

## FINANCIAL PLAN

A major component of the Metropolitan Transportation Plan is the financial element. The purpose of the financial element is to balance the transportation projects recommended for implementation with the resources of the community available to build and maintain transportation facilities and services.

## Vision Plan Costs

For the roadway system, a series of no-build and visioning alternatives were tested using the Farmington MPO Travel Demand Model. The no-build scenario provides insight into future roadway needs by assuming socioeconomic (e.g., population, household and employment) growth but no new roadway capacity. The visioning scenarios were developed to address these needs. Based on the eighteen projects in the Vision Plan



recommended for implementation, total improvement costs are estimated to be \$205 million.

### How do you estimate project costs?

As part of the MTP development process, it is necessary to estimate costs for each alternative. If detailed engineering cost estimates were available for particular projects, either from localities, NMDOT, or other reliable sources, that data was used. Where accurate and reliable cost data was not readily available, a cost estimation routine was used based on the results of the travel demand model. These roadway costs were developed by analyzing the results of the travel demand model taking into consideration the individual characteristics of the recommended roadway network. These planning level construction costs include estimated local costs of construction based on the projected roadway type as well as the estimated level of effort required for utility relocation, access maintenance, terrain, drainage, right of way acquisition, stormwater pollution prevention, project management, and construction contingencies.

## Farmington MPO 2030 Available Funding

Whereas the total cost for the Roadway Vision Plan is estimated at approximately \$205 million, actual funding will be significantly less. It is therefore necessary to estimate what levels of funding might be available and what portions of the Roadway Vision Plan should be implemented.

Based on current estimates, New Mexico Department of Transportation District 5 is estimated to receive approximately \$32 million per year. This would equate to approximately \$800 million dollars for the period through 2030.

In review of the Draft New Mexico Department of Transportation 2006-2011 State Transportation Improvement Program, the Farmington MPO is expected



2030 Vision Plan Ranking and Financially Constrained Funding Level (fig. 11.1)

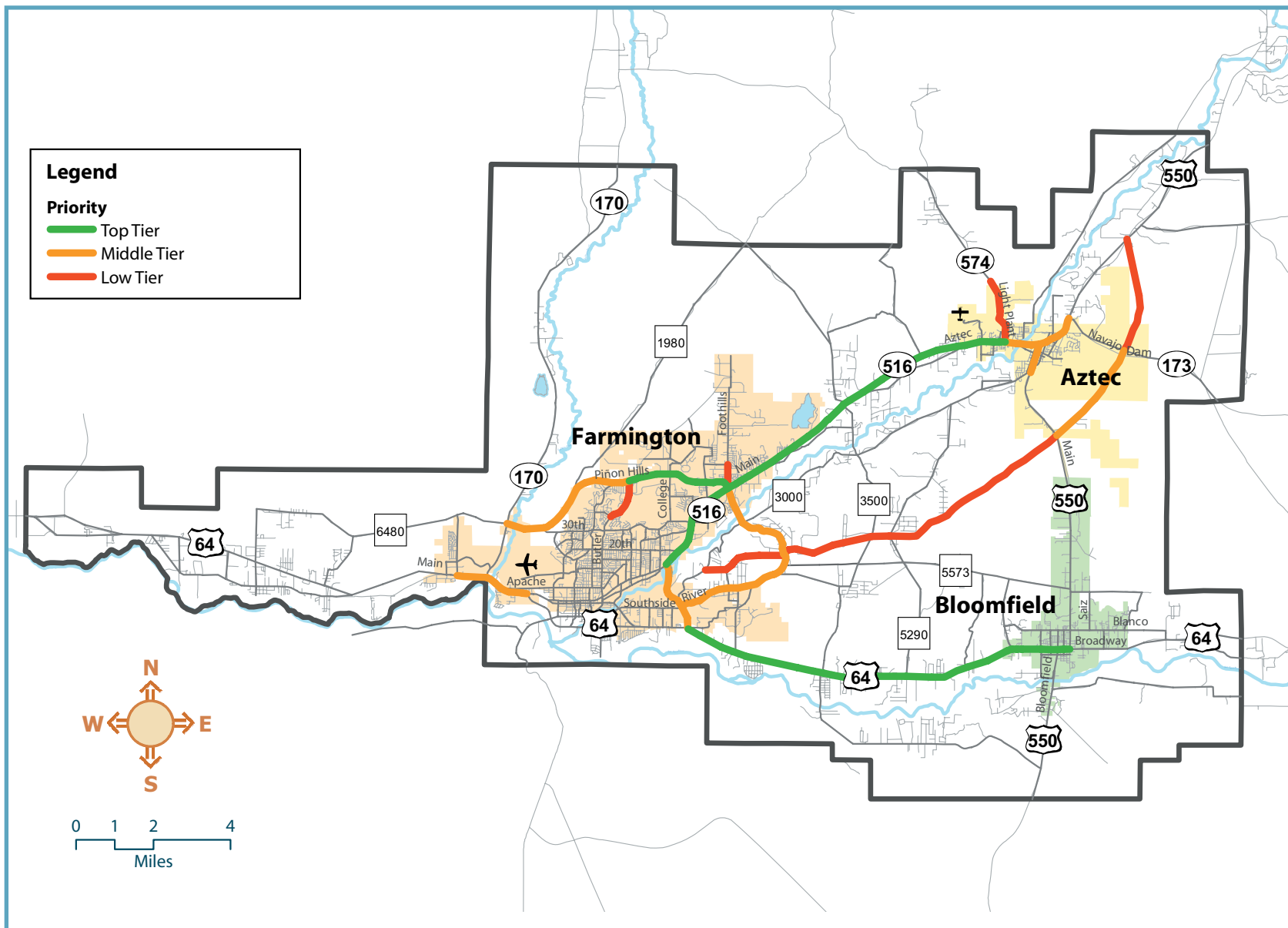
	Alt #	Facility	Limits	Description	Reduction in PM Peak Hour Congestion Delay	Project Cost	Cumulative Cost	Hours of Delay Saved per Million Dollars Spent	Economic Vitality	Safety and Security	Accessibility, Mobility, and Congestion	Environment	Integration and Connectivity	Preservation, Efficiency, and	Funding and Costs	Multi-modal	Land Development Policies	Rank	
Top Tier	18	Intersections	City of Farmington	Signal Timing Improvements	n/a	\$850,000	\$850,000	n/a	●	●	●	●	●	●	●	●	●	●	1
	17	US 64	Browning to US 550	Widen to 6 lanes	77 Hours	\$56,000,000	\$56,850,000	1.4	●	●	●	●	●	●	○	●	●	●	2
	6	NM 516	Browning to Pinion Hills	Operational Improvements	68 Hours	\$1,825,000	\$58,675,000	37.2	●	●	●	●	●	●	●	●	●	●	3
	10	NM 516	Pinion Hills to Light Plant	Widen to 6 lanes	81 Hours	\$45,100,000	\$103,775,000	1.8	●	●	●	●	●	●	○	●	●	●	4
	3	Pinon Hills Blvd	Butler to NM 516	Widen to 4 lanes	43 Hours	\$6,951,811	\$110,726,811	6.1	●	●	●	●	●	●	○	○	●	●	5
Middle Tier	9	Pinon Hills East	NM 516 to CR 3950	New 4 lane minor arterial	119 Hours	\$5,886,759	\$116,613,570	20.2	●	●	●	●	●	○	●	○	●	●	6
	13	US 550	Hartman Place to NM 516	Travel Lane and Parking Changes	n/a	\$900,000	\$117,513,570	n/a	●	●	○	●	●	●	○	●	●	●	7
	5	Browning	NM 516 to US 64	Widen to 6 lanes	9 Hours	\$4,910,928	\$122,424,498	1.8	●	●	●	○	●	○	●	●	●	●	8
	7	Wildflower	Browning to CR 3950	Upgrade to arterial, extend to CR 3950	16 Hours	\$2,263,869	\$124,688,367	7.1	○	●	●	●	○	○	●	●	●	●	9
	11	NM 516	Light Plant to Navajo Dam Road	Widen to 6 lanes tapered to 4 lane	6 Hours	\$22,800,000	\$147,488,367	0.3	○	○	○	○	●	●	●	●	●	●	10
	2	Pinon Hills Blvd	NM 170 to Butler	Widen to 4 lanes	8 Hours	\$9,945,474	\$157,433,841	0.8	○	●	●	●	○	○	○	○	●	●	11
	1	US 64	Troy King to Murray	Widen to 6 lanes	7 Hours	\$6,091,576	\$163,525,417	1.1	○	○	○	●	●	○	○	○	●	●	12
	15	New Relief Route Facility	NM 173 to US 550 south of Aztec	4-lane arterial	13 Hours	\$7,499,758	\$171,025,175	1.7	●	●	●	●	○	○	○	○	○	●	13
Lower Tier	12	NM 574	NM 516 North	Upgrade to minor arterial	2 Hours	\$5,002,071	\$176,027,246	0.4	●	●	○	○	○	○	○	○	○	●	14
	16*	New Relief Route Facility	US 550 north of Aztec to NM 173	4-lane arterial	20 Hours	\$11,997,000	\$188,024,246	1.7	●	●	●	●	○	○	○	○	○	●	15
	8A	Foothills	Crestwood to NM 516	Upgrade to minor arterial	9 Hours	\$337,151	\$188,361,397	26.7	○	○	○	●	○	○	●	●	○	○	16
	8B	English	Crestwood to Pinon Hills	New 2-lane Connection	26 Hours	\$377,992	\$188,739,389	76.9	○	○	○	○	○	○	○	○	○	○	16
	4	Butler Ave	Pinion Hills to 38th	Widen to 4 lanes	7 Hours	\$1,546,514	\$190,285,903	4.5	○	○	○	○	○	○	○	○	○	○	17
	14	New / Highline Road	Browning and Southside River to US US 550	2-lane rural highway	34 Hours	\$14,572,385	\$204,858,288	2.3	●	●	●	●	○	○	○	○	○	○	19

\* Alternative 16 includes Alternative 14 as well.

Key ● High ● Medium High ● Medium ○ Medium Low ○ Low

Farmington MPO 2030 Financially Constrained Funding Level (\$160 million) ■■■■■

RECOMMENDED 2030 VISION PLAN PRIORITIZATION (fig. 11.2)



to receive approximately 20 percent of the available District 5 funding. If extrapolated over the 25 year planning horizon period, this would equate to a potential funding budget of \$160 million.



## Financially Constrained Plan

In order to determine which of the Roadway Vision Plan projects should be included in the Financially Constrained Plan, each alternative was evaluated against the nine objectives of the MTP previously developed (Economic Vitality; Safety and Security; Accessibility, Mobility, and Congestion; Environment; Integration and Connectivity; Preservation, Efficiency, and Technology; Funding and Costs; Multi-modal; and Land Development Policies). The individual objective rankings were then combined into one composite ranking, allowing the individual alternatives to be prioritized. Figure 11.1 shows the projects in rank order and grouped by priority tier so that they can be constructed when funding becomes available. The alternatives are shown in Figure 11.2, with the highest ranked alternatives shown in green, the middle tier alternatives shown in orange, and the lower tier alternatives shown in red.

Since the United States Federal Highway Administration (FHWA) determines New Mexico's transportation funding level, and the New Mexico Department of Transportation (NMDOT) determines the funding levels by both District and areas within the District, the ranking will provide a guide as to which improvements are included in the Financially Constrained Plan.

If the Farmington MPO 2030 funding level of \$160 million is realized, then there would be sufficient funds to implement the first 11 of the 19 projects identified in the Roadway Vision Plan. This would indicate that there would be sufficient funds to implement the Farmington MPO's Top Tier projects and the majority of the Middle Tier projects. The remaining Middle Tier projects and the Lower Tier projects would require additional funds through FHWA and NMDOT or local funds.

According to the Draft STIP, a portion of Project 17 - US 64 and Project 10 - NM 516 has partial funding for the next six years. Completion of these two projects based on anticipated funding levels would be within the 15 to 20 year timeframe.

It should also be noted that system preservation, operations/maintenance including Intelligent Transportation System, should be included in the Financially Constrained Plan. Candidate projects would include Project 18 - City of Farmington Signal Timing Improvements, Project 6 - operational improvements from Browning to Pinon Hills, and Project 13 - travel lane and parking changes for US 550 in Aztec.

Additionally, the MPO should pursue other funding options, including from localities and other state funds, in order to augment the available revenue and allow more projects to be constructed.

## Transit Costs

Transit costs include both capital and operating costs. Red Apple currently has a fleet of two Ford cutaway buses and six vans. The buses are used on the two largest fixed routes—the Red and Green Routes. Three vans are used to operate the Express, Bronco, and Tiger Routes. The vans are also used to provide demand-responsive Dial-a-Ride service throughout the Farmington city limits and paratransit service to Aztec and Kirtland routes. Additional fleet vehicles would be needed to operate the expanded service provided in the recommended alternative. The handy vans currently used by Red Apple cost \$56,000 in year 2004 dollars, while the cutaway buses currently in use cost \$85,000 in year 2004 dollars.

The recommended Transit Plan would require, at a minimum, four additional vehicles to operate the planned service. This estimate does not include spare vehicles which should represent 20 percent of the total fleet. At a minimum, the capital costs for purchasing four vans would be \$224,000. If spares are desired, and cutaway buses used instead of the vans, the cost would increase to \$510,000. As shown in figure 11.3, the capital costs will ultimately vary depending on the fleet mix as well as the desire to have vehicle spares.

Often times, transit agencies are able to supplement orders or execute options placed by other transit agencies. Possible benefits include shorter delivery times as well as reduced costs resulting from bulk orders. These options should be fully explored before any bus purchases are made.

**CAPITAL COST OPTIONS** (Fig. 11.3)

Fleet Mix	Without Spare Vehicles	With Spare Vehicles
All Vans	\$224,000	\$336,000
All Cutaway Buses	340,000	\$510,000

Red Apple Transit currently provides about 186,600 revenue bus miles annually. The recommended plan would represent a 48 percent increase in service over today with 275,300 bus miles. Figure 11.4 show the forecasted ridership and the potential operating costs associated with providing the proposed service level. Applying an operating cost per mile of \$2.04 (the current operating cost per mile) to the annual revenue miles, the annual cost for providing the Transit Plan service would cost \$561,612, or \$7.08 per rider.

**FIXED ROUTE OPERATING COST SUMMARY** (Fig. 11.4)

Annual Revenue Miles	275,300
Annual Cost	\$561,612
Annual Ridership (forecast 2030)	79,376
Operating Cost per Rider	\$7.08

Transit needs are defined in terms of relative ridership and service characteristics. A more robust transit system with higher frequency bus service covering more of the area and serving more activity centers would result in more ridership. Better service would attract choice riders in addition to serving the transit-captive population. This in turn would reduce vehicular travel, which could be realized in terms of reduced or delayed roadway capacity improvements.

The current bus transit system in Farmington represents a minimum service for a community of this size. Maintaining this service over the life of the MTP with increases to accommodate new growth and enhance the system is estimated to cost approximately \$11.8 million (year 2004 dollars) in operating costs. This assumes incremental service enhancements to keep pace with the region's growth, fully realizing the recommended Transit Plan in the year 2030. The Transit Plan will incur between \$224,000 and \$510,000 in capital costs by the year 2030 to support the added service,



resulting in a total cost of approximately \$12.3 million. These figures do not include the additional costs that would be incurred by relocating the transit center closer to downtown Farmington.

## Bicycle and Pedestrian Costs

The Bicycle Corridors identified by the MTP identifies several million dollars worth of improvements to complete the MPO's bicycle system through a combination of recreational trails, on-street bicycle lanes, and bicycle routes along arterial corridors. In addition, the MPO has a significant amount of missing or deteriorated sidewalks in critical locations along arterial corridors, within neighborhoods, and in and around activity centers. Although not fully documented, the cost of addressing these pedestrian needs is expected to total in the millions of dollars. However, many of the bicycle and pedestrian needs of the Farmington MPO can be addressed by implementing the projects in conjunction with roadway improvements. As identified in the bicycle and pedestrian action items, bicycle and sidewalk facilities should be included in the design of all new roadway facilities or major improvements.

## Implementation

As is the case in virtually every community across the nation, there are not sufficient revenues to meet all of the transportation needs in the Farmington MPO region. As presented previously, the total estimated transportation costs to meet the needs of the Farmington MPO region are over \$205 million and estimated revenue is approximately \$160 million.

The recommended financial plan for the MTP provides a series of action items for consideration and implementation by the Farmington MPO and the local jurisdictions in the region.

### FINANCIAL ACTION 1: INCREASED LONG-TERM ALTERNATIVE MODE FUNDING

Adjust the allocation of transportation funding resources to provide a more equitable share for transit, bicycle, and pedestrian modes.

### FINANCIAL ACTION 2: ADJUST SHORT-TERM FUNDING ALLOCATIONS IN THE TIP

The resource allocations recommended in 2030



Farmington MPO Metropolitan Transportation Plan should be reflected in the region's Transportation Improvement Program (TIP) to the extent possible. The resource allocation should be reviewed each year as the TIP is prepared. Multi-modal components of roadway projects should be credited to the appropriate modal category - transit, bicycle, or pedestrian.

### **FINANCIAL ACTION 3: PURSUE DISCRETIONARY FUNDING**

Vigorously pursue discretionary State and Federal funding. There are a number of Federal and State funding categories the Farmington MPO and member jurisdictions might be eligible to receive. These funds typically require a modest local match. The proposed action item would be to continue to seek these discretionary State and Federal funding sources.

### **FINANCIAL ACTION 4: ADDRESS OPERATIONS AND MAINTENANCE NEEDS**

Explore dedicated funding sources to address transportation operations and maintenance needs.