

# EXECUTIVE SUMMARY FOR THE NM 599 INTERCHANGE CORRIDOR STUDY



**DRAFT – FEBRUARY 16, 2010**

## I. EXECUTIVE SUMMARY

NM 599 serves as a North/South by-pass for vehicles traveling through Santa Fe and a Waste Isolation Pilot Project (WIPP) route for low level nuclear waste traveling to the Waste Isolation Pilot Project near Carlsbad. As a high-speed limited access bypass through Santa Fe, NM 599 provides local Santa Fe traffic an additional North South travel corridor and alleviates traffic congestion along Cerrillos Road and St. Francis Drive.

NM 599 was designed as a controlled access facility with interchanges at all access points. Currently, it is a limited access facility with 12 allowable access points. There are five interim at-grade intersections along the corridor where right-of-way has been preserved for future interchanges. Two additional access points at Jaguar Road and Caja del Rio have not been constructed. Changes in regional traffic demand and issues related to the alignments of the intersections of other roads with NM 599 have necessitated the need for re-analysis of the corridor.

This study has been coordinated with two concurrent studies sponsored by the New Mexico Department of Transportation (NMDOT): the Interstate 25 Corridor Study (from NM 550 to Old Pecos Trail) and the St. Francis Drive Corridor Study (from I-25 to NM 599). 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 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 of the I-25 Corridor Study and the St. Francis Drive Corridor Study can be found in Appendix V.

### **Purpose and Need**

The crash rates on NM 599 for the period from 2003 through 2007 were below the statewide average; however, the crashes have a high severity at the unsignalized intersections with most of the crashes having injuries. Fatal crashes within the five year period were all single car crashes mostly occurring at horizontal curves. The fatality rate in 2006 was much higher than the statewide rate because there were four fatalities in one crash. The lack of gaps in NM 599 traffic during the peak hours causes drivers to take risks to cross or access NM 599 which leads to a public concern about safety at the existing intersections.

NM 599 is used for local circulation in the area, however, the unsignalized intersections have failing levels of service during the peak hours. The NM 599 frontage roads are discontinuous along the corridor causing traffic to back track in order to reach their destinations. In addition, the local area roadway network is lacking in links between NM 599 and central Santa Fe which is a problem that must be addressed by local government.

This area of Santa Fe has many approved and proposed plans for the development of both housing and business. This economic development is important to Santa Fe to provide the opportunity for Santa Fe's population to live and work in the community. Improved access to NM 599 would support this development by improving the flow of traffic onto and across NM 599 from the local area.

Access at the unsignalized intersections, CR 62, CR 70 Connection (Via Veteranos) and Camino de los Montoyas, is very poor with the level of service on the cross streets failing during the peak hours. Improved access to or across NM 599 is needed for local multimodal transportation on the north side of Santa Fe including vehicles, future transit, pedestrians and bicycles.

NM 599 must continue to function as a relief route for the City of Santa Fe and as an alternative for hazardous waste transport from Los Alamos around the populated areas of Santa Fe. Improved access to or across NM 599 is needed for all modes of travel as the area continues to develop. There is public perception that improvements are needed to address safety concerns, particularly at existing at-grade intersections.

The purpose of the study is to develop a prioritization plan for public funding that addresses the access issues and supports economic development, regional transportation and long range planning goals.

### **Detailed Evaluation of Alternatives**

Viable alternatives for improvement were developed at all of the access points in between Interstate 25 and US 84/285. The Interstate 25 Interchange was analyzed as part of the I-25 Corridor Study. The US 84/285 Interchange was analyzed as part of the St. Francis Corridor Study.

1. **No Build** – The No Build Alternative would mean not making any physical changes to NM 599. No right-of-way would be required and no costs would be associated with this alternative. The No Build does not meet the project need of providing improved access to or across NM 599 for all modes of travel as the area continues to develop. In addition, the No Build does not continue the development of an access controlled facility by removing at-grade intersections as was originally planned.
2. **Interstate 25** – The I-25 Corridor Study recommends that the entrance and exit ramps be improved to improve the merge and diverge areas of the ramps and I-25 mainlines. Auxiliary lanes are recommended on I-25 between the interchanges. Acceleration and deceleration lanes are recommended on NM 599 for the southbound ramps.
3. **I-25 N. Frontage Road** - This alternative is shown in **Error! Reference source not found.** Through traffic on the I-25 N. Frontage Road would use an overpass to cross NM 599. The existing intersection would be converted to a right-in, right-out

so that frontage road traffic could access NM 599. The preferred alternative at the I-25 Frontage Road Intersection with NM 599 is to install an overpass. The overpass would improve the safety at the existing intersection and meet the purpose and need of eventually making NM 599 an access controlled facility. It is recommended that the I-25 Frontage Road Overpass be prioritized with the other alternatives.

4. **Jaguar Road** – The preferred alternative at the Jaguar location is to construct an interchange as shown in Figure 5. The interchange meets the purpose and need of eventually making NM 599 an access controlled facility, it improves safety at the Airport Road Intersection, and it would provide improved access to Tierra Contenta, the Santa Fe Airport and undeveloped areas east and west of NM 599. It is recommended that the Jaguar Interchange be prioritized with the other alternatives.
5. **The W. Frontage Road from I-25 to Jaguar Road**, shown in Figures 7 and 8, would improve access to undeveloped lands west of NM 599. However, the owner of the land has plans to develop a north-south circulation road further away from NM 599 which would serve the same purpose. It is recommended that the alternative be eliminated.
6. **The E. Frontage Road from I-25 to Jaguar** shown in Figures 7 and 8, on pages 34 and 35, meets the purpose and need of improving circulation around NM 599. It would provide improved access to undeveloped areas east of NM 599. It is recommended that the frontage road be prioritized with the other alternatives.
7. **The W. Frontage Road from Jaguar Road to Airport** shown in Figure 9 would improve access to undeveloped lands west of NM 599. However, the land is already master planned with an access road further to the west. This access road would provide better access given the grades of the proposed frontage road. It is recommended that the alternative be eliminated.
8. **The E. Frontage Road from Jaguar Road to Airport** shown in Figure 9 would improve access to Tierra Contenta and undeveloped lands east of NM 599. Tierra Contenta is already master planned with an access road further to the west. The Tierra Contenta access road provides access to the remaining undeveloped land in the area. The Tierra Contenta Corporation has asked that the alternative be eliminated since it requires right-of-way from their property that is already platted for commercial and community development. It is recommended that the alternative be eliminated.
9. **Airport Road** - The preferred alternative at the Airport Intersection is to construct an interchange as shown in Figure 10. The interchange meets the purpose and need of eventually making NM 599 an access controlled facility, and it improves safety at the Airport Road Intersection. It is recommended that the Airport Interchange be prioritized with the other alternatives.

10. **Extension of Frontage Road across Santa Fe River** - The extension of the frontage road across the Santa Fe River as shown in Figure 12 meets the purpose and need of improving circulation in the area of NM 599. This alternative would take traffic off of the existing CR 62 intersection which would improve the safety at that location. In addition it improves the traffic flow from the Caja del Rio intersection with the NM 599 frontage road that currently has to go out of direction by approximately three miles in order to go southbound. It is recommended that the alternative be prioritized with the other alternatives.
11. **Caja del Rio** - The preferred alternative for the Caja del Rio Location is to construct an interchange as shown in Figure 13. An interchange meets the purpose and need of eventually making NM 599 and access controlled facility. This alternative would take traffic off of the existing CR 62 intersection which would improve the safety at that location. In addition it improves the traffic flow from the Caja del Rio intersection with the NM 599 frontage road that currently has to go out of direction by approximately three miles in order to go southbound. The estimated construction cost for the interchange is approximately the same as the cost for the south frontage road but it provides improved access both north and south. The frontage road only provides access to the south side of NM 599. It is recommended that the alternative be prioritized with the other alternatives.
12. **County Road 62** - The preferred alternative for the CR 62 Intersection is to construct an interchange as shown in Figure 15. An interchange meets the purpose and need of eventually making NM 599 and access controlled facility. It would improve the safety at the existing intersection which has a high injury rate. It would also improve the existing level of service which is failing. It is recommended that the alternative be prioritized with the other alternatives. In the interim before funding is available for an interchange the NMDOT is considering other options such as a signal or flashers.
13. **County Road 70 Connection (Via Veteranos)** - The preferred alternative for the CR 70 Connection (Via Veteranos) Intersection is to construct an interchange as shown in Figure 16. An interchange meets the purpose and need of eventually making NM 599 and access controlled facility. It would improve the safety at the existing intersection which has a high injury rate. It would also improve the existing level of service which is failing. It is recommended that the alternative be prioritized with the other alternatives. In the interim before funding is available for an interchange the NMDOT is considering other options such as a signal or flashers.
14. **Ephriam Road** - The preferred alternative for the Ephriam Intersection is to construct an interchange as shown in Figure 17. An interchange meets the purpose and need of eventually making NM 599 and access controlled facility. The frontage road alternative is the least expensive alternative; however, the interchange

alternative provides access to the existing private land on the north side of NM 599 and to City of Santa Fe owned land on the south side of NM 599. It is recommended that the alternative be prioritized with the other alternatives.

15. **Camino de los Montoyas** - The preferred alternative for the Camino de los Montoyas Intersection is to construct an interchange with a frontage road to provide access on the south side as shown in Figure 20. An interchange meets the purpose and need of eventually making NM 599 and access controlled facility. The frontage road alternative is less expensive than the overpass alternative. The interchange also provides better access to the area than the alternative to use the overpass with a frontage road back to the Ephriam Interchange. It is recommended that the alternative be prioritized with the other alternatives.
16. **The W. Frontage Road from Camino de los Montoyas to Ridgetop** shown in Figures 23 and 24, on, would meet the purpose and need of providing improved circulation in the NM 599 corridor. However, the undeveloped area is mainly City of Santa Fe open space. The city does not have a need for improved access. There is a private development parcel on the northwest corner of the Ridgetop Road Interchange. The developer of that parcel has plans to access Ridgetop Road. For these reasons it is recommended that the alternative be eliminated.
17. **The E. Frontage Road from Camino de los Montoyas to Ridgetop Road** shown in Figures 23 and 24 would provide improved circulation in the NM 599 corridor. However, the existing development plan for the Northwest Quadrant is approved without access at Camino de los Montoyas. There is no way to provide a frontage road in this area without providing a connection from Camino de los Montoyas to the Northwest Quadrant development which is currently not allowed by the approved development plan. In addition, the Northwest Quadrant Development has a circulation road in the plan further away from NM 599 that serves the same purpose. For these reasons, it is recommended that the frontage road alternative be eliminated.
18. **US 84/285 Interchange** – The St. Francis Corridor study recommends that an auxiliary lane be added between the eastbound NM 599 ramp and southbound US 84/285. The lanes would be restriped lanes so that the outside southbound lane drops at the Guadalupe interchange. This is to improve merge operations from NM 599 onto US 84/285.

### **Project Priority Plan**

The NM 599 projects in order of priority for public funding are shown in Table 51. Projects were prioritized based on their ability to satisfy the purpose and need, public input, and cost. The total cost of all projects is \$85,625,000.

Table 1 – NM 599 Priority for Public Funding		
Location	Priority	Total Cost
CR 62 Interchange	1	\$6,500,000
CR 70 Connection Interchange	2	\$8,000,000
Airport Road Interchange	3	\$11,000,000
I-25 Frontage Road Overpass	4	\$6,000,000
Extend NM 599 Frontage Road across SF River	5	\$4,300,000
Caja del Rio Interchange	6	\$12,650,000
Ephriam Rd Interchange	6	\$8,000,000
Camino de los Montoyas Interchange w/ Frt Rd	8	\$11,050,000
Jaguar Rd Interchange	8	\$8,000,000
NM 599 E. Frt Rd to I-25	10	\$10,125,000
<b>Total Cost</b>		<b>\$85,625,000</b>

If private funding becomes available then any of these projects could be constructed. The projects with the least priority do not require an interchange or frontage road unless necessitated by development in which case they would be privately funded.