, there were 78,122 housing units reported and thus between 1990 and 2000 there was an average annual growth rate of 1.5 percent. The housing stock in the City of Lafayette grew from 20,724 units in 1970 to 40,379 units in 1990, 19,665 units during the 20 year period between 1970 and 1990. This represented an average annual growth rate of 3.39 percent. In 2000, there were 46,865 housing units within the City of Lafayette, which is a 1.5 average annual growth rate from for the ten years between 1990 and 2000. During the 20 year period between 1970 and 1990, the number of housing units in the corridor study area increased from 10,551 in 1970 to 13,120 in 1990. This represented an annual average growth rate of 1.10 percent. For the year 2000 the number of housing units in the corridor study area increased to 13,260 which accounts for an average growth rate of zero percent between 1990 and 2000.

The number of owner-occupied housing units in Lafayette Parish has increased from 20,621 units (64.3 percent) in 1970 to 37,031 in 1990 (61.3 percent) in 1990. In the City of Lafayette, the number of owner-occupied housing units has grown from 12,440 units (60.0 percent) in 1970 to 19,375 units (53.3 percent) in 1990. During the same 20-year period, the number of owner-occupied units in the study area decreased from 5,892 units (55.8 percent) in 1970 to 5,822 units (44.4 percent) in 1990. In 2000, there was an increase in percentage of owner-occupied housing units for the City (58.3 percent), Parish (66.0 percent), as well as the study area (44.4 percent) compared to the findings from 1990. While the number of owner-occupied housing units increased in the City, Parish, and study area so too did the number of renter-occupied housing units. Renter-occupied housing units increased at a greater rate over the 20-year period, and as a result, the percentage of the total occupied housing that is owner-occupied decreased somewhat in 1990. However, in 2000 the percentage of total occupied housing that is owner-occupied increased from 1990. Vacancy rates in the Parish, the City, and the study area decreased between 1970 and 1980. Between 1980 and 1990, the vacancy rates increased. Most recently between 1990 and 2000, the vacancy rates decreased by a difference of three to five percent.

Table 3-6
HOUSING CHARACTERISTICS

	Total Housing Units (HU)	Owner Occupied (OO)	Percent OO	Renter Occupied (RO)	Vacant	Median Value OOHU	Median Rent ROHU
1970							
Louisiana	1,150,950	663,453	63.1	388,477	92,858	$14,600	$62
Lafayette Parish	32,057	20,621	64.3	9,349	2,075	16,600	62
Lafayette City	20,714	12,440	60.0	6,849	1,431	16,800	64
Study Area	10,551	5,892	55.8	3,863	661	16,100	66
1980							
Louisiana	1,548,419		59.7	486,649	123,533	43,000	156
Lafayette Parish	53,136	33,542	63.1	16,788	2,705	59,100	212
Lafayette City	29,853	16,306	54.6	12,173	1,356	57,900	262
Study Area	8,958	4,561	50.9	4,020	502	38,400	185
1990							
Louisiana	1,716,241	987,,919	65.9	511,350	216,972	58,500	260
Lafayette Parish	67,431	37,031	61.3	23,380	7,020	62,700	245
Lafayette City	40,379	19,375	53.3	16,951	4,053	66,000	254
Study Area	13,120	5,822	44.4	5,551	1,747	43,669	193

Source: U.S. Bureau of the Census 1970, 1980, 1990

In 1970, the median value of owner-occupied housing units was very close in the three areas. In Lafayette Parish, the City of Lafayette, and the study area, the median owner-occupied housing values were $16,600, $16,800, and $16,100, respectively. However, by 1980, the median value of owner-occupied housing units in the study area was far below that in the Parish and City, as shown in Table 3-6. This relationship continued in 1990. In 1970, the median contract rent of renter-occupied housing units in the study area, the City, and the Parish were very close. Ten years later, median contract rent in the City and Parish were greater than the rent in the study area. This relationship continued in 1990. To a great extent, the increase of values of owner-occupied housing units and median contract rents over the years reflects the higher costs of new units added to the housing stock in Lafayette Parish and the City of Lafayette. A smaller proportion of the study area includes newer housing; therefore, the median value of the housing has not grown as rapidly. Data from the 2000 Census regarding housing characteristics was not accessible at the time this EIS was published.

Over the years, household size has been shrinking as a result of fewer children as well as an increase in single persons and other non-family households. In 1970, household size for Lafayette Parish, the City of Lafayette, and the study area was well above three persons per household, 3.71 persons per household in the study area. By 1990, there was an average of 2.50 persons per household in the study area. This data is presented in Table 3-7. In 2000, the average number of persons per household for the study area was approximately equal to the 1990 value.

Table 3-7
HOUSEHOLD CHARACTERISTICS

	Total Households	Median Household Income	Persons per Household
1970			
Louisiana	1,052,038	$ 6,538	3.37
Lafayette Parish	32,057	7,916	3.55
Lafayette City	20,695	8,080	3.41
Study Area	10,347	9,464	3.71
1980			
Louisiana	1,412,000	15,277	2.91
Lafayette Parish	50,497	18,602	2.90
Lafayette City	28,741	16,913	2.74
Study Area	9,426	11,419	2.91
1990			
Louisiana	1,499,269	21,949	2.74
Lafayette Parish	60,411	24,339	2.66
Lafayette City	36,326	23,430	2.50
Study Area	11,383	15,421	2.50

Source: U.S. Bureau of the Census 1970, 1980, and 1990.

3.2.2.d Economic Characteristics

Income Levels

Income and employment potential of residents may be affected by a change in a transportation system. Income levels may help to determine the sensitivity of certain area residents faced with relocation. In 1970, the median household income for Lafayette Parish was $7,916. This figures more than doubled in 1980 to $18,602. In 1990, the median household income in Lafayette parish was $24,339. In the City of Lafayette, the median household income for 1970 was $8,080. Again, the median household income nearly doubled by 1980 to $16,913, reaching $23,430 in 1990. The study area displayed a median household income of $9,464 in 1970, which was higher than both Parish and City figures. However, the median household income had increased only to $11,419 in 1980, which was far below Parish and City figures. In 1990, the study area maintained its position relative to the Parish and City. In that year, median household income was $15,421 in the study area, compared to $23,430 in the City of Lafayette and $24,339 in Lafayette Parish. Data from the 2000 Census regarding income levels for the study area was not accessible at the time this EIS was published.

Labor Force and Employment

Census data for 1980 and 1990 suggest the downsizing of the oil and gas industry during the mid-1980's. The rebounding economy during the last part of the decade has resulted in an overall 5 percent growth in employment during the decade in Lafayette Parish and an 8.9 percent increase for residents of the City of Lafayette. As an indication of how much the local economy has improved, the average annual unemployment rate was 13.9 percent in 1986. This was the highest unemployment in Lafayette Parish in recent years. In 1997, the average annual unemployment rate was only 5.2 percent.

In Table 3-8, the different sectors of Lafayette's economy are presented. Since 1980, the managerial and professional sector has been the fastest growing sector of the Parish economy. This sector grew from 25.3 percent of total employment in 1980 to 28.1 percent in 1990. Service occupations exhibited the second largest growth. Two sectors — precision production, craft and repair, and operators, fabricators and laborers — experienced reductions in employees during the decade. Precision production, craft, and repair occupations includes mechanics and repairers, construction trades, and precision production occupations. Operators, fabricators, and laborer occupations include machine operators, assemblers and inspectors; transportation and material moving occupations; and construction laborers, freight, stock and material handlers, and other handlers, equipment cleaners, helpers, and other laborers.

More recent data for labor force and employment for the study area in 2000 was not accessible at the time this EIS was published.

Table 3-8
EMPLOYMENT IN PRIMARY SECTORS OF THE LAFAYETTE ECONOMY

	Lafayette Parish				City of Lafayette				Study Area			
	1980		1990		1980		1990		1980		1990	
Sector	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Managerial & Professional	17,381	25.3	20,297	28.1	10,716	28.2	13,480	32.5	2,083	18.4	2,765	23.0
Technical, Sales, Administrative	23,145	33.6	25,198	34.9	12,570	33.1	14,068	34.0	2,914	25.8	3,556	29.6
Service Occupations	8,054	11.7	9,633	13.3	5,173	13.6	5,946	14.4	2,717	24.1	2,609	21.7
Farming, Forestry, Fishing	832	1.2	963	1.3	279	0.7	425	1.0	121	1.1	196	1.6
Precision Production, Craft, Repair	10,416	15.1	7,976	11.1	4,798	12.6	3,661	8.8	1,528	13.5	1,239	10.3
Operators, Fabricators, Laborers	8,989	13.1	8,176	11.3	4,504	11.8	3,861	9.3	1,927	17.1	1,636	13.6
Total Employment	**68,817**	**100.0**	**72,243**	**100.0**	**38,040**	**100.0**	**41,441**	**100.0**	**11,290**	**100.0**	**12,041**	**100.0**
Civilian Labor Force	71,508		78,343		39,733		45,413		11,894		14,107	

Source: U.S. Bureau of the Census 1980, 1990

3.2.3 PUBLIC FACILITIES AND SERVICES

Many public facilities (non-profit organizations and government facilities) accommodate people in a specific area and would be subject to impacts caused by a new transportation facility. Elementary schools typically would be one of the most impacted types of public facility. This is because schools have defined service areas, whereas other public facility service areas may not be as rigid. As defined for this study, other public facilities include religious institutions, fire stations, police stations, hospitals, ambulance dispatch centers, and any other government organization. Non-profit facilities such as religious institutions, schools, and cemeteries

located in or immediately adjacent to the study area are listed below with the number corresponding to the facilities shown on Exhibit 3-11.

Religious Institutions

1. Our Lady of Wisdom
2. Wesley United Campus Ministries
3. First Presbyterian
4. Episcopal Church of Ascension
5. Acadiana Baptist
6. Lafayette First Baptist
7. Mother Theresa Missionary
8. First United Methodist
9. Trinity CME
10. Temple Rodeph Sholom
11. St. Patrick
12. St. James Baptist Church
13. Gethsemane Church of God
14. Good Hope Baptist
15. Immaculate Heart of Mary
16. Progressive Baptist
17. Salvation Army
18. Northside Baptist
19. Victory Tabernacle Church of God
20. St. Genevieve
21. Christ the King
22. St. Paul's
23. St. Peter's Baptist
24. St. Leo The Great
25. Bethel Assembly of God
26. Alpha House Ministries
27. Catholic Student Organization
28. Episcopal Church of Incarnation
29. Christ Is Risen Assembly of God
30. House of Faith Full Gospel
31. Imani Temple
32. Immanuel United Methodist
33. Islamic Center of Lafayette
34. Lewis Temple CME Church
35. Living Word Church
36. New Beginnings Worship Center
37. United Pentecostal Church
38. Well
39. Trinity Bible Church
40. Promise Keepers State Office
41. Church of Christ

Schools

1. Vermilion Elementary
2. Paul Breaux Elementary
3. Immaculate Heart of Mary
4. Gethsemane Christian
5. Ascension Day
6. First Baptist Christian
7. Holy Family Catholic
8. St. Antoine Elementary
9. St. Genevieve Elementary
10. N.P. Moss Elementary
11. Holy Rosary Institute
12. Alice Boucher Elementary
13. LeRosen Elementary And Special Education Center
14. Northside High School
15. St. Leo-Seton Elementary

Cemeteries

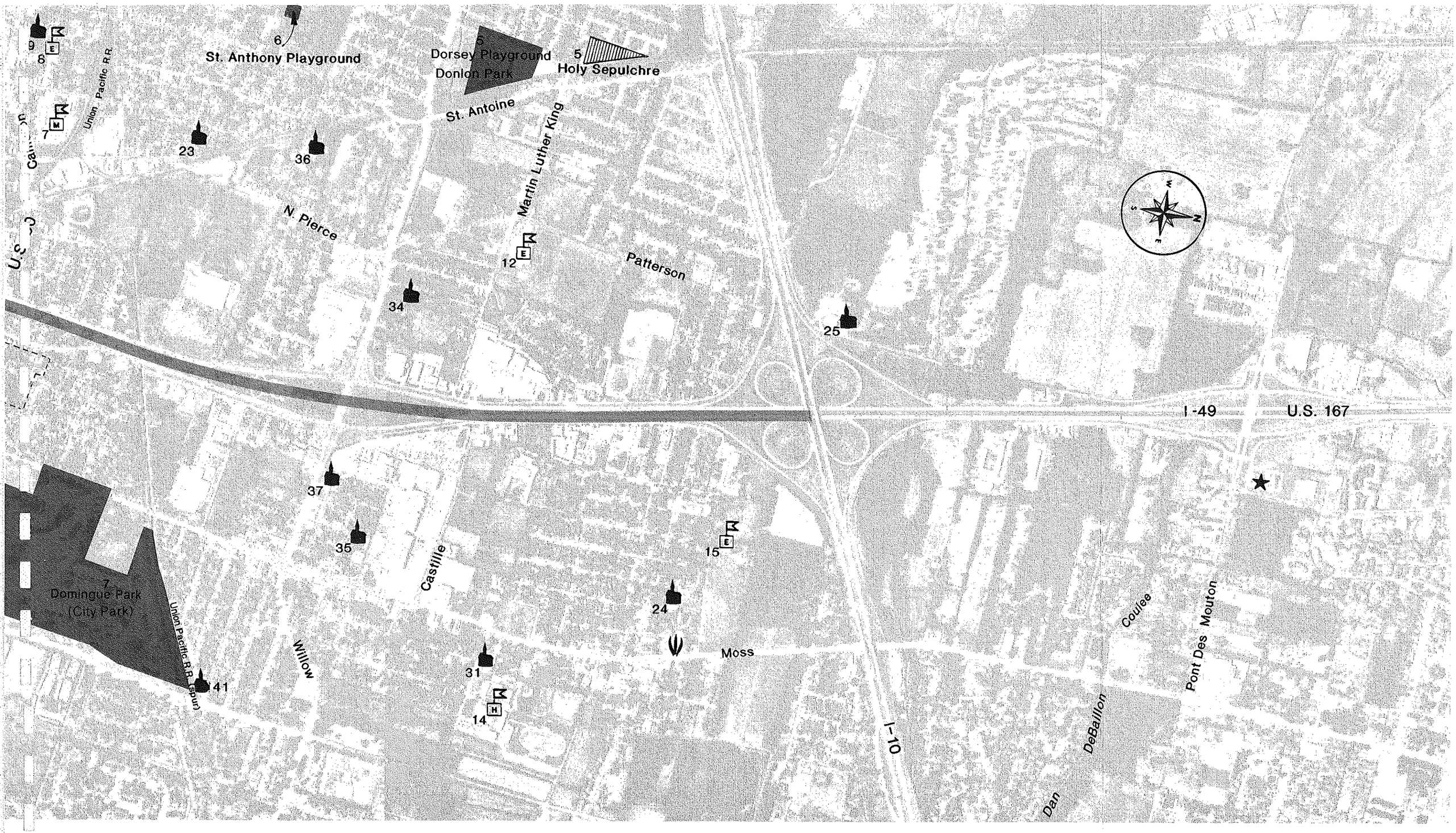
1. Lafayette Memorial
2. Masonic
3. Lafayette Protestant
4. Trinity CME Church
5. Holy Sepulchre

City of Lafayette Transit (COLT) provides conventional fixed route bus service throughout the City. This mass transit system is comprised of 12 fixed routes (refer to Exhibit 3-6). Service hours for all of the routes are from 6:30 a.m. to 6:30 p.m. on Monday through Saturday, and the fares range from forty-five cents for adults to twenty cents for the elderly and handicapped.

Kaliste Saloom
Lafayette Memorial
Coulee des Poches
Girard Park
St. Mary
U.S. 167
Central Business District
Congress
Trinty CME
Lee
Johnston
Parc de Lafayette
University
Gen. Mouton
School Board
Jefferson
Old Railroad Depot
3rd
2nd
6th
Masonic
W. Pinhook
Lafayette Protestant
Taft
Vermilion
Sterling Grove Historic District
Union Pacific R.R.
LA 728-2
River
Lil Woods Playground
Beaver Park
12th
Louisiana
Simcoe
Mudd
Bayou Vermilion District
Beaver Park
Vermilionville Cultural Center
E. Pinhook
Lafayette Regional Airport
Jean Lafitte National Park
Heymann Park
Surrey
School Board

LEGEND

- Elementary School
- Middle School
- High School
- Fire
- Cemetery
- Hospital
- Religious Institution
- Sheriff
- Police (City, State, Other Facilities)



0 1000 2000
SCALE IN FEET

Exhibit 3-11
PUBLIC FACILITIES & SERVICES

3.2.4 RECREATIONAL FACILITIES

Recreation programs in the City and Parish of Lafayette are administered by the Lafayette Parks and Recreation Department (LPRD).

The LPRD oversees 35 parks, eight recreation centers (with another under construction and a second in planning stages), and two golf courses comprising over 1,100 acres throughout the City-Parish *(LPRD, 1997)*. Within the vicinity of the project there are eight parks and playgrounds, not including the Jean Lafitte National Park or the Vermilionville Cultural Center. The parks and recreation areas falling within the map coverage limits are presented on Exhibit 3-11, in addition to the other public facilities.

The Vermilionville Cultural Center is located on the banks of the Vermilion River between Surrey Street and the Evangeline Thruway and is operated by the Bayou Vermilion District, which is a public commission (with taxing authority) whose members are appointed by the Lafayette City-Parish Council. This site has approximately 23 acres of land and features nine historic homes, a Cajun performance center, and a restaurant. The Bayou Vermilion District headquarters are located on approximately 6.3 acres of land along the Vermilion River between Evangeline Thruway and Vermilionville. Both the Bayou Vermilion District and Vermilionville are considered part of Beaver Park from a property standpoint, but are considered operationally self-supporting.

The Lafayette Interpretive Center of the Acadian Culture Unit of Jean Lafitte National Historical Park and Preserve is located adjacent to Vermilionville and Beaver Park on Surrey Street. This site comprises approximately ten acres. The Jean Lafitte National Historic Park is a federal park and is not considered part of Beaver Park.

The recreational parks located within or immediately adjacent to the study area are briefly described below, keyed by number to Exhibit 3-11:

1. Beaver Park - The Evangeline Thruway currently bisects this 60-acre park on Surrey Street and University Avenue. The park has lighted tennis courts, lighted softball fields, football fields, fishing ponds, a boat ramp, picnic tables, wooded areas, a children's playground and a tennis clubhouse. A 6′ wide concrete path connects the west and east sides of Beaver Park under the Evangeline Thruway adjacent to the Vermilion River. This path is located on LaDOTD right-of-way as indicated by the Project Permit in Appendix D.

2. Heymann Park - This 27.88-acre park on South Orange Street features a recreation center, a gymnasium, a swimming pool, basketball courts, a lighted playground, picnic tables, a lighted baseball stadium, tennis courts, wooded areas, and a lighted softball field.

3. Lil Woods Playground - This 2.96-acre playground on Ile Copales Avenue and Guidry Street contains basketball courts, picnic tables, tennis

courts, BBQ pits, shelters, and a children's playground.

4. Parc de Lafayette - This 0.5-acre downtown park on Jefferson Street contains a sitting area, picnic tables, a stage, and a fountain.

5. Dorsey Playground/Donlon Park - This 17-acre playground and park on Hilda Street features basketball courts, baseball fields, tennis courts, jogging path, picnic tables, an open play area, and a recreation center.

6. St. Anthony Playground - This 1.75-acre playground on Arthur, Edison, and Helen Streets is comprised of softball fields, basketball courts, picnic tables, and a children's playground.

7. Domingue Park (City Park) - This 103.6-acre park on Mudd Avenue consists of a swimming pool and bathhouse, a recreation center, a gymnasium, tennis courts, an 18 hole golf course and clubhouse, a football/ baseball stadium, a lighted baseball diamond, and a children's playground.

8. Girard Park - This 33-acre park on Girard Park Drive adjacent to the University of Southwestern Louisiana features picnic tables, tennis courts, basketball courts, a lighted baseball/softball/football field, a swimming pool, a fishing pond, a recreation center, a gymnasium, a jogging trail, and a children's playground.

Vermilionville, Jean Lafitte Center, and each of the eight LPRD parks fall under the evaluation procedures of Section 4(f) of 49 U.S.C. 303 (part of the DOT act of 1966). Jean Lafitte Center also falls under Section 6(f)(3) of the Land and Water Conservation Fund Act. Based on information supplied by the U.S. Department of the Interior and the State Department of Culture, Recreation and Tourism, Beaver Park, City Park, Donlon Park, and Heymann Park also fall within Section 6(f)(3). Refer to Section 3.2.6 for a description of 4(f) and 6(f) policies.

3.2.5 CULTURAL RESOURCES

The I-49 Connector project area encompasses a part of Louisiana that has both prehistoric and historic importance. The area has a rich cultural history derived from its mixture of French, Spanish, Acadian, and English backgrounds, especially in its Acadian (Canadian French immigrants) heritage. The study area possesses numerous standing structures that add to the historical architectural flavor of the area.

Due to its magnitude and location within the city of Lafayette, the I-49 Connector project warrants a study of the cultural resources in the project area. The study conducted for the EIS represents a cultural resources reconnaissance or Phase I Assessment and Preliminary Field Study, as defined by the Cultural Resources Code of Louisiana.

The primary aim of the Phase I study was to identify cultural resources over 50 years in age in the proposed highway corridor and assess their importance. The corridor is an urban corridor, running through the heart of Lafayette. It passes through the older sections of the city, the sections bearing the most architecturally prominent links with the city's past. Compliance with Section 106 procedures (National Historic Preservation Act) has

promoted a thorough investigation into the significance of the sites and structures in the corridor study area in terms of criteria for the National Register of Historic Places (36CFR800.10). Standing structures and historic and prehistoric archaeological sites were inventoried through both record research and field investigations. Because the Section 106 process requires Federal, Federally assisted, and Federally licensed undertakings to take into account the proposed effects of the undertaking on properties included on or eligible for the NRHP, all standing structures were examined within 1/4 mile of the outer limits of all alignments, resulting in a standing structure survey corridor measuring 3/4-mile wide.

In 1991, Dr. Jon Gibson conducted a Phase I cultural resources survey in conjunction with the I-49 Connector project. Both surface and subsurface testing were conducted along the banks of the Vermilion River because it was considered the only high probability area within the corridor for prehistoric sites. Gibson also conducted surface investigations at the original Creighton home site and Ile Copale plantation. However, the purported, original site of the Creighton home is not within any of the currently proposed alignments.

Refer to Exhibit 3-12 for locations of the standing structures that are either listed on or are eligible for inclusion on the NRHP

3.2.5.a Archaeological Sites

Prehistoric Sites

The 1991 investigations indicate that only one known prehistoric site is located within the project area — the Beaver Park Boat Launch site (16LY29). Reevaluation of this site was conducted in 1991. At that time, it was determined that the site had been completely destroyed and that it was not eligible for inclusion on the National Register of Historic Places.

Historic Sites

The 1991 archaeological investigation determined that Ile Copale may have archaeological potential. A ground search of the site in 1991 produced no surviving historical structures or materials. However, additional, intensive investigations will be needed to verify the historical potential of the area. SHPO has recommended that in addition to Ile Copale, archaeological investigations will be necessary within that portion of the study area where the selected alignment traverses those portions of the City of Lafayette that are greater than 50 years of age. The NRHP eligibility of any archaeological sites within the project area will be determined as right of way is acquired over time under the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Connector Alignment, rather than all at once at the initiation of project activities. A plan for archaeological investigations to specify procedures by which archaeological investigations will occur over the extended period of time in which right of way is acquired has been developed by LaDOTD and FHWA in conjunction with SHPO as part of the Memorandum of Agreement (MOA). The plan will be implemented prior to those project activities that could disturb the archaeological sites within the selected alternative. The archaeological plan is provided in Appendix F as a supplement to the MOA.

3.2.5.b Standing Structures

Because the I-49 Connector project area passes through some of the older residential areas of Lafayette, several architectural styles are found in the corridor study area. Examples of nineteenth century architecture include: Creole, French Colonial, Queen Anne, Folk Victorian, Victorian Gothic, and Greek Revival. Early Twentieth century styles include Colonial Revival, Craftsman, Minimal Traditional, Modern, and Commercial.

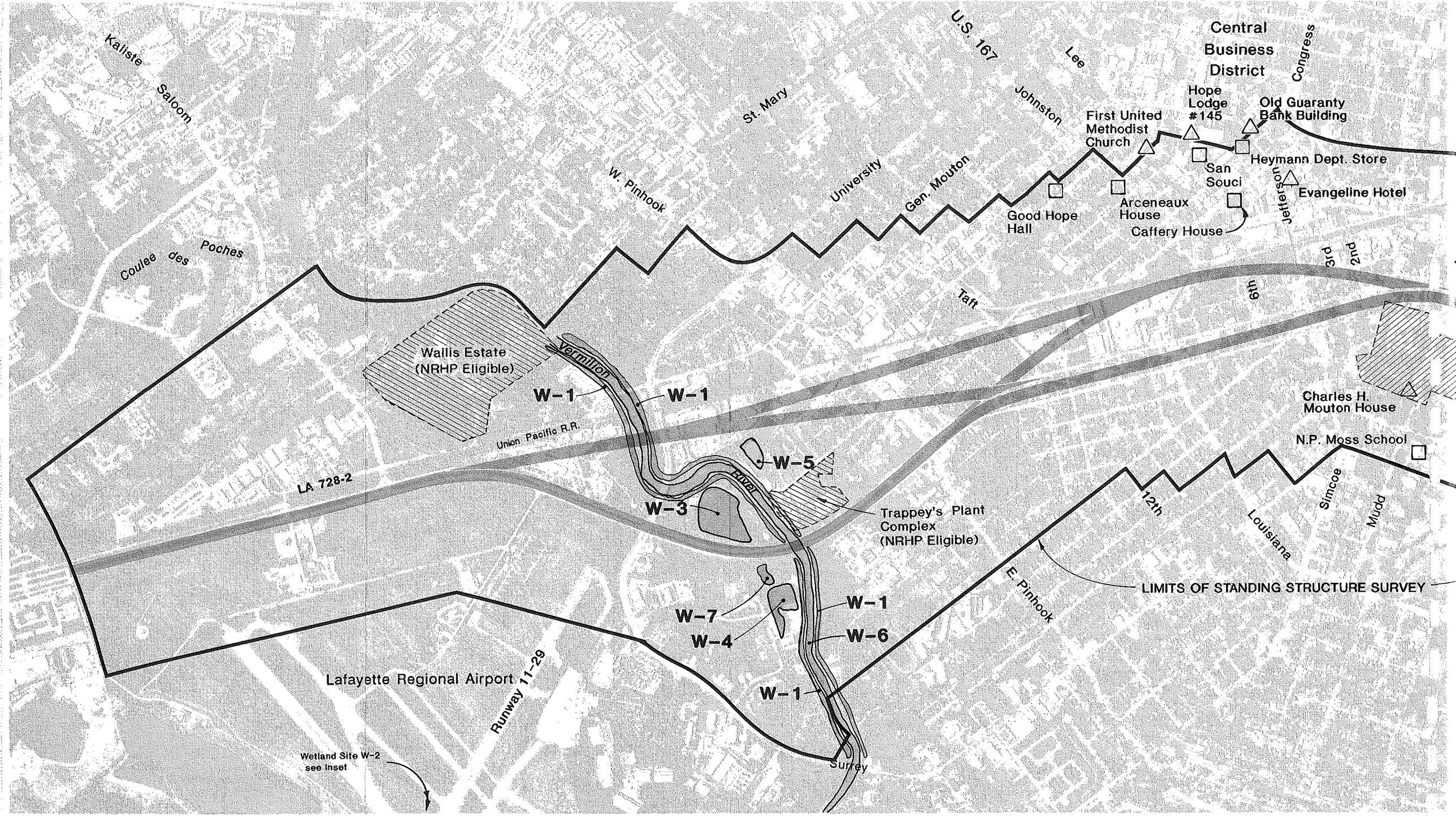
All standing structures over 50 years in age within the study area were inventoried and recorded to determine their architectural styles and dates of construction. This information was necessary to aid in the determination of eligibility for inclusion on the NRHP. *Louisiana Historic Resource Inventory* forms were prepared for all previously unrecorded properties greater than 50 years in age. *Louisiana Historic Resource Inventory* forms from the 1991 study were updated as necessary. All recorded properties were arranged by subdivision. A total of 1,806 properties were inventoried within the study corridor, some of which contain multiple structures.

The Sterling Grove Historic District, the Charles H. Mouton House, and the Evangeline Hotel are currently listed on the National Register of Historic Places. In addition, the Caffery House, Heymann Department Store, Sans Souci, Good Hope Hall, N.P. Moss School, the Trappey's Plant Complex, the Wallis Estate, and the Arceneaux House have all been determined eligible for inclusion on the National Register of Historic Places.

An area of distinct importance is the Sterling Grove Historic District. This residential area consists of 52 buildings that date mainly from the period 1890 to 1934. East Simcoe Street, the Evangeline Thruway, Chopin Street, and North Sterling Street roughly bound the District (the limits of the District are shown graphically on Exhibit 3-12). Many of the buildings are located along the District's two major streets, Sterling Street and Elizabeth Avenue, with some fronting on the Thruway.

Both large and small residences occur side by side in the District, as do residences of different architectural styles. Of the two major streets in the District, Sterling Street is the grander. It has large lots, live oaks, deep setbacks, and a mixture of one- and two-story houses. Structures on Elizabeth Avenue are more or less consistent, with one-story houses set nearer the street.

The only important non-residential feature in the District is the St. Genevieve Roman Catholic Church Complex, which consists of an imposing circa 1925 brick Romanesque Revival church, a circa 1930 Colonial Revival parish hall, and a two-story brick rectory. The church is situated at the corner of the Evangeline Thruway and Simcoe Street. There is also a related single-story school building on Elizabeth Avenue that is an intrusion to the Sterling Grove Historic District.


Kaliste Saloom
Coulee des Poches
W. Pinhook
St. Mary
University
Gen. Mouton
U.S. 167
Johnston
Lee
Central Business District
Congress
Hope Lodge #145
Old Guaranty Bank Building
First United Methodist Church
Heymann Dept. Store
San Souci
Jefferson
Evangeline Hotel
Good Hope Hall
Arceneaux House
Caffery House
Taft
6th
3rd
2nd
Wallis Estate (NRHP Eligible)
Vermilion
W-1
W-1
Union Pacific R.R.
Charles H. Mouton House
N.P. Moss School
W-5
LA 728-2
W-3
Trappey's Plant Complex (NRHP Eligible)
12th
Simcoe
Mudd
Louisiana
E. Pinhook
LIMITS OF STANDING STRUCTURE SURVEY
W-7
W-1
W-4
W-6
Lafayette Regional Airport
Runway 11-29
W-1
Surrey
Wetland Site W-2 see Inset

Union Pacific R.R.

St. Antoine

Martin Luther King

N. Pierce

Patterson

Sterling Grove
Historic District
(Existing NRHP District)

I-49

U.S. 167

Castille

Willow

Union Pacific R.R. (spur)

Moss

I-10

Borrow Pit

Runway 11-29

W-2

350' Runway Extension

Borrow Pit

Approximate Airport Property Line

Additional Wetlands

Bayou Tortue

Vermilion River

INSET

0 1000 2000
SCALE IN FEET

Source: I-49 Connector Study Team

LEGEND

- Wetland Sites
- NRHP Listed Sites
- NRHP Eligible Sites
- NRHP Potentially Eligible Sites

Exhibit 3-12
POTENTIAL HISTORIC SITES &
WETLAND SITES

The Sterling Grove Historic District is locally important in the area of architecture, and is a fine grouping of older structures in the City of Lafayette. It is the only area within the City of Lafayette that features a large component of Victorian and Edwardian buildings. This District has a large and impressive Italianate galleried house that is one of only three Italianate residences in the City. Aside from these earlier buildings, the District is distinguished by an unusually varied collection of post-1910 structures.

3.2.6 SECTION 4(f), 106 AND 6(f) PROPERTIES

Under Section 4(f) of the Department of Transportation Act 49 USC 1653(f), the Federal Highway Administration cannot approve any program or project which requires the use of land from a significant public park, recreation area, wildlife or waterfowl refuge, or historic sites (on or eligible for the National Register of Historic Places) unless: (1) there is no feasible and prudent alternative to such use, and (2) the project includes all possible planning to minimize harm to the property from such use.

Section 106 of the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470f (NHPA), requires Federal agencies to take into account the effect of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the Council. These regulations, "Protection of Historic Properties" (36 CFR Part 800), were last updated January 11, 2001.

Section 6(f)(3) of the Land and Water Conservation Fund (LWCF) Act requires special coordination with and approval of the Department of the Interior (DOI) if lands which were acquired or developed with funds provided by LWCF are required for highway right-of-way. Section 6(f)(3) of the Act authorizes the NPS to prescribe conditions under which such lands may be converted to other than public outdoor recreational uses.

Beaver Park and Lil Woods Playground are adjacent to the corridor and are discussed in Chapter 4. Also several historic or potentially historical properties are adjacent to the corridor and are discussed in Chapter 4.

3.2.7 NOISE

3.2.7.a Existing Noise Levels

All noise levels mentioned in this text are in units of dBA Leq(h). dBA refers to the A-weighted decibel scale. Leq(h) is defined as the equivalent steady-state sound level that, in a 1-hour period of time, contains the same acoustic energy as the time-varying sound level during the same period.

Ambient noise measurements were conducted on October 12-14, 1998 at 14 representative sites in the project vicinity. Twenty-minute samples were taken during peak and off peak traffic at each site. The measurements were made in accordance with FHWA guidelines using an integrating sound level analyzer meeting ANSI and IEC Type 1 specifications. Traffic counts concurrent

with the noise measurements were obtained at eleven field sites that had traffic immediately adjacent to the sites. The data collected at the fourteen sites are presented in Table 3-9. The locations of the field sites, Site 1 through Site 14, are shown on Exhibit 4-3.

3.2.7.b Model Calibration

The FHWA highway traffic noise prediction computer program, STAMINA 2.0/OPTIMA, was used to model the noise level of the traffic counted during the field measurements at eleven of the monitoring sites. The following parameters were used in this model to calculate an hourly Leq(h) at a specific receiver location:

- Distance between roadway and receiver;
- Relative elevations of roadway and receiver;
- Hourly traffic volume in light-duty (two axles, four tires), medium-duty (two axles, six tires), and heavy-duty (three or more axles) vehicles;
- Vehicle speed;
- Roadway grade;
- Topographic features, including retaining walls and berms;
- Noise source height of the vehicles; light-duty 0.0 ft. (0.0 m), medium-duty 2.3 ft (0.7 m), and heavy-duty 8.0 ft (2.4 m).
- Shielding and other factors.

Comparing the modeled noise levels to the measured noise levels allows for adjustment to specific site variables within the model and confirms the applicability of the computer model to the specific project. Modeled noise levels are within 3 dB of the measured levels for all time periods except the afternoon peak hour measurement at Site 10. This represents reasonable correlation since the human ear can barely distinguish a 3 dBA change in the Leq noise level in a natural setting. Table 3-10 presents a comparison of the measured and modeled dBA Leq(h) noise levels at each measurement site. The site locations indicated in the table are shown on Exhibit 4-3.

Table 3-9

MEASURED EXISTING NOISE LEVELS

					Traffic[1)]				Noise Level
Field Site #	Site Description and Distance From Road	Date	Start Time	Duration	A	MT	HT	Speed mph	(dBA L_{eq})
1	Leo Elementary School, 365 ft east of US 167,at St. Leo and N. E. Frontage Road.	10/13/98 10/13/98	08:48 10:18	20 min. 20 min.	-- --	-- --	-- --	-- --	70 68
2	Residence, 125 ft west of US 167, at Conrad St. and N. W. Frontage Road.	10/12/98 10/13/98	17:18 09:48	20 min. 20 min.	1473 793	43 38	49 91	40 40	77 77
3	Residence, 325 ft west of N. W. Evangeline Thwy, at Gilman Road and Almeda	10/13/98 10/13/98	07:10 10:51	20 min. 20 min.	-- --	-- --	-- --	-- --	69 66
4	Residence, at Goldman Street and 105 ft west of N. W. Evangeline Thwy.	10/12/98 10/13/98	18:45 07:50	20 min. 20 min.	330 603	6 22	22 43	30 30	71 74
5	Residence, at Goldman Street and 35 ft east of N. E. Evangeline Thwy.	10/13/98 10/13/98	08:20 11:18	20 min. 20 min.	332 451	24 22	43 50	35 35	80 81
6	St. Genevieve Catholic School, 15 ft east of N. E. Evangeline Thwy.	10/13/98 10/13/98	12:11 15:59	20 min. 20 min.	530 698	15 38	37 37	30 30	81 81
7	Residence, at Clinton and 40 ft west of Garfield street.	10/13/98 10/13/98	13:06 16:32	20 min. 20 min.	49 61	4 5	1 3	30 30	65 68
8	Residence, at Fifteenth Street and 15 ft east of N. E. Evangeline Thwy.	10/13/98 10/13/98	13:47 16:59	20 min. 20 min.	445 804	31 16	51 31	30 30	83 82
9	Residence, at Chag Street and 35 ft west of Pinhook Road.	10/13/98 10/13/98	14:45 17:25	20 min. 20 min.	384 324	15 3	3 1	30 30	70 72
10	St. Patrick Church, at Guidry Street and 90 ft east of Pinhook Road.	10/13/98 10/13/98	15:21 17:50	20 min. 20 min.	524 387	9 5	6 2	35 35	73 72
11	Beaver's Park, at the Tennis Court. 285 ft east of USH 90	10/13/98 10/14/98	18:40 06:50	20 min. 20 min.	-- --	-- --	-- --	-- --	71 70
12	Residence, at Hugh Wallis Road and 45 ft west of Kaliste Saloom Road.	10/14/98 10/14/98	08:16 10:34	20 min. 20 min.	210 143	8 9	1 1	35 35	69 68
13	Residence, at Theo Street and 25 ft east of Kaliste Saloom Road.	10/14/98 10/14/98	08:45 11:01	20 min. 20 min.	522 486	15 14	25 15	35 35	79 78
14	St. Genevieve Catholic Church, 20 ft east of N. E. Evangeline Thwy.	10/14/98 10/14/98	07:25 09:31	20 min. 20 min.	465 423	16 16	40 59	30 30	82 83

1) Autos (A) defined as 2-axle, 4-tire; medium trucks (MT) as 2-axle, 6-tire; heavy trucks (HT) as 3 or more axles.

Source: HNTB Corporation, October 1998

Table 3-10

COMPARISON BETWEEN MEASURED AND MODELED DATA

Field Site #	Measured L_{eq}, dBA	Modeled L_{eq}, dBA	Difference, dBA
2	77	75	-2
	77	75	-2
4	71	68	-3
	74	72	-2
5	80	77	-3
	81	78	-3
6	81	78	-3
	81	79	-2
7	65	63	-2
	68	65	-3
8	83	80	-3
	82	79	-3
9	70	67	-3
	72	69	-3
10	73	70	-3
	72	68	-4
12	69	66	-3
	68	66	-2
13	79	76	-3
	78	75	-3
14	82	79	-3
	83	80	-3

Note: Noise levels at Field Site Nos. 1, 3, and 11 were not modeled, since traffic could not be counted from these sites.

3.2.8 WASTE SITES

3.2.8.a Introduction and Methodology

This section of the EIS has been revised and updated from the original DEIS prepared in 1992 to meet certain ASTM requirements for conducting Phase 1 Environmental Site Assessments as prescribed by E 1527 - 97 Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process *(ASTM E 1527-97 Standards. [1997]).* Portions of the initial DEIS that remain pertinent at the current time have been retained and are presented herein. Updating the remainder of this section included: acquisition of regulatory agency data from Environmental Data Resources, a data retrieval service; acquisition of data from local, state, and federal agencies; comparison of updated data bases with the 1992 DEIS; site reconnaissance; review of historic maps and aerial photographs; and preparation of a map and summary of findings.

The initial DEIS contained locations and data relative to registered underground storage tank (UST) facilities, active facilities that generate hazardous waste,

and solid and/or hazardous waste sites located within the project corridor. Sites identified for inclusion in the revised EIS include: unregistered and/or inactive USTs; leaking USTs (LUST); aboveground storage tank (AST) facilities; facilities that treat, store, and/or dispose of hazardous wastes; and potential hazardous waste sites.

Exhibit 3-13 indicates the location of the various storage tanks and waste sites in the project area. The facilities which are impacted by one or more of the project alternatives are shaded gray. Table B-4 in Appendix B is keyed to Exhibit 3-13 and provides detailed information on each of the numbered sites.

The ASTM requirements, prescribed by E 1527 - 97 Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment, were originally designed to be utilized in the investigation and evaluation of singular tracts and not large corridors comprised of multiple tracts with multiple ownerships. Specific tasks and methodologies contained in the ASTM Standards can be applied to corridor site assessments, but the ASTM does not have specific guidelines for corridor studies (Hejzlar per. comm. 1999). Even though there is little or no literature on corridor studies (Hejzlar per. comm. 1999), the Standards provide guidance as to the level of inquiry that is warranted for a Phase 1 Environmental Site Assessment. Appropriate inquiry is required to meet *due diligence* obligations, but the Standards are flexible for "common sense" decisions on how the Phase 1 Environmental Site Assessment should be conducted. Therefore, all of the ASTM investigatory methodologies were not followed in the study because the project corridor is approximately five miles long and contains thousands of individual properties with an unknown number of owners. To apply ASTM methodologies designed for site investigations to this project area would have required a non-practical expenditure of time and financial resources. Specific tasks that are normally conducted in an ASTM Phase 1 Environmental Site Assessment, but were deleted in this effort, include: interviews with owners and occupants of the properties; a comprehensive site inspection for each of the properties located in the project area; review of conveyance records for each property, and review of street directories. Personal interviews for those sites, which were identified with contamination, were conducted with state and local agency personnel instead of the owners.

3.2.8.b Storage Tanks

Storage tanks located within the study area include: underground storage tanks (UST), registered and undocumented; leaking underground storage tanks (LUST); and aboveground storage tanks (AST). While not considered to be hazardous wastes, storage tanks contain various fuels, oils, and other predominantly hydrocarbon-based materials that can cause contamination if released into the environment.

USTs are defined as any one or a combination of tanks (including connecting underground pipes) used to contain an accumulation of regulated substances (as defined in LAC 33: XI. § 103) and the volume of which (including connecting underground pipes) is 10% or more beneath the surface of the ground.

All UST's are required to be registered with the Louisiana Department of Environmental Quality (LDEQ), Underground Storage Tank Division, unless they have been filled with a solid, inert material. The LDEQ's UST List was utilized to identify 142 facilities with registered USTs within the project area. This list is found on file with the LaDOTD.

A drive-through inspection of the study area revealed the presence of facilities with apparently 31 undocumented UST facilities. These facilities include several sites of former gasoline stations. The status of the USTs associated with these facilities is unknown and considered unregistered. In addition, active gasoline stations were also identified. The active facilities could not be coordinated with the LDEQ UST List because of inadequate name and/or address information.

Leaking underground storage tanks (LUST) are UST systems that have been documented as releasing fuel or other substances into the environment. Approximately 33 LUST facilities are located in the project area. The LDEQ description of each LUST facility is on file with the LaDOTD.

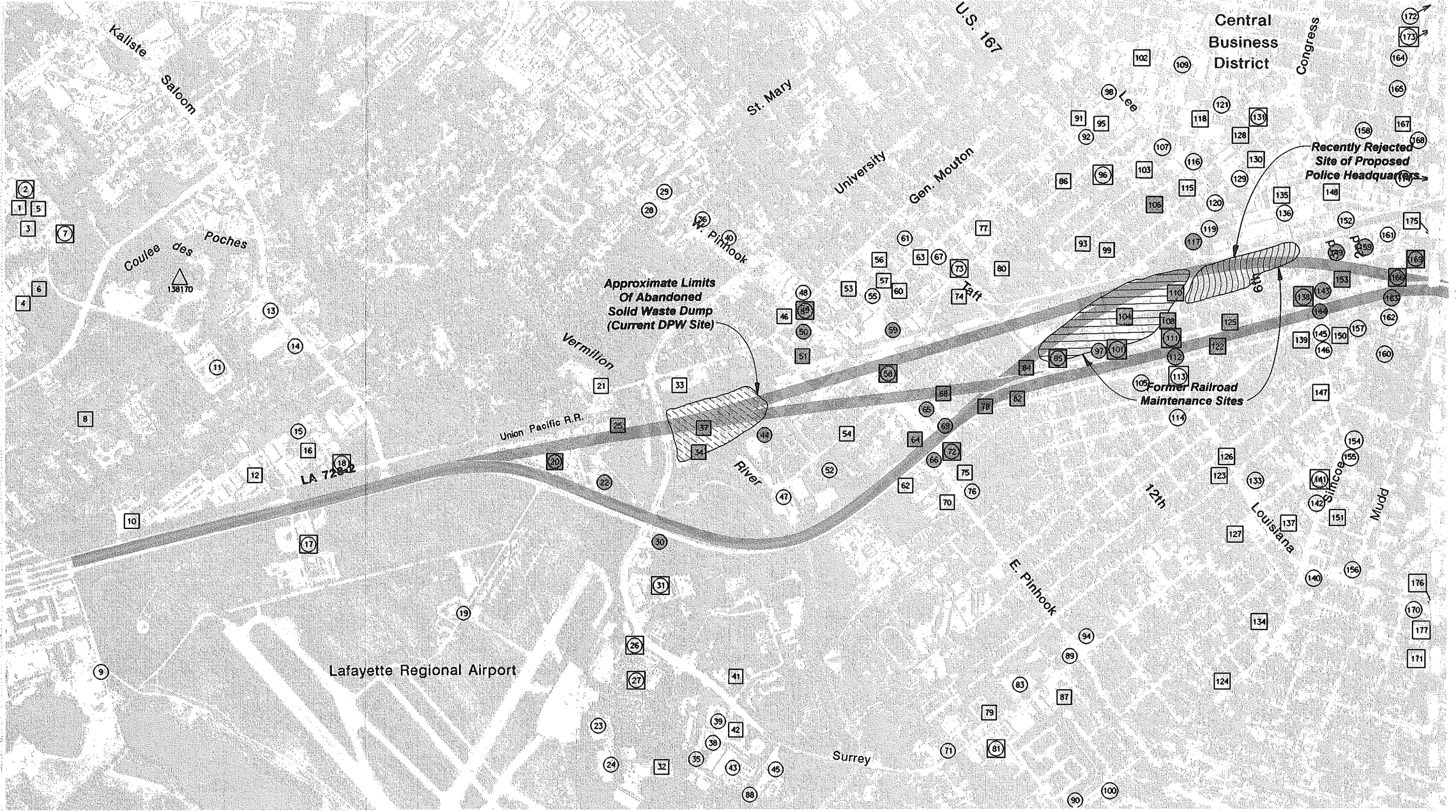
Aboveground storage tanks (AST) are regulated by the State Fire Marshall's Office of the Louisiana Department of Public Safety; however, the agency does not maintain an AST List for Lafayette Parish. Seven aboveground storage tanks were identified during the site inspection.

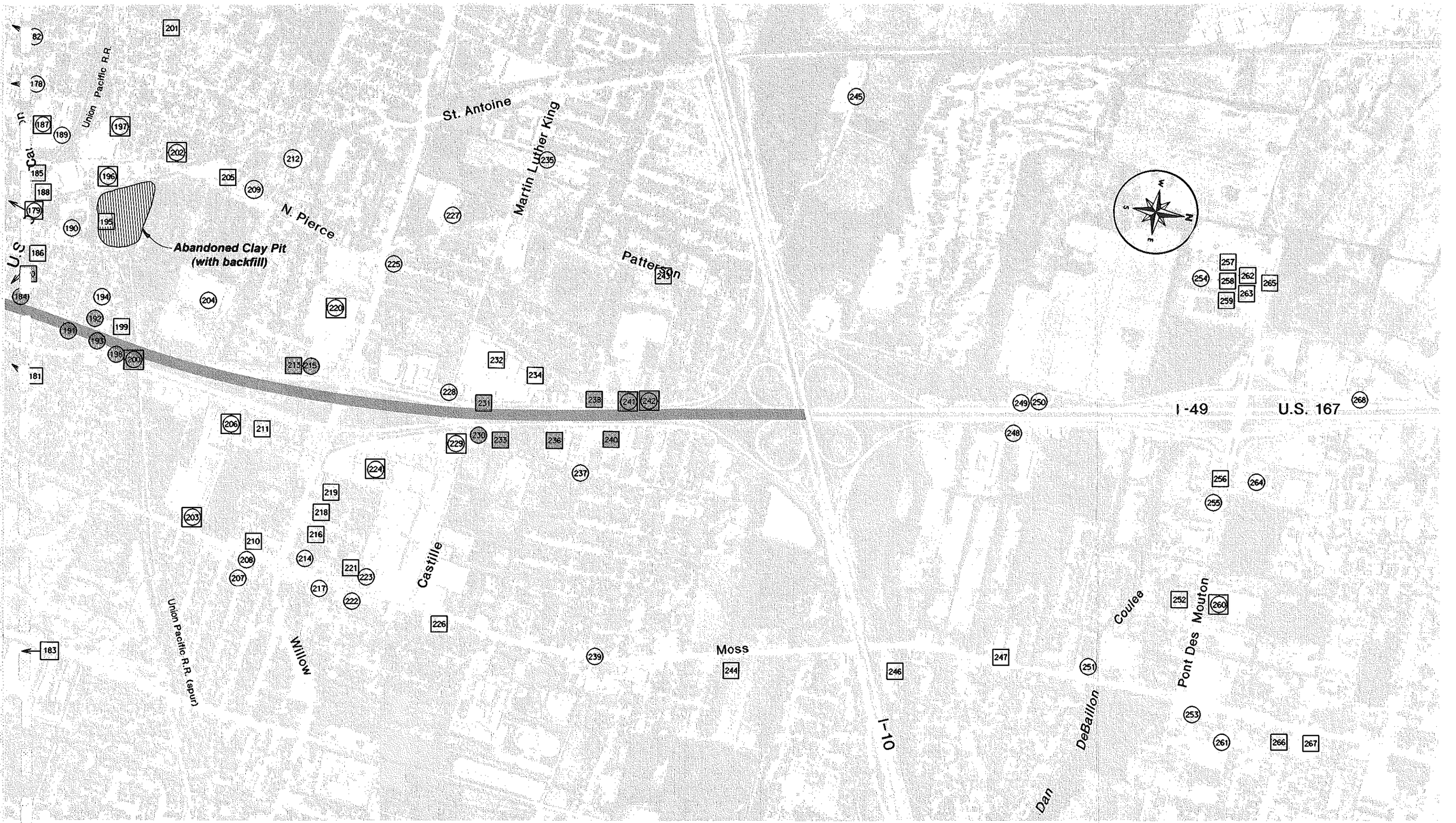
3.2.8.c Hazardous Wastes

Hazardous wastes are defined by 42 USC § 6903, as: "a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

No hazardous waste sites within the project area are contained in the U. S. Environmental Protection Agency's (EPA) National Priority List (NPL) or Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List. The LDEQ's Louisiana Site Remediation Information System (LASRIS) List contains one confirmed, inactive hazardous waste site facility (The Chrome Shop, LDEQ ID No. 01362) that is located within the project study area, north of I-10 (Exhibit 3-13, Site No. 265). Contamination, resulting from electroplating activities, is confined to the facility and immediate grounds. Even though this site is inside of the project study area, its remoteness and distance from the project corridor renders that it has no effect on the evaluation of alternative alignments.

Review of digital files provided by the U.S. Coast Guard indicate that there were no releases of oil and/or hazardous materials in the Vermilion River within or near the project corridor.


Central Business District
U.S. 167
Kaliste Saloom
St. Mary
University
Gen. Mouton
Congress
Lee
Recently Rejected Site of Proposed Police Headquarters
Coulee des Poches
138170
W. Pinhook
Approximate Limits Of Abandoned Solid Waste Dump (Current DPW Site)
Vermilion
Taft
6th
Former Railroad Maintenance Sites
Union Pacific R.R.
LA 72
River
12th
Louisiana
Simcoe
Mudd
E. Pinhook
Lafayette Regional Airport
Surrey



Legend

- (13) Storage Tank(s)
- (17) Storage Tank(s) and Hazardous Waste Generator or Site
- [10] Hazardous Waste Generator or Site
- △ Abandoned Oil Well

Note: Shading Represents Sites Potentially Impacted By One Or More Alternatives

0 1000 2000
SCALE IN FEET

Source: La. DEQ And 1998 Field Review

Exhibit 3-13
STORAGE TANKS &
HAZARDOUS WASTE SITES

Review of the oil and gas files at the Office of Conservation, Louisiana Department of Natural Resources, indicate that very little mineral activity has occurred in the project area. Two plugged and abandoned wells are located in the project study area, but neither dry hole is close to any of the alternative alignments.

The EPA and LaDEQ, Office of Solid and Hazardous Waste, maintain Resource Conservation and Recovery Information System (RCRIS) inventories of facilities which produce hazardous wastes. These inventories, supplemented by field review, were used to determine the location of active facilities within the project study area that produce hazardous wastes. Additional information regarding each RCRIS facility is on file with the LaDOTD. No RCRA TSD facilities (facilities in which treatment, storage, and/or disposal of hazardous wastes takes place as defined by the Resource Conservation and Recovery Act) are located in the project corridor.

A review of Sanborn maps (1892 to 1946), U.S. Geological Survey topographic quadrangle maps (1932 to 1983), and aerial photographs (1940 to 1990) did not reveal any sites where it is obvious hazardous waste contamination occurred. However, several contaminated sites were identified through interviews with LaDEQ personnel and review of Environmental Site Assessment reports kept on file at the Environmental Quality Division, Department of Public Works, Lafayette Parish Consolidated Government.

Two Environmental Site Assessments of the former K-Mart at 208 Willow Street (Exhibit 3-13, Site No. 220) resulted in findings of soil contamination at the former location of the Automotive Service Facility and asbestos present in the floor tiles of the main store facility *(Hydro-Environmental Technology, Inc. [date unknown] and Occupational & Environmental Health, 1994)*. Analyses of soil samples indicated elevated levels of petroleum hydrocarbons and oil and grease at varying depths within selected areas of the automotive service facility *(Hydro-Environmental Technology, Inc. [date unknown])*.

Two contaminated sites, in close proximity to one another, have been documented along the east side of the Union Pacific (formerly Southern Pacific) Railroad mainline that traverses the project area in a north-south direction. Other contaminated sites may exist along this railroad as well as along the east-west Breaux Bridge rail spur that traverses and intersects the mainline within the project area. Both lines were in existence prior to 1892 with spur lines, particularly associated with the north-south line, added and removed through the years. Potential sources of contamination include petroleum and metal-based residuals from rail operations and maintenance activities, possible releases from storage tanks and storage facilities that were located adjacent to the north-south rail corridor, and, to a lesser degree, soil contamination from creosote crossties. Neither steam nor diesel driven locomotives utilized hydraulic equipment or associated oil; therefore, PCBs are not a by-product of the rail industry.

One site, referred to as the Southern Pacific Transportation Company property, located on the east side and

adjacent to the north-south rail corridor between Johnston and Jefferson Streets, was documented as being contaminated (Exhibit 3-13, Site No. 132). The tract was considered for the location of the new police headquarters facility, but was eliminated based on the results of Phase II and III of an Environmental Site Assessment. These studies identified soil and groundwater contamination in selected portions of the tract. The northern portion of the property has volatile organic constituent soil contamination to a depth of 7 to 8 ft. below the ground surface. A wooden drainage system that is thought to have handled waste and wastewater is the likely source of the contamination. Soil contamination exists in the southern portion of the tract to a depth of 1.5 to 2.5 ft below the ground surface. The contamination, consisting of hydrocarbon based compounds, metals, and low BETX concentrations, is likely attributable to releases from past railroad related maintenance activities. *(Hydro-Environmental Technology, Inc. 1991 and 1992).*

The LaDEQ is presently monitoring groundwater that has been contaminated by heavy oil to a depth of approximately 15′ in a location between Johnston Street and Taft Street, west of the southbound Evangeline Thruway. The site, comprised of three tracts, is occupied by Georgia-Pacific Corp., Conco Food Distributing Co., Inc., and Union Pacific (formerly Southern Pacific Motor Trucking Co.) (Exhibit 3-13, Site Nos. 85, 97 and 101). The contamination was discovered through soil samples taken during the closure of a UST at the Georgia-Pacific Corp. facility. Georgia-Pacific Corp. has cleaned up a portion of the site to "industrial clean-up level" and the LaDEQ issued a No Further Action (NFA) *(Courcier per comm. 2001).* Union Pacific took over the responsibility of clean up from Conoco Food Distributing Co., Inc. and has asked the LaDEQ for NFA *(Courcier per comm. 2001).* The LaDEQ is currently considering Union Pacific's request *(Courcier per comm. 2001).* Even though no additional monitoring wells are planned, the contamination is prevalent beyond the three tracts *(Penrod per. Comm. 2001).* Suspected points of origin of the heavy oil include the former site of an adjacent 30,000 AST, used for the storage of heavy oil, and the former site of a railroad round *(Courcier per. comm. 1998 and 2001).*

Rounds, also known as a round houses, were used in the rail industry for maintenance activities. This particular round was a large shed located southwest of, and adjacent to, the present day intersection of the southbound Evangeline Thruway and Johnston Street (Exhibit 3-13, Site No. 104). Rounds got their names because they often included turntables which were structures, similar to swing bridges, that were built over pits used for inspecting and working on the locomotives. Upon completion of the maintenance activity, the locomotive would be spun 180° on the turntable for re-entry onto the main rail line via the spur.

Maintenance activities included the use of lubricating oil and waste oil on the moving parts of the axles and wheels of the rail cars. Lack of diligent maintenance resulted in heat build-up, failure of parts, and derailments. The lack of "good housekeeping" practices associated with maintenance activities was

widespread in the railroad industry and could have contributed to contamination, specifically near the round.

The round was documented as existing from prior to 1921 (1921 Sanborn Fire Insurance map) through 1963 (USDA aerial photograph), at which time aerial photography indicates it was apparently in the process of being dismantled. Two unidentified structures occupy the site in 1973.

A Phase I Environmental Site Assessment on the Southern Pacific Railroad Passenger Depot (Exhibit 3-13, Site No. 269), that was damaged by fire on August 7, 1998, was conducted in 1997 *(Lafayette Consolidated Government 1997)*. The study concluded that: (1) the adjacent tracks are probably contaminated by creosote from the crossties as well as oil, grease, and metal residuals from past rail operations activities, (2) the depot building could be contaminated with lead and asbestos; and (3) an unexplained depressed area in the grounds warrants further evaluation and groundwater testing. The cause of the depressed area is unknown, but it may be from a subsided septic tank.

In addition to the Phase 1 Environmental Site Assessments discussed, all of which resulted in the verification or suspicion of contamination at the respective sites, one assessment was identified that did not fit this category. A Phase 1 Environmental Site Assessment was conducted on a tract known as the Old Alice Boucher School Property in January, 1994 *(Lafayette Consolidated Government, 1994)*. The 11 ½ acre tract is located west of the Evangeline Thruway, between W. Williams and Johnny Streets. The study concluded that no recognized environmental conditions were detected on the property.

Through time, light industry grew along the north-south rail corridor, and to a lesser degree, along the east-west rail corridor. Lumber yards, cottonseed mills, and meatpacking and canning facilities may have contributed to waste contamination. However, a more detailed investigation, including soil sampling, would be required to determine the presence of and/or degree of the contamination at these sites. In addition to the areas along the railroad, there is a possibility that sites associated with storage tanks may have experienced contamination.

The 1940 and 1946 Sanborn Maps also showed the presence of three dry cleaning facilities within the project corridor. Cormier Cleaners, remains in business (Exhibit 3-13, Site No. 180), but the other two facilities are no longer in operation (Site Nos. 139 and 144). Releases of dry cleaning solvents into the environment during operations of these facilities represent potential sources of hazardous contamination. It is unknown if either of the two abandoned sites have been tested for contamination.

According to the LaDEQ files, there are no active sanitary landfills in the project corridor; however, the area containing the Department of Public Works (DPW) buildings and maintenance yard on University near the Union Pacific Railroad tracks is an inactive and abandoned solid waste dump (Exhibit 3-13, Site No. 34). The site originally

accepted construction debris and tree limbs, etc., and then began accepting household wastes in the late 1950s and early 1960s, before closing and being backfilled in the mid-1960s. The site has been used by the LCG Department of Public Works and City of Lafayette Transit as a maintenance and storage facility since the 1970s. A new DPW administration building presently occupies the site.

While reviewing conveyance records at the Lafayette parish Clerk of Court's Office for the purpose of identifying historical structures, an area used for municipal dumping was identified (#91-07205). Approximately one week's worth of municipal garbage from Lafayette Parish was buried in an area near the former site of a 63,000-gallon fuel oil tank during the early 1960's. The site was formerly occupied by Trappey's Fine Foods, Inc. and is currently occupied by Allen Canning Co., (Site No. 52).

North of Mudd Street next to the railroad is an abandoned, backfilled, clay pit formerly used to supply an adjacent brick yard (Exhibit 3-13, Site No. 195) The pit is no longer utilized and no documentation was identified that would indicate that this site is contaminated.

All of the facilities and sites that were identified during the study are described in Table B-4, Appendix B, and depicted on Exhibit 3-13. Additional information regarding the facilities is on file with the LaDOTD.

3.3 NATURAL ENVIRONMENT

3.3.1 WATER RESOURCES AND HYDRAULICS

3.3.1.a Water Resources

Vermilion River

The most important surface water resource located in the project area is the Vermilion River, which drains an area of over 650 square miles while flowing south from its headwaters through Lafayette into Vermilion Bay. The Vermilion River is designated non-navigable in the area of the proposed project crossing. The Vermilion becomes navigable as it passes under the General Mouton Bridge approximately 400' west of the Union Pacific Railroad. The river has the following designated uses: primary contact recreation, secondary contact recreation, and fish and wildlife propagation. Primary contact recreation is defined as any recreational or other water use in which there is prolonged and intimate contact with water involving considerable risk of absorbing waterborne constituents through the skin or of ingesting constituents from water in quantities sufficient to pose a serious health hazard, such as swimming, water skiing, and skin diving. Examples of secondary contact recreation include fishing, boating, and wading where the probability of ingesting appreciable quantities of water is minimal. Fish and wildlife propagation includes the use of water for preservation and reproduction

of aquatic biota such as indigenous species of fish and invertebrates as well as reptiles, amphibians, and other wildlife associated with the aquatic environment. This also includes the maintenance of water quality at a level that prevents contamination of aquatic biota consumed by humans.

The Vermilion River continues to suffer severe water quality problems stemming from non-point source discharges from areas such as agricultural land, parking lots, and construction sites. Point source discharges such as municipal discharge along with hydrologic modification also contribute to the poor water quality in the Vermilion River. The river suffers from dissolved oxygen depletion, high fecal coliform bacteria levels and high turbidity. Downriver from Lafayette, the dissolved oxygen levels are consistently below the current standard of 5 mg/l. A 1987 Louisiana Department of Environmental Quality wasteload allocation model indicated that if there were no point source discharges the Vermilion would still suffer minimum dissolved oxygen levels below the 5 mg/l standard at a water temperature of 30°C *(Cormier 1990)*.

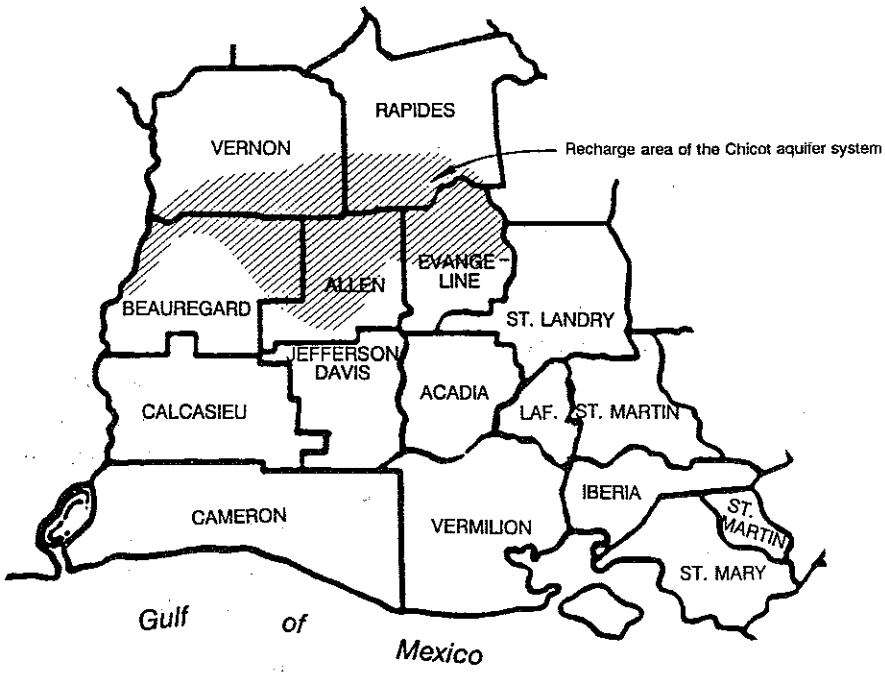
The Vermilion River is currently listed as not supporting its designated use. A multiple use water segment is considered not supporting its designated use when one or more uses is not supported. The Vermilion River does not support primary or secondary contact recreation and only partially supports fish and wildlife propagation *(Cormier 1990)*.

Background dissolved oxygen levels have been raised with an increase in diversion flow from the Atchafalaya River through the Tech-Vermilion freshwater diversion project, but until non-point source discharges can be reduced, the Vermilion River will continue to suffer from water quality problems *(Cormier 1990)*.

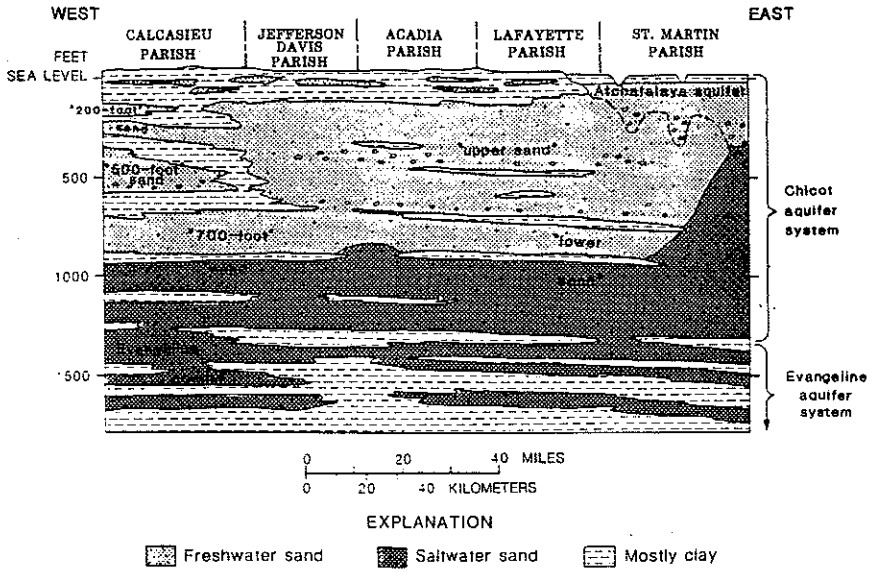
Chicot Aquifer

The project area is underlain by an extensive groundwater formation of Pleistocene age known as the Chicot Aquifer. The Chicot Aquifer has been designated a sole source aquifer by the U.S. Environmental Protection Agency. The designation indicates that the aquifer is the sole or principal drinking water source for the designated area. Because of its importance as a designated sole source water supply, the federal government has taken measures to safeguard the aquifer by requiring that a project not pose a contamination hazard before it agrees to participate in the project.

The Chicot Aquifer has a gentle gulf-ward slope with primary recharge from outcrop areas in Allen, Beauregard and Evangeline Parishes as shown on the top half of Exhibit 3-14.



Recharge Areas of the
Chicot Aquifer



Idealized Geologic Section

Exhibit 3-14
CHARACTERISTICS OF THE CHICOT AQUIFER

SOURCE: U.S. Geological Survey, 1989
Water Resources Technical Report No.42

While primary recharge occurs at these outcrop areas there may also be some recharge by infiltration through confining clays south of the outcrop areas. Areas of recharge may also occur in regions where the overlying confining beds are thin or missing.

Water quality in the state's major aquifer system including the Chicot is excellent. Water from the Chicot Aquifer is a soft to moderately hard calcium bicarbonate water. Wells in the Aquifer range in depth from 50′ to 800′; rarely is fresh-water found below 1100′.

Thick beds of coarse sands with layers of gravel generally characterize the Chicot Aquifer. The Chicot Aquifer can be described as a hydrologic system with high permeability, plentiful recharge and high sustained yields to wells. In the Lafayette area, the Chicot Aquifer has been divided into two units called the "upper sand" and "lower sand", shown on the bottom half of Exhibit 3-14.

The "upper sand" is normally found 20′ – 200′ below the ground surface and is generally 400′ thick. The coarse sands and gravel of the "upper sand" have hydraulic conductivities ranging from 200 to 240 feet/day (ft/d) and average 205 ft/d. Transmissivities range from 25,000 to 135,000 ft^2/d and average 87,000 ft^2/d with an average storage coefficient of 0.0015. Well yields typically exceed 2,000 gallons per minute (gal/min) *(Nyman 1989).*

The "lower sand" of the Chicot Aquifer is very permeable and has hydraulic characteristics approaching the "upper sand." Hydraulic conductivities range from 180 to 300 ft/d and transmissivities from 11,000 to 33,000 ft^2/d near Lafayette with well yields of 500 gal/min. *(Nyman 1989).*

While water quality of the deeper aquifers in the state, such as the Chicot, is excellent, shallow aquifers and water bearing zones which are not major sources of water are areas of major concern. These strata, which contribute to the water balance of the deeper aquifer, are becoming increasingly threatened.

Water Wells

A review of water wells registered with the Water Resources Division of LaDOTD showed that up to approximately 201 wells are located in the project area of which 49 could be directly affected by the various alternative alignments. This LaDOTD inventory does not include all water wells that may have been drilled within the project area, according to agency personnel. It includes only those wells that have been registered with LaDOTD. These water wells are shown on Exhibit 3-15 and listed in Table B-5 in Appendix B.

According to personnel at the Ground Water Protection Division (GWPD) of LaDEQ, Lafayette does not at this time have an officially designated Wellhead Protection Program. However, any well impacted by the construction of the I-49 Connector would be dealt with in accordance with regulations set forth by GWPD, Water Well Rules and Standards of the Water Resources Division of LaDOTD, and any other federal, state, or local regulation that may apply. This would include plugging all affected wells

(and borings) to prohibit potential entry of contaminants into the Chicot Aquifer.

Coastal Zone Status

Lafayette Parish is not located in the coastal zone boundary as established under Act 361 of the Louisiana Legislature; therefore, none of the regulations of the State's Coastal Zone Management Act which would include the need for a Coastal Use Permit are necessary for this project.

3.3.1.b Drainage and Hydraulics

The Lafayette area is located within the Vermilion River watershed, with various subdivisions of the watershed serviced by the major streams Coulee Mine in the west, Dan Debaillon Coulee in the north, and Coulee Des Poches in the south. Additionally, secondary drainage coulees feed into these streams and service further subdivided areas.

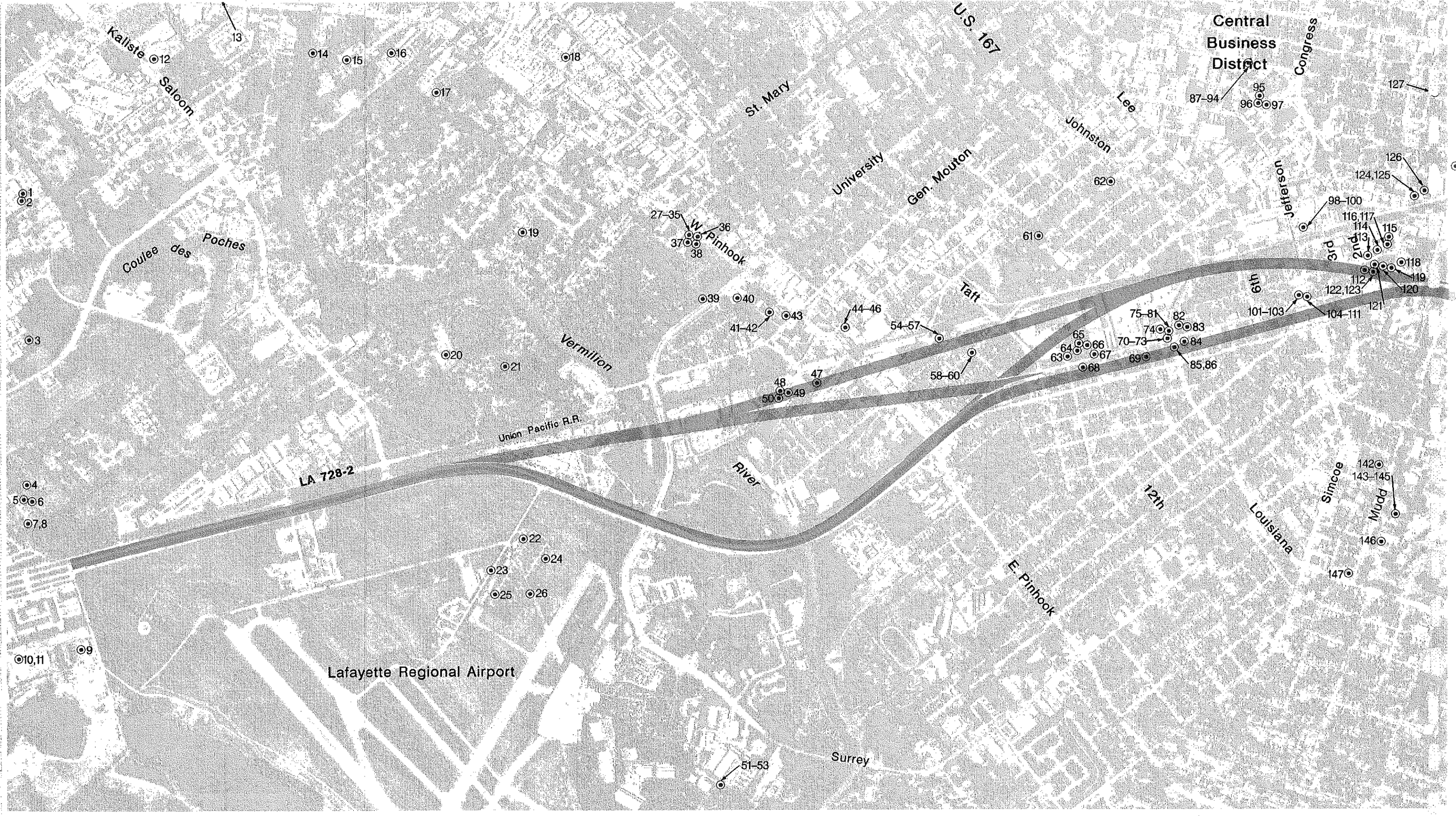
The I-49 Connector study corridor is divided into three portions within the Vermilion River watershed. The south end of the project between the airport and Pinhook Road is located in the portion of the watershed directly adjacent to the Vermilion River, with rainfall runoff flowing directly into the river. The portion of the project between Pinhook Road and I-10 is located in a part of the watershed serviced by the Breaux Bridge Coulee, a tributary of the Vermilion River flowing generally to the east. Within the Breaux Bridge Coulee watershed, an area of runoff immediately adjacent to both sides of the Thruway is captured in subsurface drainage systems and piped along the length of the Thruway south to the Vermilion River. The differential elevation from the upstream end of this subarea piping system at the Southern Pacific spur crossing to the river during 100 year flood conditions is approximately 20′. North of I-10, project runoff is drained by Coulee Bend, which crosses the project corridor just north of the I-10/I-49 interchange.

The general limits and overland flow patterns for the watersheds in the Lafayette area and their relationship to the proposed I-49 Connector are shown on Exhibit 3-16. No major roadway runoff or other localized drainage problems are known to occur in the project area.

Floodplains

Federal policy requires consideration of floodplains during the planning and design process for a project such as the I-49 Connector. Floodplains are established as the area of land inundated by water during a flood of specified frequency. The flood frequency, or expected recurrence interval, is established by federal regulations at 100 years for the I-49 Connector and similar projects. The 100-year floodplain in Lafayette Parish is shown on Exhibit 3-17.

Within the proposed construction limits of the I-49 Connector the project corridor crosses only one floodplain, on the Vermilion River. This floodplain consists of the river and an area of low land adjacent to the riverbanks which is covered to a depth of approximately three to four feet in a 100-year flood. Outside of the project limits, existing I-49 just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Kaliste Saloom
St. Mary
University
Gen. Mouton
Johnston
Lee
Congress
Jefferson
Coulee des Poches
W. Pinhook
Taft
Vermilion
River
Union Pacific R.R.
LA 728-2
2nd
3rd
6th
12th
Louisiana
Simcoe
Mudd
E. Pinhook
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Lafayette Regional Airport
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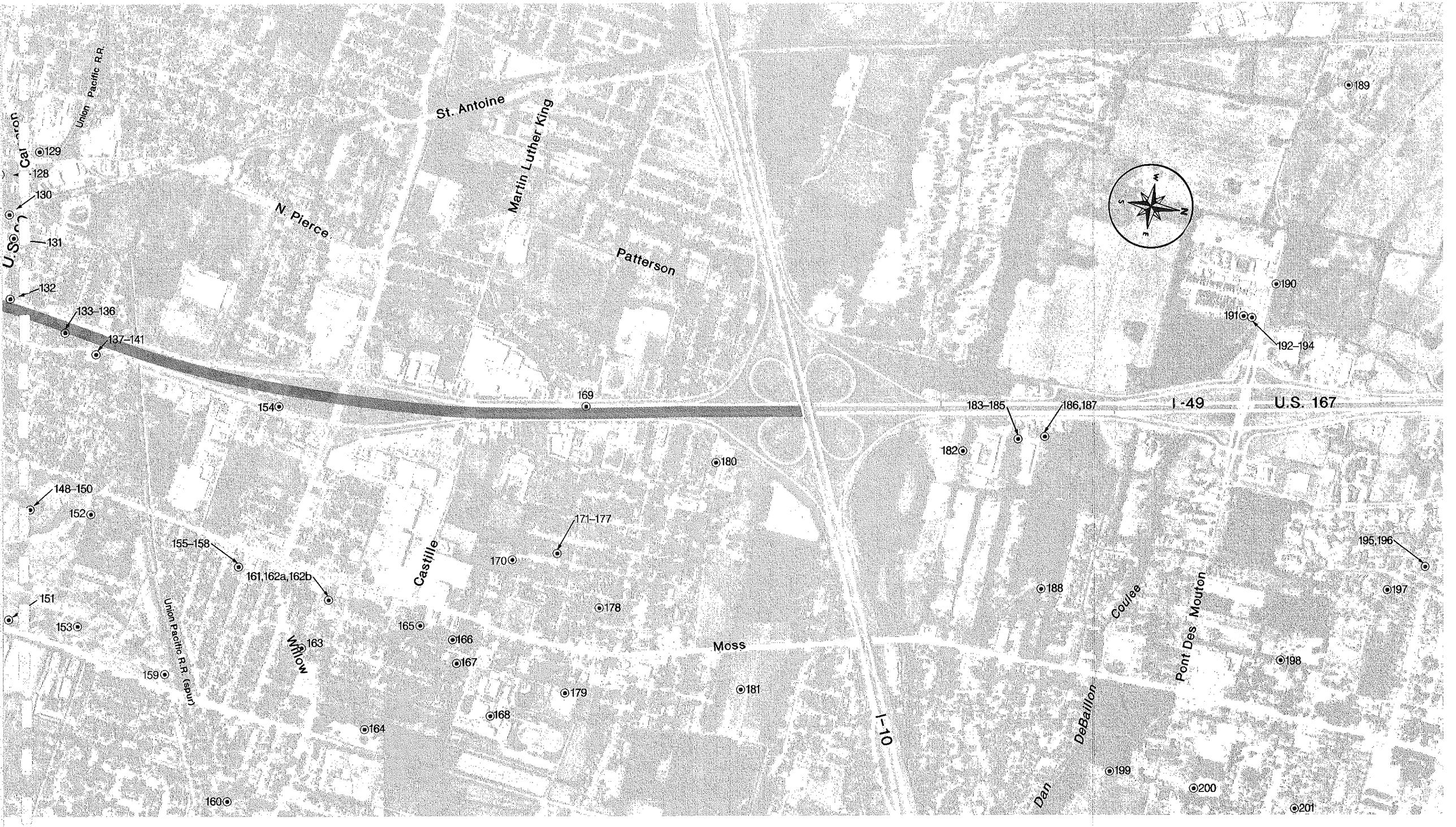


Source: LaDOTD, Water Resources Division, 1998

Legend

⊙ **Water Wells**

Exhibit 3-15
WATER WELLS

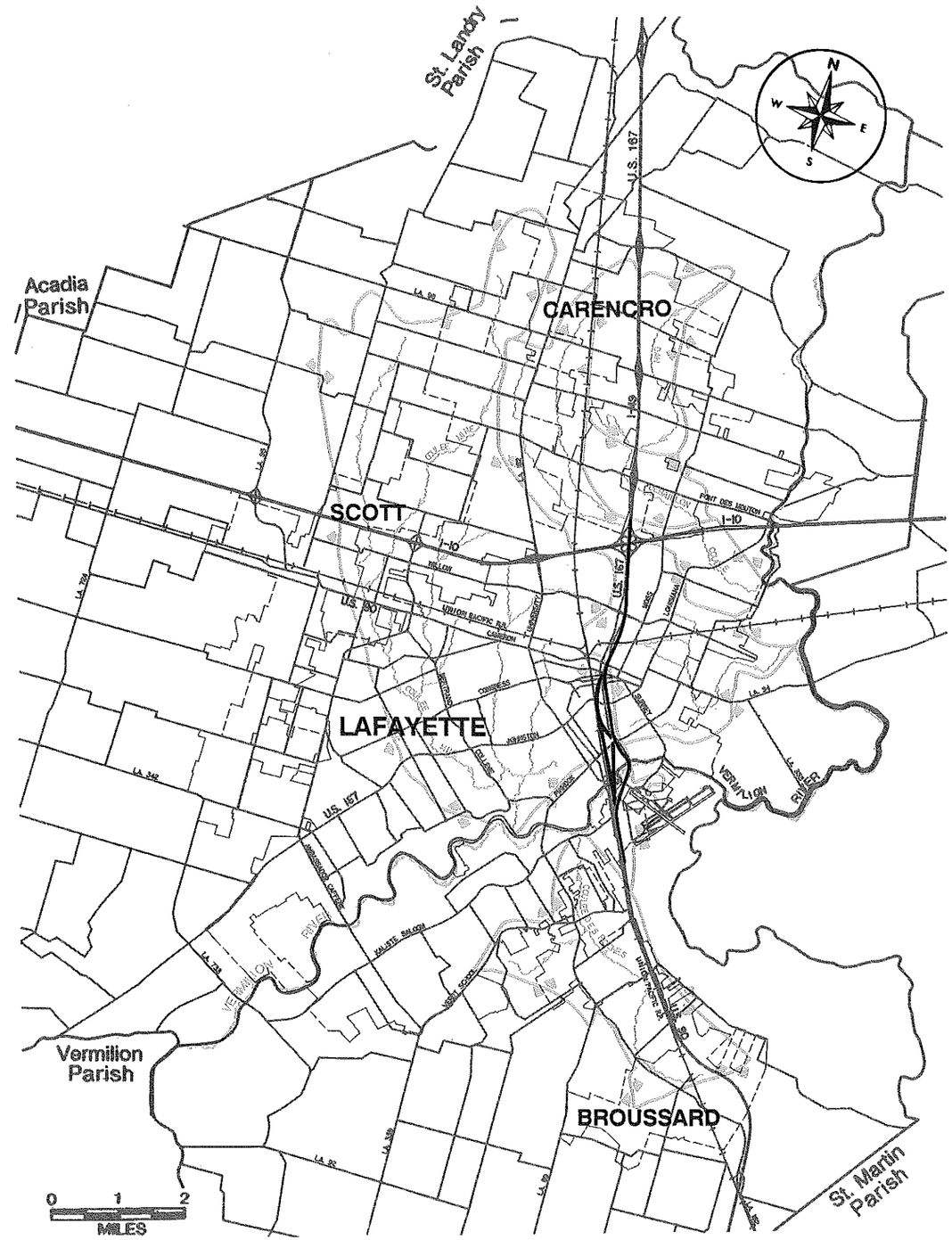
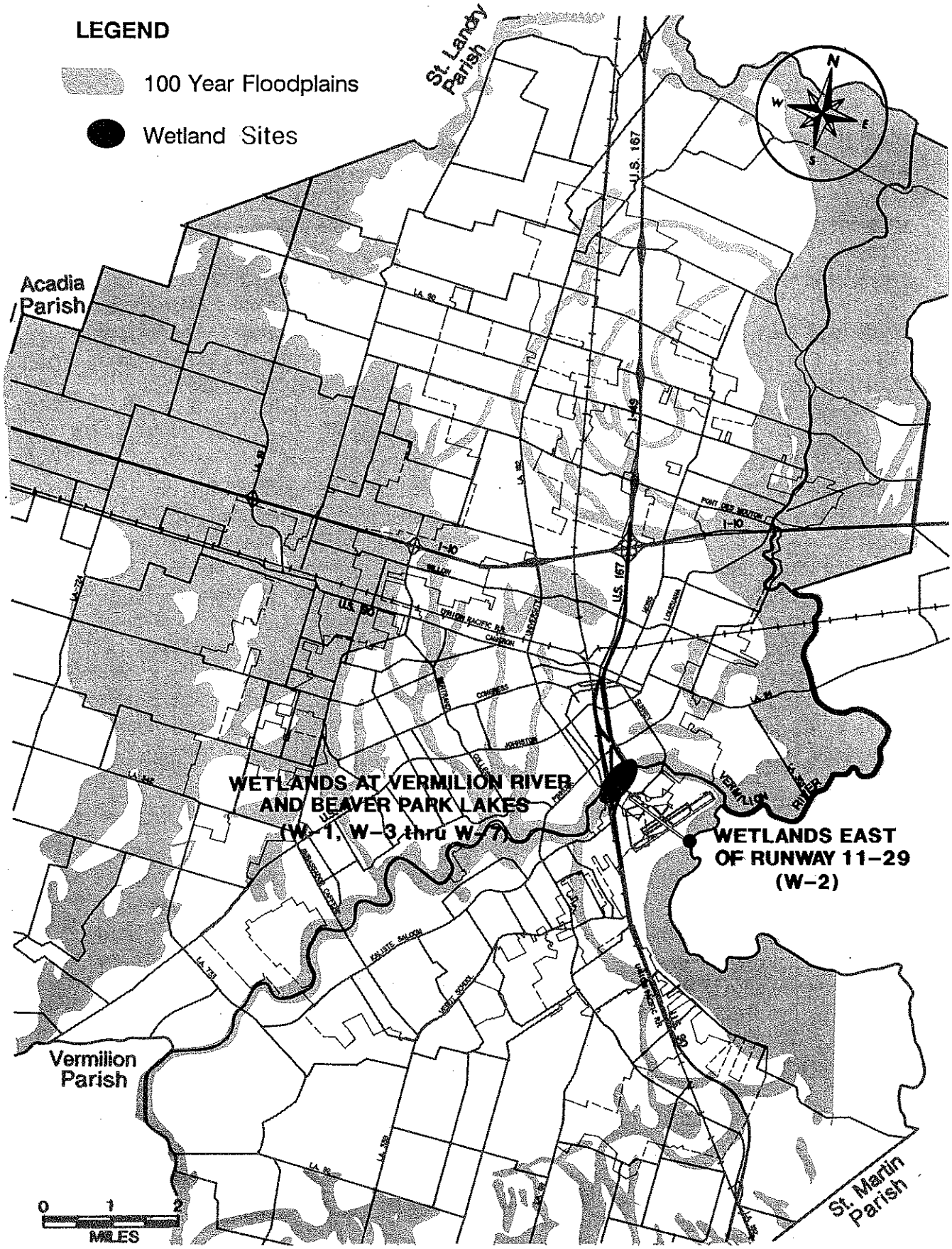


Exhibit 3-16
WATERSHED BOUNDARIES



Source (for floodplains): FEMA Flood Maps, 1985

Refer to Exhibit 3-12 for more detail on wetland sites

Exhibit 3-17
100 YEAR FLOODPLAINS
(including wetland sites in area of proposed project)

north of I-10 crosses a small floodplain on Coulee Bend.

3.3.2 SOILS AND GEOLOGY

3.3.2.a Surface Geology

Physiographically, Lafayette Parish, as well as the project area, consists of two general areas: the Mississippi River alluvial plain and the terrace upland. The two areas are separated by an abrupt escarpment that rises 15′ to 40′ from the western edge of the alluvial plain to the level of the terrace upland. National Geodetic Vertical Datum (NGVD) elevations in the alluvial plain generally range from slightly more than 25′ in northern portions of Lafayette Parish to slightly less than 10′ in the south. The corridor area is an exception in that elevations are generally 35′ or greater. Nearly level topography characterizes the generalized area, and local relief is generally less than five feet. The Vermilion River provides surface drainage and occupies a channel cut 10′ to 15′ below the adjacent alluvium. Within the plain, soils developed in three distinct parent materials: Mississippi alluvium, loess, and Red River alluvium. The terrace upland is comprised largely of loess covered alluvial deposits. Terrace elevations range from 60′ in the north to 25′ in the southern portion of the Parish. The upland terrace slopes generally to the southwest with local relief typically less than five feet.

3.3.2.b Soils

Soils of the study area include: Memphis silt loams, Frost silt loam, Coteau silt loam, Unidifluvent and Sharky clay. The silt loams can be described as gently sloping, poorly drained to well drained loamy soils. Sharky clays are considered level, poorly drained, clayey soils. Unidifluvents are nearly level soils made up of loamy material pumped from the Vermilion River channel. By far the most widely occurring soils in the project area are the Memphis silt loams.

Hydric Soils

Hydric soils are defined by the U.S. Department of Agriculture (USDA) as soils that in their undrained condition are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. Soils in the study area designated as hydric by the USDA are Frost silt loam and Sharky clay.

Prime Farmland

Prime farmland soils are defined by the U.S. Department of Agriculture (USDA) as soils that are best suited to producing food, feed, forage, fiber and oilseed crops. It may be cultivated land, pasture, or woodland, but it is not urban and built up land or water areas. The Soil Conservation Service (SCS) has determined that the project corridor has been urbanized or has been dedicated to urban use; therefore, they do not consider the area to be prime farmland *(Touchet, 1991).*

3.3.3 FLORA, FAUNA, WETLANDS, AND ENDANGERED SPECIES

3.3.3.a Flora (plants)

Naturally occurring native vegetation is quite limited in the I-49 Connector project corridor. This is due to the extensive commercial and residential development which is present along the entire length of the corridor. Remaining natural vegetation is small, isolated acreage of Live Oak-Pine-Magnolia Forest and Riverfront communities.

Live oak (Quercus virginiana), longleaf pine (Pinus palustris), loblolly pine (Pinus taeda), and southern magnolia (Magnolia grandiflora) are the predominant overstory species of the Live Oak-Pine-Magnolia Forest. Sweet bay (M. virginana), white oak (Q. alba), laurel oak (Q. laurifolia), red maple (Acer rubrum), and sweet gum (Liquidambar styraciflua) are associates. Midstory and understory species include yaupon (Ilex vomitora), hophornbeam (Ostrya virginiana), and wax myrtle (Myrica cerifera).

The riverfront community comprised of black willow (Salix nigra) and cottonwood (Populus deltoides) develops on the slope between the natural levee and the Vermilion River. Chief associates include green ash (Fraxinus pennsylvanica), pecan (Carya illinoenis), American elm (Ulmus americana), box elder (Acer negundo), and hackberry (Celtis laevigata). Red maple (Acer rubrum) and swamp privet (Forestiera acuminata) also occur. Most of the vegetation in the project corridor is found in landscaped parkways. Species found in the parkways include live oak, pecan, longleaf pine and southern magnolia. Of particular interest is the large live oak that stands just north of Willow Street in the Gateway area. This old, highly visible oak is a local landmark.

Vegetation along the Union Pacific Railroad consists of white clover (Trifolium repens), thistle (Circium spp.), stinging nettle (Urtica dioica), and native panicum (Panicum spp.).

3.3.3.b Fauna (wildlife)

Wildlife found in the project area are those avian, mammalian, amphibian, and reptilian species that have adapted to and tolerate human disturbances.

Birds

A variety of avian species including songbirds, raptors and waterfowl can be found within the project area. Songbirds such as the Northern Cardinal (Cardinalis cardinalis), Blue Jay (Cyanocitta cristata) and American Robin (Turdus migratorios) thrive in the open park like areas which comprise a majority of the "natural" habitat of the study area. In addition, a number of species of woodpecker such as the Downy Woodpecker (Picoides pubescens) and Red-headed Woodpecker (Melanerpes erythrocephalus) prosper in an urban setting. Even the large and elegant Pileated Woodpecker has adapted to civilization and may be seen on the outskirts of the metropolitan area. Raptors found in the study area include the Red-tailed hawk (Bueto jamaicens) which may be seen perched in a tree on the edge of open fields and the Great Horned Owl (Bubo virginianus) which frequents the parklike settings of the

study area. Due to the project area's close proximity to nearby wetlands and the presence of several small man-made lakes, various species of migratory waterfowl such as the Mallard (Anas platyrhynchos) and Gadwall (Anas strepara) can be seen in flight. Table 3-11 is a list of avian species that may be found within the study area.

Mammals

Table 3-12 lists mammals that may be found in the project area. Mammals such as Virginia opossum (Ddelphis virginiana), gray squirrel (Sciurus carolinensis), fox squirrel (Sciurus niger) and northern raccoon (Proxyon lotor) are well adapted and tolerate human disturbances and, along with the striped skunk (Mephities mephities) and eastern cottontail (Sylvilagus floridanus), are found in the project area.

Amphibians and Reptiles

Table 3-13 lists the amphibians and reptiles that may be found in the project area. The close proximity to wetlands along with the Vermilion River provide habitat for a number of reptiles and amphibians such as the eastern box turtle (Terrapene carolina), southern leopard frog (Rana sphenocephala), and gulf coast toad (Bufo valliceps). In addition, snake species such as the copperhead (Agkistroden contortrix) and cottonmouth (Agkistroden piscivorus) are common in the study area.

Fish

The poor water quality of the Vermilion River limits the potential for any large population of gamefish such as largemouth bass (Micropterus salmoides) and black crappie (Pomoxis nigromaculatus) while species such as the yellow bullhead (Ictalurus natalis) and channel catfish (Ictalurus punctatus) may survive in the oxygen deficient water of the river. Species such as the black buffalo (Ictiobus niger) and the common carp (Cyprinus carpio) are known to exist in waters of less than ideal quality and may be found in the Vermilion River. Various species of perch such as the bluegill (Lepomis macrochirus), longear sunfish (Lepomis megalotis) and green sunfish (Lepomis cyanellus), can be found in the man-made shallow ponds within the project area.

3.3.3.c Wetlands

Wetlands for the I-49 Connector study have been identified based on guidelines in the 1987 Corps of Engineers Wetlands Delineation Manual (the 1989 Federal Manual for identifying and Delinating Jurisdictional Wetlands is currently suspended). The Environmental Protection Agency and the U.S. Army Corps of Engineers use the following definition for wetlands when administering the regulatory and permit program of Section 404 of the Clean Water Act:

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (EPA, 40 CFR 230.3 and CE, 33 CFR 328.3).

Table 3-11

BIRDS THAT MAY BE FOUND IN THE PROJECT AREA

Common Name	Scientific Name
Eastern Screech Owl	Otus asio
Great Horned Owl	Bubo virginianus
Long-eared Owl	Asio otus
Barred Owl	Strix varia
American Woodcock	Scolopax minor
Chuck-will's-widow	Caprimulgus carolinensis
Whip-poor-will	Caprimulgus vociferus
Sharp-shinned Hawk	Accipiter striatus
Coopers Hawk	Accipiter cooperii
Red Shouldered Hawk	Buteo lineatus
Broad-winged Hawk	Buteo platypterus
Red-tailed Hawk	Buteo jamaicensis
Mississippi Kite	Ictinia mississippiensis
Wood Duck	Aix sponsa
Anhinga	Anhinga anhinga
American Crow	Corvus brachyrhynchos
Dark-eyed-junco	Junco hyemalis
Mourning Dove	Zenaida macroura
Pileated Woodpecker	Dryocopus pileatus
Red-headed Woodpecker	Melanerpes erythrocephalus
Red-bellied Woodpecker	Melanerpes carolinus
Yellow-bellied Sapsucker	Sphyrapicus varius
Downy Woodpecker	Picoides pubescens
Hairy Woodpecker	Picoides villosus
Northern Flicker	Colaptes auratus
Eastern Wood-Pewee	Contopus virens
Red-eyed Viero	Vireo olivaceus
White-eyed Viero	Vireo griseus
Hooded Warbler	Wilsonia cirtina
Kentucky Warbler	Oporornis formosus
Solitary Viero	Viero solitarius
Yellow-throated Viero	Viero flavifrons
Pine Warbler	Dendroica pinus
Yellow-breasted Chat	Icteria virens
Northern Parula	Parula americana
Red-breasted Nuthatch	Sitta candensis
Yellow-throated Warbler	Dendrocia dominica
Yellow-rumped Warbler	Dendrocia coronata
American Robin	Turdus migratorius
Rufous-sided Towhee	Pipilo erythrophthalmus
Cedar Waxwing	Bombycilla cedrorum
Purple Finch	Carpodacus purpureus
Summer Tanager	Piranga rubra
Northern Cardinal	Cardinalis cardinalis
Painted Bunting	Passerina ciris
Ruby-throated Hummingbird	Archilochus colubris
Blue Jay	Cyanocitta cristata
Ruby-crowned Kinglet	Regulus calendula
Acadian flycatcher	Empidonax virescens
Brown-headed Nuthatch	Sitta pusilla
Tufted Titmouse	Parus bicolor
Carolina Chickadee	Parus carolinensis

Table 3-11 continued

Golden-crowned Kinglet	Regulus satrapa
White-throated Sparrow	Zonotrichia albicollis
Fox Sparrow	Passerella iliaca
Brown Thrasher	Toxostoma rufum
Wood Thrush	Hylocichla mustelina
Hermit Thrush	Catharus guttatus
Winter Wrin	Troglodytes troglodytes
Brown Creeper	Certhia americana
American Black Duck	Anas rubripes
Green-winged Teal	Anas crecca
Wood Duck	Aix sponsa
Mallard	Anas platyrhynchos
Northern Shoveler	Anas clypeata
American Wigeon	Anas americana
Gadwall	Anas strepera
Blue-winged Teal	Anas discors
Northern Pintail	Anas acuta
Canvasback	Aythya valisneria
Redhead	Aythya americana
Ring-necked Duck	Aythya collaris
Greater Scaup	Aythya marila
Lesser Scaup	Aythya affinis
Common Goldeneye	Bucephala clangula
Bufflehead	Bucephala albeola
Ruddy Duck	Oxyura jamaicensis
Double-crested Cormorant	Phalacrocoray auritus
Little Blue Heron	Egretta caerulea
Great Egret	Casmerodius albus
Snowy Egret	Egretta thula
Great Blue Heron	Ardea herodias
Black-crowned Night Heron	Nycticorax nycticorax
Yellow-crowned Night Heron	Nycticorax violaceus
American Bittern	Botaurus lentiginosus
Least Bittern	Ixobrychus exilis
Green-backed Heron	Butorides striatus
American Coot	Fulica americana
Common Moorhen	Gallinula chloropus
King Rail	Rallus elegans
Common Snipe	Gallinago gallinago
Least Sandpiper	Calidris minutilla
Ring-billed Gull	Larus delawarensis
Herring Gull	Larus argentatus
Northern Harrier	Circus cyaneus
Belted Kingfisher	Ceryle alcyon
Northern Rough-winged Swallow	Stelgidopteryx serripennis
Eastern Phoebe	Sayornis phoebe
Swamp Phoebe	Melospiza georgiana
Lincoln's Sparrow	Melospiza lincolnii
Louisiana Water Thrush	Seiurus motacilla
Red-winged Blackbird	Agelaius phoeniceus
Common Yellowthroat	Geothlypis trichas
Prothonotary Warbler	Protonotaria citera

References: *(Sutton, 1988)*
(Niering, 1988)

Table 3-12

MAMMALS THAT MAY BE FOUND
IN THE PROJECT AREA

Common Name	Scientific Name
Virginia Opossum	Didelphis virginiana
Short-tailed Shrew	Blarina brevicauda
Least Shrew	Cryptotis parva
Eastern Mole	Scalopus aquaticus
Southeastern Myotis	Myotis austroriparius
Red Bat	Lasiurus borealis
Seminole Bat	Lasiurus seminolus
Hoary Bat	Lasiurus cinereus
Northern Yellow Bat	Lasiurus intermedius
Evening Bat	Nycticeius humeralis
Rafinesque's Big-eared Bat	Plecotus rafinesquii
Brazilian Free-tailed Bat	Tadarida brasiliensis
Nine-banded Armadillo	Dasypus novemcinctus
Eastern Cottontail	Sylvilagus floridanus
Swamp Rabbit	Sylvilagus aquaticus
Gray Squirrel	Sciurus carolinensis
Fox Squirrel	Sciurus niger
Southern Flying Squirrel	Glaucomys volans
Marsh Rice Rat	Oryzomys palustris
Fulvous Harvest Mouse	Reithrondontomys fulvescens
White-footed Mouse	Peromyscus leucopus
Cotton Mouse	Peromyscus gossypinus
Hispid Cotton Rat	Sigmodon hispidus
Eastern Wood Rat	Neotoma floridana
Common Muskrat	Ondatra zibethicus
Roof Rat	Rattus rattus
Norway Rat	Rattus norvegicus
House Mouse	Mus musculus
Nutria	Myocastor coypus
Red Fox	Vulpes fulva
Gray Fox	Urocyon cinereoargenteus
Northern raccoon	Procyon lotor
Northern American Mink	Mustela vison
Striped Skunk	Mephitis mephitis
Neartic River Otter	Lutra canadensis
Bobcat	Lynx rufus
White-tailed Deer	Odocoileus virginianus

Source: *(Lowery, 1974)*

Table 3-13
AMPHIBIANS AND REPTILES THAT MAY BE FOUND IN THE PROJECT AREA

Common Name	Scientific Name
Marbled Salamander	Ambystoma opacum
Mole Salamander	Ambystoma talpoideum
Small-mouthed Salamander	Ambystoma texanum
Three-toed Amphiuma	Amphiuma tridactylum
Dwarf Salamander	Eurycea quadridigitata
Eastern Newt	Notophthalmus viridescens
Lesser Siren	Siren intermedia
Gulf Coast Toad	Bufo valliceps
Woodhouse's Toad	Bufo woodhousei
Northern Cricket Frog	Acris crepitans
Cope's Gray Treefrog	Hyla chrysoscelis
Gray Treefrog	Hyla versicolor
Green Treefrog	Hyla cinerea
Spring Peeper	Hyla crucifer
Squirrel Treefrog	Hyla squirella
Striped Chorus Frog	Pseudacris triseriata
Eastern Narrow-mouthed Toad	Gastrophryne carolinensis
Bullfrog	Rana catesbeiana
Greenfrog	Rana clamitans
Pig Frog	Rana grylio
Southern Leopard Frog	Rana sphenocephala
Snapping Turtle	Chelydra serpentina
Painted Turtle	Chrysemys picta
Chicken Turtle	Deirochelys reticularia
Mississippi Map Turtle	Graptemys kohnii
Eastern Box Turtle	Terrapene carolina
Ornate Box Turtle	Terrapene ornata
Slider	Trachemys scripta
Eastern Mud Turtle	Kinosternon subrubrum
Razor-backed Musk Turtle	Sternotherus carinatus
Common Musk Turtle	Sternotherus odoratus
Spiny Softshell	Apalone spinifera
Mediterranian Gecko	Hemidactylus turcicus
Green Anole	Anolis carolinensis
Five-lined Skink	Eumeces fasciatus
Broad-headed Skink	Eumeces laticeps
Ground Skink	Scincella lateralis
Racer	Coluber constrictor
Rat Snake	Elaphe obsoleta
Mud Snake	Farancia abacura
Eastern Hog-nosed Snake	Heterodon platyrhinos
Common Kingsnake	Lampropeltis getulus
Western Green Water Snake	Nerodia cyclopion
Plain-bellied Water Snake	Nerodia erythrogaster
Southern Water Snake	Nerodia fasciata
Diamond-backed Water Snake	Nerodia rhombifera
Rough Green Snake	Opheodrys aestivus
Grahams Crayfish Snake	Regina grahamii
Glossy Crayfish Snake	Regina rigida
Brown Snake	Storeria dekayi
Western Ribbon Snake	Thamnophis proximus
Rough Earth Snake	Virgina striatula
Eastern Coral Snake	Micrurus fulvius
Copperhead	Agkistrodon contortrix
Cottonmouth	Agkistrodon piscivorus
American Alligator	Alligator mississippiensis

Source: *(Dundee, 1989)*

As in similar definitions by other agencies, such as the U.S. Fish and Wildlife Service, this definition emphasizes the three mandatory technical criteria that must be met for an area to be designated as a wetland: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology.

Hydrophytic vegetation is defined as macrophytic plant life growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. Various species of hydrophytic plants take on wetland indicator status based on the plant species' frequency of occurrence in wetlands. Obligate wetland plants (OBL) occur almost always (>99% probability) in wetlands under natural conditions, and facultative wetland plants (FACW) usually occur in wetlands (estimated probability 62-99%), but occasionally are found in non-wetlands. Facultative plants (FAC) are equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%) and are usually listed with a "+" or "-" for more or less likely, respectively. Facultative upland plants (FACU) usually occur in nonwetlands (estimated probability 67-99%) and only occasionally in wetlands (1-33%). Finally, species which almost always occur in uplands (>99% probability) are considered obligate upland plants (UPH). An area is said to have hydrophytic vegetation when under normal circumstances, more than 50 percent of the composition of the dominant species from all strata are obligate, facultative wetland, and/or facultative species. When drier species exist equally on the site and a prevalence cannot be substantiated, the wetland determination is made on the basis of the soils and hydrology parameters.

Hydric soils are soils that are saturated, flooded, or ponded for a sufficient duration during the growing season to develop anaerobic conditions in the upper part. An area has hydric soils when criteria set forth by the National Technical Committee for Hydric Soils (NTCHS) are met.

An area is said to have wetland hydrology when there exists a condition of permanent or periodic inundation or saturation at least seasonally during an average rainfall year to promote the development of hydric soils and support a prevalence of hydrophytic vegetation.

Wetlands are classified according to a system developed by the U.S. Fish and Wildlife Service. This system is often called the Cowardin system after its principal author *(Cowardin et al 1979) and is independent of the jurisdictional determination process discussed above.* The primary objective of this classification system is to improve boundaries on natural ecosystems for the purposes of inventory, evaluation, and management. Five major wetland systems are defined in the Cowardin classification system: marine, estuarine, riverine, lacustrine, and palustrine. Within the project **riverine** and **palustrine** wetlands are found. These are shown generally on Exhibit 3-17 and more specifically on Exhibit 3-12.

Palustrine wetlands include all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where ocean-derived salinity is below 0.5 parts per thousand (ppt). This system groups the vegetated wetlands traditionally called marshes, swamps, bogs, fens, prairies, and ponds.

Two types of palustrine wetlands occur in the project area: forested and open water. The riverine system includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs persistent emergents, emergent mosses or lichens, and (2) habitats with water containing ocean derived salts in excess of 0.5 ppt. The Vermilion River is classified as a riverine system.

Wetlands in Project Area

Palustrine Forested Wetland - This wetland type occurs in the narrow riparian fringe along the south bank of the Vermilion River. Forested wetlands total approximately three acres in this zone between Surrey Street and General Mouton Avenue. Vegetation consists of black willow (Salix nigra), cottonwood (Populus deltoides), pecan (Carya illinoenis), hackberry (Celtis laevigata), American elm (Ulmus americana), and box elder (Acer negundo). These wetlands are designated W-1 on Exhibits 3-12 and 3-17.

An additional palustrine forested wetland area lies within the "clear zone" of the east end of Runway 11-29 of the Lafayette Regional Airport, with approximately five areas potentially affected by the project. The canopy has been removed due to management practices to conform with FAA guidelines for "clear zones" and prior runway construction. Herbaceous vegetation has pioneered the site along with sampling-sized woody species. The herbaceous cover approaches 100 percent. The dominant species in both the overstory and understory are either commonly (Facultative) or almost always (Obligate) found in wetlands. Overstory species include black willow, water locust (Gleditsia aquatica) and persimmon (Diospyros virginiana). The herbaceous layer is comprised of peppervine (Ampelopsis arborea), swamp knotweed (Polygonum hydropiperoides), rose mallow (Hibiscus moscheutos), buttonbush (Cephalanthus occidentalis) and flatsedge (cyperus spp.). The potential impact area for wetlands east of the airport is designated W-2 on Exhibits 3-12 and 3-17.

Palustrine Open Water Wetland - Open water wetlands occur at Beaver Park, and the pond at the Frey processing plant (presently closed). Vegetation consists of the floating aquatics American lotus (Nelumbo lutea) and yellow pond lily (Nuphar luteum), cattail (Typha spp.), black willow (Salix nigra), and bald cypress (Taxodium distichum). Beaver Park has three lakes approximately six acres, three acres, and one acre in sizes which are focal points of the park complex. The lakes are utilized by local citizens for recreational fishing. The Beaver Park open water wetlands provide wildlife habitat, especially fish species, and may provide minimal water quality benefits such as sediment removal and nutrient/pollution uptake. The Beaver Park lakes are designated W-3, W-4, and W-7, and the Frey pond is designated W-5 on Exhibits 3-12 and 3-17.

Riverine Wetland - This type of wetland occurs in association with the Vermilion River. Riverine wetland provides wildlife and fisheries habitat, flood flow conveyance, nutrient assimilation and pollution uptake. The Riverine wetland is shown as W-6 on Exhibits 3-12 and 3-17.

3.3.3.d Threatened and Endangered Species

Federally listed species with threatened or endangered status receive protection under the Endangered Species Act of 1973 (16 USC 1531 et seq.). Any action that could jeopardize the continued existence of any listed species, or is likely to adversely modify its habitat, requires review and consultation with appropriate Federal and State resource agencies under Section 7 of the Act.

No Federally listed species of plants or animals are known to exist within the project corridor. This has been verified through coordination with the U.S. Fish and Wildlife Service and an opinion of "no affect" has been rendered for this project.

The Louisiana Department of Wildlife and Fisheries' Natural Heritage Program was also contacted regarding the possible occurrence of threatened and endangered species in the project corridor.

The Natural Heritage Program compiles data on rare, endangered, or otherwise important plant and animal species, plant communities, and other natural features throughout the State of Louisiana. According to personnel at the Natural Heritage Program a review of available records and files failed to reveal listed elements for the area in question. No threatened or endangered species, nor critical habitat for them are known to exist within the limits of the project.

3.3.4 AIR QUALITY

3.3.4.a Existing Air Quality

The Federal Clean Air Act of 1970 required the adoption of ambient air quality standards. These were established in order to protect public health, safety, and welfare from known or anticipated effects of sulfur dioxide (SO2), particulates (PM-10, 10-micron and smaller), carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), and lead (Pb). The Louisiana and National Ambient Air Quality Standards (NAAQS) for these pollutants are listed in Table 3-14.

Congress directed that the standards should be reviewed at least every five years by EPA to keep up with current science, and that proposals to revise them should be based solely upon the best current scientific opinion on public health effects, not economic impacts. Since initially setting standards in the early 1970s, EPA has changed the standards only twice: once in 1979, and once in 1987. Under the most recent review, 1997, EPA concluded that the current primary standards for ozone and particulate matter were not adequate to protect the public from adverse health effects.

Table 3-14

LOUISIANA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Louisiana and National Standards
Sulfur Dioxide (Measured as SO_2)	Annual Arithmetic Mean	0.03 ppm
	Twenty-Four Hour[1)]	0.14 ppm
	Three-Hour[1)] Secondary	0.50 ppm
Particulate Matter (PM-10)	Annual Arithmetic Mean: Primary & Secondary	50 ug/m^3
	Twenty-Four Hour:[2)] Primary & Secondary	150 ug/m^3
Particulate Matter (PM-2.5)	Annual Arithmetic Mean: Primary & Secondary	15 ug/m^3
	Twenty-Four Hour:[2)] Primary & Secondary	65 ug/m^3
Carbon Monoxide (CO)	One Hour[1)]	35 ppm
	Eight Hour[1)]	9 ppm
Ozone (O_3)	One Hour[3,4)]	0.12 ppm
	Eight Hour[1)]	0.08 ppm
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.053 ppm
Lead (Pb)	Three Month Arithmetic Mean	1.5 ug/m^3

1) Not to be exceeded more than once per year.
2) Statistically estimated number of days with exceedances is not to be more than 1 per year.
3) Not more than one expected exceedance per year on a three year average.
4) The ozone one-hour standard applies only to areas that were designated nonattainment when the eight hour standard was adopted in July 1997.

ppm Parts of pollutant per million parts of air (by volume) at 25°C.
ug/m^3 Micrograms of pollutant per cubic meter of air.

Source: Code of Federal Regulations; Title 40 Part 50: Amended July, 1991.; Louisiana Administrative Code, Title 33 - Environmental Quality, Part III - Air, Chapter 7; Amended June 20, 1988

The Clean Air Act Amendments (CAAA) of 1977 and 1990 required all states to submit to the United States Environmental Protection Agency (EPA) a list identifying those air quality regions, or portions thereof, which meet or exceed the NAAQS or cannot be classified because of insufficient data. Portions of air quality control regions which are shown by monitored data or air quality modeling to exceed the NAAQS for any criteria pollutant are designated "nonat-

tainment" areas for that pollutant. The CAAA also established time schedules for the states to attain the NAAQS.

EPA is phasing out and replacing the previous 1-hour primary ozone standard (health-based) with a new 8-hour standard to protect against longer exposure periods. In establishing the 8-hour standard, EPA is setting the standard at 0.08 parts per million (ppm) and defines the new standard as a "concentration-based" form, specifically the 3-year average of the annual 4th-highest daily maximum 8-hour ozone concentrations. EPA also replaced the previous secondary standard (to protect the environment, including agricultural crops, national parks, and forests) with a standard identical to the new primary standard.

The previous 0.12-ppm 1-hour standard will not be revoked in a given area until that area has achieved 3 consecutive years of air quality data meeting the 1-hour standard. The purpose of retaining the 0.12-ppm 1-hour standard is to ensure a smooth, legal, and practical transition to the new standard.

The primary (health-based) PM standards have been revised by adding a new annual PM2.5 standard set at 15 micrograms per cubic meter (μg/m3) and a new 24-hour PM2.5 standard set at 65 μg/m3. EPA has retained the current annual PM10 standard of 50 μg/m3 and adjusted the PM10 24-hour standard of 150 μg/m3 by changing the form of the standard. PM10 particulates are coarse particles, such as windblown dust from fields and unpaved roads. PM2.5 particulates are fine particles generally emitted from activities such as industrial and residential combustion and from vehicle exhaust.

EPA also revised the secondary (welfare-based) standards by making them identical to the primary standards. EPA believes that the PM2.5 and PM10 standards, combined with the Clean Air Act-required regional haze program, will provide protection against the major PM-related welfare effects, including visibility impairment, soiling, and materials damage.

The proposed project is in Southern Louisiana-Southeast Texas Interstate Air Quality Control Region (AQCR #106). The study area is located in Lafayette Parish, which previously had been in nonattainment for ozone. In 1995, EPA redesignated the Lafayette Parish from ozone nonattainment to ozone attainment with limited maintenance plan requirements (40 CFR Parts 52 and 81, August 18, 1995). Lafayette Parish is in attainment for all other criteria pollutants of the National Ambient Air Quality Standards.

REFERENCES

American Society for Testing and Materials. 1997. ASTM Standards on Environmental Site Assessments for Commercial Real Estate. 57 pp.

Cormier S. M., M. Anders, B. Peterson. 1990. Louisiana Water Quality Inventory. Louisiana Department of Environmental Quality, Office of Water Resources, Baton Rouge. 61 pp.

Courcier, Jimmy. 1998. Geologist III, Louisiana Department of Environmental Quality, Acadiana Office. Lafayette, LA, personal communication with Ed Fike on September 22 and 30, 1998.

Courcier, Jimmy. 2001. Geologist III, Louisiana Department of Environmental Quality, Acadiana Office. Lafayette, LA, personal communication with Ed Fike on September 18, 2001.

Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T. 1979. Clasification of Wetlands and Deepwater Habitats of the United States, FWS/OBS-79/31, U.S. Fish and Wildlife Service, Office of Biological Services, Washington, D.C. 103 pp.

Dundee, H. A., D Rossman. 1989. The Amphibians and Reptiles of Louisiana. Louisiana State University Press, Baton Rouge. 300 pp.

FEMA. 1985. Flood Insurance Rate Maps

Hydro-Environmental Technology, Inc. 1992. Phase III Site Investigation, Southern Pacific Transportation Company Property and Surrounding Areas, Johnston Street Frontage, Lafayette, LA. January 29, 1992. Scott, LA.

Hydro-Environmental Technology, Inc. 1991. Phase II Site Investigation, Southern Pacific Transportation Company Property and Surrounding Areas, Johnston Street Frontage, Lafayette, LA. November 6, 1991. Scott, LA.

Jones, P., A. N. Turcan, Jr., H. Skibitzke. 1954. Geology and Groundwater Resources of Southwestern Louisiana. Louisiana Geological Survey. Baton Rouge.

Lafayette Consolidated Government, Environmental Quality Division. 1997. Phase I Environmental Site Assessment of Southern Pacific Railroad Passenger Depot, Lafayette, LA. Environmental Quality Division, Public Works Department, City of Lafayette. July 1997.

Lafayette Consolidated Government. 1996. City of Lafayette Zoning Ordinance.

Lafayette Consolidated Government, Environmental Quality Division. 1994. Phase I

Environmental Site Assessment for Proposed Old Alice Boucher School Property Acquisition, Sections 13, T-9-S, R-4-E, Lafayette, LA. Public Works Department, City of Lafayette. January 10, 1994.

Lafayette Parks and Recreation Department. 1997. 1997 Annual Report

Lowery, G. H., Jr. 1974. The Mammals of Louisiana and its Adjacent Waters. Louisiana State University Press. Baton Rouge. 563 pp.

Murphy, K. E., J. Daigle and L. Roetker. 1977. Soil Survey of Lafayette Parish Louisiana. United States Department of Agriculture, Soil Conservation Service. 81 pp.

Niering, W. A. 1988. Wetlands. Alfred A. Knopf. New York, 638 pp.

Nyman, D. J. 1989. Quality of Water in Freshwater Aquifers in Southwestern Louisiana. U.S. Geological Survey. Baton Rouge. 22 pp.

Penrod, Monroe. 2001. Supervisor, Remediation, Department of Environmental Quality, Graduate Division, Acadiana Office. Lafayette, LA, personal communication in meeting at FHWA Office in Baton Rouge on November 6, 2001.

Sanborn Fire Insurance Maps. 1892, 1898, 1903, 1906, 1912, 1921, 1928, 1940, and 1946. Sanborn Map Co., New York, NY.

Sutton, A. and M. Sutton. 1988. Eastern Forest. Alfred A. Knopf, New York. 638 pp.

Touchet, A. 1991. Personal Communication. USDA, Soil Conservation Service.

U. S. Department of Agriculture. 1963. Black and white aerial photographs, (December 5, 1963). Frame numbers: CEI-2DD-116, CEI-2DD-118, CEI-2DD-120, and CEI-2DD-122. Salt Lake City, UT.

U.S. Geological Survey. 1989. Water Resources Technical Report No. 42.

Chapter 4

ENVIRONMENTAL CONSEQUENCES

4.1 GENERAL EVALUATION PROCEDURES

Six primary freeway construction alternatives were described in Chapter 2. They are:

- EA-1 Elevated
- EA-1 Selected Overpasses
- RR-3 Elevated
- RR-3 Selected Overpasses
- RR-4 Elevated
- RR-5 Elevated

The "EA" alternatives would be continuously on the existing Thruway alignment while the "RR" alternatives would combine some of the existing alignment and some of the area adjacent to the Union Pacific Railroad (refer to Exhibit 2-1). In addition to the six primary alternatives, several "subalternatives" have been identified for consideration. These are:

- Pinhook Road

  Two subalternatives have been identified for the RR-3 alternatives. Subalternative A would provide for the I-49 Connector freeway to overpass Pinhook Road. Pinhook Road would remain at-grade on its present alignment. Subalternative B would provide for Pinhook Road to overpass the railroad tracks and the at-grade I-49 Connector freeway.

- 2nd/3rd Streets Interchange and Mudd Avenue Interchange

  Subalternatives C and E allow for a half diamond interchange at Mudd Avenue to and from the north. Subalternatives D and F would provide a full diamond interchange for a redesigned 2nd and 3rd Street. Subalternative C or D is used with EA-1 Elevated and RR-5 Elevated. Subalternative E or F is used with RR-3 Elevated and RR-4 Elevated. The MPO Subalternative was developed as a variation of Subalternative F in response to local requests. Impacts of the MPO Subalternative have been described in Section 4.5.

- Area Between Willow and I-10

  Subalternative G would provide an at-grade freeway between Willow Street and I-10. This includes termination of the one-way parallel arterial system at Willow Street (existing two-way frontage roads to remain north of Willow Street) with no provisions for crossovers connecting each frontage road in the area north of Willow Street to I-10.

Subalternative H would provide an elevated freeway in the area between Willow Street and a point just south of I-10. One-way parallel roadways would extend north of Willow Street to the point where the elevated freeway comes down to existing grade, with several crossovers provided under the freeway. The existing two-way frontage roads would remain north of this point. Martin Luther King Drive and Castille Avenue would be linked via a new connection under the I-49 Connector.

Subalternative I proposes an elevated freeway from Willow Street to just north of the new connection between Martin Luther King Drive and Castille Avenue (as discussed above). One-way parallel roadways would be provided between Willow Street and the MLK/Castille connection. The existing two-way parallel roadways would remain north of this point. The MLK/Castille connection would provide the only crossover north of Willow Street.

Subalternative J would allow for an at-grade freeway connector between the area just north of Willow Street and I-10. One-way parallel roadways would be provided north of Willow Street to a new turnaround to be constructed just south of I-10. An MLK/Castille connection would be provided to overpass the I-49 Connector and parallel roadways. New connector roads from the overpass to the parallel roadways would be constructed.

Features of Subalternatives G, H, I and J can be mixed and matched to generate other potential subalternatives through the area.

The various alternatives and subalternatives are shown on Plates 1 through 5 in Appendix A. These Plates are referenced with a legend provided on the Plate Index and Plan Legend located at the beginning of Appendix A. The Plates (1" = 500' plan coverage) show on aerial mapping the proposed project alternatives and the local street system in the vicinity of the project. Profiles for the mainline freeway are also provided. The estimated right-of-way "footprint" (required area) for each alternative is indicated on the Plates. The right-of-way shown includes that currently dedicated and the additional required for implementation of the project. The roadway layouts and right-of-way requirements as presented on Plates 1 through 5 are the primary basis for which the environmental consequences presented in Chapter 4 have been determined.

4.2 IMPACTS ON THE HUMAN ENVIRONMENT

4.2.1 LAND USE AND TRANSPORTATION

4.2.1.a Land Use

Project Consistency With Adopted Plans

The agency specifically charged with planning and zoning in the Lafayette area is the Lafayette Department of Planning, Zoning, and Codes (DPZC). In its role, the DPZC provides technical support and analyses for the Metropolitan Planning Organization (MPO) for the Lafayette urban area. The MPO is the forum for cooperative transportation decision-making.

The DPZC originally formed from the Lafayette Department of Zoning and Development, which was responsible for administering the City's Zoning Ordinance. The DPZC later took over the responsibilities to develop a comprehensive plan for the parish, to develop and administer subdivision and platting regulations, and to provide other planning services that formerly were administered by the recently disbanded Lafayette Areawide Planning Commission (LAPC). Several components of the comprehensive plan have been completed and several are still under development. The Land Use component of the comprehensive plan is one of the areas that have yet to be developed. According to the DPZC, the I-49 Connector would be compatible with the current and future land uses in the project area, and this should be reflected in the land use plan when it is completed.

In 1980, the City of Lafayette prepared Volume I (the Inventory and Analysis portion) of a Land Use Plan. Volume I is an inventory and analysis of existing land uses, private and public facilities, socioeconomic characteristics of the community, and physical parameters affecting the quality of life and future growth and development of the Lafayette community. Volume I of the land use plan was as the title indicated - an inventory. Volume II was to be developed to include guidelines and policy recommendations for the future growth of Lafayette. However, Volume II was never prepared.

Several other plans have been reviewed to determine their consistency with the proposed project. One such plan is the Downtown Development Authority (DDA) Growth Management Program. This plan was prepared in March 1989, and included a set of goals and objectives for the central business district (CBD). Goals were established for housing, retail, office, civic and cultural, and urban design. The Growth Management Program also had specific goals toward providing access to the CBD relative to the proposed I-49 Connector project.

According to the Program, "ideally, an interchange at Johnston Street and one at East Congress Street and frontage roads between the two would best serve the Downtown. Having Jefferson Street as a crossover/under and intersecting with the frontage roads is desirable.

All of the proposed alternatives of the I-49 Connector project will provide an interchange at Johnston Street with Subalternatives D and F providing a direct interchange to 2nd Street/3rd Street (Congress Street). By providing direct access to the CBD, these subalternatives would be consistent with certain aspects of the Growth Management Program. Jefferson Street and Simcoe Street would be severed due to the ramps associated with Subalternatives D and F. This would reduce traffic circulation opportunities in the core area, and would not be consistent with this aspect of the Growth Management Program.

With interchange locations at Johnston Street and Mudd Avenue, and slip ramps with one-way parallel arterials to East Congress Street and Jefferson Street, Subalternatives C and E would serve Downtown reasonably well. Subalternatives C and E, provide access to the CBD via a Mudd Avenue half-diamond interchange. For each of the four Elevated alternatives using Subalternatives C and E, slip ramps with one-way parallel arterials would connect with Simcoe Street, 2nd Street/3rd Street (Congress Street), and Jefferson Street. The interchanges and one-way parallel arterial connections associated with the Elevated alternatives would serve the CBD reasonably well and, therefore, would be consistent with the Growth Management Program.

For each of the two Selected Overpasses alternatives, Simcoe, Jefferson, and 2nd and 3rd (Congress) Streets would be severed and rendered discontinuous across the I-49 Connector freeway. The two Selected Overpasses alternatives, therefore, would not provide the high level of traffic circulation and service as noted in the Growth Management Program, and therefore are not consistent with this plan.

The Lafayette Regional Airport Commission has recently updated its airport master plan. In this plan, the land side passenger terminal, which has recently been renovated, will be expanded at its existing location on Surrey Street. Access to the terminal at its current location would be greatly improved by the I-49 Connector. In accordance with the master plan, new consolidated Petroleum Helicopter Incorporated (PHI) facilities are currently being constructed off Tower Road near U.S. 90. A small amount of right-of-way acquisition (approximately 3.5 acres) may be required for the construction of the I-49/Kaliste Saloom interchange ramps, but no significant impact to the PHI facilities would be expected.

In July 1991, the Lafayette City Council awarded a $1.2 million contract for the construction of a new two-story building to house the city Public Works Department. The new building, located at the city Transit Garage on Dorset Road and University Avenue, provides 18,000 square feet of office space. This building was finished in 1992. The RR-3 and RR-5 alternatives would displace both the City Transit Garage and the new Department of Public Works building.

Secondary Social and Economic Impacts

Growth inducement is defined as the relationship between the proposed transportation project and growth within the project area. This relationship is either one of facilitating planned growth or inducing unplanned growth.

Growth and development move forward, or are held back, mainly for economic reasons, although social, political and environmental reasons sometimes play a part. One may view growth inducement as the removal of obstacles to growth. Capacity improvements are considered to be the removal of transportation-related obstacles to growth, and are, therefore, growth-inducing. The proposed project would result in capacity improvements. At present, an automobile can travel the length of the project on the Evangeline Thruway in approximately 10 minutes. If the project were constructed, the trip would take about five minutes (under today's traffic loading), a savings of five minutes. A trip originating in the Central Business District would experience about one-half of that savings, or two to three minutes. Timesaving in the future would be even greater due to increased traffic congestion and delays if the project is not built.

The proposed I-49 Connector project is one of a number of transportation improvements scheduled or planned for Lafayette Parish. The I-49 Connector and these other projects, along with other factors such as the carrying capacity of the land, drainage features, availability of land for development, and traditional growth patterns, would affect the future growth patterns of the Lafayette area.

The proposed project would be an improvement of an existing facility. The timesavings expected from this improvement would not be out of proportion to those time savings expected from the other proposed street and highway projects in the area. Therefore, the proposed project is not expected to change the locations of future growth in the local area from the growth locations anticipated without the project. The pace of economic growth and development, however, could be expected to increase. Additionally, as the I-49 Connector becomes a part of the U.S. 90 freeway upgrade to New Orleans, this freeway route could attract tourism-related and other traffic that currently uses I-10 between Lafayette and New Orleans.

The greatest influence of the proposed project on land use would be in the presently developed areas in the vicinity of the project. Construction of a freeway, which could be perceived as magnifying the barrier effect of the Thruway, would likely increase the pace of redevelopment of the area between the Evangeline Thruway and the Union Pacific Railroad. As stated in the Lafayette Growth Management Program for the CBD, appropriate uses could include warehousing/distribution, light industrial, and transportation-related office uses. University-related research and development facilities coupled with business incubation space would be prime candidates for this area as well. The proposed freeway would serve as a boundary between these uses and the residential development to the east.

In addition to economic impacts, the proposed alignments and highway type alternatives would have varying social

impacts on various areas of the corridor. For example, the proposed freeway (especially a visually dominant elevated structure in the predominantly one-story, flat terrain, project area) would have certain negative social impacts on neighborhoods because of its scale and because the structure would exist adjacent to and/or dominate the view from the residences or other sensitive sites. Furthermore, the residents of certain neighborhoods may feel that they have become isolated by the location of the freeway. The possible intangible social impacts of each alternative can be considered wide and varied, with the perspective of individuals or groups shaping these perceived impacts.

4.2.1.b Transportation

Implementation of the Connector freeway would expand the local freeway system by providing a north-south route to complement existing east-west I-10. The I-49 Connector/I-10 system would also function well with the proposed perimeter beltway in the southwest and possibly northwest and northeast quadrants. The Connector freeway and ground level parallel arterials are compatible with the consistent repeated calls by City government, and most recently the Lafayette Consolidated Government, for transportation improvements in the Evangeline Thruway corridor. The Lafayette DPCZ, responsible for development of the area's long-range transportation plan as adopted by the MPO and approved by state and federal agencies, is currently in the process of adding the I-49 Connector to the long-range plan network. The DPZC is continuing to develop a comprehensive plan for the Lafayette area. One component of the comprehensive plan is a Consolidated Thoroughfare Plan (CTP). The I-49 Connector freeway is included in the CTP component of the comprehensive plan.

The Connector freeway is also compatible with statewide goals for the upgrade of U.S. 90 south of Lafayette to freeway standards in that it provides the connecting link through Lafayette to I-49 north of I-10. On a national basis, the Connector would also be compatible with an expanded I-49 system that could ultimately extend from New Orleans to Kansas City.

The proposed freeway is expected to capture more traffic than if no improvement is made. As currently conceived, it has capacity to accommodate projected traffic volumes. By capturing traffic from other roadways, the Connector would function to improve traffic operations throughout the local network. In combination with the continuous one-way land service parallel arterials, the freeway project would provide improved service to through traffic and local traffic in the study corridor.

Discussion of Elevated and Selected Overpasses Alternatives

Both the Elevated and Selected Overpasses alternatives available on the EA-1 and RR-3 alignment options would provide similar traffic service, with a freeway and ground level parallel roadways. The Elevated alternatives would provide for more major crossing streets in the corridor to remain open across the freeway and intersect with the parallel arterials than would the Selected

Overpasses alternatives. With the Elevated alternatives, Subalternatives C and E would allow more cross streets to remain open than would Subalternatives D and F. The Elevated alternatives also would allow several additional less important streets to remain open. With the exception of Donlon Street, a collector, these are T-intersections or other local service streets. Both the Elevated and Selected Overpasses alternatives require closing several crossing streets or median openings. The status of the crossing streets for the Elevated and Selected Overpasses alternatives is provided as follows:

Major Crossing Streets Open for Both Elevated and Selected Overpasses Alternatives

Kaliste Saloom	Mudd
University/Surrey	Donlon
Pinhook	Willow
Johnston	*

Additional Crossing Streets Open for Elevated Alternatives (Subalternative C and E) and Closed For Selected Overpasses Alternatives

15th/16th	3rd
Taft	2nd
Jefferson	Simcoe

Crossing Streets Closed by Subalternatives D and F and Open for Subalternatives C, E, and MPO

Jefferson	Simcoe

Crossing Streets Closed by All Alternatives

13th	5th
12th	Grieg
11th	Hobson
10th	Sampson
8th	Goldman
7th	Bellot
6th/Lee	Tissington
Median opening at Castille *	
Median opening at Chalmette	

* Subalternatives H, I, and J would provide an additional crossing by the connection of Martin Luther King and Castille and the provision of turnarounds and other connections between the two ground level roadways north of Willow Street. Subalternative G would close the existing median opening and not provide a new MLK/Castille connection.

In addition, Subalternative B for the RR-3 alternatives would close several existing subdivision streets that do not cross the existing Thruway or railroad.

The streets noted that are closed by all of the alternatives would not hamper the satisfactory movement of local traffic due to the parallel roadways which intercept traffic and provide free flow U-turn opportunities throughout the corridor. The Elevated alternatives, however, would allow for better traffic flow because of the additional cross streets remaining open to through traffic. For the Selected Overpasses alternatives, the corridor ground level traffic necessarily would be redirected to the Johnston Street and Mudd Avenue interchange locations, thus increasing the focus and volumes of traffic on these streets.

Subalternatives A and B

Subalternatives A and B have been developed for the RR-3 alternatives at the I-49 Connector/Pinhook Road grade separation. Subalternative A calls for a grade separation with the Connector freeway passing over Pinhook Road. Pinhook Road would continue to have an at-grade crossing of the Union Pacific Railroad tracks. There would not be any impacts to the existing ground level traffic flow nor any additional right-of-way requirements under Subalternative A.

Subalternative B would have Pinhook Road elevating over the I-49 Connector freeway, which would be constructed at existing ground level. Pinhook Road would also pass over the Union Pacific Railroad tracks, eliminating the existing at-grade railroad crossing. On the west side of the railroad, the southern end of Jefferson Street would be extended to the south and pass under the Pinhook overpass, then turned to the west to intersect with Mouton Avenue. This westward turn would parallel the Pinhook Road overpass, causing some right-of-way acquisition and relocations. This scheme would provide for access and circulation similar to what currently exists west of the railroad tracks. East of the railroad, the Pinhook Road overpass would be shifted slightly north to avoid the face of the St. Patrick's Church, requiring additional right-of-way and relocations. The existing T-intersections at Dear and Refinery Streets would be closed, with possible closure of Guidry Street (depending on final design).

Subalternatives C, D, E, and F

Subalternatives C and E have been developed for all of the Elevated alternatives and provide for a half diamond interchange at Mudd Avenue. The most important cross streets to remain open under Subalternatives C and E, but closed under the Selected Overpasses alternatives, are Taft, Jefferson, 3rd, 2nd, and Simcoe Streets. Subalternative C and E would provide better traffic circulation opportunities in the core area.

Subalternatives D and F have been developed for all of the Elevated alternatives and would utilize a full diamond interchange at a redesigned 2nd and 3rd Street couplet. Subalternatives D and F would not be used in conjunction with Subalternatives C and E and would close Jefferson and Simcoe Streets. Thus, traffic circulation opportunities in the core area would be reduced for Subalternatives D and F. The MPO Subalternative allows Jefferson and Simcoe Streets to remain open. It is described in more detail in Section 2.4.

Subalternatives G, H, I, and J

The area between Willow Street and I-10 has been the focus of ways to improve traffic operations. The Thruway in this area is currently being widened from two lanes each direction to three lanes each direction and a new traffic signal is being installed at Castille Drive. The I-49 Connector project in this area would remove two median openings (at Castille Avenue and Chalmette Drive) that currently provide access to the frontage roads on each side of the project. Access to the frontage roads from the freeway would be provided at Willow Street.

Under conditions proposed by Subalternative G (at-grade freeway), the frontage roads would each continue to operate under two-way traffic with no crossovers provided for the movement of traffic from one side of the freeway to the other. Mainline freeway traffic would be removed from signalized intersections at Willow Street by the provision of grade separation structures. Under Subalternative G, a series of four closely spaced intersections consisting of frontage road-ramp-ramp-frontage road would exist on Willow Street. Similar geometric arrangements in high traffic volume urban areas in Louisiana have been observed to operate deficiently due to the closely spaced network of intersections.

Subalternative H (elevated freeway) in the area from Willow to south of I-10 was identified to aid in the traffic circulation and access patterns to the business community along each frontage road. Subalternative H also would remove the two existing median openings, with access to the frontage roads again provided at Willow Street. The elevated freeway would allow the extension of the one-way parallel roadway system to a termination point on the north side of Willow Street and the provision of numerous crossovers to and from each side of the freeway. U-turn roadways just north of Willow Street and at the north end of the elevated section would allow free flow traffic circulation on the one-way parallel roadways. Martin Luther King Drive would be realigned in the vicinity of the project to tie to Castille Avenue, offering an additional crossover point and creating a continuous collector roadway to parallel and reduce traffic on Willow Street (existing Martin Luther King and Castille are considered collectors, but are non-continuous). This would require the acquisition of an approximate 50' wide x 600' long strip of right-of-way in a shopping center parking lot. The series of four intersections on Willow Street would be replaced by two intersections. Subalternative H would provide a higher level of traffic circulation and access than Subalternative G.

Subalternative I is very similar to Subalternative H in that it would have the same right-of-way requirements, would close the median openings north of Willow Street, and would provide a new MLK/Castille at-grade connection. The Connector freeway would return to an at-grade section after passing over the MLK Drive/Castille Avenue connection and remain at-grade to I-10. U-turn roadways would be provided on both sides of the MLK Drive/Castille Avenue connection and at Willow Street. The two lane frontage roads between Willow Street and MLK Drive/Castille Avenue would be converted to one-way with adjoining slip ramps to and from the I-49 Connector freeway. Again, this would allow for a series of two intersections rather than four intersections on Willow Street. The two-way frontage roads that currently exist between the MLK/Castille connection and I-10 would remain. Because the I-49 Connector would be at-grade north of the MLK/Castille connection, this would prohibit U-turn or crossover roadways in this area as discussed for Subalternative H.

Subalternative J would be at-grade from just north of Willow Street to just south of I-10. The I-49 Connector freeway would be paralleled by one-way frontage

roads with U-turns provided at Willow Street and just south of I-10. Slip ramps would be used to connect traffic between the Connector freeway and the one-way frontage roads. Martin Luther King Drive and Castille Avenue would be realigned and connected by an overpass which would pass over the at-grade Connector Freeway (alternatively, an MLK/Castille connection that passes under I-49 as described for Subalternatives H and I could be utilized). Two-way roadways would connect the MLK/Castille overpass with the one-way frontage roads. This would require the acquisition of approximately 2.5 acres along with three businesses in the parking lot on the west side of the project. The overpass would also require the acquisition of approximately 1.4 acres along with a business in the parking lot on the east side of the project. Both existing median openings would be closed, but a turnaround underpass just south of I-10 would be provided to allow for one-way traffic operations and to maintain traffic circulation between the two frontage roads.

CBD

Under all of the Elevated alternatives, access to the CBD would be improved by the provision of two exits from the freeway when approaching from either the south or north. EA-1 Elevated and RR-5 Elevated, utilizing Subalternative D, would provide direct access to the CBD via an interchange at 2nd and 3rd Streets. RR-3 Elevated and RR-4 Elevated would also use provide direct access to the CBD via an interchange at 2nd/3rd Streets as included in Subalternative F.

The EA-1 and RR-5 Elevated (Subalternative C) alternatives, utilizing the slip ramp one-way system, would offer more numerous CBD entrance opportunities on the cross streets. On the other hand, the RR-3 and RR-4 Elevated alternatives parallel the railroad and would offer the opportunity for increased visibility of the CBD from the freeway. The EA-1 and RR-3 Selected Overpasses alternatives will provide less desirable CBD access in that Jefferson, 2nd, 3rd, and Simcoe Streets would be severed by the freeway. Refer to Appendix A, Plates 3a, b, c, d, e, and f.

Safety

The implementation of a freeway can be expected to improve traffic operational safety for motorists due to design features inherent in freeways and to improve safety for pedestrians and others by removal of traffic from the ground level Thruway. Additionally, an opportunity would exist to improve horizontal curvature on the northbound parallel arterial (existing Thruway) in the Simcoe-Mudd area, thus improving safety at this location. The removal of the existing Thruway median openings between Willow Street and I-10 would eliminate potential accident locations. However, the signalized intersection at Castille Avenue and Evangeline Thruway, to be constructed by spring 2003, should help to improve traffic operations.

Multimodal

The proposed Connector freeway complements other components of Lafayette's transportation system including the regional airport at the south end of the project and the proposed multimodal transit center adjacent to the railroad near Jefferson Street. While it would be desirable to incorporate bicycle facilities in the corridor as a component of the project, the many cross streets in the central core area warrant special considerations that may make this unsafe or impractical. None of the Elevated alternatives appear to be more beneficial than the others with regard to multi-modal traffic service. Subalternatives D and F and both of the Selected Overpasses alternatives, because Jefferson Street is severed across the freeway, are not as beneficial with regard to the proposed multimodal transit center.

No-Build

The no-build alternative would not be consistent with local and state transportation goals and would be incapable of serving traffic demands under projected loading conditions. The third lane each direction between Willow and I-10 will provide only temporary traffic congestion relief in this area. The no-build alternative would not be anticipated to capture traffic from other roadways and thus would not improve traffic operations on other components of the local street system. For the no-build alternative, traffic circulation and access provisions would remain the same (forthcoming traffic increases would be expected to reduce maneuverability). As traffic congestion increases, safety for motorists, pedestrians, and bicyclists can be expected to decline for the no-build alternative. Also, the no-build alternative does not function as effectively as the freeway when considering multimodal transportation facilities.

4.2.2 SOCIOECONOMICS

4.2.2.a Neighborhoods

Commonly recognized neighborhoods are not present in the study area; geographical subdivisions and statistical analyses for the EIS have been delineated based on census tracts. Based on the 1990 Census, there are nine census tracts in the corridor study area (as shown previously on Exhibit 3-7), with Census Tracts 1, 2, 11, and 14 being traversed by the proposed alternatives. Census Tracts 3, 8, 9, 10, and 15 would not be traversed by any of the alternatives. The impacts due to each alternative have been determined utilizing and evaluating the data in the tables presented in Chapter 3. Possible negative impacts caused by the project include large numbers and types of displacements, noise impacts to many residences in close proximity to the project but which are not displaced, the removal of neighborhood-related businesses, the splitting or isolation of neighborhoods, visual intrusion, and real or perceived quality of life reductions.

Neighborhood stability and cohesiveness can be indicated by certain socioeconomic characteristics. These characteristics include a high percentage of owner-occupied units, a high median housing unit value and longevity of occupancy. A general reduction in neighborhood quality of life in the corridor study area since 1970 which has

been observed in census data may accelerate in neighborhoods near the proposed project, especially the areas between the Evangeline Thruway and Union Pacific Railroad. This area has been identified in the CBD Growth Management Program as transitional between the CBD and residential areas east of the Thruway.

Census Tract 1

Census Tract 1 is located in the center of the study area and is generally bounded by the northbound Evangeline Thruway, Johnston Street, University Avenue, and Simcoe Street. The land use in this area is primarily commercial and industrial with residential areas in the northern and western portions. Because of their location west of the corridor area, the major residential areas of Census Tract 1 would not be impacted (although some smaller residential areas would experience displacements).

Most of the residential areas located in Census Tract 1 generally cannot be considered cohesive. In 1990, Census Tract 1 had a median housing unit value of $47,700, an owner occupancy rate of 30.2 percent, and 28.2 percent of its households have been occupied by the same householder for 10 or more years.

EA-1 and RR-5 follow the same alignment in Census Tract 1 and, therefore, the impacts for these alternatives would be similar. The EA-1 and RR-5 Elevated alternatives would displace approximately 34 residential units and 20 businesses in the extreme northeastern section of Census Tract 1. All displacements would occur in the blocks between the northbound and southbound Evangeline Thruway from Johnston Street to Simcoe Street except for the six residences and six businesses associated with Subalternative D. The displacements required for Subalternative D would occur due the redesign of 2nd and 3rd streets and the control of access associated with the new interchange. The EA-1 Selected Overpasses alternative would displace approximately 30 residences and 17 businesses. It would require an additional two residences and three businesses on the west side of the southbound Evangeline Thruway when compared to Subalternative C as the existing roadway is realigned in this area.

The Evangeline Thruway alignment presently splits residential areas to the east and west in Census Tract 1. None of the EA-1 or RR-5 alternatives would split or isolate any residential areas because both would utilize the existing Evangeline Thruway alignment (although the freeway would magnify the existing divisive effect). Because of its higher visibility, the elevated alternative in many cases can be perceived by the community to cause a greater additional division than would a depressed or at-grade alternative (*Tunnard, 1963*).

The RR-3 and RR-4 Elevated alternatives follow the same alignment in Census Tract 1 and would displace approximately 32 residential units and 31 businesses. Ten of these residences and nine of these businesses are associated with Subalternative F. The RR-3 Selected Overpasses alternative would displace approximately 21 residential units and 24 businesses. All of the displacements would occur in the area bounded by Simcoe Street, the southbound Evangeline Thruway, Sixth

Street, and the Union Pacific Railroad. A small area bounded by Johnston Street, the southbound Evangeline Thruway, and the alignment of the RR-3 and RR-4 alternatives, which contains approximately 28 residential units and 11 businesses, would be further isolated if either of the two RR-3 alternatives or the RR-4 Elevated alternative was chosen. This area would be less desirable for residences and would most likely experience an increased rate of transition from residential to other uses. The area would be attractive to business and commercial interests, as it would be ideally bounded by the Thruway, I-49 Connector, and Johnston Street.

Census Tract 2

Census Tract 2 also is located in the central portion of the study area and is generally bounded by the Union Pacific Railroad, the Vermilion River, Surrey Street, and Simcoe Street. The land use in this area is primarily residential with some commercial and industrial uses located along the Union Pacific Railroad and along the Evangeline Thruway. Residential areas lie in the path of the RR-3 and RR-5 alternatives. These residential areas are bounded by Taft Street, the Union Pacific Railroad, the Vermilion River and the southbound Evangeline Thruway. Residential areas also lie in the path of the EA-1 and RR-5 alternatives between the northbound and southbound Thruway.

The residential areas located in Census Tract 2 can be considered cohesive because they exhibit some of the socioeconomic characteristics that indicate a cohesive neighborhood. In 1990, Census Tract 2 had a median housing unit value of $33,000, an owner occupancy rate of 52.8 percent, and 63.9 percent of its households have been occupied by the same householder for 10 or more years. In the City of Lafayette, 48 percent of the housing units were owner-occupied, and the same householders have occupied only 34.5 percent of the households for 10 years or more.

The EA-1 Elevated and Selected Overpasses alternatives would displace approximately 58 residential units and 14 businesses in Census Tract 2. Most displacements would occur in the blocks between the northbound and southbound Evangeline Thruway with a few displacements along its edges south of Pinhook Road.

The EA-1 alternatives would not split or isolate any residential area in Census Tract 2 because the alignment would follow the existing Evangeline Thruway alignment (although the freeway would magnify the existing divisive effect).

The RR-3 alternatives would displace approximately 54 residential units and 20 businesses (including the Lafayette Department of Public Works building and transit garage). These numbers include the three displacements caused by Subalternative B. Residential displacements would occur in the area bounded by the Union Pacific Railroad, Taft Street, Pinhook Road, and the southbound Evangeline Thruway. RR-3 would not bisect or isolate any residential areas because displacements would occur on the western boundary of the residential area described above.

The RR-4 Elevated alternative would displace approximately 19 residential units and 10 businesses. These residential displacements would occur on the extreme eastern edge of the area bounded by the southbound Evangeline Thruway, Pinhook Road, East Vermilion Street, and 16th Street. The RR-4 alternative would not bisect or isolate any residential areas because displacements would occur along the eastern edge of the residential area described above.

The RR-5 Elevated alternative would displace approximately 112 residential units and 17 businesses (including the City of Lafayette Public Works building and Transit Garage). It also would displace the St. Patrick's Church located on Pinhook Road. About one-half of the displacements would occur in the block between the northbound and southbound Evangeline Thruway from Johnston Street to 16th Street. The remaining displacements would occur in two adjacent residential areas bounded by the southbound Evangeline Thruway, Taft Street, the Union Pacific Railroad, and the Vermilion River. The RR-5 Elevated alternative would introduce a major divider into these neighborhoods.

Census Tract 11

Census Tract 11 is located in the northern portion of the study area and is generally bounded by the Union Pacific Railroad abandoned tracks, Interstate 10, Moss Street, and Simcoe Street. The land use in this area is approximately one-third residential, one-third commercial and one-third undeveloped. Commercial establishments abound along the Evangeline Thruway and Moss Street. Residential areas are not adjacent to the corridor, except for a small area south of the Union Pacific Railroad Breaux Bridge spur that would have displacements. In this census tract, all of the proposed alternatives follow the same alignment as the existing Evangeline Thruway.

The residential areas located in Census Tract 11 can be considered reasonably cohesive because they exhibit some of the characteristics indicative of neighborhood stability and cohesiveness. In 1990, Census Tract 11 had a median housing unit value of $36,300, an owner occupancy rate of 49.8 percent and 44.6 percent of its housing units have been occupied by the same household for 10 or more years.

Each of the elevated alternatives would displace the Christ the King Church in Census Tract 11. The EA-1 and RR-5 Elevated alternatives would displace approximately 70 residences and 21 businesses with three of these residences and one of these businesses associated with Subalternative D. The RR-3 Elevated and RR-4 Elevated alternatives each would displace approximately 72 residences and 23 businesses. The EA-1 Selected Overpasses alternative would displace 67 residences and 22 businesses. The RR-3 Selected Overpasses alternative would displace 68 residences and 22 businesses. The differences in the number of business displacements amongst the various alternatives occur in the southern portion of Census Tract 11 where the alternatives split into two different alignments. The business displacement numbers include three businesses that would be displaced by Subalternative J north of Willow Street. If Subalternatives G, H, or I were

implemented in this area, there would be three fewer business displacements.

The residential displacements would occur in the block between the northbound and southbound Evangeline Thruway from Simcoe Street to the Union Pacific Railroad Breaux Bridge spur which is located in the extreme southern portion of Census Tract 11.

None of the alternatives would split or isolate any residential areas because they all utilize the existing Evangeline Thruway alignment (although the freeway would magnify the existing divisive effect).

Gateway Lafayette is located just north of the Union Pacific Railroad spur and is situated in the existing Evangeline Thruway right-of-way. The Gateway would be displaced by the Connector freeway.

Instead of a highway on embankment, the freeway overpass at Willow Street would be on structure its entire length and therefore provide visibility to and from the built-up business and residential communities on each side of the Thruway. This would be expected to minimize the real and/or perceived divisive aspects of the project in this area. Also, the Martin Luther King Drive - Castille Avenue connection proposed for Subalternatives H, I, and J would further serve to link Census Tract 11 across the Connector freeway. More traffic would be expected on the two streets.

Census Tract 14

Census Tract 14 is located in the southernmost portion of the study area. However, only the extreme northwestern portion of this census tract, Census Block Groups 14.081 and 14.082, would be impacted by the project. The land use in this area is primarily commercial with some industrial uses along the Union Pacific Railroad. There are some residential areas to the west of the railroad tracks but they are a considerable distance away from the corridor area.

One business and one residence would need to be displaced in Census Block Group 14.082 due to control of access around the University Avenue/Surrey Street and I-49 Connector interchange. This would occur for EA-1 Elevated, EA-1 Selected Overpasses, and RR-4 Elevated. RR-3 Elevated, RR-3 Selected Overpasses, and RR-5 Elevated would displace three businesses in Census Block Group 14.081. In Census Block Group 14.082, a small amount of right-of-way may be required from the PHI facilities that are currently under construction east of the Thruway. No major neighborhood impacts would occur due to the project. Each of the RR-3 and RR-5 alternatives, which follow the Union Pacific Railroad, would displace one business. None of these businesses are neighborhood-related.

Census Tract 15

There is one business displacement due to Subalternative B. This commercial property belongs to Gulf States Airgas and is located at the eastern edge of Census Tract 15. There are no neighborhood impacts.

4.2.2.b Population

Land Use Changes Affecting Population

A freeway could be expected to hasten a change in land use in the area between the Evangeline Thruway and the Union Pacific Railroad. The logical transition for the area would be from the present residential and commercial uses to additional industrial and highway oriented commercial uses. These more rapid changes in land use would result in a faster pace of population redistribution than that which would occur without the economic incentives presented by the new highway. The extent and timing of the changes would depend upon whether there is a concerted effort to implement the Growth Management Program for the CBD or other organized development/redevelopment proposals.

Elderly Population

In general, the elderly population in Census Tract 2 may be negatively impacted by the proposed project because Census Tract 2 has a higher than average elderly population.

Table 3-1 (page 3-19) shows the percentages of elderly people for the City and Parish of Lafayette, the corridor study area, the census tracts and census block groups. Residential areas in Census Tracts 1, 2, and 11 are traversed by all of the alternatives and would be the most impacted in the study area. In 1990, Census tracts 1, 2, and 11 had higher concentrations of elderly persons than the City and Parish of Lafayette. Review of 2000 Census data show that Census Tract 2 generally has twice the percentage of elderly persons than the City and Parish as a whole. The percentage of elderly persons in Census 1 and 11 are close to the City and Parish percentages for elderly persons..

Black Population

The black population represents a substantial minority in Lafayette Parish. Table 4-1 shows the black population and percentage changes from 1980 to 1990 for Census Tracts 1, 2, and 11 as well as for Lafayette Parish. These three census tracts have had substantial increases in the proportion of the population that is black during this 10-year period. In 1990, approximately 58% of the total population in these three census tracts was black. This black population was 96% of the total minority population of these tracts. Review of the 2000 Census indicates the percentage of black population has increased to approximately 64% in Census Tracts 1, 2, and 11. Due to the concentration of black residents in these three census tracts, the proposed project would result in a significant negative impact on blacks. Overall, there is no significant difference in the impact to blacks from one alternative to another.

Social Impacts

A 1994 presidential Executive Order directed every Federal agency to identify and address the effects of all programs, policies, and activities on "minority populations and low-income populations". The policies embodied in this Executive Order are commonly referred to as "environmental justice". Environmental justice initiatives typically accomplish this goal by involving the potentially affected public in developing

transportation projects that fit harmoniously within their communities without sacrificing safety or mobility.

The concept of environmental justice is not new, having been first identified in Title VI of the Civil Rights Act of 1964. Today, because of the evolution of the transportation planning process, it is receiving greater emphasis. Effective transportation decision making depends upon understanding and properly addressing the unique needs of different socioeconomic groups. This is more than a desktop exercise; it requires involving the public. The LaDOTD and FHWA are committed to this more comprehensive, inclusive approach. These changes make sure that every transportation project nationwide considers the human environment.

There are three fundamental environmental justice principles, as described below:

- avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;
- ensure the full and fair participation by all potentially affected communities in the transportation decision-making process;
- prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Environmental justice issues for the I-49 Connector project primarily have been addressed by the Community Design Workshop sponsored by the Lafayette Consolidated Government (LCG). Refer to Section 4.2.8 for a description of the comprehensive activities of the Workshop. Workshop activities related to environmental justice are discussed in the following text.

The LCG, acting in its capacity as the Metropolitan Planning Organization (MPO), and working through its three MPO Advisory Committees -- the Citizens Advisory Committee, Transportation Technical Committee and Transportation Policy Committee -- instituted an extensive community out-reach program involving four neighborhood organizations as well as an association of neighborhood organizations called Neighborhood Pride. These are organizations that serve the people living in the I-49 Connector Corridor Area. The MPO specifically included the active participation of these neighborhood organizations in numerous "charrettes" to help identify and mitigate potential problems and negative impacts generated by the freeway facility.

The active involvement of local neighborhood groups proved to be a major component of the MPO facilitation of the I-49 Connector review process. In addition to including residents and business owners in "charrettes", the MPO staff provided and continues to provide periodic updates on the progress and status of development and options being prepared for recommendation to the MPO advisory committees. These updates are presented at the regular meetings of the neighborhood organizations.

The MPO has also focused on displacement issues similar to the I-49

Connector project through neighborhood outreach on the Camellia Boulevard Bridge and Extensions project. This project, currently being implemented by the LCG, required the displacement of eighty-three non-minority single family homes in an established neighborhood. Neighborhood outreach such as conducted on the Camellia project has become a key component of local initiatives that may have a community impact. The LCG is currently experimenting with establishing neighborhoods throughout the urban area to facilitate a comprehensive educational and public involvement program. The Lafayette MPO Citizen Advisory Committee (CAC) is recommending that this neighborhood outreach effort be continued and expanded to fully inform and involve citizens throughout the parish in the transportation planning process.

The LCG requires that all transportation programs, projects, plans and issues must be reviewed first by the Citizen Advisory Committee (CAC) of the MPO before consideration by the Transportation Technical Committee and Transportation Policy Committee. It has been the initiative of the MPO Citizen Advisory Committee that has challenged the standard operating procedures of the past transportation planning process to arrive today with a local comprehensive environmental justice program.

The active participation from neighborhood groups representing minorities in conjunction with other aspects of the MPO's outreach program, as evidenced during the Community Design Workshop, has been encouraged to meet or exceed the intent of the President's Executive Order regarding environmental justice.

Table 4-1

POPULATION AND RACIAL COMPOSITION

	1980		1990	
	Total Population	% Black	Total Population	% Black
Census Tract 1	2,193	32.6	2,759	40.2
Census Tract 2	5,003	72.5	3,002	83.5
Census Tract 11	6,839	35.6	6,261	52.9
Total For Tracts 1, 2, and 11	14,035	48.3	12,022	57.6
Lafayette Parish	150,017	20.2	164,762	22.4

Source: U.S. Bureau of Census, 1980, 1990.

4.2.2.c Displacements and Right-of-Way

General Procedures for Right-of-Way and Displacement Analysis

An important factor that has been and will continue to be considered for the I-49 Connector project is Title VI of the Civil Rights Act of 1964. Under Title VI, no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Any individuals and families displaced by the project would be displaced in accordance with the provisions of the Uniform Relocation and Land Acquisition Policies Act of 1970 and Amendments of 1987.

For the I-49 Connector, the basis for determining residential, business, and non-profit organization displacements involved several procedures. The first task performed was a field inventory of all structures in the corridor that potentially would be displaced by the project. Each structure was identified on 1" = 100' aerial photography and referenced to the inventory, which included the type of structure, name of the business, standard land use classification code, and other pertinent information. A separate task included an approximate delineation of the right-of-way requirements for each of the proposed alternatives, based on the conceptual layouts shown in Appendix A. Once the right-of-way limits were determined, they were superimposed on the land use map of the corridor. The combination of these two elements of the project delineated those structures that would need to be displaced for each of the alternatives.

A listing for each of the proposed alternatives was then developed denoting each of the residential units, businesses, and nonprofit organizations that would be displaced. Utilizing this list, the third aspect was to estimate the fair market value, relocation expenses, and other related expenses that would be required for each of the displaced structures. Specialists in the local real estate market were utilized for this task, and the displacement costs were then tabulated. Section 4.2.2.c presents the results of these procedures. A graphical summary of the most prominent displacements in the corridor that would be caused by each alternative is presented on Exhibit 4-1. Also shown are major features that would not be displaced but could be adversely impacted.

Residential Displacement Analyses

For each of the six alternatives on four alignments studied, Table 4-2 presents the housing and household characteristics, as well as the social composition of those to be displaced. As shown in Table 4-2, the approximate total number of residential displacements for each of the alternatives is as follows:

EA-1 Elevated	163
EA-1 Selected Overpasses	156
RR-3 Elevated	153
RR-3 Selected Overpasses	143
RR-4 Elevated	119
RR-5 Elevated	216

LEGENDS OF DISPLACEMENTS & MAJOR IMPACTS

	EA-1	RR-3	RR-4	RR-5
MAJOR EMPLOYERS				
1. Acadian Dodge		●		●
2. Schilling Distributors		●		
3. Conco Food Distributors		●	●	
4. Acadian Nursing Home	●	●		●
5. Macro Oil Company		●	●	
6. Gulf South Printing	●			●
7. Chastant Brothers, Inc.		●		●
GOVERNMENT FACILITIES				
8. Consolidated Government Department of Public Works		●		●
9. Gateway Lafayette (see note 1)	●	●	●	●
CHURCHES				
10. St. Patrick's				●
11. St. Genevieve	○	○	○	○
12. Christ the King	●	●	●	●
SCHOOLS				
13. St. Genevieve Elementary	○	○	○	○
OTHER				
14. Acadiana Nursing Home	●			●
15. Sterling Grove Historic District	○	○	○	○
16. Commercial Area Adjacent To Freeway	○	○	○	○

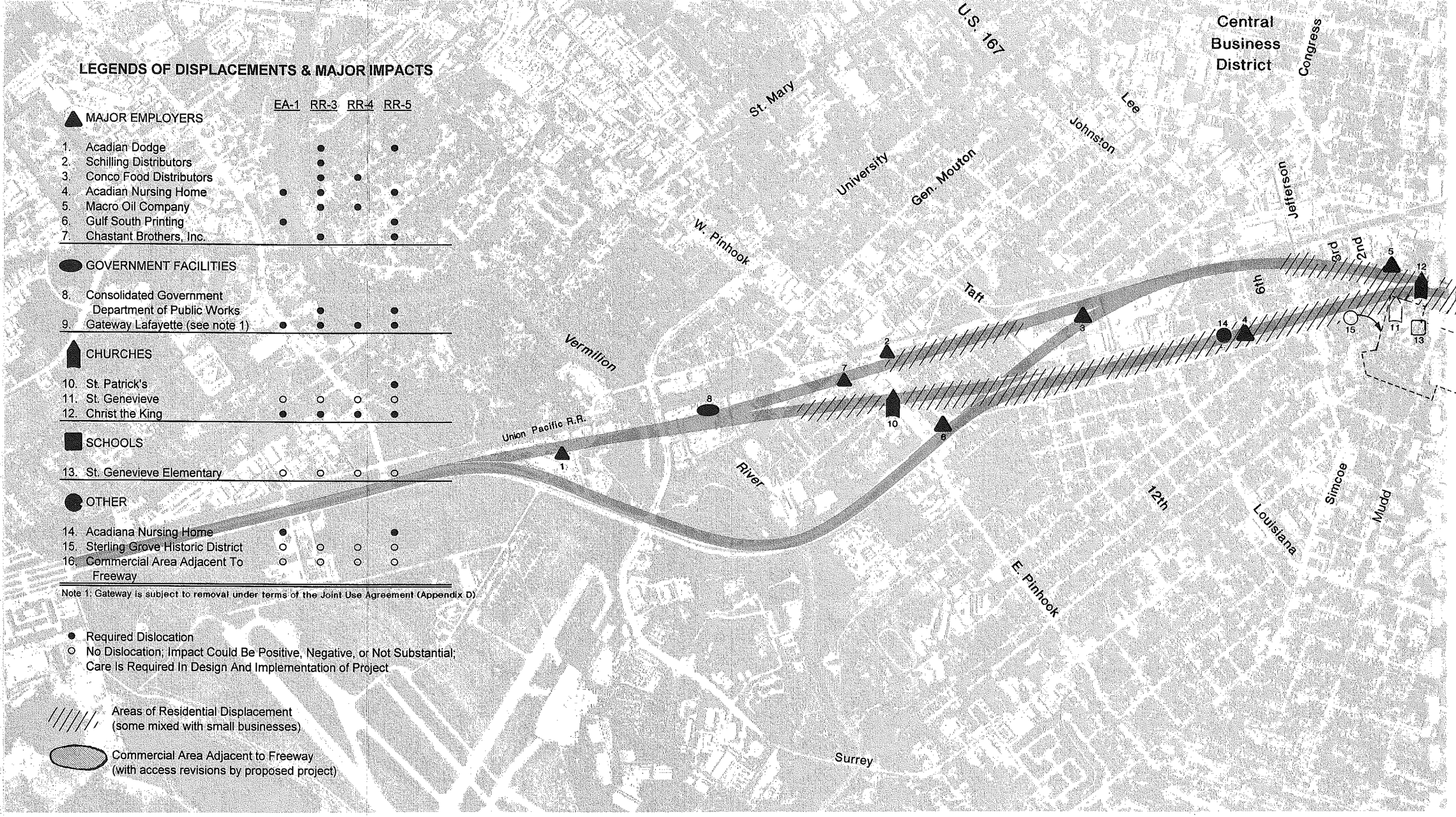
Note 1: Gateway is subject to removal under terms of the Joint Use Agreement (Appendix D)

● Required Dislocation

○ No Dislocation; Impact Could Be Positive, Negative, or Not Substantial; Care Is Required In Design And Implementation of Project

Areas of Residential Displacement (some mixed with small businesses)

Commercial Area Adjacent to Freeway (with access revisions by proposed project)



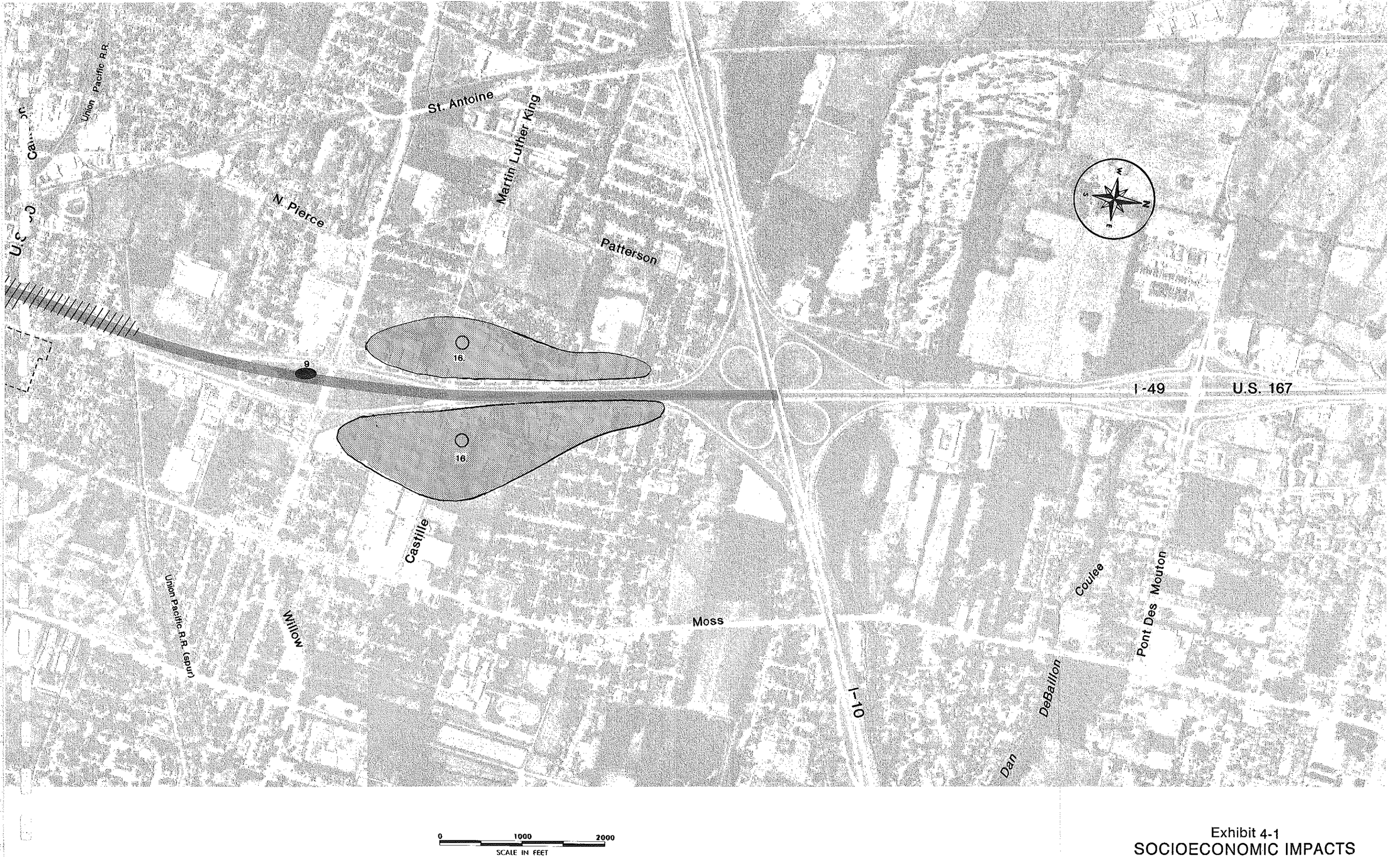


Exhibit 4-1
SOCIOECONOMIC IMPACTS

These are the maximum numbers of displacements for each alternative with their various subalternatives. Subalternative B would displace two more residences as would Subalternative A. Subalternative D requires nine more displacements than does Subalternative C. Subalternative F displaces ten more residences than does Subalternative E. For the EA-1 Selected Overpasses alternative, the number of displacements is slightly higher than for the EA-1 Elevated alternative using Subalternative C. This is because the Selected Overpasses alternatives would require extra areas of right-of-way acquisition along the west side of the realigned southbound Evangeline Thruway between Mudd Avenue and Jefferson Street.

Table 4-2 indicates the estimated number of persons displaced (based on 1990 Census average occupancy rates in the study area) and breaks down the residential unit displacements by those which are owner-occupied or renter-occupied. In addition, information regarding the household heads and income source has also been estimated.

Business Displacement Analysis

Table 4-3 presents the estimated number of businesses by types that would be displaced by each of the proposed alternatives. Unlike the number of residential units displaced by each alternative, the disparity in the total number of businesses displaced would not be great. However, each proposed alternative would impact a partially different set of businesses.

It is estimated that the EA-1 Elevated alternative, using Subalternative C, would displace 49 businesses of which 45 employ fewer than 25 persons. The other four businesses employ between 25 and 75 persons, with the largest number of employees being 69. It is estimated that 436 employees would be displaced. Subalternative D would displace 7 additional businesses that employ below 25 persons to the EA-1 Elevated alternative for a total of 56 businesses. The EA-1 Selected Overpasses alternative would displace five additional businesses (all of which employ fewer than 25 persons) and 25 additional employees when compared to EA-1 Elevated with Subalternative C.

The RR-3 Elevated alternative, using Subalternative E would displace 67 businesses of which 59 employ fewer than 25 persons. Four of the other eight businesses employ between 25 and 75 persons. The last four businesses employ over 75 persons (included here is the Lafayette Consolidated Government's Public Works Facility which employs 305 persons). It is estimated that 1,111 employees would be displaced. The RR-3 Selected Overpasses alternative would displace three additional businesses (two of which employ fewer than 25 persons and one which employs between 25 and 75 persons) and 62 additional employees when compared to RR-3 Elevated with Subalternative E. Subalternative F would displace four additional businesses that employ fewer than 25 persons and two additional businesses that employ more than 25 persons when compared with Subalternative E. These six businesses combine for a total of 93 additional employees.

Table 4-2

CHARACTERISTICS OF RESIDENTIAL DISPLACEMENTS BY PROPOSED ALTERNATIVE

	EA-1 Elevated	EA-1 Sel. Over.	RR-3 Elevated	RR-3 Sel. Over.	RR-4 Elevated	RR-5 Elevated
TOTAL EACH						
Residential Units	154(9)	156	143(10)	143	109(10)	207(9)
No. of Persons Displaced	402(24)	407	376(27)	376	285(27)	544(24)
Owner-Occupied Units	87(6)	88	80(6)	80	59(6)	120(6)
Tenant-Occupied Units	67(3)	68	63(4)	63	50(4)	87(3)
HOUSEHOLD HEADS SELECTED CATEGORIES						
Elderly	21(1)	22	20(2)	20	16(2)	28(1)
Female	36(3)	37	34(2)	34	24(2)	52(3)
Handicapped	18(1)	18	17(2)	17	13(2)	25(1)
Minority	83(6)	84	78(6)	78	51(6)	126(6)
INCOME SOURCE						
Social Security	50(3)	50	47(4)	47	33(4)	71(3)
Self-Employed	11(0)	11(0)	11(0)	11(0)	9(0)	14(0)
Public Assistance	31(2)	31	29(2)	29	19(2)	47(2)
Employed	115(6)	117	107(7)	84	84(7)	150(6)

Note: The numbers not in parenthesis are based on the maximum number of units displaced due to Subalternatives A, B, C, E, G, H, I, and J. The numbers within parentheses are the additional number of displacements for Subalternatives D and F.

Refer to Section 4.5.4 for a discussion on the MPO Subalternative residential displacements.

Source: I-49 Connector Study Team, 1998 and U.S. Census

The RR-4 Elevated alternative, using Subalternative E, would displace 54 businesses of which 51 employ fewer than 25 persons. Two businesses employ between 25 and 75 persons, and one business employs 95 persons. It is estimated that 469 employees would be displaced. Subalternative F would displace seven additional businesses that employ fewer than 25 persons and two additional businesses that employ more than 25 persons when compared with Subalternative E. These nine businesses combine for a total of 103 additional employees.

Table 4-3

BUSINESS AND EMPLOYEE DISPLACEMENTS BY TYPE FOR PROPOSED ALTERNATIVES

TYPES OF BUSINESS	EA-1 Elev.	Extra w/ Sub. D	EA-1 Sel. Over.	RR-3 Elev.	RR-3 Sel. Over.	RR-4 Elev.	Extra w/ Sub. F	RR-5 Elev.
Manufacturing, Misc.	0	0	0	1 (25)	1 (25)	0	0	1 (25)
Wholesale Trade	0	0	0	6(222)	6(222)	2(100)	2(25)	0
Retail Trade Bldg. Matl.	0	0	0	1(0)	1(0)	1(0)	0	0
Retail Trade Feed & Seed	0	0	0	3(50)	3(50)	1(20)	0	0
Retail Trade Food	1(2)	0	1(2)	3(9)	3(9)	2(4)	0	1(2)
Retail Trade Beer	2(6)	0	2(6)	1(2)	1(2)	2(7)	0	2(6)
Retail Trade Auto	3(19)	0	3(19)	3(129)	3(129)	2(4)	0	4(144)
Retail Gasoline	8(53)	0	8(53)	4(18)	5(68)	6(44)	1(50)	6(27)
Retail Eat And Drink	6(148)	1(8)	7(156)	5(118)	5(118)	5(118)	0	6(148)
Retail Other	11(68)	1(10)	15(74)	17(98)	19(110)	15(82)	3(18)	11(78)
Finance, Insurance, Service	2(7)	0	2(7)	4(17)	4(17)	2(6)	0	2(7)
Professional Service	2(13)	0	2(3)	3(17)	3(17)	2(15)	0	2(13)
Motor Vehicle Transportation	0	0	0	1(15)	1(15)	1(15)	0	0
Government Service	0	0	0	1(305)*	1(305)*	0	0	1(305)*
Other Service**	14(120)	5(25)	16(133)	14(86)	14(86)	13(54)	3(10)	18(209)
Total Businesses	49(436)	7(43)	54(453)	67(1111)	70(1173)	54(469)	9(103)	54(964)

Note: Numbers in parenthesis represent employees displaced.

Numbers shown under Subalternative D are to be added to the numbers shown for EA-1 and RR-5 Elevated when Subalternative D is used.

Numbers shown under Subalternative F are to be added to the numbers shown for RR-3 and RR-4 Elevated when Subalternative F is used.

Business Displacements associated with MPO Subalternative are discussed in Section 4.5.4.

* Lafayette Consolidated Government Public Works Facility

** Other Service includes such businesses as beauty shops, barbers, clothes cleaners, auto repair shops, other repair shops, locksmiths, pest control, dance school, and print shop, etc.

Source: I-49 Connector Study Team, 1998. Updated 2002.

The RR-5 Elevated alternative, using Subalternative C would displace 54 businesses of which 46 employ fewer than 25 persons. Six businesses employ between 25 and 75 persons, while two businesses employ more than 75 persons (included here is the Lafayette Consolidated Government's Public Works Facility which employees 305 persons). It is estimated that 964 employees would be displaced. Subalternative D would displace 7 additional business that employ under 25 persons and 43 additional employees

The two RR-3 alternatives and the RR-5 Elevated alternative would displace a public facility (the Lafayette Consolidated Government's Public Works Facility). However, based on the nature of this complex, this facility necessarily would be re-established at a new location (through functional replacement or acquisition and relocation assistance), and these employees would have the opportunity to continue their jobs at a new location as a result of this project, according to City/Parish officials.

Churches

Two churches could be displaced as a result of the proposed freeway (refer to Exhibit 4-1). All six of the alternatives would require the taking of Christ the King Roman Catholic Church located at 510 Northwest Evangeline Thruway. Another Roman Catholic Church, St. Patrick's Church, located at 406 East Pinhook Road would be displaced by RR-5 Elevated. In addition to St. Patrick's Church, a church community center located across the street would also be displaced. Each church is wood frame and comprises approximately 1,000 square feet.

Summary of Displacements

The project alternatives vary greatly in the total number of estimated displacements required by each. Table 4-4 presents a summary by each of the alternatives of the total number of structures that would be displaced. As shown in the table, the RR-4 Elevated alternative, using Subalternative E, would require the displacement of the fewest number of structures (164) while the RR-5 Elevated alternative would require the most (279).

The total estimated right-of-way and displacement costs are presented for each alternative in Table 4-5. The estimated right-of-way and displacement costs include acquisition and displacement of all residences, businesses, and non-profit organizations, as well as vacant land required for construction of the project. Total land acquisition requirements (in addition to existing right-of-way) amount to approximately 55-60 acres for the EA-1 Elevated alternative. This is relative to which Subalternative is being considered, with 55 acres being the minimum and 60 acres being the maximum excluding Subalternatives D and F. The EA-1 Selected Overpasses alternative requires 58-62 acres of land acquisition, the RR-3 Elevated alternative requires 128-134 acres, the RR-3 Selected Overpasses alternatives requires 131-136 acres, the RR-4 Elevated alternative requires 107-111 acres, and the RR-5 Elevated alternative

Table 4-4

SUMMARY OF ALL DISPLACEMENTS
BY PROPOSED ALTERNATIVE

	EA-1 Elev.	Extra w/ Sub.D	EA-1 Sel. Over.	RR-3 Elev.	RR-3 Sel. Over.	Extra w/ Sub.F	RR-4 Elev.	RR-5 Elev.
Residential Structures	154 (402)	9(24)	156 (407)	143 (376)	143 (376)	10(27)	109 (285)	207 (544)
Business Structures	49 (436)	7(43)	54 (461)	*67 (1111)	*70 (1173)	9(103)	54 (469)	*54 (964)
Churches	1		1	1	1		1	2
Total Structures	204	16	211	211	214	19	164	263

Note: Numbers in parenthesis represent residents or employees displaced. Displacements for the alternatives are the number of units taken without using Subalternatives D and F. Displacements under "Extra with Subalternative D" are the number of extra units added to EA-1 and RR-5 Elevated when using Subalternative D. Displacements under "Extra with Subalternative F" are the number of extra units added to RR-3 and RR-4 Elevated when using Subalternative F.

Refer to Section 4.5.4 for a discussion on the MPO Subalternative displacements.

* Includes the Lafayette Consolidated Government Public Works Facility.

Source: I-49 Connector Study Team, 1998. Updated 2002.

requires 92-95 acres. Subalternative D and Subalternative F would require approximately 8 and 10 acres respectively of additional right-of-way when used with their respective alternatives.

Refer to Section 4.5.4 for a discussion of displacements associated with MPO Subalternative.

Availability of Replacement Housing

A search of the local real estate market within Lafayette Parish revealed that the number of replacement units for sale to displaced owner-occupants was sufficient for the majority of owner-occupant relocation needs. As of October 1998, there were 34 residences listed in Lafayette Parish in the price range from $10,000 to $50,000. This number would not be adequate for replacement housing for any of the alternatives. The search also revealed that 79 residences were listed available in the price range of $10,000 to $75,000. There were 142 residences in the expanded price range of $10,000 to $100,000. This price range is slightly above the price range of the units that would be displaced. However, each owner occupant may be eligible to receive up to $22,500 as a purchase supplement. In large part, these purchase supplements could make up the difference in price ranges between replacement units and displaced units for the majority of the required replacement housing units.

As presented in Table 4-2, owner-occupied residential unit displacements would range from 59 to 126. The previous discussions indicate that currently there would not be sufficient

Table 4-5

DISPLACEMENT COSTS OF PROPOSED ALTERNATIVES
($ Millions)

	EA-1 Elev.	Extra w/ Sub.D	EA-1 Sel. Over.	RR-3 Elev.	RR-3 Sel. Over.	RR-4 Elev.	Extra w/ Sub.F	RR-5 Elev.
RESIDENTIAL								
Land	$ 1.6	$0.1	$ 1.7	$ 1.7	$ 1.7	$ 1.1	$0.1	$ 2.3
Improvements	5.2	0.4	5.3	5.2	5.2	4.3	0.4	6.8
Purchase Supplements	1.8	0.2	1.8	1.6	1.6	1.3	0.2	2.4
Rental Supplements	0.5	0.1	0.5	0.4	0.4	0.3	0.1	0.6
Moving/Relocation Allowance	0.2		0.2	0.2	0.2	0.2		0.3
Last Resort Housing	1.1	0.1	1.2	1.0	1.0	0.8	0.1	2.1
Subtotal	$10.4	$0.9	$10.7	$10.1	$10.1	$8.0	$0.9	$14.5
BUSINESS								
Land	$ 3.4	$0.4	$ 3.5	$ 8.8	$ 9.0	$ 4.3	$0.6	$ 6.9
Improvements	10.2	0.9	10.6	24.8	25.5	12.9	1.3	19.5
Relocation Assistance	1.0	0.2	1.1	1.3	1.4	1.1	0.2	1.1
Subtotal	$14.6	$1.5	$15.2	$34.9	$35.9	$18.3	$2.1	$27.5
CHURCHES								
Land, Improvements, Relocation	$ 0.2		$ 0.2	$ 0.2	$ 0.2	$ 0.2		$ 0.5
VACANT LAND	$3.8	$0.2	$3.8	$5.9	$5.9	$4.9	$0.2	$4.8
Total Cost (1999)	$29.0	$2.6	$29.9	$51.1	$52.1	$31.4	$3.2	$47.3
Adjusted Cost (2002)	$31.9	$2.9	$32.9	$56.2	$57.3	$34.5	$3.5	$52.0

Note: Costs shown include displacements from Subalternatives B, D, and J. These costs represent the highest estimatedcosts when compared to other alternatives.

Source: I-49 Connector Study Team, 1998 (Adjusted 2002)

housing in the Lafayette Parish area for sale (79 units) to meet the demand for replacement housing for most of the alternatives. The most notable would be the RR-5 Elevated alternative, which would displace approximately 120-126 owner-occupied units.

A search of the local rental market within the City of Lafayette revealed that replacement rental units for displaced tenants was insufficient for tenant's displacement needs. There were 20 two-bedroom dwellings and 22 three-bedroom dwellings listed available in Lafayette Parish at the time of the search. An interview with the director of the Lafayette Housing Authority was conducted, and he indicated that no housing is available within the Federal Housing Sector at this time.

Table 4-2 indicates tenant-occupied residential unit displacements would range from 50 to 90. The number of displaced rental units would exceed the current market supply of rental housing.

Mitigation of Housing Shortages

In compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987, displacees as a result of the I-49 Connector project would be entitled to relocation housing which is comparable to their housing prior to displacement. Should the local market be deficient in the availability of either comparable owner-occupant or rental property for project-related displacees at the time of project implementation, then Last Resort housing would be required as a part of the project. This would involve new housing construction or purchase/ rehabilitation of existing structures in the project area to ensure adequate, comparable, housing for displacees. Detailed studies and a Last Resort Housing Plan have been developed for the EIS now that an alternative has been selected for implementation. The Last Resort Plan reviews programs such as HUD Section 8 allocations, FDIC/HUD/RTC repossession acquisition, homestead programs, or other programs identified to suit the needs of the displacees.

Availability of Replacement Space for Business Displacements

Businesses to be displaced can be divided into two categories: (1) businesses to which an exact location is not important and which could be relocated anywhere in the area; and (2) businesses which depend on a localized clientele, which must be relocated in the same neighborhood as their original sites.

It is doubtful that all displaced businesses would desire to remain in operation. Businesses that are small and have few employees would probably be less likely to relocate and continue business. Gasoline service stations would desire to relocate to a similar location on the Thruway, if space is available, or another high volume thoroughfare in Lafayette. Neighborhood-related businesses may have difficulty relocating because they depend on a location in the same neighborhood. They may also experience difficulty due to a reduced demand for their products as a result of the displacement of residential units.

Commercial and industrial establishments that depend upon rail spurs necessarily will be restricted to relocation sites that have access to the railroad.

There would be between 49 - 56 businesses displaced by the EA-1 Elevated alternative depending on the Subalternative used (Subalternative D would displace seven more businesses than would Subalternative C). The EA-1 Selected Overpasses alternative would displace five additional businesses when compared with Subalternative C for a total of 54 displacements. Statistical data for the existing occupancy rates of commercial and industrial space in Lafayette indicates that relocation space is available, with the possible exception of eight gasoline service stations that are in and around the one-block area between the northbound and southbound Thruway.

The RR-3 Elevated alternative would result in 67 – 76 business displacements depending on which Subalternatives are used, while the RR-3 Selected Overpasses alternative would displace 70 businesses. Statistical data for existing occupancy rates of commercial and industrial spaces in Lafayette indicate space is available for these businesses with the possible exception of seven industrial or heavy commercial sites and two gasoline service stations. The seven industrial or heavy commercial sites are located along the Union Pacific Railroad main tracks and utilize spur tracks within their operation. They include a beer distributor; three feed and seed distributors (one presently closed); a lumber wholesaler (presently closed); a transportation facility; a major food distribution center; and a tannery. Subalternative F would displace an additional gasoline and oil distributor, and a plumbing, and air conditioning distributor. Vacant, undeveloped land for possible relocation sites exists along the Union Pacific Railroad mainline between the project area and the Town of Broussard (approximately eight miles to the southeast) and the area between the Towns of Scott and Duson (approximately eight miles west). There is a possibility that these businesses could re-establish outside of the limits of the City of Lafayette.

RR-4 Elevated would have 54 - 63 business displacements, with Lafayette apparently having replacement space available for all with the possible exception of four industrial/heavy commercial sites and four gasoline service stations. The four industrial or heavy commercial sites are located along the Union Pacific Railroad main tracks. Two of these sites are a feed and seed distributor (presently closed) and a major food distribution center. The other two sites are a transportation facility and a lumber wholesaler (presently closed). Subalternative F would displace an additional gasoline and oil distributor, and a plumbing and air conditioning distributor. Again, available space for relocation would be between the existing study area and the Town of Broussard (approximately eight miles to the southeast) and the area between the Towns of Scott and Duson (approximately eight miles west).

The RR-5 Elevated alternative would result in the displacement of 54 - 61 businesses. Generally, there is adequate space available in the area for the

businesses to relocate. One industrial site would be removed and six gasoline service stations would be affected.

Relocation Assistance

Guidelines for the Relocation Assistance Program furnished by the State of Louisiana through the Department of Transportation and Development are in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. This act requires that no federal-aid projects be approved unless safe, sanitary and decent housing are available within a reasonable period of time before persons are displaced; that such housing is within the financial means of those displaced; and that it is reasonably convenient to public services and centers of employment. The requirement to pay relocation assistance to displaced parties is applicable to the Federal-Aid Highway Program.

The purpose of the Relocation Assistance Program is to provide an orderly, timely and efficient relocation of persons and businesses and to supply information on services and payments that are available. The assistance includes relocation services and payments for eligible costs incidental to relocation. Payments are in addition to the payments for land, damages, and improvements. These payments and services are to be provided without regard to race, color, religion, sex or national origin.

It is the policy of the Louisiana Department of Transportation and Development (LaDOTD) that, to the greatest extent possible, no person lawfully occupying real property shall be required to move from their home, farm, business, or non-profit organization location without a minimum 90 day written notice. Replacement housing that is safe, sanitary and decent shall be made available within the general area of the project, within a reasonable time prior to the scheduled move.

The State of Louisiana, through the LaDOTD, acquires right-of-way by three procedures: (1) donation, (2) purchase, and (3) expropriation. The need for right-of-way is established by the design of the project. After the design has been approved, right-of-way plans are prepared showing the name of each property owner (residential, commercial, public and non-profit) whose property is affected by the proposed construction of the project and the area required from each owner.

The Real Estate Section of the LaDOTD includes an appraisal unit staffed by real estate appraisers. Each parcel of the required right-of-way is appraised by one or more staff appraisers or by independent professional appraisers. Owners of property to be acquired are notified of the LaDOTD's intent to acquire and are given the opportunity to accompany the appraisers on the site visit. The appraisers will not negotiate or discuss values with the property owner and, in fact, are specifically prohibited from doing so. For property estimated to have a value at $2500 or less, the Real Estate Section has initiated a procedure where by the property is not necessarily appraised (another procedure, known as Non-Appraisal Value Estimate, is prepared). Using the appraisal (or appraisals) as a guide, the

REPLACEMENT HOUSING PAYMENT LIMITS

180-DAY OWNER/OCCUPANT

Purchase Supplement

Non-Last Resort	Last Resort
$22,500	*Amount Necessary*

Rent Supplement

Non-Last Resort	Last Resort
$5,250	*Up to Purchase Supplement Offer*

Down Payment
Not eligible

90-DAY OWNER/OCCUPANT

Rent Supplement

Non-Last Resort	Last Resort
$5,250	*Amount Necessary*

Down Payment

Non-Last Resort	Last Resort
Lower of $5,250, rent supplement, or what displacee would have received if a 180-Day Owner.	*Lower of rent supplement offer or what displacee would have received as a 180-Day Owner.*

90-DAY TENANT

Rent Supplement

Non-Last Resort	Last Resort
$5,250	*Amount Necessary*

Down Payment

Non-Last Resort	Last Resort
$5,250	*Up to rent supplement offer*

SHORT TERM OCCUPANTS
SUBSEQUENT OCCUPANTS (DISPLACED)

Rent Supplement (Always Last Resort)
Must meet financial means. Maximum entitlement is 42 x the difference between the monthly rent and utilities at a comparable dwelling and 30% of the displacee's average monthly household income.

Down Payment (Always Last Resort)
Up to Rent Supplement Offer

LaDOTD sets the amount of just compensation due the property owner. The LaDOTD's real estate agent arranges to meet with the property owner, presents a draft of the Act of Sale and explains in detail the LaDOTD's offer to purchase. There are also relocation assistance benefits to which certain property owners may be entitled. The LaDOTD's real estate agent will evaluate the displacee's need, if any, for relocation assistance.

For the I-49 Connector project, a relocation assistance office would be established in the study area to assist displacees. The assistance would consist of locating safe, sanitary and decent replacement housing for residential displacees which is within the financial means of the displaced individual or family. Assistance would also include help in securing loans, public housing accommodations, moving bids, etc. Assistance would also be given to businesses, farming operations and non-profit organizations in finding and relocating into replacement quarters.

The two types of payments for which displacees may be eligible are (1) moving costs, and (2) replacement housing. Housing costs may also include incidental payments in buying replacement property and increased interest costs. The relocation assistance for which residents may be eligible is described in the table on Replacement Housing Payments Limits (p. 4-30).

The relocation assistance to businesses provides for:

- Relocation advisory assistance;
- Payment for actual reasonable expenses in moving the business;
- Payment for actual reasonable expenses in searching for a replacement business, not to exceed $1,000;
- Payment for actual expenses incurred in relocating and re-establishing the business, not to exceed $10,000;
- Payment for actual direct losses of tangible personal property in moving or discontinuing business; and
- In lieu of the moving cost payments listed above, an owner with a discontinued or displaced business may be eligible for a payment equal to its average annual net earnings, to be not less than $1,000 or more than $20,000, if it can be shown that the business cannot be displaced without a substantial loss of its existing patronage.

4.2.2.d Corridor Preservation and Management Action Plan

Need For Corridor Preservation

A selected alternative for the I-49 Connector will be established in the Record Of Decision at the conclusion of the Final EIS. However, federal funding is not currently established for design and construction of the project. Therefore, the Lafayette Consolidated Government MPO, at the request of the FHWA and the LaDOTD, has initiated a Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. This plan will help insure that the corridor area needed for the selected alignment will be available when funding for the project is determined.

The Lafayette City-Parish Council has adopted a resolution in March 2002 "directing the Director of the (Lafayette Consolidated Government) Department of Traffic and Transportation to implement certain policies, procedures and mechanisms for the protection and preservation of the I-49 South Connector corridor and to generally provide therefor."

"The intent of this resolution is to preserve, protect and provide for the necessary advanced acquisition of right-of-way which is needed for the eventual construction of the I-49 Connector and facility improvements to meet the needs of growth projected in the City-Parish of Lafayette, and to coordinate land use and transportation planning."

The Lafayette Consolidated Government will have the responsibility for implementing the Corridor Preservation and Management Action Plan. Under the plan, rights of way along the selected alignment will be acquired over time as funding becomes available. It is the intent of LaDOTD and LCG to acquire property on a voluntary basis as it implements the program.

LCG Corridor Preservation and Management Action Plan History and Development

The Lafayette Metropolitan Planning Organization has considered the need for corridor preservation of planned major thoroughfares for over twenty years. Currently, the Lafayette Consolidated Government is constructing a local major arterial (Camellia Boulevard) through the urban core of the city approximately 3.2 miles in length at a cost of over $40,000,000. Eighty-three residences have been purchased to make way for the improvement. Locally planned, funded and constructed, the Camellia Boulevard project brought attention to the critical need for corridor preservation to protect the integrity of the long-range transportation network.

Similarly, the long planned need for the extension of I-49 through the Lafayette urban center (I-49 Connector) has generated an additional awareness for long range planning and corridor preservation. The policy of waiting on available funding for roadway construction before any work begins ultimately delays a project unnecessarily while at the same time escalating project costs. Private development continues to locate in the needed future right-of-way while highway funding is sought. In the Lafayette area the wait for roadway construction funds in the past has been up to thirty years depending on the revenue source. If an urban area is not experiencing growth, the problem is not pressing. But, Lafayette has demonstrated it has a viable local economy that continues to diversify and expand with a growing urban area.

Based on corridor preservation studies conducted by the MPO (including the LCG Department of Traffic and Transportation in conjunction with the University of Louisiana at Lafayette), the evidence, at least locally, is that modest investments in corridor preservation produce savings for future government budgets (federal, state and local) in ratios exceeding 1,000 to 1. Referencing past reports and recommendations urging corridor preservation in the rapidly growing

Lafayette Urban Area the Lafayette Metropolitan Planning Organization (MPO) advisory committees (Citizen Advisory Committee – CAC, Transportation Technical Committee - TTC and Transportation Policy Committee – TPC) have developed what they consider to be a viable model for corridor preservation throughout the area.

The issues of inverse condemnation, moratoriums on building permits, and concerns over changing environmental laws which may necessitate additional studies and alter selected alignments are mitigated through a long range plan similar to any community master plan or comprehensive plan. Major transportation improvements are generally not "new" projects, but have been approved and supported officially for a very long period of time. A valid corridor preservation program approved and adopted by a metropolitan planning organization and through local community comprehensive plans should be welcomed for guiding transportation planning.

The LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment is a product that has been developed through numerous meetings, intense "charrettes" with Neighborhood Organizations, professionals, and the MPO advisory committees. It is not a moratorium, condemnation, or regulation. It is public information and assistance. It is a community plan. This is a project and program combined for the health, safety and welfare of the neighborhoods and the community as a whole.

The LCG Council passed a resolution July 5, 2000, to develop a Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. A Joint Cooperative Endeavor Agreement (JCEA) containing the LCG Corridor Preservation and Management Action Plan was approved by the Lafayette Consolidated Government in March 2002 based on this resolution. Refer to Appendix G for a copy of the JCEA. The corridor preservation program will be an essential component of the Record of Decision for the I-49 Connector project.

4.2.2.e Last Resort Housing Plan

A last resort housing plan for the project has been included in the Corridor Preservation and Management Action Plan. The displacee's relocation will be handled according to the provisions of last resort housing when a residential displacee cannot be relocated into comparable housing without exceeding the monetary limits of $22,500 for purchase supplements and $5,250 for rent supplements. These provisions are set forth by FHWA and will be implemented by LaDOTD for the proposed project.

4.2.2.f Economic Impacts

Direct economic impacts of highway construction are related to expenditures for construction and maintenance, cost savings to motorists through their use of the new facility, initial loss of tax revenue as a result of land being removed from the tax rolls, and the displacement of businesses.

Construction Costs

The construction of highway improvements injects a direct temporary stimulus into the economy by the provision of construction expenses and labor. This stimulus would not be realized with the no-build alternative.
The preliminary construction cost (excluding acquisitions) of each of the freeway alternatives is as follows:

Alternative	Construction Cost (Millions)
EA-1 Elevated	$197-230
EA-1 Selected Overpasses	$168-192
RR-3 Elevated	$188-284
RR-3 Selected Overpasses	$161-231
RR-4 Elevated	$205-255
RR-5 Elevated	$235-268

Source: I-49 Connector Study Team, 1998 (Adjusted 2002)

Regional Economic Impacts of Build Alternatives

Highway improvements generate changes in the functioning of an economy. To some extent, the welfare and/or income position of some individuals and/or firms would be altered. The effects can be beneficial or adverse. Rarely are economic impacts of a project clearly all beneficial or all harmful in a community. Usually, some people gain, and others incur added costs.

Construction Stimulus

Construction activity itself would have a positive impact on the area's economy. Recent research funded by the Federal Highway Administration (FHWA) indicates that each $1 billion of federal aid highway program spending (1996 dollars) supports approximately 7,900 full-time, on-site construction jobs. In addition to the direct highway construction jobs, the same Federal investment supports approximately 19,700 indirect jobs and 14,500 induced jobs.

Care must be used in interpreting job generation estimates. The FHWA job generation estimates refer to gross job creation, in the sense that these jobs are directly attributable to the project; the general employment from alternative uses of the same funds is not quantified. It is generally not true that in the absence of the highway funding, workers in generated jobs would be unemployed.

The estimated construction cost of the proposed I-49 Connector project ranges from $168 million to $235 million (excluding property acquisition), depending upon the alternative and sub-alternatives chosen for implementation. Applying the FHWA numbers applicable to FHWA Region 6, construction of the proposed project could be expected to generate from 1330 to 1860 full-time onsite highway construction jobs over an estimated five year construction period, or an average of 266 to 372 jobs per year. In addition to these direct jobs, the construction of the proposed I-49 Connector would result in indirect jobs held by workers in industries that supply highway construction manufacturers with material and by off-site construction industry workers. Induced jobs supported throughout the economy when highway construction industry employees spend their wages would also increase. The total job impact could be as high as 1416 to 1980 jobs per year during the five-year construction period.

These numbers vary due to the different subalternatives that apply to the various alternatives. Subalternatives D and F would require more extensive construction than would Subalternatives C and E and would generate more construction jobs.

User Costs

The proposed project would reduce user costs. User costs fall into three categories: vehicle operating cost, vehicle operator's time costs, and accident costs. Vehicles operating on a freeway through Lafayette would be operating at more efficient speeds and under less congested conditions than they would if the freeway were not built and they were operating on the present Evangeline Thruway, an arterial with at-grade signalized intersections. Motorists operating on a freeway would spend less time on the highway, representing further cost-savings. In addition, the modern freeway is the safest form of thoroughfare. Therefore, upgrading the Evangeline Thruway in Lafayette should result in fewer accidents and reduced accident costs.

Accessibility

Improved accessibility is usually the single most important economic benefit arising from highway development. Highways, by altering the relative accessibility of different locations, play a significant role in the location decisions of firms and individuals.

Transportation intensive firms and businesses catering heavily to highway users or dependent on convenient access to major highways seek land near these highways with ready access. Many housing developments are also located to take advantage of the accessibility to jobs, shopping, and other household travel needs. Any such community growth must be considered in the context of the larger regional economy. If the community growth reflects primarily a relocation of economic activity, then the net economic benefits are much less than the immediate benefits to the local area itself.

Property Taxes

The direct impact of property removal from the tax rolls of the City and Parish of Lafayette has been assessed for each of the alternatives. The fair market value of each parcel of property to be displaced was estimated and, based upon these values, the assessments were calculated according to the City and Parish taxing procedures.

When calculating the City of Lafayette's taxes, a 10% assessment is used for all residential land and improvements. For commercial property, a 10% assessment is used for land, while a 15% assessment is used for improvements. A millage of 13.21 is then placed on these assessments to determine taxes paid to the City of Lafayette.

When calculating Lafayette Parish taxes, a 10% assessment is used for all tenant-occupied residential land and improvements. A homestead exemption is in effect for all owner-occupied residential land and improvements in Lafayette Parish. According to this exemption, all owner-occupied residential property valued at less than $75,000 is exempt from Lafayette Parish taxes.

Therefore, the displacement of owner-occupied housing by the I-49 Connector will not remove any residential taxes from the Parish tax rolls. For commercial property, the same procedure used for City taxes is used for Parish taxes. A millage of 84.12 is then placed on these assessments to determine taxes paid to Lafayette Parish. The estimated amount of property taxes that would be removed from the City and Parish of Lafayette tax rolls is shown following:

Direct Property Tax Losses

Alternative	Annual Amount Of Taxes Removed	% Of Total Tax Revenues Removed
EA-1 Elev.	$223,000	0.44%
EA-1 Sel.	$204,000	0.40%
RR-3 Elev.	$327,000	0.64%
RR-3 Sel.	$318,000	0.62%
RR-4 Elev.	$263,000	0.52%
RR-5 Elev.	$279,000	0.55%

As the table shows, in the unlikely event all acquired businesses chose not to re-establish at a new location, the loss to City and Parish property tax income would be less than one percent of current total property tax revenues. Long-term gains or losses in property taxes could result depending on the success of the project in stimulating redevelopment in the corridor.

Sales Taxes

Consultation with the Lafayette Parish School Board indicates that the estimated direct sales tax losses to the City, Parish, and School Board due to removal of businesses would be as follows:

Direct Sales Tax Losses

Alternative	Annual Amount Of Taxes Removed	% Of Total Tax Revenue Removed
EA-1 Elev.	$576,000	0.54%
EA-1 Sel.	$575,000	0.54%
RR-3 Elev.	$772,000	0.72%
RR-3 Sel.	$808,000	0.76%
RR-4 Elev.	$346,000	0.33%
RR-5 Elev.	$703,000	0.66%

The sales tax losses shown would be for the unlikely event that all acquired businesses chose not to re-establish at a new location.

Initially, there is a possibility that sales and thus sales taxes could decline for some businesses in the corridor that are not displaced. In the long-term, the increase in drive-by traffic because of the project may offset any initial losses that could occur due to unfamiliar circulation and access patterns. The increase in traffic could increase sales (and sales tax revenues) for many businesses, especially if the project stimulated redevelopment in the corridor.

Impacts on Existing Highway-Related Businesses in the Corridor

The Evangeline Thruway is the primary north-south traffic route through Lafayette. It is designated U.S. 90/U.S. 167. Since 1963, when newly aligned U.S. 167 north of Lafayette was connected to U.S. 90 south of the city by implementation of a one-way couplet system, the Evangeline Thruway has been a key component of Lafayette's transportation system. Over the years, a wide variety of commercial enterprises have established their operations along

this highly traveled thoroughfare. Replacing the existing arterial with a freeway would remove a large percentage of the through traffic component from the Evangeline Thruway. If the proposed freeway lanes were to be between the present Evangeline Thruway roadways, with the present roadways serving as the frontage roads (Alternatives EA-1 Elevated, EA-1 Selected Overpasses and RR-5 Elevated), the bulk of the traffic would be on the freeway, which would have limited access to the commercial enterprises. Local traffic on the frontage road would have ready access to the area businesses. If the new freeway were to be constructed adjacent to the Union Pacific Railroad, the bulk of the through traffic would travel through the city on the new freeway on new alignment. The existing Evangeline Thruway would be available to local traffic and motorists from outside the area seeking goods and/or services such as food and lodging. The reduced congestion on the existing Evangeline Thruway would make it easier for local residents to patronize the businesses along the present Evangeline Thruway. With appropriate signing, motorists from outside the area (through traffic) could be made aware of the location of the businesses.

Many businesses in the corridor rely on customers who choose where to do business by way of convenient accessibility. Convenient accessibility for drive-by traffic is considered essential by these businesses if they are to remain viable.

Willow Street Area

In the area between Willow Street and I-10, many highway-related businesses are along both frontage roads flanking the Evangeline Thruway, with residential areas set back from the highway. At present, these businesses depend on access that is provided by two crossing roads and two median openings connecting the Thruway to the frontage roads and surrounding areas. The crossing roads providing full access are at Donlon Avenue and Willow Street, while Castille Avenue and Chalmette Drive provide median openings where partial movements are provided from the Thruway to the frontage roads, and vice-versa. The Castille Avenue intersection is scheduled to be geometrically improved and signalized beginning in 2002, which will improve local access and circulation.

In the Willow Street area, all of the proposed alternatives are on the same alignment as the existing Evangeline Thruway. Subalternatives H, I and J would require additional right-of-way, but Subalternative J is the only subalternative in the Willow Street area that requires a business displacement. An interchange located at Willow Street is proposed to be provided with the freeway overpass fully on structure to provide visibility to and from the built-up business and residential communities on each side of the Thruway. This would be expected to result in fewer real and/or perceived divisive impacts of the project when compared to an alternative on built up embankment. The Thruway frontage road connections at Chalmette Drive and Castille Avenue would be closed. Under Subalternatives H, I, and J, Martin Luther King Drive is being considered to connect with Castille Avenue, including at-grade intersection connections to the frontage roads.

Local access and traffic circulation in the area would be provided on the proposed one-way parallel roadways south of Willow Street. South of Willow Street, features of the one-way system such as free-flow turnarounds in advance of signalized intersections (and other features as described in Chapter 2 and shown on Exhibits 2-4 and 2-5) would allow access to businesses at least equal to, and perhaps better than, that provided by the existing roadway system.

North of Willow Street, Subalternative G would continue to utilize the existing two-way frontage roads. In this area, the removal of the two existing median openings coupled with other aspects of Subalternative G could reduce the level of access and thus the viability of businesses in the corridor. The local road network does not provide any streets parallel to the freeway that would be attractive to drivers and could serve to improve traffic circulation patterns. South of I-10, the closest continuous streets are Moss Street (2200' east) and Patterson Street (1600' west).

Subalternatives H, I, and J would allow for 1) the extension of the one-way parallel roadway system to the north side of Willow Street, 2) the free flow circulation and U-turns to and from each side of the freeway, 3) the realignment and connection of Martin Luther King Drive to Castille Avenue, and 4) the reduction of traffic volumes and number of intersections on Willow Street. From these standpoints, Subalternatives H, I, and J would be more functional in minimizing impacts on highway related businesses in the corridor area between Willow Street and I-10. However, as Subalternatives H, I, and J include a longer section of I-49 as a continuously elevated freeway with high visibility in the area north of Willow Street, this could be considered as more imposing and potentially less visually pleasing than Subalternative G.

Refer to Exhibit 4-1 for the general location of the areas each side of the Thruway that have been discussed above.

Impacts on the CBD

Impacts on the central business district are difficult to predict with any degree of assurance. The CBD has shown steady decline ever since decentralization began to occur in Lafayette in the mid-20th Century. Nevertheless, the CBD still has the largest concentration of jobs and investment of buildings in Lafayette. One of the major problems reported in the Downtown Development Authority (DDA) Growth Management Program study is the lack of accessibility. To the extent that improved accessibility to the CBD will foster revitalization, the I-49 Connector can be considered a positive impact and in this regard is compatible with the DDA's growth program. Some urban planners believe that the improved accessibility provided by modern freeways has encouraged the proliferation of suburban commercial development at the expense of CBD areas.

The I-49 Connector would make it easier for motorists to travel from north or south Lafayette Parish to the CBD. Due to the prevalence of low buildings, the Lafayette CBD, also known as Lafayette Centre, is not highly visible from the Evangeline Thruway. The proposed project offers an opportunity to improve the motorists' awareness of its existence.

Through cooperative efforts of state and local agencies, special treatments could be included in the design of highway structures to call attention that the motorist has reached an entrance to Lafayette Centre, a unique area. Such special treatments could be included in the Mudd Avenue, Simcoe Street, Second Street, Third Street, Jefferson Street, and Johnston Street areas.

The proposed project may be more of a barrier, at least psychologically, than the present Evangeline Thruway. An elevated freeway in the present Evangeline Thruway median area could be perceived as creating a second barrier between the CBD and the residential area to the east (this may not be undesirable from the perspective of CBD interests). The other barrier is the Union Pacific Railroad. The project could be implemented successfully if the design of the transportation facility were coordinated with planning by the LCG for the surrounding corridor area. Further, it would be necessary for the LCG to initiate development controls designed to encourage appropriate development and redevelopment in the corridor and surrounding areas which have been stagnant or experienced decline since 1970.

4.2.3 PUBLIC FACILITIES AND SERVICES

Parks

Section 3.2.4 described ten recreational parks and other facilities within the vicinity of the proposed project. Each of the facilities fall under the procedures of Section 4(f) of 49 U.S.C. 303 with many also falling under Section 6(f)(3) of the Land and Water Conservation Fund Act. These facilities are listed following:

- Vermilionville Cultural Center
- Jean Lafitte National Park
- Beaver Park
- Heymann Park
- Lil Woods Playground
- Parc de Lafayette
- Dorsey Playground/Donlon Park
- St. Anthony Playground
- Domingue Park (City Park)
- Girard Park

None of the alternatives of the proposed project would require acquisition of any parkland. A slight noise increase would be expected at Beaver Park for the EA-1 and RR-4 alternatives. A noise reduction could be anticipated for the RR-3 and RR-5 alternatives. In any case, the noise would not appear to substantially alter or impair the purpose of the park (refer to Section 4.2.10 for noise study details). The six feet wide permitted concrete path connecting the west and east sides of Beaver Park under the Evangeline Thruway would not be impacted by the I-49 Connector project. In general, recreation areas in the corridor would be positively impacted due to the improved accessibility, with increased usage possible once the project is complete.

Access to the west side of Beaver Park would need to be redesigned to accommodate the intersection between University Avenue and the I-49 Connector parallel arterials. The existing access roadway would need to be relocated about 125′ to the west, just onto the existing University Avenue structure over the Vermilion River. This would provide the minimum distance of 100′ for

the Control of Access (C of A) between the University Avenue/Frontage Road intersection and the driveway entrance. The displacement of this roadway would allow better accessibility from University Avenue and would not affect the significant features of the park. The existing access roadway would be maintained during the construction of the new access roadway. The Lafayette Recreation and Parks Commission and other Lafayette Consolidated Government agencies have reviewed the proposed relocated access roadway and are in agreement with this proposal. This redesigned park access roadway would allow left turns to be provided into the park from eastbound University Avenue, which is an improvement over the current condition that does not allow this movement. This redesigned park access roadway along with the relationship of the project with Beaver Park and Lil' Woods Playground are shown on Exhibit 4-2.

Beaver Park and other local area attractions will be considered during development of the overall signing plan for the project.

Based on the anticipated impacts to parks due to the project as discussed above, it has been determined that Section 4(f) and 6(f) would not be applicable with regard to parks in the vicinity of the project. Although noise and visual effects will occur at Beaver Park, they do not substantially impact the 4(f) property. Should design details as subsequently developed cause impacts which are not currently apparent, 4(f) and 6(f) applicability would be reviewed by the FHWA and DOTD and statements prepared, if warranted.

Church and Government Facilities

The various alternatives of the I-49 Connector project have the possibility of displacing as many as three churches and government facilities. These potential displacements of public facilities include:

- Christ the King Church - 510 Northwest Evangeline Thruway (displaced under every alternative)
- St. Patrick's Church - 406 East Pinhook Road
- Department of Public Works Building and Facility - 1515 East University Avenue

Table 4-6 depicts possible displacements of these facilities by the various alternatives. A portion of the property that is the site of the Louisiana Department of Motor Vehicles Driver's License Office (near University Avenue) would be acquired for the RR-3 and RR-5 Elevated alternatives (no displacement of the building required).

Fire, Police, Hospitals

On a regional scale, the I-49 Connector would improve access to nearly all public facilities in and around the study area. Police and fire protection could improve due to the decrease in travel time afforded by the freeway. Access to hospitals would improve for areas north and south of Lafayette.

Bus Service

Bus operations may be interrupted to a mild degree during the construction phase of the project. Those areas where the project might conflict with existing bus facilities include bus routes northbound on the Evangeline Thruway north of 12th Street, on Jefferson Street, on Johnston Street/Louisiana Avenue, and on University/Surrey.

Schools

The Lafayette Parish School Board recently updated school service boundaries in Lafayette Parish. Due to the newly designated service boundaries, the school zones of five public elementary schools, three middle schools, and four high schools are crossed by the existing Thruway and would be traversed by any of the proposed alignments. Elementary school districts crossed are Alice Boucher, J.W. Faulk, Vermilion Elementary, Plantation Elementary, and Katherine Drexel Elementary. Middle school districts bisected are N.P. Moss, Paul Breaux, and Broussard. High school districts adjacent to or split by the project are Northside, Comeaux, Lafayette, and Carencro High.

Table 4-6

PUBLIC FACILITY DISPLACEMENTS
BY PROPOSED ALTERNATIVE

	EA-1 Elevated	EA-1 Selected Overpass	RR-3 Elevated	RR-3 Selected Overpass	RR-4 Elevated	RR-5 Elevated
Christ The King Church	•	•	•	•	•	•
St. Patrick's Church						•
Department of Public Works Facility			•	•		•

Source: I-49 Connector Study Team, 1998

The I-49 Connector would not increase walking or driving time because many streets will be maintained across the freeway. Walking and driving distances created by any of the proposed alternatives would be similar to the existing distances caused by the Evangeline Thruway. Most of the through traffic would be directed to the freeway and would decrease traffic

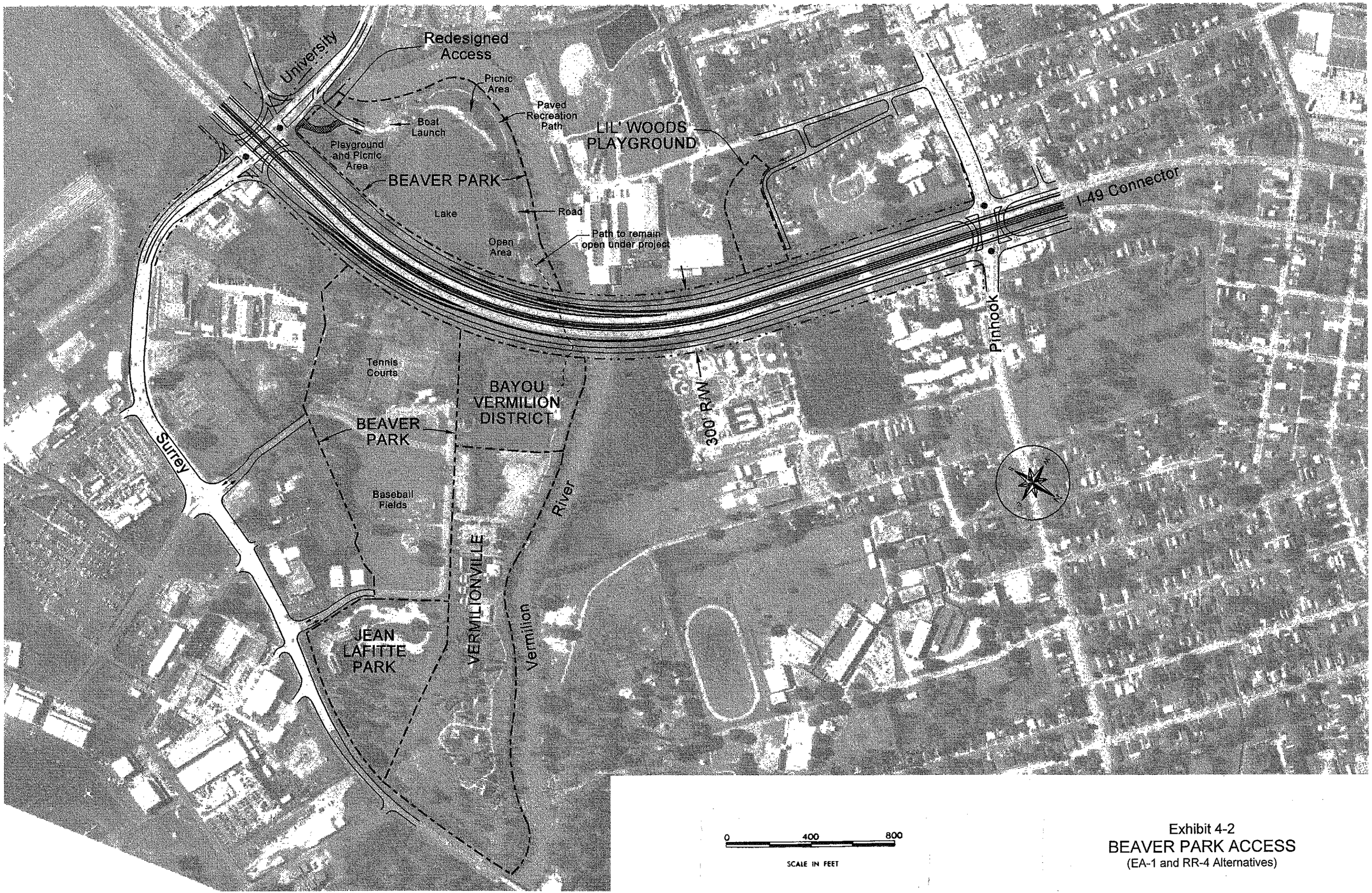


Exhibit 4-2
BEAVER PARK ACCESS
(EA-1 and RR-4 Alternatives)

volumes on the parallel roadways and crossing streets. This environment would be safer for children walking to school as well as all pedestrians. The connection of Martin Luther King Drive to Castille Avenue as proposed under Subalternatives H, I, and J could introduce more traffic on Martin Luther King in front of the Alice Boucher Elementary School, with no appreciable impacts anticipated (as discussed with city traffic officials).

A slight noise increase would be expected at the LeRosen Special Education Center for each of the alternatives (a slight noise increase is also expected for the no build alternative). Noise levels are expected to be reduced at St. Genevieve Elementary School (refer to Sections 4.2.10 and 4.9). Commitments and mitigation measures for the interior noise at these two schools are presented in Section S.6.

4.2.4 CULTURAL RESOURCES

The Sterling Grove Historic District is listed on the National Register of Historic Places. The Charles H. Mouton house, which is within the District, is listed individually. The District fronts on the northbound Thruway between Simcoe Street and Mudd Avenue. None of the District's structures would be displaced.

Due to public concerns regarding St. Genevieve Church and School, steps have been taken in planning the proposed I-49 Connector to minimize impacts of the project. These steps include aligning the freeway as far to the west as possible within the corridor and taking advantage of available right of way to shift the ground level Thruway to the west away from the church and school. For the EA-1 and RR-5 alternatives, approximately 150′ of separation between the freeway and church would be provided. For the RR-3 and RR-4 alternatives, approximately 280′ of separation would be provided. The result of these design features is that noise levels along the edge and within the District will be reduced to below existing levels (refer to Section 4.2.10).

An evaluation found that all alternatives would yield a result of no adverse atmospheric and audible effect for the Sterling Grove Historic District. However, all of the alternatives would have an adverse visual effect on the Historic District. The adverse visual effect on the Sterling Grove Historic District is the only adverse effect on any of the historic properties in the corridor study area.

The Evangeline Hotel, which is individually listed on the NRHP, is located on Jefferson Street in downtown Lafayette. Although within the corridor study area, this property would not be impacted.

Refer to Exhibit 3-12 for the relationship of the Sterling Grove Historic District and the Evangeline Hotel to the proposed alternatives.

The First United Methodist Church, Hope Lodge #145, and Old Guaranty Bank Building are also individually listed on the NRHP. These properties are located outside of the study corridor, as shown on Exhibit 3-12.

In coordination with the State Historic Preservation Officer (SHPO), eight properties in the corridor study area not

currently listed have been determined eligible for inclusion on the NRHP. As shown on Exhibit 3-12, these are:

Wallis Estate
Arceneaux House
Caffery House
Heymann Department Store
N.P. Moss School
Sans Souci
Good Hope Hall
Trappey's Plant Complex

None of these eight structures would be displaced by any of the project alternatives (right-of-way may be required adjacent to the Kaliste Saloom frontage of the Wallis Estate). The Wallis Estate, Heymann Department Store, San Souci, Good Hope Hall and N.P. Moss School are located well away from the proposed construction and will not be adversely impacted by any of the proposed alternatives. The Caffery House and the Arceneaux House, however, are located near the proposed Johnston Street interchange and may possibly be affected by noise or visual impacts. In addition, a portion of the Trappey's property could be required for the both RR-3 alternatives and the RR-5 Elevated alternative based on the limits of the NRHP boundary.

Structures fifty years of age or older that are to be displaced by the proposed alternatives are indicated in Table 4-7 shown below. As noted in the table, one structure recognized by the Lafayette Parish Preservation Committee (LPPC) could be displaced with the RR-3 and RR-4 alternatives. There are no structures listed on the NHRP or eligible for the NRHP that would be displaced by any of the alternatives.

Table 4-7
DISPLACEMENTS OF STRUCTURES FIFTY YEARS OF AGE OR OLDER

ALTERNATIVES	STRUCTURES OF SIGNIFICANCE						TOTAL STRUCTURES DISPLACED
	NRHP Listed	NRHP Listed District Contributing	NRHP Listed District Intrusion	NRHP Eligible	NRHP District Eligible	LPPC Designated	
EA-1 El.	0	0	0	0	0	0	116
EA-1 Sel.	0	0	0	0	0	0	116
RR-3 El.	0	0	0	0	0	1	116
RR-3 Sel.	0	0	0	0	0	1	108
RR-4 El.	0	0	0	0	0	1	90
RR-5 El.	0	0	0	0	0	0	161

NRHP = National Register of Historic Places
LPPC = Lafayette Parish Preservation Committee

Archival research has identified two potential historic archaeological sites (original site of Creighton House and Ile Copale & Civil War Bivouac Area). Ile Copale may lie within Subalternative D of the proposed RR-3 Elevated alignment. However, the original site of the Creighton House would not be impacted by any of the proposed alternatives.

4.2.5 SECTION 106 STATEMENT

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the Council. These regulations, "Protection of Historic Properties" (36 CFR Part 800),were last updated January 11, 2001.

The criteria of effect as found in 36 CFR 800.5(2) states that "adverse effects on historic properties include . . . . (v) introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features."

The Section 106 evaluation associated with the I-49 Connector through Lafayette, Louisiana, focuses on three properties - Sterling Grove Historic District, Trappey's Plant Complex, and Wallis Estate - that lie immediately adjacent to the I-49 Connector.

Each of the alternatives would have no effect on the physical destruction of property, removal of property, alteration of property, or changing the property's setting or usage for any of the historic properties in the I-49 Connector corridor area.

All alternatives would yield a result of no adverse atmospheric and audible effect for the Sterling Grove Historic District. However, all of the alternatives would have an adverse visual effect on the Historic District.

Section 4(f) has been determined to be not applicable because there is no taking or constructive use from the historic district. Archaeological investigations will be conducted over time in conjunction with the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. A Memorandum of Agreement for potential mitigation measures and the archaeological investigations plan has been developed amongst the highway agencies, the Advisory Council, LCG and SHPO and is provided in Appendix F. A letter of confirmation from the SHPO regarding the above is in Appendix C, page 181.

Each alternative would have no atmospheric effect on Trappey's Plant Complex. EA-1 Elevated, EA-1 Selected Overpasses and RR-4 Elevated would not have an audible effect on Trappey's Plant Complex. RR-3 Elevated, RR-3 Selected Overpasses and RR-5 Elevated would have no adverse audible effect on the Trappey's Plant Complex. EA-1 Elevated, EA-1 Selected Overpasses, RR-4 Elevated and RR-5 Elevated would have no adverse visual effect on Trappey's Plant Complex, while RR-3 Elevated and RR-3 Selected Overpasses, with either Subalternatives A or B,

would have no visual effect to the Trappey's Plant Complex.

Each of the alternatives would have no atmospheric effect on the Wallis Estate. In addition, none of the alternatives would have an adverse visual or an adverse audible effect on the property.The Section 106 Adverse Effect Documentation for the I-49 Connector Study Corridor in Lafayette, Louisiana, is on file with the LaDOTD. A copy of the report is also provided in Appendix E. The results of no effect, no adverse effect, and adverse effect on the historic properties in the I-49 Connector corridor are discussed with detail in this Section 106 report.

4.2.6 SECTION 4(f) AND 6(f) STATEMENTS

At this time, it has been concluded that no publicly owned public parks, recreation areas, wildlife refuges, or cultural resources would be impacted by the proposed project such that 4(f) and 6(f) Statements would be required. Should design details as subsequently developed cause impacts which are not currently apparent, 4(f) and 6(f) applicability would be reviewed by the FHWA and DOTD and statements prepared, if warranted.

4.2.7 AESTHETICS AND JOINT USE DEVELOPMENT

4.2.7.a Highway Design and Visual Qualities

Aesthetics is the science or philosophy concerned with the quality of the visual experience. Aesthetic values are determined by the highly variable and often very subjective responses of individuals to physical objects in their surroundings. The development of large public facilities, such as major highway improvements, will have an impact on the aesthetic quality and identity of the surroundings. The impact can be positive or negative, and can alter the values which individuals ascribe to specific objects or areas. Generally, a freeway is an obtrusive element in the urban environment. This is particularly true of a city the size of Lafayette. The typically wide swath of pavement cutting through the city tends to be incompatible with the scale of other development. Elevating the freeway would make it more visually obtrusive.

The urban freeway may generate visual and functional coherence in the lines and forms constituting the urban pattern. In addition, the human sensory response to the highway improvement is related to one's comfort, health, and safety, and is manifest in the feelings of pleasure or stress. The person traveling along a highway perceives the form of the highway as an aesthetic entity, not as a solution to an engineering problem. *(Tunnard and Pushkarev, 1963)* It is thus viewed as a piece of sculpture or architecture, made of concrete, asphalt, and vegetation. The highway is viewed before it is traveled upon, and as a result, should convey its purpose and provide a sense of order and continuity with the other elements that make up the urban environment. There is no question that a project of the magnitude of the proposed I-49 Connector will be perceived by people to have a definite aesthetic and visual effect.

25 to 30 percent of the land in our nation's cities is devoted to transportation

(Klein, etal, 1971). In recognition of the large portion of the urban environment devoted to streets, highways, and parking facilities, the relationship of transportation facilities to the other components of the urban fabric is becoming more recognized as an important consideration.

Aesthetics plays an important role in how land, roadway, and visual appeal can be conceived harmoniously. It is the goal of the project to ensure that all elements of the transportation corridor will work together to offer an experience that is visually cohesive, compatible with the natural and urban scenery, and exhibit the unique historical features of the areas in which it lies. These features of the project could be developed in a way that would aid in the development and redevelopment of the corridor.

There are a number of aesthetic considerations that pertain to urban situations. A major urban highway should relate to the existing urban structure. It should be in proper alignment with the existing street pattern, and if possible, along existing urban barriers. A major highway should be located in a way that it does not create an undesirable barrier. The new highway should avoid areas of unique character and quality. The uniqueness may be the result of historic value, architecture, the landscape, recreational merit, or the location of certain institutions. Mass plantings of vigorously growing, multiple-stemmed shrubs have been used on prior projects to provide visual appeal. Further, an attractive highway development promotes quality landscape design on fronting properties.

The proposed highway improvement would serve as the main entrance to the City of Lafayette and the gateway to Cajun Country. It should be designed to please the eye of both the people travelling the highway and the people who live and work in the region.

For the person travelling the highway, the visual experience involves a sequential awareness of individual objects and views in various groupings. The objects and scenes in the visual field stimulate an aesthetic response through color, texture, and shape, and are perceived to varying degrees depending upon their scale-speed relationship. In contrast, the visual experience of individuals in areas adjacent to the roadway emanates from a static or fixed position. The view seen by these individuals, which relates more directly to considerations of scale than speed, changes much less dramatically.

It is the goal of the LaDOTD, as the designing agency working closely with local agencies, to incorporate this project into the existing setting with a minimum adverse effect on the surroundings. This would be accomplished through both design and construction techniques. Every effort will be made to design a facility that blends into its surroundings, that works with rather than against its surroundings, consistent with proper highway design criteria and other pertinent constraints. Attention to aesthetics has been part of the current evaluation and will continue as part of the design process.

Roadside development, which in an urban situation is a major part of the "view from the road", falls under the jurisdiction of the City of Lafayette. It

will be desirable for the City to develop and implement a corridor ordinance to regulate private land uses and site planning along this and perhaps other entrance corridors if pleasing aesthetics, incorporating both the Connector highway and other urban features, are to be achieved, and to take full advantage of the aesthetics incorporated into the publicly financed elements of the corridor.

Visual Assessment of Alternatives

The existing Evangeline Thruway includes many of the characteristics that have come to epitomize the common commercial corridor, including the following:

- numerous large freestanding and portable signs;
- large expanses of unscreened surface parking in some areas;
- little or no landscaping of public or private property in some areas;
- few or no pedestrian improvements;
- above ground utilities and overhead lights;
- numerous poorly delineated and closely spaced driveway access points; and
- a generally uncoordinated approach to the design, location, and planning of various public and private improvements.

No-Build Alternative

Lafayette can be characterized as a low-rise city on a flat coastal plain. The Evangeline Thruway is an at-grade divided arterial. From the vicinity of Pinhook Road north to the Union Pacific Railroad spur, the two one-way roadways are spaced one block apart, separated by residential and commercial land development. Buildings are generally one or two stories in height. Splitting the alignment has reduced the apparent size of the thoroughfare, reducing the visual obtrusiveness. However, this feature has also spread the impacts of noise and has created a median that is not desirable for residential living and limits commercial development.

EA-1 Elevated (Existing Alignment)

The I-49 freeway would be located between the existing Evangeline Thruway roadways. It would be continuously elevated from University Avenue to a point north of Willow Street. Existing major cross streets and many minor streets would remain open to traffic. The existing Evangeline Thruway roadways would serve as continuous one-way parallel arterials accommodating local trips and providing access to adjacent land development.

An elevated freeway would be a dominant structure through the entire core portion of the project. Such a highway would be visually dominating when considered in context of the flat terrain and one- and two-story building surroundings. The main lanes would be at rooftop level. Although the freeway is also elevated for a major portion of the project to the south and north of the core area, visual dominance should not be as great as these areas are more commercial in nature.

This study provides some insight into the impacts of different types of freeways, although additional study is necessary because the findings are not completely consistent. Urban areas are complex social and economic entities. There are many internal and external forces acting upon one another resulting in change. It is difficult to isolate enough variables to determine cause and effect relationships leading to consistent conclusions. As more situations are studied, the database will yield more consistent answers. Since the proposed I-49 Connector would be similar in basic design to freeways found in Texas — freeway main lanes with abutting frontage roads — the results of the TTI study should be pertinent to the I-49 Connector.

The freeways studied by TTI were located in Dallas, Houston, Lubbock and San Antonio. An attempt was made to have a good mix of study sections representing different types of location, stages of construction, ages of freeway, and land uses for each of the study grade levels. Much of the social and economic information was obtained through responses from personal contact surveys of nearby businesses and residents. A detailed analysis of changes in property values was based on data obtained from government property appraisal offices.

The TTI study is quoted below:

"The findings from prior studies indicate that freeway grade level differences in selected measures of social and economic activity are statistically significant. However, these differences are negative or positive, depending largely on various location factors. The results of this study tend to confirm those findings. The preferred grade level is the elevated type for businesses and the depressed type for residents. Therefore, the dominant abutting and nearby land use should be a major determinant of grade level design. A depressed freeway would decrease the apparent size of the highway and offer the opportunity to visually bridge the facility using creative landscaping. The depressed freeway is typically less visible and thus may be perceived as posing less of a barrier and less of a neighborhood intrusion than an elevated freeway. Depressed sections tend to out perform elevated sections with regard to business sales, tax revenue, and noise mitigation effects. On the other hand, elevated sections out perform depressed sections with regard to overall property value changes (regardless of use), construction employment, neighborhood cohesion, and air pollution effects."

Elevated freeways, particularly those built as bridge structures, tend to have the least adverse impact on community cohesion, leaving the existing street system mostly intact. When an at-grade freeway or depressed freeway is constructed, only major arterial streets cross the freeway.

Businesses in three of the four study areas preferred an elevated freeway. Residents preferred a depressed type of freeway to an elevated freeway, particularly as distance from the freeway decreased. In the Houston and Dallas study areas, the depressed type of freeway was the preferred choice regardless of the distance from the freeway or the current location of the respondents.

Noise is the most mentioned negative effect of a freeway. The TTI studies found that 76 percent of the residents near depressed freeways complained of increased noise. This is compared to 85 percent of the residents near elevated freeway sections making similar complaints and 100 percent of the residents or the residents near at-grade freeways noticing a noise increase. It would appear that visibility of the traffic plays a role in awareness of freeway traffic noise. All of the residents whose responses were tabulated lived within 600′ of the freeway right-of-way. Elevated sections tend to block noise near or under the roadway, but the noise travels further because of the lack of shielding from buildings or foliage.

Land values tend to benefit from the greater visibility of adjacent development afforded the motorists by the at-grade and elevated freeway sections. With regard to land values, the study found that residential areas adjacent to depressed freeway sections exhibited the least appreciation in land value. For commercial land, those parcels adjacent to at-grade freeways showed the greatest increase, followed by properties adjacent to elevated sections. Significant increases in land values within a residential area suggest future redevelopment of the area into either higher density apartment development or commercial development. The combined property and sales tax revenue impact analysis prepared by TTI as part of its study indicated that overall, depressed freeway sections have out performed elevated sections. In most cases, at-grade sections have resulted in the maximum positive appreciation of property and sales tax revenues.

4.2.10 NOISE IMPACTS

The FHWA's Noise Abatement Criteria (NAC) and the Louisiana Department of Transportation and Development (LaDOTD) Highway Traffic Noise Policy, October 1997, were used in the analysis of the acoustic impact of the proposed project. The NAC, which is presented in the Code of Federal Regulations, Title 23 Part 772, revised August 1982, provides procedures whereby the acoustic impact of the proposed action can be assessed and the needs for abatement measures determined. The NAC is supplemented with the LaDOTD's Highway Traffic Noise Policy. (*LaDOTD, 1997*) The LaDOTD Noise Abatement Criteria for various land uses is presented in Table B-1 in Appendix B. The noise level descriptor used is the equivalent sound level, Leq(h), defined as the steady state sound level which, in a stated time period (one hour) contains the same sound energy as the actual time-varying sound.

The LaDOTD Highway Traffic Noise Policy states that a traffic noise impact occurs when the future noise levels equal or exceed the values shown in Table B-1, or the projected future noise level is 10 dBA or more above the existing noise level. When an impact is projected, noise abatement procedures are to be reviewed for feasibility and reasonableness.

Feasibility deals with the engineering considerations that would produce a noise reduction given the specific site conditions. Such considerations include:

- Topography of the area
- Access, drainage, safety, and maintenance requirements
- Other noise sources
- A minimum of an 8 dBA noise reduction for at least one impacted receptor

Reasonableness considerations that may be considered include the following:

- A sensitive receptor, whether or not impacted, must receive a 5 dBA reduction in noise levels to be counted as benefited
- The cost of the noise abatement measure must be equal or less than $15,000 per benefited receptor
- Community feedback from the public involvement process
- Amount of development that occurred before and after the initial construction of the highway
- The age of the development and the longevity of the highway noise impacts
- The effects on the natural environment
- The extent of zoning changes in development toward a less sensitive land use (Activity Category)
- The effectiveness of land use controls implemented by local officials to prevent incompatible development
- The extent to which the predicted future build noise levels exceed the LaDOTD NAC, Table B-1
- The extent to which the predicted future build noise levels exceed existing noise levels
- The extent to which the predicted future build noise levels exceed the future no-build noise levels

4.2.10.a Noise Impact Prediction

The FHWA traffic noise prediction program, STAMINA 2.0/OPTIMA, was used to model future peak hour 2025 traffic noise levels within the study area. (*Bowlby, 1983*) The following parameters were used in this model to calculate the Leq(h) at a specific receiver location:

- Distance between roadway and receiver;
- Relative elevations of roadway and receiver;
- Hourly traffic volume in light-duty (two axles, four tires), medium-duty (two axles, six tires), and heavy-duty (three or more axles) vehicles;
- Vehicle speed;
- Roadway grade;
- Topographic features, including retaining walls and berms;
- Noise source height of the vehicles; light-duty 0.0 m (0.0 ft), medium-duty 0.7 m (2.3 ft), and heavy-duty 2.4 m (8.0 ft).
- Shielding and other factors.

Fifty-eight (58) representative receiver locations, N1 through N44 and FS-1 through FS-14, as shown on Exhibit 4-3, were selected to illustrate the noise impacts at churches, schools, residences and commercial properties adjacent to the six alternatives. The alternatives were divided into typical cross sections based upon proximity to frontage roads and elevation to develop peak hour noise levels along the corridor. The results of

the computer modeling are presented in Table 4-9.

The six alternatives analyzed each would create similar impacts along the existing Evangeline Thruway with future peak hour traffic noise decreasing from existing conditions. The reduction in the Leq(h) noise level is created by the reduction in traffic volumes on the local streets. The RR-3 and RR-4 alternatives, along with the various subalternatives, would create the most significant reduction in noise levels, 4 to 12 decibels. However, even with these reductions, residences along the Evangeline Thruway would experience Leq(h) noise levels of 70 to 77 dBA.

The EA-1 alternatives, along with the subalternatives, would also reduce peak hour noise levels. However, with the I-49 Connector located between the northbound and southbound Evangeline Thruway, the peak hour noise levels would range from 72 to 78 dBA Leq(h).

The RR-3, 4, and 5 alternatives, along with various subalternatives, would create 10 decibel or more increases in the peak hour noise level for the residences from Taft Street south to south of Pinhook Road.

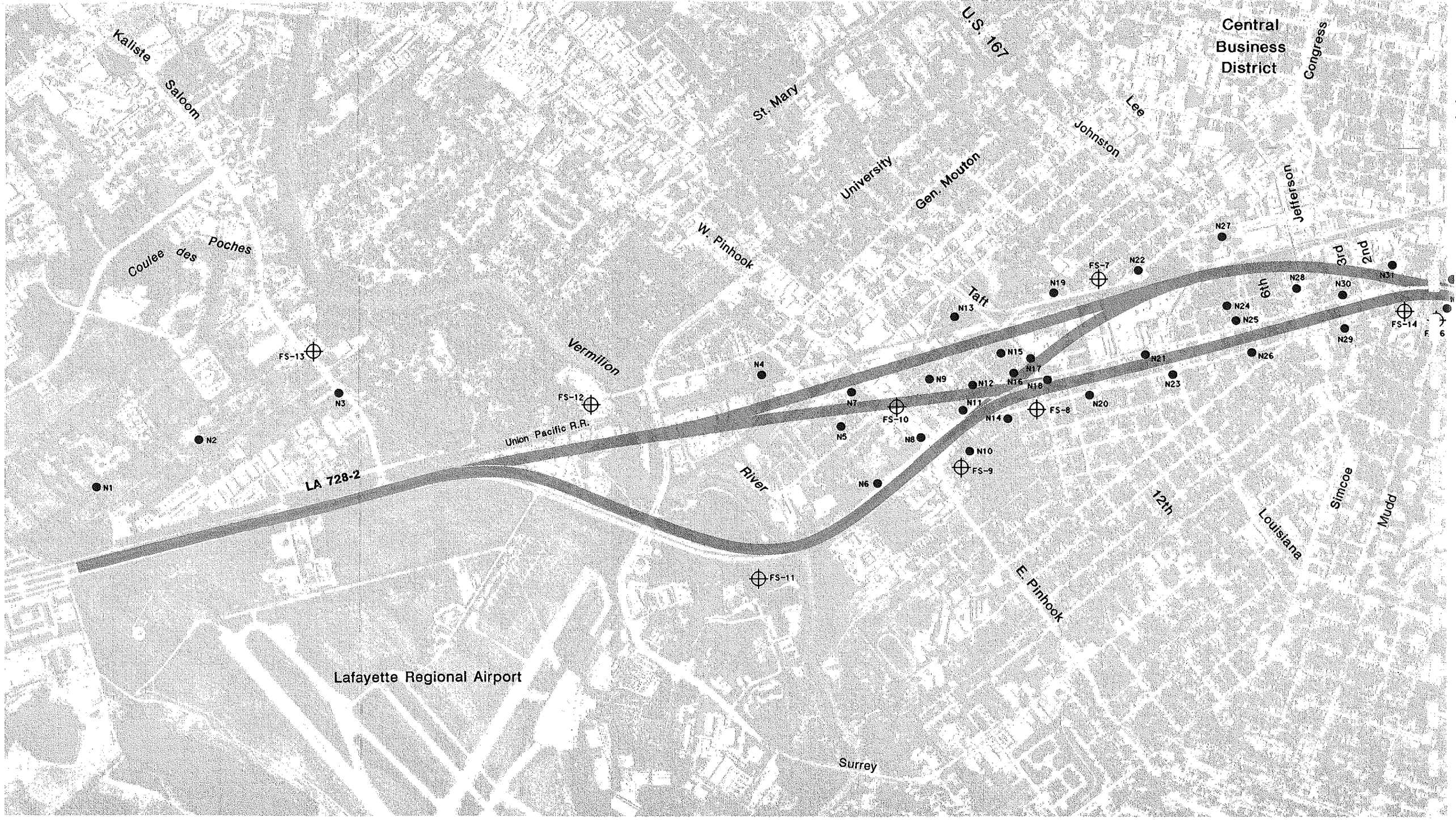
Future traffic noise levels with the no build alternative would increase one to three decibels depending upon the ability of the local road network to experience continued traffic growth in the peak hour time periods.

4.2.10.b Noise Abatement Measures

Various methods were reviewed to mitigate the noise impact of the proposed improvements. Among these were reduction of speed limits, restriction of truck traffic to specific times of the day, a total prohibition of trucks, alteration of horizontal and vertical alignments, property acquisition for construction of noise barriers or berms, acquisition of property to create buffer zones to prevent development that could be adversely impacted, noise insulation of public use or nonprofit institutional structures, the use of berms, and the use of sound barriers.

Reduction of the speed limit, although acoustically beneficial, is seldom practical unless the design speed of the proposed roadway is also reduced. Restriction or prohibition of trucks is adverse to the project purpose. Design criteria and recommended termini for the proposed project prevent substantial horizontal and vertical alignment shifts that would produce noticeable changes in the projected acoustical environment except those that are already projected based upon the six alternatives. Creating a buffer zone would require purchasing additional lands and would remove many acres from the area's tax base and would not be beneficial to the corridor.

From the noise analyses, it has been determined that two schools within the corridor, LeRosen and St. Genevieve elementary schools, required further interior noise studies due to their close proximity to the Selected Alternative. Interior noise projections and evaluations (See Section 4.9) have been done for these two schools, and the findings of this interior noise analysis are presented in Section 4.9. Commitments and mitigation measures for the interior noise at the schools have been recommended as a result of these findings and are discussed in Section S.6.


Central
Business
District
Kaliste
Saloom
Coulee des Poches
St. Mary
U.S. 167
Lee
Johnston
Congress
University
Gen. Mouton
W. Pinhook
Jefferson
Taft
Vermillion
6th
3rd
2nd
Union Pacific R.R.
LA 728-2
River
12th
Louisiana
Simcoe
Mudd
E. Pinhook
Lafayette Regional Airport
Surrey
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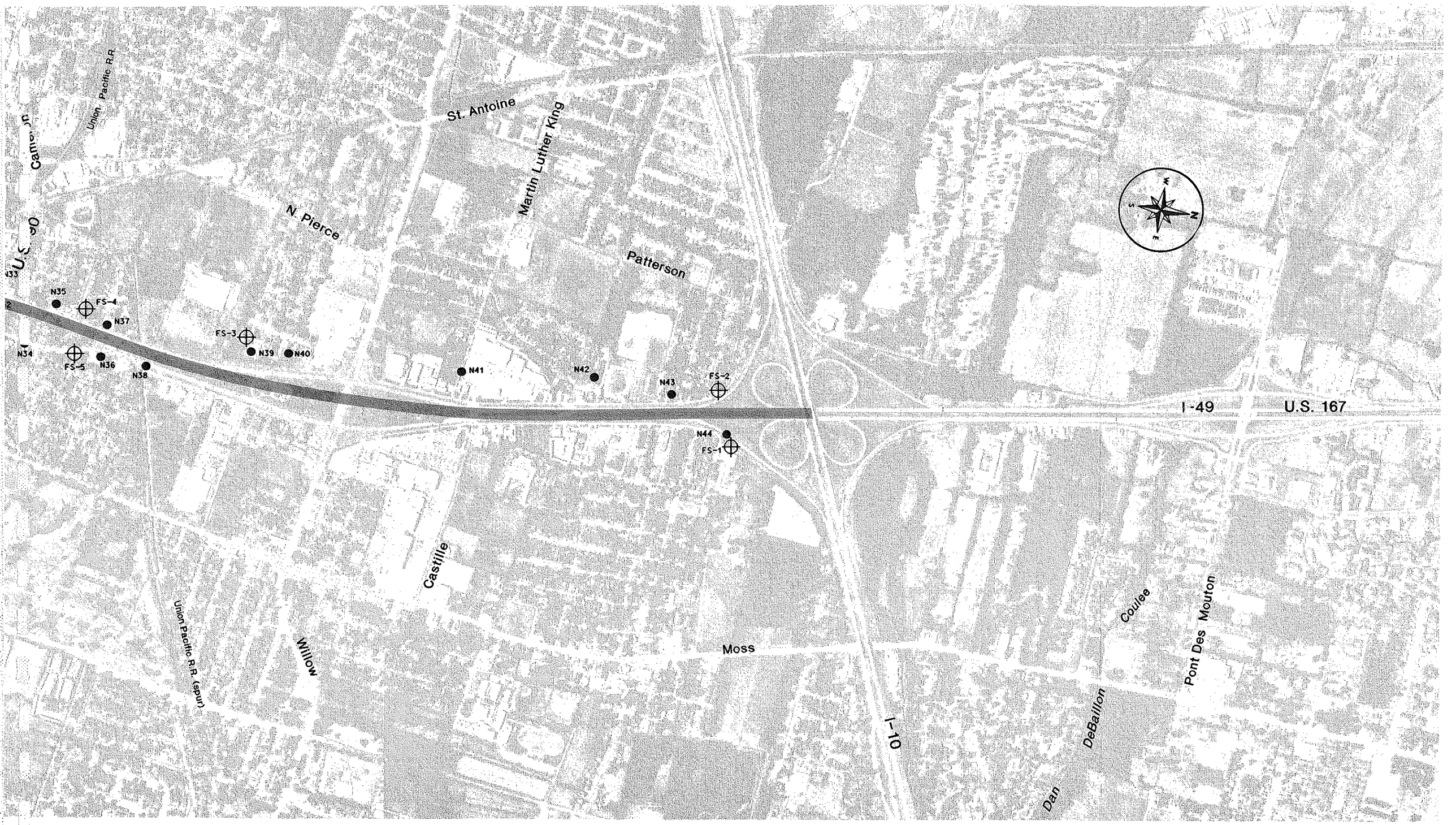


Source: I-49 Connector Study Team

Legend

FS-8 **Field Sites for Noise Measurements**

N10 **Sites of Computer Modeled Noise Levels**

Exhibit 4-3
LOCATIONS OF MEASURED AND COMPUTER MODELED NOISE

Limited right-of-way prohibits the construction of noise berms. Therefore, only the use of noise barriers was analyzed for the specific receptors projected to experience a noise impact according to the LaDOTD's criteria.

In accordance with the LaDOTD's Highway Traffic Noise Policy, October 1997, noise barriers were analyzed for the schools, churches and residential areas abutting the corridor that would experience a noise impact from the proposed project. The barriers were modeled along the mainline and the frontage/local roads using STAMINA 2.0/OPTIMA. None of the areas met all of the LaDOTD's criteria for reasonable and feasible noise mitigation. In addition noise barriers along the mainline could not provide a minimum 8 dB noise reduction for the EA-1 and RR-5 Alternatives in the Lafayette core area. These noise barriers, which would be located directly adjacent to the edge of shoulder, were considered based on a height in accordance with LaDOTD policy for noise barriers along hurricane evacuation routes. This policy indicates limiting the height of the barriers or not providing them when the possible failure of such barrier may block the ingress or egress of citizens and emergency vehicles fleeing or returning to hurricane-threatened areas. The barrier height that was modeled, 10 feet, was set so that a failure would not encroach beyond the freeway shoulder and into the travel lanes. The minimum 8-decibel reduction can only be achieved with a 19′ tall barrier above the roadway surface of the EA-1 Alternatives.

The residences along Chag Street, between East Pinhook and 16th Street, have backyards that abut the northbound Evangeline Thruway making them ideal candidates for noise mitigation with the EA-1 and RR-4 Alternatives. However, a combination of mainline and frontage road barriers would be required to achieve an 8 decibel reduction for at least one residence. This combination of two barriers causes the cost per benefited receptor to equal $79,533, which exceeds the $15,000 criteria.

Alternatives RR-3, RR-4, RR-5 and their various subalternatives pass through or abut the residential district bounded by Taft Street, the Evangeline Thruway, the Vermilion River and the Union Pacific Railroad right-of-way. Mitigation measures examined in these areas could not achieve the 8-decibel minimum reduction except for one area. Mitigation for the RR-3 Elevated and RR-3 Selected Overpass alternatives with Subalternative B achieved a 5-8 decibel reduction for 49 residences along the northbound I-49 Connector. However, the cost per benefited receptor of $16,384 exceeded the $15,000 criteria.. A minimum 8-decibel insertion loss could not be achieved in this area without raising the barrier to 14′ above the pavement.

The residences along Garfield Street are presently exposed to and will continue to be exposed to peak hour Leq noise levels from Garfield Street that exceed 66 dBA. Therefore, it is not possible to achieve a minimum 8 decibel reduction for at least one of these residences for the RR-3 Alternatives. Any mitigation of RR-4 would be too far east to achieve the 8-decibel reduction for at least one residence along Garfield Street.

The results of the barrier analysis, including barrier location, future Leq(h) noise levels without and with a barrier, barrier length and height, estimated cost, the number of benefited receptors, the noise reduction provided by the barrier and the cost per benefited receptor are presented in Appendix B, Tables B-6 through B-11.

Table 4-9

EXISTING AND FUTURE $L_{EQ}(h)$ NOISE LEVELS, dBA

Receiver ID[1]	Land Use[2]	Existing $L_{eq}(h)$ Noise Level	2025 Future Design Hour $L_{eq}(h)$ Noise Levels Alternatives						
			EA-1 Elevated	EA-1 Overpasses	RR-3 Elevated	RR-3 Overpasses	RR-4 Elevated	RR-5 Elevated	No-Build
N1	Res	56	66	66	66	66	66	66	59
N2	Res	54	64	64	64	64	64	64	57
FS-13	Res	79	82	82	82	82	82	82	81
N3	Com	74	77	77	77	77	77	77	76
FS-12	Res	69	71	71	73	73	71	73	71
FS-11	Park	71	74	74	69	69	75	65	73
N4	Res	58	64	64	71	72	64	70	61
N5	Res	56	69	69	70	70	69	73	59
N6	Res	74	76	76	66	66	76	67	76
N7	Res	58	68	68	74/80[4]	74/80[4]	68	72	61
FS-10	Church	73	77	77	75	75	77	WROW[3]	75
N8	School	73	76	76	74	74	76	75	75
N9	Res	62	70	70	72/77[4]	72/77[4]	70	72	65
FS-9	Res	72	75	75	73	73	75	73	74
N10	Res	75	72	73	66	66	72	68	77
N11	Res	75	73	73	68	68	73	73	77
N12	Res	73	70	70	70	71	71	72	75
N13	Res	65	66	66	69	70	66	66	68
N14	Res	75	72	72	66	66	72	71	77
N15	Res	63	68	68	71/79[4]	71/79[4]	70	69	66
N16	Res	73	71	71	70	71	72	72	75
FS-8	Res	83	74	74	71	71	73	76	85
N17	Res	72	70	70	72	73	72	71	74
N18	Com	75	WROW[3]	WROW[3]	71	71	76	WROW[3]	77
N19	Res	68	69	69	72	72	70	69	70
N20	Com	82	76	76	70	70	74	76	84
FS-7	Res	68	69	69	71	71	71	69	70
N21	Res	80	WROW[3]	WROW[3]	74	72	74	WROW[3]	82
N22	Res	68	69	69	71	71	71	69	70
N23	Res	82	76	76	72	72	72	77	84
N24	Res	70	70	70	71	71	71	70	72
N25	Com	80	77	77	75	75	76	77	82
N26	Res	82	74	74	71	71	71	74	84
N27	Res	65	67	67	70	70	70	67	68
N28	Com	70	70	68	72/72[6]	73	72/72[6]	68	72

Receiver ID[1]	Land Use[2]	Existing $L_{eq}(h)$ Noise Level	2025 Future Design Hour $L_{eq}(h)$ Noise Levels Alternatives						
			EA-1 Elevated	EA-1 Overpasses	RR-3 Elevated	RR-3 Overpasses	RR-4 Elevated	RR-5 Elevated	No-Build
N29	Res	82	74/74[5]	75	72/72[6]	72	72/72[6]	74/74[5]	84
N30	Res	80	78/78[5]	80	77/78[6]	76	77/78[6]	78/78[5]	82
N31	Res	71	72/73[5]	72	73/ WROW[6]	WROW[3]	73/ WROW[6]	72/73[5]	73
FS-14	Church	83	74/75[5]	74	74/75[6]	74	74/75[6]	74/75[5]	85
FS-6	School	81	74/74[5]	74	74/74[6]	74	74/74[6]	74/74[5]	83
N33	Res	79	74/ WROW[5]	74	74/ WROW[6]	73	74/ WROW[6]	74/ WROW[5]	81
N34	Res	81	73/72[5]	73	72/71[6]	73	72/71[6]	73/72[5]	83
N35	Com	80	75/74[5]	75	76/75[6]	76	76/75[6]	75/74[5]	82
FS-5	Res	81	73	73	73	73	73	73	83
FS-4	Res	74	74	74	75	75	75	74	76
N36	Res	78	75	75	75	75	75	75	80
N37	Res	81	77	77	77	78	77	77	83
N38	Com	79	75	75	75	75	75	75	81
FS-3	Res	69	72	72	72	72	72	72	72
N39	Res	72	74	74	74	74	74	74	74
N40	Res	71	74	74	74	74	74	74	74
N41[7]	Res	69	74/73 73/74[7]	74/73 73/74[7]	74/73 73/74[7]	74/73 73/74[7]	74/73 73/74[7]	74/73 73/74[7]	71
N42[7]	Res	70	73/74 73/73[7]	73/74 73/73[7]	73/74 73/73[7]	73/74 73/73[7]	73/74 73/73[7]	73/74 73/73[7]	72
N43[7]	Res	77	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79
FS-2[7]	Res	77	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79/79 79/79[7]	79
N44[7]	Res	74	76/76 76/76[7]	76/76 76/76[7]	76/76 76/76[7]	76/76 76/76[7]	76/76 76/76[7]	76/76 76/76[7]	77
FS-1[7]	School	70	73/73 73/73[7]	73/73 73/73[7]	73/73 73/73[7]	73/73 73/73[7]	73/73 73/73[7]	73/73 73/73[7]	72

1 Receiver locations are shown on Exhibit 4-2.
2 Res — Residential; Com — Commercial
3 WROW — within future right-of-way
4 Sub A/Sub B
5 Sub C/Sub D
6 Sub E/Sub F
7 Sub G/ Sub H/ Sub I/ Sub J

Shaded numbers represent sites that are noise impacted according to LaDOTD criteria.

Source: I-49 Connector Study Team, 1999

4.2.10.c Construction Noise

The major construction elements of this project are expected to be earth removal, hauling, grading, paving, and bridge construction. Construction noise is expected to have temporary impacts upon all of the residences, churches, schools and businesses that are located immediately adjacent to the project corridor. The particular areas of concern are the receptors within 400′ of the project centerline. Table B-3 in Appendix B lists some typical peak operating noise levels at a distance of 50′, grouping construction equipment according to mobility and operating characteristics.

All construction equipment powered by gasoline or diesel fueled internal combustion engines should be properly muffled and all motor panels should be closed in order to minimize the noise impacts to nearby areas. Shielding of stationary noise sources with temporary noise barriers should be considered at all times. Section 107.15 of the Louisiana Standard Specifications for Roads and Bridges and the FHWA Technical Advisory T 6160 2 dated March 13, 1984, should be referenced for further details on the sources and abatement of construction noise.

4.2.10.d Conclusions

The peak hour noise levels presented in Table 4-9 indicate that there is little acoustical difference between the various alternatives. There is one area where the alignments, between Taft Street and the Vermilion River, are several city blocks away from each other, such that noise levels differ by as much as ten decibels. Generally, the noise levels for the alternatives are equal to or within 5 decibels of each other. Noise levels immediately adjacent to the Evangeline Thruway will decrease as through traffic will use the I-49 Connector freeway, thus removing traffic from the local street. Although this reduction will be noticeable, the resulting noise levels will still exceed the LaDOTD's NAC and by definition the residences, schools and churches abutting the Evangeline Thruway would still experience an acoustical impact.

The traffic noise levels immediately adjacent to the elevated alternatives will be slightly lower than those created by an at-grade section in the same location. However, this advantage is lost within a few hundred feet of the elevated sections as receptors are no longer in the acoustical shadow zone created by the structure. A slight drawback to elevated roadways is that the sound propagation path is high above the ground. Therefore, the ground level attenuation provided by buildings and ground cover is significantly decreased. The result is that at greater distances traffic noise from an elevated roadway may be more audible than an at-grade roadway. Overall, there is no significant difference in the acoustical impact from one alternative to another.

Based on the studies completed for this environmental document, none of the noise barriers analyzed meet the LaDOTD's definition of reasonableness and feasibility. If it subsequently develops during final design that conditions have substantially changed,

abatement measures would be re-evaluated. A final decision on the reasonableness and feasibility of noise mitigation will be made upon completion of the project design and the public involvement processes.

4.2.11 WASTE SITES

If areas that are contaminated with hazardous waste would be encountered during the construction of the proposed freeway, the result could be construction delays, costly remedial measures, or contamination of the Chicot Aquifer. The length of construction delays and the cost of remedial measures would be governed by the location and extent of the contamination. A major issue is potential contamination of the Chicot Aquifer from hazardous waste. Hazardous waste sites have been documented to exist in the project corridor. Hazardous material could be allowed to enter the aquifer if documented and/or currently unknown contaminated areas are excavated and the confining clay layer is punctured creating a point of recharge (refer to the discussion of the Chicot Aquifer in Section 4.3.1).

Areas with documented contamination include, the Southern Pacific Transportation Co. tract (the site between Johnston Street and Taft occupied by Union Pacific (formerly Southern Pacific Motor Trucking Co.), Georgia-Pacific Corp., and Conco Food Distributing Co., Inc.), the site of the former K-Mart Automotive Facility, and the Chrome Shop.

Areas that have the potential for contamination include, but may not be limited to, the old solid waste dump site presently occupied by the DPW facility on University Avenue near the Union Pacific Railroad (although prior construction in this area indicates no hazardous waste at the site); the area used for one week of solid waste disposal at the former location of Trappey's Fine Foods, Inc., currently occupied by Allen Canning Co.; the corridor adjacent to the Union Pacific Railroad including the old depot site; the corridor of light industry along the railroad; the median area between the northbound and southbound Evangeline Thruway, which includes the former site of a dry cleaning facility; a second dry cleaning facility located on the eastern side of the southbound Evangeline Thruway, and undetected LUST sites.

There are approximately 23 active and inactive facilities in the project area that are shared by all four alternative alignments. Of the 14 RCRIS facilities located in the common portion of the alignments, four have USTs, two of which are LUST. There is one non-RCRIS, LUST facility, and eight unregistered USTs in the shared portion of the alignments. In addition, one identified contaminated site, the former K-Mart Automotive Facility, is located west of the portion of the alignment shared by all of the alternatives. It is unlikely that this site will impact the project.

It is possible that unregistered USTs will have leaked and contaminated the surrounding area. Permanent closure of USTs in the project right-of-way must follow the procedures set forth in LACXI.905 and LACXI.907 (Louisiana Administrative Code).

The LaDEQ was consulted on November 6, 2001, regarding the contaminated site occupied by Georgia-Pacific Corp., Union Pacific, and Conco Food Distributing Co., Inc. While Georgia-Pacific Corp. has cleaned its portion of the site to an acceptable industrial level, the LaDEQ has not approved Union Pacific's plan to clean up the Union Pacific and Conco portions of the site. The LaDEQ considers that the proposed roadway would constitute an industrial use and would not require a higher level of clean-up than the industrial level remediation contemplated at present. A construction plan that includes measures to prevent the spread of hazardous contamination would have to be developed for review and approved by the LaDEQ.

Congressional passage of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980, commonly referred to as Superfund, includes the National Contingency Plan, a procedural blueprint outlining how contaminated sites would be cleaned up (Hejzlar, 1999). At the state level, the LaDEQ also has several programs in place that address remediation of contaminated sites. Possible responsible parties (PRP) can clean up sites with EPA or LaDEQ oversight or either of the two agencies can initiate cleanup actions without PRP participation (Hejzlar, 1999). This generally occurs because the PRP has abandoned the site and is followed by the filing of lawsuits by the EPA or LaDEQ to recover cleanup costs from the PRP (Hejzlar, 1999). Three defenses against a PRP being liable for cleanup of a site include: (1) Act of God (e.g., earthquake), (2) Act of war (e.g., foreign invasion of U.S.), or (3) Innocent Landowner Defense or Innocent Purchaser Defense (terminology resulting from additional congressional legislation - the Superfund Amendments and Reauthorization Act of 1986 [SARA]) (Hejzlar, 1999). To qualify for the latter, the site must have been purchased after the placement or disposal of the hazardous materials on the property or the purchaser did not know, or had "no reason to know", of the existence of hazardous materials on the property (Hejzlar, 1999). For the purchaser to qualify that he/she had "no reason to know" about the contamination, the purchaser must: (1) undertake "all appropriate inquiry" into the previous ownership and land use of the property and (2) the appropriate inquiry is consistent with "good commercial and customary practice" (Hejzlar, 1999).

The LaDOTD policy on Underground Storage Tanks (UST) and contaminated sites is covered by the Secretary's Policy and Procedure Memorandum (PPM) No. 48. In general the Department's policy regarding contaminated sites is to locate possible sites early in the planning stages of a project so that sound engineering decisions can be made regarding alignments.

Decisions regarding alignments where contamination has been found will be made by the Director of Engineering Design and Contract Management, taking into consideration degree of contamination (hazardous, non-hazardous, etc.), possible alternatives, priority of and need for project, cost of clean-up, consequences and cost of avoidance, and other factors which may arise on a project by project basis.

When contamination is discovered during pre-design or design phases of the project, but the decision is made to acquire the contaminated property for the project construction, the Real Estate Directorate will take the necessary steps to notify the owner of the contaminated property that he/she is responsible for clean-up. Hopefully, by the time the acquisition process commences, the clean-up will be complete and the Department can purchase a clean site.

In those instances where the presence of contamination does not become known until after definite alignment has been chosen or design has been completed, the Real Estate Directorate will adhere to the policy and guidelines as set forth in PPM No. 48.

Impacts of Each Alternative

The **EA-1 Elevated** alternative could impact approximately 53 identified active and inactive facilities. Twenty-nine RCRIS facilities are located in this corridor. Ten of these RCRIS facilities have USTs, of which six are LUST. Twelve USTs comprised of nine LUST facilities are located along EA-1. There are ten facilities in this alignment that have unregistered USTs. The former site of a dry cleaning facility is also located within the EA-1 alignment. Subalternative D impacts one UST facility that also is an LUST. The **EA-1 Selected Overpasses** alternative adds one additional UST facility to the above impacts.

The **RR-3 Elevated** alternative, with Subalternatives A and F, could impact approximately 48 identified active and inactive facilities. Twenty-three RCRIS facilities are located in this alignment. Seven of these RCRIS facilities have USTs of which four are listed as being LUST. Ten USTs, of which four are LUST facilities, are located in the corridor. Eight facilities in the corridor have unregistered USTs. Subalternative F would impact 3 USTs, of which one is an LUST, and 1 RCRIS facility. The **RR-3 Selected Overpasses** alternative adds one additional RCRIS with UST facility and one UST facility to the above impacts. When compared to Subalternative A, Subalternative B adds one additional RCRIS with UST facility and one UST facility to the impacts.

The RR-3 alignment runs adjacent to the Union Pacific Railroad from Jefferson Street south to the end of the study area and traverses the corridor of light industry found along the railroad. This alternative would traverse two known contaminated sites — the Southern Pacific Transportation Co. tract and the site occupied by Union Pacific , Georgia-Pacific Corp., and Conco Food Distributing Co., Inc. The former site will probably require remediation while the latter site will require practices and technologies be utilized that would prevent construction and/or use of the new roadway from exacerbating contamination. The possibility that contamination may not be limited to these two sites, but may be prevalent in the general area and thus would warrant additional evaluation, should be considered.

The RR-3 alignment would also cut through the old solid waste dumpsite located at the current site of the DPW facility on University Avenue. This

abandoned landfill is supposedly composed of non-hazardous residential waste and construction debris and may necessitate excavation and backfill prior to highway construction.

The **RR-4 Elevated** alternative could impact approximately 47 identified active and inactive facilities. Twenty-four RCRIS facilities are located in the corridor. Seven of these RCRIS facilities have USTs, of which four are LUST. Nine USTs comprised of five LUST facilities are located in the corridor. Eight facilities in the corridor have unregistered USTs. Subalternative F would impact 3 USTs, of which one is an LUST, and 1 RCRIS facility.

The RR-4 Elevated alternative would traverse two known contaminated sites: the Southern Pacific Transportation Co. tract and the site occupied by Union Pacific, Georgia-Pacific Corp., and Conco Food Distributing Co., Inc. The former site will probably require remediation while the latter site will require the use of practices and technologies that would prevent construction and/or use of the new roadway from increasing exposure. The possibility that contamination may not be limited to these two sites, but may be prevalent in the general area and thus would warrant additional evaluation, should be considered.

The **RR-5 Elevated** alternative could impact approximately 53 identified active and inactive facilities. Twenty-eight RCRIS facilities are located in the corridor. Nine of these RCRIS facilities have USTs, of which five are LUST. Thirteen registered USTs comprised of eight LUST facilities are located in the corridor. Nine facilities in the corridor have unregistered USTs. Subalternative D impacts one UST that also is an LUST facility.

The RR-5 Elevated alternative would run adjacent to the railroad from University Avenue south to the end of the study area, and would traverse the old solid waste dumpsite in the area of University Avenue. This abandoned landfill is supposedly composed of non-hazardous residential waste and construction debris and highway construction would necessitate excavation of the old fill material and back filling with compacted base material. The former site of a dry cleaning facility is also located in the RR-5 corridor.

Refer to Exhibit 3-13 for the relationship of each alternative to known underground storage tanks and potential waste sites and Table B-4, Appendix B, for a listing of these items.

4.2.12 LAFAYETTE REGIONAL AIRPORT

Purpose And Need For I-49 Connector Project

The following factors have been identified to support the Purpose and Need of the I-49 Connector project:

- System Linkage
- Existing and Projected Traffic Conditions
- Regional Transportation and Land Use Plans
- Legislation and Governmental Support
- Modal Interrelationships
- Safety

- Hurricane Evacuation
- Economic Factors

In addition, U.S. 90 from Lafayette to New Orleans has been identified for inclusion in the LaDOTD's long range transportation plan for an upgrade to a controlled access system, effectively serving as a southeasterly extension of I-49 (which currently terminates at its junction with I-10). Construction to freeway standards has been completed on some sections of the highway and is continuing on other sections. Implementation of the I-49 Connector would provide a critical connecting link through Lafayette from existing I-49 to U.S. 90 south of Lafayette. The Purpose and Need for the I-49 Connector is more completely described in Chapter 1.

Purpose and Need For Extension of Runway 11-29

Two of the four primary alignment alternatives for the I-49 Connector freeway would require the displacement of 350' of Runway 11-29. The runway would be shortened on its northwest end and lengthened on its southeast end. This is shown on Exhibits 3-12 and 4-4. The perimeter road at the southeast end would also be relocated. The purpose and need for this runway action is because an I-49 Connector overpass at the University/Surrey interchange will encroach on the FAR Part 77 approach surface if the runway remains where it is currently located. Two of the four alternatives under consideration would not require the displacement of Runway 11-29.

The I-49 Connector alternatives under consideration that will require the displacement of Runway 11-29 need to include this displacement as a "connected" action in the EIS analysis. These alternatives are EA-1 and RR-4.

The FAA Order 5050.4A, Airport Environmental Handbook, characterizes a displacement of airport property (such as extending Runway 11-29 to accommodate the I-49 Connector) as a "connected action". Section 26 of the Environmental Handbook, defines connected actions as collectively significant actions that are "closely related and therefore should be discussed in the same impact statement. Actions are connected if they: (i) Automatically trigger other actions that may require environmental impact statements. (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously. (iii) Are interdependent parts of a larger action and depend on the larger action for their justification."

Alternatives

There are six "build" alternatives, described below. Each consists of a new freeway with differing alignment and local access provisions. A "no build" alternative is also being considered. The alternatives are described in more detail in Chapter 2.

- EA-1 Elevated — The I-49 Freeway utilizes the existing Evangeline Thruway alignment for its entire length. I-49 is continuously elevated between Willow Street and Pinhook Road. All existing arterial cross streets, collector streets, and many minor streets remain open to traffic. A continuous one-way ground level frontage road system utilizing the

existing Evangeline Thruway roadway is provided to accommodate local trips and land use access. Slip ramps are provided to connect I-49 with the frontage roads. In some areas, control of access lines will be required along the outer edges of the existing ground level Thruway between the slip ramps and the intersecting cross streets. Runway 11-29 at Lafayette Regional Airport would be displaced 350′ on its northwest end and extended 350′ on its southeast end.

- EA-1 Selected Overpasses — The I-49 Freeway utilizes the existing Evangeline Thruway alignment for its entire length. I-49 has an undulating (up and down) profile between Willow Street and Pinhook Road. I-49 will pass over the key crossing streets of Willow Street, Donlon Avenue, U.S. 90, Johnston Street, Pinhook Road, and University Avenue. These key crossing streets, along with Kaliste Saloom Road, will remain open to traffic. Simcoe, 2nd, 3rd, Jefferson, and Taft Streets, as well as all minor streets, are severed and continuous access across the project main line will no longer occur. A continuous one-way ground level frontage road system utilizing the existing Evangeline Thruway roadway is provided to accommodate local trips and land use access. Slip ramps are provided to connect I-49 with the frontage roads. In some areas, control of access lines will be required along the outer edges of the existing ground level Thruway between the slip ramps and the intersecting cross streets. Runway 11-29 at Lafayette Regional Airport would be displaced 350′ on its northwest end and extended 350′ on its southeast end.

- RR-3 Elevated — The I-49 Freeway utilizes the existing Thruway alignment between I-10 and U.S. 90, utilizes a new alignment parallel to the Union Pacific Railroad between U.S. 90 and Kaliste Saloom Road, and returns to the existing Thruway alignment south of Kaliste Saloom Road. I-49 is continuously elevated between Willow Street and University Avenue or at-grade between Johnston Street and Unversity Avenue. All existing arterial cross streets, collector streets, and many minor streets remain open to traffic. A continuous one-way ground level frontage road system with slip ramps is not provided. Instead, more traditional point access diamond type interchanges are provided at Johnston Street and University Avenue.

- RR-3 Selected Overpasses — The I-49 Freeway utilizes the existing Thruway alignment between I-10 and Mudd Avenue, utilizes a new alignment parallel to the Union Pacific Railroad between Mudd Avenue and Kaliste Saloom Road, and returns to the existing Thruway alignment south of Kaliste Saloom Road. I-49 has an undulating (up and down) profile between Willow Street and Pinhook Road.. I-49 will pass over the key crossing streets of Willow Street, Donlon Avenue, U.S. 90, Johnston Street, Pinhook Road, and University Avenue. These key crossing streets, along with Kaliste Saloom Road, will remain open to

through traffic. Simcoe, 2nd, 3rd, Jefferson, and Taft Streets, as well as all minor streets, are severed and continuous access across the project main line will no longer occur. A continuous one-way ground level frontage road system with slip ramps is not provided. Instead, more traditional point access diamond type interchanges are provided at Johnston Street and University Avenue.

- RR-4 Elevated — The I-49 Freeway utilizes the existing Thruway alignment between I-10 and U.S. 90, utilizes a new alignment curving near the Union Pacific Railroad between U.S. 90 and Pinhook Road, and returns to the existing Thruway alignment south of Pinhook Road. I-49 is continuously elevated between Willow Street and Pinhook Road. All existing arterial cross streets and many minor streets remain open to traffic. Several subalternatives have been identified that pertain to the collector streets of Jefferson and Simcoe. These subalternatives include cases where Jefferson and Simcoe would remain open and where these streets would be closed. A continuous one-way ground level frontage road system with slip ramps is not provided. Instead, a more traditional point access diamond type interchange is provided at Johnston Street. Runway 11-29 at Lafayette Regional Airport would be displaced 350′ on its northwest end and extended 350′ on its southeast end.

- RR-5 Elevated — The I-49 Freeway utilizes the existing Thruway alignment between I-10 and Pinhook Road, utilizes a new alignment near the Union Pacific Railroad between Pinhook Road and Kaliste Saloom Road, and returns to the existing Thruway alignment south of Kaliste Saloom Road. I-49 is continuously elevated between Willow Street and Pinhook Road. All existing arterial cross streets, collector streets, and many minor streets remain open to traffic. A continuous one-way ground level frontage road system with slip ramps is not provided. Instead, a more traditional point access diamond type interchange is provided at University Avenue.

Ten "subalternatives" to the above six primary alternatives have been identified as detailed in Chapter 2. None of these has any bearing on the Lafayette Regional Airport.

- No Build Alternative — The existing at grade signalized Evangeline Thruway would remain in its current configuration. There would be no construction required at Lafayette Regional Airport.

Impacts of the proposed I-49 Connector project alternatives on the Lafayette Regional Airport are discussed in the following subsections.

<u>FAA's Role as a Cooperating Agency and Its Federal Actions</u>

The FHWA is the lead federal agency for the I-49 Connector project. The Federal Aviation Administration (FAA) is a cooperating agency that intends to issue a separate Record of Decision (ROD) for modifications at the Lafayette Regional Airport that are required as a part of the I-49 Connector highway project. Therefore, the separate FAA ROD is required prior to the construction of the I-49 Connector. The FAA ROD will address the following actions related to the airport:

The FAA may make a number of decisions pursuant to the FEIS. Generally, the FAA's ROD will address the possible approval of a change to the Airport Layout Plan (ALP), upon request from the airport owner. These changes may include the depiction of actions necessary to accommodate the I-49 Connector project. Other decisions the FAA may make include the relocation of navigational aids, a change to approach

procedures as required, and consideration of possible release of approximately 3.5 acres of Federally-obligated airport property, upon request by the airport property owner.

4.2.12.a Runway/Taxiway Displacement and Related Actions

Build Alternatives

The Lafayette Regional Airport lies adjacent to the existing Evangeline Thruway in the southeast quadrant of the corridor. Two of the alignments, EA-1 and RR-4, would require the displacement of Runway 11-29. This would be needed in order for the I-49 overpass at the University/Surrey Street interchange to remain under the FAR Part 77 approach surface. The surface was calculated by using a slope of 34:1 descending from a point 17′ above the I-49 overpass roadway to a point on the existing runway. The end of the displaced runway would be set 200′ from this point. This requires a 350′ displacement of Runway 11-29. Three hundred and fifty feet of the existing runway would be removed from its northwest end, and the southeast end of the runway would be extended 350′. The existing 200′ overrun area on the southeast end of the runway would be reconstructed at the end of the 350′ extension of the runway.

The runway's taxiway would also be extended on the southeast end of Runway 11-29 and displaced on the northwest end in order to accommodate the runway displacement. Related actions to the runway/taxiway extensions would be a relocated ARFF/perimeter road on the southeastern end, new runway lights, runway end indicator lights, runway alignment indicator lights, and pavement markings. The existing 350' of runway pavement on the northwest end of Runway 11-29 that will be removed from service will not be torn out. Design of the runway/taxiway extensions and related actions would be in accordance with FAA specifications.

Plate 2a in Appendix A shows the relationship of the proposed I-49 Connector and the displaced threshold of Runway 11-29. Exhibit 3-12 presents the layout of the runway extension and its relationship to surrounding wetlands and Bayou Tortue.

Fill would be required to bring the ground elevation up to grade with the existing runway in order to construct the southeast extension for Runway 11-29. Airspacing and obstruction evaluations must be performed before and during construction of the I-49 Connector. Special care must be taken by the contractor to see that the construction cranes do not extend above the glide slope. Only certain roadway lights can be used on the I-49 overpass at University/Surrey Streets. These lights must be pointed down and must be designed so as to not encroach into the glide slope or otherwise affect airport operations.

The estimated cost for extending Runway 11-29 and the taxiway to the southeast would be approximately $3.6 million. This cost would be included in the overall cost of the I-49 Connector project and funded by state and federal highway agencies.

Wetlands exist on the eastern edge of the airport property. The 350′ extension of Runway 11-29, the relocated ARFF/perimeter road, and 200′ overrun area would encroach on an area considered jurisdictional wetlands subject to Section 404 (b) of the Clean Water Act of 1977, based on evidence gathered during field inspection of the aforementioned area (wetland site W-2). Any permits and/or mitigation necessary would be the responsibility of LaDOTD and FHWA if either the EA-1 or RR-4 alignment is chosen. See Section 4.3.3.b for further discussion.

In a separate action, both the I-49 Connector overpass at University Avenue and the I-49 Connector interchange at Kaliste Saloom Road would penetrate a 100:1 slope off any

runway. As a result, a FAA Form 7460-1, Notice of Proposed Construction or Alteration, would have to be filed with the Air Traffic Division, ASW-520, before construction.

No-Build Alternative

The no-build highway alternative and two of the build alternatives (RR-3 and RR-5) would not require displacement of Runway 11-29, and therefore there would be no construction activity at the airport unless initiated under a separate project as a part of the Airport Master Plan.

4.2.12.b Airport Master Plan

The I-49 Connector upgrade is acknowledged in the Final Report Master Plan Update, September 1992, prepared for the Lafayette Regional Airport. The I-49 Connector upgrade would improve access to the airport terminal which is scheduled for improvements. Among the airport improvement plans are a 1,320′ runway and taxiway extension on the southeast end of Runway 11-29 in order to upgrade the runway to full capacity. This 1,320' extension project is not scheduled within the reasonably foreseeable future and not currently being proposed.

According to new Federal Aviation Administration (FAA) guidelines, there must be 1,000′ of cleared space needed as a safety area for the ends of major runways. This provision will be added to the next updated Master Layout Plan. If the Lafayette Airport Commission makes these improvements to Runway 11-29 before implementation of the I-49 Connector, then consideration to the I-49 Connector project should be given in the plans. However, given that the runway extension is not anticipated within the reasonably foreseeable future, it is more likely that the I-49 Connector project would be implemented first.

Build Alternatives

For this document, it is assumed that the I-49 Connector project will proceed before the runway improvements. In this case, 350′ of runway would need to be displaced as noted in Section 4.2.12.a and would be constructed as a part of the I-49 Connector project.

No-Build Alternative

The no-build highway alternative would not require displacement of Runway 11-29, and therefore there would be no construction activity at the airport, unless initiated under a separate project as a part of the Airport Master Plan.

4.2.12.c Right-of-way Requirements

Build Alternatives

For all build alternatives, approximately 3.5 acres of airport right-of-way would be required by the I-49 Connector on the western side of the airport property. This required right-of-way lies along the existing Evangeline Thruway, mainly between Tower Road and the newly constructed Petroleum Helicopter, Inc. (PHI) facility, and would be used to accommodate the system of ramps at the Kaliste Saloom interchange and the northbound frontage road. This acreage could possibly include part of the PHI facility parking lot, but would not affect any of the buildings. The Lafayette Airport Commission currently has plans to lease some of this property in the future for commercial development. Fair market value for this property is not known at this time. Any acquisition costs are the responsibility of the state and federal highway agencies. The approximately 3.5 acres of airport property required by the I-49 Connector project are Federally-obligated property. FAA will consider release of said airport property upon request by the airport owner.

The FAA has conducted modeling of obstacles, primarily large tractor-trailers, on the I-49 Connector frontage road for possible impacts to the Very High Frequency

Omnidirectional Range (VOR) radiated signal. The modeling indicates no impacts to the operation of the VOR; however if upon completion of the I-49 Connector project, an impact on the VOR is identified, LaDOTD/FHWA commits to funding the relocation of the VOR.

The FAA has an active project to replace the Runway 22L localizer antenna array in essentially the same location in the future. The I-49 Connector project will not require any additional right-of-way in the vicinity of the existing or the future relocated localizer antenna array. Therefore, no impact on FAA's plans should occur.

In order to minimize impacts to the Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR), for Runway 04R, that will be in place prior to commencement of design of the I-49 Connector project, the LADOTD/FHWA agrees to coordinate with the FAA on any preliminary design in the area between nodes A and B depicted in Volume I of the EIS, Exhibit S-2.

No Build Alternative

No airport property would be required for the highway no-build alternative.

4.2.12.d Access and Circulation

Build Alternatives

Access to and from the Lafayette Regional Airport Terminal would be improved by the addition of any of the alternatives for the I-49 Connector. The addition of a controlled access highway also decreases the travel time to and from the airport for visitors.

Access to and from the PHI facility would be slightly hindered due to the I-49 Connector Project. Vehicles approaching the PHI facility from the south would be able to exit the I-49 Connector and take the frontage road directly to the PHI facility. Vehicles approaching from the north on I-49 and from the west on Kaliste Saloom would have to travel south about three-quarters of a mile past the facility and make a U-turn to head back northward to the facility. However, it is anticipated the travel time would not increase due to the free flow characteristics of the improved highway facility.

Vehicles leaving the PHI facility would exit via the northbound frontage road and get on the freeway at the University/Surrey Street interchange.

Access to the airport for the Emergency Response Units (ERU) would require alternate measures with the EA-1 and RR-4 alternatives. These vehicles approach the airport from all directions and enter the Lafayette Regional Airport via Tower Road. These vehicles would access Tower Road using the same route needed to enter the PHI facility that is mentioned above.

The I-49 Connector project would not hinder the accessibility to airport property for the Aircraft Rescue and Fire Fighting (ARFF) units which are located in a building next to the control tower. The ARFF units would still have access to airport property via perimeter and interior roadways within the airport property. Accidents outside the airport property can be accessed the same way as they always have except for outside the southwestern portion of the airport property. This area would have to be accessed by the I-49 Connector northbound frontage road. Direct access from Tower Road onto the southbound frontage road would be allowed for RR-5 Elevated, RR-3 Elevated and RR-3 Selected Overpasses. Access from Tower Road to the southbound frontage road for the EA-1 and RR-4 alternatives would be a little less direct. ARFF vehicles would turn from Tower Road onto the northbound frontage road and U-turn at University Street to head south. The response time to accidents outside the airport property would not be hindered because of the ability to use the free-

flowing roadways provided by the I-49 Connector project.

No-Build Alternative

Access and circulation for terminal, commercial, and emergency response operations would continue as they occur today. Freeway service from I-10 to the airport area would not be provided.

4.2.12.e Noise

Build Alternatives

Day-Night Average Sound Level (DNL) is the standard Federal noise metric used to quantify aircraft noise exposure. DNL is energy-average cumulative noise exposure over a 24-hour day, with a 10 Db (decibel) penalty applied to all operations during nighttime hours (10:00 p.m. to 7:00 a.m.). 65 DNL is the FAA's threshold of significance for noise impacts.

For the EA-1 and RR-4 alternatives, noise levels around the airport would not be adversely affected due to the displacement of Runway 11-29 to the southeast. Noise contour maps would only change slightly due to this displacement. See Exhibit 4-4 for the before and after modeled noise contours for the Lafayette Regional Airport. Noise sensitive land uses located northwest of the airport, should experience a lessening of single event noise intrusions because aircraft will be at a higher altitude as they approach and depart Runway 11-29 under the proposed action, than under existing conditions. Relative to the location of existing flight tracks, they will not experience lateral change.

Highway noise assessments are given in Section 4.2.10.

No-Build Alternative

Runway noise contours would not be affected by the no-build alternative.

4.2.12.f Air Quality

Build Alternatives

Chapter Five, paragraph 47.e.(5) of FAA Order 5050.4A, contains guidelines for air quality assessment procedures. The 1997 Federal Aviation Administration (FAA)/United States Air Force (USAF) Air Quality Procedures for Civilian Airports and Air Force Bases manual provides detailed methodology and guidelines for assessing air quality impacts at airports. The first step in an air quality analysis is to calculate project emissions for each of the criteria pollutants and to determine if the proposed action will exceed "de minimis" levels established in the 1990 Amendments to the Clear Air Act (CAA). If "de minimis" levels are not exceeded, additional air quality impact analysis is not necessary.

The CAA requires that the EPA set national health-based air quality standards to protect against common pollutants including O_3 (smog), CO, SO_2, NO_2, lead (Pb), and particulate soot.

State governments must devise cleanup plans to meet the heath standards by a specific date. Congress passed the core provisions of the CAA in 1970. The law was amended in 1977 and again in 1990 to extend deadlines but also to specify new strategies for attaining NAAQS.

In 1995, Lafayette Parish was re-designated by the EPA from ozone nonattainment to ozone attainment with limited maintenance plan requirement (40 CFR Parts 52 and 81, August 18, 1995).

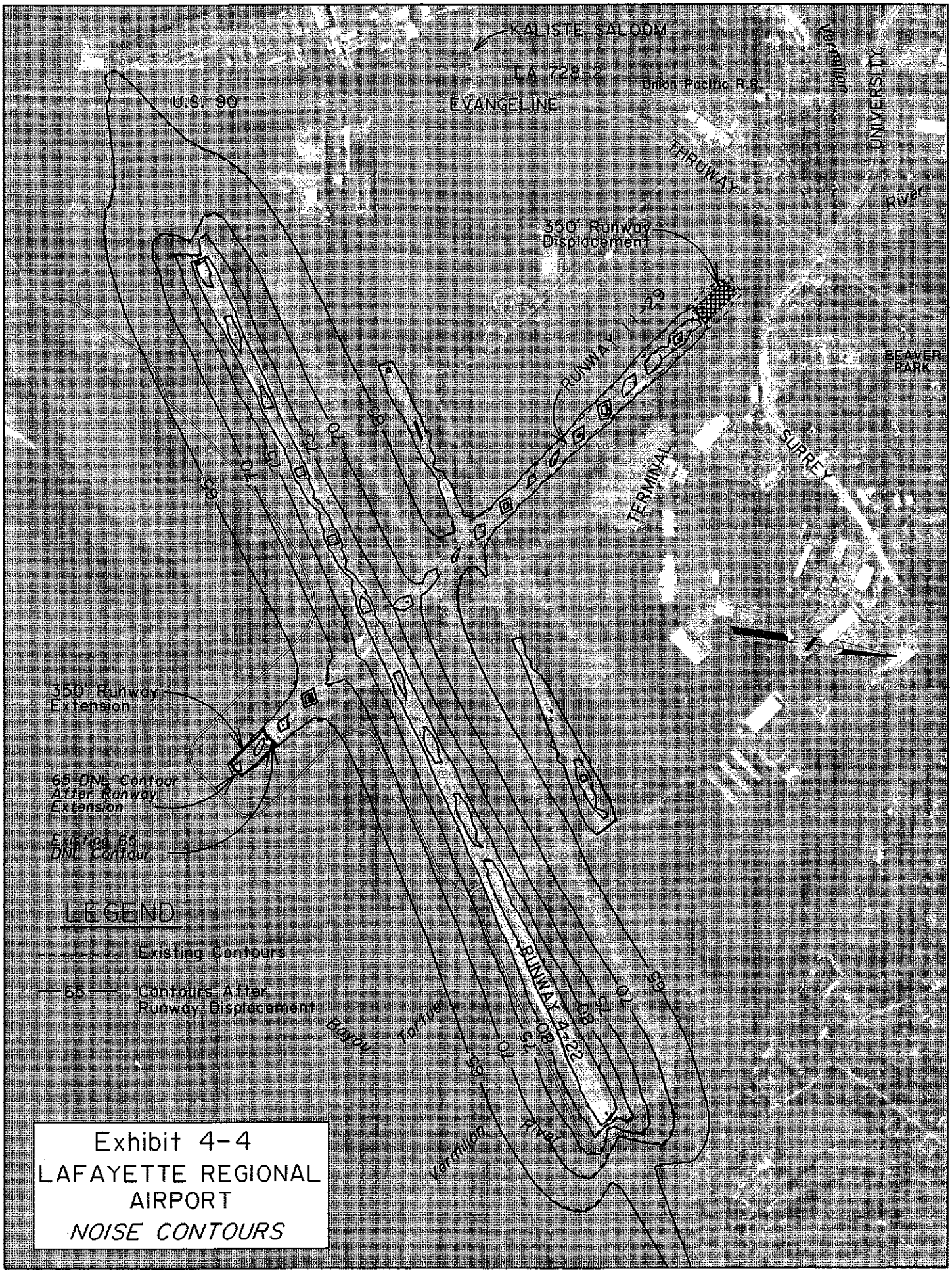


Exhibit 4-4
LAFAYETTE REGIONAL AIRPORT
NOISE CONTOURS

The following methodology was used to determine the air quality effects caused by construction for the 350' extension of Runway 11-29 under Alternatives EA-1 and RR-4:

1. Determine non-attainment/maintenance criteria pollutants. Analysis is only required for non-attainment/maintenance pollutants (and pollutant contributors, i.e. NOx and VOCs contribute to ozone).

2. Calculate the emissions for the NAAQS criteria pollutants (as listed in 40 CFR 51.853(b)(1)).

Compare the resulting emissions to the NAAQS "de minimis" thresholds, as shown in Table 4-10 for maintenance area pollutants.

The emissions calculated are based on the total hours of usage and are multiplied by a construction emission factor taken from Nonroad Engine and Vehicle Emission Study (Report, US EPA, Doc 21A-2001, 1991). Emissions due to the project are below "de minimus" and therefore the project is assumed to conform. Table 4-11 provides a summary of emissions for the criteria pollutants.

Development of the Draft and Final EIS has included coordination with the Louisiana Department of Environmental Quality (LaDEQ). A letter from LaDEQ providing certification of reasonable assurance that the project will not adversely impact air quality has been requested. LaDEQ is currently processing this request, and it is expected that this certification will be provided.

No-Build Alternative

No change in air quality would occur if no construction occurs under the project.

Table 4-10

DE MINIMIS LEVEL FOR CRITERIA POLLUTANTS

Pollutant	**Tons/year**
Ozone (NO_X), SO_2 or NO_2:	
All Maintenance Areas	100
Ozone (VOC's):	
Maintenance areas inside an ozone transport region	50
Maintenance areas outside an ozone transport region	100
Carbon Monoxide:	
All Maintenance Areas	100
PM-10:	
All Maintenance Areas	100
Pb:	
All Maintenance Areas	25

Table 4-11

SUMMARY OF CONSTRUCTION EMISSIONS (TONS)

Year	Activity	CO	NOX	VOC	PM	Aldehydes	SOX
1	Earthwork	28.24	96.36	8.74	8.03	2.19	8.95
	Paving	0.12	0.39	0.05	0.03	0.01	0.04
	Total	**28.37**	**96.75**	**8.79**	**8.06**	**2.19**	**8.99**

Source: HNTB Analysis

4.2.12.g Compatible Land Use

Build Alternatives

Each of the freeway build alternatives, with continuous frontage roads flanking the freeway, will continue to provide similar commercial land use functions abutting the airport as those that currently exist. The proposed project is compatible with the development goals of the Airport Master Plan. Given that the project will provide a better vehicular transportation system, land use development in the area of the airport could be expected to hasten.

Extension of Runway 11-29 by 350', as called for under the EA-1 and RR-4 alternatives will not have any bearing on surrounding commercial or residential land uses.

With regard to Advisory Circular 150/5200-33 (Hazardous Wildlife Attractants On Or Near Airports), the extension of Runway 11-29 as called for under Alternatives EA-1 and RR-4 will not attract any additional species or quantity of wildlife to the area. This is because no solid wastes will be generated (airfield improvement only) and no change in surrounding land uses will occur (the area at the end of the runway to be extended is currently a wetland and will continue to be a wetland after the project).

No Build Alternative

Land development would be expected to continue along the Evangeline Thruway and Surrey Street in the same pattern as currently exists, perhaps modified by the goals expressed in the Airport Master Plan.

4.2.12.h Light Emissions

Build Alternatives

The extension of Runway 11-29 as called for under the EA-1 and RR-4 alternatives will occur in an undeveloped area adjacent to a large wetland, and thus has no potential for adverse effects.

Lighting for the freeway in the area of the overpass at University/Surrey will be

specially designed so that light poles will not penetrate the Runway 11-29 glide slope. This lighting will not have an adverse effect on the surrounding commercial areas.

No Build Alternative

No changes in lighting would occur except as may be encouraged and provided for under the Airport Master Plan.

4.2.12.i Solid Wastes

Build Alternatives

Long term solid waste collection, control, and disposal is not an issue because the proposed action is only for airfield development (extension of Runway 11-29) for Alternatives EA-1 and RR-4 and for freeway construction. Solid waste disposal items for runway construction due to these two alternatives will be minimal, consisting of approximately 2,500 cubic yards of abandoned runway pavement and base material. This material will be disposed of at a landfill permitted for such activity and as identified by the construction contractor performing the work.

No Build Alternative

There would be no solid waste of which to dispose.

4.2.12.j Cultural Resources

No historical structures are located on the Lafayette Regional Airport property. There are archaeological sites known to be located on the Lafayette Regional Airport property, but these recorded sites would not be affected by the I-49 Connector project. This determination was based on files at the Division of Historic Preservation and the Department of Archaeology in the Department of Culture, Recreation, and Tourism. Refer to the State Historic Preservation Office letter dated October 23, 1991 for the SHPO comments on archaeology.

4.2.12.k Floodplain and Wetlands

The extension of Runway 11-29 under Alternatives EA-1 and RR-4 would reach into the floodway fringe of the Bayou Tortue Swamp. The effect on the floodplain is insignificant, as described in Section 4.3.1.b.

The runway extension would also affect approximately five acres of wetlands as discussed in Section 4.3.3.b. These are considered jurisdictional wetlands subject to Section 404(b) of the Clean Water Act of 1977, based on evidence gathered during field inspection. The area of wetlands to be affected for the required runway extension would be minimized by utilizing design features that would avoid the need to relocate Bayou Tortue. This would include embankment stabilization with riprap or other means.

Potential methods of mitigation for wetland impacts include restoration, creation, or mitigation banking that would provide offsite locations for this mitigation. During the Section 404 permitting process, if it were determined appropriate, LaDOTD will implement mitigation by one of the above methods.

No Build Alternative

No wetlands would be impacted by the no-build alternative.

4.2.12.l Water Quality

Section 4.3.1 of the EIS provides a finding that there should be no adverse water quality impacts due to the project. Development of the Draft and Final EIS has included coordination with the Louisiana Department of Environmental Quality (LaDEQ). A letter from LaDEQ providing certification of reasonable assurance that the project will not adversely impact water quality has been requested. LaDEQ is currently processing this request, and it is expected that this certification will be provided.

4.2.12.m Environmental Justice

Section 4.2.2.b (Social Impacts) addresses in detail the concept of environmental justice, and provides analysis with regard to the I-49 Connector project. The proposed modifications to the LRA have been found to be in accordance with the three fundamental environmental justice principles described in Section 4.2.2.b. The intent of the President's Executive Order regarding Environmental Justice has been met or exceeded and no detrimental impacts due to construction at the LRA would occur.

4.2.12.n Other Impact Categories

Coastal barriers, wild and scenic rivers, energy supply, natural resources, endangered species, and biotic communities have been addressed in the other sections of Chapter 3 and Chapter 4 of the EIS. Proposed modifications at the LRA would not have any adverse impacts with respect to these subjects.

4.2.12.o Other Alternatives

Runway 11-29 would not be displaced by alternatives on Alignments RR-3 and RR-5; however, right-of-way along the existing Evangeline Thruway would be required as mentioned in Section 4.2.11.c with all alignments. Access to the airport facilities would remain the same for all alignments as described in Section 4.2.11.d. RR-3 and RR-5 alternatives would provide slightly more direct access to Tower Road than would EA-1 and RR-4.

A subalternative for the EA-1 and RR-4 alignments that would allow the I-49 Connector overpass at University/Surrey Streets to remain below the existing RPZ was eliminated because it failed to meet the project design criteria. This subalternative is discussed in detail in Section 2.3.2.

4.2.12.p Cumulative Impacts

The following discussion is provided with regard to FAA Order 5050.4A, Airport Environmental Handbook, Paragraph 26, regarding cumulative impacts of the proposed highway project and runway extension needed under Alternatives EA-1 and RR-4.

Throughout Chapter 4 of this EIS, impacts and consequences of the numerous build and no build alternatives are provided. In Chapter 1 of the report, other significant proposed actions in the Lafayette area, including expansion of the Lafayette Regional Airport, not related to the I-49 Connector are identified. These projects are listed below:

- Multi-modal transit center
- Provision of frontage roads along each side of I-10 between

Ambassador Caffery Parkway and the Vermilion River

- South College Road extension and bridge from Pinhook Road to Kaliste Saloom Road
- Camelia Boulevard extension from Johnston Street to Verot School Road with bridge over the Vermilion River
- Verot School Road extension from Pinhook Road to Ambassador Caffery Parkway as well as widening to major arterial status.

After analysis of the individual impacts viewed in the context of the whole, and viewing the relationship of the proposed I-49 Connector project to the Lafayette area, the resulting judgement is that the cumulative impact (or benefit) of the I-49 Connector plus the connected action of runway extension would not result in a detrimental cumulative impact. More in-depth cumulative impacts cannot be determined at this stage due to the unknown construction implementation schedule for the project, which begins with the corridor preservation program and is dependent upon funding availability. No other past, present, and reasonably foreseeable future actions will occur due to the project that have not been addressed during the analysis of each individual impact.

4.3 IMPACTS ON THE NATURAL ENVIRONMENT

4.3.1 WATER RESOURCES AND HYDRAULICS

4.3.1.a Water Resources

Vermilion River

Impacts to the water quality of the Vermilion River associated with the proposed project would be similar for all alternatives. It is not expected that impacts of the proposed project would be noticeably greater than impacts currently attributable to the existing Thruway.

Temporary increases in turbidity and dissolved solids associated with the construction phase of the project are not expected to cause any long-term harm because of the absence of sensitive receptors in the Vermilion River. In addition, Best Management Practices would be utilized during construction for erosion control and water quality consideration (see Section 4.4.1, Construction Impacts).

Roadway runoff commonly includes grease, oil, and other hydrocarbons along with fine particles worn off tires and clutch and brake linings, which have the potential to adversely affect the aquatic biota. Run-off after storm events can induce a shock effect on receiving waters as toxic and oxygen-demanding substances are abruptly introduced. The chemical composition of the receiving water usually returns to normal shortly after the end of the storm event; however, downstream biota may be permanently changed. As mentioned previously, the existing water quality in the Vermilion is quite poor and the proposed project should not appreciably contribute to any further deterioration in the water quality of the river. There is always a concern

about acute contamination resulting from spills caused by traffic accidents, especially concerning tank trucks that may haul hazardous material. However, the improved roadway should reduce the probability of such accidents *(Shaheen 1975).*

Temporary erosion control procedures to control sediment-laden runoff from unstable construction embankments would be employed to minimize impacts to the Vermilion River during the construction phase of the project.

Under the no-build alternative, the Vermilion River would continue to suffer existing water quality problems. Municipal and industrial outfall along with runoff from agricultural lands and other non-point sources would continue to contribute to the water quality problem. The Vermilion River is designated non-navigable by the Coast Guard in the area crossed by each project alternative. Therefore, no impacts to a navigable waterway would occur. Design of the river crossing will be constructed so as to not restrict the flow of the Vermilion River for the 100 year flood.

Chicot Aquifer

Since the proposed project is underlain by the sole source Chicot Aquifer, ground water contamination would be of particular concern. All of the alternatives under consideration would require that construction techniques be employed which prevent any contamination of the aquifer. None of the alternatives would impact primary recharge areas of the Chicot Aquifer, which are located in Beauregard, Allen, and Evangeline Parishes. However, caution must be used during pile driving or excavation operations so as not to puncture the existing, confining claybed. Damage to this layer would increase the potential for contamination. During the construction phase of the project, close coordination with LaDEQ will be maintained to assure that adequate protection is maintained.

Also associated with the proposed project, there would exist a potential for material such as oil, chemicals, fuel, etc., to slowly permeate through the existing clay layer and enter the aquifer. Therefore, disposal of these materials must be in an acceptable manner and not on the ground, in ditches, canals, or borrow lakes and would be in accordance with local, state and federal regulations. The potential for contamination through ground water/surface water interchange would be minimized through plan review procedures along with local ordinances and requirements placed on the contractor.

Quantitative prediction on the amounts of contaminants that would be produced by the proposed project and the resultant effects on the Chicot Aquifer cannot be made. However, certain qualitative judgements can be made concerning potential impacts the proposed project alternatives may have.

Freeways have a tendency to accumulate organic and inorganic materials from surrounding land areas, fallout from air pollution, and motor vehicles. Contaminants associated with automobiles commonly include gasoline, oil and grease, coolants, rubber, exhaust emissions, and metals, which if introduced in large amounts could cause health hazards. However, research suggests that contaminant levels and

loadings normally associated with highway surface runoff are not large enough to cause a violation of drinking water standards or create health hazards in the aquifer. In addition, roadway runoff currently enters and would continue to enter surface water drainage areas then quickly flow to the Vermilion River, allowing minimal opportunity for entry into the aquifer. Also, as indicated previously, none of the alternatives would effect primary recharge areas of the aquifer. It may be useful to note that a large portion of hazardous pollutants are associated with smaller sized particles and that loadings of vehicle related contaminants would be proportional to total traffic.

Spills involving hazardous materials could pose a serious threat to the water quality of the Chicot Aquifer due to the fact that high concentrations of pollutants would be released in a small area. Materials may be chemical, biological, radioactive, etc. Since spills are normally localized and easily identified, contamination to groundwater, if a potential problem, could be averted if proper emergency clean up procedures are in place. According to LaDEQ Emergency Response, transporters are responsible for the clean up of hazardous spills. Transporters can either perform the clean up themselves or have qualified contractors complete the clean up with approved procedures. An improved roadway should make the transportation of the materials safer.

Maintenance of a freeway may include the use of various herbicides to control unwanted vegetation along hard to maintain areas such as ditches, guardrails and around signs. Selective herbicides are used to control noxious weeds, thereby encouraging the growth of grasses that stabilize the soil against erosion. A wide variation in the chemical makeup of herbicides provides a wide variation in properties. Elevated concentrations of these materials sometimes can present a threat to the water quality of an aquifer. Since herbicides will be applied according to label instructions and areas that will require the use of herbicides due to the project are small, herbicides are not expected to have significant adverse impacts to the Chicot Aquifer.

Construction impacts to the Chicot Aquifer would be dependent of the depth to the water bearing strata of sand and gravel underlying each alternative. Utilizing idealized geologic sections prepared by the United States Geological Survey, none of the alternatives would be anticipated to impact the Chicot Aquifer. This determination is further substantiated by recent construction of the University Avenue underpass at the Union Pacific Railroad. This project included a railroad bridge on piles and excavation for the roadway underpass, neither of which are known to have penetrated the aquifer. Avoidance of impacts to the Chicot Aquifer, which is a sole source aquifer, will continue to be coordinated with the EPA and LaDEQ as the I-49 Connector projects continues to develop. The actual aquifer layer will be identified at the time of the design phase when borings are obtained for design purposes. Design measures and construction techniques will be utilized to guard against contamination of the aquifer. The commitments and mitigation measures for construction near the Chicot Aquifer are shown in Section S.6.

Without the proposed freeway (no-build), the threat of hazardous waste spills still exists along with concerns regarding the maintenance of a roadway. The no-build alternative does eliminate the potential for puncturing the Chicot Aquifer.

Water Wells

As shown on Exhibit 3-15 and listed in Table B-5 in Appendix B, there are approximately 201 water wells located in the project area and 49 water wells that could be affected by the proposed alternatives.

As was stated in Section 3.3.1.a, any well impacted by the construction of the I-49 Connector would be dealt with in accordance with regulations set forth by GWPD, Water Well Rules and Standards of the Water Resources Division of LaDOTD, and any other federal, state or local regulation that may apply. This would include plugging all affected wells (and borings) to prohibit potential entry of contaminants into the Chicot Aquifer.

For the EA-1 Elevated and EA-1 Selected Overpasses alternatives there are approximately 16 water wells that would need to be plugged and possibly relocated. The RR-3 Elevated and RR-3 Selected Overpasses alternatives would require approximately 38 and 40 water wells to be plugged, respectively, while the RR-4 Elevated and RR-5 Elevated alternatives would require approximately 32 and 17 water wells to be plugged, respectively. Use of Subalternatives D and F would not affect any extra water wells.

Coastal Zone Impacts

Lafayette Parish does not lie within the Louisiana Coastal Zone.

4.3.1.b Drainage and Hydraulics

Floodplains

Proposed construction associated with the I-49 Connector would cross an approximately 500' wide 100-year floodplain at the Vermilion River, according to National Flood Insurance Program maps. Additionally, existing I-49 crosses a floodplain on Coulee Bend just north of I-10 (no construction is anticipated in this area). The 350′ extension of Runway 11-29 would reach into the Bayou Tortue Swamp, but would have little effect on the floodplain. Refer to Exhibit 3-17 for limits of floodplains and their relationship to the proposed project.

The existing Evangeline Thruway currently crosses the Vermilion River floodplain. Any reconstruction or new construction undertaken as a part of the Connector project would be in accordance with federal regulations, with no adverse impacts to the floodplain foreseen. The Connector would not be directly longitudinally adjacent to any floodplain and therefore would not be expected to promote any incompatible floodplain development. The majority of floodplain (other than the marsh areas east of the city) in Lafayette Parish occurs well away from the project corridor. The primary service areas of the proposed Connector freeway are not in a floodplain; they have been and are expected to continue to experience development.

The EA-1 and RR-4 alignments would cause Runway 11-29 to be extended 350′ to the southeast. This runway extension would encroach on approximately 5 acres of the Bayou Tortue Swamp. The Bayou Tortue Swamp is approximately 6400 acres of low-lying swamp that acts as a reservoir for Vermilion River and Bayou Tortue during floods (U.S. Army Corps of Engineers, Reconnaissance Report, 1995). The runway fill area would lie in the floodway fringe and would not affect the main floodway. Due to the small area affected (less than 1/10th of 1% of the reservoir area), it is concluded that there would be no appreciable increase in flood heights in the floodplain.

Only Practicable Alternative Finding

As required by Executive Order 11988 and Federal-Aid Policy Guide 23 CFR 650A, this Final EIS has provided the reasons why the proposed action must be located in the floodplain, has discussed the alternatives considered and why they were not practicable, and has documented that the action conforms to applicable federal floodplain protection standards.

Project Drainage

Bridge crossings of the Vermilion River would be designed to allow passage of the 100-year flood established by the Federal Emergency Management Agency (FEMA). The bridge would be designed to allow one foot of freeboard below the structures, with no adverse impacts resulting upstream or downstream.

Existing project area runoff is conveyed to the Vermilion River via several systems. At the very north end of the study area, Coulee Bend transports drainage away from the project. In the Willow Street area, runoff is directed to a concrete-lined channel paralleling the Union Pacific Railroad spur track. Between Pinhook Road and the railroad spur, runoff is transported directly to the river in a dual subsurface piping system paralleling the Thruway. South of the river, drainage flows directly into the river via ditches. The project would be designed to maintain existing drainage patterns and to maintain or improve existing drainage facilities. Refer to Exhibit 3-16 for a graphical depiction of watershed boundaries and general flow patterns in the Lafayette area.

4.3.2SOILS

Memphis silt loams, the most widely distributed soils in the project area, are considered choice soils for urban use with no severe construction limitations. The low strength and wetness sometimes associated with Coteau silt loams is easily overcome. Sharkey clay and udifluvents that will be encountered where the proposed project crosses the Vermilion River do offer some construction limitations. Sharkey clay suffers from severe wetness and very high shrink-swell potential while udifluvents are subject to settlement and are poor foundation material.

4.3.3FLORA, FAUNA, WETLANDS, AND ENDANGERED SPECIES

4.3.3.aFlora and Fauna

Due to the commercial and residential development that is prevalent throughout the study area, there would be no widespread impacts to the natural flora and fauna. The alternatives would not impact any major tract of natural vegetation. Animal species that may be impacted should readily migrate to suitable adjacent habitat.

The I-49 Connector project would require extending Runway 11-29 approximately 350′ at the Lafayette Regional Airport. Based on field reconnaissance conducted as a part of the I-49 Connector study, impacts to natural flora and faunal communities associated with this runway extension would be negligible. This conclusion is valid for a runway extension project that could be accomplished within the limits of currently owned airport property west of Bayou Tortue.

Since the publication of the Draft EIS (DEIS) in 2000, a study has been conducted by a licensed arborist to evaluate the existing conditions of three live oak trees located along the proposed alignments and the affects the construction of the Selected Alternative may have on the trees. Two Live Oak trees near the Sterling Grove Historic District and one tree near the Castille and existing Evangeline Thruway intersection were analyzed in the arborist's study.

The study indicates that no negative impacts are expected to occur on the two trees near the Sterling Grove Historic District because the existing Evangeline Thruway is being relocated away from the trees, thus providing more green space within the drip line of the trees. It is expected that any of the alternatives of the proposed project ultimately would benefit the two trees. A summary of the arborist's report is provided in Section 4.5.

A tree study was also performed on the Live Oak tree (Live Oak Tree No. 103) located in the median between the north and southbound lanes of Evangeline Thruway near its intersection with Castille Street. The tree is considered a heritage tree, as it is over one hundred years old, and is in good to excellent condition. The design team has developed a modified design concept of the locally preferred alternative as presented in the DEIS (Subalternative H) in order to provide an opportunity for the I-49 project to avoid this tree. Refer to Section 4.10 for more information concerning the study for this live oak tree and the design modifications being proposed for consideration during the next phase of the project.

The no-build alternative, which has been defined to include an additional lane on the Thruway each direction between Willow and I-10, does not impact Live Oak Tree No. 103.

Other flora and fauna losses would not be attributable to the no-build alternative; however, with continued commercial development, it can be expected that there will be flora and fauna losses.

4.3.3.bWetlands

This section discusses potentially affected wetland sites as identified on Exhibits 3-12 and 3-17.

The U.S. Department of Transportation (USDOT), in implementing Executive Order 11990, set forth its policy on wetlands in DOT Order 5660.1A, Preservation of the Nation's Wetlands. This order is to assure the protection, preservation and enhancement of the nation's wetlands to the fullest extent practical during the planning, construction, and operation of transportation facilities and projects. Pursuant to Executive Order 11990, wetlands that would be impacted by the I-49 Connector were identified and alternatives were developed that could avoid the wetlands.

None of the alternatives would impact the Beaver Park lakes since both of the EA-1 alternatives and the RR-4 Elevated

alternative would utilize existing rights-of-way while the two RR-3 alternatives and the RR-5 Elevated alternative would bypass Beaver Park. The lakes are identified as sites W-3, W-4 and W-7.

Each of the alternatives under consideration would require crossing the Vermilion River (wetland site W-6). The RR-3 and RR-5 alternatives would cross the Vermilion River on new alignment just east of the Union Pacific Railroad. The EA-1 and RR-4 alternatives would traverse the Vermilion River at the existing U.S. 90 crossing. No adverse impacts would be anticipated for any of the alternatives. In addition to the Vermilion River, palustrine forested wetlands total approximately three acres along the narrow riparian fringe between Surrey Street and General Mouton Avenue. No more than two-tenths of an acre of this type habitat (identified as wetland site W-1) would be crossed by the alternatives on new alignment. It is expected that impacts can be avoided by bridge design features.

The EA-1 and RR-4 alternatives would require extending Runway 11-29 at the Lafayette Regional Airport. This would encroach on an area considered jurisdictional wetlands subject to Section 404(b) of the Clean Water Act of 1977, based on evidence gathered during field inspection of the aforementioned area (wetland site W-2). Only five acres of jurisdictional wetlands would be impacted, utilizing design features of the runway extension that would avoid relocation of Bayou Tortue.

Potential methods of mitigation for wetland impacts include restoration, creation, or purchase of replacement wetlands. During the permitting process, if it were determined appropriate, mitigation would be accomplished by one of the above methods.

No wetlands would be impacted by the no-build alternative.

Only Practicable Alternative Finding

Based upon the considerations above and elsewhere in this Final EIS, it is determined that there is no practical alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

4.3.3.c Prime Farmland

None of the alternatives under consideration, including the no-build, would impact prime farmland since no land considered prime farmland exists within the project corridor.

4.3.3.d Threatened and Endangered Species

None of the alternatives under consideration including the no-build should impact any threatened or endangered species of plants or animals as none are known to exist in the corridor.

4.3.4 AIR QUALITY IMPACTS

4.3.4.a Air Quality Modeling Methods

The primary pollutants from motor vehicles are carbon monoxide, unburned hydrocarbons, and oxides of nitrogen (NOx). Hydrocarbons and NOx can combine in a complex series of reactions catalyzed by sunlight to produce photochemical oxidants such as O3 and NO2. Because these reactions take place over a period of several hours, maximum concentrations of photochemical oxidants are often found far downwind of the precursor sources. These pollutants are regional problems. The modeling procedures for O3 and NO2, requiring

long-term meteorological data and detailed area wide emission rates for all potential sources, are normally too complex to be performed within the scope of an environmental document for a highway project. Modeling concentrations of these pollutants for the purpose of comparing the results with the National or State Ambient Air Quality Standards (NAAQS) is conducted by the regional air quality planning agency, the Louisiana Department of Environmental Quality (LaDEQ), for the State Implementation Plan (SIP).

Carbon monoxide (CO), a colorless, odorless gas which is the product of incomplete combustion, is the major pollutant from gasoline fueled motor vehicles. CO emissions are greatest from vehicles operating at low speeds and prior to complete engine warm-up (within approximately eight minutes of starting). Congested urban roads, therefore, tend to be the principal problem areas for CO. Roadway improvement projects, which relieve traffic congestion and result in higher average operating speeds, will usually provide a net reduction in CO emissions. Because the averaging times associated with the CO standards are relatively short (1 and 8 hours), CO concentrations can be modeled using simplified "worst-case" meteorological assumptions. Modeling is also simplified considerably by the stable, non-reactive nature of CO.

Based on the above, the air quality impact analysis for this project was limited to a microscale analysis of ambient CO concentrations. The criterion for adverse impact was exceedance of the 8 hour NAAQS for CO. The Louisiana Ambient Air Quality Standards for CO are the same as the NAAQS.

Future intersection traffic for all six alternatives was reviewed for conditions that might lead to traffic queues along local streets. Two study areas were chosen based upon future local traffic conditions, mainline I-49 Connector traffic volumes, and volumes at intersections affected by off or on-ramp traffic volumes. The study areas chosen included the signalized intersections of I-49/Evangeline Thruway/Johnston Street/Louisiana Avenue (EA alternatives and RR-5) and I-49/Johnston Street (RR-3 and 4 alternatives). These two locations were selected as the worst-case for the microscale CO modeling. Four build scenarios were modeled for the design conditions of 2005 and 2025.

Air quality modeling for the proposed project was performed in accordance with the procedures outlined in EPA's "Guidelines for Modeling Carbon Monoxide from Roadway Intersections", and guidance from LaDOTD. Receptors A1 through A8 were located at businesses and residences where the potential for people to be present for eight hours or more was substantial. Receptors were not located along the sidewalks since the sidewalks are less than 10′ from the "traveled roadways which comprise the intersections, where vehicle turbulence does not allow current models to make valid concentration estimates". (*U.S. EPA, 1992*) Five receptors, A9 through A13, were 3.0 meters from the edge of the outside traffic lane of the cross street and the adjacent street. Ambient background CO levels were obtained from LaDEQ. The locations of the receptors and future intersection configurations are shown on Exhibits 4-5 and 4-6.

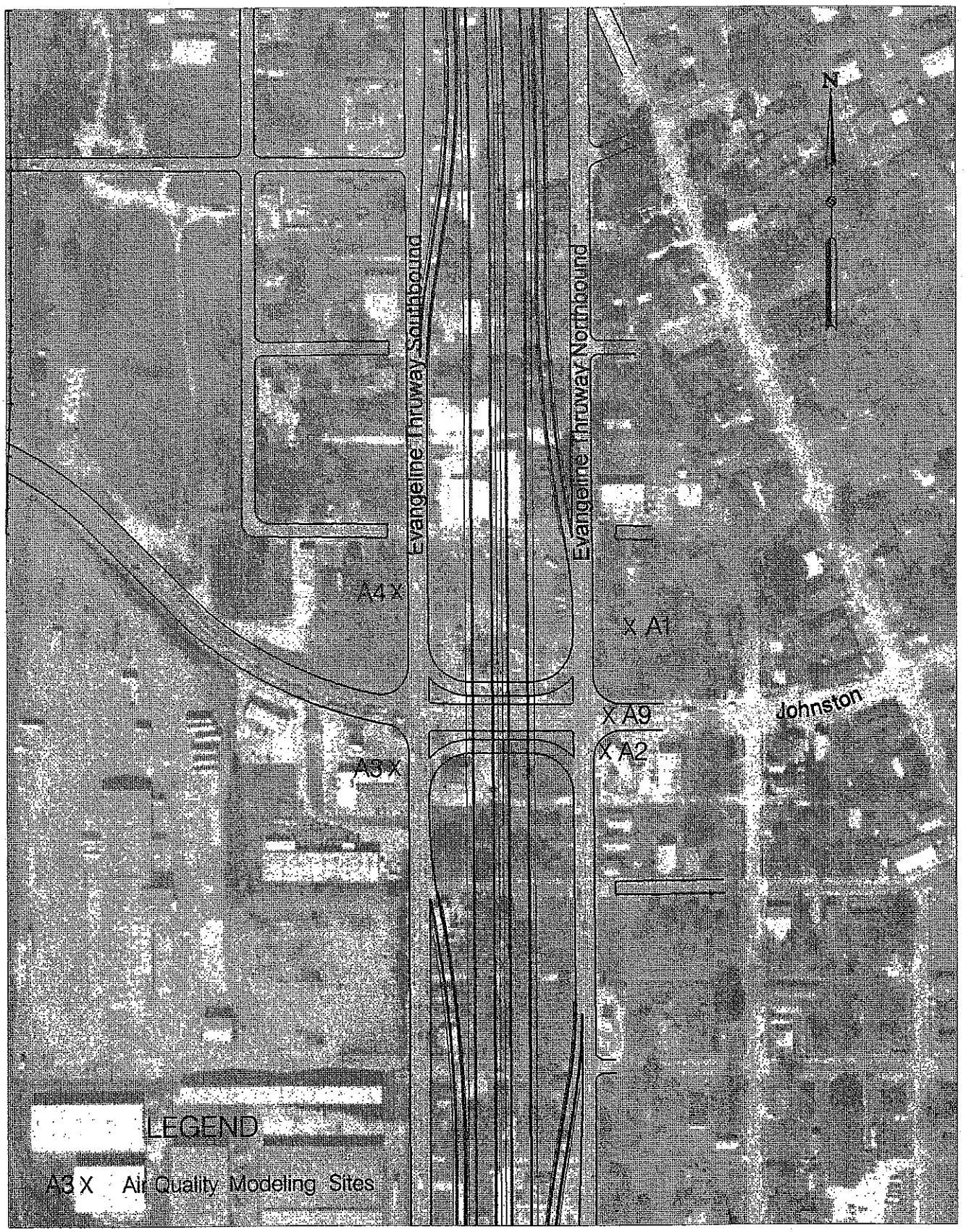


EXHIBIT 4–5
AIR QUALITY MODEL SITES
(EA–1 and RR–5 Alternative)

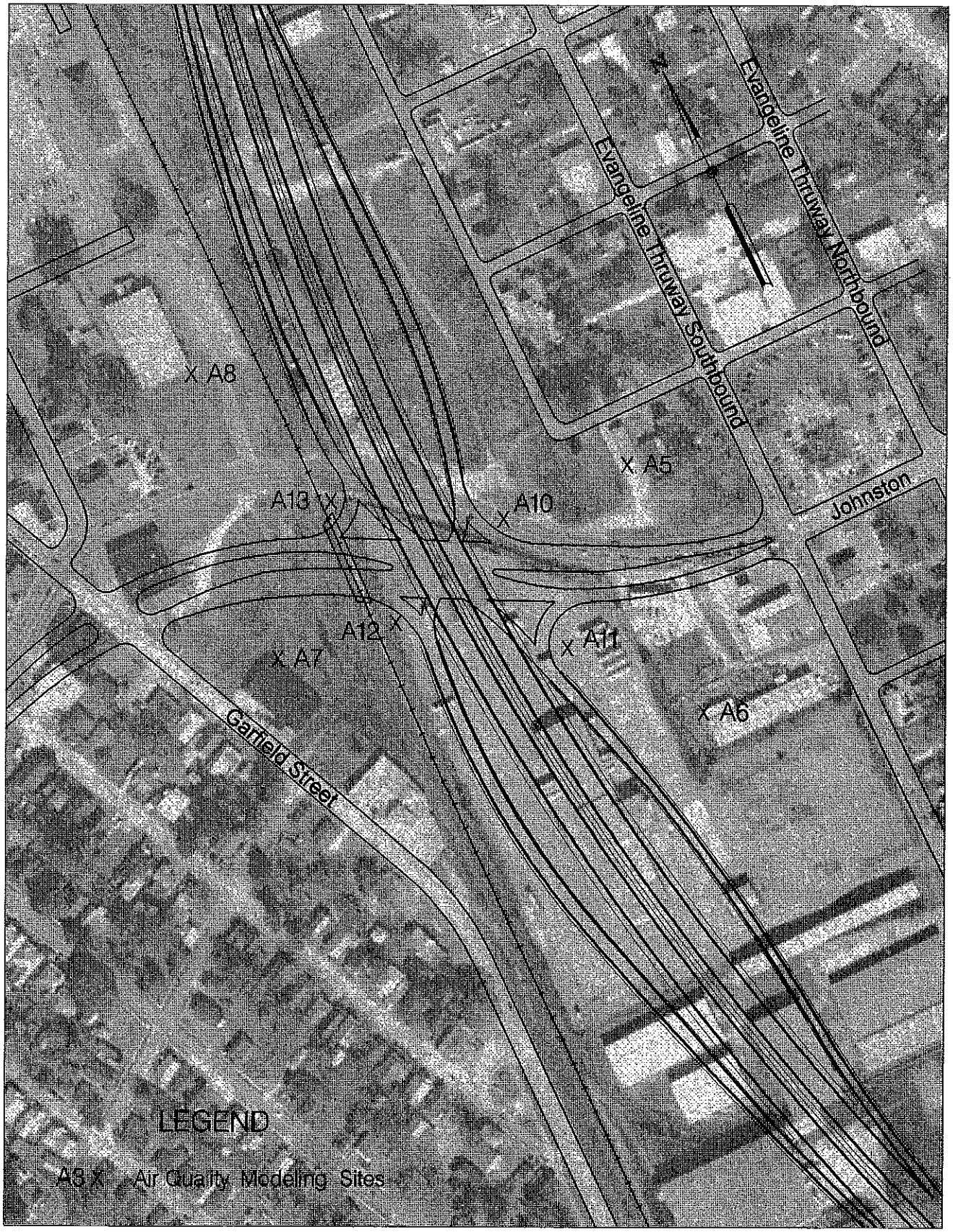


EXHIBIT 4–6
AIR QUALITY MODEL SITES
(RR–3 and RR–4 Alternative)

The EPA-approved MOBILE5a *(U.S. EPA, 1996)* and CAL3QHC 2.0 (CAL3QHC*) (U.S. EPA, 1995)* computer models were used to analyze vehicular emissions and the hourly dispersion of CO. Variables used in MOBILE5a included:

- Average Vehicle Speeds

  Build Scenario: 60 mph for connector freeway; 40 mph for parallel one-way roadways and ramp traffic, 35 mph for collector and local roads.

- Vehicle operating modes: 20.6% catalyst and non-catalyst cold starts, 27.3% catalyst hot start (National Default Averages) used.
- Vehicle Mix and Registration: data supplied by the LaDEQ.
- Ambient temperature: January average, 55° F. (Wayne Nguyen, LaDOTD, January 6, 1999).

CAL3QHC is a pollutant dispersion-modeling program for predicting pollutant concentrations from motor vehicles under free-flow conditions, or in the vicinity of roadway intersections. Peak hour traffic volumes and operating characteristics were used to analyze the intersections. Variables used in CAL3QHC included:

- CO emission factors from MOBILE5a.
- Project peak hour traffic volumes for 2005 and 2025 design condition.
- Intersection signalization parameters for all modeled scenarios and years: cycle length and red signal times for all phases of intersection operation.
- Peak hour traffic volumes for each movement of the intersection, through, right and left.
- Meteorological conditions: (Wayne Nguyen, LaDOTD, January 6, 1999)

  Wind speed: 1 m/s, worst case.

  Wind direction: Worst case for each receptor location, calculated every 10 degrees.

  Atmospheric stability class: Pasquill Class "D"

- Surface roughness: 108 cm.
- Mixing height: 1,000 m.

In accordance with EPA procedure, MOBILE5a idle emission rates (in grams/hr) were calculated by multiplying the average vehicle emission rate for 2-1/2 mph by a factor of 2.5. Receptors were located in accordance with the EPA CO Modeling Guidelines.

The maximum eight-hour CO concentrations were computed from the following formula:

C8 = 0.6 x C1 + Background CO concentration

Where:

C8 = maximum 8 hour CO concentration

C1 = maximum 1 hour CO concentration

0.6 = persistence factor accounting for variations in wind speed, wind direction, and atmospheric stability over an eight hour period. (Wayne Nguyen, LaDOTD, January 6, 1999).

Background CO concentration: 1.0 ppm for 8-hour. (Ron Rebouche, LaDEQ, January 7, 1999).

4.3.4.b Results

The results of the microscale air quality study are shown in Table 4-12 on the previous page. All modeled maximum peak hour CO concentrations are at or below the eight-hour NAAQS. The proposed project will not cause or contribute to violations of the CO NAAQS.

Table 4-12
8-HOUR WORST-CASE CARBON MONOXIDE CONCENTRATIONS (PPM)
I-49/Evangeline Thruway/Johnston Street/Louisiana Intersection
Lafayette, Louisiana

Modeling Receptor	Design Condition Year, 2005				Design Condition Year, 2025			
	Alt. EA-1 Elev.**	Alt. EA-1 Over.	Alt. RR-3 Elev.***	Alt. RR-3 Over.	Alt. EA-1 Elev.**	Alt. EA-1 Over.	Alt. RR-3 Elev.***	Alt. RR-3 Over.
S.E. Evangeline Thruway/Louisiana Ave								
A1	3.4	3.6	2.1	2.5	4.6	5.1	3.2	4.4
A2	6.3	7.3	5.4	6.3	8.0	8.7	6.2	9.0
A9	5.8	6.9	4.7	5.4	7.8	8.3	5.4	7.7
S.W. Evangeline Thruway/Johnston Street								
A3	4.3	5.1	2.6	4.7	6.6	6.9	4.5	7.2
A4	6.1	6.7	2.9	2.8	7.2	8.1	4.1	7.6
I-49/Johnston Street								
A5			2.1	3.4			3.3	4.5
A6			2.2	2.9			3.5	4.4
A7			2.3	3.3			3.5	5.4
A8			2.0	3.3			2.9	4.4
A10			4.7	5.1			6.7	7.7
A11			5.0	6.0			8.5	8.7
A12			5.2	5.0			6.2	8.2
A13			4.4	7.7			6.9	9.0

*The National Ambient Air Quality Standards for CO are 35 ppm for a one hour average, and 9 ppm for an eight hour average.
**Traffic volumes and model results equivalent for RR-5 Elevated.
***Traffic volumes and model results equivalent for RR-4 Elevated
Concentrations include ambient background levels of 1.0 ppm (8 hour).

4.3.4.c Air Quality Construction Impacts

During construction of the proposed project, all materials resulting from the clearing and grubbing or demolition will be removed from the project and disposed of by the contractor per applicable regulations. Any burning will be done in accordance with all applicable local laws and ordinances and state laws and regulations.

Measures will be taken to control the dust generated by construction when the control of dust is necessary for the protection and comfort of motorists or area residents and the abatement of particulate emissions.

4.3.4.d Summary

In 1995, Lafayette Parish was redesignated by the EPA from ozone nonattainment to ozone attainment with limited maintenance plan requirements (40 CFR Parts 52 and 81, August 18, 1995). Since the transportation conformity rule (40 CFR Part 93 Subpart A) applies to maintenance areas, Lafayette Parish must demonstrate conformity. As an attainment area with limited maintenance plan, a quantitative analysis is not needed for Lafayette Parish to establish conformity. Accordingly, at the request of the LaDOTD and the Lafayette MPO, the FHWA by letter of February 8, 2001, issued a positive conformity determination with regard to the Clean Air Act of 1990 and stated that Lafayette Parish complies with all conformity provisions of the Louisiana State Implementation Plan (SIP). This conformity determination is valid for three years.

4.4 GENERAL IMPACTS AND OTHER CONCERNS

4.4.1 CONSTRUCTION IMPACTS

4.4.1.a Maintenance of Traffic

The project would be designed and implemented in a manner that would minimize traffic congestion during the construction period. Basic sequencing would involve initial construction and operation of the continuous one-way parallel roadway system and then construction of the freeway component of the project. Major cross streets would remain open across the corridor during the construction period. This basic scheme would be employed for each of the project alternatives.

It is believed that each of the alternatives, while causing some construction related impacts to motorists, can provide for satisfactory traffic operations during the construction period.

4.4.1.b Water Resources

Surface Water

There may be increases in turbidity and dissolved solid levels in the Vermilion River in association with the construction of the proposed project. Increases in turbidity and dissolved solids can have a deleterious effect on aquatic species. However, the Vermilion River potential as a fisheries resource is currently lacking due to the existing water quality problems. Increases in turbidity and dissolved solids should be temporary and have no long-term or lasting effects due to the high levels of turbidity and dissolved solids that currently exist in the Vermilion. Measures will be taken to minimize the increased sediment laden runoff during the construction period by the utilization of erosion control measures such as silt fencing and hay bales in accordance with EPA policy.

Groundwater

Excavation for the roadbed could result in the removal of soil with low permeability and high capacity to absorb pollutants. In areas where the groundwater is shallow, removal of the soil could increase the potential for contaminants to reach the Chicot Aquifer through infiltration. In addition, construction materials such as oil, fuel, and chemicals could permeate through the protective clay-like layer and enter the aquifer if not disposed of and stored in a proper manner. Therefore, disposal of these materials would be off-site and in accordance with procedures set forth in the Resource Conservation Recovery Act, Louisiana Administrative Code, and any other applicable local, state, or federal regulations. The potential for contamination through ground water/surface water interchange will be minimized through plan review procedures that involve the EPA, LaDEQ, and other appropriate agencies. Through such coordination, adequate safeguards will be instituted to assure compliance with state and federal regulations.

Minimization of Effects

Implementation of sediment and erosion control practices such as silt fences, drainage diversions, and matting along with prompt seeding and revegetation of slopes and bare ground would be utilized to minimize temporary erosion and sedimentation problems.

4.4.1.c Landfill and Borrow Operations

All of the proposed build alternatives would require similar construction with excavation, embankment, and demolition of existing buildings.

Demolition of existing buildings in the project corridor would result in a large amount of waste consisting mostly of construction materials such as wood and masonry. This material, properly separated from sanitary and hazardous material, could be disposed in currently disposal sites near the project area.

There would be some possibility that hazardous materials may be encountered during construction of the project. Areas along the railroad and abandoned fuel tanks along the existing Evangeline Thruway route would be of particular concern. Sanitary and hazardous waste material generated from the project would have to be hauled to permitted disposal facilities remote from the project site.

The removal and disposal of construction related materials would occur under the construction phase of the project and it will be the responsibility of the contractor to adhere to all applicable state and federal regulatory requirements and LaDOTD specifications.

Any embankment material required for construction could be hauled from borrow areas to be established in the vicinity of the project site. The Selected Overpasses alternatives would require more embankment haul than would the Elevated alternatives.

4.4.1.d Vegetation

Construction impacts are a product of site preparation activities, such as grubbing and land clearing, associated with freeway construction. Grubbing and land clearing operations remove essentially all trees, shrubs, and ground vegetation within the project right-of-way. Losses would be confined largely to the right-of-way; however, if temporary roads and utilities are needed, impacts could result outside the actual right-of-way. The loss of topsoil and soil compaction from heavy equipment traffic sometimes hinders natural revegetation of bare soil.

4.4.1.e Wildlife

Construction activity impacts wildlife by permanently eliminating habitat. For this project, species affected would be those that utilize trees and shrubs for nesting and cover. Elimination of habitat would result in migration of animals to suitable adjacent habitat and expiration of some animals. Young animals, due to a lack of mobility, are most susceptible to habitat destruction. As mentioned previously, wildlife species in the project area are those that have adapted to human disturbances and should readily migrate to the adjacent habitats.

4.4.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Implementation of the proposed I-49 Connector would involve a commitment of natural, physical, human, and fiscal resources. Land used for the proposed I-49 Connector would be an irreversible commitment during the time frame that the land is used for a highway facility. If in the future the highway facility is no longer needed, the land could be converted to another use. There is no reason to believe such a conversion would ever be made.

Fossil fuels, labor, and highway construction materials would be expended in large amounts, along with considerable amounts of labor and natural resources used in the fabrication and preparation of construction materials. Generally, these materials are not retrievable. The use of these materials would not adversely affect continued availability since they are not in short supply. Any construction would require a one-time expenditure of both state and federal funds that are not retrievable.

Resources would be committed based on the concept that residents in the local area, state, and region would benefit by the improved quality of the transportation system.

4.4.3 POTENTIAL PERMITS

Section 404 of the Clean Water Act requires those who propose to discharge dredge or fill material into the waters of the United States, including wetlands, to obtain a permit from the U.S. Army Corps of Engineers. Each alternative would require a Section 404 permit. A Section 10 permit may also be required.

Water Quality Certification is required by Section 401 of the Clean Water Act for projects requiring Section 404 permits. The Water Pollution Control Division of the Louisiana Department of Environmental Quality reviews all environmental impact statements prepared, assessing the potential impact of the proposed project on water of the state. If 401 certification would be denied, a 404 permit cannot be issued.

Since the proposed project does not cross the designated navigable portion of the Vermilion River, no Coast Guard permit would be required.

Runway extension at Lafayette Regional Airport for Alternative EA-1 and RR-4 would require FAA approval and a Section 404 permit.

For the RR-3 and RR-5 alternatives, LaDEQ permits for solid waste and leachate disposal would be required to dispose of any excavation which may be required from the abandoned landfill area near University Avenue. There is potential that other sites along the railroad traversed primarily by the RR-3 and RR-4 alternatives would require LaDEQ permits for disposal of excavation material. Should hazardous wastes be encountered along the EA-1 alternatives in the form of leaking underground tanks or other material, LaDEQ permits would again be required for disposal.

4.5 IMPACTS OF THE LOCALLY PREFERRED ALTERNATIVE

Once local agencies recommended the MPO Subalternative as the locally preferred alternative along with RR-4 Elevated, the design team administered various studies to determine if there was a significant difference in the impacts associated with depressing Jefferson and/or Simcoe Streets with the MPO Subalternative compared to Subalternative F presented in the DEIS. The basis for comparison was Subalternative F and therefore, impacts discussed in this section are those that differ from those reported for Subalternative F or have not been previously addressed. The impacts associated with the various options of the MPO Subalternative are summarized in the MPO Subalternative Analysis Matrix shown in Table 4-13.

4.5.1 LIVE OAK TREES NEAR STERLING GROVE HISTORIC DISTRICT

Two Live Oak trees near the Sterling Grove Historic District were studied to determine if there would be any adverse impacts due to the MPO Subalternative. A licensed arborist from the Lafayette

area was retained by the design team to study these oak trees.

The arborist's study indicates that there will be no negative impacts expected to occur on the two trees near the Sterling Grove Historic District if Simcoe Street is lowered by approximately 1', as called for under the MPO Subalternative. Thus, there is no difference in the MPO Subalternative and Subalternative F. This is because the root system of the tree does not appear to exist under the existing roadway pavement. In fact, because the existing Evangeline Thruways is being relocated away from the trees, providing more green space within the drip line of the trees, it is expected that any of the alternatives of the proposed project ultimately would benefit the two trees. A summary of the arborist's report is provided following.

Live Oak Tree No. 101 – Corner of Evangeline Thruway and Simcoe Street

Located near the intersection of Evangeline Thruway (northbound) at Simcoe Street, adjacent to the St. Genevieve Catholic Church, as shown on Exhibit 4-7, this live oak tree was found to be in fair condition. Adequate soil space for the root system was found to be the limiting factor. It has been determined that this specimen has adapted well to its restricted root zone.

The proposed approximate 1' vertical re-alignment of pavement on Simcoe Street should not affect the tree's root system, as there is no air and moisture beneath the existing road to support roots in such an environment.

The proposed alignment (RR-4 Elevated) of the Evangeline Thruway to the west would benefit the tree. This removal of pavement on the west side of the tree would provide additional open space for root growth and expansion.

Live Oak Tree No. 102 – Just North of St. Genevieve Church Along the Northbound Evangeline Thruway

Located on the northbound Evangeline Thruway approximately 60' north of the previously mentioned live oak tree at St. Genevieve Catholic Church, this live oak tree was found to be in poor condition. See Exhibit 4-7 for a plan view of the tree in relation to the proposed alignment. Soil space for root growth was found to be the limiting factor. The soil space for this specimen is severely limited by concrete paving on all four sides.

The removal of pavement on the west side of the tree (Evangeline Thruway, northbound, including sidewalk and curb) will benefit the tree by providing additional open space for root growth and expansion. Also, the Church could be encouraged to remove additional pavement on their property to allow for the expansion of soil space for root growth.

Table 4-13
MPO SUBALTERNATIVE ANALYSIS MATRIX

ALTERNATIVE **EVALUATION FACTOR**	**JEFFERSON & SIMCOE CLOSED** (Subalternative F)	**JEFFERSON & SIMCOE OPEN** (MPO Subalternative)	**JEFFERSON OPEN, SIMCOE CLOSED**	**JEFFERSON CLOSED, SIMCOE OPEN**
Impacts to Oak Trees	Same	Same	Same	Same
Interchange Traffic Operations	Least	Best	Better	Better
Direct Driveway Access to Area Businesses	Best	Least	Best	Least
Geometric Features (I-49 Ramps)	Best	Better	Better	Better
Right-Of-Way (Displacements)	Base Case	+ 3 (Res.) 0 (Bus.)	0 (Res.) + 1 (Bus.)	+ 3 (Res.) -1 (Bus.)
Right-Of-Way Acquisition (Property Cost and Relocation Assist.)	Base Case	+ $430,000	+ $270,000	+ $160,000
Opportunities for Use of Under-Bridge Areas	Best	Least	In-Between	In-Between
Sterling Grove Historic District Visual Mitigation	Best	Least	Best	Least
Linear Park or Other Uses	Best	Least	In-Between	In-Betweem
Construction Cost (Millions) (With Retaining Walls)	Base Case	+ $10.2 M	+ $6.2 M	+ $4.0 M
LaDOTD Pumping Station Maintenance Cost	Same	Same	Same	Same
LCG Pumping Station Maintenance Cost	Least	Most	More	More
Noise	Same	Same	Same	Same

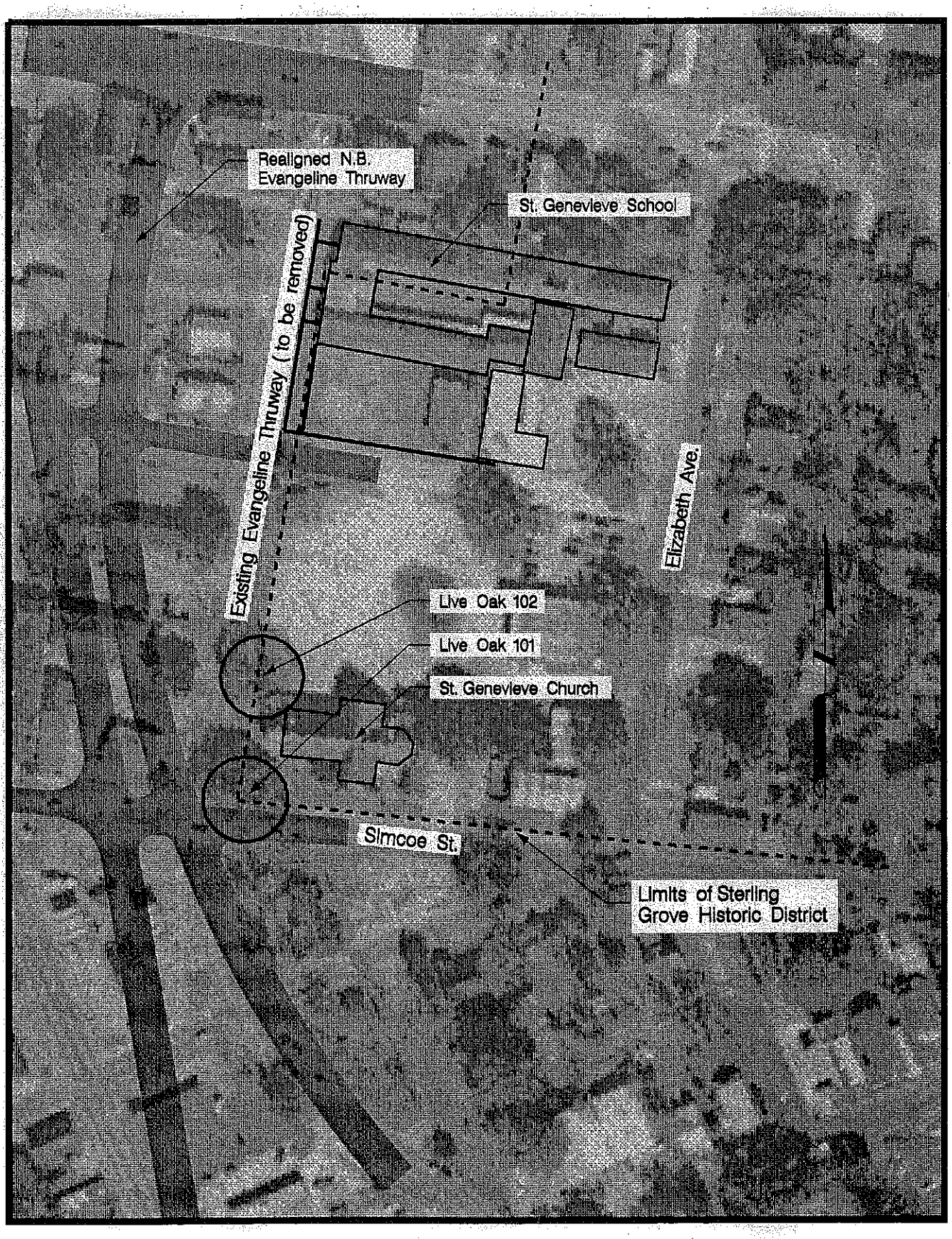


EXHIBIT 4–7
OAK TREES AT STERLING GROVE
HISTORIC DISTRICT

4.5.2 LAND USE AND TRANSPORTATION

4.5.2.a Traffic Operations

If Jefferson and Simcoe Streets were closed (as presented in the original Subalternative F), this would lead to an increase in ADT for Johnston, 2nd/3rd, and Cameron Streets. It is estimated that if severed, the Jefferson Street ADT would disperse equally between Johnston and 2nd/3rd Streets, increasing the ADT on both streets in this case. In addition, if Simcoe Street is severed, its ADT will disperse equally between 2nd/3rd and Cameron Streets.

Both Johnston and 2nd/3rd Streets include an interchange with I-49. The magnitude of the traffic volumes shown on these streets suggests that any of the other crossing streets that are able to remain open will provide alternative routes for traffic and thus improve freeway interchange operations.

4.5.2.b Access and Circulation to Area Businesses

Access and circulation for businesses in the core area for the MPO Subalternative would be altered compared to the access and circulation associated with Subalternative F. Exhibit 2-7 which presents the MPO Subalternative in the core area shows that if Jefferson and Simcoe Streets were to remain open under I-49 rather than be closed as presented in the DEIS (Subalternative F), some additional right-of-way would be required and, for Simcoe Street, some right-of-way that formerly was required would no longer be needed. The reduction in required right-of-way along Simcoe Street would be due to the elimination of some frontage type roads that were originally proposed to provide access and circulation on the local street system. These roads have been removed from the MPO design concept because Simcoe Street would remain open (providing alternative access opportunities) and frontage type roads would be impractical in depressed areas. Therefore, access to the businesses in the area will change. The effect of not needing as much right-of-way in some areas is that two businesses that formerly would have been acquired now will remain in place. They will require access provisions.

Also related to access along Simcoe Street is the proposed retaining wall along the south side of Simcoe Street west of the I-49 Connector. This wall has been proposed under the MPO Subalternative to avoid acquiring right-of-way and displacing businesses in this area. The wall will eliminate the existing access that is provided directly to Simcoe Street and will necessitate alternative access provisions.

Exhibit 2-7 also indicates that access to the businesses in the block that is bounded by the I-49 Connector, the UP Railroad, 2nd Street, and Simcoe Street will be relocated from its current locations consisting of 2nd and Simcoe Streets plus North Grant Street to strictly the North Grant Street. For the businesses on the south side of this block, access currently is provided from 2nd Street and North Grant Street. Under each of the I-49 design concepts, access from 2nd Street will be eliminated due to the status of 2nd Street as a part of an I-

49 freeway interchange. Under Subalternative F as presented in the DEIS, replacement access provisions would have come from a frontage type road adjacent to I-49 that would connect to Simcoe Street. This road would not be provided for in the MPO Subalternative and all access (existing access plus 2nd Street access relocated) therefore would come from North Grant Street that connects to Simcoe Street.

For the businesses located on the north side of this block adjacent to the new retaining wall, access that is currently provided from Simcoe Street would be relocated to North Grant Street and then 1st Street which is located at the rear of the properties.

It should be noted that under Subalternative F as presented in the DEIS, Simcoe Street was discontinuous under the I-49 freeway. Therefore, no direct access would be provided from the Evangeline Thruway to the businesses located in the block in question. Traffic would need to take a circuitous route from the Evangeline Thruway, most likely using Cameron Street, to the west side of the I-49 Connector to access Simcoe Street. Under the MPO Subalternative, traffic would be able to pass directly under the I-49 freeway on Simcoe Street and then use the railroad frontage road to access the businesses.

The loss of driveways from 2nd and Simcoe Streets will have an effect on circulation patterns in the area, making driveway access to the area businesses less convenient. However, because Simcoe Street will remain open under I-49, access to the general area from the surrounding street network will improve. Given the nature of the businesses (industrial service) and the fact that access provisions are currently being provided from North Grant Street (and will continue to be in the future), the loss of direct driveway access from 2nd and Simcoe Streets can probably be adjusted to by the businesses. Loss of access to 2nd Street would occur under any of the alternatives. Loss of Simcoe Street access is a function only of the MPO Subalternative. Greater access to the general area can be taken to mitigate the loss of direct driveway access such that neither Subalternative F nor the MPO Subalternative can be deemed significantly better or worse than the other when considering access provisions to the businesses.

Although an area of right-of-way west of the I-49 Connector between Simcoe and Greig Streets is also shown on Exhibit 2-7 to no longer be needed to construct the I-49 Connector, the acquisition of the properties in this area (except one) will still be required. The unused right-of-way could be put back in commerce or used for visual enhancements or other project enhancement features. This determination would need to be made during the more detailed design studies to be conducted in the near future.

4.5.2.c Access and Circulation to St. Genevieve Church and School Community

The MPO Subalternative has identified an opportunity to keep Greig Street open under the freeway. This is shown on Exhibit 2-7. Keeping Greig Street open would provide the opportunity to tie this street into the driveway access to St. Genevieve School at the Evangeline

Thruway. Stipulation Number 5 in the MOA (Appendix F), however, states that this driveway would instead be tied to Mudd Avenue. In any case, this issue has no bearing on the overall function of the I-49 Connector freeway project.

4.5.2.d Geometric Features

The horizontal and vertical geometry proposed to provide for the Jefferson and Simcoe Street underpasses and to accommodate the I-49 mainline freeway and ramp systems has been designed to meet applicable AASHTO and LaDOTD design criteria. This geometry has been developed at a level of detail needed to make the conclusion that the Jefferson and Simcoe underpass roadways are geometrically feasible. A more detailed traffic analysis and geometric design will be conducted in the near future, after a Record of Decision is issued for the Selected Alternative. It is possible that some features of the horizontal geometry, such as the provision for turning lanes, and other features, such as whether to provide vertical retaining walls or graded slopes for the depressed crossing streets, will be subject to modification and refinement at that time.

4.5.3 PUMPING STATIONS

Pumping stations will be required for railroad underpasses at Johnston and 2nd / 3rd for Subalternative F so that the interchanges with I-49 will operate effectively. If Jefferson and Simcoe Streets were to remain open to traffic for the MPO Subalternative, pumping stations also would be required for the underpasses at these locations in addition to Johnston and 2nd/3rd Streets.

Normal practice for projects such as the I-49 Connector is that the LaDOTD would pay for the initial construction cost of pumping stations for the interchange areas on Johnston and 2nd / 3rd Streets. Maintenance of the pumping stations would depend on the roadway classification. Johnston Street, which is a state highway, would be maintained by LaDOTD. Pump stations at 2nd/3rd, Jefferson, and Simcoe Streets would be maintained by the LCG because they are city streets.

The LCG currently maintains an existing pumping station at the existing Jefferson Street railroad underpass. It is expected that this pumping station would be replaced with a new pumping station with greater capacity. Therefore, because the pumps would be new, maintenance at this facility may be reduced in the short term.

4.5.4 RIGHT-OF-WAY AND DISPLACEMENTS

Subalternative F with Jefferson and Simcoe Streets closed has been a base for comparison of the new right-of-way required to keep Jefferson and/or Simcoe Streets open under the MPO Subalternative. Any differences in right-of-way requirements are noted as follows.

4.5.4.a Simcoe Street

From analyzing the additional right-of-way required in order to provide the Simcoe Street underpass and the right-of-way no longer needed it has been determined that for the MPO Subalternative there would be three additional residential displacements and one less business displacement. Three

additional residences would be located on the north side of Simcoe Street in the area where slope grading is proposed (opposite retaining wall). Regarding businesses, two businesses that formerly would have been acquired would be able to remain. One business that formerly was not needed for right-of-way will now be needed. The difference in right-of-way acreage required between the two alternatives is 0.8 acres less. This is due to 0.3 additional acres of right-of-way in conjunction with 1.1 acres of right-of-way no longer required.

4.5.4.b Jefferson Street

Keeping Jefferson Street open would require one additional displacement, which is commercial, compared to the displacements required for Subalternative F. The difference in right-of-way acreage required to keep Jefferson open is 0.2 additional acres than required for Subalternative F.

4.5.5 OPPORTUNITIES FOR USE OF UNDER BRIDGE AREAS AND RIGHT-OF-WAY

4.5.5.a Sterling Grove Historic District Visual Mitigation

The proposed I-49 Connector project will include mitigation of visual impacts to the Sterling Grove Historic District (SGHD). Whether or not Jefferson Street stays open has no bearing on the visual mitigation plan since Jefferson Street is located several blocks to the south of the district boundaries. Whether or not Simcoe Street stays open has some bearing on visual mitigation opportunities, although this bearing may be dependent on the perspective of each individual.

Subalternative F, as presented in the DEIS, calls for realignment of Evangeline Thruway to the west, providing enough space between the northbound Thruway and the District for aesthetic screening elements such as decorative walls, trees and other plant materials. These elements would visually buffer the impacts of the freeway corridor and could enhance the historic integrity and context of the neighborhood. Under Subalternative F, a continuous strip of land would also be available between the southbound lanes of Evangeline Thruway and the I-49 Connector freeway. Since Simcoe Street would not pass under I-49 on the west side of the Evangeline Thruway, this strip of land would be continuous from Cameron Street to 2nd/3rd Street. This land could be used to further visually buffer the I-49 project and the northbound entrance ramp in this area from the Sterling Grove Historic District.

Under the MPO Subalternative, Simcoe Street would remain open under the I-49 Connector. This would interrupt the continuity of the buffer strip on the west side of the Evangeline Thruway as discussed above. As a result, opportunities for plantings would be lessened if Simcoe remains open under I-49.

Another visual consideration of keeping Simcoe Street open is the view that one might experience if standing in front of the church and looking west towards the I-49 freeway. To the extent that the project is not screened, one would see the I-49 mainline (fully elevated), a northbound entrance ramp from 2nd/3rd Streets (half way between ground level

and fully elevated), and Simcoe street itself beginning its depression and passing under these two elements of the freeway system. The view would be affected by whether retaining walls are provided on Simcoe Street or whether graded slopes are provided. This design feature will be developed further during the Joint Use Development Plan envisioned for the project is finalized.

In any case, the quality of the view that is provided would be subject to one's opinion. Some might appreciate the relationship of the various roadway elements (a fully elevated mainline structure, a half-way elevated ramp structure that is ascending, and a depressed roadway crossing underneath) that are framed by the landscaping and other features. Others might better appreciate as few roadway elements as possible (in other words, no Simcoe Street passing under the freeway).

The LaDOTD, FHWA, Louisiana SHPO, and Advisory Council, with LCG concurring, have signed a Memorandum of Agreement (MOA) that addresses the visual mitigation required for the SGHD for this core area and throughout the project corridor. Refer to Appendix F for documentation of the MOA.

4.5.5.b Linear Parks, Path Systems, or Other Uses

Although the closure of Jefferson and Simcoe Streets as shown in Subalternative F would maximize the opportunities to provide architectural and vegetative enhancement elements due to fewer interruptions from crossing streets, there are some ways in which the MPO Subalternative could also enhance the area.

If Jefferson and Simcoe Streets were to remain open under the MPO Subalternative, consideration should be given to gentle side slopes as opposed to retaining walls where the streets become depressed. This may provide more aesthetically pleasing design opportunities and thus better visual experiences for the motorist travelling along these streets, although land that could be used for other functions (for example, parking) could be lost.

The areas directly beneath elevated expressway structures in general are not conducive to recreation activities, seating or other social spaces. However, they can provide safe and efficient locations for path systems intended for pedestrians and cyclists. The closure of both Jefferson and Simcoe Streets would provide a longer, uninterrupted corridor with fewer intersections and crossings for the user to negotiate. This would provide a greater opportunity for recreational usage than if the streets remain open.

The introduction of parking areas beneath the expressway structure is another possibility for the practical use of this space. The closure of Jefferson and Simcoe Streets would help maximize the number of parking spaces in the area under the bridges. Closure of these streets would also help better visually screen the parking areas since this would eliminate a larger number of smaller parking areas and the visual screening elements would have more continuity and thus be more effective.

4.5.6 CONSTRUCTION COSTS

Cost estimates for keeping Jefferson and/or Simcoe Streets open as underpasses have been tabulated based upon the cost estimates previously performed for 2nd/3rd Street of RR-4 Elevated Subalternative F. The following items were used to calculate to general cost estimates associated with additional construction needed to keep Jefferson and Simcoe Streets open:

- Pavement (including subbase and base)
- Curb and gutter
- Pump station
- Signing and striping
- Retaining wall
- Excavation

The estimates indicate that keeping Jefferson open for access underneath I-49 would cost nearly $6.2 million for construction, not including the cost to remove the existing pump station in place. In addition, Simcoe Street cost estimates show a construction cost of approximately $4.0 million to construct. These cost estimates are for depressed roadways that have vertical retaining walls adjacent to the roadway. This would represent the highest cost design approach. Alternatives with graded slopes could be used that would reduce the costs, but would remove some land that could otherwise be used for other functions. The selected engineering design of these underpasses would need to be coordinated with the Joint Use Development Plan that will be developed for the I-49 Connector corridor.

4.6 STERLING GROVE HISTORIC DISTRICT VISUAL MITIGATION OPPORTUNITIES

Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) has identified that an adverse visual effect on the Sterling Grove Historic District would occur as a result of the proposed I-49 Connector project. Because of this, visual mitigation and enhancement opportunities were explored by a combination of concepts generated by professional urban designers/landscape architects and design workshops involving residents and stakeholders of the Sterling Grove Historic District. The visual mitigation alternatives resulting from the meetings were used to achieve a Memorandum of Agreement (MOA) which is discussed in more detail in Section 4.7 and a copy is provided in Appendix F.

Two design workshops were held on December 6th, 2001, between stakeholders and residents of the Sterling Grove Historic District, representatives of the LaDOTD, the Lafayette MPO, the FHWA, and other members of the design team. The purpose of the workshops was to review and explore design alternatives for mitigating visual impacts of the I-49 Connector on the historic district including the St. Genevieve Catholic Church and Elementary School. The first workshop was held at St. Genevieve Catholic

Church and included church stakeholders, teachers from the school and the church pastor. The second meeting was held at the Postal Square Building and included participants from the public.

The attendees of the workshops were offered a base map of the Sterling Grove Historic District with the RR-4 alignment and requested to sketch or write down all ideas that were important to them. Urban Designers and were in attendance to help facilitate the design exploration and discussion.

The following is a list of visual mitigation ideas and concerns that were explored both graphically and verbally at the workshops:

- Trees and landscaping along Evangeline Thruway and the elevated freeway;
- Pedestrian friendly environment such as brick crosswalks, human scale elements like light fixtures, architectural walls, interpretive signs and graphics;
- Public open space for parks and recreation;
- Architectural elements along the historic district and on the freeway structure that would promote a consistent appearance and character;
- Gateway elements to the historic district that would define, announce entry to, and create an identity for the district;
- Limitations or prohibition of billboards and other signs along corridor;
- Linear park or urban forest within the I-49 right-of-way;
- Elements to discourage improper uses/illegal activities in under-bridge areas;
- Maintaining access to existing residence on Grieg Street;
- One-way connection from Elizabeth to Mudd Avenue to improve existing traffic congestion and circulation at St. Genevieve School;
- Lighting for security and aesthetic purposes;
- Maintain on-street parking for St. Genevieve Church on Simcoe Street;

Because the RR-4 alignment moves Evangeline Thruway farther away from the historic district and church, it offers enough space for aesthetic screening elements such as decorative walls, trees and landscaping. Many of the ideas explored during the workshops as listed above could be located in this space as well as between the realigned Evangeline Thruway and the I-49 Connector. These elements would visually buffer the impacts of the freeway corridor as well as enhance the historic integrity and human scale of the neighborhood. In addition to screening elements such as trees, earthwork and architectural walls, urban design elements offering a "connectedness" that ties the historic district to the surrounding urban fabric and maintains pedestrian linkage to the other side of the proposed elevated freeway could also be implemented. Brick crosswalks,

human scale elements, and decorative lighting are some of the elements that can be utilized to enrich and maintain the historic character and human scale of the District.

Exhibit 4-8 illustrates the existing conditions of the Sterling Grove Historic District and Exhibits 4-9 and 4-10 are renderings that represent many of the visual mitigation concepts explored during the design workshops and addressed in the MOA. As part of the MOA, LaDOTD has committed to addressing these mitigation measures into a detailed visual mitigation plan, which will be carried out during project final design.

4.7 MEMORANDUM OF AGREEMENT (MOA)

As mentioned in the previous section, a Memorandum of Agreement (MOA) between FHWA, LaDOTD, and the State Historic Preservation Officer for Louisiana (SHPO) along with concurrence by LCG has been developed for the proposed project in response to the Section 106 study performed for the project. It has been determined through the study that the I-49 Connector project will have an adverse visual effect on the Sterling Grove Historic District. The MOA commits FHWA and LaDOTD to mitigate the visual effects to the district as well as specify a strategy for archaeological investigations within the corridor.

Coordination with SHPO, residents of the district, and St. Genevieve Church and School has been carried out during the development of the MOA and beyond. FHWA and LaDOTD have conducted meetings/design workshops to review the conceptual visual mitigation design alternatives for the district and receive input. Section 4.6 discusses the various mitigation measures suggested at the public meetings. In addition, coordination with SHPO regarding the archaeological data recovery plan has also been addressed at various meetings.

The MOA for the proposed project as presented in Appendix F contains the following:

- Provisions for mitigating the adverse visual effects to the Sterling Grove Historic District,
- A plan for archaeological investigations to be performed in conjunction with the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment,
- A procedure for monitoring and reporting the progress of the actions proposed in the MOA,
- Procedures for disputing resolutions pertaining to the MOA,
- Proceedings for amendments and noncompliance to the MOA, and
- Viable circumstances for termination of the MOA.

The MOA will be referenced in the Record of Decision (ROD) to affirm that the conditions of the agreement are adhered to once the project is approved for implementation.

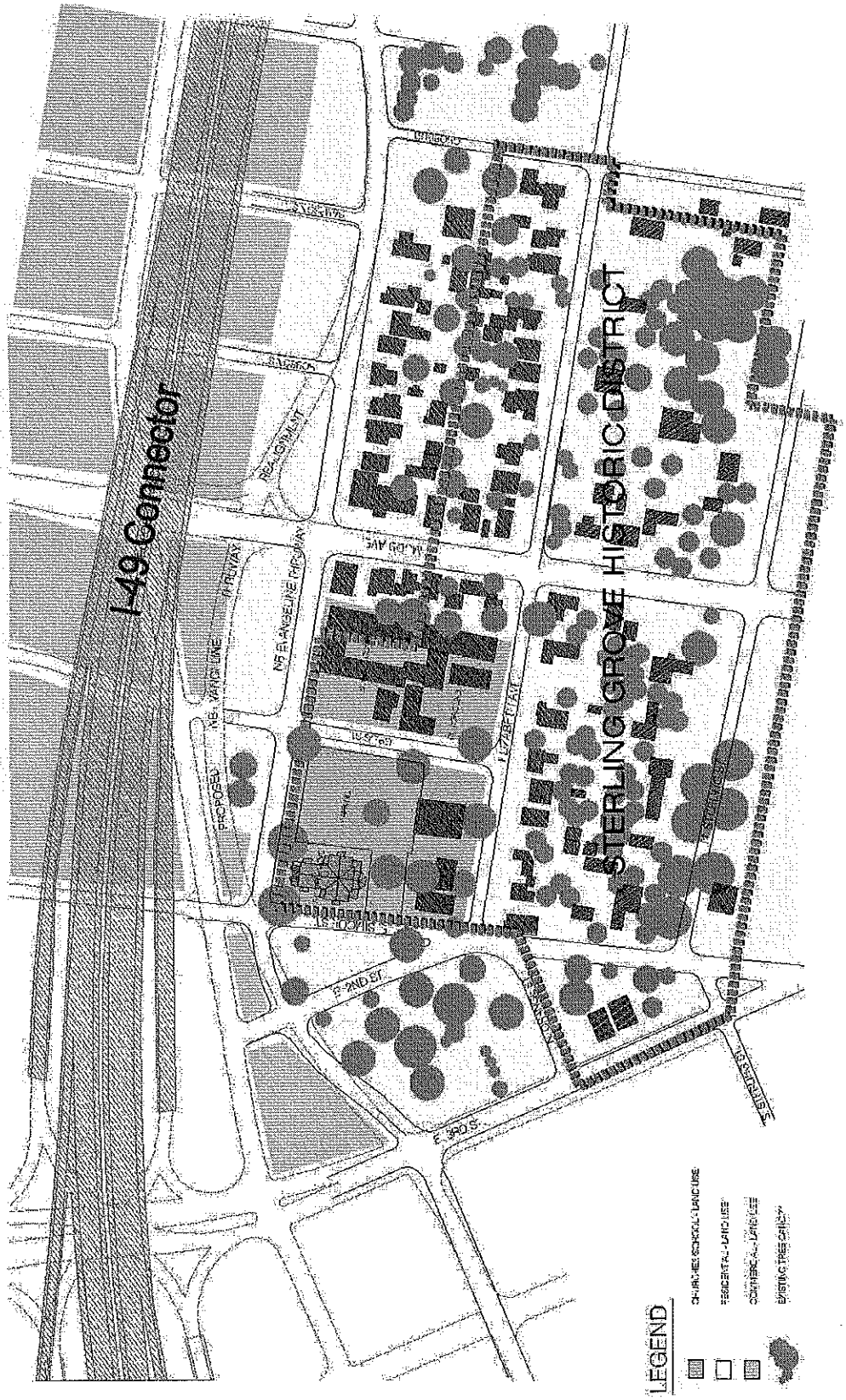


Exhibit 4-8

STERLING GROVE HISTORIC DISTRICT

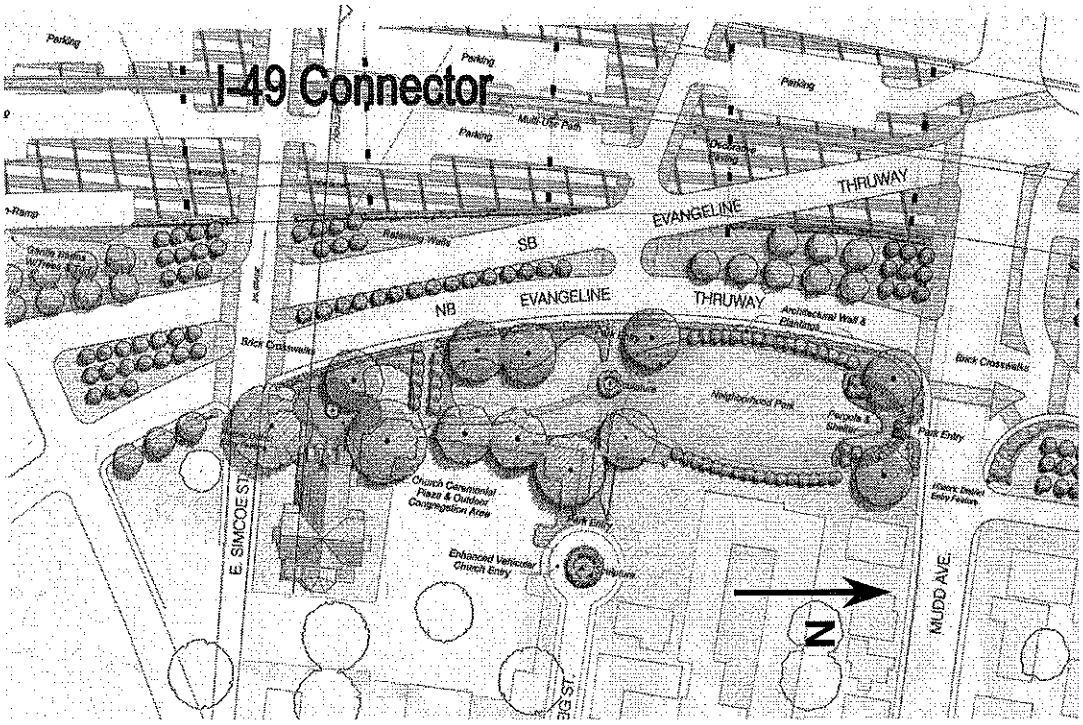


Exhibit 4-9
STERLING GROVE HISTORIC DISTRICT MITIGATION CONCEPT
(Plan View)

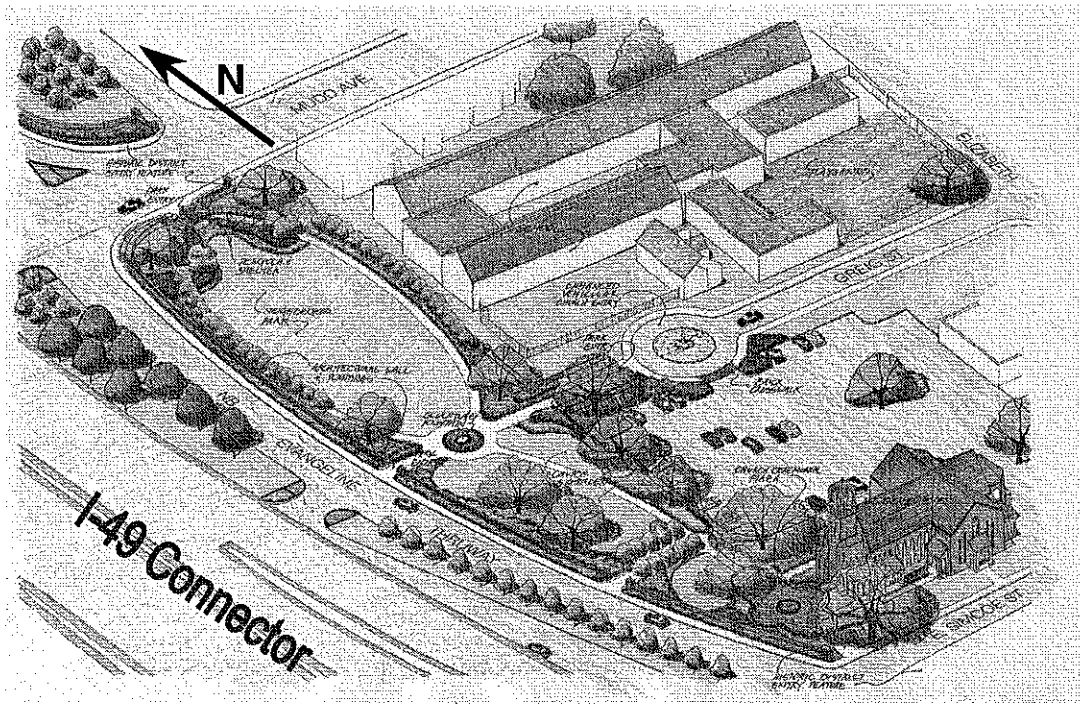


Exhibit 4-10
STERLING GROVE HISTORIC DISTRICT MITIGATION CONCEPT
(Aerial View Looking Northeast)

4.8 LAST RESORT HOUSING PLAN

Based on the inadequate supply of available housing within the area for displacees, a Last Resort Housing Plan has been developed as part of the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. The plan will be administered by LaDOTD and FHWA in conjunction with LCG. The Joint Cooperative Endeavor Agreement (JCEA) which includes the LCG Corridor Preservation and Management Action Plan as Attachment A is provided in Appendix G.

4.9 INTERIOR NOISE ANALYSIS (FOR SELECTED ALTERNATIVE)

In response to the exterior noise impact identified in the Draft EIS for LeRosen and St. Genevieve Elementary Schools LaDOTD has performed an interior noise study for the schools. An Interior Noise Technical Report was produced to examine the interior noise for the classrooms at the schools and to determine appropriate mitigation measures where applicable.

The two schools referred to in the study are adjacent to the selected alternative, RR-4 Elevated. The LeRosen Elementary School is located on the southwest corner of the SB Evangeline Thruway and Pinhook Road. The St. Genevieve Elementary School is located on the southeast corner of Mudd Avenue and NB Evangeline Thruway.

The FHWA's Noise Abatement Criteria (NAC) and the LaDOTD Highway Traffic Noise Policy, October 1997, were used in the analysis of the acoustic impact of the proposed project. The NAC, which is presented in the Code of Federal Regulations, Title 23 Part 772, revised October 1997, provides procedures whereby the acoustic impact of the proposed action can be assessed and the needs for abatement measures determined. The NAC is supplemented with the LaDOTD's Highway Traffic Noise Policy. The LaDOTD Noise Abatement Criteria for various land uses are presented in Table 4-14. The noise level descriptor used is the equivalent sound level, Leq(h), defined as the steady state sound level which, in a stated time period (one hour) contains the same sound energy as the actual time-varying sound.

The schools fall under Activity Category E in the NAC for interior noise levels for schools and libraries. The LaDOTD Highway Traffic Noise Policy states that a traffic noise impact occurs when the future noise levels equal or exceed the value of 51 for these types of facilities or the projected future noise level is 10 dBA or more above the existing noise level. When an impact is projected, noise abatement procedures are to be reviewed for feasibility and reasonability.

Table 4-14
LaDOTD NOISE ABATEMENT CRITERIA
HOURLY A-WEIGHTED SOUND LEVEL-DECIBELS (dBA)

Activity Category	Leq(h) (1 Hr)	Description of Activity Category / Land Uses
A	56 dBA (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the lands are to continue to serve their intended purpose.
B	66 dBA (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries and hospitals.
C	71 dBA (Exterior)	Developed lands, properties or activities not included in Categories A or B above.
D	---	Undeveloped lands.
E	51 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

Source: State of Louisiana Department of Transportation and Development, Highway Traffic Noise Policy, October 1997.

A visual survey was conducted for the two schools to determine the use of each building (classroom, gym, library, etc), the type of construction of the various buildings, the window types, and distances between the schools and the roadway.

The following parameters were also used in the modeling to calculate an hourly $L_{eq}(h)$ at a specific receiver location:

- Distance between roadway and receiver;
- Relative elevations between roadway and receiver;
- Hourly traffic volumes for light-duty (two axles, four tires), medium-duty (two axles, six tires), and heavy-duty (three or more axles) vehicles;
- Vehicle speed;
- Roadway grade;
- Topographic features, including retaining walls and berms; and
- Noise source height of the vehicles.

Eighteen (18) receiver locations, labeled N1 through N18, were selected to illustrate the exterior L_{eq} noise levels at the LeRosen Elementary and St. Genevieve schools. Noise modeling sites, N1 through N8 and N9 through N18, are identified on Exhibits 4-11 and 4-12, respectively. The results of the computer modeling are presented in Table 4-15. Future design hour exterior L_{eq} noise levels would exceed the NAC at all eighteen (18) representative receptors.

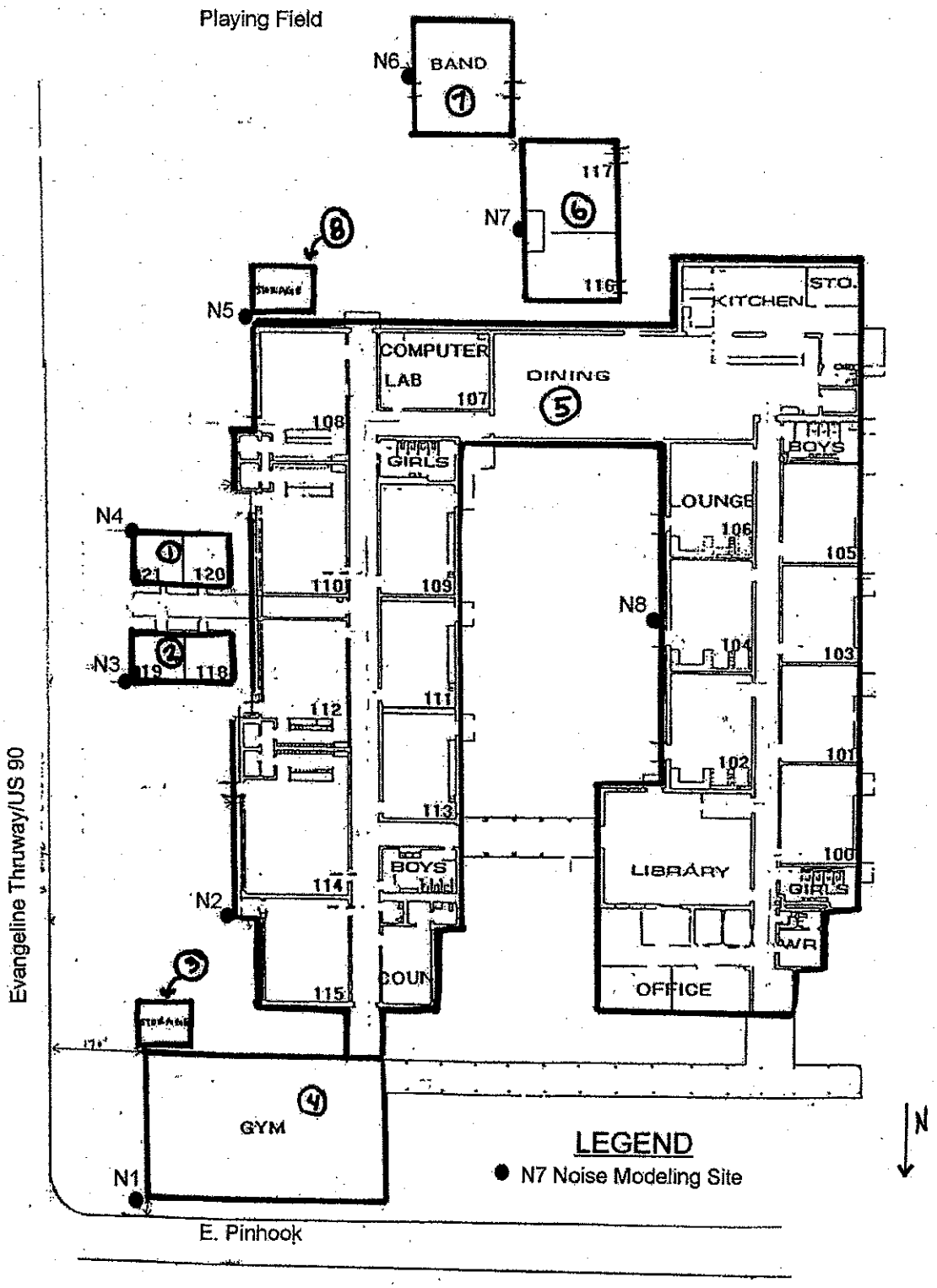


Exhibit 4-11

LEROSEN ELEMENTARY SCHOOL

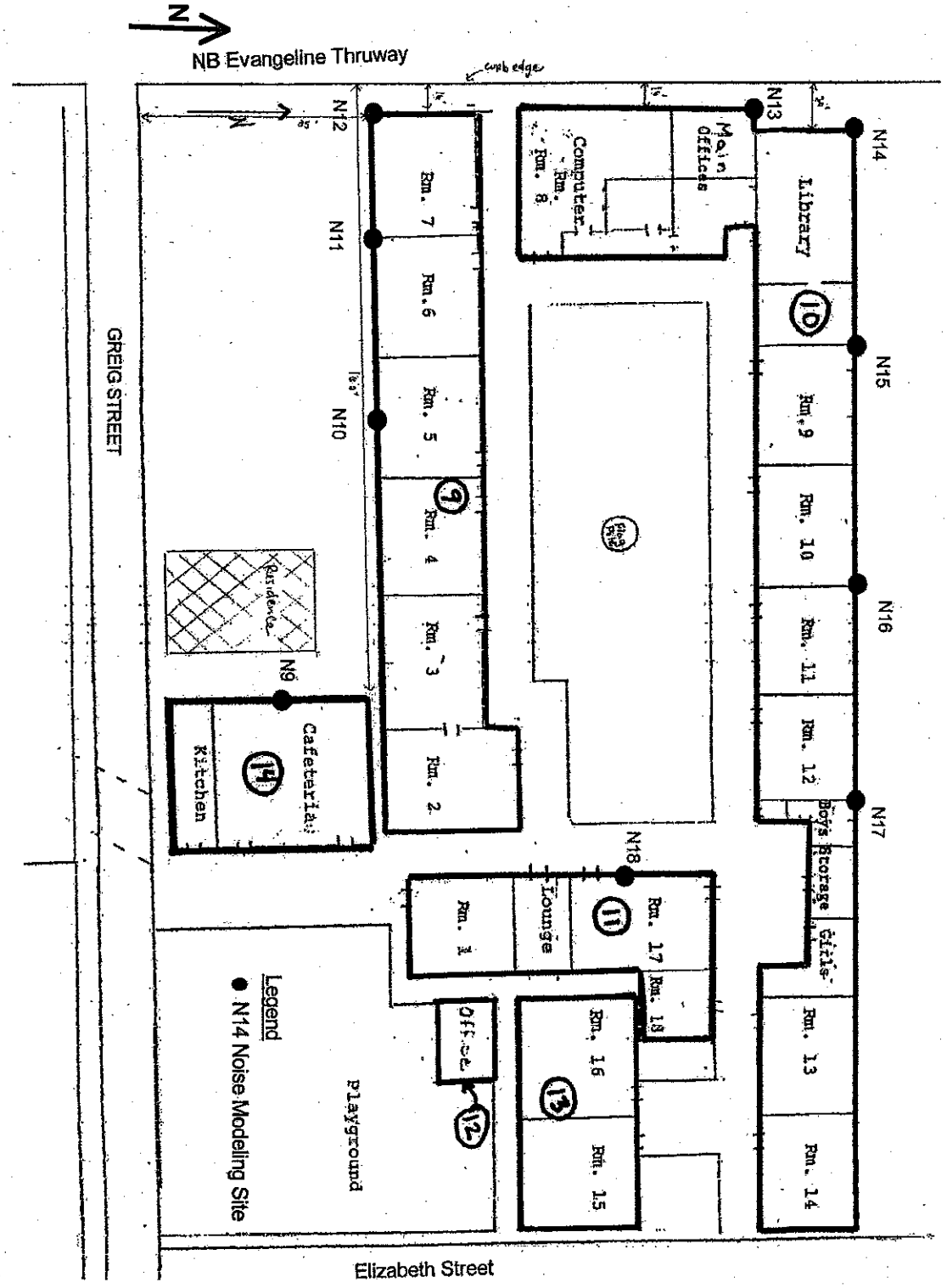


Exhibit 4-12

ST. GENEVIEVE ELEMENTARY SCHOOL

Since an exterior noise impact was identified at both schools, it was deemed appropriate to determine the interior noise levels of the classrooms to determine whether or not the noise levels exceed the Activity Category E NAC of 51 dBA L_{eq}. The interior noise level is defined as:

$$L_{eq\ Indoors} = L_{eq\ Exterior} - STC + L_{Reflected} + F$$

Where $L_{eq\ Exterior}$ is the computer modeled STAMINA L_{eq} noise level, STC is the composite sound transmission class of the exterior walls, $L_{Reflected}$ is a 3 decibel correction for the sound reflected from the building, and F is a 6 decibel correction applied to the STC to compensate for the lower frequencies experienced with heavy truck traffic[4)].

The composite STC of each wall is a function of the STC of each component of the wall based on the fractional area of the wall component compared to the total wall area.

The L_{eq} noise levels developed by STAMINA do not consider the noise reflected from a building. When determining interior noise levels the outdoor noise levels must include the noise reflected from the building. Therefore, the modeled L_{eq} noise levels were increased by 3 decibels, $L_{Reflected}$.

Typical building components provide more sound attenuation at high frequencies than at low frequencies. The difference between the A-weighted sound levels from the source and in the receiving rooms depends on the frequency components of the source and the ability of the exterior walls to mitigate the frequencies. The single number STC was developed specifically for rating noises that have their energy in the middle and high frequency ranges. Since the proposed I-49 Connector would have more than 10% trucks, a Source Spectrum (F) correction factor was applied to the composite STC for each wall.

The resulting interior noise levels are presented in Table 4-15. Based on the information available the Gymnasium and the Computer Laboratory at the LeRosen Elementary School and the Library at the St. Genevieve Elementary School would be exposed to noise levels that exceed the NAC of 51 dBA L_{eq}.

The Gymnasium at LeRosen has three large air vents that are facing Evangeline Thruway and would be facing the proposed I-49 Connector. These large vents provide little if any attenuation from traffic noise. The exterior wall LeRosen's Computer Laboratory is 80% windows. These windows do not provide sufficient attenuation from traffic noise.

The wall of the St. Genevieve Library that faces the Evangeline Thruway and would face the proposed I-49 Connector is 40% windows. These windows do not provide sufficient attenuation from traffic noise.

Table 4-15
DESIGN HOUR NOISE LEVELS, dBA $L_{eq}(h)$

Receiver I.D.[1]	Building Classification	NAC Category	Exterior NAC Level	Interior NAC Level	STC[2]	Alternative RR-4 Elevated	
						Exterior[3]	Interior
Le Rosen Elementary School							
N1	Gym	B	66	51	25	77	52
N2	Room 114	B	66	51	27	76	49
N3	Room 119	B	66	51	28	77	49
N4	Room 121	B	66	51	28	77	49
N5	Room 108	B	66	51	27	76	49
N6	Band	B	66	51	35	76	41
	Computer Lab	B	66	51	22	73	51
N7	Room 116, 117	B	66	51	27	73	46
N8	Room 104	B	66	51	33	73	40
St Genevieve Elementary School							
N9	Cafeteria	B	66	51	22	66	44
N10	Room 5	B	66	51	24	72	48
N11	Room 6	B	66	51	24	72	48
N12	Room 7	B	66	51	24	74	50
N13	Main Office/ Computer Room	B	66	51	47	76	29
N14	Library	B	66	51	23	76	53
N15	Room 9, 10	B	66	51	24	72	48
N16	Room 11	B	66	51	24	71	47
N17	Room 12	B	66	51	24	71	47
N18	Room 17	B	66	51	31	71	40

1) Receiver locations are presented in Exhibits 1 and 2
2) STC with source spectrum correction
3) STAMINA L_{eq} noise levels adjusted for reflection and school building shielding

It has been identified that the LeRosen Computer Laboratory and the St. Genevieve Library windows could be replaced with acoustical windows to reduce the interior noise levels in the these two buildings. The LeRosen Computer Laboratory would require an acoustical window with a minimum STC of 27. The acoustical window for the St. Genevieve Library would need to have a minimum STC of 29.

Replacing the windows is the most desirable solution since it would not reduce the natural light to these two rooms.

This action should be taken prior to construction of the I-49 Connector so that benefits would accrue both for the construction period and the period of day to day freeway operations thereafter. The LaDOTD could make a direct mitigation

payment to the schools based on the estimated costs of the windows as discussed above, with the concurrence of the FHWA and the written agreement of the respective school administrations to implement the installations.

No mitigation has been recommended for the LeRosen Gymnasium. The types of activities taking place in the Gymnasium do not necessarily require a noise level below 51 dBA Leq.

4.10 STUDY OF OAK TREE NEAR CASTILLE/THRUWAY INTERSECTION

A tree study was also performed on Live Oak Tree No. 103, which is located in the median between the north and southbound lanes of Evangeline Thruway near its intersection with Castille Street. The tree is considered a heritage tree, as it is over one hundred years old, and is in good to excellent condition. It has done well despite its struggle to overcome the impacts of grading and soil compaction during the construction of Evangeline Thruway over the past years. The tree has been properly pruned and mulched and has adequate moisture to promote good health and vigor.

The design team has developed a modified design concept of the locally preferred alternative as presented in the DEIS (Subalternative H) in order to provide an opportunity for the I-49 project to miss this tree. Exhibit 4-10a shows a revised plan layout of the I-49 Connector that presents this plan. The modified plan would realign the I-49 mainline further to the west and the entrance ramp from Willow Street further to the east. The I-49 Connector and the entrance ramp would straddle Live Oak No. 103 as shown in the typical section on Exhibit 4-10b. Estimated horizontal dimensions indicate approximately one hundred forty-four feet between the two structures, which is adequate to avoid direct impact upon this tree. This configuration would allow Live Oak No. 103 to remain in place. Continued pruning over the years may be required so that the tree canopy does not encroach on the I-49 mainline or the northbound entrance ramp structures.

The realignment of Evangeline Thruway to the east of the northbound Entrance Ramp will not impact the root zone of Tree No. 103.

Considerations to provide additional space and visual quality for this tree may be provided by:

1. Reversing the locations of the re-aligned Evangeline Thruway and the proposed northbound entrance ramp so that the entrance ramp is to the east of Evangeline Thruway. This would provide unobstructed views of the tree from the ground level northbound Evangeline Thruway.

2. Shifting the I-49 mainline structures approximately 20-25 feet to the west. However, this may require additional right-of-way on the west side of the Evangeline Thruway southbound lanes.

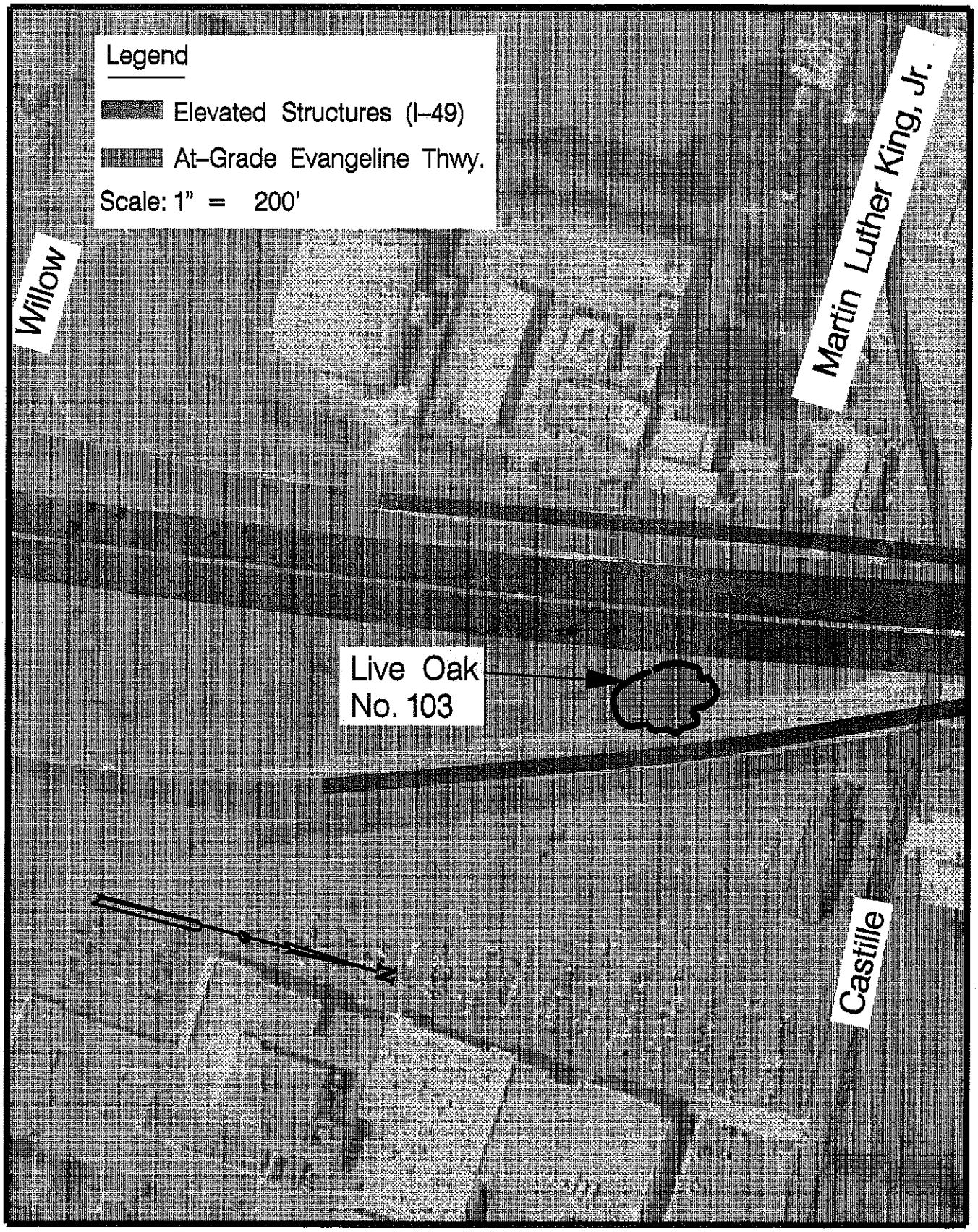
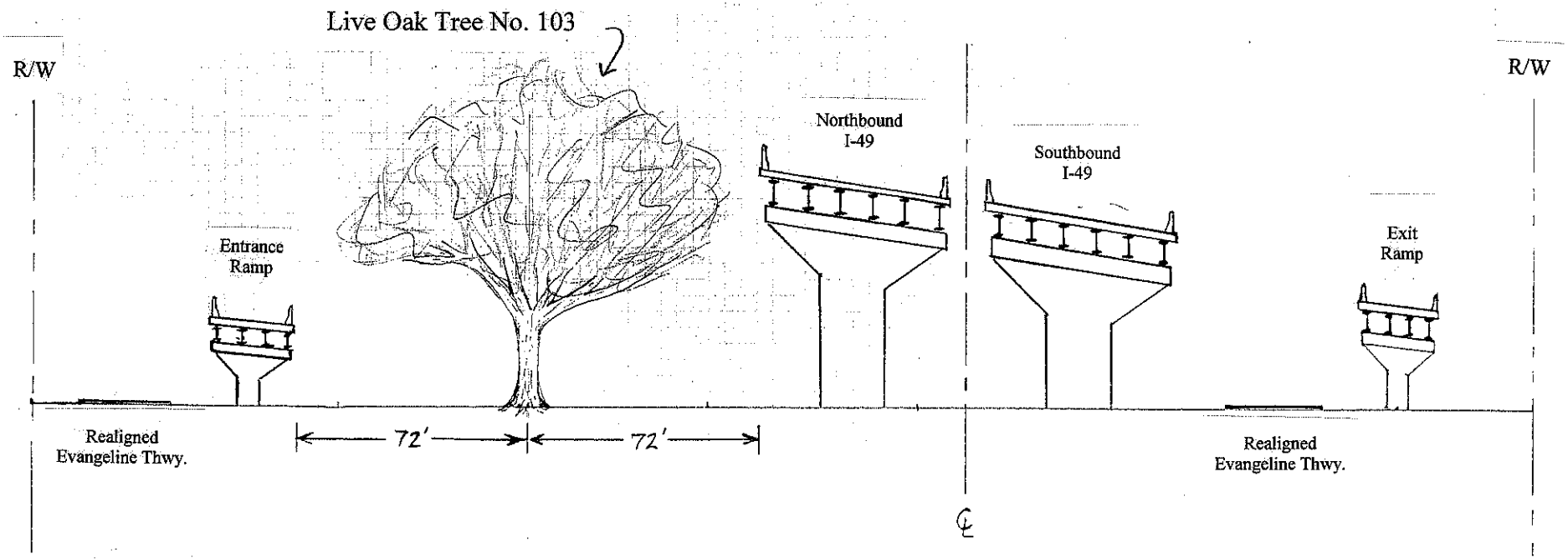


EXHIBIT 4–13a
HERATAGE OAK TREE
IN MEDIAN AT CASTILLE
(Plan View)



Note: This section is based upon horizontal alignments at 1" = 200' scale
Dimensions shown are estimates only.

Scale: H: 1" = 50'
V: 1" = 20'

EXHIBIT 4–13b
HERITAGE OAK TREE
IN MEDIAN AT CASTILLE
(Typical Section)

REFERENCES

American Association of State Highway and Transportation Officials. 1977. A Manual on User Benefit Analysis of Highway and Bus-Transit Improvements.

Benson, Paul E. 1979. CALINE3 - A Versatile Dispersion Model for Predicting Air Pollutant Levels Near Highways and Arterial Streets. Office of Transportation Laboratory, California Department of Transportation, Sacramento, California, November, 1979.

Bowlby, William; Higgins, John; Regan, Jerry. March 1983. Noise Barrier Cost Reduction Procedure, STAMINA 2.0/OPTIMA: Users Manual. Federal Highway Administration Demonstration Projects Division, Arlington, VA.

Brady, N. C. 1974. The Nature and Properties of Soils. Macmillian Publishing Co. New York 553-554 pp.

Buffington, Jesse L. 1997. Social, Economic, and Environmental Effects of Elevated, Depressed, and At-Grade Level Freeways in Texas, Research Report 1327-6F. Texas Transportation Institute. College Station, Texas.

Code of Federal Regulations, Title 23, Part 772. April, 1989. Procedures for Abatement of Highway Traffic Noise and Construction Noise.

Cowardin, Lewis M., Virginia Carter, Francis Galet and Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Office of Biological Services. FWS/OBS - 79/31.

Dasman, R. F. 1964. Wildlife Biology. John Wiley & Sons, Inc. New York 231 pp.

Gibson, L. Jon; Mamalakis, M.; Brasseaux, C.; Kuttruff, L.; Winn, ; Hebert A. 1991. Where the River and the Ridge Meet: Cultural Resources Investigations along the I-49 Connector, Lafayette, Louisiana.

Klein, G. E.; Curry, A.; Ellis, H. B.; Fratessa, C. L.; McGillivray, R. G.; Moon, A. B.; Thompson, G. I.; and Tilton, P.; 1971. Methods of Evaluation of the Effects of Transportation Systems on Community Values. Department of Housing and Urban Development, Washington D.C.

Hejzlar, Zdenek. 1999. Technical Aspects of Phase I/II Environmental Site Assessments. ASTM stock number: MNL43. American Society for Testing and Materials, Philadelphia, PA.

Louisiana Administrative Code Volume 14 Title 33. Environmental Quality; Solid Waste, Water Quality, Underground Storage Tanks.

Louisiana Department of Transportation and Development, October 1997. Highway Traffic Noise Policy.

McInnis, A. Kell. 1991. Personal communication. Department of Wildlife and Fisheries.

Shaheen, Donald 1975. Contributions of Urban Roadway Usage to Water Pollution. Office of Research and Development, U.S. Environmental Protection Agency. Protection Technology Series, EPA-600/2-75-004.

Touchet, A. 1991. Personal communication. USDA, Soil Conservation Service.

Tunnard, Christopher and Boris Pishkarev. 1963. Man-Made America: Chaos or Control. New Haven and London: Yale University Press.

United States Environmental Protection Agency. 1977. Guidelines for Review of EIS's Subject to Section 1424(e) of The Safe Drinking Water Act.

U.S. Army Corps of Engineers. June 1995. Lafayette Parish, Louisiana, Flood Control Reconnaissance Report. New Orleans District.

U.S. Environmental Protection Agency. February, 1989. User's Guide to MOBILE4 (Mobile Source Emission Factor Model). Office of Mobile Sources, Emission Control Technology Division, Test and Evaluation Branch, Ann Arbor, Michigan.

U.S. Environmental Protection Agency. November 1992. Guideline for Modeling Carbon Monoxide from Roadway Intersections. Office of Air Quality Planning and Standards, Technical Support Division. Research Triangle Park, North Carolina:

U.S. Environmental Protection Agency. September 1995. User's Guide to CAL3QHC 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections (EPA-454/R-92-006). Office of Air Quality Planning and Standards, Technical Support Division. Research Triangle Park, North Carolina:

U.S. Environmental Protection Agency. September 1996. User's Guide to MOBILE5a (Mobile Source Emission Factor Model). Office of Mobile Sources, Emission Planning and Strategies Division, Air Quality Analysis Branch. Ann Arbor, Michigan.

5. COMMENTS AND COORDINATION

Chapter 5

COMMENTS AND COORDINATION

An integral part of the I-49 Connector study has been the establishment and promotion of an effective community participation program. The basic elements of the program are:

- A scheduled, advertised MIS/Mode public meeting
- A scheduled, advertised DEIS public meeting
- Numerous meetings & correspondence with interested groups throughout the study area
- Newspaper print and television coverage
- Numerous meetings and correspondence with government agencies on the local, state, and federal level
- The community Design Workshop sponsored by the Lafayette Consolidated Government
- A formal public hearing was held on December 14, 2000 following publication of the Draft Environmental Impact Statement (DEIS), dated November 2000
- Design workshops/charettes with Sterling Grove Historic District residents and members of St. Genevieve Church were held to discuss ways to mitigate visual impacts of the proposed project on the district and incorporate them into the Memorandum of Agreement (MOA)

The public participation program details are documented in Appendix C.

5.1 EARLY COORDINATION PROCESS

A "Notice-of-Intent" was prepared and distributed by the Federal Highway Administration. This information, which formally serves to notify interested parties of a project's purpose, intent, and schedule, was published in the Federal Register on April 14, 1998. The Notice-of-Intent is reproduced in Appendix C. In addition, a written "Solicitation-of-Views" letter dated May 5, 1998, was mailed to various agency representatives, legislators, and selected members of the general public. Comments were requested regarding potential impacts regarding the project. The Solicitation of Views letter and distribution list is reproduced in Appendix C.

Various local, state and federal agencies were invited to attend a formal Scoping Meeting that was conducted on June 24, 1998. The object of the Scoping Meeting

was to receive input from agencies and citizen groups on issues to be discussed and evaluated in the DEIS concerning the I-49 Connector in the Evangeline Thruway corridor. The meeting minutes were composed and distributed to each of the meeting attendees and to the agencies that were invited but unable to attend. The Scoping Meeting letter of invitation, a list of those agencies invited, and the Scoping Meeting Minutes are reproduced in Appendix C.

5.2 PUBLIC INFORMATION PROGRAM

A formal Solicitation of Views letter was mailed to those members of the general public who actively participated in the original DEIS studies conducted in 1991 and 1992, plus other appropriate parties. The distribution list for the SOV letter and the responses received are reproduced in Appendix C.

Articles and announcements were published in local newspapers to inform the public of the project and to announce formal public meetings. These included a Major Investment Study (MIS)/Mode Meeting and a DEIS Public Meeting. Newspaper and television media representatives were encouraged to attend the meetings and were offered support in developing articles and stories.

The MIS/Mode Meeting was held on June 24, 1998, at the Lafayette One Stop Shop Auditorium. Advertisements for this meeting were published in the Lafayette newspapers The Daily Advertiser and The Times of Acadiana.

The MIS/Mode Meeting concluded that the development of a freeway in the Evangeline Thruway corridor should be implemented as transit improvements alone could not accommodate the existing and projected trips. An MIS/Mode Meeting Report is on file with the LaDOTD, and an MIS/Mode Meeting Summary is located in Appendix C.

The DEIS public meeting was held in Lafayette on July 30, 1998. Notices of the meeting were published in the Lafayette newspapers The Daily Advertiser and The Times of Acadiana, twice prior to the actual meeting date. Approximately ninety-six citizens, not counting LaDOTD and FHWA representatives, attended the meeting held at the Lafayette Frem F. Boustany Convention Center. Maps, charts, and aerial photography were displayed in the room. An explanation of the project was followed by a brief question/answer session. A Public Meeting Report was prepared and is on file at LaDOTD.

In the Lafayette DPZC offices, displays are posted for viewing, and staff personnel are available during regular business hours to address questions.

Study Team personnel also attended several community meetings held in Lafayette. One or more presentations have been made to representatives of various community groups.

Study Team personnel met active members of the Chamber of Commerce. The Chamber of Commerce representatives viewed the I-49 Connector as an economic asset to the Lafayette area and also expressed support for the cut and cover alternative that had been proposed in 1993 but is no longer being considered.

A meeting between representatives of the Lafayette Department of Planning, Zoning & Codes, and Study Team personnel was

held to discuss the community's concerns regarding the proposed I-49 Connector. The DPZC stated that the Lafayette Consolidated Government (LCG) was in favor of the project but was not taking a position in favor of any particular alternative. They did not expect relocations to be a problem. Also, the DPZC approved a drawing showing the anticipated growth areas in the project area. This graphic is shown in Exhibit 3-9.

Representatives from the Study Team met representatives from the Sterling Grove Historic District and St. Genevieve Church. The opinion of the St. Genevieve Church representatives was that the present situation is undesirable, and they asked if the northbound frontage road could be moved further away from the church and St. Genevieve Elementary School. Originally in the development of this project, the Sterling Grove and St. Genevieve Church representatives preferred either a cut and cover or depressed freeway. At one time prior to the EIS this type of freeway was considered but as it was closer examined it was determined not viable and thus is not included in the EIS.

Study Team representatives met representatives of the Downtown Development Authority (DDA), to discuss the DDA's concerns with the I-49 Connector project. The DDA does not want the project to adversely impact redevelopment of the downtown by inhibiting access into the downtown area or isolating the downtown visually or psychologically. They originally stated opposition to the railroad alternatives and favored the cut and cover alternative which was not a viable alternative. The DDA was also interested in the possibility of an interchange with 3rd and 2nd Streets, making Congress Street the major focus into the downtown area. A follow-up meeting with the DDA was conducted on September 1, 1998. At this meeting, various geometric layouts were presented for the project design in the core area. It was concluded that an interchange focusing on 2nd and 3rd Streets exclusively would not be in the greater good, as several key streets which currently feed into and out of the downtown area necessarily would be closed.

Community Design Workshop

The Lafayette Consolidated Government, acting in its capacity as the Metropolitan Planning Organization (MPO), and working through its three MPO Advisory Committees — the Citizens Advisory Committee, Transportation Technical Committee and Transportation Policy Committee —instituted an extensive community outreach program involving four neighborhood organizations as well as an association of neighborhood organizations called Neighborhood Pride. This outreach effort was included as a part of the Community Design Workshop study described more fully in Section 4.2.8. The Workshop specifically included the active participation of these neighborhood organizations in numerous "charrettes" to help identify and mitigate potential problems and negative impacts generated by the freeway facility.

The active involvement of local neighborhood groups proved to be a major component of the Community Design Workshop report prepared for the I-49 Connector project. In addition to including residents and business owners in "charrettes", the MPO staff and Workshop provided and continues to provide periodic updates on the progress and status of development and options being prepared for recommendation to the MPO advisory committees. These updates are presented at

the regular meetings of the neighborhood organizations.

Details of the public participation process prior to the DEIS public hearing are attached as Appendix C.

Public Hearing

Following the distribution and review of the DEIS, a formal Public Hearing was held in Lafayette at the Frem F. Boustany Convention Center on December 14, 2000. Notices of the public hearing were published in the Lafayette newspapers The Daily Advertiser and The Times of Acadiana, prior to the actual meeting date. A copy of the Public Hearing Notice is contained in Appendix C. Approximately 276 citizens, not counting LaDOTD and FHWA representatives, attended the public hearing.

Representatives from LaDOTD and the design team presented the general information for the project including purpose and need and the project history. Representatives also gave explanations for exhibits and the project details. Exhibits displayed at the hearing included the various alternatives being considered and possible visual enhancements designed by University of Louisiana at Lafayette (ULL) Architecture students. In addition, there were presentations on right-of-way acquisition and relocation assistance information, as well as the community design workshops. Following these presentations, statements were heard, discussed, and recorded for future study and inclusion in this Final EIS. The public could also send written statements to LaDOTD within ten days following the public hearing and the comments would be included in the Public Hearing Report along with the oral comments. A Public Hearing Report was prepared and is on file at LaDOTD. Documentation for the December 14, 2000, Public Hearing is provided in Appendix C.

Comments Received Regarding the DEIS

A summary of the oral and written comments received regarding the DEIS is provided in Table 5-1. This table presents a summary of the comments received along with response(s) for each comment. A reference has been provided in the table for locating the pertinent text within this Final EIS.

In addition to the oral and written comments documented in the DEIS Public Hearing Report, written comments have also been received from various federal, state, and local agencies regarding the DEIS. Comments received on the DEIS from agencies, along with responses to each, are contained in Appendix C.

Memorandum of Agreement Comments

It was identified that an adverse visual effect on Sterling Grove Historic District would occur as a result of the proposed I-49 Connector project. Because of this, visual mitigation and enhancement opportunities were explored in design workshops directed to residents and stakeholders of the Sterling Grove Historic District. A Memorandum of Agreement (MOA) was developed and signed between the Federal Highway Administration, the Louisiana Department of Transportation and Development, the Louisiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation. This MOA is discussed in more detail in Section 4.7 and a copy is provided in Appendix F. The Lafayette Metropolitan Planning Organization's (MPO) Citizen Advisory Committee, Transportation Technical Committee, Transportation Policy Committee and Planning Commission met in a Joint Meeting on August 21, 2002, and affirmed their approval of the MOA as a concurring party. Comments submitted at this meeting will be evaluated and considered during the development of the mitigation plan for the Sterling Grove Historic District. See Appendix C, p. C-212, for the MPO letter transmitting comments.

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
1 51 Total Comments	**SUPPORTS THE PROJECT IN GENERAL**		**General Response:** Comments Noted	
	Key Issues:			
	• (2) State that the majority of those who attended the public hearing are supportive of the project.	Citizens Action Committee member	Comment Noted.	
	• (15) Support the project because it will improve hurricane evacuation conditions.	Business Owners, Chief of Police, Transportation Policy Committee, Former member of Gov. Task Force, Chair of Gov. Task Force, & Residents	Comment Noted.	
	• (14) State that the project will stimulate economic development within the area and statewide. One comment mentions the corridor is important for the tourism industry in Louisiana.	Residents, Transportation Policy Committee, Chair of Gov. Task Force, & State Rep.	Comment Noted.	
	• (1) States that an elevated route will eliminate flooding problems.	Resident	Comment Noted.	
	• (3) Stress that the project will improve response time for emergency vehicles.	Residents	Comment Noted.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 1 Continued)	• (11) Believe the project will relieve traffic congestion in the area. Areas mentioned are within city limits but also to neighboring communities like Iberia Parish.	Residents, Chair of Gov. Task Force, State Rep., & Transportation Technical Committee	In general, local circulation and access would be improved both in the Evangeline Thruway corridor and on other streets in the local system (due to an attractive alternative transportation facility that is anticipated to divert traffic). Benefits may be experienced in surrounding areas.	Sect.S.4.3, Sect.1.3.2, Sect.3.2.1, Sect.4.2.1
	• (1) Believes project will save time for commuters from neighboring towns.	Resident	Comment Noted.	
	• (15) States that the project will improve safety conditions for motorists within Lafayette and to neighboring towns. As mentioned in a couple of comments, accident rates are quite high along the corridor and will only increase with increase in traffic volumes. Also mentioned in two comments was that improved safety from existing conditions would result by moving truck traffic (including hazardous waste) to the freeway instead of with the local traffic.	Residents, Chief of Police, Transportation Policy Committee, & Chair of Gov. Task Force	T he proposed I-49 Connector would provide added safety for people moving through Lafayette with the provision of a controlled access six lane facility. There will be additional safety benefits to the existing Evangeline Thruway with reduced traffic conflicts.	Sect.1.3.6, Sect.4.2.1
	• (16) Believe that the project should not be delayed any longer. Two comments mention that delaying the project will increase expense and impact quality of life in the area. One comment mentions that it is prudent that the project be approved and ready for submittal for the federal bill in year 2003.	Residents, Business Owner, Citizens Of Direct Action, & Mayor of Broussard	Comments Noted.	
	• (1) Supports the extension of I-49 south of Lafayette in conjunction with this project. Believes the overpasses and service roads along the proposed I-49 will improve safety conditions in the area. Also suggest that Lafayette needs a major artery such as the extension of the Ambassador Caffery to take traffic from the southside of Lafayette to Highway 90.	Resident	Comments Noted.	
	• (1) States that project will open up trade with foreign business by linking river ports to land transportation.	Resident	Comment Noted.	
	• (5) Acknowledge the efforts made throughout the project to minimize adverse effects of the project. One comment states that he is quite pleased with the public involvement throughout the project.	Residents & Business Owner	Comments Noted.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 1 Continued)	• (1) Project should include but not be limited to development of urban connections and gardens, neighborhood redevelopment, noise abatement, housing, and economic development. These should have identified funding sources prior to construction.	Lafayette Consolidated Government (LCG) Council Member	The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment discusses both mitigation and enhancement items to be implemented as part of the LCG overall plan. Many of these items will be eligible for state and federal funding. A joint use agreement with the LCG may be necessary for the operation and maintenance of certain items located in the project right-of-way, such as public plazas, fountains, lighting, and landscaping. While these items would be designed and built using state and federal funding, the joint use agreement would allow these areas to be policed and provided for by the local government on an ongoing basis as directed by community desire. In addition, a mitigation plan addressing a mitigation plan for adverse visual effects to the Sterling Grove Historic District has been incorporated into the Memorandum of Agreement (MOA) amongst the FHWA, LaDOTD, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation. The text of the MOA is contained in Appendix F of the FEIS. Refer to Table S-2 to see the commitments and mitigation measures determined from the EIS process. The items specified in the MOA would be funded with state and federal funds. Relocations and housing needs will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. These items are addressed additionally in the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. Corridor management to promote corridor development and redevelopment are also addressed in the LCG Plan. Noise abatement is being considered for implementation and funding by the LCG. Detailed design will be undertaken in upcoming phases of the project incorporating the items in Table S-2. These items become an integral part of the project to be funded by state and federal monies as part of the project cost.	Sect.S.6, Sect.4.2.4, Sect.4.2.5, Sect.4.2.7, Sect.4.2.8, Sect.4.5.5, Sect.4.6, Sect.4.7 Appendix F, Appendix G
	• (3) Believe that Lafayette needs to take advantage of becoming a border-to- border interstate intersection. One comment mentions the growth of Baton Rouge communities near I-10 and stresses that I-49 will improve Lafayette instead of dividing it. Also states that the project will revitalize the north side.	Resident, Business Owner, & Former Member of Gov. Task Force	Comment Noted.	
	• (2) See the project as an opportunity to enhance areas along the Thruway.	Resident & Former Chair of Gov. Task Force	Comment Noted.	
	• (1) States that the Governor's I-49 South Project Task Force has studied the feasibility of upgrading US 90 to I-49, the sources for funding, and the documentation of support by citizens and local and state government. Their findings are presented in a report dated Sept. 1998.	Chair of Gov. Task Force	Comment Noted.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 1 Continued)	• (1) Suggests that more on and off ramps be added to freeway on the north side of the city.	Resident	The area north of I-10 is outside the limits of the I-49 Connector project. South of I-10, the practical maximum number of interchanges is provided within geometric and operational design criteria.	Sect.1.2
	• (1) Speaking from past experience on boards and committees regarding the project, one comment emphasizes that west and east options have been studied previously and deemed unfeasible due to the length and expense associated with their construction. Also states that outer loops did not meet federal standards and guidelines as presented throughout the study process.	Former Chair of Gov. Task Force	Comment Noted. Outer loops do not meet the purpose and need for this action. The Lafayette Evangeline Thruway/US 90 corridor's heavy congestion consists of local traffic, through traffic, and traffic originating and destined for Lafayette. As a result, the 1987 Federal-aid Highway Act earmarked funds to "Carry out a highway project to demonstrate the benefits to traffic flow between an Interstate route and a highway on the Federal-aid primary system in Lafayette, Louisiana." Therefore, the goal of the project is to determine the feasibility of and to implement a project to improve transportation congestion in the Evangeline Thruway/US 90 corridor.	
	• (1) Supports the construction of I-49 through Lafayette within designated corridor and requests that the concerns of citizens of Lafayette north be considered and addressed throughout the project without stopping the project.	Citizens Of Direct Action	Comment Noted.	
	• (1) Acknowledges that their church will be taken by any of the alternatives being proposed, but is concerned on where they will be relocated.	Christ the King Church	Relocations including that of the church, will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987 which assures that owners are given fair compensation. A relocation assistance office would be established in the project area to assist displacees. The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan, which is part of the Joint Cooperative Endeavor Agreement by reference addresses the procedures developed to ensure that home and business owners impacted are well informed and fairly compensated as the acquisition of right of way occurs over time. A copy of both the LCG Corridor Preservation and Management Action Plan and the Joint Cooperative Endeavor Agreement are in Appendix G.	Sect.S.4.2, Sect.4.2.2.c, d&e Sect.4.5.4, Appendix G
	• (1) Concerned with crossing access north of Willow mainly at Chalmette and Castille. Suggests that Willow St continue to cross under the elevated roadway for bikers and runners to continue using the route for access.	Resident	Each of the alternatives that were considered in the Willow St. interchange area, including the Selected Alternative, will keep Willow Street open underneath the elevated freeway for circulation and access, including pedestrian and bicycle movements. The Selected Alternative, fully elevated north of Willow Street to just south of I-10, also provides a new connection under the elevated freeway at the Castille/Martin Luther King connection. Additionally, a crossover near the existing Chalmette crossover will be provided.	Sect.2.2.2
	• (1) Commends the use of Community Design Workshops and supports the development of urban connections and gardens, neighborhood redevelopment, noise abatement, and housing and economic development.	LCG Council Member	Comment Noted.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 1 Continued)	• (1) Requests that business owners located along I-49 path be met with concerning the project like the residential owners have in the past. Suggests that a committee be formed to make business owners aware of displacement issues to produce solutions.	Business Owner	The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan for the I-49 Connector has been developed and is a part of the Joint Cooperative Endeavor Agreement amongst the FHWA, LaDOTD, and Lafayette Consolidated Government (LCG). Through this Plan, the LCG and LaDOTD will continue to be involved with property owners within the right of way and in areas adjacent to the corridor to coordinate project development over time.	Sect.S.4.2, Sect.4.2.2.c,d & e Appendix G
	• (1) Sympathizes with those being displaced/impacted by the project but points out a previous involvement with expropriation proceedings for another project in the area. States that since the settlement he is actually much better off.	Business Owner	Comment Noted.	
	• (1) Comment states that the proposed exits [from freeway] at Congress and Johnston Street appear to be too close. Would prefer to see exit at Cameron Street.	Business Owner	The proposed exits noted meet pertinent design criteria and are the locally preferred alternative.	Sect.2.2.2, Sect.2.4, Sect.2.5,
	• (1) This comment addresses the concern for noise and vibration along the Thruway with the proposed project. Also, opposes any additional rental property placed along the corridor.	Resident	Comment Noted.	
	• (2) Would like to see the proposed freeway remain at grade as much as possible for the sake of the community.	Residents	Approximately 2 ½ miles of the 5-mile corridor will be at-grade. Selective Overpasses alternatives were considered to provide additional grade sections but were eliminated due to excessive displacements and other impacts.	Sect.2.2.2, Sect.2.3
	• (1) The following comments are noted: 1) Concerned about Johnston Street being a narrow four-lane roadway just east of a major interchange. 2) Believes that a 2nd /3rd and Congress Street interchange would be beneficial to the area. 3) Concerned that there is not enough on and off ramps from the freeway	Resident	1) Comment Noted. The Metropolitan Planning Organization (MPO) can address the status of Johnston in its long range plan should operational problems develop. 2) Under the selected alternative (RR-4 Elevated) there would be a single point, full diamond interchange with I-49 at 2nd/3rd St. (which becomes Congress St.). 3) 5 ½ full interchanges are provided along the 5-mile corridor. One mile is considered a practical minimum spacing for interchanges due to operational considerations.	Sect.2.2.2, Sect.2.4, Sect. 2.5
	• (1) Supports the I-49 Connector in the Evangeline Thruway corridor and states that the Bayou Teche Ridge Alignment is a separate issue.	LCG City-Parish President	Comment noted	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 1 Continued)	• (1) Stresses the importance of public input on the alternatives being considered and welcomed citizens to submit their input to the Citizens Action Committee.	Vice-chair of Citizens Action Committee	Comment Noted.	
2 **12 Total Comments**	**SUPPORTS EA-1 ALTERNATIVE**		**General Response:** EA-1 Elevated was one of the alternatives considered. However, RR-4 Elevated has been recommended as the locally preferred alternative and has been adopted as the Selected Alternative. RR-4 primarily uses the existing Thruway alignment throughout the corridor, with the exception of near the core area. By using a new alignment in the core area fewer displacements would occur and the freeway is farther removed from the Sterling Grove Historic District.	
	Key Issues:			
	• (1) The existing Evangeline Thruway route (EA-1) is close to route adopted under Interstate Highway Act, which should help in several approvals required for construction to proceed.	Former Chair of Citizens Action Committee	Each proposed construction alternative presented in the EIS has been developed to meet the primary Purpose and Need of the project to improve traffic flow in the Evangeline Thruway corridor. Each of these construction alternatives would be compatible with the designation of the existing Evangeline Thruway corridor as part of Future I-49. Those approvals required for this project to advance to construction must be in compliance with the applicable laws and regulations irregardless of corridor designation.	Sect.1.1, Sect.2.2.1
	• (2) This route (EA-1) minimizes the disruption of traffic during phased construction.	Former Chair of Citizens Action Committee & Resident	The RR-4 alignment primarily uses the existing Thruway alignment throughout the corridor, with the exception of the central core area. Each of the alternatives considered will be conducive to minimizing disruption of traffic during construction.	
	• (1) Suggested shortening the raised portion of the freeway by using an overpass at Pinhook and starting the Northbound ramp as it approaches Louisiana Ave., which will reduce the cost of the project and also provide a view of Downtown Lafayette.	Former Chair of Citizens Action Committee	Comment Noted. Design details will be developed during subsequent phases of the project.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 2 Continued)	• (1) Opposes the tunnel proposal because it is prone to flooding and dangerous accidents. Supports the EA-1 alternative because it will retain frontage roadways and will circumvent the abandoned former Southern Pacific yards, which has old environmental problems that have been dormant for many years.	Resident	Comment noted. The "tunnel proposal" or depressed freeway was studied by LaDOTD and it was determined, with concurrence from FHWA, to not be a viable alternative. As such, this alternative was not included in the November 2000 Draft EIS. The preferred alternative, locally "Selected Alternative" RR-4 will have frontage roads throughout its length except in the central core area. The existing Evangeline Thruway will function as the frontage road in this area. Care will be made during design and construction of the RR-4 alignment that work proposed in the area of any contaminated waste site, including those at the Southern Pacific railroad yards, is closely coordinated with Louisiana Department of Environmental Quality (and the Environmental Protection Agency, if applicable) to assure that appropriate action is taken to prevent exposure to contaminated materials whether by avoidance, containment, clean up or a combination of these approaches.	Sect.2.3.1, Sect.2.2.2, Sect.2.4, Sect.2.5, Sect.4.5 Sect.S.6, Sect.3.2.8c
	• (2) Recognize and encourage the need for a funded corridor preservation / management plan, a funded redevelopment agency, and a funded corridor enhancements plan.	Comm. for Rebuild Lafayette North & Downtown Development Authority	The Lafayette Consolidated Government (LCG)Corridor Preservation and Management Action Plan for the I-49 Connector has been developed and adopted as a part of the Joint Cooperative Endeavor Agreement amongst the LaDOTD, FHWA, and LCG. Under the Plan, rights of way for the Selected Alternative will be acquired over time, as funding becomes available. The Plan also includes economic development and redevelopment strategies in the corridor. A joint use plan throughout the corridor is also discussed within the Corridor Preservation and Management Action Plan to facilitate the incorporation of these provisions into the project during the design and construction phases. Some of these provisions will be funded by the FHWA and LaDOTD while some items may be funded by the LCG.	Sect.S.4.2, Sect.S.6, Sect.4.2.2.c,d & e Sect.4.5.4, Appendix G
	• (2) Prefer EA-1 compared to RR-4 because it does not introduce another major highway system.	Comm. for Rebuild Lafayette North & Downtown Development Authority	Comment Noted.	
	• (4) Prefer EA-1 compared to RR-4 because it promotes connectivity by keeping more streets open (i.e. Jefferson and Simcoe) between north Lafayette and central district.	Comm. for Rebuild Lafayette North, Downtown Development Authority, & Residents	Based on the public concern to maintain connectivity within the different regions of the central core area, RR-4 Elevated was recommended as the locally preferred alternative with the stipulation that Jefferson and Simcoe streets remain open. This has been accomplished for the Selected Alternative, referred to as the MPO Subalternative.	Sect.S.5, Sect.2.2.2, Sect.2.4, Sect.2.5, Sect.4.5

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 2 Continued)	• (2) Prefer EA-1 compared to RR-4 because it: 1) Benefits economic development due to opportunities for housing and commercial redevelopment within the corridor, 2) Improves potential for urban design and buffering of the residential areas 3) Has the ability to relocate residents and businesses with federal assistance since it is within the designated freeway corridor 4) Integrates the CBD with neighborhoods while reusing an existing transportation corridor 5) Avoids a third major transportation infrastructure within the tight corridor from the railroad to the Thruway. Supports EA-1 Subalternative D only if 2nd/3rd Street interchange can be implemented in such a manner as to have Jefferson and Simcoe remain open under the freeway; otherwise, EA-1 Subalternative C is recommended.	Comm. for Rebuild Lafayette North & Downtown Development Authority	1) Each of the project alternatives will benefit economic development by providing opportunities for housing and commercial redevelopment within the corridor. 2) A joint use plan throughout the corridor is also discussed within the Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan. This will include urban design, landscaping, and other features of the project to be completed during the design and construction phases. 3) All relocations of residents and businesses by any construction alternative selected must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. 4) Each alternative has similar qualities with respect to connecting the CBD to surrounding neighborhoods. 5) Comment Noted The option to keep Jefferson and Simcoe Streets open utilizing Alignment EA-1while providing a full interchange at 2nd/3rd Streets is not geometrically feasible. RR-4 with the MPO Subalternative has been adopted as the Selected Alternative and will provide a 2nd/3rd Street interchange while keeping Jefferson and Simcoe Streets open. EA-1 Subalternative C provides only a partial interchange at Mudd Street, rather than a full interchange, and is not supported by CBD interests nor is the locally preferred alternative.	Sect.4.2.2.d, Appendix G Same as above. Sect.1.1, Sect.2.2.1 Sect.2.2.2 Sect.S.5, Sect.2.2.2, Sect.2.4, Sect.2.5, Sect.4.5
	• (2) Supports EA-1 because the RR alternative(s) would run through their neighborhood(s) and would like to see the integrity of the neighborhood preserved. One comment states a concern for hazardous trucks coming through the area under the RR alternative(s).	Resident, Resident of Arceneaux district	Comment Noted. Upon completion of the project, most truck traffic on the existing Thruway will move to the new freeway. Hazardous as well as other truck traffic will be approximately the same for each of the alternatives.	Sect.4.3.1.a
	• (1) States that a majority of the speakers at the DEIS public hearing were in favor of the elevated structure utilizing the existing Evangeline Thruway alignment.	Youngsville Mayor	Comment Noted.	
	• (1) Stresses that the project should be expedited to improve the economic development, safety, and hurricane evacuation conditions in the area.	Senator (District 23)	Comment Noted.	
	• (1) Concerned with funding available for project.	Resident	Comment Noted.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 2 Continued)	• (1) Emphasizes that the community not be divided and suggests using linear parks.	Resident	A joint use plan throughout the corridor is discussed within the Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan to facilitate the incorporation of these provisions into the project during the design and construction phases. The provisions could include a linear park. Some of these provisions will be funded by the FHWA and LaDOTD while some items may be funded by the LCG.	Sect.S.6, Sect.4.2.2.d, Sect.4.2.7, Sect.4.5.5, Sect.4.6, Appendix G
	• (1) Supports the project as long as the landowners along the Thruway are treated properly. Would like more information on the appraisal/estimating procedures involved in right of way acquisition.	Resident	A relocation assistance office would be established in the study area to assist displacees. The assistance would consist of locating safe, sanitary and decent replacement housing for residential displacees which is within the financial means of the displaced individual or family. Assistance would also include help in securing loans, public housing accommodations, moving bids, etc. Assistance would also be given to businesses, farming operations and non-profit organizations in finding and relocating into replacement quarters. In addition to normal federal and LaDOTD payments for property acquisition and relocations, there may be a need for rental housing to supplement the local market supply. The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan, which is part of the Joint Cooperative Endeavor Agreement (Appendix G), addresses the procedures developed to ensure that home and business owners impacted are well informed and they are given fair compensation as the acquisition of rights of way occurs over time.	Sect.S.4.2, Sect.S.6, Sect.4.2.2.c, d & e Sect.4.5.4, Appendix G
3 **3 Total Comments**	**SUPPORTS RR-3 ALTERNATIVE**		**General Response:** RR-4 Elevated was recommended as the locally preferred alternative and has been adopted as the Selected Alternative. RR-3 and RR-4 are on the same alignment in the area from Johnston Street to the north end of the project, some of this adjacent to the railroad. Near Pinhook Road the selected alternative rejoins the existing right of way of the Evangeline Thruway.	
	Key Issue(s):			
	• (1) Offers the following comments: 1) States that the property near the Union Pacific Railroad would be cheaper to purchase. 2) Emphasizes that there would be fewer displacements of people and homes. 3) Mentions that traffic noise would be greatly reduced in areas between Simcoe and Taft streets.	Resident	1) No additional land purchases are required south of Pinhook Road for RR-4. Additional land and displacements would be required south of Pinhook Road for RR-3. 2) RR-4 has the least number of residential displacements, as shown in Table 4-2. It should also be noted that RR-4 has neither the most nor the least number of business displacements. Refer to Exhibit S-4 for an evaluation summary matrix of the displacement impacts for alternatives being considered. 3) In the area between Simcoe and Taft Streets, the RR-3 alternative is the same as the RR-4 alternative, the Selected Alternative, so noise impacts will be the same for both.	Sect.4.2.2.c Sect.4.2.2.c Sect.2.2.2, Sect.4.2.10

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 3 Continued)	• (1) Asked the following questions: 1) How will the project affect him? 2) Who will make the final decision on a route? 3) When does the final decision have to be received for funding?	Business Owner	1) There will be positive and adverse impacts of the project. The project purpose and need presented in Chapter 1 of the EIS discusses positive reasons for the project. Chapter 4 presents the impacts of the project. 2) A Record of Decision (ROD) issued by FHWA states the decision (selected alternative or choice), other alternatives considered, and mitigation adopted for the selected alternative or choice. 3) The ROD is issued no sooner than 30 days after the approved Final EIS is distributed, and is not tied to funding. Issuing the ROD as early as possible, however, is a goal to enable the project to compete for federal funding in the next federal highway legislation that is currently being crafted for consideration in 2004.	Sect.S.4, Sect.1.3, Chapter 4 Sect.S.5.4 Sect.S.5.4
	• (1) Offers the following comments: 1) Supportive of all alternatives being proposed but prefers RR-3 because he feels it would do the least damage to the city. 2) States that 1992 was a missed opportunity for Lafayette since available funds were lost with the project withdrawal and if the project does not go through this time around it may never happen. 3) States that the interstate will benefit economic development throughout the city. 4) Believes that a bypass to the east of the city will impact a great deal of wetlands, which would not be satisfactory to the Corps of Engineers. 5) Stresses the importance of getting all governmental agencies and the public to support the project.	Resident	1) Comment Noted. 2) A final decision is not an instrument for obtaining funding. A Record of Decision (ROD) does, however, allow the expenditure of available funds on project development, as well as allowing the utilization of any additional funds identified for project development. 3) Comment Noted. 4) Comment Noted. 5) Comment Noted	
4 5 Total Comments	SUPPORTS RR-4 ALTERNATIVE.		**General Response:** RR-4 Elevated was recommended as the locally preferred alternative and has been adopted as the Selected Alternative. RR-4 primarily uses the existing Thruway alignment throughout the corridor, with the exception of near the core area. By using the new alignment in the core area fewer displacements would occur and the freeway is farther removed from the Sterling Grove Historic District.	
	Key Issues:			
	• (1) States that RR-4 has fewer residential displacements compared to EA-1.	Resident	RR-4 has the least number of residential displacements, as shown in Table 4-2. It should also be noted that RR-4 has neither the most nor the least number of business displacements.	Sect.4.2.2.c

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 4 Continued)	• (2) Favor the planning of an underpass at Johnston and railroad tracks to improve traffic circulation at that part of Johnston.	Residents	RR-4 Elevated, which has been identified as the Selected Alternative, includes a Johnston Street underpass.	Sect.2.2.2.f, Sect.2.4, Sect.2.5
	• (3) Prefers RR-4 compared to EA-1 because it moves traffic further from the Sterling Grove Historic District.	Sterling Grove Historic District Residents	Comment Noted. RR-4 has been adopted as the Selected Alternative.	
	• (2) Particular concerns of the Sterling Grove Historic District are the traffic, noise, and the possibility of homeless people meandering near their homes.	Sterling Grove Historic District Residents	A mitigation plan for the adverse visual effects to the Sterling Grove Historic District determined from the Section 106 study will be implemented to integrate the project into the surrounding areas. The mitigation plan has been agreed upon as part of the Memorandum of Agreement (MOA) amongst the FHWA, Advisory Council on Historic Preservation, LaDOTD, and State Historic Preservation Officer (SHPO) and is contained in Appendix F of the EIS.	Sect.S.6, Sect.4.2.4, Sect.4.2.5, Sect.4.2.8, Sect.4.5.5, Sect.4.6, Sect.4.7, Appendix F
	• (1) Supports upgrading the Thruway to a limited access freeway because it will improve safety conditions for both motorists and residents in the area.	Resident	Comment Noted.	
	• (1) By rerouting the traffic along the railroad, it is believed that the area near the Sterling Grove Historic District will develop more than its current status.	Resident	Comment Noted.	
	• (2) Expressed concern for having interchanges at 2nd/3rd Street and Mudd Avenue because it will bring more traffic and noise into their neighborhood. Suggests having as few interchanges as possible to downtown to move people through town. One comment states that having interchanges at Johnston, Willow, and Pinhook is sufficient.	Sterling Grove Historic District Residents	The interchange locations chosen are based on traffic needs and have been identified as the locally preferred alternative through the Metropolitan Planning Organization process.	Sect.2.2.2
	• (1) Acknowledges that after the project is built there may come a time when another route is needed to compliment it.	Resident	Comment Noted.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 4 Continued)	• (1) Stresses the importance of relocating displacees to comparable housing.	Sterling Grove Historic District Resident	Relocations for the project will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. A relocation assistance office would be established in the study area to assist displacees. The assistance would consist of locating safe, sanitary and decent replacement housing for residential displacees which is within the financial means of the displaced individual or family. Assistance would also include help in securing loans, public housing accommodations, moving bids, etc. Assistance would also be given to businesses, farming operations and non-profit organizations in finding and relocating into replacement quarters. In addition to normal federal and LaDOTD payments for property acquisition and relocations, there may be a need for rental housing to supplement the local market supply. The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan, which is part of the Joint Cooperative Endeavor Agreement (Appendix G), addresses the procedures developed to ensure that home and business owners impacted are well informed and they are given fair compensation as the acquisition of rights of way occurs over time.	Sect.S.4.2, Sect.S.6, Sect.4.2.2.c, d&e Sect.4.5.4, Appendix G
5 **4 Total Comments**	**SUPPORTS RR-4 OR EA-1 ALTERNATIVE.**		**General Response:** EA-1 Elevated and RR-4 Elevated were alternatives considered. However, RR-4 Elevated has been recommended as the locally preferred alternative and has been adopted as the Selected Alternative. RR-4 primarily uses the existing Thruway alignment throughout the corridor, with the exception of near the core area. By using the new alignment in the core area fewer displacements would occur and the freeway is farther removed from the Sterling Grove Historic District.	
	Key Issues:			
	• (1) Supports relocating the service road to the east of Acadiana Dodge and not to the west for better access to their business.	Acadiana Dodge business owner	Comment Noted. Design details will be determined during upcoming phases of the project.	
	• (2) Believe that either RR-4 or EA-1 will improve traffic safety, hurricane evacuation and redevelopment within the corridor.	Resident, LCG Council Member	Improved traffic safety, hurricane evacuation and economic development have been established as items supporting the purpose and need for the project. These and other aspects of the project purpose and need are fully discussed in Chapter 1 of the EIS.	Sect.1.3

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 5 Continued)	• (1) States the following: 1) From a technical viewpoint, the ideal alignment adjacent to EA-1 would include interchanges at both Johnston and 2nd/3rd Streets (Subalternative D) and, if design permits, keeping Jefferson and Simcoe Streets open under the alternative. 2) Also, mentions that an option to include "X" type ramp configurations may be desirable. 3) Stresses the importance of improving safety along the Thruway due to the high traffic volumes and numerous accidents in the corridor.	Director of LCG Traffic and Transportation	Based on the public concern to maintain connectivity within the different regions of the central core area, RR-4 Elevated was recommended as the locally preferred alternative with the stipulation that Jefferson and Simcoe streets remain open. This has been accomplished for the Selected Alternative, referred to as the MPO Subalternative. Comment Noted. Comment Noted.	Sect.S.5, Sect.2.2.2, Sect.2.4, Sect.2.5, Sect.4.5
6 **110 Total Comments**	**SUPPORTS RR-3 OR RR-4 ALTERNATIVE.**		**General Response:** RR-4 Elevated was recommended as the locally preferred alternative, and has been identified as the Selected Alternative. RR-4 primarily uses the existing Thruway alignment throughout the corridor, with the exception of the central core area. By using a new alignment in the core area fewer displacements would occur and the freeway is farther removed from the Sterling Grove Historic District	
	Key Issues:			
	• (110) Support minimizing proximity impacts to St Genevieve Catholic Church and School.	Form Letter From St. Genevieve Church Members	All alternatives considered, including the Selected Alternative (RR-4), would relocate the ground level Thruway farther away from the front of the church. RR-3 and RR-4 provide the most separation since they are on new alignment to the west. For EA-1 and RR-5 that utilize the existing Thruway alignment, reverse curvature was used for the I-49 freeway south of Mudd Avenue in order to provide greater separation between the freeway and the church.	Sect.2.2.2
	• (1) Also states that aesthetics for the area be considered and suggested using the under the bridge area for a Farmer's Market	St. Genevieve Church Members	Opportunities for use of under bridge areas and right of way near the Sterling Grove Historic District and along the remainder of the corridor have been considered during the EIS. While concepts have been identified, no hard decisions have yet been made. Details will be incorporated into the design of the project that will occur in upcoming phases. A public input process will be undertaken at the appropriate times during the detailed design. Specific visual mitigation at the Sterling Grove Historic District has been identified in the EIS. A Memorandum of Agreement (MOA) between the FHWA, the State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation, and the LaDOTD has been signed that addresses the proposed visual mitigation and other measures at the Sterling Grove Historic District which will be incorporated into the design and construction of the project.	Sect.S.6, Sect.4.2.7, Sect.4.5.5, Appendix G Sect.S.6, Sect.4.2.4, Sect.4.2.5, Sect.4.2.8, Sect.4.5.5, Sect.4.6, Sect.4.7, Appendix F

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 6 Continued)	• (1) Also comments on the importance of fair compensation.	St. Genevieve Church Member	Fair compensation will be provided to all displacees in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. A relocation assistance office would be established in the study area to assist displacees. The assistance would consist of locating safe, sanitary and decent replacement housing for residential displacees which is within the financial means of the displaced individual or family. Assistance would also include help in securing loans, public housing accommodations, moving bids, etc. Assistance would also be given to businesses, farming operations and non-profit organizations in finding and relocating into replacement quarters. In addition to normal federal and LaDOTD payments for property acquisition and relocations, there may be a need for rental housing to supplement the local market supply. The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan, which is part of the Joint Cooperative Endeavor Agreement (Appendix G), addresses the procedures developed to ensure that home and business owners impacted are kept informed as the planning and acquisition of rights of way occur over time.	Sect.S.4.2, Sect.S.6, Sect.4.2.2.c, d&e Sect.4.5.4, Appendix G
	• (2) Also mention reconsidering a loop around the city.	St. Genevieve Church Members	East and west bypasses (loops) have been considered by the Lafayette Metropolitan Planning Organization (MPO) and rejected in prior studies because the central corridor route was found to best meet the purpose and need of the I-49 Connector project, most notably with regard to relieving existing traffic congestion. Therefore, the bypass alignments have not been considered in the range of alternatives for the I-49 Connector EIS. An east or west bypass to compliment the I-49 Connector located in the central corridor may be considered through the planning process of the Lafayette MPO in the future.	Sect.I.3

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
7 1 Total Comment	**POSITION IS NEUTRAL (NEITHER FOR NOR AGAINST THE PROJECT).**		**General Response:** Comment Noted.	
	Key Issues:			
	• (1) States that the organization is neither for nor against the project but is concerned that an elevated highway through the city will effect neighborhoods and businesses within the corridor as well as urban aesthetics.	Pres. of Tree Society of Acadiana	East and west bypasses (loops) have been considered by the Lafayette Metropolitan Planning Organization (MPO) and rejected in prior studies because only the central corridor route was found to meet the Purpose and Need of the project to relieve the existing traffic congestion in the Evangeline Thruway corridor. Therefore, the bypass alignments were not considered in the range of alternatives for the I-49 Connector EIS. An east or west bypass to compliment the I-49 Connector may be considered during the planning process of the Lafayette MPO in the future.	Sect.1.3
			The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment discusses both mitigation and enhancement items to be implemented as part of the LCG overall plan. Many of these items will be eligible for state and federal funding. A joint use agreement with the LCG may be necessary for the operation and maintenance of certain items located in the project right-of-way, such as public plazas, fountains, lighting, and landscaping. While these items would be designed and built using state and federal funding, the joint use agreement would allow these areas to be policed and provided for by the local government on an ongoing basis as directed by community desire. In addition, a mitigation plan addressing a mitigation plan for adverse visual effects to the Sterling Grove Historic District has been incorporated into the Memorandum of Agreement (MOA) amongst the FHWA, LaDOTD, the State Historic Preservation Offficer (SHPO), and the Advisory Council on Historic Preservation. The text of the MOA is contained in Appendix F of the FEIS. Refer to Table S-2 to see the commitments and mitigation measures determined from the EIS process. The items specified in the MOA would be funded with state and federal funds. Relocations and housing needs will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. These items are addressed additionally in the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Alignment. Corridor management to promote corridor development and redevelopment are also addressed in the LCG Plan. Noise abatement is being considered for implementation and funding by the LCG. Detailed design will be undertaken in upcoming phases of the project incorporating the items in Table S-2. These items become an integral part of the project to be funded by state and federal monies as part of the project cost	Sect.S.6, Sect.4.2.4, Sect.4.2.5, Sect.4.2.7, Sect.4.2.8, Sect.4.5.5, Sect.4.6, Sect.4.7 Appendix F, Appendix G

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
8 16 Total Comments	GENERALLY OPPOSES THE PROJECT (FAVORS AN ALTERNATIVE ALIGNMENT).		**General Response:** East and west bypasses (loops) have been considered by the Lafayette Metropolitan Planning Organization (MPO) and rejected in prior studies because only the central corridor route was found to meet a primary purpose and need of the project to relieve the existing traffic congestion in the Evangeline Thruway corridor. Therefore, the bypass alignments were not considered in the range of alternatives for the I-49 Connector EIS. An east or west bypass to compliment the I-49 Connector located in the central corridor may be considered through the planning process of the Lafayette MPO in the future.	
	Key Issues:			
	• (8) Oppose the placement of the I-49 Connector and/or any alternative alignments or sub-routes through the City of Lafayette. Suggests a loop around the city.	Member of Law Firm & Residents	Comment Noted.	
	• (3) Believe that a route east of Lafayette would be more direct, less costly, and less disruptive. One comment acknowledges the environmental concerns with a bypass type route through wetlands but stresses that they can be protected.	Member of Law Firm & Resident	Comment Noted.	
	• (4) Believe the placement of the roadway east of the city will improve traffic safety by removing a high volume of traffic away from the Thruway.	Member of Law Firm & Residents	Comment Noted.	
	• (2) State that potentially harmful substances should be diverted away from the population, rather than through the center.	Law Firm & Resident	Comment Noted.	
	• (4) Does not feel the economic viability of Lafayette is wholly dependent upon I-49 occupying the currently proposed routes. One Comment questions this issue because of the limited number of entrances and exits within the corridor with the proposed interchange layouts.	Member of Law Firm	Comment Noted.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 8 Continued)	• (3) Concerned with impact to displaced persons and those who will be living/working near the roadway.	Member of Law Firm & Resident	Relocations will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987 which assures that owners are given fair compensation. The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan, which is part of the Joint Cooperative Endeavor Agreement by reference, addresses the procedures developed to ensure that owners impacted are well informed and fairly compensated as the acquisition of right-of-way occurs over time. Corridor management to promote corridor development and redevelopment are also addressed in the LCG Plan. In addition, the LCG Plan discusses both mitigation and enhancement items to be implemented as part of the overall LCG plan. A copy of the LCG Corridor Preservation and Management Action Plan and the Joint Cooperative Endeavor Agreement are in Appendix G.	Sect.S.4.2, Sect.S.6, Sect.4.2.2.c, d&e Sect.4.2.7, Sect.4.5.4, Sect.4.5.5, Appendix G
	• (3) Concerned with placement and proper expenditure of funds for mitigation efforts.	Member of Law Firm	Commitments and mitigation measures as detailed in Table S-2 will be implemented during project construction. Detailed design will be undertaken in upcoming phases of the project to incorporate these items into the roadway.	Sect.S.6
	• (1) Does not feel it was appropriate to have public hearing during the Christmas holidays.	Resident	Comment Noted.	
	• (1) If project is to be in the Thruway corrdior, recommends RR-4 only because it would have fewer effects on her home compared to EA-1. Would prefer that a loop around the city be reconsidered.	Resident	Comment Noted.	
	• (4) States that they are skeptical that the enhancement designs shown in renderings provided at the public hearing will ever be implemented or at least not for a long time due to lack of funds.	Residents	Commitments and mitigation measures as detailed in Table S-2 will be implemented during project construction. Detailed design will be undertaken in upcoming phases of the project to incorporate these items into the roadway.	Sect.S.6
	• (1) Would prefer a loop around the city even though it may cost more. Favors RR-3 of all routes proposed.	Business Owner	Comment noted.	
	• (4) Does not feel that some issues from the previous Public Hearing (1992) were fully addressed because no additional options for the project have been proposed since that date. Prefers a choice of options be available, including an option that does not pass through the city.	Residents, Member of Law Firm	Alternatives have been provided that meet the project purpose and need.	
	• (1)States that alternatives have not been provided as the legal requirements of the National Environmental Policy Act.	Resident	Commitments and mitigation measures as detailed in Table S-2 will be implemented during project construction. Detailed design will be undertaken in upcoming phases of the project to incorporate these items into the roadway	Sect.S.6

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
(Category 8 Continued)	• (3) A loop to the east of the city would bring regional economic development by routing the freeway through St. Martin Parish. One comment stresses the importance of supporting smaller communities for the good of the regional area.	Residents	Comment Noted.	
	• (1) Does not feel US 90 has to be upgraded to interstate level in order to serve as a hurricane evacuation.	Resident	Comment noted. Traffic studies and the experience of Hurricane Andrew in 1992 demonstrated the shortcomings of the Evangeline Thruway during hurricane evacuation.	Sect.1.3.7
	• (2) Concerned that an elevated freeway through the city will divide the city like it has done in other cities like New Orleans. One comment stresses concern for credibility of commitments being made for the project.	Resident, Member of Law Firm	First comment noted. Several binding agreements have been entered into amongst the FHWA, LaDOTD, Lafayette Consolidated Government (LCG), and other agencies to implement the mitigations and other commitments made regarding the I-49 Connector project.	Sect.S.6, Appendix F, Appendix G
	• (1) Suggests improving the Thruway to make it a limited access corridor instead of building a freeway through the corridor.	Member of Law Firm	Relief of traffic congestion is a primary Purpose and Need for the I-49 Connector project. A freeway in conjunction with adjacent roadways for land access has been identified as the alternative that provides sufficient traffic capacity to address this need.	Sect.S.4.3, Sect.1.3.2, Sect.3.2.1, Sect.4.2.1
	• (7) Requests LaDOTD Secretary to consider the Bayou Teche Ridge Alignment.	Business Owner, St. Martin Parish, US Senator, US Congress-man,Spokes-man for local organizations	Comment Noted. The Bayou Teche Ridge alignment does not meet the purpose and need for this project. If this alignment is pursued it must be considered and stand on its own merits.	
	• (3) Would like to see documentation/study on an eastern bypass for I-49.	Business Owner, Spokesman for local organizations	See General Response above.	
	• (1) Acknowledges that the Bayou Teche eastern alignment will impact wetlands but believes the eastern alignment will not impact any homes and businesses.	Spokesman for local organizations	The Bayou Teche Ridge alignment will impact wetlands. In addition, it will impact homes, farms, and businesses. There would be additional secondary and cumulative impacts to be considered.	

Table 5-1
SUMMARY OF PUBLIC COMMENTS ON THE DRAFT EIS

CATEGORY NO.	COMMENT/ISSUE DESCRIPTION	NOTES	RESPONSE	REFERENCE TO EIS
9 **1 Total Comment**	**OPPOSES RR-4 ALTERNATIVE.**		**General Response:** RR-4 Elevated has been recommended as the locally preferred alternative, and has been identified as the Selected Alternative. RR-4 primarily uses the existing Thruway alignment throughout the corridor, with the exception of near the core area. By using a new alignment in the core area fewer displacements would occur and the freeway is farther removed from the Sterling Grove Historic District.	
	Key Issue:			
	• Concerned because RR-4 would require purchasing his property for right of way.	Resident	Relocations will be handled in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments of 1987. A relocation assistance office would be established in the study area to assist displacees. The assistance would consist of locating safe, sanitary and decent replacement housing for residential displacees which is within the financial means of the displaced individual or family. Assistance would also include help in securing loans, public housing accommodations, moving bids, etc. Assistance would also be given to businesses, farming operations and non-profit organizations in finding and relocating into replacement quarters. In addition to normal federal and LaDOTD payments for property acquisition and relocations, there may be a need for rental housing to supplement the local market supply. The Lafayette Consolidated Government (LCG) Corridor Preservation and Management Action Plan, which is part of the Joint Cooperative Endeavor Agreement (Appendix G), addresses the procedures developed to ensure that home and business owners impacted are well informed and they are given fair compensation as the acquisition of rights of way occurs over time.	Sect.S.4.2, Sect.S.6, Sect.4.2.2.c, d&e Sect.4.5.4, Appendix G

5.3 AGENCY CORRESPONDENCE & MEETINGS

The lead agencies involved in the project are the Louisiana Department of Transportation and Development and the Federal Highway Administration. Regular meetings have been held amongst representatives of these agencies and the Study Team members, with the City of Lafayette represented primarily by the DPZC. The Federal Aviation Administration and U.S. Army Corps of Engineers are cooperating federal agencies.

As part of the EIS preparation, a number of additional federal, state, and local agencies were contacted. These entities generally provide input and comment to assist with project location and evaluation during the environmental assessment process. Agencies that were contacted via a Solicitation of Views letter regarding the I-49 Connector study include:

- Federal Aviation Administration
- Louisiana Department of Public Safety
- Louisiana Department of Wildlife and Fisheries
- Louisiana Department of Environmental Quality
- Louisiana Department of Economic Development
- Louisiana Forestry Association
- Louisiana Department of Natural Resources
- Louisiana Department of Agriculture and Forestry
- Louisiana Good Roads Association
- U.S. Environmental Protection Agency
- Louisiana Natural Resources Conservation Service
- Louisiana Health and Human Resources Administration
- Louisiana Department of Culture, Recreation, and Tourism
- U.S. Department of Housing and Urban Development
- U.S. Department of the Interior
- U.S. Department of Commerce
- U.S. Fish and Wildlife Service
- Louisiana State Mineral Board
- Louisiana State Attorney General
- Louisiana Department of Health and Hospitals
- U.S. Coast Guard, 8th District
- Louisiana Division of Administration

- FEMA Region VI
- Lafayette Parish Sheriff
- Lafayette Soil and Water Conservation District of Louisiana
- Greater Lafayette Chamber of Commerce
- Louisiana Archaeological Society
- City of Lafayette Transit Authority
- Lafayette Parish Civil Defense
- Lafayette City-Parish Council
- Lafayette Parish School Board
- U.S. Department of the Army
- Lafayette Airport Commission

Agency comments received in response to the formal Solicitation of Views are provided in Appendix C. Many of the comments are summarized as follows:

- Any proposed roadway near the Lafayette Regional Airport must be coordinated with the airport and the Federal Aviation Administration.
- The project will not adversely affect the natural environment or water quality in the area.
- Additional standing structure surveys should be performed and effects on historic properties addressed.
- Precautions should be observed to protect the groundwater of the region and to control non-point source pollution from construction activities.
- This project will not impact on any work of the Lafayette Soil and Water Conservation District.
- There are no anticipated adverse impacts on any Department of the Army projects; however, Department of the Army permits may be required for any work done on the Vermilion River bridge.
- No threatened or endangered species of plants or animals exist within the project limits; there are no protected streams in the vicinity.
- The project should be carefully designed to avoid and minimize adverse impacts to project area wetlands.

The Downtown Development Authority is strongly in support of an I-49 Connector; several issues regarding access to downtown and appearance of the project should be addressed.

Several agency comments were received following the December 2000, Public Hearing. Refer to Appendix C for documentation of these comments and responses.

5.4 DISTRIBUTION OF FINAL EIS

In compliance with federal guidelines, this Final EIS is available for public inspection at the following locations during normal operating hours:

U.S. Department of Transportation
Federal Highway Administration
5304 Flanders Dr., Suite A
Baton Rouge, LA 70808

Louisiana Department of Transportation
and Development,
Office of Environmental Engineer Admin.
5040 Florida Blvd.
Baton Rouge, LA 70806

Louisiana Department of Transportation
and Development, District 03
428 Hugh Wallis Rd.
Lafayette, LA 70502
(on U.S. 90/Evangeline Thruway across from the Lafayette Regional Airport)

Department of Planning, Zoning and Codes
Lafayette Consolidated Government
Postal Square Building
101 East Cypress Street
Lafayette, LA 70501

Office of the Project Control Engineer
Lafayette Consolidated Government
705 West University
Lafayette, LA 70506

Lafayette Parish Main Library
301 West Congress
Lafayette, LA 70502-3427

Lafayette Public Library
Butler Memorial Branch
Martin Luther King Center
309 Cora St.
Lafayette, LA 70501

In addition, the following individuals and federal, state, and local agencies have been supplied with a copy of the Final EIS, including a request for any comments they may have. This list is composed of those individuals and agencies that were on the 2000 I-49 Connector DEIS distribution list as well as those that have been added based on comments and participation received since then:

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Chapter 6

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Chapter 7

REFERENCES

American Association of State Highway and Transportation Officials. 1977. A Manual on User Benefit Analysis of Highway and Bus-Transit Improvements.

American Institute of Architects Regional Urban Design Assistance Team. 1978. *R/UDAT Lafayette, Louisiana.*

American Society for Testing and Materials. 1997. ASTM Standards on Environmental Site Assessments for Commercial Real Estate. 57 pp.

Benson, Paul E. 1979. CALINE3 - A Versatile Dispersion Model for Predicting Air Pollutant Levels Near Highways and Arterial Streets. Office of Transportation Laboratory, California Department of Transportation, Sacramento, California, November, 1979.

Bowlby, William; Higgins, John; Regan, Jerry. March 1983. Noise Barrier Cost Reduction Procedure, STAMINA 2.0/OPTIMA: Users Manual. Federal Highway Administration Demonstration Projects Division, Arlington, VA.

Brady, N. C. 1974. The Nature and Properties of Soils. Macmillian Publishing Co. New York 553-554 pp.

Buffington, Jesse L. 1997. Social, Economic, and Environmental Effects of Elevated, Depressed, and At-Grade Level Freeways in Texas, Research Report 1327-6F. Texas Transportation Institute. College Station, Texas.

City of Lafayette, 1988. *VISION LAFAYETTE: Today/Tomorrow*. Prepared under the Administration of Mayor Dud Lastrapes.

Code of Federal Regulations, Title 23, Part 772. April, 1989. Procedures for Abatement of Highway Traffic Noise and Construction Noise.

Cormier S. M., M. Anders, B. Peterson. 1990. Louisiana Water Quality Inventory. Louisiana Department of Environmental Quality, Office of Water Resources, Baton Rouge. 61 pp.

Courcier, Jimmy. 1998. Geologist III, Louisiana Department of Environmental Quality, Acadiana Office. Lafayette, LA, personal communication with Ed Fike on September 22 and 30, 1998.

Courcier, Jimmy. 2001. Geologist III, Louisiana Department of Environmental Quality, Acadiana Office. Lafayette, LA, personal communication with Ed Fike on September 18, 2001.

Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T. 1979. Clasification of Wetlands and Deepwater Habitats of the United States, FWS/OBS-79/31, U.S. Fish and Wildlife Service, Office of Biological Services, Washington, D.C 103 pp.

Cowardin, Lewis M., Virginia Carter, Francis Galet and Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Office of Biological Services. FWS/OBS - 79/31.

Dasman, R. F. 1964. Wildlife Biology. John Wiley & Sons, Inc. New York 231 pp.

Dundee, H. A., D Rossman. 1989. The Amphibians and Reptiles of Louisiana. Louisiana State University Press, Baton Rouge. 300 pp.

FEMA. 1985. Flood Insurance Rate Maps

Gibson, L. Jon; Mamalakis, M.; Brasseaux, C.; Kuttruff, L.; Winn, ; Hebert A. 1991. Where the River and the Ridge Meet: Cultural Resources Investigations along the I-49 Connector, Lafayette, Louisiana.

Governor's Interstate 49 South Project Task Force, 1998. *Feasibility Analysis to Upgrade US 90 to I-49.* Prepared for Governor Mike Foster pursuant to Executive Order MJF 97-38 dated September 18, 1997.

Hejzlar, Zdenek. 1999. Technical Aspects of Phase I/II Environmental Site Assessments. ASTM stock number: MNL43. American Society for Testing and Materials, Philadelphia, PA.

Hydro-Environmental Technology, Inc. 1992. Phase III Site Investigation, Southern Pacific Transportation Company Property and Surrounding Areas, Johnston Street Frontage, Lafayette, LA. January 29, 1992. Scott, LA.

Hydro-Environmental Technology, Inc. 1991. Phase II Site Investigation, Southern Pacific Transportation Company Property and Surrounding Areas, Johnston Street Frontage, Lafayette, LA. November 6, 1991. Scott, LA.

Jones, P., A. N. Turcan, Jr., H. Skibitzke. 1954. Geology and Groundwater Resources of Southwestern Louisiana. Louisiana Geological Survey. Baton Rouge.

Klein, G. E.; Curry, A.; Ellis, H. B.; Fratessa, C. L.; McGillivray, R. G.; Moon, A. B.; Thompson, G. I.; and Tilton, P.; 1971. Methods of Evaluation of the Effects of Transportation Systems on Community Values. Department of Housing and Urban Development, Washington D.C.

Lafayette Areawide Planning Commission 1993. *Lafayette North-South Corridor Study "Path To Progress."*

Lafayette Areawide Planning Commission, 1997. *Moving Lafayette, Financially Constrained Transportation Plan and Needs Plan, 1995-2015, Final Report.*

Lafayette Consolidated Government, Environmental Quality Division. 1997. Phase I Environmental Site Assessment of Southern Pacific Railroad Passenger Depot, Lafayette, LA. Environmental Quality Division, Public Works Department, City of Lafayette. July 1997.

Lafayette Consolidated Government. 1996. City of Lafayette Zoning Ordinance.

Lafayette Consolidated Government, Environmental Quality Division. 1994. Phase I Environmental Site Assessment for Proposed Old Alice Boucher School Property Acquisition, Sections 13, T-9-S, R-4-E, Lafayette, LA. Public Works Department, City of Lafayette. January 10, 1994.

Lafayette Parks and Recreation Department. 1997. 1997 Annual Report

Louisiana Administrative Code Volume 14 Title 33. Environmental Quality; Solid Waste, Water Quality, Underground Storage Tanks.

Louisiana Department of Transportation and Development, 1984. *Draft Environmental Impact Statement, I-49 Connector, Lafayette, Louisiana. EIS No. FHWA-LA-EIS-92-01-D. State Project No. 700-24-0073. Federal Aid Project No. De-0009(802).*

Louisiana Department of Transportation and Development, 1992. *Evangeline Thruway Improvements (US 90), Vermilion River to Broussard, Lafayette Parish, Feasibility Study, State Project No. 700-16-76.*

Louisiana Department of Transportation and Development, October 1997. Highway Traffic Noise Policy.

Lowery, G. H., Jr. 1974. The Mammals of Louisiana and its Adjacent Waters. Louisiana State University Press. Baton Rouge. 563 pp.

McInnis, A. Kell. 1991. Personal communication. Department of Wildlife and Fisheries.

Murphy, K. E., J. Daigle and L. Roetker. 1977. Soil Survey of Lafayette Parish Louisiana. United States Department of Agriculture, Soil Conservation Service. 81 pp.

Niering, W. A. 1988. Wetlands. Alfred A. Knopf. New York, 638 pp.

Nyman, D. J. 1989. Quality of Water in Freshwater Aquifers in Southwestern Louisiana. U.S. Geological Survey. Baton Rouge. 22 pp.

Penrod, Monroe. 2001. Supervisor, Remediation, Department of Environmental Quality, Graduate Division, Acadiana Office. Lafayette, LA, personal communication in meeting at FHWA Office in Baton Rouge on November 6, 2001.

Planning Services Inc., 1968. *Lafayette Core Area Development and Improvements Program.* Prepared for City of Lafayette and Parish of Lafayette through Lafayette Regional Planning Commission.

Ryan, Timothy P., 2001. *The Economic Impacts of the Ports of Louisiana and the Maritime Industry.* University of New Orleans.

Sanborn Fire Insurance Maps. 1892, 1898, 1903, 1906, 1912, 1921, 1928, 1940, and 1946. Sanborn Map Co., New York, NY.

Shaheen, Donald 1975. Contributions of Urban Roadway Usage to Water Pollution. Office of Research and Development, U.S. Environmental Protection Agency. Protection Technology Series, EPA-600/2-75-004.

Sutton, A. and M. Sutton. 1988. Eastern Forest. Alfred A. Knopf, New York. 638 pp.

Touchet, A. 1991. Personal communication. USDA, Soil Conservation Service.

Tunnard, Christopher and Boris Pishkarev. 1963. Man-Made America: Chaos or Control. New Haven and London: Yale University Press.

U.S. Army Corps of Engineers. June 1995. Lafayette Parish, Louisiana, Flood Control Reconnaissance Report. New Orleans District.

U. S. Department of Agriculture. 1963. Black and white aerial photographs, (December 5, 1963). Frame numbers: CEI-2DD-116, CEI-2DD-118, CEI-2DD-120, and CEI-2DD-122. Salt Lake City, UT.

U. S. Environmental Protection Agency. 1977. Guidelines for Review of EIS's Subject to Section 1424(e) of The Safe Drinking Water Act.

U.S. Environmental Protection Agency. February, 1989. User's Guide to MOBILE4 (Mobile Source Emission Factor Model). Office of Mobile Sources, Emission Control Technology Division, Test and Evaluation Branch, Ann Arbor, Michigan.

U.S. Environmental Protection Agency. November 1992. Guideline for Modeling Carbon Monoxide from Roadway Intersections. Office of Air Quality Planning and Standards, Technical Support Division. Research Triangle Park, North Carolina:

U.S. Environmental Protection Agency. September 1995. User's Guide to CAL3QHC 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections (EPA-454/R-92-006). Office of Air Quality Planning and Standards, Technical Support Division. Research Triangle Park, North Carolina:

U.S. Environmental Protection Agency. September 1996. User's Guide to MOBILE5a (Mobile Source Emission Factor Model). Office of Mobile Sources, Emission Planning and Strategies Division, Air Quality Analysis Branch. Ann Arbor, Michigan.

U.S. Geological Survey. 1989. Water Resources Technical Report No. 42.

Wilbur Smith Associates, 1991. *Lafayette Transportation Plan Technical Memorandum No. 2.*

Chapter 8

GLOSSARY

ADT: Average daily traffic.

Alignment: Refers to the routing and geometrics of proposed build alternatives.

Alluvial: Pertaining to or composed of alluvium, or deposited by a stream or running water; relating to, composed of, or found in alluvium, which is unconsolidated, poorly sorted, detrital sediments ranging from clay to gravel sizes and characteristically fluvial in origin.

Alternative: A proposed project that is under consideration and is evaluated with regard to impacts and to meeting the project purpose and need.

Ambient noise: At a specified time, the all-encompassing sound associated with a given environment, being usually a composite of sound from many sources at many directions, near and far, including the specific sound source(s) of interest.

AQCR: Air Quality Control Region.

Aquifer: A water-bearing unit of permeable rock, sand, or gravel that yields considerable quantities or water to springs and wells.

Artifact: Any object manufactured or modified by human beings.

AST: Aboveground Storage Tank.

ASTM: American Society for Testing and Materials.

At-grade: At the existing ground level; not elevated or depressed.

Attainment: Status of the various pollutants described in the National Ambient Air Quality Standards (NAAQS).

Average daily traffic (ADT): The average daily motor vehicle traffic at a specific point. Usually based on traffic counts or model projections. Unless otherwise specified the assignment includes traffic in both directions for an average day for the subject calendar year. The assignment may distinguish between autos, medium trucks, and heavy trucks.

CAAA: Clean Air Act Amendments.

CAL3QHC 2.0: Computer model used to analyze vehicular emissions and the hourly dispersion of CO.

Carbon Monoxide (CO): A colorless, odorless, poisonous gas that is formed as a product of the incomplete combustion of carbon and is emitted directly by automobiles and trucks.

CBD: Central business district.

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System list compiled by the EPA for hazardous waste sites.

CFR: Code of Federal Regulations.

CCA: Citizens Advisory Committee (for the Lafayette MPO).

Collector/distributor roadway: Roadways designed to work in conjunction with freeways for ramp traffic interaction with surrounding areas.

Community Design Workshop: A collaborative effort between the University of Louisiana at Lafayette and the Lafayette Consolidated Government that has completed a variety of integrated, community-impacting urban design projects.

Conformity analysis: The evaluation of air quality as required by Clean Air Act of 1990.

Corridor Preservation and Management Action Plan to Preserve the I-49 Connector Alignment: A program initiated by the Lafayette Consolidated Government MPO to help ensure that the corridor area needed for the selected alignment for the I-49 Connector will be available when funding for the project is determined.

Cowardin System: A classification system with a primary objective to improve boundaries on natural ecosystems for the purposes of inventory, evaluation, and management. Five major wetland systems are defined in the Cowardin classification system: marine, estuarine, riverine, lacustrine, and palustrine.

CTP: Consolidated Thoroughfare Plan.

Cultural Resources: Districts, sites, structures, and objects and evidence of some importance to a culture, a subculture, or a community for scientific, traditional, religious, and other reasons. These resources and relevant environmental data are important for describing and reconstructing past lifeways, for interpreting human behavior, and for predicting future courses of cultural development.

Cumulative Impact: An impact on the environment which results from the incremental impact of the action when added to past, present, and reasonably foreseeable future actions.

DDA: Downtown Development Authority.

DEIS: Draft Environmental Impact Statement.

Department of Planning, Zoning, and Codes (DPZC): A Lafayette Consolidated Government agency responsible for executing the planning requirements of the Lafayette MPO.

Diamond interchange: A type of interchange in which ramps are provided in all four quadrants, yielding a diamond shape.

Downtown Development Authority (DDA): The governing authority of the Lafayette central business district (CBD) that is a political subdivision of the State of Louisiana working to foster downtown revitalization.

DPZC: Lafayette Consolidated Government Department of Planning, Zoning, and Codes.

EIS: Environmental Impact Statement.

Emergent vegetation: Vegetation that grows with its roots under water but whose leaves and stems extend above the surface of the water.

Environmental Impact Statement (EIS): A study that describes the conceptual engineering aspects and feasibility of project alternatives, and associated impacts to the natural and human environments; in accordance with NEPA, an EIS is required for federally funded highway projects that are expected to have substantial impacts.

Environmental Justice: A 1994 presidential Executive Order that directed every Federal agency to identify and address the effects of all programs, policies, and activities on minority populations and low-income populations.

EPA: United States Environmental Protection Agency.

FAA: United States Federal Aviation Administration.

Facultative wetland species: Plant species that occur more frequently in wetlands than on uplands or nonwetlands (i.e., a species that is classified as facultative wetland would be found in wetlands from 66% to 99% of the time); (symbol used for these plants is FACW; plants near the higher end of occurrence in wetlands are often designated FACW+; those near the lower end of occurrence in wetlands are designated FACW-)

FEIS: Final Environmental Impact Statement.

FHWA: United States Department of Transportation, Federal Highway Administration.

Financially Constrained Transportation Plan: A long-range plan that reflects the priorities for the completion of transportation projects within the limits of estimated funding that is anticipated to be available through local, state, and federal sources.

Floodplain: The portion of a river or stream valley, adjacent to the channel that is covered with water when the river or stream overflows its banks at flood stage.

Floodway: The channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot.

Freeway: The highest type of arterial highway, which is an expressway where the right of way for owners or occupants of abutting land to access the highway is fully controlled by public authority.

Gateway Lafayette: A visitor's center consisting of buildings and landscaped area situated by joint use agreement in the median area of the future Willow Street interchange.

Governor's Interstate 49 South Project Task Force: A group formed in 1997 by Executive Order MJF 97-38 that was directed to develop a comprehensive report which includes research, analysis, and recommendations for the proporsed I-49 Connectori project between Lafayette and New Orleans.

Groundwater: Naturally occurring water that moves through the ground and underlying rock at a depth of several feet to several hundred feet.

GWPD: Ground Water Protection Division of the Louisiana Department of Environmental Quality.

Hazardous Waste: Defined by 40 CFR (Code of Federal Regulations) Part 261, as any material that a) is a solid waste, and b) is a listed hazardous waste (Subpart D), or c) exhibits any of the characteristics of ignitability, corrosivity, reactivity or toxicity (Subpart C).

Highway Traffic Noise Policy: LaDOTD directive that describes policies and procedures for noise studies and abatement measures.

Historic Archaeological Site: Any subsurface cultural manifestation dated post-European contact.

Historic: Of, relating to, or existing in times postdating the development of written records. Historic cultural resources are all evidences of human occupations that date to recorded periods in history. These resources include documentary data (i.e., written records, archival material, photographs, maps, etc.), sites, artifacts, environmental

data, and all other relevant information. Historic resources also may be considered archaeological resources when archaeological work is involved in their identification and interpretation.

Interchange: A grade separated intersection where ramps are provided to connect the intersecting streets.

Intersection: The at-grade crossing of two or more streets.

ISTEA (Intermodal Surface Transportation Efficiency Act): Predecessor of the TEA-21 (Transportation Equity Act for the 21st Century) federal highway legislation.

JCEA: Joint Cooperative Endeavor Agreement.

Joint Cooperative Endeavor Agreement (JCEA): As applies to the I-49 Connector, a City-State Agreement between the State of Louisiana Department of Transportation and Development and the Lafayette Consolidated Government (LCG) for the LCG Corridor Preservation and Management Action Plan to Preserve the I-49 Connector Alignment. (See Appendix G for full terms of agreement).

Joint Use Agreement (Gateway): An agreement between the LaDOTD and the Parish of Lafayette, dated 27 April 1989, whereby LaDOTD agrees to allow the Parish of Lafayette to use the land and airspace of the median area of the Willow Street interchange for a term of 5 years, which will be renewed each 5 years unless terminated by one or other of the parties (see Appendix D for full terms of agreement).

Joint Use or Joint Development: Concept that involves the utilization of a highway corridor for purposes other than a roadway; joint development offers the opportunity to improve the urban environment through landscaping, open space, parking areas, or other amenities.

LaDEQ: Louisiana Department of Environmental Quality.

LaDOTD: Louisiana Department of Transportation and Development.

Lafayette Areawide Planning Commission (LAPC): Created in 1987 by the Governor's office and given jurisdiction as the metropolitan planning organization (MPO) for the Lafayette area, including the cities of Lafayette, Scott, Broussard, Carencro, and the remainder of Lafayette Parish; disbanded in 1996.

Lafayette Consolidated Government: Governing body of Lafayette formed on June 1, 1996 whereby the MPO planning duties and responsibilities of the LAPC were transferred to the Department of Planning, Zoning, and Codes.

LAPC: Lafayette Areawide Planning Commission.

Last Resort Housing Plan: Program to provide new housing construction or purchase/rehabilitation of existing structures in the project area to ensure adequate, comparable, housing for persons being relocated by the project.

LCG: Lafayette Consolidated Government.

Level of Service (LOS): Operating conditions within a stream of traffic describing safety, traffic interruptions, speed, freedom to maneuver, comfort and convenience. Six levels of service are defined, designated A through F, with A representing the best conditions and F the worst.

LHPC: Lafayette Historic Properties Commission.

Locally Preferred Alternative: An alternative that has been chosen from those presented in the Draft Environmental Impact Statement (DEIS) by the Lafayette Consolidated Government as the alternative that best suits the purpose and need of the proposed action while imposing a minimum of impacts to the social, natural, and physical environment.

LOS: Level of Service.

LPPC: Lafayette Parish Preservation Committee.

LUST: Leaking Underground Storage Tank.

Major Investment Study (MIS): A study used as a tool to aid a project decision making process by providing more complete information on the options for addressing transportation problems. The MIS is a sub-element of the metropolitan transportation planning process. It focuses on corridor or sub-area transportation demand and other problems that may lead to high type transit or highway investments having a substantial capital investment and impact on the metropolitan transportation system. Ideally, the MIS will identify the most effective solution to a major transportation problem. The solution will result from a technical analysis of reasonable multimodal strategies including demand and system management options.

Memorandum of Agreement (MOA): An agreement document that is executed under 36 CFR (185) 800.5(e)(4). In an MOA, parties agree on measures to avoid, reduce, or mitigate adverse effects on historic properties or to accept each effect in the public interest.

Metropolitan Planning Organization (MPO): State designated government organization that is authorized and required to develop and maintain a Comprehensive Transportation Plan and Process. Presently the LCG acts as the MPO with the Comprehensive Planning Division of the Department of Planning, Zoning and Codes administering the MPO planning functions.

MIS: Major Investment Study

MOA: Memorandum of Agreement

MOBILE5a: An EPA-approved *(U.S. EPA, 1996)* computer model used to analyze vehicular emissions and the hourly dispersion of CO.

MPO: Metropolitan Planning Organization

NAAQS: National Ambient Air Quality Standards

NAC: Noise Abatement Criteria

National Ambient Air Quality Standards (NAAQS): Standards established by the Federal Clean Air Act of 1970 to protect public health, safety, and welfare from known or anticipated effects of sulfur dioxide, particulates, carbon monoxide, nitrogen dioxide, ozone, and lead.

National Environmental Policy Act (NEPA): Federal regulation designed for federal agencies requiring certain actions to be evaluated for environmental impacts, usually in the form of Environmental Impact Statements or Environmental Assessments.

National Highway System: A system developed by the Department of Transportation (DOT) in cooperation with the states, local officials, and metropolitan planning organizations (MPOs). DOT proposed the system to Congress on Dec. 9, 1993, as required by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The system approved by Congress reflects modifications agreed upon by DOT and Congress as of Nov. 13, 1995. The total mileage is about 260,000 kilometers (160,955 miles) and includes the Interstate Highway System, as well as other roads important to the nation's economy, defense, and mobility.

National Historic Preservation Act: Act that requires a Federal agency to take into account the effects of its projects (undertakings) on historic properties. These properties include any district, site, building, structure, or object that is included on or eligible for inclusion on the National Register of Historic Places. Historic properties are more than just old buildings or well-known national historic sites. Facilities as diverse as roads, bridges, and water treatment plants may be considered historic. While the National Register is a formal list of identified historic properties, it is not complete. All states have additional properties with historic significance.

National Register of Historic Places (NRHP): A national list of districts, sites, buildings, structures, and objects significant in American History, architecture, archaeology, engineering, and culture. The list is maintained by the Secretary of the Interior.

NEPA: National Environmental Policy Act.

NGVD: National Geodetic Vertical Datum.

NHPA: National Historic Preservation Act.

NHS: National Highway System.

Nitrogen Oxide: Colorless, sweet-tasting gas emitted directly by automobiles and trucks.

No-build alternative: The base alternative, which consists of the existing transportation system including scheduled minor improvements, which is used as the basis of comparison for the build alternatives in an EIS.

Noise: Unwanted or undesirable sound, usually characterized as being so loud as to interfere with, or be inappropriate to, normal activities such as communication, sleep, study or recreation.

Non-attainment: A condition where a pollutant exceeds the NAAQS two or more times during a year.

North-South Corridor Study: A study published in 1993 by the Lafayette Areawide Planning Commission that made an evaluation of four alternative freeway corridors, a fifth or "no build" alternative and four alternative grade/structure alignments running north to south through Lafayette Parish, Louisiana.

Notice of Intent (I-49 Connector): A document published in the Federal Register on April 14, 1998 notifying the public that an EIS was underway for the I-49 Connector project.

NPL: National Priority List compiled by the EPA for hazardous waste sites.

NRHP: National Register of Historic Places.

One-way couplet: A pair of one-way parallel roadways acting as a two-way roadway.

Ozone: Unstable blue gas with a pungent odor formed principally in secondary reactions involving volatile organic compounds, nitrogen oxides, and sunlight. It is a primary constituent of the form of air pollution commonly known as smog.

Palustrine Emergent Wetland: Wetlands that are characterized by erect herbaceous vegetation present for most of the growing season (i.e. marshes, wet meadows, fens, sloughs, or potholes).

Palustrine Forested Wetland: Wetlands that are characterized by woody vegetation over 6 meters (20 feet) in height (i.e. swamps or bottomlands).

Palustrine Scrub-Shrub Wetland: Wetlands which are characterized by woody vegetation less than 6 meters (20 feet) in height (i.e. pocosins, shrub swamps, or wet thickets).

Phase I Environmental Site Assessment: As prescribed by E 1527 - 97 Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process *(ASTM E 1527-97 Standards. [1997]);* specific tasks that are normally conducted include: interviews with owners and occupants of the properties, a comprehensive site inspection for each of the properties located in the project area, review of conveyance records for each property, and review of street directories.

PHI: Petroleum Helicopters, Inc.

Prehistoric Archaeological Site: Any subsurface cultural manifestation dated to pre-European contact.

Prehistoric: Of, relating to, or existing in times antedating written history; prehistoric cultural resources are those that antedate written records of the human cultures that produced them.

Public Hearing: An advertised, open, meeting required by the NEPA process; it is normally scheduled to be held within 45 days after distribution of the DEIS to receive public comment.

RCRIS: The EPA and LDEQ, Office of Solid and Hazardous Waste, maintain Resource Conservation and Recovery Information System (RCRIS) inventories of facilities which produce hazardous wastes. These inventories, supplemented by field review, were used to determine the location of active facilities within the project study area that produce hazardous wastes.

Record of Decision (ROD): A concise decision document for an Environmental Impact Statement (EIS) that states the decision on the Selected Alternative, other alternatives considered, and the mitigation measures adopted for the Selected Alternative.

Regional study area: The I-49 Connector project study area consisting of all of Lafayette Parish.

Relocation Assistance Program: Program administered under the provisions of Louisiana Rev. Statute 38:3101 whose purpose is to provide an orderly, timely and efficient relocation of persons and businesses within the required right of way and to supply information on services and payments that are available through the LaDOTD or other agencies.

Riparian: Pertaining to anything connected with, or immediately adjacent to, and including the banks of a stream.

Riverine: Of, or pertaining to a river; e.g., riverine habitat is habitat occurring within a river.

ROD: Record of Decision.

RPZ: Runway Protection Zone

Runway Protection Zone: Airspace at each end of a runway that must remain free from obstructions as specified by the FAA.

Sanborn Maps: Fire insurance maps used to identify historical sites.

Secondary Impact: An impact on the environment resulting from the primary impact of the action and is later in time or farther removed in distance but is still reasonably foreseeable.

Section 4(f): A component of the Department of Transportation Act 49 USC 1653(f) that protects publicly owned public parks, recreation areas, wildlife and waterfowl refuges, and historic sites of national, state, or local significance.

Section 401 Certification: Water Quality Certification is required by Section 401 of the Clean Water Act for projects requiring Section 404 permits. The Water Pollution Control Division of the Louisiana Department of Environmental Quality reviews all Environmental Impact Statements prepared, assessing the potential impact of the proposed project on water of the state.

Section 404 Permit: Section 404 of the Clean Water Act requires those who propose to discharge dredge or fill material into the waters of the United States, including wetlands, to obtain a permit from the U.S. Army Corps of Engineers.

Section 6(f)(3): A component of the Land and Water Conservation Fund (LWCF) that requires special coordination with and approval of the National Park Service (NPS) if lands which were acquired or developed with funds provided by LWCF are required for highway right-of-way.

Sedimentation: The process of deposition of sediment, especially by mechanical means from a state of suspension in air or water.

Selected Alternative: An alternative that has been chosen for implementation from those presented in the Draft Environmental Impact Statement (DEIS) which best suits the purpose and need of the proposed action while imposing a minimum of impacts to the social, natural, and physical environment.

SHPO: State Historic Preservation Officer.

Single point diamond interchange: A variation of the diamond interchange in which all four ramps converge at a single intersection, rather than the more common situation of two intersections.

SIP: State Implementation Plan.

Slip ramp: A free flow mid-block connection from the freeway to the one-way parallel roadway, or vice-versa.

Socioeconomics: The study of the social and economic condition in an area.

STAMINA 2.0/OPTIMA: The FHWA highway traffic noise prediction computer program used to model the noise level of the traffic counted during the field measurements at eleven of the monitoring sites.

State Historic Preservation Officer: Appointee of the State of Louisiana, Department of Culture, Recreation and Tourism, who reviews and approves project findings concerning historical structures. Mission statement is "to achieve the preservation of Louisiana sites, structures and districts deemed significant in the broad historical development of the United States, Louisiana and sub-divisions thereof, through direct action and through influencing the actions of others."

State Implementation Plan: Air quality plan as administered by the Louisiana Department of Environmental Quality.

Sterling Grove Historic District: A residential area consisting of 52 buildings that date mainly from the period 1890 to 1934 that is roughly bounded by East Simcoe Street, the Evangeline Thruway, Chopin Street, and North Sterling Street; (the limits of the District are shown graphically on Exhibit 3-12 and Plates 3 in Appendix A).

Study corridor: The project study area consisting of census tracts that are bisected by and immediately adjacent to the proposed alignments.

Subalternatives: Reasonable options within a proposed alternative. Subalternatives may refer to design options within a proposed alternative.

TEA-21: Transportation Equity Act For the 21st Century.

TIP: Transportation Improvement Plan.

Title VI of the Civil Rights Act of 1964: Under Title VI, no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

Transmissivities: The rate at which water of a prevailing density and viscosity is transmitted through a unit width of an aquifer or confining bed under a unit hydraulic gradient. It is a function of properties of the liquid, the porous media, and the thickness of the porous media. It is expressed as the product of hydraulic conductivity and the thickness of the saturated portion of an aquifer in (ft^2/day).

Transportation Equity Act For the 21st Century: Federal highway legislation passed in 1998 that covers a period of six years, with increased highway and other transportation funding.

Transportation Improvement Plan (TIP): A document that reflects the priorities for the completion of projects as established by the Lafayette MPO's Transportation, Technical, and Policy Committees; it includes projects for road construction, transit, the multi-modal center, enhancements, maintenance, and safety; it also includes a conformity analysis as required by the 1990 Clean Air Act; the projects contained in the TIP are demonstrated to have funding commitments from local, state, or federal sources.

TPC: Transportation Policy Committee (for the Lafayette MPO).

TTC: Transportation Technical Committee (for the Lafayette MPO).

Uniform Relocation and Land Acquisition Policies Act of 1970: A law which defines how and why displacees, as a result of the I-49 Connector project, would be entitled to relocation housing which is comparable to their housing prior to displacement.

USDA: United States Department of Agriculture.

USDOT: United States Department of Transportation.

UST: Underground storage tank.

Watershed: A specific geographic area drained by a major stream or river.

Wetland: Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Chapter 9

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