Commuter Rail Options

All Commuter Rail (CR) options are consistent with regional and local policies. Three alignment options using the I-225 right-of-way were developed to identify whether significant benefits or impacts could be identified as the screening level. Other findings are summarized below (see **Figure 3-28**):

- Commuter rail alignment options that would be in the median or along the east or west shoulders of I-225 (for the entire length of the corridor) were compared. The median alignment would have the lowest cost. Alignments along either shoulder would be more costly because of the need to provide grade-separations at six entry/exit ramp sets to avoid conflict with traffic. Because of limitations on grade changes for commuter rail operations and the short distances between interchanges, the net effect would be that shoulder alignments would have to be grade-separated for significant portions of the alignment, the costs of which would exceed the budget criterion. Shoulder alignments without grade separations at entry/exit ramps would present unacceptable risk. (Another possible scenario, using signals and crossing arms at the ramps to control traffic movements when trains are present, was deemed to have unacceptable impacts to traffic). The consultant team's recommendation was that shoulder alignments for the entire length of the corridor not be advanced for further consideration. The consultant team recommended that a median commuter rail alignment (for the entire length of the corridor) be advanced.

- Issues related to the northern terminus at Smith Road are similar to those identified for LRT as related to service to activity centers and residential areas. Because commuter rail in I-225 would not require a mode change at its interface at Smith Road, I-225 CR routes could readily be inter-lined with Denver International Airport (DIA) to Denver Union Terminal (DUT) CR routes; this inter-lining would be likely to produce greater patronage than a route that requires a mode change. In addition, inter-lining of commuter rail service could have a significant impact on the definition of commuter rail for the East Corridor. Such increases in service could result in dual track service, rather than the single-track service proposed in the *East Corridor MIS*. Future detailed evaluation efforts will examine this issue.

- As noted in the LRT discussions, a northern terminus at Gateway provides a station in an activity center. However, it may be difficult to inter-line I-225 CR routes that are bound to/from DUT at a Gateway terminus. Providing a transfer point between the DIA to DUT routes and I-225 CR routes at Gateway must be weighed against the effect on trips bound for downtown Denver via commuter rail, since the transfer point would move east by 2+ miles and may present switching/operational challenges. These operational issues will be examined during the detailed evaluation phase.

- The potential interface between I-225 CR and the I-25 LRT spur at Parker Road was also reviewed. In combination with the planned interchange at Parker Road and I-225, freeway and arterial modifications in the area, the team was seriously concerned as to whether a station that accommodates both LRT and commuter rail can be constructed at this site. The ability to expand the limits of freeway right-of-way to accommodate a median alignment commuter rail station and a cross-platform transfer to a median alignment LRT spur are significantly constrained. It is also anticipated that there would be public opposition to additional widening at this location. Expanding R-O-W would affect parklands on either side of I-225 at this location, which are afforded Section 4(f) protection by the Department of

Figure 3-28: Commuter Rail Alternative

I-225 MAJOR INVESTMENT STUDY

TRANSPORTATION ALTERNATIVES
Commuter Rail (CR)

Which Criteria Does It Meet?

Guidance

Manual

Corridor

How Does It Stack Up?

Advantages

- Consistent with Regional and Corridor goals and policies
- All options are generally affordable
- Low impact to environmental resources
- Technology is proven
- High degree of service to regional markets
- Moderate to high connectivity all distribution markets (depending on station locations)
- Easy rail-to-rail connection at East Corridor

Disadvantages

- Potential community impacts at station areas
- Low degree of service to local markets (depends on station locations)
- Requires mode transfer at Southeast Corridor
- Potential conflicts at highway ramps for shoulder alignment options; grade separations at each interchange are not feasible.
- Grade-seperated option to avoid conflicts at highway ramps would not be affordable

Interim Recommendations:

- Advance Option A, median alignment, for further consideration.
- Options B & C (shoulder alignments) are not recommended for advancement.

Summary Rating for the I-225 Corridor:

Transportation Act of 1966. This protection allows the use of parkland only if there is no feasible and prudent alternative to the use. In this case, a feasible alternative is to relocate the station overlap area, perhaps to the Dayton site previously identified during the *Southeast Corridor MIS*. The consultant team recommends that the need for an alternate interface site be referred to the *Southeast Corridor EIS* team for detailed evaluation. Including this alternate interface site in EIS-level planning and evaluation will preclude a major future conflict if commuter rail is selected by the I-225 Corridor MIS process. The I-225 MIS team will also address this issue during the detailed evaluation phase.

Personal Rapid Transit (PRT)

PRT was reviewed for its potential as a circulator/distributor in the corridor (**see Figure 3-29**). Key findings are identified below.

- The two pending locations for construction of PRT in the United States will employ PRT in a circulator/distributor mode, which the consultant team feels is consistent with the foreseeable potential of this technology.

- Providing distributor/circulator systems at activity centers along the corridor, such as Gateway, Fitzsimons, Aurora Mall/Center, or the Denver Tech Center (DTC), is very likely to increase utilization of various transit modes (bus or rail) using the I-225 right-of-way.

Distributor/circulator systems at activity centers are important for both peak period trip-making and mid-day trips. Experience has shown that the need to make trips in the non-peak and (especially) mid-day periods are a key factor in the decision of whether to use transit. To the extent that such trips could be made or facilitated by distributor/circulator service, PRT is likely to enhance the potential for a transit mode choice by travelers.

Alternatives Advanced to Detailed Evaluation

At the conclusion of the conceptual screening process, five alternatives were recommended for advancement to the detailed evaluation process. These recommendations were presented to the project's Citizen Consultation Group (CCG), Technical Advisory Committee (TAC), and Policy Advisory Committee (PAC) for input, guidance, and direction. Furthermore, the RTD Board of Directors was briefed on the status of the project and the recommended alternatives to be advanced to the detailed evaluation of alternatives. All input received was favorable.

The five alternatives to be advanced to detailed evaluation include:

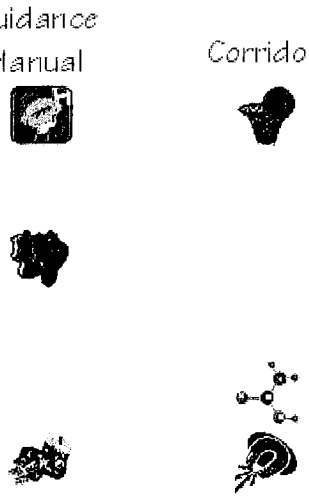
- No Action
- Transportation Management
- Freeway Lane Additions (8-lane)
- LRT in median
- Commuter Rail in median

Figure 3-29: Personal Rapid Transit Alternative

I-225 MAJOR INVESTMENT STUDY

TRANSPORTATION ALTERNATIVES
Personal Rapid Transit (PRT)

Which Criteria Does It Meet?



How Does It Stack Up?

Advantages

- Moderate to highly consistent with Regional and Corridor goals and policies
- High service to local markets as a distributor service
- High connectivity to distribution markets

Disadvantages

- Not affordable as a line haul service
- Low likelihood to improve mobility as a line haul service
- Potential community and visual impacts due to elevated guideway
- As an emerging technology, not proven to serve large markets
- Distributor system does not serve regional markets
- Requires mode change to connect to Southeast and East Corridors
- Difficult and costly transition from elevated system to atgrade system at Southeast and East Corridor nodes

Interim Recommendations:

- Advance for further consideration as a distributor system

Summary Rating for the I-225 Corridor:

SECTION 4: DETAILED EVALUATION

The detailed evaluation phase provides additional definition for each of the alternatives, including more definitive alignments and generalized station locations. Cost estimates were developed to better differentiate between alternatives, as were the development of ridership forecasts. Information to address community and environmental impacts that may be associated with each of these detailed alternatives was also prepared.

These detailed evaluation efforts were presented to the project's three advisory committees, the general public, and the RTD Board of Directors. At the conclusion of the detailed evaluation process, a recommendation was forwarded to the RTD Board of Directors for the selection of a locally preferred alternative.

All detailed level alternatives were evaluated using criteria in RTD's *MIS Guidance Manual.* This manual provided the consultant teams with a consistent set of criteria to evaluate their respective MIS projects.

Description of Alternatives

The five I-225 alternatives carried forward into detailed evaluation include:

- No Action
- Transportation Management
- Freeway Lane Additions (8-lane)
- LRT in median
- Commuter Rail in median

The following pages contain a description of each alternative.

Alternative 1 - No Action

This option includes only those changes which would be made without this project. These are already in progress or approved.

Freeway Section: 6 lanes plus an auxiliary lane between the interchanges from Parker to Smith.

- Parker to 6th: A six-lane freeway widening project is currently under design. This section will have three 12' lanes, a 12' auxiliary lane, and 12' inside and outside shoulders on either side of a 60' median. As part of this project the bridges at Yale, Iliff, Alameda, 2nd and 6th will be replaced.
- 6th to Smith: A six-lane freeway section is currently in place.

Interchanges:

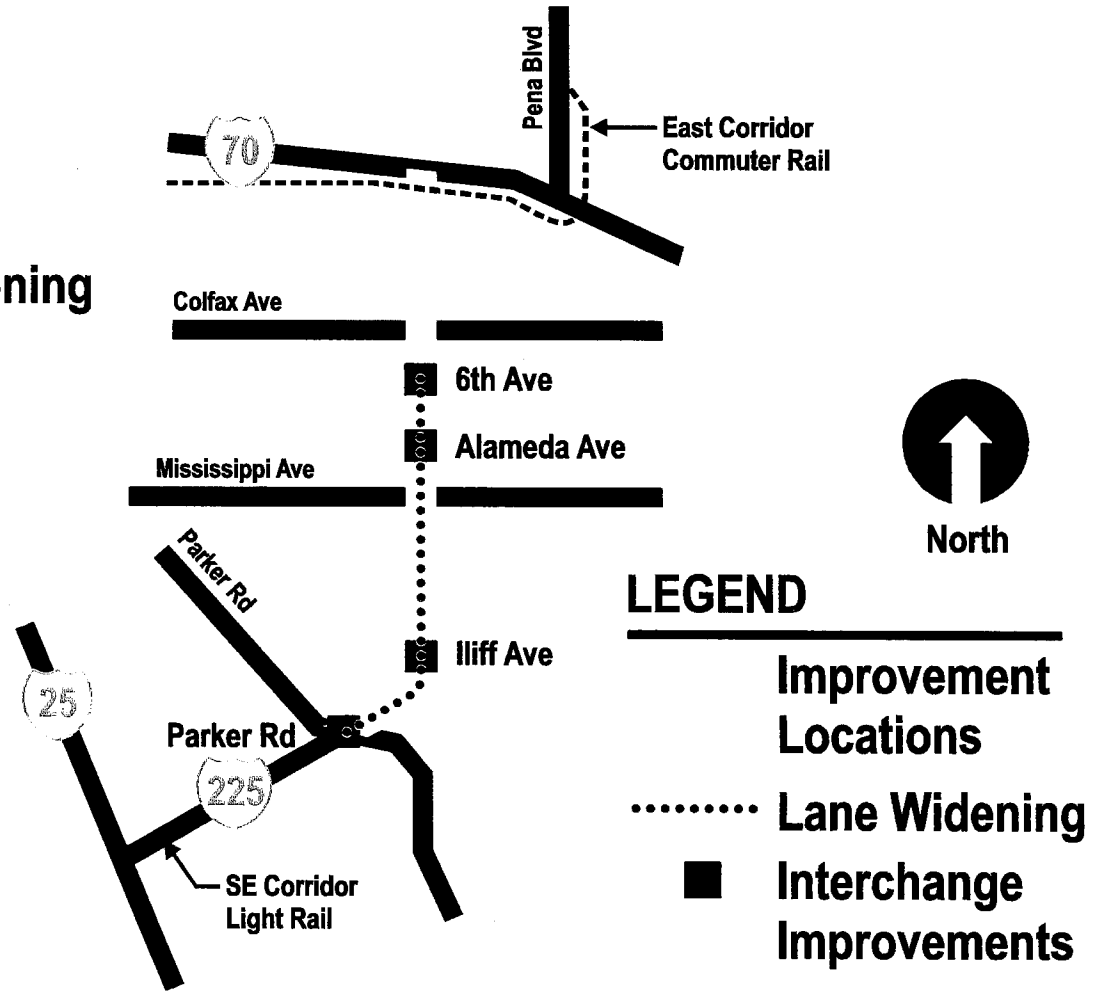
- Parker Road: An improved interchange has been designed, which adds several direct connector ramps and widens Parker Road through the interchange. Construction of phases I & II of this project has already begun. Phase III construction went to bid in December 1999.
- Iliff Avenue: An improved interchange has been approved. The new interchange relocates the northbound off-ramp and adds a new eastbound/northbound loop ramp. Preliminary design of this interchange began in 2000.
- Alameda Avenue: A new single point urban interchange offset (offset with traffic signals) to the east side of I-225 opened in 2000. This project relocated the Abilene/Alameda intersection to the east of its former location.

Other Improvements:

- Abilene Street: Construct southbound left turn lane from Jewell to Mississippi (completed 1999).
- Peoria Bridge at Sand Creek: Widen from 4 to 6 lanes (completed 2001).
- Potomac from Colfax to 17th: Add curb and gutter, sidewalk, widen and reconstruct pavement (completed 2000).
- Chambers Road from 40th to 56th: Widen from 2 to 4 lanes, add median left turn lane from 40th to 56th and add new traffic signals at 40th Avenue, 48th Avenue, and 56th Avenue (design phase in 1999).

Figure 4-1: No Action

- **Project Length: 8 Miles**
- **Improvements:**
  - Parker to 6th-Six lane Widening
  - Reconstruct or Upgrade Interchanges
    - Parker Road
    - Iliff Avenue
    - Alameda Avenue
    - 6th Avenue
  - Auxiliary Lanes
  - Utilize Existing ITS



Alternative 2 - Transportation Management / Enhanced Bus

New or Relocated park-n-Rides:

- Relocate Olympic park-n-Ride to I-225/Iliff Avenue.
- Relocate/expand Fitzsimons park-n-Ride.

Ramp metering and High-Occupancy Vehicle (HOV) queue by-pass lanes:

- Add ramp meters to unmonitored freeway ramps in the corridor.
- Add HOV queue by-pass lanes to all freeway ramps along I-225 to provide HOV with priority treatment.

Intelligent Transportation Systems (ITS):

- Advanced Transportation Management System (ATMS) – technologies to measure real time I-225 volumes and speed, and parking utilization of park-n-ride lots.
- Advanced Transportation Information Systems (ATIS) – variable message signs along I-225 (2 northbound and 2 southbound) which report traffic conditions and park-n-ride parking availability.

Expanded Transit Service:

- Enhanced existing transit service, including increased frequency of service and expanded hours of operation.
- New service – add new transit routes including new service to and between, Aurora Mall/City Center, Fitzsimons, Gateway Center, and DTC.

Transportation Management Organizations (TMOs):

TMOs are organizations to assist employers and employees in managing transportation demand. Locations include Aurora Mall/City Center, Fitzsimons, and Gateway Centers. Services include:

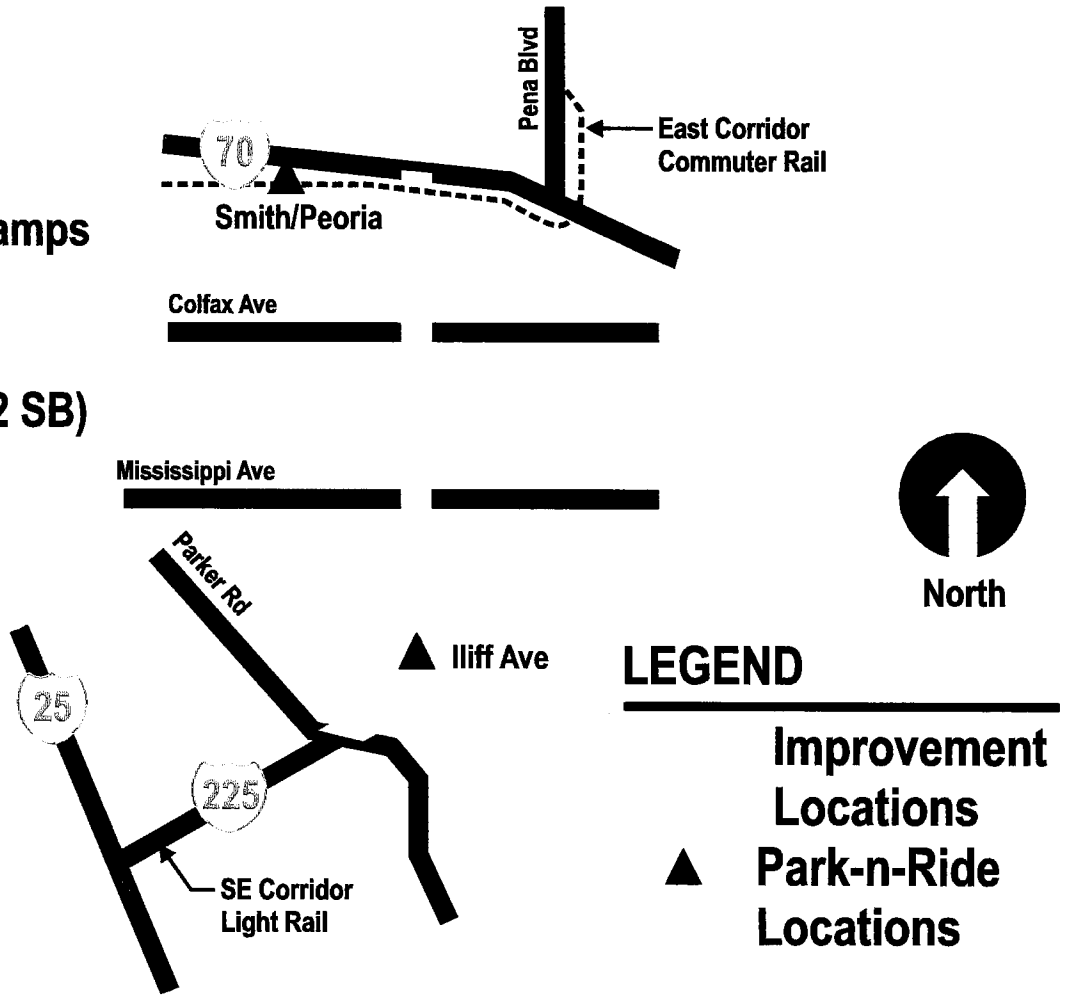
- Marketing
- Telecommute centers
- Ride-matching services
- Facilitate vanpools
- Subsidize transit passes and/or guaranteed ride home

Trails to Transit:

- Connections between bike trails and transit stops and park-n-ride transit centers.

Figure 4-2: Transportation Management / Enhanced Bus

- Project Length: 8 Miles
- Includes No Action Alternative Improvements
- HOV By-pass Lanes Added to Ramps
- ATMS: Measure Traffic Volume, Speed, & Parking Utilization
- Variable Message Signs (2 NB / 2 SB)
- Increased Bus Frequency/ Hours of Service
- New Bus Service
- Develop Transportation Management Organization
- New Park-n-Rides at
  - Smith/Peoria
  - Iliff Avenue
- Cost: $42 million



Alternative 3 – Freeway Widening

Freeway Section: 8 lanes plus an auxiliary lane between the interchanges from Parker to Smith.

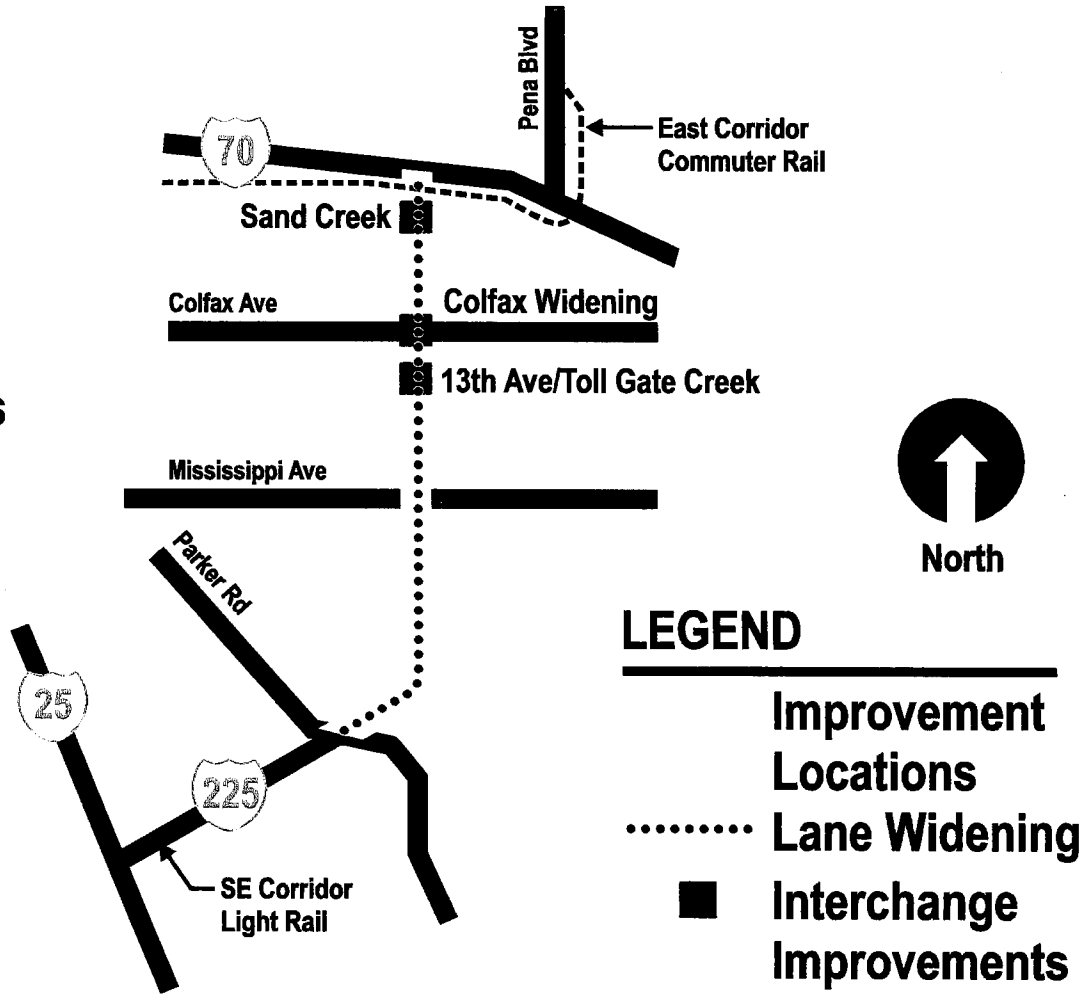
- Parker to 6th: The existing 6 lane section will be widened to 8 lanes by adding 12' of new pavement on either side of the median. The existing 12' shoulder will become the new lane and the new pavement will serve as the new inside shoulders.
- 6th to Smith: The existing 6 lane section will be widened to 8 lanes by converting the auxiliary lanes to through lanes, converting the outside shoulder to an auxiliary lane and adding a new 12' outside shoulder.

Structures:

- Parker Road: The proposed interchange will build structures for the six-lane section. The CH2M Hill design for this structure includes future expansion for four additional lanes inside the existing structure. In order to accommodate an eight lane section one additional lane will need to be constructed on each side of the existing structure.
- Yale, Iliff, Mississippi, Alameda, and 2nd: The six lane widening project will reconstruct these structures to accommodate an eight lane section. No additional adjustments will be necessary.
- 6th Avenue: CDOT will replace this structure with the six lane widening project should funding be available. If it is not replaced, it will need to be completely replaced for the eight lane section.
- Toll Gate Creek, 13th, Colfax: These structures will all need to be widened by 12' to the outside to accommodate the eight lane section. All three of these structures are cast-in-place concrete structures and can easily be widened.
- Sable Ditch: The existing box culvert will be sufficient for the eight lane section. No additional adjustments will be required.
- Sand Creek: The existing six lane structure was designed for expansion to ten lanes. In order to accommodate the eight lane section this structure will need to be widened by 12' to the outside of the existing structure.
- Smith Road: The existing structure has eight lanes. No additional adjustments will be required.

Figure 4-3: Freeway Widening

- **Project Length: 8 Miles**
- **Includes No Action Alternative Improvements**
- **Parker to I-70: 6-lane Freeway Widened to 8 Lanes**
- **Widen Structures at:**
  - Sand Creek
  - Toll Gate Creek
  - Colfax Avenue
  - 13th Avenue
- **Cost: $28 million**



Alternative 4 - Light Rail Transit (LRT)

Base Alignment: LRT in I-225 median from Parker Road to Smith Road.

- This LRT alignment begins as a continuation of the Southeast Corridor LRT line at Parker Road/I-225.
- The LRT line continues in the median of I-225, passing under Yale and over Iliff to a median station located at Iliff.
- North of Iliff the LRT line continues in the median passing under Mississippi to a median station located near the Aurora Mall and Exposition.
- The LRT line continues north of the Aurora Mall passing under Alameda, over Highland Canal and continuing to a median station located at 4th.
- The LRT line continues in the median over 6th, over Toll Gate Creek and over Colfax to a median station located north of Colfax and near the existing park-n-ride facility at Colfax and Potomac.
- North of Colfax the LRT line continues in the median over Sand Creek to a terminal station located in the median of I-225 over Smith Road and the East Corridor Commuter Rail line.

Option 1: LRT slides to east side at Aurora City Center Station.

- North of Mississippi the LRT line passes over the northbound I-225 lanes to slide out of the median to the east side of I-225.
- Once out of the I-225 median the LRT line returns to at-grade and continues northeast around the east side of the Aurora Mall to a station near Alameda.
- North of Alameda the LRT line turns northwest, cutting back toward I-225 to a station located near Abilene and 4th.
- LRT line then passes over the northbound I-225 lanes and re-enters the median prior to 6th.

Option 2: LRT slides to west side at Colfax, crosses through Fitzsimons and ends at a terminal station at Smith Road and Peoria.

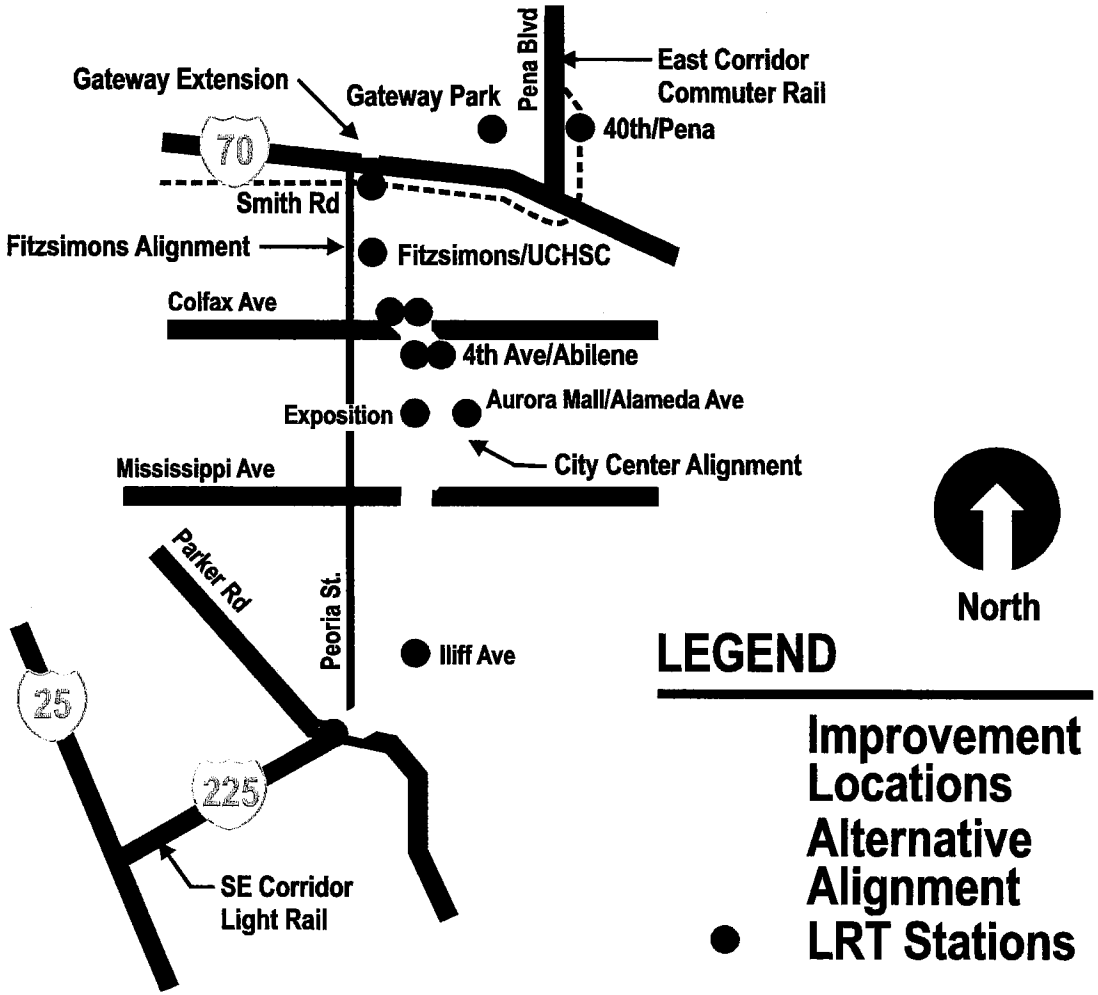
- South of Colfax the LRT line passes over southbound I-225 from the median to west side.
- The LRT line continues over Colfax to a station near the existing park-n-ride facility.
- North of the station the LRT line runs parallel to Toll Gate Creek and then turns to the west through Fitzsimons to a station located near the center of Fitzsimons.
- The LRT line continues through Fitzsimons to Peoria and turns to the north along the east side of Peoria to a station near the northwest corner of Fitzsimons.
- The LRT line continues along the east side of Peoria to a terminal station located south of Smith and east of Peoria.

Option 3: LRT continues north of Smith Road to 40th and Pena

- From either the Smith/Peoria or Smith/I-225 station the LRT line continues north to I-70.
- The LRT line crosses over I-70 and turns to the east, paralleling 40th to a station located near Montebello and the Gateway Park's western end.
- The LRT line continues east to a terminal station at the proposed 40th and Pena East Corridor Commuter Rail station.

Figure 4-4: Light Rail Transit

- **Project Length: 8-11 Miles**
- **Includes No Action Alternative Improvements**
- **Base Station Locations**
  - Parker Road
  - Iliff Avenue
  - Exposition Avenue
  - 4th Avenue/Abilene
  - Colfax Avenue
  - Fitzsimons/UCHSC
  - Smith Road
- **Optional Stations**
  - Gateway Park
  - 40th Avenue/Pena Blvd.
  - Alameda Avenue (instead of Exposition)
    - Centerpoint Drive
    - Cedar Avenue
- **Service Frequency**
  - Peak: 8/hour/direction
  - Base: 4/hour/direction



Alternative 5 - Commuter Rail (Diesel Multiple Unit – DMU)

The Commuter Rail alternative has been further defined as using Diesel Multiple Unit (DMU) technology; traditional push/pull operations with a locomotive are no longer being considered.

Base Alignment: DMU in I-225 median from Parker Road to Smith Road.

- This DMU alignment begins as a continuation of the Southeast Corridor LRT line at Parker Road/I-225.
- The DMU line continues in the median of I-225, passing under Yale and over Iliff to a median station located at Iliff.
- North of Iliff the DMU line continues in the median passing under Mississippi to a median station located near the Aurora Mall and Exposition.
- The DMU line continues north of the Aurora Mall passing under Alameda, over Highland Canal and continuing to a median station located at 4th.
- The DMU line continues in the median over 6th, over Toll Gate Creek and over Colfax to a median station located north of Colfax and near the existing park-n-ride facility at Colfax and Potomac.
- North of Colfax the DMU line continues in the median over Sand Creek to a terminal station located in the median of I-225 over Smith Road and the East Corridor Commuter Rail line.

Option 1: DMU slides to east side at Aurora City Center Station.

- North of Mississippi the DMU line passes over the northbound I-225 lanes to slide out of the median to the east side of I-225.
- Once out of the I-225 median the DMU line returns to grade level and continues northeast around the eastern side of the Aurora Mall to a station near Alameda.
- North of Alameda the DMU line turns northwest cutting back towards I-225 to a station located near Abilene and 4th.
- The DMU line then passes over the northbound I-225 lanes and re-enters the I-225 median prior to 6th.

Option 2: DMU slides to the western side at Colfax, crosses through Fitzsimons and ends at a terminal station at Smith Road and Peoria.

- South of Colfax the DMU line passes over southbound I-225 to slide out of the median to the west side.
- The DMU line continues over Colfax to a station near the existing park-n-ride facility.
- North of the station the DMU line runs parallel to Toll Gate Creek and then turns to the west through Fitzsimons to a station located near the center of Fitzsimons.
- The DMU line continues through Fitzsimons to Peoria and turns to the north along the eastern side of Peoria to a station near the northwest corner of Fitzsimons.
- The DMU line continues along the east side of Peoria to a terminal station located south of Smith and east of Peoria.

Option 3: DMU continues north of Smith Road to 40th and Pena

- From either the Smith/Peoria or Smith/I-225 station the DMU line continues north to I-70.

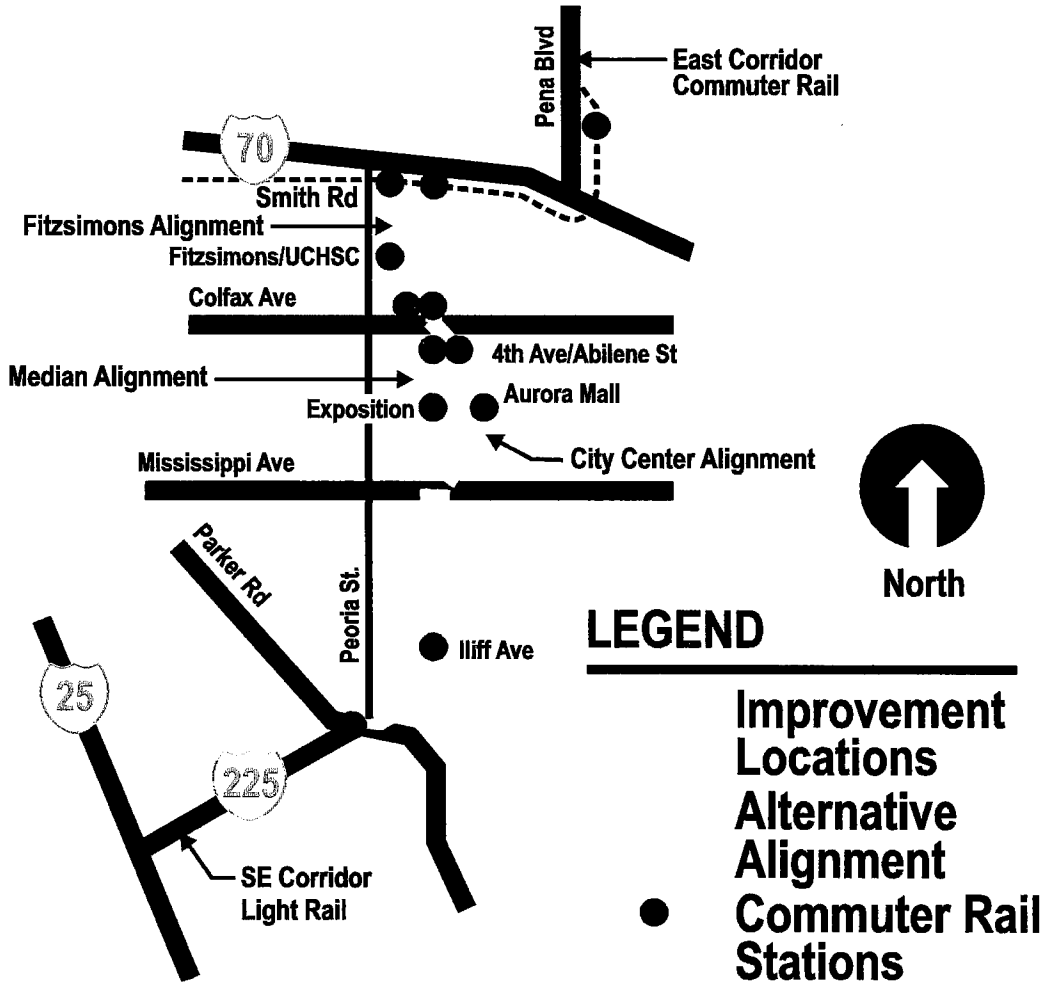
- The DMU line crosses over I-70 and turns to the east paralleling 40th, to a station located near Montebello and the western end of Gateway Park.
- The DMU line continues to the east to a terminal station at the proposed 40th and Pena East Corridor Commuter Rail station.

Option 4: Reduced set of DMU stations

- For any of the above options the line can operate like traditional commuter rail by increasing the station spacing. This would be accomplished by eliminating the station at Iliff and reducing the number of stations at Aurora City Center and Fitzsimons from three to one.

Figure 4-5: Commuter Rail (DMU)

- **Project Length: 8 Miles**
- **Includes No Action Alternative Improvements**
- **Base Station Locations**
  - Parker Road
  - Iliff Avenue
  - Exposition
  - 4th Avenue/Abilene Street
  - Colfax Avenue
  - Smith Road
- **Optional Stations**
  - Aurora Mall
  - Fitzsimons/UCHSC
- **Service to be Interlined with Southeast & East Corridors**
- **Service Frequency**
  - Peak: 4/hour/direction
  - Base: 2/hour/direction



Detailed Evaluation

The alternatives described in Section 2 were advanced to the Detailed Evaluation phase of the MIS. The first round of detailed evaluation, completed in June/July 1999, addressed each of these alternatives. At the conclusion of this review, the following action was taken:

- **The Commuter Rail (DMU) alternative was eliminated from further consideration.** The DMU alternative cost approximately the same as the LRT alternative but could transport only half as many passengers due to differing headway constraints imposed by the Southeast Corridor and East Corridor operations. The Southeast Corridor LRT line will operate with 7.5 minute headways in the peak hour, while the East Corridor DMU line will operate with 20 minute peak hour headways. Various alternatives were investigated in trying to arrive at a DMU operating plan in the I-225 Corridor that could "bridge" between the two adjoining corridors. No acceptable solution was identified that would satisfy all stakeholders. One possible solution that was identified was to adjust the East Corridor operation from a 20 minute headway to a 15 minute headway operation between Denver Union Terminal (DUT) and I-225, with alternate trains heading toward Denver International Airport (DIA) and south on I-225. However, this was not acceptable to the City of Denver representatives because it resulted in an effective 30 minute service frequency between DUT and DIA, eroding its planned 20 minute service. Therefore, the DMU alternative was dropped from further consideration in the I-225 MIS due to its negative operation impacts on the adjacent corridors, particularly the East Corridor.

The results presented in this report reflect the revised population and employment data that was used in the second cycle of detailed evaluation (September 2000). Therefore, the alternatives that were carried into detailed evaluation included:

- **No Action**
- **Transportation Management/Enhanced Bus**
- **Freeway Widening**
- **Light Rail Transit (LRT) -** Four alternative alignments were considered to address design options that would potentially serve the Aurora City Center, the Fitzsimons/UCHSC campus, and the Gateway area. The base alignment (LRT 1) was modified during the first round of detailed evaluation (June/July 1999), eliminating the LRT alignment in the median of I-225 from Colfax to I-70. The subsequent base alignment was revised north of Colfax, passing through the Fitzsimons/UCHSC campus and along Peoria to Smith Road where it would intersect with the East Corridor commuter rail line. This alignment was preferred due to the service opportunity associated with the Fitzsimons/UCHSC campus.

  - **LRT 1 (M-F)**
    Median of I-225 Parker to Colfax, thru Fitzsimons, along Peoria to Smith Road.
  - **LRT 2 (M-F-G)**
    Median of I-225 Parker to Colfax with an extension north of I-70 along 40th through Gateway to 40th/Pena.

- **LRT 3 (M-CC-F)**
  Median of I-225 Parker to Exposition, thru Aurora City Center, thru Fitzsimons, along Peoria to Smith Road.
- **LRT 4 (M-CC-F-G)**
  Median of I-225 to Exposition, City Center, Fitzsimons, and Gateway.

Evaluation Criteria

A clear understanding of the criteria used to evaluate the alternatives is critical for a meaningful interpretation of the results. RTD's Guidance Manual provides the basis for developing the detailed evaluation criteria, which are categorized into four general areas:

- Cost Measures
- Effectiveness
- Cost-Effectiveness
- Community and Environmental Impacts

Each of these general categories, their supporting criteria, and the results of the criteria are defined in the following presentation of results.

Results of Detailed Evaluation

A summary of the results is given below for each of the criteria.

Cost Measures

Below are the six cost measures examined in the detailed evaluation.

- Capital Cost
- Operation and Maintenance Costs
- Total Annual Cost
- Construction Costs
- Right-of-Way Costs
- Vehicle Costs

Capital Cost

Capital cost is the amount of investment required to construct an alternative. Capital costs include elements such as excavation, new pavements, drainage, lighting, and signage for freeway alternatives and trackwork, signalization, electrification, communications systems, and vehicles for the rail alternatives. Capital cost estimates are based on the unit costs (prices for specific quantities of materials and labor) provided in the RTD Guidance manual. **Table 4-1** displays the capital cost estimates for the build alternatives.

The total capital and annual capital costs for the TM and freeway alternatives are significantly less than the costs for the LRT alternatives. This occurs because the TM and freeway alternatives are making improvements to the existing transportation network. The capital costs for the LRT alternatives are much greater since they add new facilities to the network, such as track and stations.

Table 4-1: Total Capital Cost

2020 Model	Capital Costs (1997$)	
	Total Capital Costs	Annual Capital Costs
2020 RTP (No Action)	$0	$0
Transportation Management	$42,425,446	$3,458,711
Eight Lane Freeway*	$28,566,983	$2,313,926
LRT 1 (M-F)	$297,830,201	$24,177,089
LRT 2 (M-F-G)	$434,587,499	$35,171,895
LRT 3 (M-CC-F)	$332,874,336	$26,981,217
LRT 4 (M-CC-F-G)	$469,831,634	$37,990,022

* Capital costs for the freeway alternative do not include improvements to I-225/I-25 interchange area.