



IH 35 PEL Summary of Previous Studies

Prepared by:

**Texas Department of Transportation
Alamo Regional Mobility Authority**

January 2013

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1.0 Purpose of the PEL Study

In an effort to link planning studies to environmental processes that are compliant with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA) developed *Guidance on Using Corridor and Subarea Planning to Inform NEPA*, April 5, 2011. This guidance encourages the integration of initial highway and transit planning efforts into a NEPA environmental process to minimize duplication of effort, number of review cycles, and project costs. Through the implementation of a Planning and Environmental Linkages (PEL) Study approach, Interstate Highway 35 (IH-35) analysis and planning activities will be conducted with resource agencies and the public along this northeast San Antonio roadway segment. The IH-35 San Antonio (SA) PEL is sponsored by the Texas Department of Transportation – San Antonio District (TxDOT-SA) and the Alamo Regional Mobility Authority (Alamo RMA). The resulting planning product will identify the purpose and need for improvements, determine possible viable alternatives for a long-term solution, and recommend preferred alternatives that can be carried forward seamlessly into a NEPA environmental study.

2.0 Planning Study Area

The IH-35 SA PEL Study area follows portions of two major existing freeway facilities in the San Antonio area: IH 35 from Hubertus Road/FM 1103 in Schertz to the intersection with IH 37/US 181 in downtown San Antonio; and Loop 410 from IH 35 on the north side of the city, east to IH 10. The IH-35 corridor is 34.3 km (21.3 miles) long and 0.8 km (0.5 mile) wide. It includes five major interchanges and 19 diamond interchanges. The segment of Loop 410 that is part of the study area has one major interchange and one diamond interchange. This segment is 7.0 km (4.4 miles) long.

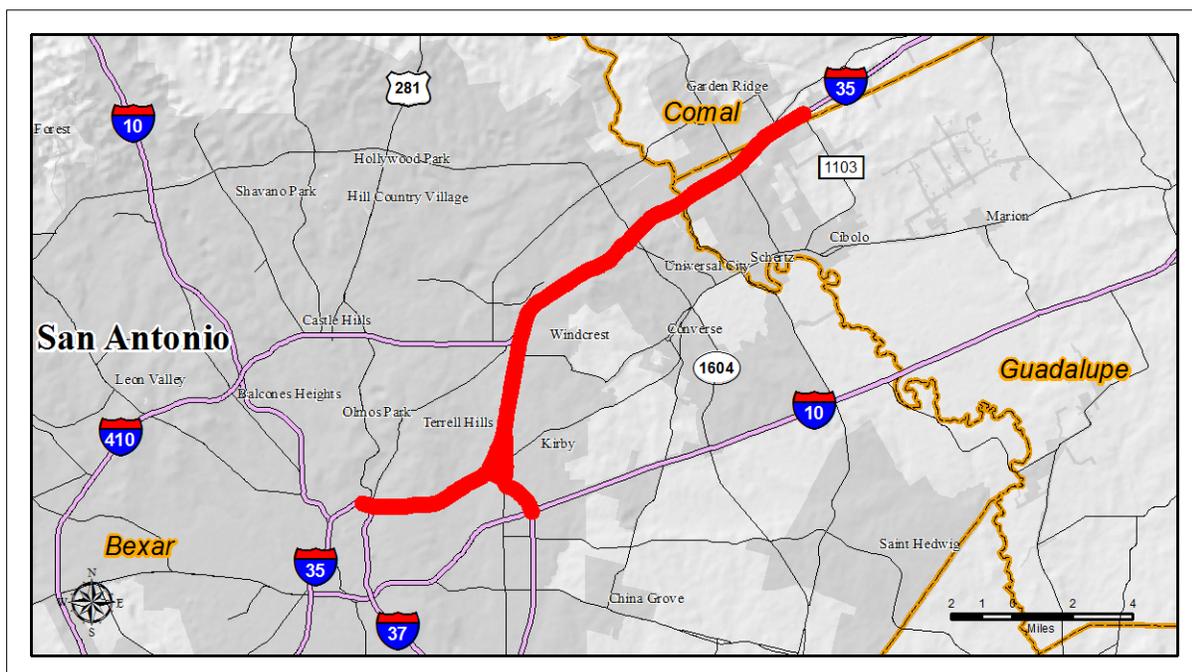


Figure 1: Study Area Map

The major interchanges in the study area are:

- The Loop 410 South/IH-10 East Interchange is the southeast terminus of the study area.
- The Northeast Loop 410/IH-35 Interchange is the northern terminus of the shared IH-35 and Loop 410 section. (The San Antonio International Airport is five miles west of this interchange on Loop 410).
- The Loop 1604/IH-35 Interchange is the northernmost interchange within the study area.
- The IH-35/IH-37/US 281 Interchange is the western terminus of the study area.

The IH-35 SA PEL Study corridor is located primarily within the San Antonio/Bexar County Metropolitan Planning Organization (MPO) boundaries, and has urban/suburban land use characteristics. Most land uses along this IH-35 segment are warehouse, light industry and heavy commercial development.

The IH-35 SA PEL Study Corridor nearly reaches the southern limits of New Braunfels and connects nine (9) local communities: San Antonio, Kirby, Windcrest, Live Oak, Selma, Universal City, Garden Ridge, Schertz and Cibolo. Based on ground reconnaissance, eleven (11) distinct freight and passenger traffic generators, employers, and destinations are within the corridor:

- Downtown San Antonio
- Fort Sam Houston
- Brooks City-Base
- Southern Pacific Rail Facilities
- The HEB Regional Warehouse District
- Windsor Park Shopping Mall
- San Antonio International Airport
- Randolph Air Force Base
- Splashtown Waterpark
- Retama Park Racetrack
- The Forum Shopping Center

VIA Metropolitan Transit provides public transportation services in the study area. VIA carries approximately 15,200 passengers per day through the corridor on its radial, crosstown, express, and circulator bus routes.

Union Pacific owns a single track directly adjacent to the IH-35 right of way in the study area, and operates approximately eight trains per day. The Southern Pacific rail yards are located in the southern portion of the study area and bisect the IH 35. Each railroad expects their total shipments to continue to grow for the next ten years.

3.0 Planning Context

IH 35 is one of the most vital transportation corridors in the State, serving as the primary north/south connection between the metropolitan areas of Laredo, San Antonio, Austin, and Dallas/Fort Worth. Rapid growth in these metropolitan areas has resulted in increased traffic congestion and transportation needs, particularly along major economic corridors such as IH 35. In 2011, eleven segments of IH 35 were listed in the top 100 most congested roadways in Texas; three of these segments were located within the IH 35 SA PEL study area.

The agencies and organizations responsible for planning transportation improvements have recognized and attempted to address these needs through long-term metropolitan transportation plans, as well as a corridor-wide plan for IH 35. The San Antonio-Bexar County Metropolitan Planning Organization (MPO) identifies three long-term IH 35 projects in its *Mobility 2035: Metropolitan Transportation Plan*, as shown below:

Table 1: Mobility 2035: Metropolitan Transportation Plan Roadway, Bicycle, Pedestrian and Rideshare Projects (Draft) Listings							
Name	MPO Number	Limits From:	Limits To:	Fiscal Year	Primary Funding Program	Total Project Amount	Letting Date
IH 35 North	3477.0	0.3 Mi N of Randolph Road	0.2 Mi S of Schertz Parkway	2020	CDA	1,018,355,254	January 2020
Project Description: Expand IH 35 from 8 to 14 lane expressway (toll 6 new mainlanes) including tolled direct connections at Loop 1604; Environmental study required; project is subject to change.							
IH 35 North	61.2	0.5 Mi S of Binz Engleman	0.3 Mi N or Randolph Road	2020	CDA	688,144,172	January 2020
Project Description: Expand IH 35 from 6 to 12 lanes (toll 6 new mainlanes), including tolled direct connections at IH 410 S & IH 410 N; Environmental study required; project is subject to change							
IH 35 North	3514.0	US 281/IH 37, East	0.5 Mi S of Binz Engleman	2020	CDA	335, 546, 368	January 2020
Project Description: Expand IH 35 from 6 lane to 10 lane expressway (toll 4 new mainlanes); Environmental study required; project is subject to change							

MY 35 Plan (August 2011)

The I-35 Corridor Advisory Committee has also identified proposed improvements for the IH 35 corridor in the MY 35 Plan (August 2011). This planning document recommended the following improvements within or encompassing the IH 35 SA PEL Study area:

- The I-35 Corridor Advisory Committee recommends improving the two north/northeastern San Antonio IH 35/IH 410 interchanges and the IH 35/Loop 1604 interchange in north San Antonio as the second priority near-term roadway project in Segment 3.
- The I-35 Corridor Advisory Committee recommends the implementation of passenger rail service along the IH 35 corridor from the Dallas/Fort Worth Metroplex to Laredo as a priority one long-term rail project.
- The I-35 Corridor Advisory Committee recommends the implementation of freight rail solutions along the IH 35 corridor that will provide an alternate freight route to allow regional and/or intercity passenger rail travel along the IH 35 corridor, increase freight capacity and enhance safety. This improvement is recommended as a priority one long-term rail project.
- The I-35 Corridor Advisory Committee recommends adding a managed lane in each direction from SH 45SE northeast of Buda to IH 10 in San Antonio as a priority one long-term project in Segment 3.

The IH 35 SA PEL Study is the next step towards implementing some of the IH 35 improvements recommended in these plans.

4.0 Previous Project Studies

The IH 35 SA PEL Study is not the first attempt to implement planning recommendations for this corridor. In fact, multiple studies have been conducted for the IH 35 corridor within and near the IH-35 SA PEL Study Area over the last two decades. While these studies have facilitated a valuable collection of data and specific recommendations for improvements along the corridor, none have moved forward to a NEPA environmental process due to funding constraints and other competing transportation needs within the San Antonio/Bexar County Metropolitan Planning Organization’s boundaries. Previous studies within this corridor include the following:

The Alamo RMA is presently working on Loop 1604 improvements, which include an intersection with IH-35. An *IH-10 Traffic Impact Assessment* (prepared for TxDOT by Carter Burgess in May 2000) is another resource for intersection improvements.

The San Antonio-Bexar County Metropolitan Planning Organization has a number of completed studies¹ that can be evaluated for the IH-35 SA PEL Study. These studies include bike-pedestrian planning, Brooks City-Base infrastructure needs and incident management systems. The San Antonio-Bexar County MPO’s *Mobility 2035: Metropolitan Transportation Plan* identifies the majority of the study area in their project listings.

¹ San Antonio-Bexar County Metropolitan Planning Organization – Completed Studies
www.sametroplan.org/studies/completed_studies.html

4.1 1996 Major Investment Study (MIS) Technical Report

The *Northeast (IH 35) Corridor Major Investment Study UPWP62* Technical Report (1996 MIS) was sponsored by the San Antonio-Bexar County MPO. The Major Investment Study (MIS) was performed in collaboration with the Texas Department of Transportation and VIA Metropolitan Transit (VIA) by Rust Lichliter/Jameson in 1996. The document authors were Rust Lichliter/Jameson, KPMG, Vickery & Associates and The Sherry Taylor Group.

The Project Study Area extended from Interstate Highway 37 (IH-37) in downtown San Antonio to Loop 1604 in northeastern Bexar County. It included the IH-410 roadway segment that connects IH-35 to IH-10.

4.1.1 Problem Statement

Travel demands on the IH 35 Northeast Corridor have exceeded available capacity. The resulting congestion is inhibiting the movement of people in cars and transit vehicles, delaying the delivery of goods by local, interstate as well as international trucks, increasing the potential for accidents, degrading air quality, and consuming more energy.

4.1.2 Purpose and Need

Background

Travel demands on the IH 35 Northeast Corridor have exceeded available capacity resulting in congestion

Specific problems include:

- Conflicts between local and through traffic on Loop 410 and IH 35.
- Left side freeway exit ramps.
- Traffic demand exceeds capacity on IH 35 and adjacent local street system.
- Congestion increases the potential for accidents.
- Poor pavement conditions on some sections of IH 35.
- Poor traffic flows at both interchanges between IH 35 and Loop 410.
- Lack of route and lane continuity on Loop 410.
- A high number of trucks use the corridor.
- Cars and trucks inhibit each other's movements.
- Limited transportation choices within the corridor.
- Existing Randolph "park and ride" lot not easily accessible.
- Limited bicycle and pedestrian facilities within the corridor.
- New air ambulance helipad directly adjacent to IH 35 may cause "rubbernecking."
- Rail lines inhibit traffic at crossings on adjacent arterial streets.
- Increasing rail traffic in the corridor.

Travel forecasts indicate traffic will continue to increase at all levels and further delays will occur on the local, regional, and interstate systems.

Purpose and Need Statement

The Northeast Corridor has long been recognized as one of the critical connections for the City and the region. Most of the present system was constructed approximately 30 years ago under standards and conditions that were acceptable at that time, but have since changed. Today the volume of freight and passenger vehicles has exceeded the corridor's capacities to accommodate the present day movement of people and goods. Congestion on the Interstate, frontage roads and local arterials is occurring for long time periods and in wide areas of the corridor.

4.1.3 Goals

Table 2: 1996 MIS Technical Report - Goals	
1	<i>Improve Mobility</i>
	A primary goal of this study is to enhance mobility and decrease travel time within the corridor. Alternative improvement strategies were developed to enhance passenger capacity and convenience.
2	<i>Achieve Project Affordability and Constructability</i>
	The Alternative improvement strategies should be cost effective and feasible from a construction perspective.
3	<i>Achieve Environmental and Air Quality Benefits</i>
	Alternative improvement strategies should facilitate reductions in vehicle congestion and emissions. In addition, such strategies should identify and mitigate, or avoid adverse impacts on the surrounding natural environment and existing communities.
4	<i>Promote Economic Development</i>
	Alternative improvement strategies will be evaluated for their contribution to the corridor and the region's economic growth and competitiveness
5	<i>Achieve Land Use Benefits</i>
	Alternative improvement strategies should promote more efficient use of new and existing transportation capacity and be a catalyst for efficient land use and development.
6	<i>Gain Public Support</i>
	Secure the support of the community when evaluating the proposed alternative investment strategies that meet their transportation needs.

4.1.4 Alternatives Evaluation

The study identified eight alternative strategies to meet the purpose and need and goals of the project. These strategies were broken into three categories and evaluated for their anticipated effectiveness and ability to meet the project’s purpose and need and goals. The three categories were as follows:

Base Case: maintains the existing transportation system and includes near future committed improvements based on 2015 projections.

Minimal Improvements: includes Minimal Corridor Operating System Improvements and Improved Bus Service.

Major Improvements: includes Safety and Operations Improvements at Major Interchanges, Additional General Purpose Lanes, Express Lanes, High Occupancy Vehicle Lanes and Local Rail Transit.

The comprehensive alternatives evaluation was based on “Alternatives Evaluation Methodology and Coarse Screening Results Report”. That report identified quantitative and qualitative measures that could be used to evaluate each of the alternatives against the project’s goals and objectives. The categories used for evaluation included: travel demand, travel savings, cost and cost effectiveness, environmental, safety, equity, construction/joint development and economic impacts.

Although travel demand methodology cannot be determined from the report, the report does provide the assumptions of the E+C Highway and Transit networks which were developed based on Long Range Planning documents pre-1996. Those assumptions should be compared with today’s long range planning documents (both statewide and within the City of San Antonio and the San Antonio metro region).

The eight alternative strategies identified and evaluated in the 1996 MIS are described in Table 3 below:

Table 3: 1996 MIS Technical Report - Alternative Improvement Strategies Considered	
1	<i>Base Case</i>
	The <i>Base Case</i> includes the preservation of the existing and committed highway and transit systems. Evaluation: Resources for this alternative were judged to be better allocated to other options
2	<i>Minimal Corridor Operating System Improvements</i>
	Strategy includes preservation of the existing and committed highway and transit systems, and adds: <ul style="list-style-type: none"> • Transportation Systems Management (TSM), spot safety and operations improvements. • Transportation Demand Management (TDM), programs that encourage shared rides. • Intelligent Transportation Systems (ITS), expanding <i>TransGuide</i> into the corridor. • Pedestrian and Bicycle Facilities. Evaluation: Resources should be dedicated to this alternative.
3	<i>Improve Bus Service</i>
	This alternative strategy includes, along with <i>Minimal Corridor Operating System Improvements</i> , a transit network restructured for year 2015 to serve the northeast areas of the city and county. This restructured network reduces downtown transfers and improves suburban to suburban transit service. An increase in number of buses, transit centers and park

Table 3: 1996 MIS Technical Report - Alternative Improvement Strategies Considered

	<p>and ride facilities is included in this strategy.</p> <p>Evaluation: The allocation of existing and future resources to this alternative was endorsed by the public and elected officials.</p>
4	<p><i>Safety and Operations Improvements at the Major Interchanges</i></p>
	<p>This alternative improvement strategy includes the <i>Improve Bus Service</i> strategy and adds interchange ramp and direct connector improvements to two interchanges. The Loop 410 South Interchange with IH 35 will be improved to meet current design standards, including replacing the existing left side exit ramp with a right side exit ramp. The Northeast Loop 410 Interchange will be improved with two new direct connectors to replace the existing hairpin connectors.</p> <p>Evaluation: This alternative received widespread support from the public and elected officials.</p>
5	<p><i>Additional General Purpose Lanes</i></p>
	<p>This alternative improvement strategy consists of two additional general purpose lanes in each direction for most of the freeway mainlanes along with one additional frontage road lane in each direction plus the improvements outlined in <i>Safety and Operation Improvements at the Major Interchanges</i>. In addition, rail crossing grade separations are included at Rittiman, Eisenhower, and Walzem. Figure S.2 (in full report) shows a typical cross section of the Additional General Purpose Lanes alternative strategy.</p> <p>Evaluation: It is anticipated that shortly after the 20 year planning horizon of this study, the <i>Additional General Purpose Lanes</i> strategy for IH 35 would reach its capacity, with conditions worse than today's and fewer options for relief.</p>
6	<p><i>Express Lanes</i></p>
	<p>This alternative improvement strategy includes two barrier-separated lanes or express lanes in each direction within the freeway mainlanes plus one additional frontage road lane in each direction plus the improvements outlined in <i>Safety and Operation Improvements at the Major Interchanges</i>. The express lanes begin at FM 1604 and end east of the US 281/IH 35 interchange. The barrier separated lanes would have limited access points and would be open to all types of vehicles. In addition, rail grade separations are included at Rittiman, Eisenhower, and Walzem. Figure S.3 (in full report) shows a typical cross section of the Express Lanes alternative strategy.</p> <p>Evaluation: The <i>Express Lanes</i> strategy provides flexible service that matches current and projected local and through travel demands. As traffic increases and changes in character, the right of way dedicated for the Express Lanes can be converted to accommodate operations that match future travel demands; such operations may include HOV facilities.</p>
7	<p><i>High Occupancy Vehicle (HOV) Lanes</i></p>
	<p>This strategy adds within the freeway mainlanes, one barrier separated HOV lane in each direction to the <i>Safety and Operations Improvements at the Major Interchanges</i>. Only vehicles with two or more riders including the driver are allowed to use the HOV Lanes. The HOV lanes begin at FM 1604 and initially terminated at the US 281/IH 37 interchange. However, for the</p>

Table 3: 1996 MIS Technical Report - Alternative Improvement Strategies Considered

	<p>purposes of evaluating ultimate ridership and costs, the southern limit was extended to include a downtown connection. In addition, rail grade separations are included at Rittiman, Eisenhower, and Walzem. This strategy includes new proposed Park and Ride lots. At the Randolph Park & Ride, exclusive access to the HOV Lanes will be provided via an elevated "T" ramp. This alternative strategy also includes direct connectors with the U.S. 281 Interchange, as well as a direct connection to the Downtown local street system. Figure S.4 (in full report) shows a typical cross section of the High Occupancy Vehicle Lanes alternative strategy.</p> <p>Evaluation: Traffic projections indicated that <i>High Occupancy Vehicle Lanes</i> would not be adequately utilized. In addition, congestion would remain at high levels on the adjacent general purpose lanes.</p>
8	<p><i>Local Rail Transit</i></p> <p>This alternative improvement strategy includes all of the improvements included in the <i>Operational and Safety Improvements at the Major Interchanges</i> plus local rail transit service paralleling the IH 35 alignment. In addition, rail grade separations are included at Rittiman, Eisenhower, and Walzem. The rail system would be part of a comprehensive transit strategy that includes restructuring the bus system to feed the rail transit system. A downtown rail system connection is also included in this alternative strategy. Figure S.5 (in full report) shows a typical cross section of the Local Rail Transit alternative strategy.</p> <p>Evaluation: The projected ridership for the <i>Local Rail Transit</i> in the Northeast Corridor is low and is approximately one-third of a typical new start up system. Congestion remains unimproved. This alternative has a benefit-cost ratio of less than one.</p>

4.1.5 Conclusions

The following conclusions were reached after evaluation of the proposed alternatives:

- The Base Case strategy was not an acceptable or cost effective solution.
- Additional General Purpose Lanes were not desirable because they not allow for future implementation of other transportation strategies. It is anticipated that shortly after the 20 year planning horizon of this study, the Additional General Purpose Lanes strategy for IH 35 would reach its capacity, with conditions worse than today's and fewer options for relief.
- Traffic projections indicated that Additional High Occupancy Vehicle Lanes would not be adequately utilized. Only 25% of the high occupancy vehicles projected to travel in the corridor will be able to use the HOV lanes.
- Local Rail Transit would not be an effective solution in this corridor. Modeling results indicated that such a solution would be underutilized in this corridor, but may become effective beyond the 20 year planning horizon.

- The largest number of the participants in the public involvement process supported the Additional General Purpose Lanes and the Additional Express Lanes. Few supported the Light Rail Transit. None supported the HOV Lanes.
- The Additional Express Lanes strategy would provide flexible service that matches current and projected local and through travel demand. Its overall average Volume to Capacity ratio on the general purpose lanes ranked best among all other strategies. This strategy would provide flexibility for **conversion into** other transportation improvements beyond the 20 year horizon. Long term conversion options include:

Two HOV lanes in each direction.

One HOV lane and one General Purpose Lane in each direction.

Two additional General Purpose Lanes in each direction.

A median fixed guideway transit system.

Priority lanes as part of a congestion pricing system.

4.1.6 Recommendations

The 1996 MIS recommended implementing the following activities in stages:

Short Range (1 to 5 years)

- Preserve Existing and Committed Highway and Arterial System
- Preserve Existing and Committed Transit System
- Pursue Pedestrian and Bicycle Plan development
- Pursue Minimal Operating and Safety System Improvements (TSM-TDM/ITS). Such improvements should be focused on specific local safety and traffic needs.
- Improve Bus Service by reallocating existing transit resources and new equipment to be phased in over the entire region.
- Prepare schematic plans and environmental studies for the required right of way that would accommodate the Additional Express Lanes. Include the Additional Express Lanes alternative strategy as a place holder in the Transportation Improvement Program.
- Conduct a comprehensive light rail system study for San Antonio. Preserve adequate right of way for light rail development.

Medium Range (5 to 10 years)

- Pursue Safety and Operations Improvements at the Major Interchanges by upgrading the configuration of existing ramps and connectors. Such improvements must take into consideration the future implementation of the Additional Express Lanes.
- Prepare Plans, Specifications and Estimates for construction of the Additional Express Lane strategy with park and ride lots and potential exclusive ramp access. Develop segments for staged construction. The segment from the Fratt interchange to Loop 1604 should be assessed as the last segment.

Long Range (10 to 20 years)

- Begin staged construction of Additional Express Lanes.
- Evaluate potential conversion of the Additional Express Lanes into other transportation modes.
- Review and update Northeast (IH 35) Corridor transportation plan.

4.1.7 Locally Preferred Alternative

Utilizing the Draft MIS Report and information gathered from the public involvement process, the San Antonio-Bexar County Transportation Steering Committee adopted one of the potential four lane express options as the Locally Preferred Alternative (LPA):

A hybrid improvement alternative consisting of six general purpose freeway lanes and four barrier-separated special purpose lanes -- The four special purpose lanes consist of one express lane and one diamond marked HOV lane in each direction. This alternative will provide an incentive for commuters to car pool or use transit, allows for possible congestion pricing, or the sale of excess capacity, and channels the through movement traffic efficiently from Loop 1604 to Downtown San Antonio.

- The combined Express/HOV lanes begin east of the US 281/IH 35 interchange and end west of the Loop 1604/IH 35 Interchange.
- The barrier separated Express/HOV lanes would have limited access points and would accommodate both general purpose traffic and HOVs in separate lanes.
- In addition, rail grade separations are included at Rittiman, Eisenhower, and Walzem.
- This combined alternative strategy is geometrically identical to the Express Lanes alternative strategy.
- The LPA is estimated to cost the same as the Express Lane option and to provide benefits similar to both Express Lanes and the HOV lanes.
- The Express/HOV facility differs only in that one of the lanes in each direction would be designated for HOV use; and one lane in each direction would be designated for Express use.
- Trucks would be permitted to use the Express Lane.
- HOV operations could be continuous twenty-four hours per day, and are not limited to the constraints of reversible operation.

5.0 Recommendations for Use of the 1996 MIS Technical Report

Any dates, statistical data and cost estimates included in the 1996 MIS Technical Report will need to be updated to match current agency data, guidelines/standards and current dollars, or those items need to be referenced as 1996 data. The IH-35 SA PEL project study area extends beyond the MIS project study area. It includes IH-35 from Loop 1604 to FM 1103 which will require additional data collection within Bexar County and new data collection in Guadalupe and Comal Counties.

Minimal operational and maintenance improvements have been implemented in the project study area since the 1996 MIS Technical Report was completed. Many of the identified problems remain. The Problem Statement, Goals and Objectives as well as the Alternative Improvement Strategies Considered are applicable. The Purpose and Need for Proposed Action can be used as a framework for the IH-35 SA PEL Study's Need and Purpose.

The strategies within the Definition of Alternatives need to account for progress made, such as the establishment of Alamo RMA, since the MIS was completed. However, they can be used as a measure for current corridor assessment. The Evaluation Criteria – Goals and Objectives and Coarse Screening Methodology are logical for the IH-35 SA PEL Study Alternatives Evaluation Methodology. The quantitative and qualitative measures are applicable pending updates to agency data references, and the approach of the Transportation Impacts section of the report can be applied.

Current datasets are available for the Affected Environment (Existing Conditions), and they will be used in the Affected Environment, Environment Analysis and Consequences section of the IH-35 SA PEL Study. The MIS data and its analysis can be used as guidance.

Capital Costs and Annual Operating and Maintenance Costs as well as the Summary Evaluation of Alternatives can be used for comparisons, and the costs do provide a proportional relationship for the eight MIS strategies. The Potential Funding and Funding Strategies can be revised with those identified in the San Antonio-Bexar County MPO's *Mobility 2035: Metropolitan Transportation Plan*.

The resulting MIS Conclusions were categorized in relation to the project goals. The Recommendations resulted in Short, Medium and Long Range stages. This approach can be implemented in the IH-35 SA PEL Study. Out of all of the alternative strategies, the locally preferred alternative will have the greatest value to the PEL Study. The locally preferred alternative is a hybrid improvement alternative consisting of six general purpose freeway lanes and four barrier-separated special purpose lanes. The four special purpose lanes consist of one express lane and one diamond marked HOV lane in each direction.

6.0 Additional Reports

Adequate funding was not available to push several studies into an environmental process. Funding opportunities will be available for the IH-35 SA PEL Study project to proceed into an environmental process in 2013. The IH-35 SA PEL Study can use some data gathered for these studies (listed in chronological order) as a basis for 2011/2012 data collection and project comparisons.

1. *IH 35 Corridor Level-2 Tolloed Lanes Planning Study, Draft Final Report*, July 2010, for the Alamo RMA and TxDOT-TTA, by Rodriguez Transportation Group
2. IH 35 Managed Lanes Project, Initial Conceptual Alternatives Studies (Phase 1), From: Bexar/Guadalupe County Line, To: US 281, Bexar County, Texas, for the Alamo RMA, by HNTB
 - *IH 35 Environmental Constraints DRAFT*, March 2007
 - *Conceptual Drainage Assessment Technical Memorandum DRAFT*, March 2007

- *Initial Screening of Conceptual Alternatives Technical Memorandum DRAFT*, revised May 11, 2007
 - *Traffic Demand Modeling Technical Memorandum DRAFT*, March 2007
 - Draft Utilities Mapping, 2007
 - Draft Right of Way Mapping, 2007
 - Conceptual Schematic Drawings, 2007
3. *IH 35 San Antonio Northeast Corridor From IH 37/US 281 to Loop 1604, IH 35 at Loop 1604 Interchange, Interchange Study*, January 2003, for Texas Department of Transportation San Antonio District, by Rodriguez Transportation Group
 4. *IH 35 (San Antonio) Comparison of Existing and Proposed Traffic Patterns*, for the Alamo RMA, by Carter Burgess, January 8, 2003
 5. *IH 35 San Antonio Northeast Corridor Schematic Design Study, Managed Lanes At-Grade in Median Area, From IH 410 North to IH 410 South*, Prepared for Texas Department of Transportation San Antonio District, Prepared by Carter & Burgess, Inc., December 2002
 6. *IH 35 San Antonio Northeast Corridor, From IH 37/US 281 to Loop 1604, Evaluation of Railroad Grade Separations at Walzem, Eisenhower and Rittiman with Intersection of the Union Pacific Railroad*, Prepared for Texas Department of Transportation San Antonio District, Prepared by Carter & Burgess, Inc., December 2002
 7. *IH 35 San Antonio Northeast Corridor, From IH 37/US 281 to Loop 1604, Evaluation of Minimum Right-of-Way Requirements, IH 37/US 281 to Loop 410 North*, Prepared for Texas Department of Transportation San Antonio District, Prepared by Carter & Burgess, Inc., December 2002
 8. *IH 35 San Antonio Northeast Corridor Traffic Report, Operational Analysis Performed on the Lane Arrangement Concepts*, Prepared for Texas Department of Transportation San Antonio District, by Carter & Burgess, Inc., November 2001
 9. *IH 35 San Antonio Northeast Corridor Traffic Report, Travel Demand Model Activities Performed on the Lane Arrangement Concepts*, Prepared for Texas Department of Transportation San Antonio District, and Carter & Burgess, Inc., Prepared by: Alliance-Texas Engineering Company, Austin, Texas, November 2001
 10. *IH 35 Traffic Impact Assessment, Transportation Analysis for the IH 35 Corridor*, Prepared for Texas Department of Transportation San Antonio District, Prepared by Carter & Burgess, Inc., January 2001
 11. *IH 35 Traffic Impact Assessment, Transportation Analysis for the IH 35 Corridor*, Prepared for Texas Department of Transportation San Antonio District, Prepared by Carter & Burgess, Inc., January 2001
 12. *IH 35 San Antonio Operational Analysis Travel Modeling, Travel demand model activities performed for the IH 35 Corridor, From: Olympia To: US 281, and IH 410 From: IH 35 To: IH 10*, Sponsors: Carter & Burgess, Inc. and Texas Department of Transportation San Antonio District, Prepared by: Alliance-Texas Engineering Company, Austin, Texas, February 15, 2000

7.0 Applicability of Previous Transportation Plans and Studies

Although the IH 35 SA PEL Study will incorporate the latest available data and public input into the development of recommended improvements within the study area, it will draw from ideas and information gathered from previous studies, where appropriate and feasible.