VI. Existing and Future Traffic Conditions

A. Existing Traffic Volume and Composition

US 84/285, also known as St. Francis Drive, is the primary north/south arterial street through the City of Santa Fe and is a critical roadway for the transportation network that serves the community and region. The St. Francis Drive corridor provides access to commercial, residential, historic and tourist centers in the City of Santa Fe. The proposed St. Francis Drive Corridor Study area between Rabbit Road and NM 599 is approximately six miles in length, containing 27 intersections and four interchanges, as well as the Santa Fe Southern Railway / NM Rail Runner Express crossing at the intersection of St. Francis Drive at Cerrillos Road.

The purpose of the Existing/Horizon Year Conditions Analysis Report (included in full in Appendix C) is to identify existing conditions on the St. Francis Drive corridor; report the findings of traffic operational analyses for existing and horizon year volumes, and perform a crash analysis of the corridor. The current conditions analysis will be used to identify possible improvements to be considered as part of the future analysis. This study is a sub report for the Phase I-A study report as required by the New Mexico Department of Transportation (NMDOT) *Location Study Procedures*.

The study area for the St. Francis Drive corridor is approximately six miles in length. Throughout the corridor, roadway and land use conditions change considerably. Although the existing and future year analyses are for the entire length of the St. Francis Drive corridor, it is beneficial to break down the study area into segments in order to provide an adequate description of the corridor, since each segment has unique roadway and travel characteristics. The three segments are (beginning from the south):

St. Francis Drive from Rabbit Road to West San Mateo Road

St. Francis Drive from West San Mateo Road to Alamo Drive

St. Francis Drive from Alamo Drive to NM 599 interchange

Table 18 provides a brief description of each segment of the St. Francis Drive corridor within the study area (more detailed descriptions of each segment are included in the Transportation Analysis in Appendix C).

Table 18 – Corridor Description for Traffic Analysis

Segment of St. Francis Drive Corridor	Speed Limit	Number of Lanes	Parking (Y/N)	Bike Lanes (Y/N)	Sidewalks (Y/N)
Rabbit Road to West San Mateo Road	45	6	N	N	N
West San Mateo Road to Alamo Drive	45/35	6	N	N	Y
Alamo Drive to NM 599 interchange	45/55	4/5	N	N	N

B. Existing Conditions Operational Analysis

There are 27 intersections along the St. Francis Drive corridor study area. Twelve of the intersections have traffic signals; the remaining intersections are controlled by stop signs on the side streets. Also located within the corridor are interchanges with I-25, St. Michaels Drive, and Guadalupe Street, as well as the NM 599 interchange.

The operational performance of an intersection or a highway facility is based on Level of Service (LOS) criteria. LOS is a term used to qualitatively describe roadway and intersection traffic operations and is expressed in letter grade format from A to F, with LOS A representing the best operating conditions and LOS F representing the worst. LOS D is the normally accepted maximum for an urbanized area, although other factors (cost of improvements, quality of life for residents in the corridor, the desired character of the roadway) also are factored into establishing a desired LOS standard for a roadway facility. Table 19 is a summary of roadway segment LOS for the St. Francis Drive corridor for the AM and PM peak hours; Table 20 is a summary of intersection LOS, also for the AM and PM peak hours.

Table 19 – 2006 Road Segment Level of Service

St. Francis Drive Corridor Segment Existing Condition (2006)		NB LOS		SB LOS	
		AM	PM	AM	PM
1	Sawmill Road to West Zia Road	E	D	C	D
2	West Zia Road to Siringo Road	D	C	C	D
3	Siringo Road to West San Mateo Road	B	A	B	B
4	West San Mateo Road to Alta Vista St.	B	C	B	B
5	Alta Vista St. to West Cordova Rd.	E	E	D	E
6	West Cordova Road to Cerrillos Road	D	D	D	E
7	Cerrillos Road to Hickox St./PdP (S)	D	E	E	D
8	Hickox St./Pep (N) to Agua Fria St.	E	E	E	E
9	Agua Fria St. to West Alameda St.	D	D	E	E
10	West Alameda St. to Paseo de Peralta (N)	F	E	F	F
11	Paseo de Peralta (N) to Alamo Drive	C	A	C	C
	CORRIDOR LOS	*C*	*C*	*D*	*D*

Table 20 – Existing Conditions Intersection LOS Results Summary		
St. Francis Drive Corridor	NB LOS	
Existing Condition (2006) Intersection LOS	AM	PM
St. Francis Drive at Sawmill Road	B	C
St. Francis Drive at West Zia Road	C	C
St. Francis Drive at Siringo Road	B	B
St. Francis Drive at West San Mateo Road	B	B
St. Francis Drive at Alta Vista Street	B	B
St. Francis Drive at Cordova Road	C	C
St. Francis Drive at Cerrillos Road	C	D
St. Francis Drive at Hickox Street	B	C
St. Francis Drive at Agua Fria Street	C	C
St. Francis Drive at West Alameda Street	C	C
St. Francis Drive at Paseo de Peralta (North)	B	B
St. Francis Drive at Alamo Drive	B	A

C. Future Transportation Improvement Plans

1. Roadway and Operations

a) Metropolitan Transportation Plan 2005-2030

The Santa Fe Metropolitan Planning Organization (SFMPO) is the regional transportation planning body for the Santa Fe area. The SFMPO Metropolitan Transportation Plan (MTP) establishes the overall transportation program for a 25 year period, currently 2005 through 2030. The current plan was adopted in 2005 and the Future Roadways Map was amended in 2008. The SFMPO is in the process of updating this plan for the time period 2010 through 2035, which will be completed by June 2010.

The community goals for the MPO and MTP are as follows[10]:

- The MPO should continue to encourage city and county cooperation in developing a regional transportation system that includes all modes.
- The MPO should encourage the provision of alternative modes of transportation in the effort to meet transportation needs.
- The MPO should encourage the coordination of land use and transportation with the transportation system directing the land development decisions. This should be accomplished by including the pertinent updates of the City of Santa Fe General Plan and the Santa Fe Comprehensive Extraterritorial Plan into the MPO Metropolitan Transportation Plan.

[10] Santa Fe Metropolitan Planning Organization, 2005-2030 Metropolitan Transportation Plan (web version), p.4

- The MPO should strive to develop a road network that minimizes the impacts of motor vehicle traffic on residential neighborhoods.

The MTP and the Future Transportation Network defines the policy for future road development in the Santa Fe region. In the 2005-2030 MTP, the MTP acknowledged that the southern section of the St. Francis Drive corridor is a heavily used arterial with congestion problems in the AM and PM peak hours[11]. Other items identified for the corridor were the desire for safer crossings for pedestrians, particularly at the Siringo, Zia, and Sawmill intersections, upgraded traffic signal improvements for improved coordination, as well as integration with other planned trails, roadway and transit projects.

This study was also identified as a priority and is intended to be used by the MPO to assist in the development of the 2010-2035 MTP.

The latest Future Transportation Network map adopted by the MPO as part of the 2005-2030 MTP is shown in Figure 31.

[11] Santa Fe Metropolitan Planning Organization, 2005-2030 Metropolitan Transportation Plan (web version), p.8

Santa Fe Future Transportation Network

City of Santa Fe, New Mexico

Approved by
Santa Fe Metropolitan Planning Organization
Transportation Policy Board
June 21, 2005

Santa Fe Metropolitan
Transportation Plan (MTP)
2005-2030

"Providing Interconnected Options for More Travel Choices"

Santa Fe Metropolitan Planning Organization (SFMPO)

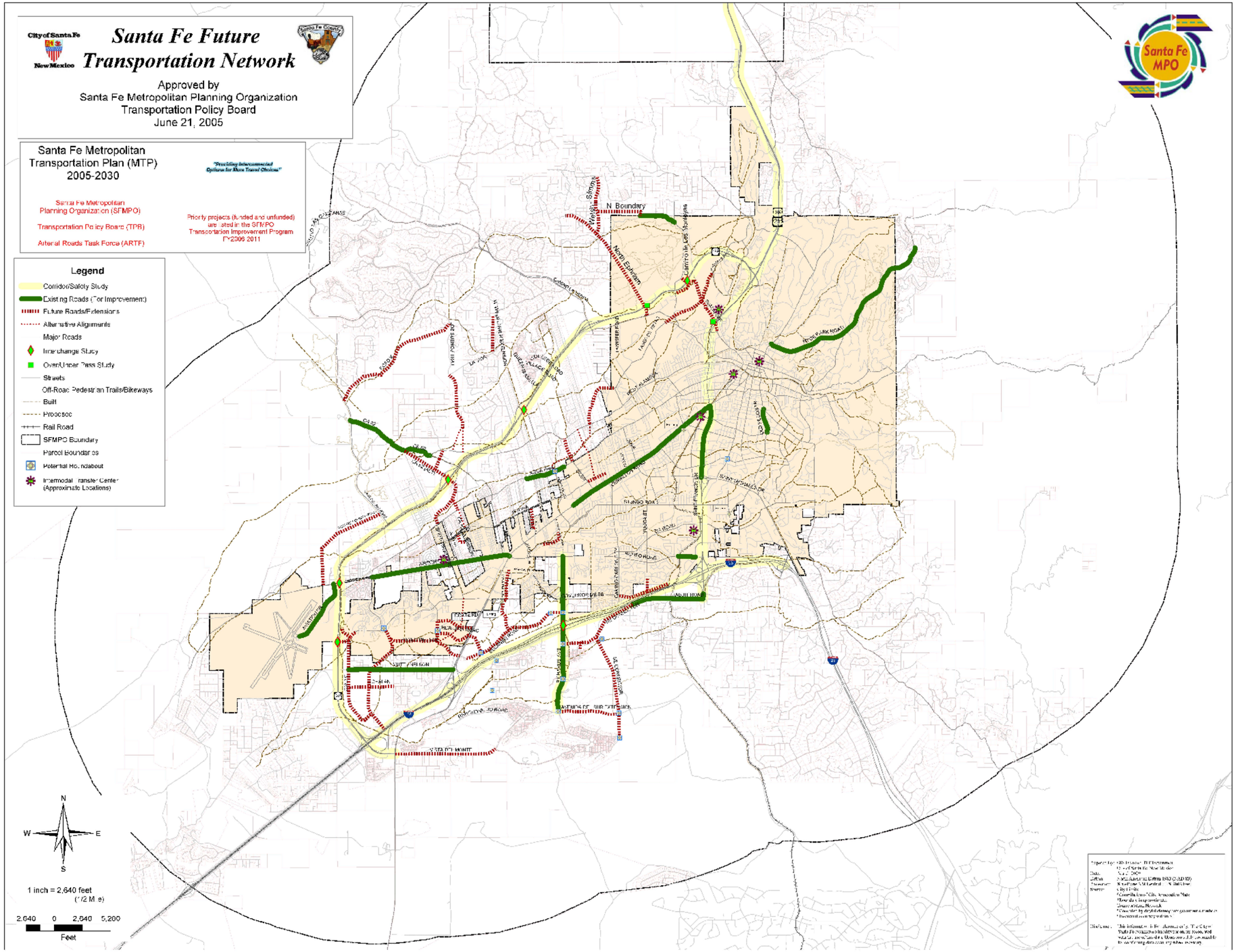
Transportation Policy Board (TPB)

Arterial Roads Task Force (ARTF)

Priority projects (funded and unfunded) are listed in the SFMPO Transportation Improvement Program FY2006-2011

Legend

- Corridor/Safety Study
- Existing Roads (For Improvement)
- Future Roads/Extensions
- Alternative Alignments
- Major Roads
- Interchange Study
- Over/Under Pass Study
- Streets
- Off-Road Pedestrian Trails/Bikeways
- Built
- Proposed
- Rail Road
- SFMPO Boundary
- Parcel Boundaries
- Potential Roundabout
- Intermodal Transfer Center (Approximate Locations)



ST. FRANCIS DRIVE CORRIDOR STUDY
INITIAL EVALUATION OF ALTERNATIVES

SOUTHWEST PLANNING & MARKETING
Winning strategies since 1977

Parametrix

HDR DESIGNWORKSHOP

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

NMDOT

FIGURE 31
FUTURE TRANSPORTATION NETWORK MAP

01-SEP-2009 - 14:05

P:\070131\Trans\Study\Alternatives Report\Report Figures\F31-070131-Future Roads.sht

b) Transportation Improvement Plan - 2010-2013

The SFMPO has just recently updated the Transportation Improvement Plan (TIP) through the year 2013. This update includes a bridge replacement or rehabilitation project for the I-25 and St. Francis Drive interchange scheduled for 2011-2012.

The 2010-2013 TIP also includes projects for years beyond 2013 as funding becomes available. These projects include replacement of the US 84/285 Guadalupe Street Bridge as well as the Governor Miles to Yucca Road extension project, improvements to Richards Avenue, Rabbit Road, and Vista del Monte Road.

c) Other Road Plans

A parallel study to this St. Francis Drive Corridor Study is the Interstate 25 – NM 599 to Old Pecos Trail Corridor Study. Improvements considered in that study could affect traffic volumes on St. Francis Drive. For instance, an interchange at I-25 and Richards Avenue would likely reduce eastbound-to-northbound left turn (and southbound-to-westbound right turn) volumes at the Sawmill and Zia Road intersections with St. Francis Drive and increase through movement volumes on St. Francis Drive.

The 2005-2030 MTP also discussed a possible extension of Richards Avenue to Cerrillos Road which could also have an effect on St. Francis Drive traffic levels. Other improvements included in the MTP were the Northeast Connector in the Community College District (now constructed), as well as a Southeast Connector (also in the Community College District) and the extension of Governor Miles east to Yucca Street.

These scenarios will be considered in more detail in the next phase of this study, the I-25 study, or during the development of the 2010-2035 MTP.

Another study being conducted in the Santa Fe area is the NM 599 Interchange Access Study. This study will identify the prioritization plan for interchanges along NM 599.

2. Transit

a) NM Rail Runner Express

The 2010-2013 TIP includes funding for operations and maintenance for the NM Rail Runner Express. The TIP also includes environmental study and preliminary design funds for the Los Soleras Station.

The Zia Station platform that will provide another station for the NM Rail Runner Express and/or future local service has been constructed and awaits City approval to open. Additionally, private land adjacent to the Zia Station is currently in the project development phase for a transit oriented development (TOD).

As mentioned previously, the City has conducted the Rail Corridor Study that identifies additional NM Rail Runner Express, or possibly local rail service stations, at Rodeo Road, Siringo Road and St. Michael's Drive.

b) Santa Fe Trails

Santa Fe Trails has recently started a new route, Route 22, which serves South Cerrillos Road, the Human Services Department, Rancho Viejo and the Santa Fe Community College. It is likely that this route will also serve the NM 599 NM Rail Runner Express Station once that Station is operational.

Future routes will be added as needed, although a potential route serving the Eldorado area has been identified to supplement the NCRTD and NM Park and Ride commuter services.

The need for regional transit in the Santa Fe area is currently under study in the Santa Fe County Transit Service Plan being prepared for the Santa Fe Regional Planning Authority.

The 2010-2013 TIP includes funds for operating expenses for Santa Fe Trails, as well as American Recovery and Reinvestment Act monies for buses and bus facilities.

c) NM Park & Ride and North Central Regional Transit District

Future expansion of the NM Park and Ride and NCRTD system will be considered as conditions develop. The need for regional transit in the Santa Fe area is currently under study in the Santa Fe County Transit Service Plan being prepared for the Santa Fe Regional Planning Authority.

The 2010-2013 TIP includes funds for capital and operating expenses for NM Park and Ride.

With the opening of the NM Rail Runner Express Station at NM 599 in August 2009, the NM Park and Ride moved the Purple Route (that provides an express service to Los Alamos) from the South Capitol Station to service this new station at NM 599. A shuttle links the NM 599 Station to Santa Fe Place Mall (a Santa Fe Trails transit hub), with additional stops at the Rancho Viejo Commercial Center, the Santa Fe New Mexican at One New Mexican Plaza, Jaguar Road and a stop on Camino Entrada[12].

d) Taos Express

The Town of Taos has also recently started a Thursday through Saturday shuttle from Taos to Santa Fe. This shuttle runs once on Thursday and Friday evenings and twice on Saturday.

3. Trails

The Santa Fe MPO 2010-2013 TIP identifies $100,000 in America Recovery and Reinvestment (ARRA) funds for improvements to the Santa Fe Rail Trail to continue the paved trail from I-25 to Rabbit Road. The TIP also identifies $2,750,000 in State funds in 2013 to construct the Acequia Trail/Railyard Pedestrian Crossing across St. Francis Drive north of Cerrillos Road and $301,000 in Federal Enhancement funds towards construction of an extension of the Rail Trail south of Rabbit Road towards Eldorado.

In addition, on the outyear projects list awaiting funding, several enhancement projects for trails are identified, including an extension of the Arroyo Chamiso Trail under St. Francis Drive north of Zia, as well as extension of the Rail Trail from Rabbit Road to US 84/285 near Lamy. The Arroyo Chamiso trail extension under St. Francis is currently under study, and the County recently began the process for studying the extension of the Rail Trail to Lamy.

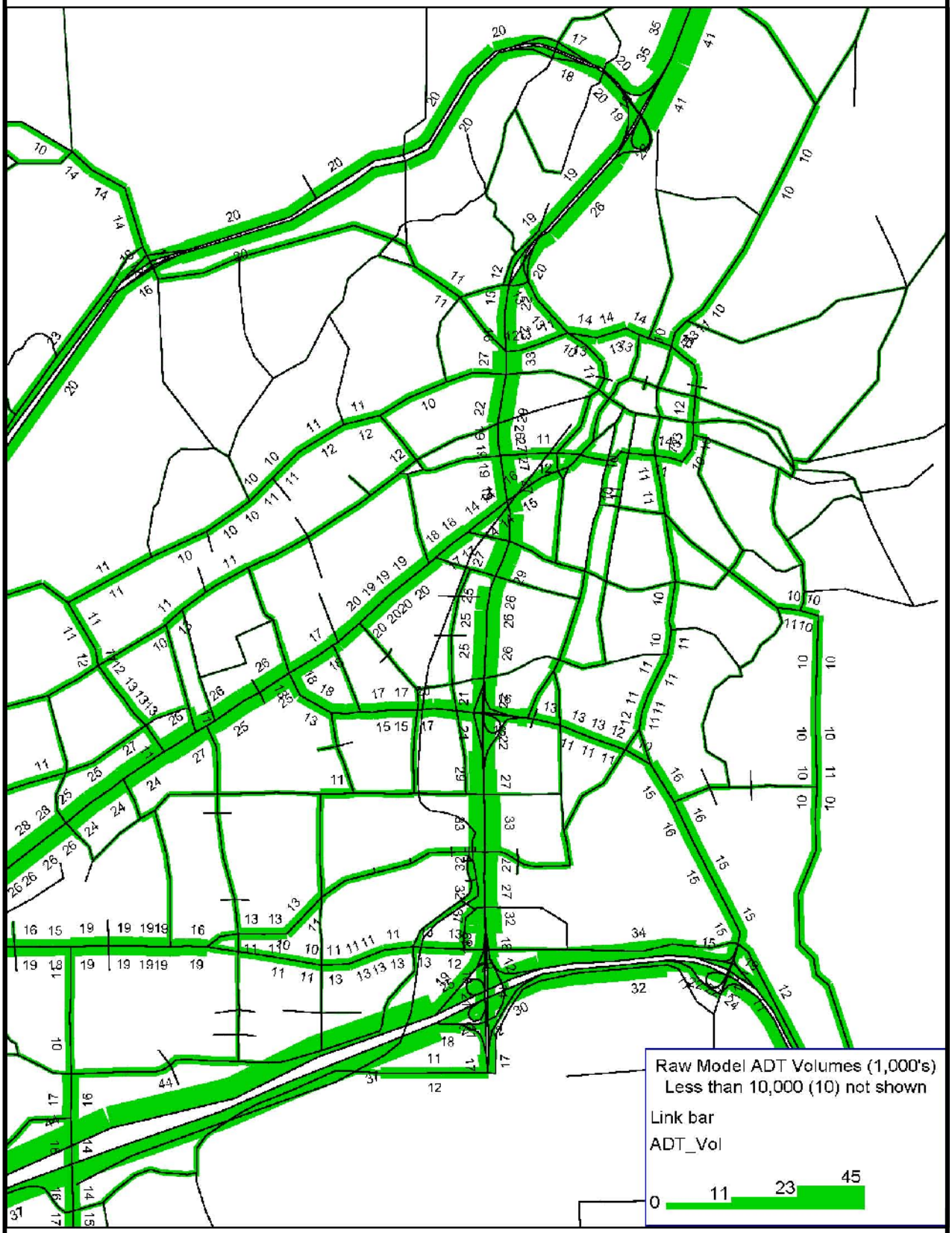
D. Future Traffic Forecasts

This study utilized the Santa Fe Regional Travel Demand Model developed by PTV America under contract with the NMDOT as the basis for the buildout scenario traffic forecasts. This effort began with, and enhanced, the Santa Fe MPO VISUM model used for the 2005-2030 MTP by updating the socioeconomic data for the transportation analysis zones (TAZ's) and an initial inclusion of the Santa Fe Trails bus route system, as well as the NM Rail Runner Express. The model effort by PTV America included developing an enhanced base year (2006) model that included Santa Fe Trails and the NM Rail Runner Express, as well as two future year roadway network scenarios. The buildout scenario Base Case (Santa Fe MPO Future Transportation Network) forecast daily traffic volumes for the corridor are shown in Figure 32. The volumes shown in the figure represent "raw" model output. The intersection turning movements used to evaluate operational performance were adjusted using the procedures of NCHRP 255 with supplemental post-processing adjustments.

1. Socioeconomic Forecasts

As part of the above modeling effort spearheaded by the NMDOT, the socioeconomic forecasts for the region were updated by the City and County of Santa Fe to conform to the current development and zoning plans of the respective entities. The forecasts developed for the Santa Fe regional travel demand model is consistent with a maximum plausible buildout scenario and represent full development of the region under current zoning and planning criteria. Coordination with the MRCOG was also conducted in order to identify initial ridership estimates for the NM Rail Runner Express.

[12] Source: NMDOT Park and Ride



SOUTHWEST PLANNING & MARKETING
Winning strategies since 1977

Parametrix

HDR DESIGNWORKSHOP

Bohannan ▲ Huston Inc.
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

NMDOT

ST. FRANCIS DRIVE CORRIDOR STUDY
INITIAL EVALUATION OF ALTERNATIVES

FIGURE 32
2030 BASE CASE
TRAFFIC FORECAST

01-SEP-2009 - 14:06

P:\070131\Trans\Study\Alternatives Report\Report Figures\F32-070131-BaseCaseTrafficForecast.dgn

2. Roadway Network Assumptions

The roadway networks developed in the effort led by the NMDOT did not conform to the adopted future roads plan as approved by the Santa Fe MPO Transportation Policy Board (TPB). As part of this study, Bohannan Huston, Inc. worked with the Santa Fe MPO staff and PTV America to develop a roadway network that did conform to the approved future transportation network. Figure 31 shows the results from this model.

E. Future Conditions Operational Analysis

The future year build-out scenario no-build (i.e., no improvements to St. Francis Drive) operational analysis identified intersections, individual intersection movements and roadway segments that will operate at what is normally considered a deficient LOS (E or F, or an average delay of over 55 seconds for each car using the intersection).

The level of service per segment is shown in Table 21. Intersections that have overall deficient LOS, as shown in Table 22 and Table 23 are:

- St. Francis Drive at Sawmill Road: LOS F in PM Peak
- St. Francis Drive at Zia Road: LOS F in AM Peak, LOS E in PM Peak

The other intersections operate at an overall acceptable level of service, however almost every signalized intersection requires improvements in order to have no individual movement operating at LOS E or F (an average delay of over 55 seconds for each vehicle performing the particular movement, such as a left turn). The level of service for each movement at each intersection is shown in Table 22.

Table 21 – Buildout Scenario No Build Road Segment Level of Service

St. Francis Drive Corridor Segment		NB LOS		SB LOS	
		AM	PM	AM	PM
1	Sawmill Road to West Zia Road	F	D	D	F
2	West Zia Road to Siringo Road	C	D	C	E
3	Siringo Road to West San Mateo Road	B	B	B	B
4	West San Mateo Road to Alta Vista St.	B	B	B	B
5	Alta Vista St. to West Cordova Rd.	E	E	E	D
6	West Cordova Road to Cerrillos Road	F	E	D	D
7	Cerrillos Road to Hickox St./PdP (S)	C	D	D	D
8	Hickox St./Pep (N) to Agua Fria St.	E	E	E	E
9	Agua Fria St. to West Alameda St.	C	D	D	E
10	West Alameda St. to Paseo de Peralta (N)	F	F	F	F
11	Paseo de Peralta (N) to Alamo Drive	A	B	C	C
	CORRIDOR LOS	*D*	*D*	*D*	*D*

Table 22 – Buildout Scenario Base Condition Movement Level Of Service																				
SIGNALIZED INTERSECTION OPERATIONS ANALYSIS SUMMARY - HORIZON YEAR VOLUMES OPTIMIZED TRAFFIC SIGNAL TIMINGS																				
INTERSECTION	PEAK PERIOD	MAXIMUM V/C RATIO	LEVEL OF SERVICE & DELAY BY APPROACH MOVEMENT																INTERSECTION	
				EB				WB				NB				SB			DELAY	LOS
			L	T	R		L	T	R		L	T	R		L	T	R		(sec/veh)	
St. Francis Dr. at Sawmill Road	AM	1.02	F	B	B		D	D	B		D	D	A		B	C	A		*35.5*	*D*
	PM	1.44	E	F	F		E	E	B		F	B	A		B	F	C		*80.0+*	*F*
St. Francis Dr. at West Zia Road	AM	1.26	F	E	E		E	E	F		D	F	A		F	D	A		*78.0*	*E*
	PM	1.01	F	E	E		F	F	B		E	C	A		E	D	B		*42.3*	*D*
St. Francis Dr. at Siringo Road	AM	1.01	C	D	B		C	D	B		E	D	A		B	C	B		*35.5*	*D*
	PM	0.99	C	D	E		D	D	B		F	C	A		D	D	B		*34.2*	*C*
St. Francis Dr. at West San Mateo Road	AM	0.96	D	D	B		C	D	B		B	D	D		C	B	B		*30.4*	*C*
	PM	0.94	D	D	C		D	E	B		C	B	B		B	D	D		*29.5*	*C*
St. Francis Dr. at Alta Vista St.	AM	0.74	C	D	B		C	C	C		B	B	B		B	B	A		*17.4*	*B*
	PM	0.84	C	D	B		D	C	C		B	D	D		C	C	A		*28.5*	*C*
St. Francis Dr. at West Cordova Road	AM	0.87	C	D	B		D	C	A		C	C	C		C	B	B		*24.8*	*C*
	PM	1.05	C	D	D		F	C	A		C	C	C		D	C	C		*29.6*	*C*
St. Francis Dr. at Cerrillos Road	AM	1.00	E	E	E		D	D	D		-	B	D		-	D	B		*39.0*	*D*
	PM	1.17	F	D	D		E	E	E		-	C	B		-	C	A		*44.6*	*D*
St. Francis Dr. at Hickox St./PdP (South)	AM	0.84	C	D	D		C	C	C		B	C	C		B	C	C		*26.2*	*C*
	PM	0.98	E	D	D		C	E	E		C	D	D		B	C	C		*33.4*	*C*
St. Francis Dr. at Agua Fria St.	AM	0.86	D	D	D		C	D	D		A	B	B		A	C	C		*21.4*	*C*
	PM	0.92	D	D	D		C	E	E		C	B	B		B	C	C		*26.6*	*C*
St. Francis Dr. at West Alameda St.	AM	0.88	E	D	A		C	E	B		D	B	B		A	C	C		*25.7*	*C*
	PM	0.96	E	D	B		D	F	B		D	C	C		A	C	C		*32.5*	*C*
St. Francis Dr. at Paseo de Peralta (North)	AM	0.93	D	D	D		D	B	A		B	C	A		A	A	B		*24.1*	*C*
	PM	0.97	F	F	C		E	C	A		B	C	A		B	C	C		*32.4*	*C*
St. Francis Dr. at Alamo Drive	AM	0.95	B	D	D		C	B	B		C	B	A		C	C	C		*26.3*	*C*
	PM	0.94	C	A	A		B	D	D		D	B	A		B	B	B		*22.8*	*C*

Table 23 – Buildout Scenario Base Condition Intersection Level of Service				
St. Francis Drive Corridor Segment 2030 Horizon Year	2030 Conditions City Timings		2030 Conditions Optimized	
	AM	PM	AM	PM
Sawmill Road	C	F	D	F
West Zia Road	F	E	E	D
Siringo Road	C	D	D	C
West San Mateo Road	C	B	C	C
Alta Vista Street	B	C	B	C
West Cordova Road	C	C	C	C
Cerrillos Road	D	D	D	D
Hickox Street	C	C	C	C
Agua Fria Street	C	C	C	C
West Alameda Street	C	D	C	C
Paseo de Peralta (N)	C	C	C	C
Alamo Drive	D	C	C	C

The buildout scenario analysis was performed under two different traffic signal timing scenarios. The first was to use the current City of Santa Fe signal timing plan. The second analysis consisted of "optimizing" the traffic signal timing for the future conditions, as it is very likely that the corridor signal timing will continue to be updated as conditions change.

The existing City traffic signal timing and analyzed optimized signal timings reveal deficient individual movements at several intersections during either the AM or PM peak hour, or in some cases during both peak periods, as shown on Table 22. In order to achieve normally acceptable LOS (D or better) for these movements, intersection improvements are required. In most instances, the improvements involve construction of additional lanes to improve capacity.

As shown in Table 22 and Table 23, the two worst intersections are Sawmill Road at St. Francis Drive and West Zia Road at St. Francis Drive. These two intersections present the most challenges to establish acceptable individual movement LOS.

The Transportation Analysis in Appendix C includes detailed review of each intersection with deficient movements and the resulting improvement to LOS and intersection delay in seconds. Improvements to intersections with at least one deficient movement are summarized below:

<u>Sawmill Road at St. Francis Drive:</u>

EB Sawmill Road – install third left turn lane and exclusive right turn only lane

NB St. Francis Drive – install second left turn lane

SB St. Francis Drive - install additional (fourth) through lane

SB St. Francis Drive – extend length of southbound right turn lane

Zia Road at St. Francis Drive:

EB West Zia Road – install third left turn lane and third through lane

WB West Zia Road – install third left turn lane

NB St. Francis Drive – install fourth through lane

Siringo Road at St. Francis Drive:

WB Siringo Road - construct an additional (second) right turn lane

NB St. Francis Drive - construct a second left turn lane

West San Mateo Road at St. Francis Drive:

WB West San Mateo Road – install a second through lane

Cordova Road at St. Francis Drive:

WB Cordova Road – install a second left-turn lane

Cerrillos Road at St. Francis Drive:

EB Cerrillos Road - install third left turn lane and a third through lane

WB Cerrillos Road - install a third left turn lane and a third through lane

Hickox Street at St. Francis Drive:

EB Hickox Street - install a second left turn lane

WB Hickox Street - install a second through lane

Agua Fria Street at St. Francis Drive:

WB Agua Fria Street – install a second through lane

Alameda Street at St. Francis Drive:

The EB left turn and WB through movements have deficient LOS during the AM and PM peak periods; to achieve acceptable LOS the following improvements are needed:

EB Alameda Street – install a second left turn lane

WB Alameda Street - install a second through lane

Paseo de Peralta (North) at St. Francis Drive:

The PM peak hour is projected to have movements with deficient LOS; to achieve acceptable LOS at for these movements the following improvements are needed:

EB Paseo de Peralta – install a second through lane

F. Safety Analysis

1. Crash Summary

For this analysis, crash data for 2003 through 2007 was requested from the NMDOT Traffic Safety Bureau. The purpose of collecting and analyzing historic traffic crash data for a project

during consecutive periods is to identify possible crash patterns and to determine the probable causes of those crashes. The crash analysis includes patterns related to roadway conditions; time of day; weather conditions; type of crash; locations, i.e.: roadway, intersection, etc.; crash severity and driver characteristics. The full crash analysis, including collision diagrams, is included in Appendix C.

2. Crash and Fatality Rate Comparison

Of all the reported collisions on the St. Francis Drive corridor for the three-year period from 2003 to 2007, 883 occurred at or near the twelve signalized intersections, while 430 crashes occurred at midblock locations. Table 24 and Table 25 show the accident rates for intersections and roadway segments along the corridor:

Table 24 shows that the West San Mateo Road intersection has the highest accident rate of 1.328 crashes per million entering vehicles even though Cerrillos Road had a higher number of crashes during the 5-year period.

For comparison purposes to an urbanized area in New Mexico, the average crash rate for the Albuquerque Metropolitan Planning Area for 2003-2006 is 1.349 crashes per million entering vehicles[13]. The entire St. Francis Drive corridor is below this average, although West San Mateo Road is very close to the average for the Albuquerque Metropolitan Planning Area.

Table 24 – Crash Rates for Signalized Intersections

St. Francis Drive Corridor		5-Year Total Acc.	Accident Rate Per Million Enter Veh
Intersection with St. Francis Drive	Entering ADT for Intersection		
Sawmill Road	39,215	69	0.964
West Zia Road	56,138	92	0.898
Siringo Road	53,235	96	0.988
West San Mateo Road	45,372	110	1.328
Alta Vista Street	51,134	81	0.868
West Cordova Road	59,008	92	0.854
Cerrillos Road	72,235	113	0.857
Hickox St./Paseo de Peralta (S)	50,679	51	0.551
Agua Fria Street	53,497	50	0.512
West Alameda Street	54,174	58	0.587
Paseo de Peralta (North)	41,915	34	0.444
Alamo Drive	30,074	37	0.674

[13] Source: MRCOG, General Crash Data and Trends for the Albuquerque Metropolitan Planning Area, 2000-2006

Table 25 lists the crash rates for the segments between the signalized intersections. The Statewide average is 1.86 crashes per 100-million vehicle miles, while the average for Santa Fe County is 1.49[14]. As with the intersection crash rates, the St. Francis Drive corridor is below the Statewide average and only one segment (Cerrillos Road to Paseo de Peralta (north)) is above the County average.

Table 25 – Crash Rates for Unsignalized Intersections and Mid-Block Locations

Roadway Segment	Begin Intersection	End Intersection	Segment Length (Miles)	Number of Reported Crashes	Daily Entering Vehicles (VPD)	Crash Rate (Cr/100-MVM)
1	Rabbit Road	W. San Mateo Rd.	1.451	146	40,165	1.37
2	W. San Mateo Rd.	Cerrillos Rd.	1.145	112	43,534	1.23
3	Cerrillos Rd.	PdP (North)	0.944	120	44,341	1.57
4	PdP (North)	Guadalupe St.	0.642	26	25,502	0.87
5	Guadalupe St.	NM 599	1.036	26	36,500	0.38
PdP – Pase de Peralta						

A concern after the 2006 maintenance project that re-striped St. Francis Drive to three lanes arose as the auxiliary lanes from St. Michael's Drive onto St. Francis Drive were converted to merge points. Review of the crash data does not indicate that an increase in crashes resulted from this change. The number of crashes each year at this location is shown below in Table 26.

Table 26 – St. Michael's Drive Merge Crash Summary - 2003-2007

Location	2003	2004	2005	2006	2007
SB St. Francis Dr. – North of St. Michael's	4	5	2	0	1
SB St. Francis Dr. – South of St. Michael's	4	8	2	2	5
NB St. Francis Dr. – South of St. Michael's	0	1	2	3	1
NB St. Francis Dr. – North of St. Michael's	1	4	2	1	1
Source: St. Francis Drive Corridor Study Existing/Horizon Year Conditions Analysis Report, June 2009, HDR (Appendix C)					

Another location that has raised safety concerns is the Guadalupe Interchange diverge and merge to US 84/285. The number of crashes by year is summarized in Table 27. There appears to be a cluster of accidents in 2005, however the other years saw very few crashes, suggesting 2005 was an atypical year and not suggestive of an unsafe condition.

[14] UNM Division of Government Research, 2006 New Mexico Traffic Crash Information, p. 10

Table 27 – Guadalupe Interchange Crash Summary - 2003-2007					
Location	2003	2004	2005	2006	2007
SB St. Francis Dr. – Diverge	1	0	4	0	1
NB St. Francis Dr. – Merge	1	0	2	0	1
Source: St. Francis Drive Corridor Study Existing/Horizon Year Conditions Analysis Report, June 2009, HDR (Appendix C)					

Pedestrian and bicycle crash data were also analyzed for the St. Francis Drive corridor during the five-year period from 2003 to 2007. The crash data is summarized in Table 28.

Table 28 – Pedestrian and Bicyclists Crash Summary - 2003-2007						
Type	2003	2004	2005	2006	2007	Total (5-yrs)
Pedestrian	5	2	2*	3	5*	17
Bicycle	2	1	2	3	1	9
Total	7	3	4	6	6	26
*-includes 1 fatality in both 2005 and 2007						
18 of the total crashes resulted from the pedestrian or bicyclist violating the right-of-way inappropriately 8 of the total crashes involved the pedestrian or bicyclist being under the influence of alcohol at the time of the crash						