

## SECTION 2

# Alternatives Considered

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The I-25 Environmental Assessment (EA) process began with consideration of a wide variety of alternative modes to determine how best to address I-25 congestion problems. The *I-25 Mode Feasibility Alternatives Analysis* examined 18 alternatives. The technical screening and evaluation processes narrowed down the list of alternatives and resulted in selection of the Proposed Action, described below, which is further evaluated in this EA. The complete *I-25 Mode Feasibility Alternatives Analysis* is contained in the Technical Appendices to this EA.

In the *I-25 Mode Feasibility Alternatives Analysis*, a first set of alternatives was determined to be not feasible based on a fatal flaw screening analysis. These first alternatives eliminated were:

- Truck-Only Lanes
- Commuter Rail on Existing Freight Tracks
- Commuter Rail on Double Freight Tracks
- Electric Trolley Service
- Magnetic-Levitation Fixed Guideway Transit
- Personal Rapid Transit
- Monorail Transit
- Automated Guideway Transit

The reasons these alternatives were eliminated are provided in the subsection “Other Alternatives Examined” on page 2-7. Surviving alternatives were examined with regard to their cost, usage, and travel times using hypothetical networks modeled for the Colorado Springs area. Based on this analysis, it was determined that the following alternatives would not by themselves meet the project’s purpose of reducing congestion on I-25:

- Alternate Route – Powers Boulevard
- Alternate Route – Marksheffel Road or Banning-Lewis Parkway
- Alternate Route – Front Range Toll Road
- Commuter Rail on New Tracks
- Light Rail

- Express Bus
- I-25 Widening to 6 General-Purpose Lanes
- I-25 Addition of High-Occupancy Vehicle (HOV) Lanes
- I-25 Addition of HOV Toll Lanes

The reasons these alternatives were found to not meet the project purpose are explained in the subsection “Alternatives Not Meeting the Project Purpose” on page 2-8.

Only two alternatives were found feasible to meet projected traffic demand on I-25 and thereby provide levels of service. These were:

- I-25 widening to 6 and 8 general-purpose lanes
- I-25 widening to 6 and 8 lanes including HOV lanes

The alternative including HOV lanes was selected for evaluation because of its flexibility for accommodating future alternative mode use (e.g., increased use by transit and carpools), which is a goal identified in local land use plans as well as local and regional transportation plans.

The Proposed Action from the *I-25 Mode Feasibility Alternatives Analysis* is described below, followed by a description of the No-Action Alternative. The social, economic, and environmental effects of these two alternatives are discussed in Section 3 of this EA.

Also discussed below are the other alternatives that were considered in the *I-25 Mode Feasibility Alternatives Analysis* but were found to not meet the Purpose and Need of the project.

## Proposed Action

The Proposed Action consists of the following elements, which are described in detail below.

- General Purpose Lanes
- High-Occupancy Vehicle Lanes
- Major Interchange Reconstruction

- Minor I-25 Modifications
- Congestion Management, including transportation system management (TSM) strategies
- Transit and Park-and-Ride Accommodation
- Bicycle/Pedestrian Accommodation

The proposed lane additions and major interchange reconstruction projects included in the Proposed Action are depicted in Figure 2-1.

## General Purpose Lanes

The Proposed Action would widen I-25 between State Highway 105 (Monument – Exit 161) and South Academy Boulevard (Exit 135), a distance of approximately 26 miles. Within these limits, a six-lane cross-section (three through-lanes in each direction) would be built south of the US 24 Bypass to South Academy (4 miles) and north of Briargate to State Highway 105 (12 miles).

Additionally, for the 12-mile central portion from the Briargate Parkway (Exit 151) to US 24 Bypass (Exit 139), the Proposed Action consists of an eight-lane cross-section (four through-lanes in each direction). The additional two lanes would be open to general traffic for most of the day, but reserved for buses and carpools during peak periods. For existing and future cross-sections, see Figure 2-2.

## High-Occupancy Vehicle Lanes

In the eight-lane cross-section, the inside (leftmost) lane in each direction would be open to general traffic in off-peak hours, but in morning and evening peak hours would be reserved for use by carpools and buses only. To qualify as a carpool, a vehicle would need to have two or more occupants (i.e., the driver plus one or more passengers).

To accommodate this flexible use, the HOV lane would not be barrier-separated from the general-purpose lanes, but would be demarcated by appropriate signage and striping.

Currently, peak traffic volumes are observed from 7:00 a.m. to 8:00 a.m. and from 3:00 p.m. to 6:00 p.m. on non-holiday weekdays. For evaluation purposes, these were the hours assumed for HOV operations.

## Major Interchange Reconstruction

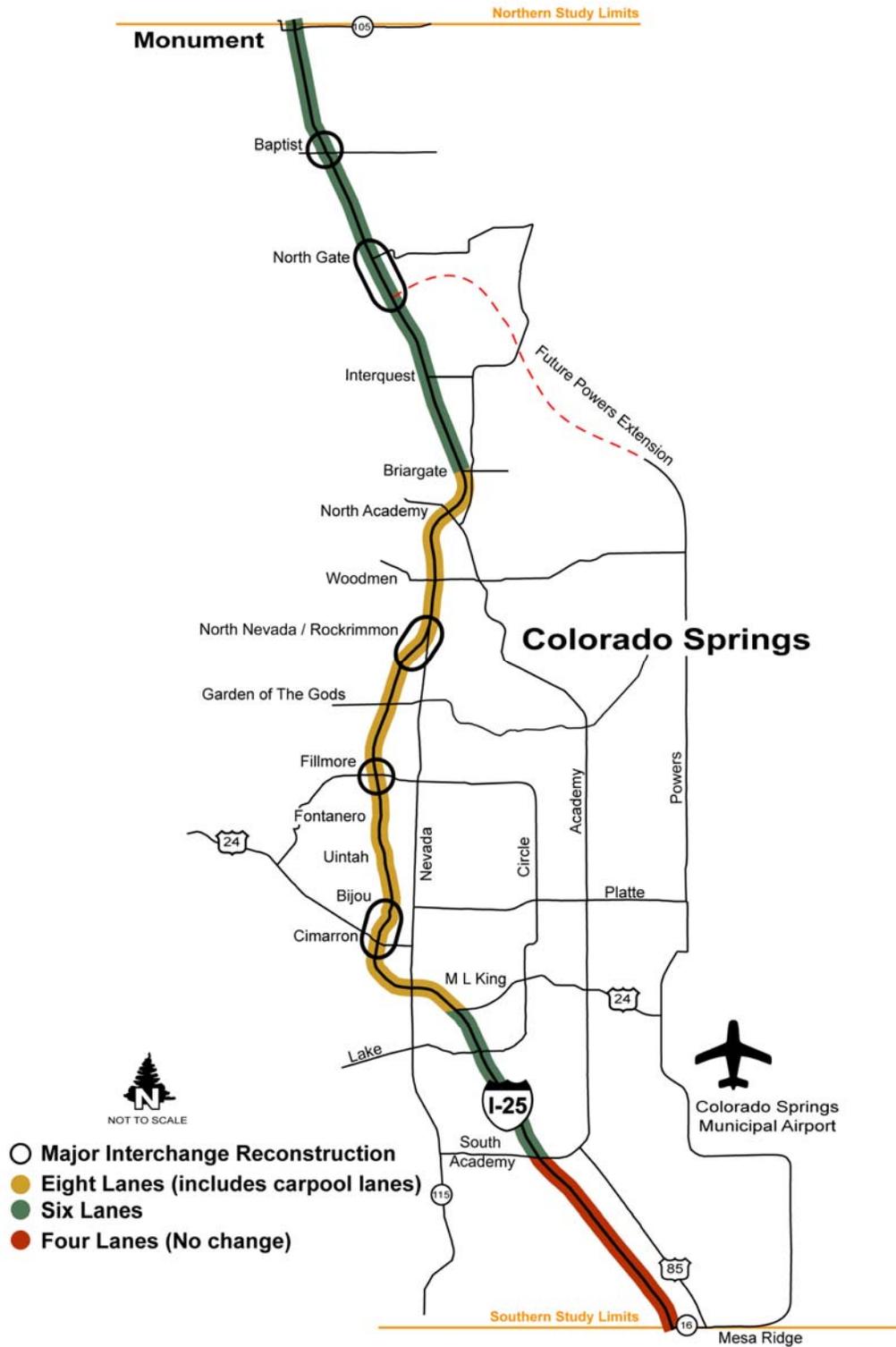
In conjunction with the additional highway lanes, the Proposed Action includes interchange reconstruction at several locations within the corridor. All of these major interchange reconstruction projects will involve expanded bridge structures needed to accommodate the additional I-25 lanes noted above. These major interchange reconstruction projects are as follows:

- Exit 158 – Baptist Road
- Exit 156 – North Gate Road, plus freeway-to-freeway ramps for Powers Boulevard
- Exit 147/148 – North Nevada Avenue and Rockrimmon Boulevard (consolidated)
- Exit 145 – Fillmore Street
- Exit 142 – Bijou Street
- Exit 141 – Cimarron Street (US24)

For each of the interchange reconstruction projects, numerous design alternatives were considered and evaluated, and these were presented for review and input at advertised public meetings. Avoidance and minimization of environmental impacts were key factors considered in the lengthy selection processes for these interchange concepts. This approach is further discussed in Section 3 of this EA.

The major interchange reconstruction projects included in the Proposed Action are described briefly below:

- **Baptist Road Interchange** (Exit 158): This standard diamond interchange provides access to a two-lane road in a rapidly developing portion of northern El Paso County. The existing two-lane bridge over I-25 will be replaced with a wider bridge that will accommodate more arterial roadway lanes (including left-turn lanes) on Baptist Road. Longer on-ramps and off-ramps will be provided for safe freeway merging. The northbound I-25 off-ramp to Baptist will be relocated to the east where the frontage road is today, to provide improved spacing on Baptist Road between the traffic signals for the I-25 off-ramps and Struthers Road (the frontage road).

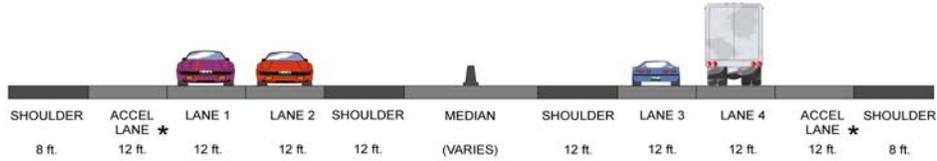


**FIGURE 2-1**  
 Proposed Roadway Improvements  
 (Note: The Proposed Action also includes various non-roadway elements. For details, see description of Proposed Action.)

## NO-ACTION ALTERNATIVE

### IMPROVED I-25 CROSS SECTION

Four - Lane Freeway Plus Acceleration Lanes

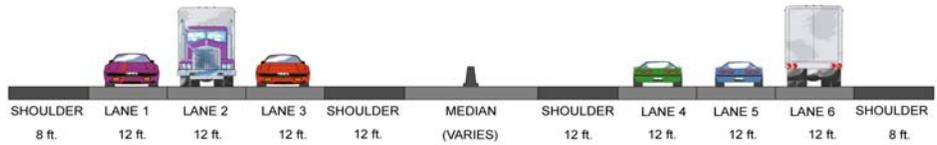


\* acceleration lanes provided only where needed (i.e. close to interchanges)

## PROPOSED ACTION

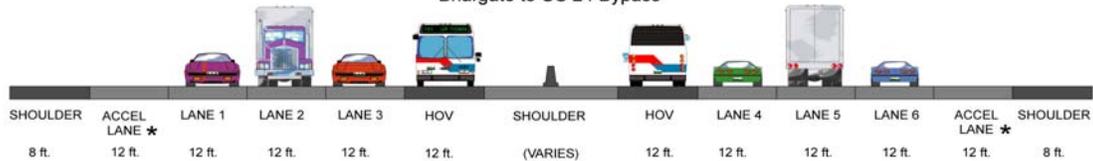
### SIX - LANE FREEWAY

Monument to Briargate, and  
US 24 Bypass to South Academy Blvd.



### EIGHT- LANE FREEWAY (SIX THROUGH - LANES PLUS HOV LANES PLUS ACCELERATION LANES)

Briargate to US 24 Bypass



\* acceleration lanes provided only where needed (i.e. close to interchanges)

FIGURE 2-2  
I-25 Existing and Proposed Cross-Sections

- **North Gate/Powers Interchange** (Exit 156): The existing unsignalized North Gate cloverleaf interchange has short on-ramps and off-ramps resulting in inadequate weaving distances on I-25. This configuration will be replaced by a signalized diamond interchange tied into ramps that connect with the planned northern extension of Powers Boulevard. The expanded interchange complex will serve not only free-flowing freeway-to-freeway movements, but also local access needs.
- **North Nevada Avenue and Rockrimmon Boulevard Interchanges** (Exits 147 and 148): The very unusual existing ramps at these two adjacent interchanges will be replaced by a signalized split-diamond configuration connected by collector-distributor roads. This will replace the well-known left-lane off-ramp connecting southbound I-25 to North Nevada Avenue with a right-lane off-ramp that is more consistent with driver expectations. Additionally, the revised configuration will provide new connectivity between Nevada Avenue and Rockrimmon Boulevard.
- **Fillmore Street Interchange** (Exit 145): A single-point urban interchange over I-25 will replace the existing diamond interchange that currently includes a six-legged intersection with Chestnut Street. This will include realignment of Chestnut (west of I-25) and Sinton Road (east of I-25) away from the I-25 ramps, thereby significantly improving traffic flow across I-25 on heavily traveled Fillmore Street.
- **Bijou Street and Cimarron Street Interchanges** (Exits 142 and 141): These two closely-spaced interchanges are main access points into the Colorado Springs Central Business District east of I-25. Each interchange so strongly affects the other that they were considered as a single interchange complex for purposes of identifying appropriate new configurations. The existing Bijou Street diamond interchange will be replaced with a tight diamond configuration featuring longer and straighter on-ramps and off-ramps. The existing Cimarron Interchange features a low-speed loop with tight curvature as the southbound I-25 off-ramp to US Highway 24. This configuration will be replaced with a

diamond interchange offset slightly south and west of the existing facility.

Each of these major interchange reconstruction projects will replace 40-year-old, non-standard designs with modern configurations that accommodate needed highway capacity.

## Minor I-25 Modifications

The Proposed Action includes three other roadway design elements that are not major interchange reconstruction projects:

- **Ackerman Overlook** (Milepost 153): The existing Ackerman Overlook will be replaced by an improved overlook approximately 2,300 feet north of the existing facility.
- **Corporate Center Drive** (Exit 147 A): The existing southbound-only ramps at this exit will be closed, with access replaced via a local street connection to the reconfigured Nevada/Rockrimmon Interchange.
- **Garden of the Gods Road** (Exit 146): Minor geometric changes will be made at this exit.

## Congestion Management/TSM

Several congestion management strategies (including transportation system management, or TSM) are included in the Proposed Action. TSM strategies from the PPACG *Congestion Management System Plan* (an element of the regional transportation plan) were evaluated as part of the *I-25 Mode Feasibility Alternatives Analysis*. These strategies do not add capacity but instead promote more efficient use of existing capacity:

- **Acceleration/Deceleration Lanes:** Existing substandard on-ramps and off-ramps will be replaced with longer ramps that allow more time and distance for safe merging onto or off of the freeway. Where warranted, on-ramps and the subsequent off-ramps will be connected by continuous acceleration/deceleration lanes.
- **Freeway Ramp Metering:** I-25 on-ramps will be designed to accommodate future ramp metering operations, to be integrated with the freeway's incident management program, described below.

- **Incident Management Program:** I-25 mainline and interchange reconstruction will include incident detection and response infrastructure consistent with the existing system in the corridor: Specifically, the project will include surveillance cameras, detector loops, and variable message signs, all connected with the City’s Traffic Operations Center.

## Transit and Park-and-Ride Accommodation

As noted previously, the Proposed Action includes HOV lanes that will be reserved in peak periods for use by buses and carpools only. The HOV lanes are intended to provide a travel speed advantage to transit buses and carpools, an incentive that could induce more use of these modes. Currently, only two express buses use I-25 (Route 91 – Union Express and Route 94 – Monument Express). The region’s long-range transportation plan calls for expansion of transit services throughout the urbanized area.

The *I-25 Mode Feasibility Alternatives Analysis* supported expansion of the region’s two existing Park-and-Ride lots and addition of four new Park-and-Rides along the I-25 corridor, consistent with the *1997 Park-and-Ride Study* conducted by the City of Colorado Springs.

CDOT recently built and opened a new Park-and-Ride lot in conjunction with reconstruction of the Fountain Interchange (Exit 128), and is relocating and expanding an existing lot as part of the Monument Interchange (Exit 163) reconstruction project that is now underway. These lots are both just outside of the proposed I-25 project area, but have the potential to benefit the corridor by reducing commute trips on the I-25 mainline.

The proposed new Park-and-Ride locations identified in 1997 were re-evaluated in a new study, the *Pikes Peak Regional Park and Ride Plan*, completed in early 2003. The new study identified recommended areas, or “corridors,” for proposed Park-and-Ride lots. Final selection of specific sites has not yet been completed and, according to the plan, will depend on land availability, cost, and other factors. When final sites are determined, site studies necessary to obtain environmental clearances will be undertaken.

CDOT is committed to constructing Park-and-Ride lots along the I-25 corridor where appropriate, in coordination with the City’s transit needs. This I-25 EA does not constitute environmental clearance for the new lots, however, since their specific locations remain to be determined. Environmental inventory information for the I-25 corridor generally extended for at least 500 feet from each side of the Proposed Action. This information may be of great value for Park-and-Ride environmental clearances, if the ultimately selected sites are in close proximity to the freeway.

## Bicycle/Pedestrian Accommodation

The I-25 corridor parallels a recently completed north-south trail system, thereby placing great importance on bicycle/pedestrian crossings over or under the freeway. Some of these crossings will be rebuilt as part of major interchange reconstruction projects. Other crossings (particularly those following drainages using culverts or bridges) will be replaced or modified in conjunction with mainline freeway widening. The roadway improvements will be designed to maintain existing bicycle and pedestrian crossings, and to accommodate proposed trail crossings wherever feasible.

The Proposed Action will maintain or improve bicycle, pedestrian, and multi-modal trail crossings of I-25. The following improvements are included:

- **Baptist Road (Exit 158):** Where no bicycle/pedestrian crossing exists today, sidewalks will be added to link users of the Jackson Creek Trail (east of I-25) to the New Santa Fe Trail (west of I-25).
- **North Gate Boulevard (Exit 156):** Where no bicycle/pedestrian crossing exists today, a multi-use trail will be provided to link the Smith Creek Trail to the trailhead of the New Santa Fe Trail on the grounds of the USAFA.
- **Bijou Street (Exit 142):** Existing sidewalks along Bijou Street over I-25 are in poor condition and will be replaced with new sidewalks.
- **Cimarron Street (US 24) (Exit 141):** A new trail crossing of I-25 will be provided along Fountain Creek, connecting the Midland Trail west of I-25 to the Pikes Peak Greenway east of I-25.

## The No-Action Alternative

Under the No-Action Alternative, the I-25 capacity improvements currently reflected in the Pikes Peak Area Council of Government's (PPACG)

*Destination 2025 Regional Long Range Transportation Plan* would not be implemented. Thus, the typical cross-section on I-25 would remain two through-lanes in each direction, plus continuous acceleration/ deceleration lanes where they currently exist or are under construction.

Under the No-Action Alternative, all other projects in the long-range plan would proceed over 22 years, totaling nearly \$1.2 billion in expenditures for other roadway, transit, transportation management, and bike/trail projects.

For example, the No-Action Alternative assumes completion of I-25 Interchange safety projects currently underway at Nevada/Tejon, Woodmen Road, and State Highway 105 in Monument. Additionally, the No-Action Alternative includes upgrading Powers Boulevard to a freeway configuration and implementing a three-tiered plan of transit improvements described in the *Colorado Springs Regional 2025 Long Range Public Transportation Plan*.

The No-Action Alternative would not relieve I-25 congestion. However, consideration of a No-Action scenario provides a useful basis for comparison with "build" alternatives and is required to be included in the environmental analysis of transportation projects.

## Other Alternatives Examined

Numerous additional alternatives were considered in the *I-25 Mode Feasibility Alternatives Analysis*, as part of this EA. These other alternatives were not recommended for reasons pertaining to their excessive cost, insufficient operating speed, or projected usage too low to provide meaningful congestion relief. These alternatives, which thus failed to meet the project's purpose and need, were not carried forward in the evaluation of environmental impacts.

The *I-25 Mode Feasibility Alternatives Analysis* began with an initial list of 18 alternatives, plus the No-Action Alternative. The list encompassed rail, bus, and carpool lane alternatives, as well as I-25

widening options and the possibility of providing roadway capacity in alternative north-south corridors. These capacity alternatives are discussed below.

## Alternatives Determined to Be Not Feasible

The evaluation criteria used for initial screening in the *I-25 Mode Feasibility Alternatives Analysis* deemed an alternative to be infeasible if the mode was too slow, excessively expensive, or did not provide meaningful capacity. The speed criterion was that the average trip speed should be at least 30 miles per hour. The cost criterion was that average capital cost should be no more than \$25 million per mile. The capacity criterion was that the mode should be able to carry at least as many trips per hour as one freeway lane.

The following eight alternatives were eliminated during the initial screening process, based on their typical operating characteristics:

- **Truck-only Lanes:** Existing and projected truck volumes on I-25 are not sufficient, especially during peak commuter hours, to justify a separate lane reserved only for commercial vehicles. If truck lanes were provided, the remaining general-purpose lanes would remain crowded beyond their capacity.
- **Commuter Rail on Existing Freight Tracks:** This option is operationally infeasible due to the fact that the limited north-south trackage through Colorado Springs is filled to capacity with freight trains, especially southbound shipments of coal from Wyoming en route to Texas.
- **Commuter Rail on Double Freight Track:** Even if a second set of freight tracks were constructed to allow simultaneous two-way railroad traffic through Colorado Springs, the mixing of freight and passenger transit trains on this system would result in unacceptably slow average operating speeds.
- **Electric Trolley Service:** Local trolley advocates are working to re-establish electric trolley service similar to the successful turn-of-the-century operations that ended in 1932. This system would offer frequent stops and unacceptably low average travel speeds.

- **Magnetic-Levitation Fixed Guideway Transit:** This developing but experimental transit technology was estimated to have a construction cost of \$70-\$100 million per mile, which was considered excessive. Due to the relatively short length of the study area (less than 30 miles) and the need for multiple stops along the corridor, the high speeds available from this technology could not be attained and maintained between station stops. Therefore conventional transit technologies (light rail or commuter rail) would be better suited for the I-25 corridor within metropolitan Colorado Springs.
- **Personal Rapid Transit (PRT):** At an estimated construction cost of \$50-\$70 million per mile, this technology also was considered excessive. PRT is not a proven technology operated in actual revenue service.
- **Monorail Transit:** At \$70-\$100 million per mile, this alternative was determined to have excessively high capital costs. Other conventional transit modes could serve comparable ridership far more economically.
- **Automated Guideway Transit:** This would be the same type of driverless transit technology used to connect terminals at sprawling airports. This alternative was determined to have excessively high costs, in the range of \$50-\$70 million per mile. Other conventional transit modes could serve comparable ridership far more economically.

Magnetic levitation transit (“mag-lev”), PRT, monorail, and automated guideway transit are technologies primarily used in specialized niches of the transportation market, and are not proven in U.S. urban to suburban commuter corridors. Conventional transit technologies (light rail and commuter rail) offer comparable speeds at a significantly lower capital cost. Conventional transit technologies were not deemed infeasible in the initial screening, but when they were examined in further detail for application in the I-25 corridor, as discussed below, it was found that their projected ridership would be insufficient to meet the project’s purpose and need (i.e., reducing congestion on the interstate). The same conclusion would apply to the more expensive technologies noted above.

## Alternatives Not Meeting the Project Purpose

The ten alternatives that survived the initial screening were then examined to determine how well they would perform in relieving I-25 corridor congestion, based on travel conditions specific to the Colorado Springs area. Generally, these alternatives included transit alternatives, alternate roadway routes, and I-25 widening options with and without use of HOV lanes.

When analyzed in the context of I-25 corridor demand, it was determined that eight of the surviving ten alternatives would not divert away or carry enough trips to accomplish the project’s purpose of relieving congestion. In particular, these eight alternatives fell into the categories of alternate routes, transit alternatives, and six-lane alternatives for I-25.

### Alternate Routes

Three alternatives would leave I-25 unchanged and build a north-south alternate route or bypass many miles to the east. These alternate route scenarios were as follows:

- **Powers Boulevard:** The alternative calls for completing the connection of Powers Boulevard to I-25 north and south of the city and converting the Powers expressway to a freeway configuration.
- **Marksheffel Road/Banning-Lewis Parkway:** Instead of upgrading Powers Boulevard, Marksheffel Road or the proposed future Banning-Lewis Parkway would be constructed as a freeway.
- **Front Range Toll Road:** A toll road would be constructed well east of Colorado Springs to provide a high-speed eastern bypass connecting Pueblo, Colorado Springs, Denver, and Fort Collins (a 200-mile facility through multiple counties). This project is currently under consideration by a private-sector consortium.

It was determined that the projected future usage of these bypass route alternatives would divert traffic in the range of 14,000 to 16,500 daily trips off of I-25. Compared to projected I-25 demand of 171,000 daily trips through central Colorado

Springs, the alternate routes would divert less than ten percent of the demand. The remaining traffic demand on I-25 would exceed the capacity of a four-lane or even a six-lane freeway. Thus, implementing bypass route alternatives in lieu of I-25 corridor improvements would not solve the congestion problem on I-25.

It is important to note that Powers Boulevard and Banning-Lewis Parkway implementation are already included in the region's long-range transportation plan as they will be greatly needed to meet the demands of the rapidly growing neighborhoods and commercial zones on the city's eastern side.

### Transit Alternatives

Scenarios for three transit alternatives were developed, in consultation with the Colorado Springs Transit Services Unit:

- Commuter rail on new tracks (no freight)
- Light rail
- Express bus

For each of these transit alternatives, the analysis included examination of optimal station locations and service frequency. For each scenario, it was assumed that a feeder bus service would be available to transport passengers between the I-25 corridor and the desired actual trip origin and destination.

Average daily ridership of 2,000 to 3,500 passengers was projected for these systems, equating to one to two percent of corridor travel demand. These figures are far less than the alternate route diversion results discussed above, and resulted in the same conclusion that these modes would not achieve a noticeable reduction in I-25 congestion levels. As with the alternate route scenarios, the transit scenarios would provide mobility benefits to certain niches of the overall travel market, but they would not meet the purpose and need of the I-25 corridor improvement project.

### Six-Lane Alternatives for I-25

Several six-lane alternatives adding general-purpose lanes, HOV lanes, and HOV toll lanes to the existing four through-lanes were evaluated. These alternatives were projected to carry 18,500 to 25,000 daily trips. While the six-lane alternatives compared favorably to the transit and alternate route alternatives, they would have served only

about half the increased I-25 traffic demand projected to pass through the center of the urbanized area. In the future, however, six lanes would be adequate to meet demand at the northern and southern portions of the urbanized area. The result projected for six-lane I-25 alternatives was comparable congestion and the same corridor travel times as are experienced today (and which today's public finds unacceptable).

Also considered was an alternative combining standard HOV lanes and express bus service. This alternative was projected to serve about 22,500 daily trips, again well short of the number needed to relieve future corridor congestion.

In addition to the six-lane alternatives, a five-lane alternative was considered, utilizing a reversible HOV lane such as the one in operation on north I-25 in Denver. However, the directional split of northbound and southbound traffic during peak-hours is significantly more balanced in Colorado Springs, thereby reducing the benefits of a reversible lane. Additionally, safety closures of the lane for several hours daily to shift the flow of traffic further reduce the capacity of the lane compared to a unidirectional lane that is always open. The reversible lane concept therefore did not meet the stated purpose and need of the I-25 corridor improvement project.

### Final Alternatives

Having determined that off-corridor improvements and transit alternatives would not provide adequate capacity and that six-lane configurations would be unacceptably congested in the future, the list of feasible alternatives was narrowed to those providing eight through-lanes on I-25 through central Colorado Springs, with transitional six-lane sections north and south of the central area. The remaining alternatives provide eight through-lanes, either as eight general-purpose lanes or six general-purpose lanes plus two peak-period HOV lanes (one per direction). The HOV/toll option was not added for consideration because the concept had received no public support throughout 13 advertised public meetings regarding I-25 corridor modal alternatives.

Both eight-lane alternatives would provide acceptable traffic levels of service for the future. The two final alternatives were identical in virtually all environmental respects, with the key difference being potentially worse peak-hour traffic

operations and therefore higher pollutant emissions associated with the six-plus-HOV scenario. This is because the HOV-only operation during peak periods would be attractive only if one carpool lane in each direction offered a speed advantage over its adjacent three lanes of general-purpose traffic.

The alternative providing six through-lanes plus peak-period HOV lanes through central Colorado Springs was selected as the Proposed Alternative. Planning I-25's seventh and eighth lanes as peak-period HOV lanes provides the flexibility to make these lanes either more HOV-intensive or less HOV-intensive in the future, depending on demand.

## HOV Lane Flexibility

Provision of HOV lanes in the I-25 corridor will represent a major step forward in encouraging use of transportation alternatives other than solo driving. The PPACG *Destination 2025 Regional Long Range Transportation Plan* and the *City of Colorado Springs Comprehensive Plan* both stress the need for encouraging alternative mode use. If HOV lanes have the potential to succeed anywhere in the Pikes Peak region, I-25 is the logical candidate because it is the region's only freeway and because it serves longer-distance commuting, which typically is most conducive to carpooling and express bus use.

Ultimately, the success of the HOV lanes on I-25 will depend on their acceptance by the public. The HOV concept was widely accepted by attendees of I-25 Environmental Assessment public meetings, with the notable exception of a few individuals who strongly opposed it.

The I-25 HOV lanes are planned to be the first in the region, so projections of their use have a relatively high degree of uncertainty. The lanes will be more productive if also used by transit vehicles, but there is currently no approved funding source for transit system expansion. In response to these concerns, the HOV lanes included in the Proposed Action will be signed and striped as HOV lanes, but not physically separated from the adjacent general-purpose through-lanes. This design facilitates the general-purpose use of the HOV lanes during off-peak hours.

Carpooling in El Paso County accounts for approximately 12 percent of commuter work trips, based on the Journey-to-Work sample surveyed in the Year 2000 Decennial Census. This represents a slight decline from the 13.3 percent level that was reported in 1990.

The timing of the provision of HOV lanes in the Pikes Peak region will be critical. It is projected that at current carpooling rates, there is not enough demand to warrant an HOV lane now or in the near-term future. Opening an HOV lane before there is sufficient demand to warrant it could be counterproductive, with public criticism leading to the lane's conversion to general-purpose use. This, in turn, could be a major setback to the public acceptance of HOV lanes in the region for years to come.

National research on HOV minimum operating thresholds indicates that, "If a facility is perceived to be under-utilized, pressure may be exerted to change vehicle occupancy requirements, operating hours, or to open the lane to mixed traffic." For example, HOV lanes in New Jersey on Interstate 80 and Interstate 287 were opened to general traffic in November 1998.

Consistent with projected traffic demand in the I-25 corridor, the conceptual phasing for the Proposed Action calls for (1) initially six-laning through central Colorado Springs, then (2) six-laning in northern El Paso County, and finally (3) adding the HOV lanes through central Colorado Springs and widening to six lanes south to South Academy Boulevard.

## Corridor Flexibility

The Proposed Action focuses on adding roadway capacity as well as accommodating and supporting alternative mode use and transportation system management techniques. The Proposed Action is thus a multi-modal package, incorporating elements of various alternatives that did not individually meet overall corridor needs.

The fact that a particular alternative was not selected as the Proposed Action for the I-25 corridor does not mean that the alternative could not or should not be implemented by appropriate agencies at appropriate times to meet other identified needs.

Despite the fact that the commuter rail and light rail alternatives were not selected as the Proposed Action, they offer potential benefits for the I-25 corridor. Examination of these concepts was based on the premise that rail alignments could be located adjacent to the north-south freight tracks already existing in the corridor, thus reducing their construction costs and likely environmental impacts. Implementation of the I-25 Proposed Action would not preclude these alternatives.

*The I-25 Mode Feasibility Alternatives Analysis* was a look at alternatives within the I-25 corridor, not a comprehensive regional transit study. It was

conducted at a time when there were no plans for fixed guideway transit in the region. A study of the potential for fixed guideway transit will be initiated by the City of Colorado Springs in mid-2003, with completion anticipated by the end of 2004.

Through central and southern Colorado Springs, the existing freight railroad tracks are east of I-25, while north of Nevada/Rockrimmon, they are located west of I-25. Keeping future rail potential in mind, proposed Park-and-Ride lots in the I-25 corridor could be located near existing railroad tracks.

