I. INTRODUCTION

The St. Francis Drive Corridor begins approximately 2,500 feet south of Exit 282 on Interstate 25 (I-25) and serves as the major gateway to the City of Santa Fe, both on the south and north. Throughout the City of Santa Fe, St. Francis Drive is also the continuation of US 84 and US 285 as these U.S. Highways continue their transit across New Mexico. A location map is shown in Figure 1. St. Francis Drive is the primary north-south arterial street through the City of Santa Fe and is one of the backbones for the transportation network that serves the community, in addition to Cerrillos Road, St. Michaels' Drive, Old Pecos Trail, Airport Road, Zia Road, and NM 599 (also known as the Santa Fe Relief Route). The St. Francis Drive Corridor provides access to commercial, residential, historic, governmental, and tourist centers in the City of Santa Fe. A corridor map is shown in Figure 2.

The St. Francis Drive Corridor study area from Rabbit Road on the south, to NM 599 on the north, is approximately six miles in length. It consists of 27 intersections, twelve of which have traffic signals, and four interchanges, as well as the Santa Fe Southern / NM Rail Runner Express railroad crossing at the intersection of St. Francis Drive and Cerrillos Road. In addition there are many businesses, commercial and residential driveways along the Corridor, particularly between San Mateo Road and Alamo Drive.

This study has been coordinated with two concurrent studies: the Interstate 25 Corridor Study and the NM 599 Interchange Corridor Study. I-25 (from NM 599 to Old Pecos Trail) is a high mobility interstate corridor with interchange connections accessing major arterial streets. NM 599 (from I-25 to US 84/285) serves as a north/south bypass for vehicles traveling through Santa Fe and a WIPP route for low level nuclear waste traveling to the Waste Isolation Pilot Plan near Carlsbad. It is intended as a high-speed limited access bypass through Santa Fe and provides local Santa Fe traffic an additional north-south travel corridor. Each of these facilities provides different levels of transportation service and addresses different needs, but the three corridors also accommodate similar and overlapping travel demands. St. Francis Drive and NM 599 both serve north-south through travel. St. Francis Drive provides greater accessibility to property, while NM 599 provides higher mobility. The Interstate 25 corridor provides interstate access to NM 599 and St. Francis Drive, but has the potential to interconnect with other major streets, which could influence the operation of both NM 599 and St. Francis Drive. The Executive Summaries from these reports are included in Appendix A.

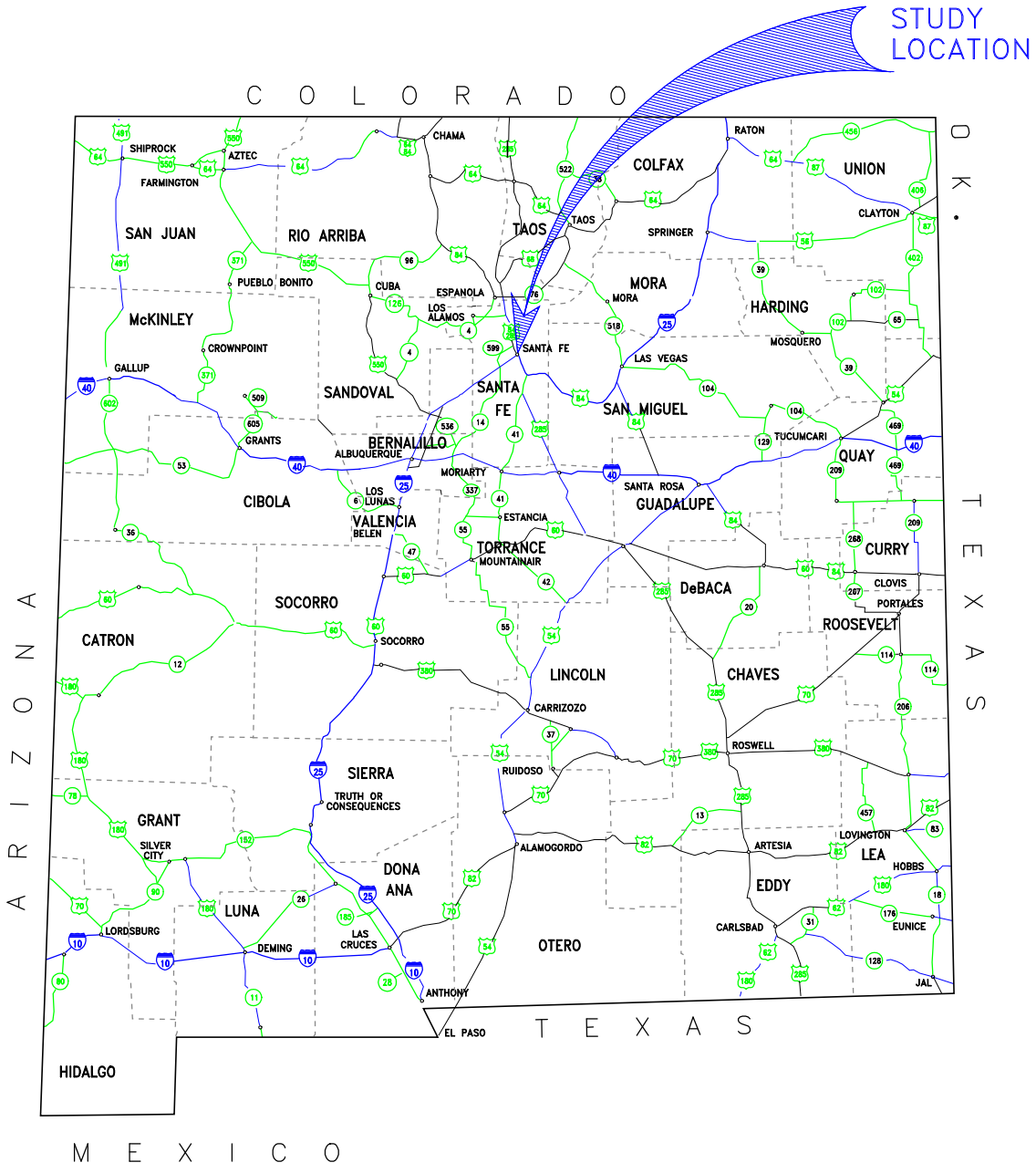
A. Project Description

The St. Francis Drive Corridor Study is being conducted following the procedures of the New Mexico Department of Transportation's (NMDOT) *Location Study Procedures* manual. The current project is the Phase B *Detailed Evaluation of Alternatives*. The primary objectives of this study are to: 1) develop and evaluate the alternatives advanced from the Phase A *Initial Evaluation of Alternatives*, 2) screen the potential alternatives for feasibility and priority for possible inclusion in the regional Metropolitan Transportation Plan (MTP), and Transportation Improvement Plan (TIP).

Typically a Phase B Study leads to a Phase C, *Environmental Documentation and Processing,* for a Preferred Alternative. However at this time the funding outlook for significant projects is uncertain, so it is not considered an effective use of resources to do a full environmental evaluation for projects that are likely not to come to fruition for some time. Therefore, it was determined that the development of a detailed list of projects for the St. Francis Drive Corridor would be the best solution and then the regional transportation agencies could use the list for long-term planning purposes. The projects identified will have the benefit of completing the Phase A and B planning study process, allowing the projects to proceed directly to the Phase C *Environmental Documenting and Processing* phase as funds become available.

In addition, at the time of the awarding of this contract it was not known what the results of the Phase A *Initial Evaluation of Alternatives* would consist of. The result was that the NMDOT limited the contracted scope of services for the Phase B Study pending the results of the Phase A analysis, with the proviso that the Phase B scope of services would be renegotiated and funded at a level commensurate with the effort required for a full Phase B analysis. However with the recent change in the State and NMDOT budget levels additional funds to fully expand the contracted scope of services to the necessary level is not available. As a result this study will use the limited available funds to perform a more focused detailed evaluation of the alternatives from Phase A that are considered by the Project Management Team the most feasible and at the locations of the greatest congestion or need. This will be discussed further in Section V, beginning on page 19.

It must be stated that due to the large amount of local and regional transportation needs, combined with extremely limited resources available to address that need, that it is likely that the number of projects, and the funds needed to construct those projects, will far exceed the currently available funding levels for the Santa Fe Region.



ST. FRANCIS DRIVE CORRIDOR STUDY
INITIAL EVALUATION OF ALTERNATIVES

FIGURE 1
LOCATION MAP

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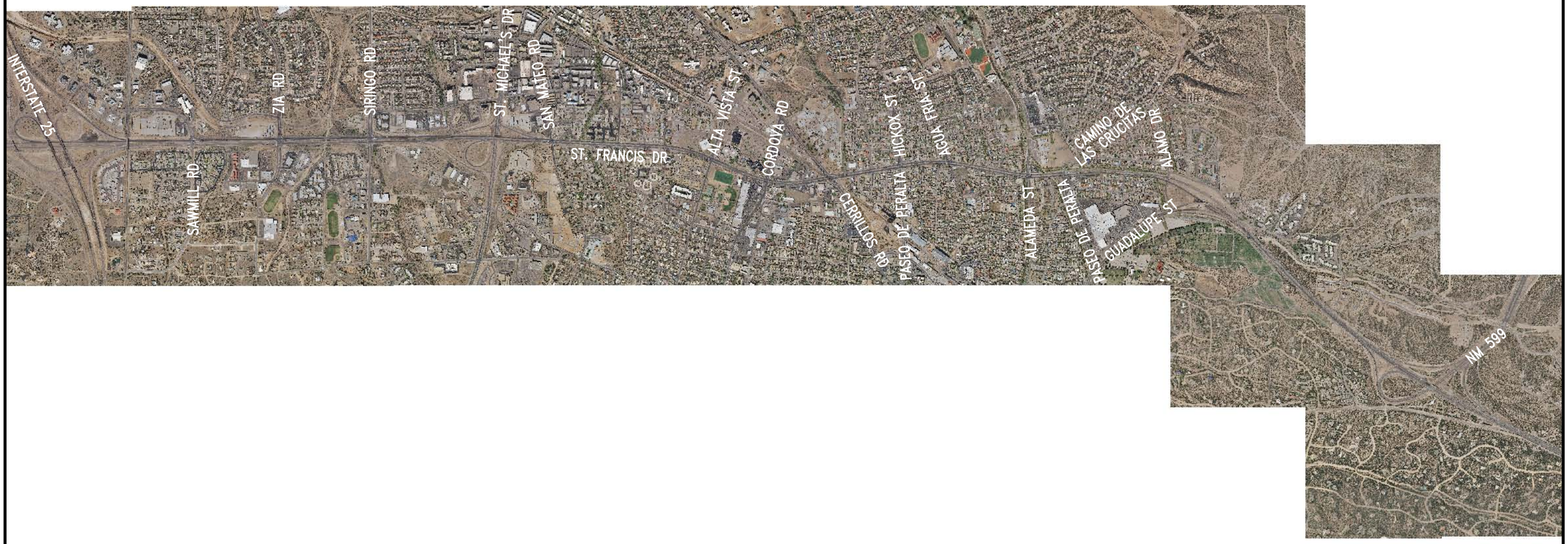

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SCALE: 1"=2000'

ST. FRANCIS DRIVE CORRIDOR STUDY
INITIAL EVALUATION OF ALTERNATIVES

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FIGURE 2
CORRIDOR MAP

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B. Project Background

In 2005, as a result of a mill and overlay maintenance project, St. Francis Drive was re-striped from four driving lanes to six driving lanes south of San Mateo Road in order to address traffic congestion for traffic exiting Interstate 25. This congestion had led to traffic queuing onto the Interstate 25 off-ramps, potentially endangering Interstate traffic and prompting the re-striping project. The resultant re-striping project eliminated this queuing congestion and safety concern. However the change reduced the shoulder width on St. Francis Drive south of St. Michael's Drive that was utilized as a de-facto bicycle lane. The change in lane configuration also created safety concerns at the merge points from St. Michael's Drive due to the loss of the previously existing auxiliary lane on St. Francis Drive for the merging traffic from St. Michael's Drive. After a testing period with the new striping configuration, the Federal Highway Administration (FHWA) agreed that the striping configuration could become permanent. At that time, a commitment to the FHWA from the NMDOT was made to complete a comprehensive corridor study subsequent to the restriping.

In 2009, the Phase A *Initial Evaluation of Alternatives* was completed. That study evaluated a range of alternatives that resulted in several alternatives being proposed for further evaluation. The selected alternatives will be discussed in more detail in later sections, but can be grouped into the following categories:

- No Build
- Trail Connectivity
- Enhanced Transit
- Intersection Improvements
- Transportation System Management
- Access Control

This current study is the result of the next phase of that process, the *Detailed Evaluation of Alternatives*, also called Phase B, or Phase I-B.

II. AGENCY COORDINATION AND PUBLIC INVOLVEMENT

Public involvement and agency coordination was initiated during Phase A. Efforts included two public meetings, two stakeholder workshops, and ongoing agency coordination. A summary of this process as well as input received was provided in the Phase A report. The following information is a summary of continued public involvement efforts during Phase B.

A public open house was held September 16, 2009 at the Santa Fe Public School Administrative Office in Santa Fe, New Mexico. The meeting presentation included an overview of the Phase A process and the alternatives evaluated and studied. Residents provided input regarding their transportation needs and concerns within the Corridor. Approximately 48 members of the public, city, county, and state officials and project study team representatives were present. A summary of comments/questions is provided below with a copy of the entire summary included in the Appendix B.

- Clarification request on access, turn lanes, and other design issues.
- Request for a greater consideration of bicycle and pedestrian connectivity and access.
- Concern regarding intersection access and function at Zia Road / W. San Mateo / St. Michaels.
- Concern regarding intersection access and function at San Mateo Road.
- Concerns expressed regarding the Zia Station for the NM Rail Runner Express.
- Questions regarding socio-economic data used for the analysis.
- Concern regarding truck traffic on St. Francis Drive.
- Request to consider open space and green areas in the study.
- Request to consider noise levels and possibly noise abatement.
- Request for a greater consideration of transit in the corridor.

A second public open house was held on March 9, 2010 at the Santa Fe Public School Administrative Office in Santa Fe, New Mexico. The meeting presentation included an overview of the Phase B process and the alternatives evaluated and studied. Residents provided input regarding their transportation needs and concerns within the Corridor. Approximately 35 members of the public, city, county, and state officials and project study team representatives were present. A summary of comments/questions received at the meeting and in writing subsequent to the meeting is provided below with a copy of the meeting summary and comments included in the Appendix B.

- Concerns regarding improvements at the intersections, specifically Cerrillos, Zia, and Alamo.
- Support for the grade-separated intersection at Cerrillos.
- Request for enhanced trail connectivity.
- Request for enhanced pedestrian access/crossings
- Request for enhanced transit.
- Concern regarding proposed access modifications (driveway closures).
- Clarification on the coordination with other Santa Fe projects.
- Concerns regarding the condition of Rabbit Road.

A. Agency Coordination

In addition to the project consultants, the Project Management Team (PMT) includes the following coordinating agencies: the Federal Highway Administration, the New Mexico Department of Transportation, the Santa Fe Metropolitan Planning Organization, the City of Santa Fe, and Santa Fe County. There have been two PMT meetings during Phase B.

The first PMT meeting was held on October 29, 2009. The purpose of this meeting was to discuss traffic modeling efforts for all three Santa Fe project (St. Francis Drive Corridor Study, the NM 599 Interchange Study, and the I-25 Corridor Study). The second was on November 11, 2009. Proposed alternatives for further review in Phase B were discussed and refined as well as the scheduling and public involvement effort. Coordination with the local, regional, state, and federal agencies will continue throughout project development. A third PMT meeting was held on February 2, 2010 which included discussion of the investigation results included in the Phase B Report as well as preparation for the public meeting.

III. PROJECT PURPOSE AND NEED

The project purpose and need serves as the basis for development and evaluation of alternatives. The following sections briefly summarize the results of the existing conditions report that is presented in more detail in the evaluation of the Corridor through the rest of this report.

A. Project Need

Transportation conditions identified by the Public and Project Management Team as needing additional study consisted of the following items.

The high volume and speed of traffic on St. Francis Drive have raised safety concerns for bicyclists and pedestrians using St. Francis Drive. The wide street and curb radii are also a barrier for people crossing St. Francis Drive.

The lack of sidewalks at some locations along the Corridor and the fact that existing sidewalks tend to be placed adjacent to the curbs (with no separation from the vehicle travel lanes) expose pedestrians to a variety of hazards and other discomforts. In addition, the lack of both on-street bicycle facilities and off-street pathway links at critical locations limits bicyclist mobility and connectivity to existing and proposed City and County bicycle facilities.

There is a need to improve conditions for pedestrians of all ages and abilities, and to bring the pedestrian infrastructure into greater compliance with the current design requirements under the Americans with Disabilities Act (ADA). Accessibility problems tend to occur especially where curb-attached sidewalks intersect streets and driveways.

Improving traffic operations during peak hours through increased use of alternate routes or transportation system management techniques would result in fewer delays for vehicular traffic. Intelligent Transportation System applications were also identified as an issue that if implemented could reduce congestion on the Corridor.

There was strong interest in the surrounding neighborhoods for incorporating additional urban design features (reduced curb radii, wider sidewalks, street furniture, planting strips, etc.) to enhance community cohesiveness and livability/sustainability.

Promoting increased transit usage by accommodating expanded opportunities for the NM Rail Runner Express, local transit or Park-N-Ride facilities could improve and possibly reduce future automobile use through the Corridor.

Ensuring that future growth from proposed City & County developments and the impacts of improvements on other State facilities recommended by the I-25 and NM 599 Studies are considered and included in the analysis.

Develop alternatives to promote transportation options compatible with the interests of all regional governments.

1. Physical Deficiencies

Geometric features including lane widths and horizontal /vertical curves conform to general design standards.

Existing sidewalks at many locations lack buffers and separation from the vehicle travel lanes.

There is a need to improve ADA accessibility throughout the corridor, especially where high pedestrian volumes are already present (e.g., in the South Capitol area).

There are significant conflicts between sidewalks and driveways in the corridor.

Crosswalk distances at signalized intersections in the corridor tend to be longer than necessary, resulting in increased pedestrian exposure to traffic and longer-than-necessary green signal time to meet MUTCD requirements (i.e., 3.5 feet per second pedestrian travel speed).

The existing street lacks bike lanes throughout the corridor.

The existing street lacks sidewalks/pedestrian paths south of San Mateo.

The existing street lacks high quality bus stops (shade structures or street furniture) and bus lanes.

2. Travel Demand and Congestion

Under existing conditions the overall Corridor Level of Service (LOS) for the six-lane facility is D. This is the worst level of service considered normally acceptable for an urban corridor under NMDOT guidelines. The overall Corridor LOS for the forecast conditions is also LOS D, although most intersections see an increase in delay in the future.

The intersections of St. Francis Drive with Cerrillos Road and St. Francis Drive and Zia Road currently have movements that operate at LOS F in the PM and AM peak hours, respectively, resulting in high delays and long queues for these movements.

Access points on St. Francis Drive do not meet NMDOT *State Access Management Manual* requirement for intersection and driveway spacing. This leads to additional roadway friction, conflicts, and interruption of traffic flows. Elimination or consolidation of driveways would improve traffic operations along the Corridor by reducing the number of conflict points (driveways and medians).

Without improvements the future travel demand forecasts shows increased congestion and delay throughout the Corridor, with considerable increases at the Sawmill Road, Zia Road and Cerrillos Road intersections with St. Francis Drive.

It is anticipated that travel demand accommodation will be a primary need of the Corridor.

3. Safety

Analysis indicates that crash rates along the Corridor are lower than the County and Statewide average for similar roads.

There is the perception among the public that due to physical deficiencies (inadequate lane width for bicycle lanes, lack of sidewalks, proximity of the sidewalks to the travel lanes, wide crossing distances) combined with vehicle speeds and the traffic signal timing allowed for pedestrians to cross the Corridor, that there are safety issues, or at the very least, discouragement of travel by non-vehicular modes. In the five years between 2003 and 2007, there were a total of 10 crashes involving pedestrians (two fatalities), and 9 with bicyclists.

The corner radii at the intersections, particularly near the South Capitol Complex, are considered to encourage high speed right turns endangering pedestrians trying to cross the street.

The Viento (or Calle Mejia) right-in/right-out access at St. Francis Drive just north of the Guadalupe Street interchange is a safety concern due to high speed of traffic on St. Francis Drive, although crash experience does not indicate a high crash rate. Due to the high speed of southbound vehicles on US 84/285, the seriousness of any crash here would likely be severe.

4. System Connectivity

St. Francis Drive has good roadway connectivity to other roadways in the Corridor, but lacks integration with other modes of travel. Several City of Santa Fe bicycle and pedestrian trails (River Trail, Acequia Trail, Rail Trail, and Arroyo Chamiso Trail) cross or are adjacent to St. Francis Drive but currently do not have continuous or complementary connections in order to maximize and encourage walking and bicycling as alternatives to the automobile.

Currently there is limited local transit use along the Corridor. Santa Fe Trails, the NM Rail Runner Express commuter rail service, North Central Regional Transit District, and the Northern New Mexico Park and Ride currently have routes that run parallel or on St. Francis Drive.

It is anticipated that system connectivity will be a primary need of the Corridor.

5. Access

St. Francis Drive is no longer the only access route to northern New Mexico from the south since construction of the Santa Fe Relief Route (NM 599). However due to employment, government and commercial activities in the Corridor, a large amount of traffic still must utilize St. Francis Drive to arrive at their destination.

6. Economic Development or Re-development

With the advent of the NM Rail Runner Express providing service to Santa Fe from Albuquerque, the City of Santa Fe is beginning a process to evaluate and consider changes in land-use patterns to potentially encourage transit oriented or transit adjacent developments, particularly near St. Francis Drive. These developments typically have increased densities compared to current land-use, and although they may reduce travel demand compared to traditional development of the same intensity, will likely contribute to increased congestion near these developments.

7. Legislation

There are no specific Legislative actions regarding the St. Francis Drive Corridor.

B. Project Purpose and Need Statement

In 2005, St. Francis Drive was restriped from four driving lanes to six driving lanes south of San Mateo Road to address traffic congestion. However this restriping project reduced the shoulder width that was utilized as a de-facto bicycle lane. At that time, a commitment to the Federal Highway Administration (FHWA) from the New Mexico Department of Transportation (NMDOT) was made to complete a comprehensive corridor study subsequent to the restriping. The purpose and need for improvements along St. Francis Drive remains the same and the St. Francis Drive Corridor Study complies with the commitment made in 2005.

The purpose of the St. Francis Drive Corridor Study is to identify Corridor deficiencies, identify alternatives to improve the Corridor that address the increase in traffic congestion and enhance mobility for all modes of travel, and to prioritize potential future projects. The need for the St. Francis Drive Corridor Study is supported by the existing and projected level of service along the Corridor, potential safety issues, as well as the limited connectivity of pedestrian and bicycle facilities.