DRAFT

I-25 New Pueblo Freeway Alternatives Analysis and Project Development Report

Prepared for

Colorado Department of Transportation

Prepared by

CH2MHILL

May 2002

Contents

List of Exhibits

Acronyms

I-25	Interstate I-25
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and the Environment
CWG	Community Working Groups
FHWA	Federal Highway Administration
HOV	High Occupancy Vehicle
LOS	Level of Service
NAFTA	North American Free Trade Act
NEPA	National Environmental Policy Act
OH	Open House Meeting
PACOG	Pueblo Area Council of Governments
PLT	Project Leadership Team
SH	State Highway
TIP	Transportation Improvement Program
TLT	Technical Leadership Team
TSM/TDM	Transportation Systems Management and Transportation Demand Management

SECTION 1.0

Introduction and Project Background

SECTION 1.0

Introduction and Project Background

1.1 Introduction

I-25 is a north-south freeway extending from the border of Mexico to Canada north through the central areas of New Mexico, Colorado, and Wyoming. The route serves as a strategic international corridor under the North American Free Trade Act (NAFTA).

Pueblo is the largest city in southern Colorado and is the only available source of many services required in the southern portion of the state. State Highway (SH) 50 is a major route serving east-west traffic and provides access to I-25 from east and west. No state highways or major routes provide a north-south alternative to I-25.

Interstate 25 (I-25) through the City of Pueblo is among the oldest segments of the interstate system in Colorado. This segment of I-25 was constructed between 1949 and 1959 and actually predates the National Interstate Program. Exhibit 1-1 shows the project area, which extends from Stem Beach (Mile Post 90) at the south end of the city to the 29th Street interchange (Mile Post 100) on the north, a distance of approximately 10 miles. Only a few improvements have been made to this segment of I-25, further indicating that this segment through Pueblo is reaching and in some cases has exceeded its service life.

Because the economic vitality of the City of Pueblo is connected to I-25, it is essential to address the deteriorating condition of this segment of the interstate. The City recently invested significant resources to restore the historic downtown area by adding attractions, such as a performing arts center, the new library campus, children's museum, convention center, and a river park and walkway near the Arkansas River. The business area and buildings have undergone significant restoration and reuse as office buildings and stores. The success of these investments is directly dependent on quality accessibility for local and out-of-town trips.

Urbanization of the county surrounding the City of Pueblo is evidenced by the development of Pueblo West, a planned development west of the City of Pueblo. The population of Pueblo West is nearing 16,000.

The Colorado Department of Transportation (CDOT) has conducted a scoping study and, as a result, is evaluating improvements to segments of I-25 through the City of Pueblo and Pueblo County. The project is included in the 20-year Statewide Transportation Plan. Funds are included in the Pueblo Area Council of Governments (PACOG) Transportation Improvement Program (TIP), a 6-year program of projects. At this time, there are no CDOT funds designated for the study area in the 6-year TIP.

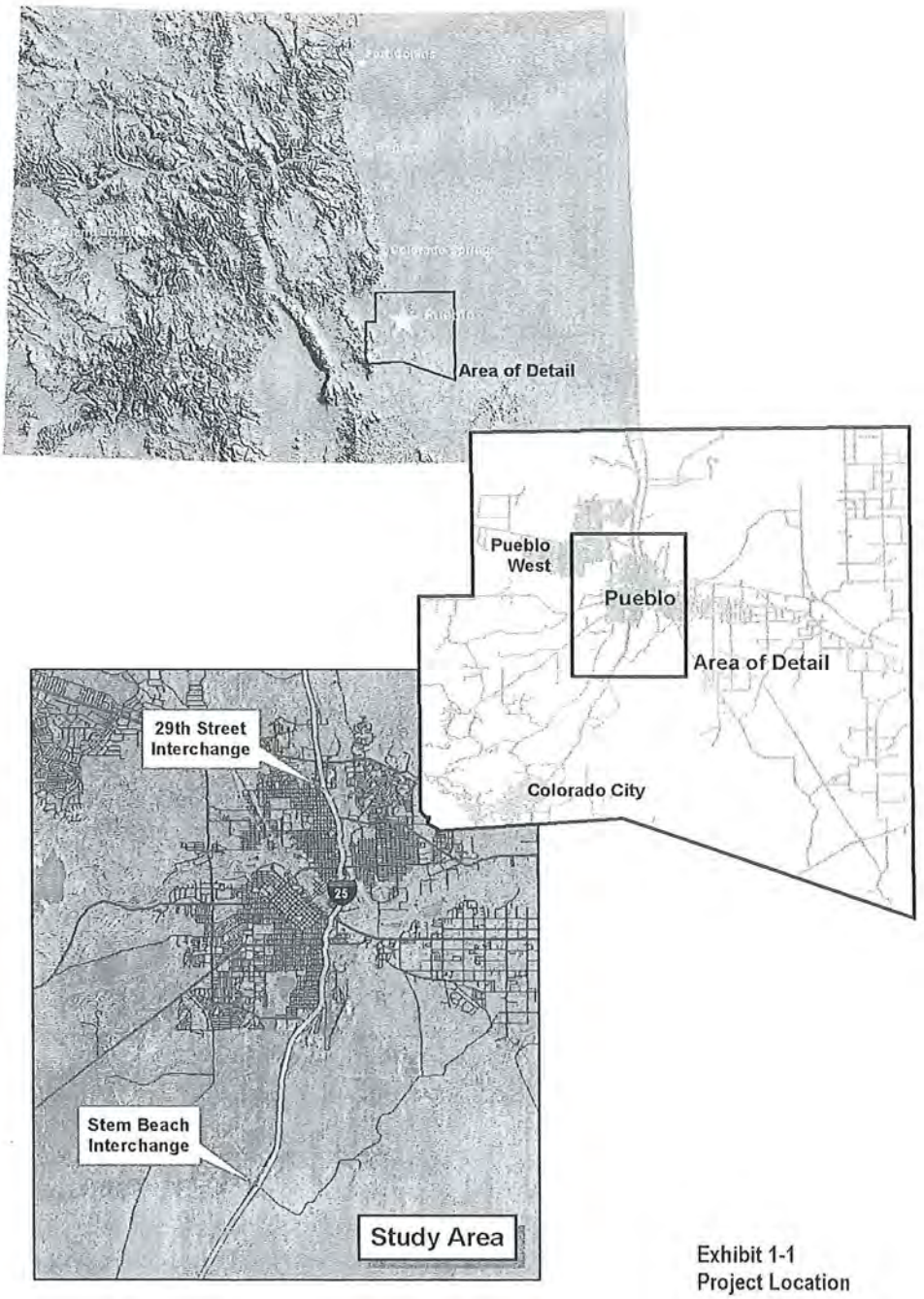


Exhibit 1-1
Project Location

CDOT has given high priority to this project and is actively pursuing construction funds.

The area encompassing the City and the County of Pueblo is designated as an Air Quality Attainment Area, meaning that the City and County are in conformance with State standards for air quality in all categories. This is monitored continually by the Colorado Department of Public Health and the Environment (CDPHE).

1.2 Purpose

CDOT's purpose for the project is to improve safety, address structural and geometric deficiencies, and increase the capacity and mobility of trips on I-25 through the City and County of Pueblo.

Further, the improvements must provide a connectivity to the local network, through a series of interchanges that connect with major east-west arterials. This connectivity, combined with improvements to the local network, will result in a better distribution of trips by purpose, local trips on local streets, and regional trips on I-25.

1.3 Need

Construction of I-25 through the City of Pueblo began in 1949. The roadway was largely constructed before the interstate system had been created. As a result, this segment of I-25 contains structural and operational deficiencies. These deficiencies are being exhibited through high accident rates, areas of reduced speed, segments with congestion, and poor level-of-service.

1.3.1 Safety

The vertical and horizontal alignment of I-25 when combined with the frequency of interchanges, lack of adequate ramp distances at interchanges, narrow shoulders, and increasing car and truck traffic, has resulted in high accident rates along the corridor, in particular at interchanges.

The City of Pueblo has no continuous north-south arterials within its network to divert traffic during emergencies on I-25. On July 27, 1994, the City experienced an accident on I-25, near the Ilex interchange, in which a truck carrying hazardous materials turned over and spilled its contents. The accident paralyzed the city for an extensive time because traffic on the freeway could not be diverted.

Accident Rates

Accident rates along the corridor have been analyzed to correlate geometric features, signing, ramp locations, and clear zone obstructions to the safety of the roadway. Accidents are typically caused by a combination of several elements, including the human element, the vehicle element, and the highway element. A safe highway is one that has been designed so that a driver need make only one decision at a time and is not surprised by an unexpected situation where a decision must be made quickly.

Exhibit 1-2 summarizes the criteria used to evaluate individual segments of the I-25 corridor. Evaluation criteria were developed based on the most current information

available from CDOT at the writing of this report. Total accidents per million vehicle-miles of travel for calendar year 1997 along both rural and urban interstates in Colorado are 1.11 and 2.02, respectively.

EXHIBIT 1-2
Evaluation Criteria for Accident Rates

Classification	Total Accidents per Million Vehicle-Miles of Travel		
	Good	Fair	Poor
Rural	Less than 0.83	0.83 to 1.28	Greater than 1.28
Urban	Less than 1.55	1.55 to 2.59	Greater than 2.59

Source: CDOT.

The roadway between the Stem Beach interchange and the Pueblo Boulevard interchange is considered rural; the remainder of the corridor is urban.

Exhibit 1-3 shows accident rates and a Good, Fair, or Poor rating for each of the 10 segments of I-25 through Pueblo. The information is provided for the northbound side and the southbound side separately for each segment. This information is documented in the *Evaluation of Existing Conditions* report provided in Appendix A.

EXHIBIT 1-3
Accident Rates

I-25 Segment	Northbound (NB)/ Southbound (SB)	Accident Rate	Evaluation Rating
Stem Beach to Pueblo Boulevard	NB	0.9	Fair
	SB	0.76	Good
Pueblo Boulevard to Indiana Avenue	NB	1.84	Fair
	SB	1.47	Good
Indiana Avenue to Central Avenue	NB	1.51	Good
	SB	1.28	Good
Central Avenue to Abriendo Avenue	NB	5.79	Poor
	SB	1.43	Good
Abriendo Avenue to Ilex Street	NB	3.03	Poor
	SB	3.48	Poor
Ilex Street to 1st Street	NB	2.58	Fair
	SB	5.16	Poor
1st Street to 5th Street	NB	2.61	Poor
	SB	2.61	Poor
5th Street to 13th Street	NB	3.36	Poor
	SB	1.68	Fair
13th Street to SH 50B Street	NB	.97	Good
	SB	1.50	Good
SH 50B to 29th	NB	4.90	Poor
	SB	4.27	Poor

Source: CDOT

Of the 20 segments listed, nine have an overall rating of Poor, four are Fair, and only seven have a Good safety rating.

1.3.2 Structural and Geometric Deficiencies

I-25 through the City of Pueblo is among the oldest segments of the interstate system in Colorado, having been constructed between 1949 and 1959. Only a few improvements have been made to this segment of I-25, and it is reaching and in some areas has exceeded its service life. Deficiencies relating to the age of the interstate include the following:

- Aging bridges have inadequate bridge sufficiency ratings.
- Curves have maneuvering speeds lower than the posted speed and the average operating speed.
- Segments have below standard lane width.
- Segments have shoulders too narrow to accommodate a disabled vehicle.
- Ramps have inadequate length to reduce speed safely for maneuvering on the ramp or for stopping at the end of the ramp.

Bridge Deficiencies

CDOT has assigned Bridge Sufficiency Ratings to structures on all State Highways. Based on evaluations by the CDOT engineers, of the 34 existing bridges in the study area, 18 bridges are considered functionally obsolete. In addition, the Bridge Sufficiency Ratings indicate 32 of the total 34 structures are at levels below 80, meaning they are eligible for replacement with federal funds. Exhibit 1-4 provides the complete Structure Inventory for the I-25 Pueblo corridor.

EXHIBIT 1-4
I-25 Pueblo South Structure Inventory

Location	Structure No.	Intersection Feature	Year Built	Year Widened	Sufficiency Rating	Integrity
90.5	L-18-AZ	Lime Road	1963			
92.321	L-18-BY	Abandoned Railroad	1963		92.7	Functionally Obsolete
92.322	L-18-BZ	Abandoned Railroad	1963		92.7	Functionally Obsolete
92.340	L-18-K	Salt Creek	1931		90.9	No Deficiencies
92.759	L-18-BC	Salt Creek	1963		94.1	No Deficiencies
92.758	L-18-BB	Salt Creek	1963		96.1	No Deficiencies
92.839	L-18-J	Rocky Mountain Steel Water Lines	1931		84.9	No Deficiencies
92.900	L-18-AX	Rocky Mountain Steel Water Lines	1963		75.3	Functionally Obsolete
92.901	L-18-AY	Rocky Mountain Steel Water Lines	1963		75.3	Functionally Obsolete
94.769	L-18-BA	SH 45, Pueblo Boulevard	1963	1985	79.2	No Deficiencies
95.901	L-18-M	Indiana Avenue	1956		55.0	Functionally Obsolete
95.902	L-18-W	Indiana Avenue	1956		52.9	Functionally Obsolete
96.336	L-18-AS	Bessemer Ditch	1957		95.1	No Deficiencies
96.673	L-18-CD	Central Avenue	1970		99.6	No Deficiencies
96.809	L-18-AQ	Northern Avenue	1957		62.0	Functionally Obsolete
96.947	L-18-AU	Mesa Avenue	1957		76.3	Functionally Obsolete
97.447	L-18-AV	Eldorado Street (Abriendo Avenue)	1958		90.5	Functionally Obsolete
97.529	L-18-AW	Railroad	1958		N/A	Data not available
97.585	K-18-AJ	Arkansas River	1958		76.5	No Deficiencies

EXHIBIT 1-4
I-25 Pueblo South Structure Inventory

Location	Structure No.	Intersection Feature	Year Built	Year Widened	Sufficiency Rating	Integrity
97.691	K-18-AX	US 50	1958		61.2	Functionally Obsolete
97.692	K-18-AY	US 50	1958		61.2	Functionally Obsolete
97.909	K-18-CK	Railroad Ilex Street and Bennet Street	1959		52.6	No Deficiencies
97.910	K-18-CL	Railroad Ilex Street and Bennet Street	1959		39.3	No Deficiencies
98.225	K-18-CI	Railroad and Service Road	1959		67.7	No Deficiencies
98.226	K-18-CJ	Railroad and Service Road	1959		68.7	No Deficiencies
98.545	K-18-CN	1st Street	1959		61.9	Functionally Obsolete
98.546	K-18-CO	1st Street	1959		61.9	Functionally Obsolete
98.742	K-18-CR	SH 96	1959	1990	71.7	No Deficiencies
98.806	K-18-CT	5th Street	1959	1991	72.9	Functionally Obsolete
99.007	K-18-BV	8th Street	1928	1991	78.1	Functionally Obsolete
99.334	K-18-EN	13th Street	1975		91.8	Functionally Obsolete
99.950	K-18-J	US 50	1958		66.1	No Deficiencies
100.681	K-18-EA	29th Street	1960		66.9	Functionally Obsolete
100.682	K-18-EB	29th Street	1960		66.9	Functionally Obsolete

Interstate Deficiencies

At the time, I-25 was designed and constructed, no freeway standards had been established. Other constraints in the original design of I-25 were the railroad and Fountain Creek. The roadway was built through neighborhoods with minimal right-of-way. These constraints are now severe limitations to the operations on I-25 as traffic volumes continue to increase. Furthermore, design life refers to the fact that roadways and bridges are intended to serve traffic for periods of approximately 20 and 50 years, respectively. I-25 through Pueblo has exceeded its design life.

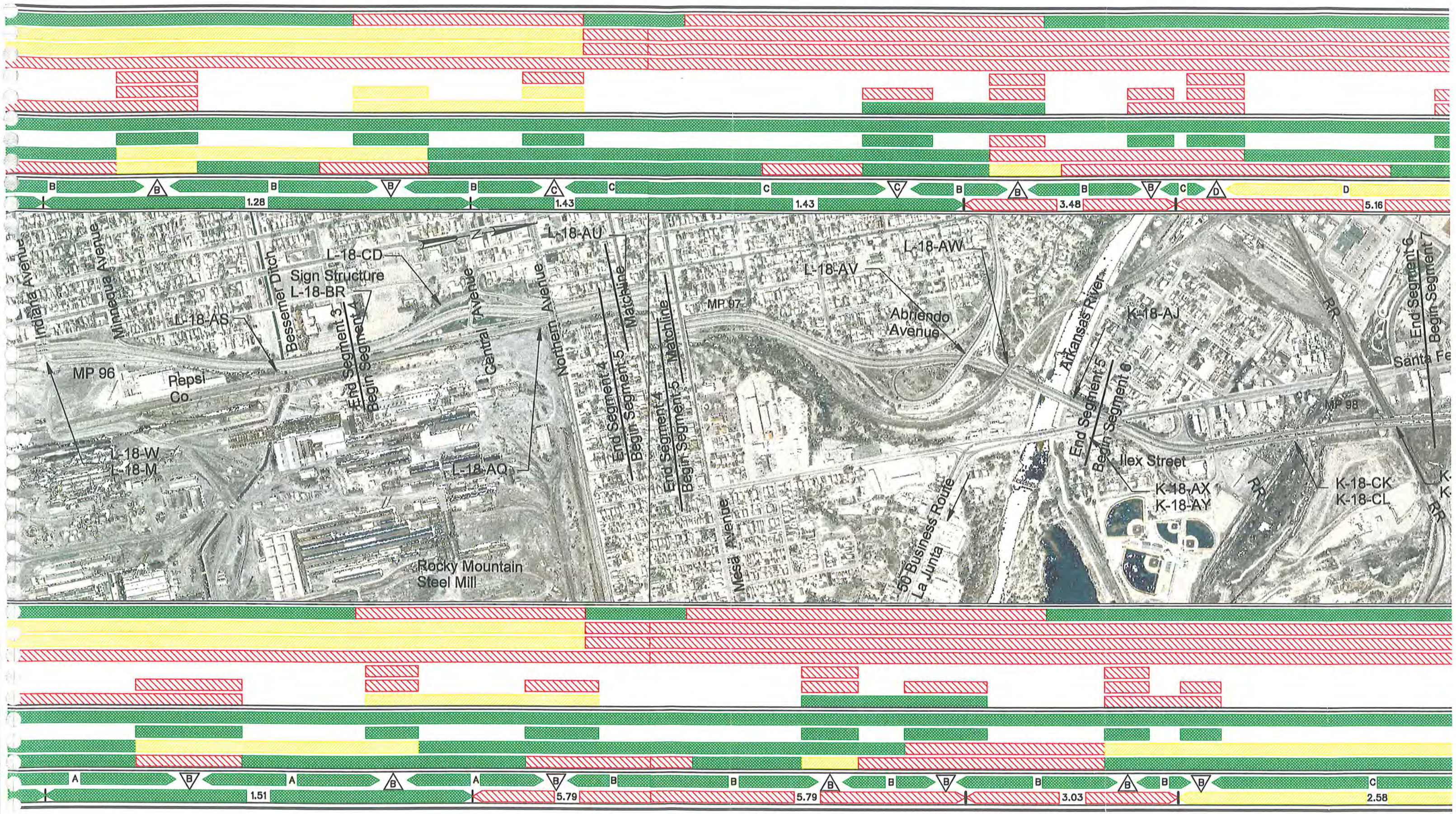
A current evaluation of the structural and operational deficiencies conducted by CH2M HILL is documented in *Evaluation of Existing Conditions* report. The results of the evaluation are shown on Exhibit 1-5 and visually demonstrate the areas with deficiencies. The entire report, *Evaluation of Existing Conditions*, is available under separate cover.

Service Life refers to the fact that roadways are designed to serve traffic for approximately 20 years and bridges are designed to serve traffic for 50 years. I-25 has passed its service life twice, and many of the bridges are now past their planned life. The evaluation was conducted by CH2M HILL and is documented in *Evaluation of Existing Conditions* (see Appendix A). The evaluation ratings for each segment of roadway are shown on figures in the report.

The result of the evaluation of existing conditions is a technically driven rating of Geometric Features, Operational Features, and Performance Measures for each travel direction of the interstate. The analysis is based on a comprehensive combination of field measurements, observation, research of original construction plans, Bridge Sufficiency Ratings, and accident rates.

EXHIBIT 1-5

EXISTING CONDITIONS

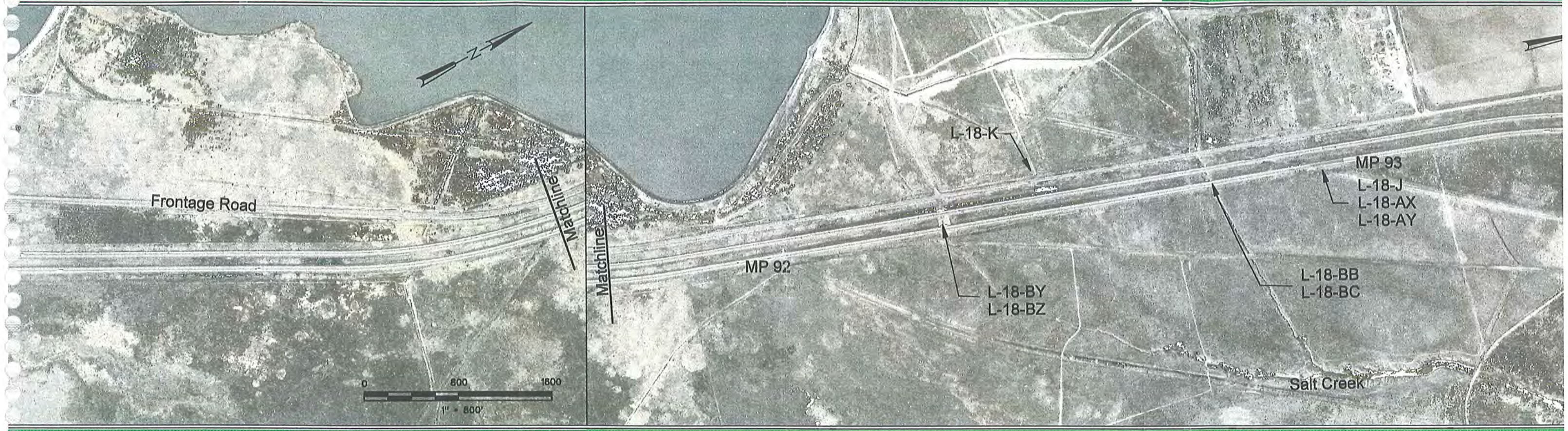

B B B B C C C C B B B B C D
1.28 1.43 1.43 3.48 5.16
Indiana Avenue
Minnequa Avenue
L-18-CD
Sign Structure
L-18-BR
Bessemer Ditch
L-18-AS
MP 96
Repsi
Co.
End Segment 3
Begin Segment 4
Central Avenue
Northern Avenue
L-18-AU
End Segment 4
Matchline
Begin Segment 5
L-18-W
L-18-M
L-18-AQ
Rocky Mountain
Steel Mill
L-18-AV
L-18-AW
MP 97
Abriendo
Avenue
End Segment 4
Matchline
Begin Segment 5
Mesa Avenue
50 Business Route
La Junta
Arkansas River
K-18-AJ
End Segment 5
Begin Segment 6
Ilex Street
K-18-AX
K-18-AY
RR
K-18-CK
K-18-CL
End Segment 6
Begin Segment 7
Santa Fe
MP 98
A A A B B B B B B B B B B C
1.51 5.79 5.79 3.03 2.58

A

0.76

A

0.76



7

A

A

0.90

0.90

A
A
A
B
B
B
B
B
0.76
1.47
1.47
0.68
Frontage Road
MP 94
I-25
Matchline
Sign Structure
L-18-CF
Pueblo City Limits
End Segment 1
Begin Segment 2
Pueblo Boulevard
Illinois Avenue
MP 95
Matchline
L-18-BA
Tailings
Matchline
Illinois Avenue
69kV
West Plains Energy
Free Many Substation
End Segment 2
Begin Segment 3
RR
RR
A
A
A
B
A
A
A
0.90
1.84
1.84
0.81

GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT	
	VERTICAL ALIGNMENT	
	STOPPING SIGHT DISTANCE	
	CROSS SECTION	
	DECISION SIGHT DISTANCE	
	EXIT AND ENTRANCE DESIGN	
	RAMP DESIGN	
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY	
	LANE BALANCE	
	RAMP SEQUENCE	
	SIGNING	
PERFORMANCE MEASURES	LEVEL OF SERVICE	A A A A
	ACCIDENT RATES	0.76

LEGEND

0.00 Total Accident Rate

C Exit Level of Service

A Entrance Level of Service

D Mainline Level of Service

GOOD

FAIR

POOR

N/A

GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT	
	VERTICAL ALIGNMENT	
	STOPPING SIGHT DISTANCE	
	CROSS SECTION	
	DECISION SIGHT DISTANCE	
	EXIT AND ENTRANCE DESIGN	
	RAMP DESIGN	
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY	
	LANE BALANCE	
	RAMP SEQUENCE	
	SIGNING	
PERFORMANCE MEASURES	LEVEL OF SERVICE	A A A A
	ACCIDENT RATES	0.90

The report shows predominantly Fair to Good ratings from Stem Beach to the southern Pueblo City limits. From the southern Pueblo City limits to 13th Street, the ratings deteriorate significantly to a rating of Poor in all three categories.

The segment from 13th Street to 29th Street contains the same roadway deficiencies as the corridor in the urban area to the south.

Interchange Deficiencies

The study corridor contains 12 interchanges, nine of which are within the 6-mile urban area. The average spacing between interchanges within the 6-mile urban segment is 0.53 mile.

The national design standard is a minimum spacing between interchanges of 1 mile in urban areas and 2 miles in rural areas. Minimum spacing of interchanges is determined based on the ability of traffic to exit the freeway or enter the freeway without being in conflict with other motorists attempting to exit or enter the freeway at the adjacent interchange. These movements affect safety, efficiency, and congestion. Conflicts created by the configuration of the freeway and access to the freeway can contribute to accidents by introducing unforeseen or unexpected conditions for the motorist.

Efficiency refers to the smooth operations and speed of traffic. The close spacing of interchanges reduces roadway efficiency as a result of conflicts caused by traffic exiting or entering the freeway at frequent intervals. As optimal driving speeds are reduced by conflicts in movements, congestion occurs in proportion to the level of traffic volume on the freeway and at interchanges.

The nine existing interchanges within the urban area of Pueblo require redesign, replacement, relocation, and/or elimination. Many of the interchanges are located out of alignment with the arterial streets, and some interchanges serve only one side of the interstate. Some interchanges and slip ramps serve minor streets and often direct traffic exiting the freeway directly into neighborhoods. These interchanges have high accident rates associated with their configuration.

Exhibit 1-6 provides a brief narrative describing the function of each interchange in the study area.

1.3.3 Capacity and Mobility

Roadway and highway engineers rely on measures of performance to determine the operating efficiency of a roadway. Level of Service (LOS) is the key measure of efficiency that reflects the average speed of motorists under conditions that result from traffic volumes and fixed deficiencies in highway design. The LOS evaluation rates the operating efficiency of the highway LOS as A, B, C, D, E, or F. LOS A is the best operational level, meaning that the motorist may travel at optimum speed, encountering a minimum of vehicles and no roadway restrictions like narrow shoulders or obstructions near the driving lane. LOS F is a failure condition ranging from stop-and-go to stop conditions. At this point, the highway capacity has been exceeded. LOS D occurs when higher volumes of traffic reduce the speed to approximately 40 miles per hour.

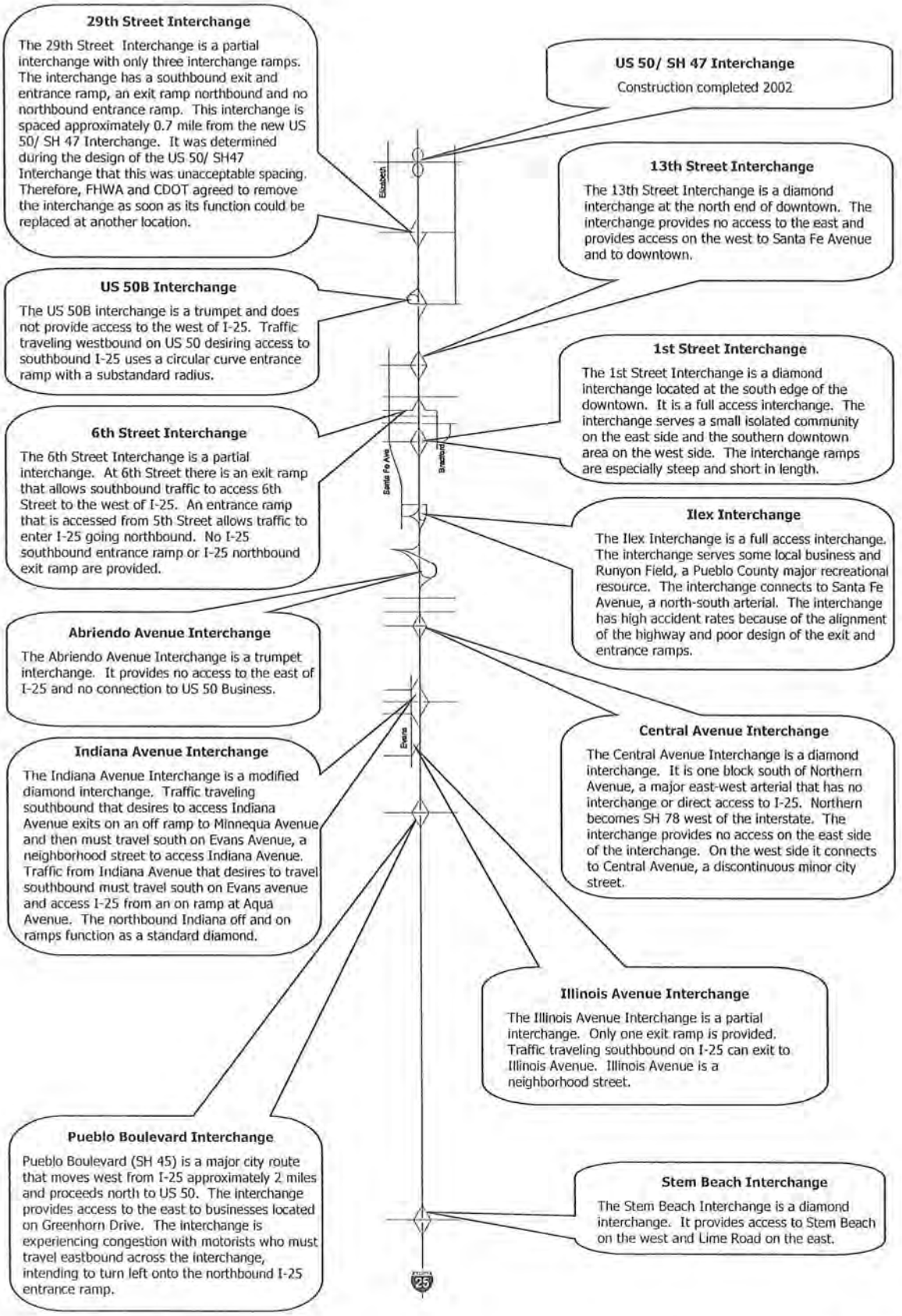


EXHIBIT 1-6
Existing Interchange Layout

Public input identified the following mobility issues for I-25 through the City of Pueblo:

- The existing I-25 has created a barrier to east-west mobility and forces motorists to rely on I-25 for local trips.
- There are no alternative routes to minimize the demands on I-25, requiring a greater local dependence on the interstate.
- Construction of the existing interstate roadway divided neighborhoods, resulting in the loss of connectivity and isolation of neighborhoods.

Traffic Operation

Existing and future traffic volumes are determined as the first step in evaluating operational efficiency and LOS. The 20-year forecast of traffic volumes is essential to ensure that improvements will accommodate forecasted growth in traffic demands. Exhibit 1-7 shows the forecasted peak-hour volumes for the afternoon rush hour in the year 2025. These volumes were used to develop the forecasted LOS.

The 2025 operational analysis shows locations where the capacity of I-25 in Pueblo is exceeded. Capacity is the theoretical number of vehicles that can travel through a location in an hour. The capacity of a four-lane highway is approximately 2,000 vehicles per lane. A number of segments approach or exceed the capacity of the interstate if no major improvements occur.

Exhibit 1-8 shows the LOS by segments of the interstate corridor northbound and southbound through Pueblo for the year 2025. The figure also shows segments with LOS degrading to levels E and F, which may result in frequent congestion and failure of I-25 in both directions.

1.4 Goals and Objectives

Issues that will be addressed by the proposed project beyond the state transportation issues include developing a plan that respects the traditions and trends of the Pueblo community; satisfying safety issues; providing for a high level of operating efficiency; and improving accessibility and connectivity of neighborhoods, activity centers, and emergency services. A vision statement for the entire study was developed at the first major workshop and received the consensus of the Community Work Groups, CDOT, and the study team. The following community vision statement was adopted and provides the purpose and focus for the proposed improvements.

Community Vision for the New Pueblo Freeway

I-25 must provide a balance between the needs of interstate and regional trips with the needs of local trips. Part of the balance must come from an adequate and maintainable local street network that provides alternate routes to local destinations.

I-25 must be a safe facility. Access must be provided to appropriate east/west local streets. Improvements must be accomplished while preserving the environmental, community, business, and the neighborhood values.

I-25 improvements must follow consistent state-of-the-art aesthetic guidelines that integrate design elements with the community. These guidelines must have community endorsement and reflect the culture, history, and character of Pueblo.

The connection between improvements and surrounding land use must be considered and planned as a part of our vision.

A high standard for the improvements to I-25 must be set and maintained. All improvements must be...

- Maintainable
- User friendly
  - Understandable
  - Communicates information clearly
  - Comfortable to drive
  - Provides personal safety features (i.e., roadside telephones)
  - Meets driver expectations
- Multi-modal
- Fair treatment for those impacted
- Forward looking to accommodate
  - Future travel needs
  - Technology improvements

The implementation of this vision requires the continuing partnership between public agencies, the citizens, and private developers to support, implement, and fund improvements.

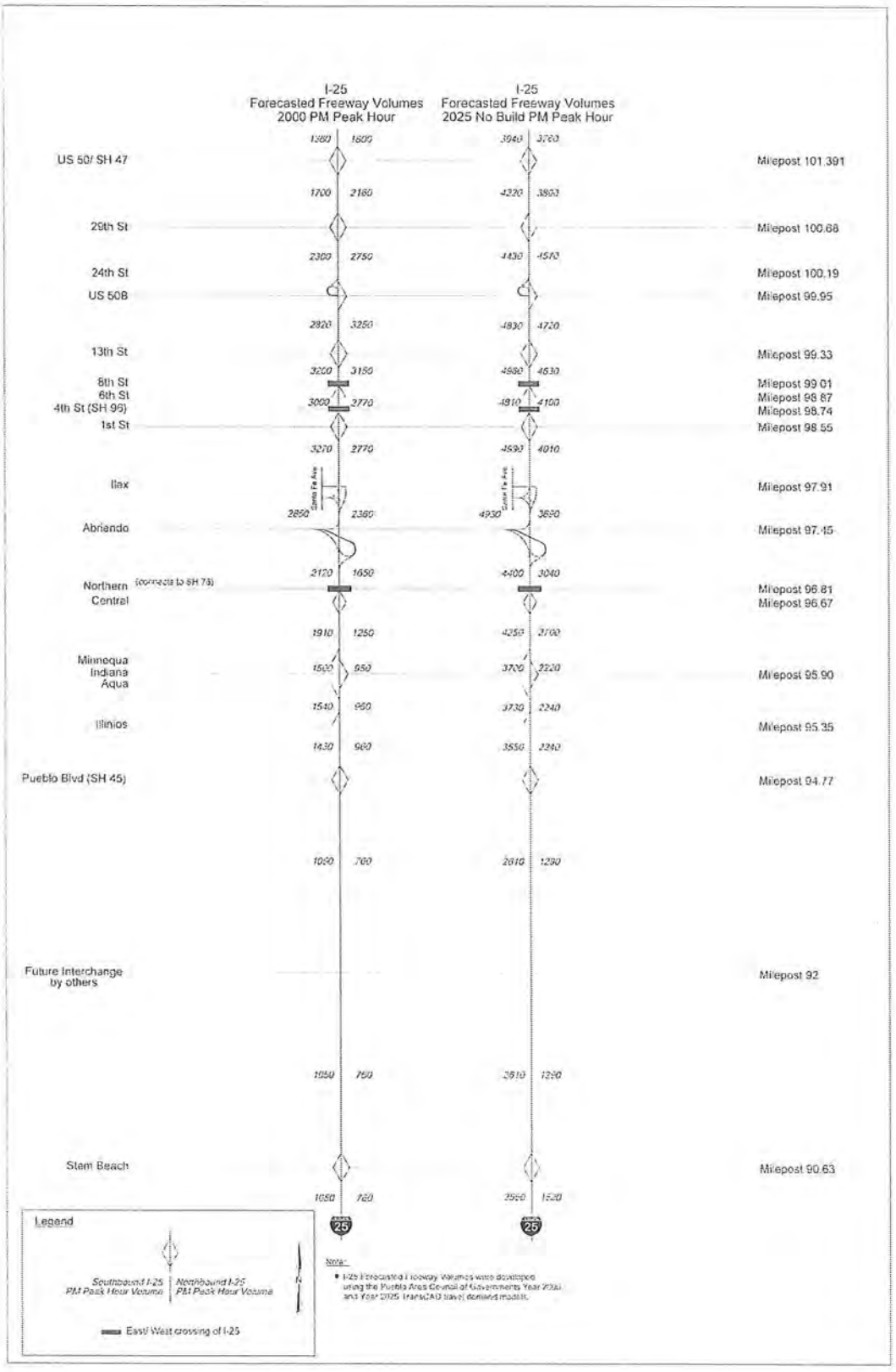


EXHIBIT 1-7
Traffic Data

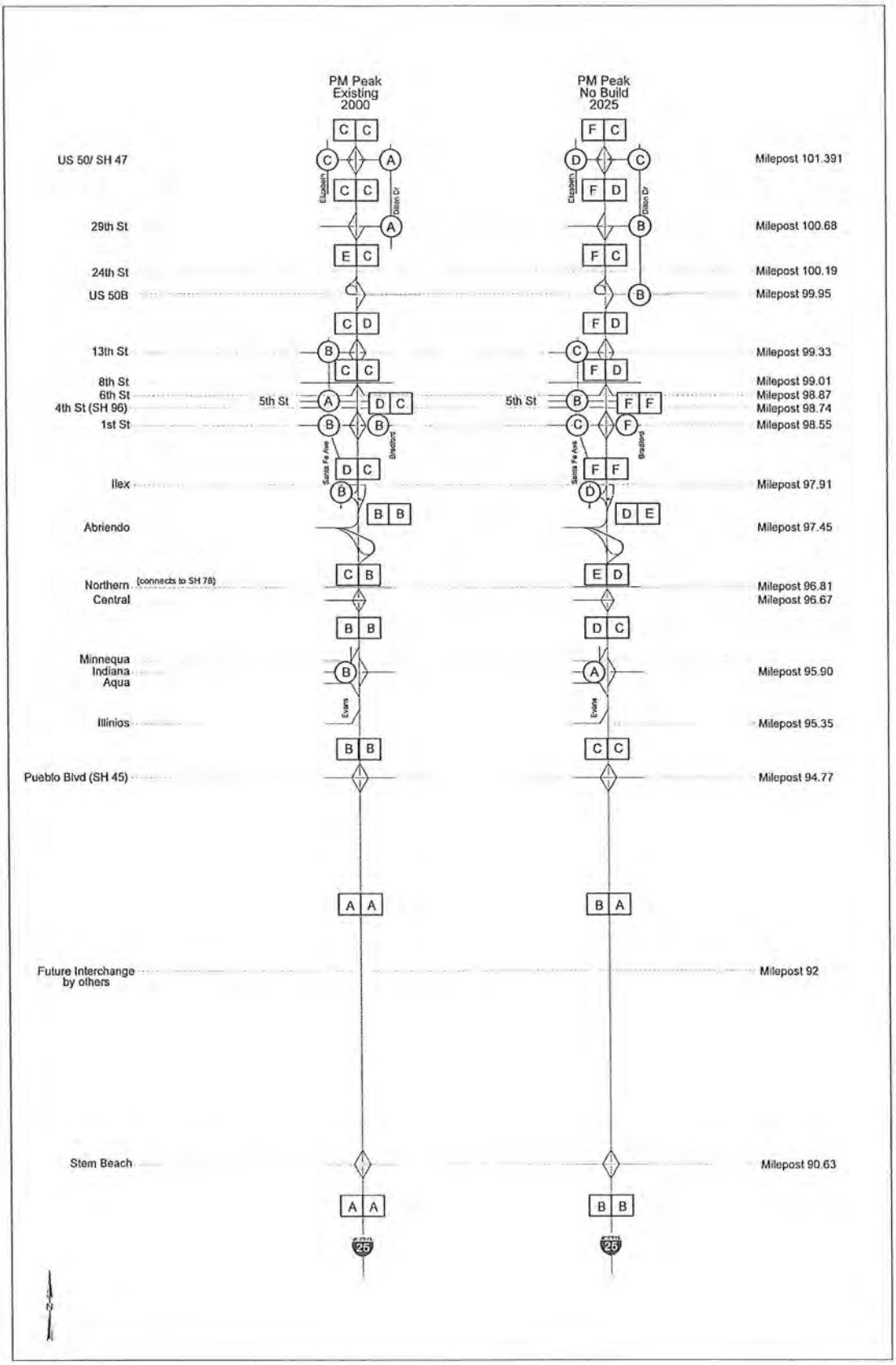


EXHIBIT 1-8
Level of Service

SECTION 2.0

Alternatives Considered and the Analysis of Alternatives

SECTION 2.0

Alternatives Considered and the Analysis of Alternatives

2.1 Introduction

In accordance with 23 CFR 771.111, Early Coordination, Public Involvement and Project Development,[1] and Section 1506.6, Public Involvement,[2] CDOT developed a decision process for the New Pueblo Freeway Transportation Study that relies on continuous comprehensive involvement of the public in the development and evaluation of alternatives. The purpose of the decision process was to develop a recommendation for a needed major improvement through a consensus of the participants, stakeholders, and the public in accordance with National Environmental Policy Act (NEPA).

It was recognized in the beginning of the study that any corridors would have potential impacts to neighborhoods, economic development, and the environment. The study focused on the development of major mobility improvement strategies for north/south trips.

The decisionmaking process is shown in Exhibit 2-1. The intent of the process was to formulate a rational approach that consisted of three levels of evaluation. The levels of evaluation resulted in a process that took public concerns and ideas and advanced them to a final recommendation. During Level 1 – Advance/Eliminate Ideas, a set of criteria was developed to measure the success of an idea in addressing the public's concerns. Those ideas that best supported the public goals and objectives went forward as concepts. During Level 2 – Rate Concepts, more specific criteria were applied to the concepts, resulting in the formation of strategies. Level 2 criteria measured the success of a more defined concept in addressing the public's mobility, environmental, and community value goals. Level 3 – Evaluate Strategies, took the best concepts from Level 2 and combined and enhanced them into strategies with significant definition. These strategies were evaluated with criteria that again measured the public's concerns.

After the corridor for north/south improvements was defined, interchanges within the corridor were evaluated. An intensive effort with the City of Pueblo, the County of Pueblo, and local business owners and neighborhoods resulted in a consensus on the recommended location of the interstate corridor.

The five-step decision process incorporated NEPA intent by involving the public at all level of evaluation in the alternatives analysis process and focusing the recommended improvements on meeting the goals and objectives set forth in Section 1.0, Introduction and Project Background.

---

[1] Title 23 Code of Federal Regulations.

[2] Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act.

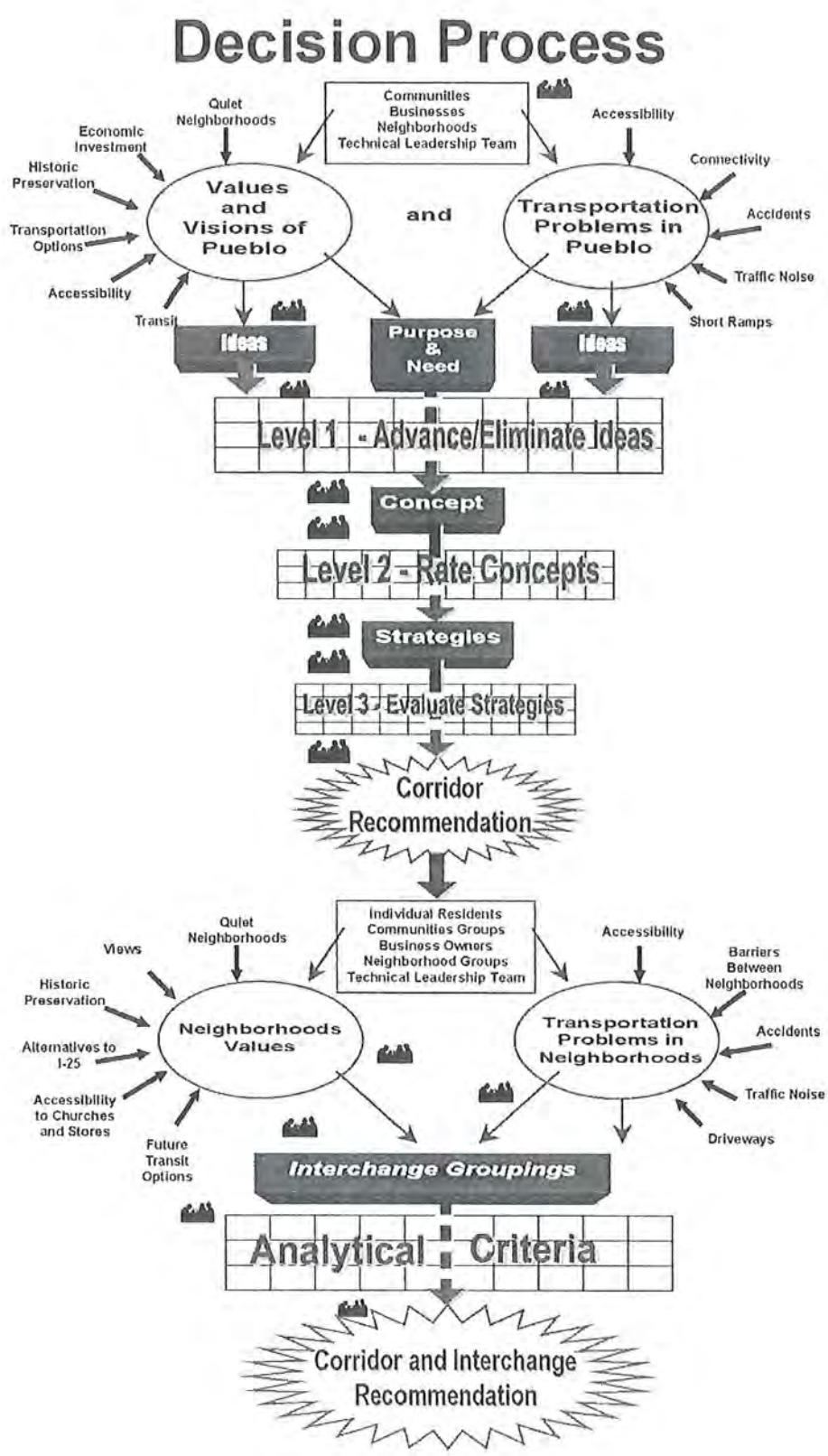


EXHIBIT 2-1
Decision Process

2.2 Development of Corridor Alternatives and Evaluation

This section details the development and evaluation of the alternatives and the final recommended alternative. The recommended alternative is anticipated to go forward through the NEPA process.

The study consisted of a Project Leadership Team (PLT) that was made up of policy makers within the community. The PLT's charge was to give final approval or disapproval to the evaluations in the study process, including the recommended alternative. A Technical Leadership Team (TLT) was made up of technical representatives of the City of Pueblo, Pueblo County, PACOG, and CDOT. The purpose of the TLT was to provide technical evaluation of the alternatives and provide technical advice on major issues. Public participation in the decision process was essential. The public was involved in analyzing and ranking alternatives through the Community Working Groups (CWG). The CWG was made up of citizens interested in a value-based solution.

2.2.1 Criteria

The purpose and need for the project is by itself the principal feasibility criteria by which alternative improvements for the project were evaluated. In all projects, the development of alternatives and a recommendation and/or decision requires appropriate criteria. The need to develop a public process required an intensive outreach to the public. Public and stakeholder input yielded the concerns and ideas, described earlier, which were the basis for additional criteria. These criteria reflect the specific needs and values of the community.

Appendices B and C show the criteria categories of Mobility, Environmental, Safety, Implementation, and Community Values that were consistently applied throughout the study to help rank and screen alternative concepts. Mobility, Environmental, Safety, and Implementation are technical criteria and were analyzed by the TLT. At the subsequent meetings with the CWG, the results of the technical ratings were discussed and explained. The fifth criteria category, Community Values, was rated by the CWG at each level of evaluation. The CWG meetings were always publicized and open for anyone to participate.

2.2.2 Level 1 – Advance/Eliminate Ideas

Ideas and concerns gathered from the public were screened using yes/no responses to the Level 1 criteria. The criteria and results are shown in Appendix B. From the screening of the individual ideas, concepts were formulated that moved forward to Level 2 for rating.

Ideas that did not meet all of the required criteria for development, and therefore were not acceptable as project concepts by themselves, were addressed by grouping them for follow-up action. Of all the ideas received for consideration, it was determined that 13 were beyond the scope of this project. These were forwarded to responsible agencies that would have jurisdiction in these areas. Eleven ideas fell into a group called Transportation Systems Management and Transportation Demand Management, or TSM/TDM. These are traffic management systems that seek to improve efficiency and provide incentives to use public transportation or carpool. Thirty-five other ideas, which did not meet the criteria for stand-alone concepts, fell under the definition of Amenities, Features, and Goals. Amenities, such as landscaping or noise walls, may be included in the project as part of a final recommendation. Features, such as a pedestrian and bicycle crossing, also could be incorporated into the project as part of a final recommendation.

Other ideas not meeting the criteria for a Level 2 concept addressed long-term goals. An example was providing right-of-way for future transit. These ideas are maintained in the study as elements that may be included in the final project recommendation.

Of the ideas that were screened, 107 fell into the category of Best Combined with Others. This category consists of those ideas that might improve mobility and safety at a single location; however, over the study area, this increase in mobility and safety will be negligible unless several of these ideas are combined. Each idea may be an element, combined with others, to form the solution.

Nineteen of the ideas passed the Level 1 screening as Major Concepts. These ideas and the criteria are shown in Exhibit 2-2.

Ideas \ Criteria	Mobility	Environmental	Safety	Implementation	Community Values	Comments
Build a parallel route						
Beltway on the east – Bragdon to Stem Beach with no widening to I-25						
Greater access to local streets						
HOV lanes						
Build alternate routes						
Loop around the town						
Eight lanes on I-25 (four in each direction)						
Six lanes on I-25 (three in each direction)						
Extend Stem Beach to east and connect it up again on the north end of town						
Straighten the curves						
Car pool lanes						
Make an alternate route for trucks						
Double deck I-25						
Shift I-25 east between Abriendo and 13th Streets						
Perimeter Road						
Double deck the interstate						
Bypass on the west						
Four lanes on I-25 (two in each direction) and bring existing up to design standards						
Bypass around Pueblo with limited access						

Yes*

*All questions were answered "Yes" in every criteria category for each of these ideas.

Major Concepts

Advance to Level 2

EXHIBIT 2-2
Level 1 – Advance/Eliminate Ideas

Summary of Level 1 Evaluation and Results

As was mentioned, the Level 1 evaluation of ideas resulted in 19 Major Concepts meeting the criteria shown in Exhibit 2-3. The CWG deliberation resulted in a determination that these concepts meet the Community Values criteria. The subcriteria, found in appendix B, asked four questions:

- Can environmental impacts be mitigated?
- Is this compatible with local goals and objectives?
- Does this preserve future transportation mobility options?
- Does this improve the aesthetics of the community?

The CWG, TLT, and PLT were all in support of carrying forward the 19 concepts to Level 2.

2.2.3 Level 2 – Rate Concepts

The purpose of the Level 2 evaluation was to look at each concept and, comparing it to other concepts in the same category, rate its ability to meet the project's goals and address the stated concerns. The evaluation gave all project participants the opportunity to discuss the concepts, how the concepts meet the project's goals, and how they might be improved to make them better at meeting the project's goals.

The Major Concepts were organized into No-Build, Transit Concepts, I-25 Concepts, Bypass Concepts, and Alternative Routes categories. Each idea advanced from Level 1 was incorporated into a concept as shown in Exhibit 2-3.

EXHIBIT 2-3
Organizing Major Concepts

Level 1 – Advanced Ideas	Level 2 – Concepts
Build a parallel route	Bypass Concepts 2 and 3
Beltway on the east – Bragdon to Stem Beach with no widening to I-25	Bypass Concept 2
Greater access to local street	Interchange Grouping
HOV lanes	Transit Concept 1
Build alternate routes	Alternative Route Concepts 1 and 2
Loop around the town	Alternative Route Concept 1
Eight lanes on I-25 (four in each direction)	I-25 Concept 3
Six lanes on I-25 (three in each direction)	I-25 Concept 2
Extend Stem Beach to east and connect it up again on the north end of town	Bypass Concepts 2
Straighten the curves	I-25 Concepts 1, 2, and 3; Transit Concept 1
Car pool lanes	Transit Concept 1
Make an alternate route for trucks	Bypass Concepts 1, 2, and 3
Double deck I-25	Bypass Concept 1
Perimeter Road	Alternative Route Concepts 1 and 2
Double deck the interstate	Bypass Concept 1
Bypass on the west	Bypass Concept 3
Four lanes on I-25 (two in each direction)	I-25 Concept 1
Bypass around Pueblo with limited access	Bypass Concepts 2 and 3

Exhibit 2-4 provides a narrative description of the Major Concepts. Each concept had some definitions of elements but was not a complete package of solutions. This left the option of combining some concepts to gain greater alignment with the project goals and the purpose and need listed. The alternative concepts were evaluated using Good, Fair, and Poor ratings.

Bypass Concepts - Relocating Existing I-25

1 Double Deck I-25

This concept would build a tunnel or elevated structure to carry the through traffic on I-25. The 2nd deck would be designed for high speed and limited access. An interchange at the beginning and at the end of the double deck would be provided for local access, however, once passed these interchanges and on the 2nd deck, no access to the city would be available. The existing I-25 would maintain the existing access, it would be a lower speed facility and only safety improvements would be made consistent with new roadway classification and lower speed. This local I-25 would be four lanes (two in each direction) and access would be at the existing locations only. Existing I-25 would be reclassified as an urban freeway, expressway, or major arterial.

2 Bypass(es) to the east of Pueblo

This concept would be a high speed limited access facility diverging from the existing I-25 and traveling to the east. An interchange at the beginning and at the end of the bypass would be provided for local access, however, other interchanges along the bypass would be provided only at intersections with state highways. . The existing I-25 would maintain the existing access, it would be a lower speed facility and only safety improvements would be made consistent with new class and lower speed. This local I-25 would be four lanes (two in each direction) and access would be at the existing locations only. Existing I-25 would be reclassified as an urban freeway, expressway, or major arterial.

3 Bypass(es) to the West of Pueblo

This concept would be a high speed limited access facility diverging from the existing I-25 and traveling to the west. An interchange at the beginning and at the end of the bypass would be provided for local access, however, other interchanges along the bypass would be provided only at intersections with state highways. The existing I-25 would maintain the existing access, it would be a lower speed facility and only safety improvements would be made consistent with new class and lower speed. This local I-25 would be four lanes (two in each direction) and access would be at the existing locations only. Existing I-25 would be reclassified as an urban freeway, expressway, or major arterial.

Alternate Route Concepts

1 High Speed, Limited Access Alternate Route

High speed limited access alternate route concept – This concept would provide a loop around the city. The loop would be designed for high speed and would have limited access provided only through interchanges at major cross streets. This loop will reduce local trips on I-25 and therefore I-25 may need less improvement. This facility would be four lanes (two in each direction).

2 Lower Speed, Managed Access Alternate Route

Lower speed managed access alternate route concept – This concept would provide an alternate continuous way around the city. It would be four lanes and access would be provided at streets with signalized intersections. This routes will reduce local trips on I-25 and therefore I-25 may need less improvement. An example or this type of route is Dillon extension. No mid-block access would be provided. This concept could be accomplished by improvements to several existing streets.

Transit Concepts

1 HOV/carpool lanes on I-25 with an expanded Bus System and park-n-ride facilities

I-25 Concepts

1 Four lanes on I-25 with continuous acceleration and deceleration lanes

This concept would have two lanes in each direction, so no more traffic lanes would be added. However, continuous acceleration and deceleration lanes are included the length of I-25. In addition this concept will straighten the curves, widen shoulders, and improve the horizontal and vertical alignments.

2 Six lanes on I-25

This concept would have three lanes in each direction, this would be one additional traffic lane over the existing. As with the four-lane concept, this concept will straighten the curves, widen shoulders, improve the horizontal and vertical alignments, and could include continuous acceleration and deceleration lanes.

3 Eight lanes on I-25

This concept would have four lanes in each direction, this would be two additional traffic lanes over the existing. As with the four-lane and six-lane concepts, this concept will straighten the curves, widen shoulders, improve the horizontal and vertical alignments, and would only include acceleration and deceleration lanes at interchanges.

EXHIBIT 2-4
Level 2 – Major Concepts

- Bypass Concepts. The evaluation showed that the best bypass concept was the one that would allow for high speed and a minimum of interchange access. A strategy will be developed for Level 3 that includes a bypass.
- I-25 Concepts. The best I-25 strategy provides better horizontal and vertical alignment, additional lanes, and wider shoulders. A discussion on the number of lanes for I-25 determined that eight lanes would be too intrusive on the historic neighborhoods bordering the freeway. The decision between four and six lanes was deferred to an operational analysis in Level 3. An improved I-25 was included as a strategy.
- Alternate Route Concepts. The lower-speed alternate route appeared to provide more benefit for the cost to the network and I-25 than the high-speed limited access route. A strategy combining improvements to I-25 with a lower speed managed access roadway will be included in Level 3.
- Transit Concepts. The single transit concept was rejected because of concern by City of Pueblo staff that the cost would not be feasible based on the low current demand for transit services and the lack of funding by the City to support additional operational or implementation costs.

Summary of Level 2 Evaluation and Results

The technical attributes of the Major Concepts were rated by the TLT, and the Environmental/Community Values were rated by the CWG. The ratings consisted of Good, Fair, or Poor. The Level 2 evaluation criteria for Environmental/Community Values subcriteria were as follows:

- Can this be built within the existing Right of Way?
- How well does this support our environmental values?
- Will this concept have community support?
- How well does this concept support our current economic community investments?
- Does this provide new transportation options?

As a result of the ratings by the CWG, TLT, and the PLT, the following six alternative strategies were carried forward for Level 3 evaluation:

1. Currently committed projects or No-Build
2. I-25 Safety Improvement Strategy
3. I-25 Safety Improvement Strategy with a low-speed loop
4. Relocated I-25 with a parkway (I-25/Parkway)
5. Relocated I-25 with a freeway (I-25/Freeway)
6. The I-25 strategy with six lanes and a low-speed loop. The I-25 safety improvements consist of safety improvements between Abriendo Avenue and 1st Street.

The CWG agreed that these six strategies had the elements needed to meet the project goals and objectives.

2.2.4 Level 3 – Evaluate Strategies

The six alternative strategies were subjected to a detailed and comprehensive analysis. The criteria categories remained the same, but specific criteria under each category were expanded to include more detail as well as quantitative measurements. Exhibit 2-5 shows the detailed measures and the analysis results for each strategy. Again, the criteria were in the categories of Mobility, Environmental, Safety, Implementation, and Community Values.

The strategies and analyses were presented to the CWG and TLT for review. The CWG and TLT comments and recommendations were then presented to the PLT.

Summary of Level 3 Evaluation and Results

The results of the Level 3 analysis are described below:

1. The Currently Committed Projects or the No-Build Strategy do not address the purpose and need for the project. Doing nothing is not a viable solution as traffic volumes are forecasted to increase, resulting in failure LOS and high accident rates at locations with structural and geometric deficiencies. This strategy will be used in future analyses as a base case against which other alternatives will be compared.

2. The I-25 Safety Improvement Strategy was eliminated because it does not meet the purpose and need of the project. Safety improvements would address local deficiencies, but future operational needs would not be addressed. The analyses of this strategy also demonstrated that neighborhoods would be impacted by future traffic, noise, and other proximity issues.

3. The I-25 Safety Improvement with Low-Speed Loop Strategy was also eliminated because it does not meet the purpose and need. The addition of the loop to the safety improvement strategy was hoped to address the increased demands with an improved local network. Analysis showed that the loop road alone does not address the mobility needs of the future. As with the Safety Improvement Strategy, the existing deficiencies were not addressed with this strategy.

4. Relocated I-25 with a Parkway Strategy was eliminated because it was determined to be infeasible. To make the relocated I-25 function, it would have to be built in its entirety before any utility or mobility improvements were realized. With normal state funding, the full construction could take up to 20 years. During the construction period for the relocated I-25, the existing I-25 would receive no relief or improvement. The parkway construction could not begin until after the relocated I-25 was completed.

5. Relocated I-25 with a Freeway Strategy was also eliminated as infeasible. Again, construction of the entire relocated I-25 could take up to 20 years with no utility or mobility improvements until completion. The freeway portion could not begin construction until relocated I-25 was completed, and would result in doubling the freeway centerline miles through Pueblo.

Based on these results, the CWG, TLT, and PLT obtained a consensus for the "I-25 strategy with six lanes and a low-speed loop" as the Recommended Route Alternative. The conclusion of the Level 3 evaluation with refinements based on the CWG, TLT, and PLT comments is the corridor recommendation shown on Exhibit 2-6.

the New Pueblo Freeway

Level 3 Analysis

Criteria / Strategies →	Unit of Measure	Currently Committed Projects (Formerly No-Build)	I-25 Safety Improvement Strategy	I-25 Safety Improvement Strategy with a Low Speed Loop	Relocated I-25 with a Parkway (I-25 / Parkway)	Relocated I-25 with a Freeway (I-25 / Freeway)	I-25 Strategy with 6 Lanes and a Low Speed Loop
Mobility							
Planning Level of Service – PM Peak Hour	LOS	See attached map					
Travel Time (I-25 from Stem Beach to Pinon)	minutes	24	24	24	25 / 31	24 / 25	22
Traffic Volumes	ADT	See attached map					
Implementation							
What is the comparative cost of this strategy?*	Year 2000 $ (million)	0**	$66.5	$236.5	$794.5	$1,250.5	$772.0
What are the additional operations and *** maintenance costs of this strategy?	$ million / year	0	0	$0.4	$1.1	$1.3	$0.5
Does this strategy have a major agency or legislative hurdle?	Yes – Some - No	Some	Some	Some	Yes	Yes	No
Can this strategy be implemented in segments that are functional and fundable?	Yes - Some - No	Yes	Yes	Yes	No	No	Yes
Environmental Summary							
		The currently committed projects appear to have little or no additional environmental impacts on natural habitats. As the average speed of the network decreases air quality may degrade and travel time will increase.	The I-25 Safety Improvement Strategy appears to have little or no environmental impacts due to additional right-of-way. This strategy only addresses safety improvements from 1st to Abriendo Ave. As congestion on I-25 increases over the next 20 years, travel time and air quality will be impacted.	This Strategy will impact the ethnic and low-income population already impacted by the existing I-25 and additional populations will be impacted by the low speed loop. The low speed loop will also impact protected lands and habitat. These impacts to wildlife and habitat could be reduced or avoided by minor modifications of the proposed loop alignment.	The Parkway will improve connectivity between communities along exiting I-25 without taking wildlife habitat or historic properties. The Relocated I-25 has impacts to wetlands and potential wildlife. Further, the relocation of the interstate could result in urban sprawl, which could impact the downtown economic viability.	This Strategy has the greatest environmental impacts. The relocated I-25 impacts the same natural environment as the previous strategy. While the freeway portion of the strategy has impacts to the manmade environment; ethnic and low-income population and historic properties. Again, the relocation of the interstate could result in urban sprawl, which could impact the downtown economic viability.	The improvement of I-25 to 6 lanes will impact the manmade environment already impacted by existing I-25: ethnic and low-income population, number of houses and historic properties. The low speed loop will impact the natural environment: 4(f) and 6(f) land, wetlands, potential very high-quality wildlife habitat, and potential threatened and endangered species habitat. The impacts could be reduced by modifications to the alignment.

Implementation Notes

** Comparative costs do not include costs for tunneling or elevating portions of I-25.*

*** The cost of the currently committed projects is $70,000,000. These improvements are assumed as part of all strategies; however, the cost for these projects is not included in the comparative cost of each strategy.*

**** Operations and Maintenance costs for each strategy are annual costs. Each strategy would include the expenses of $4,700,000 for an expanded bus system; these are not included in these comparative costs.*

See reverse side for individual criteria and measurements

					West	East	West	East	
Community Values									
Is this strategy compatible with neighborhood and local business plans/goals/objective?	Good - Fair– Poor neighborhood / business	Poor / Fair	Poor / Fair	Poor / Fair	Good / Poor	Poor / Poor	Poor / Fair	Poor / Fair	Poor / Good
Does this strategy promote local trips on local roads and regional trips on I-25?	Good - Fair – Poor vph on key links for PM peak (see map)	Poor	Poor	Fair	Good	Good	Fair	Fair	Fair
Does this strategy support our current and on going economic investments in the community?	Good - Fair - Poor	Poor	Fair	Good	Poor	Poor	Poor	Poor	Good

EXHIBIT 2-5
Level 3 Analysis
(Sheet 1 of 2)

Level 3 Analysis

Comparative Costs

Criteria / Strategies	Currently Committed Projects (Formerly No-Build)	I-25 Safety Improvement Strategy	I-25 Safety Improvement Strategy with a Low Speed Loop	Relocated I-25 with a Parkway	Relocated I-25 with a Freeway	I-25 Strategy with 6 Lanes and a Low Speed Loop
Safety Improvements on I-25		$ 46,800,000	$ 46,800,000	-	-	-
Low Speed Loop		-	$ 130,325,000	-	-	$ 130,325,000
Relocated I-25		-	-	$ 261,300,000	$ 287,300,000	-
Parkway		-	-	$ 158,600,000	-	-
Freeway		-	-	-	$ 378,300,000	-
6 Lanes on I-25		-	-	-	-	$ 390,000,000
Circulator Bus System		$ 3,360,000	$ 3,360,000	$ 3,360,000	$ 3,360,000	$ 3,360,000
Transportation Systems Management (TSM) & Travel Demand Management (TDM)		$ 260,000	$ 260,000	$ 6,240,000	$ 8,840,000	$ 2,600,000
Intelligent Transportation Systems (ITS)		$ 1,300,000	$ 1,300,000	$ 31,200,000	$ 44,200,000	$ 13,000,000
Amenities (% of comparative cost)		$ 14,510,000	$ 14,510,000	$ 59,750,000	$ 183,120,000	$ 121,680,000
Right-of-Way		-	$ 39,600,000	$ 273,720,000	$ 345,000,000	$ 110,880,000
Total	$ 70,000,000	$ 66,230,000	$ 236,155,000	$ 794,170,000	$1,250,120,000	$ 771,845,000

Environmental

Criteria / Strategies	Unit of Measure	Currently Committed Projects (Formerly No-Build)	I-25 Safety Improvement Strategy	I-25 Safety Improvement Strategy with a Low Speed Loop	Relocated I-25 with a Parkway (West / East)		Relocated I-25 with a Freeway (West / East)		I-25 Strategy with 6 Lanes and a Low Speed Loop
Amount of new right-of way	acres ROW needed for strategy	0	0	90.9	785.5	720.0	927.8	859.4	250.9
Number of existing houses/businesses within the new ROW	houses existing houses and businesses within the ROW	0	0	10	0	20	50	70	90
Environmental Justice land areas (ethnic and low income)	population within the buffer on each side of the ROW	1,300	1,300	4,100	1,400	1,700	1,600	1,900	4,300
4(f) and 6(f) lands	acres within the ROW	0	0	2.4	0.2	0	3.6	3.5	6.6
Wetlands	acres within the ROW	0	0	3.5	21.5	20.1	22.5	21.2	4.8
Potential very high-quality wildlife habitat	acres within the ROW	0	0	0	69.3	19.8	74.2	24.7	4.9
Potential threatened & endangered species habitat	acres within the ROW	0	0	10.1	19.2	21.5	23.7	25.9	14.9
Eligible historic properties	properties within the buffer on each side of the ROW/within ROW	14 / 0	14 / 0	16 / 0	14 / 0	14 / 0	14 / 1	14 / 1	16 / 1
Noise	houses within the buffer on each side of the ROW	450	450	1350	460	520	550	620	1460
Air quality	average speed (mph) average speed on the network	29	29	29	30	30	31	31	29
Water quality	acres of additional impervious area	0	0	87.3	279.3	256.0	305.9	282.7	129.0

EXHIBIT 2-5
Level 3 Analysis
(Sheet 2 of 2)

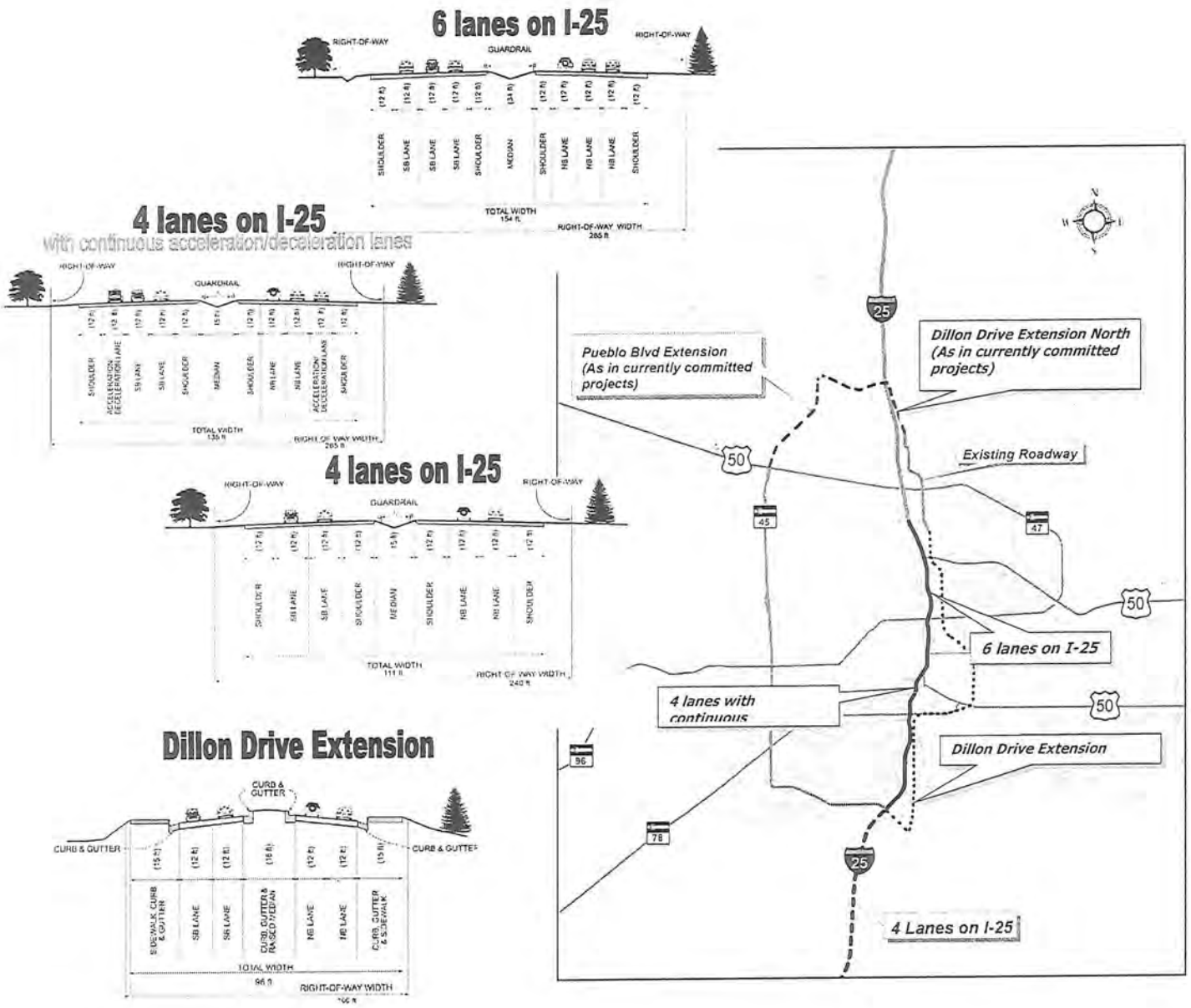


EXHIBIT 2-6
Corridor Recommendations

the New Pueblo Freeway

Corridor Recommendation

Major Elements . . .

- **I-25 Improvements**
- **Dillon Drive Extensions**
- **Pueblo Blvd. Extension**
  (as in Currently Committed Projects)

Elements to be defined . . .

- 4 to 6 lanes on I-25
  - *To be determined by interchange locations and traffic volumes*
- Where are the best Interchange locations?
- What east-west network improvements are needed?
- What improvements are needed on Pueblo Boulevard?
- What design techniques will minimize right-of-way needs?
- What circulator bus system improvements will be needed?
- What types of Transportation Systems Management (TSM)?
- What types of Travel Demand Management (TDM)?
- What type of Intelligent Transportation Systems (ITS)?
- What types of amenities: bike paths, landscaping, architectural treatments, etc.
- Noise walls.

2.3 Development of Interchanges and Evaluation

After the Recommended Route Alternative for I-25 was selected, the remaining task was to provide logical, safe, and efficient access to the City of Pueblo. Many of the comments received from the public were linked to accessibility, connectivity, and isolation of neighborhoods by the current I-25. The goal of this task was to refine the freeway alignment and develop interchange alternatives for the I-25 final recommendation.

Each existing interchange in the study corridor was examined based on access needs of the City, the configuration of the interchange, operating efficiency, who was served by the interchange, distance from the two closest north and south interchanges, and the adequacy of the current design. The same process used for rating ideas, alternatives, and strategies for the Recommended Route Alternative was applied to the development of a recommended interchange grouping.

The criteria for the evaluation of Alternative Interchange Groupings was consistent with all of the previous evaluations: Mobility, Environmental, Safety, Implementation, and Community Values.

2.3.1 Alternative Interchange Groupings

An alternative grouping approach for interchanges was developed based on three major categories of needs that interchanges would normally serve:

1. Interchange access at state highways
2. Interchange access for local connections
3. Interchange access for regional destinations

Because of all the access needs that must be provided by I-25 through Pueblo, it is essential that a balance be achieved that provides as much service to the needs of Pueblo as possible without reducing the safety and efficiency of the interstate. Specific interchange concepts were developed to address the access needs. Four groupings of interchanges were developed and are shown in Exhibit 2-7. The No-Build or existing conditions alternative also was evaluated.

Recognizing that each interchange location or change to an interchange would be of special interest to adjacent stakeholders, public meetings were arranged for each segment of the corridor: 29th Street to SH 50B, downtown, and south of the Arkansas River. Stakeholders adjacent to these areas were invited to attend meetings focused on these specific segments to provide their perspective and their response to the alternatives. In addition, the advice and consensus of the CWG, TLT, and PLT continued to be incorporated during the interchange alternatives process.

The following sections summarize the feasibility of the different interchange grouping approaches.

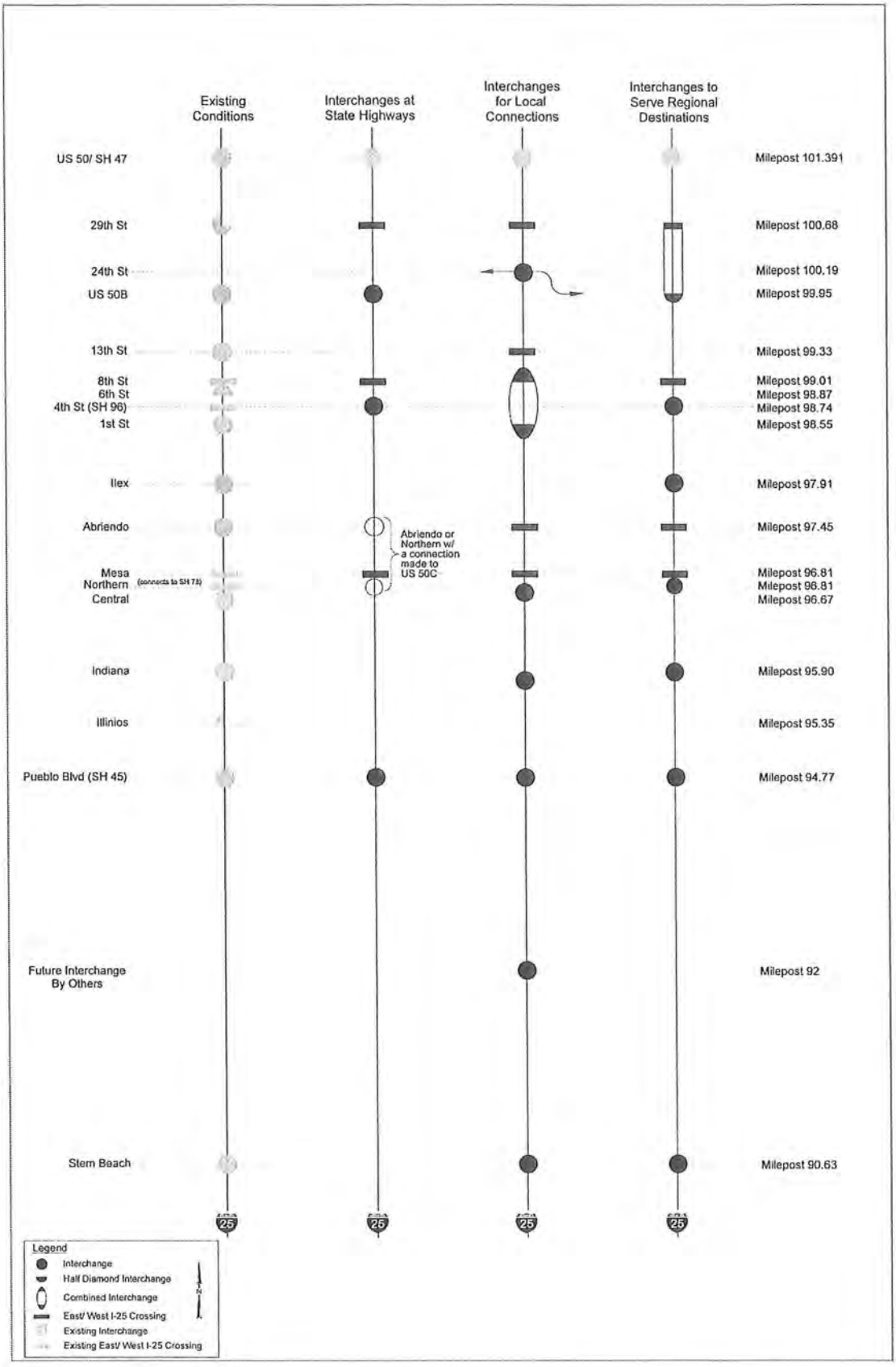


EXHIBIT 2-7
Interchange Groupings

2.3.2 No-Build

The existing conditions violate current interchange spacing requirements set forth by national design guidelines. The result of the close spacing of these interchanges is inadequate acceleration and deceleration lengths on ramps, as well as very high accident rates at the interchanges. Therefore, the no-build alternative will be used in future analysis for comparison purposes only.

2.3.3 Interchanges at State Highways

This grouping provides interchanges at state highways only and does not serve local access needs. Furthermore, the goal of this approach, to interchange with state highways, is provided for in the other two approaches. Therefore, this approach will not be taken forward as a stand-alone grouping.

2.3.4 Interchanges for Local Connections and Interchanges for Regional Destinations

These groupings were similar in their general interchange locations. Each segment of the interstate with the interchange groupings considered is described below.

29th Street to SH 50B

Five interchange alternatives between 29th Street and SH 50B were reviewed. The alternatives included a Half Diamond at 29th Street with an overpass at SH 50B, an Improved Trumpet Interchange with connection to SH 50B, an interchange at 24th Street, an interchange with I-25 and an extended 29th Street, and a Partial Cloverleaf interchange at SH 50B. All five alternatives advanced to layout analysis.

13th Street and 1st Street

In this segment, two major alternatives were reviewed. The first alternative is an interchange split between 8th Street and 1st Street. This type of interchange provides access to the cross streets between the ramps. It was noted that the split interchange would provide disbursed access to the many downtown destinations. Concern about impacts to Mineral Palace Park were noted with the 13th Street to 1st Street Split Diamond. Several variations will be considered in the next analysis to minimize impacts. A critical connection is the 1st Street interchange. This provides access to the recent downtown and historic enhancements. Adequate access at 1st Street must be maintained.

The second alternative is a single interchange at 4th Street. During the review of these alternatives, it was noted that the single interchange at 4th Street would result in all traffic entering or exiting downtown, as well as all traffic destinations south of Mineral Palace Park, using this single point of access. Great concern was expressed about the additional improvements that would have to be completed on 4th Street and other network streets to accommodate additional traffic. Based on the impacts to the network that would result from a single 4th Street interchange, this alternative will not be taken forward.

Ilex, Abriendo, and Northern Streets

Adequate spacing is required between all interchange alternatives. If an interchange were placed at Ilex, no interchange with 1st Street ramps meets the spacing requirements. A

single interchange at 4th Street has been determined to be unfeasible and 1st Street access was determined to be mandatory; therefore, an interchange at Ilex cannot be considered. To provide adequate access to the businesses, residents, and park in the Ilex area, several network enhancements were considered.

Numerous suggestions have been made to place an interchange at Abriendo. The major alternatives in this segment are an interchange at Abriendo with an overpass at Northern; an interchange at Northern with an overpass at Abriendo; and a relocated I-25 with an interchange south of the existing Abriendo interchange. Each of these advanced to layout analysis.

Northern Avenue to Stem Beach

Interchanges will be provided at Indiana, Pueblo Boulevard, and Stem Beach. A new interchange could be accommodated at approximately Mile Post 92 and would be planned, financed, and constructed by others rather than CDOT.

2.4 Interchange Layouts

This section describes the interchange alternatives considered at each location, the components and functions of each, and the Recommended Interchange Alternative. The No-Build alternative is carried forward for comparison purposes only. The Recommended Interchange Alternative is a result of the consensus of the community, CWG, TLT, and PLT.

2.4.1 29th Street through SH 50B

Five alternative interchanges were considered at this location, as shown in Exhibit 2-8. This segment of I-25 is constrained by the need to avoid intrusion into residential neighborhoods, the flood plain, interchange spacing requirements, and the need to maintain a high level of access east to west from 29th Street to SH 50B.

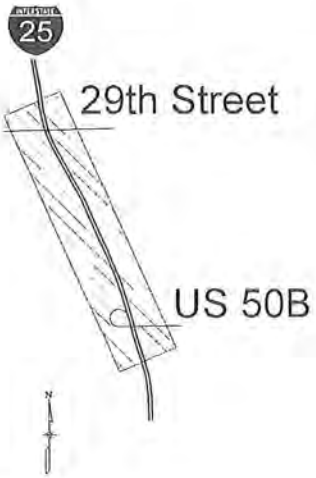
- Half Diamond at 29th Street combined with an Overpass at SH 50B. This alternative eliminates SH 50B as an interchange and severely restricts interchange access. It was therefore eliminated.
- Improved Trumpet Interchange with connection to SH 50B. This alternative provides the same interstate access on SH 50B as the existing interchange but expands the existing SH 50B interchange configuration to provide improved turning curve radii and improved interstate acceleration, deceleration lanes, and transitions. This alternative eliminates the 29th Street Interchange. This alternative impacts a large number of homes on the west side of I-25 and was eliminated due to neighborhood concerns.
- Partial Cloverleaf Interchange with connected 29th Street and SH 50B. This alternative uses an expanded curve, referred to as a cloverleaf due to its plan view appearance, for SH 50B traffic westbound desiring to enter I-25 westbound. This alternative provides continuous movement of traffic, east to west, from 29th Street to SH 50B. The 29th Street interchange is eliminated and 29th Street has the option to continue east across I-25 to Dillon Avenue. This option impacts more than 100 homes in the west side neighborhood and was therefore eliminated.

Half Diamond at 29th St Overpass at US 50B

Improved Trumpet Interchange with connection to US 50B

Partial Cloverleaf Interchange with connected 29th St & US 50B

Partial Cloverleaf Interchange with connected 24th St & US 50B



Diamond with US 50B & Frontage Roads to 29th Street

EXHIBIT 2-8
29th Street to SH 50B – Interchange Alternatives

- Partial Cloverleaf Interchange with connected 24th Street and SH 50B. This alternative realigns SH 50B on the east side with 24th Street on the west side. The exit and entrance ramps will all be improved, along with transitions to and from the interstate. This alternative was eliminated because of major public and City opposition. The 29th Street interchange with this alternative also will be eliminated.

Recommended Interchange Alternative

- Diamond with SH 50B and Frontage Roads to 29th Street. A diamond-type interchange is proposed at approximately 23rd Street to provide the minimum 1-mile spacing required between freeway interchanges. This requires realigning SH 50B to connect to the new interchange location. The 29th Street interchange will be eliminated, but the crossing of I-25 will be maintained. Frontage roads will connect 29th Street with the SH 50B interchange. The frontage roads will provide an access to I-25 southbound for SH 50B and 29th Street. The frontage roads will be used by both SH 50B and 29th Street to connect with the on-ramp northbound or beyond to the 29th Street crossing. This alternative also includes connection to Dillon Avenue from 29th Street with the option to proceed north to SH 50 or south from 29th Street to an intersection with SH 50B.

Downtown

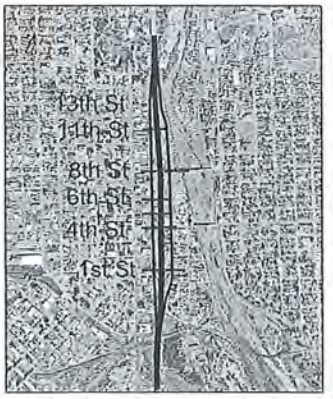
At this location, four interchange alternative configurations were considered and are shown in Exhibit 2-9. This segment is constrained on the north by Mineral Palace Park's proximity to the interstate, the need to support the downtown business and commercial center and to optimize access with this facility, and to improve east/west connectivity and interstate access. Three of these alternatives have the same layout with a different northern terminus. These were explored to measure the impacts on Mineral Palace Park.

- 8th Street through 1st Street Split Diamond. This interchange alternative provides a separation between the ramps at 8th Street and the ramps to the interstate at 1st Street. The separation allows one-way frontage roads to disburse traffic to desired locations, while connecting both the north and south segments. Crossings under the interstate either connecting frontage roads and/or providing east-west connectivity are located at 5th Street, 4th Street, and 1st Street. This alternative was eliminated because it did not connect to an existing major east-west arterial.

- 11th Street through 1st Street Split Diamond. This alternative provides a separation between the north connecting ramps to the interstate at 11th Street and the south connecting ramps to the interstate at 1st Street. The separation also allows one-way frontage roads to disburse traffic to desired locations, while connecting both the north and south segments. Crossings under the interstate either connecting frontage roads and/or providing east-west connectivity are located at 9th Street, 5th Street, 4th Street, and 1st Street. This alternative was eliminated because it did not connect to an existing major east-west arterial.

- 1st Street Diamond and 13th Street Diamond. This alternative provides two full diamond interchanges for the Downtown area. Access to the Downtown area and major connecting streets would need to filter through a network with discontinuities. This alternative was eliminated because it did not disburse traffic throughout downtown as well as the split diamond alternatives.

8th/1st Split Diamond



11th/1st Split Diamond

1st Diamond and
13th Diamond

Downtown Split Diamond
with Slip Ramps

EXHIBIT 2-9
Downtown – Interchange Alternatives

Recommended Interchange Alternative

- Downtown Split Diamond with Slip Ramps. This alternative provides maximum access to the Downtown area with a separation between the north connecting ramps to the interstate at 13th Street and the south connecting ramps to the interstate at 1st Street. The separation allows one-way frontage roads to disburse traffic to desired locations, while connecting both the north and south segments. Crossings under the interstate either connecting frontage roads and/or providing east-west connectivity are provided with this alternative at 13th Street, 5th Street, 4th Street, and 1st Street. This alternative also includes a ramp in each direction at 6th Street that will provide an exit from I-25.

Although the original intent was to move the north terminus south from 13th Street to protect the Natural Palace Park, it was determined through several public meetings with affected neighbors and merchants and technical analysis that a 13th Street connection is critical to the operation of this interchange with the local network. This continuity was recorded from the beginning of the study as a critical community goal.

Abriendo Avenue to Northern Avenue

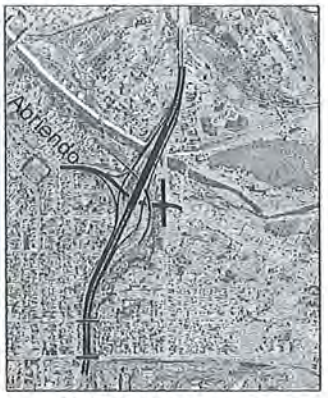
Five interchange alternatives were evaluated for this segment, and they are shown in Exhibit 2-10. This segment is constrained by the need to connect two major east/west routes, Abriendo Avenue and Santa Fe Drive (SH 50C), to provide direct access from I-25 to Northern Avenue and the need to provide acceptable access to the adjacent communities.

- Abriendo Diamond. This interchange alternative provides a full diamond interchange access and a connection of Abriendo Avenue and Santa Fe Drive. This interchange violates the federal 1-mile spacing guideline by its proximity to 1st Street and was therefore eliminated.

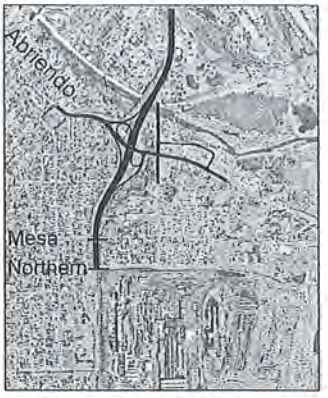
- Abriendo Interchange. This alternative is a cloverleaf interchange requiring two circular ramps connecting to I-25. All access except for direct access from Abriendo/Santa Fe to I-25 north would be indirect by means of another ramp from Santa Fe Avenue to Santa Fe Drive. This alternative was considered less desirable because it did not provide access to the major east-west arterial, Northern Avenue, and was eliminated with public support.

- Northern Single Point. This alternative is a full access interchange. A single point interchange refers to a diamond configuration in which the exit and entrance ramps are closer to the interstate, requiring less right-of-way. All four of the ramps intersect at one signal. This alternative has impacts to the historic Bessimer District and provides less access than the split diamond alternative, and was eliminated with public support.

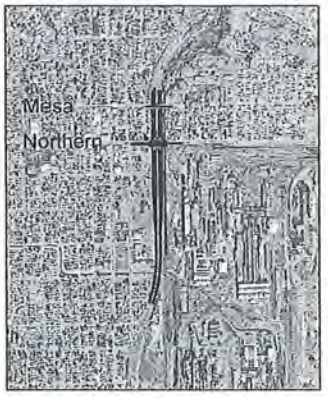
- Mesa/Northern Split Diamond. This interchange alternative provides the split diamond configuration, described earlier, with the interstate ramps connecting to I-25 on the south end at Northern Avenue and Mesa Avenue to I-25 on the north. Again, this alternative provides less access than the Abriendo/Northern split diamond and has neighborhood impacts and was eliminated with public support.



Abriendo Diamond



Abriendo Interchange



Northern Single Point

Mesa/Northern Split Diamond

Abriendo/Northern Split Diamond
with a relocated I-25

EXHIBIT 2-10
Abriendo Avenue to Northern Avenue – Interchange Alternatives

Recommended Interchange Alternative

- Abriendo/Northern Split Diamond with a relocated I-25. This alternative is a split diamond interchange at Abriendo/Santa Fe Drive on the north and ends at Northern Avenue on the south. The split interchange will be connected with one-way frontage roads. The frontage roads provide access to Mesa Avenue, which will cross I-25 and connect to the adjacent neighborhoods. The frontage road on the east side will also connect to a roadway that will be constructed to connect the frontage road to Santa Fe Avenue.

The improved access to neighborhood streets and connections to both Abriendo and Northern resulted in this alternative receiving the most public support.

Indiana Avenue Interchanges

Two interchange alternatives were considered at this location and are shown in Exhibit 2-11. The major constraint at this location is the disruption to the neighborhood. It has been determined that Indiana Avenue is the major truck access for the Rocky Mountain Steel Company on the east side. These two alternatives are basically the same, and the choice was dependent on the location of I-25.

- Indiana Single Point. This interchange alternative is located on the alignment of the existing road and, therefore, closer to the existing residential area. As previously described, a single point interchange is designed to minimize right-of-way needs. This alternative was eliminated because of the preferred relocation alignment of I-25.

Recommended Interchange Alternative

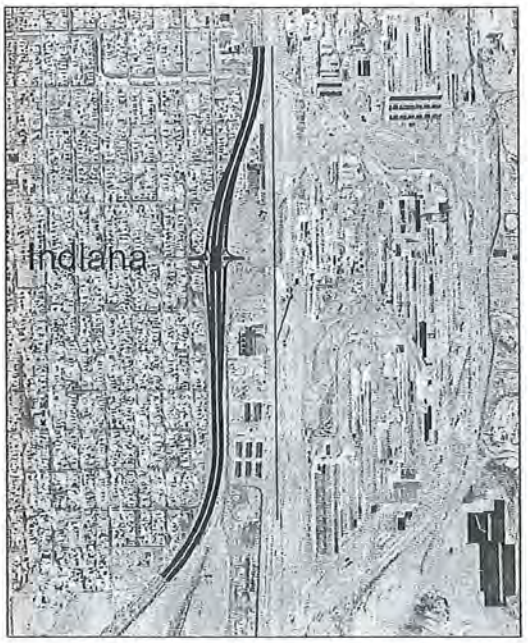
- Indiana Single Point with a relocated I-25. This alternative differs in that the roadway, and therefore the single point interchange at Indiana Avenue, would be relocated east of the existing I-25 and the residential neighborhood. It was chosen because it was consistent with the relocation of I-25 made with the Abriendo/Northern split diamond.

Both the Single Point interchange and the relocation of I-25 were discussed with the public at several meetings. Both choices were supported by the public, even those homeowners who would be relocated as a result of the realignment.

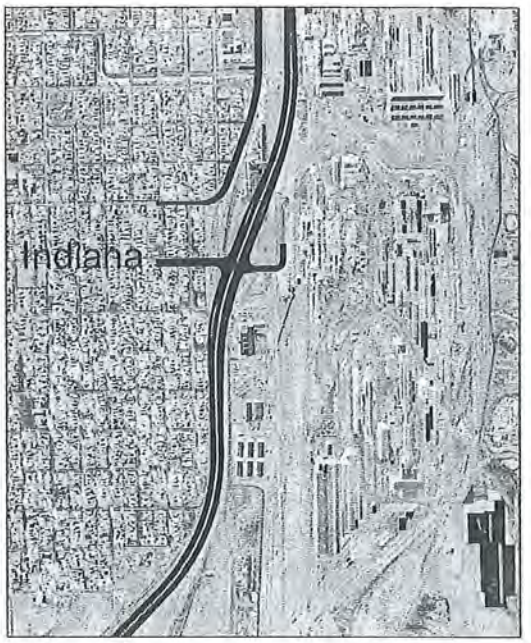
Pueblo Boulevard Interchange

At this location, two interchange alternatives were considered and are shown in Exhibit 2-12. The primary constraints are the high volume of traffic using the interchange to proceed south and a wetland in the northeast quadrant.

- Pueblo Boulevard Single Point. The interchange would be located on the existing alignment. As discussed, the single point interchange reduces right-of-way needs. This alternative was eliminated because it was not able to handle the east to north left-turning volume.

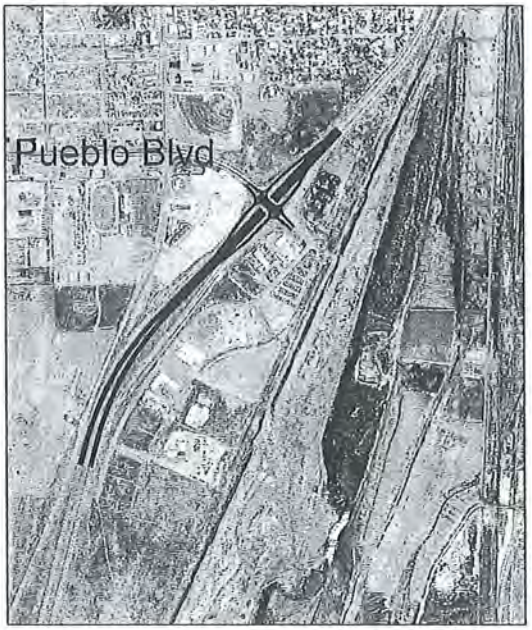


Indiana Single Point



Indiana Single Point
with a relocated I-25

EXHIBIT 2-11
Indiana Avenue – Interchange Alternatives



Pueblo Blvd Single Point

Pueblo Blvd Partial Cloverleaf

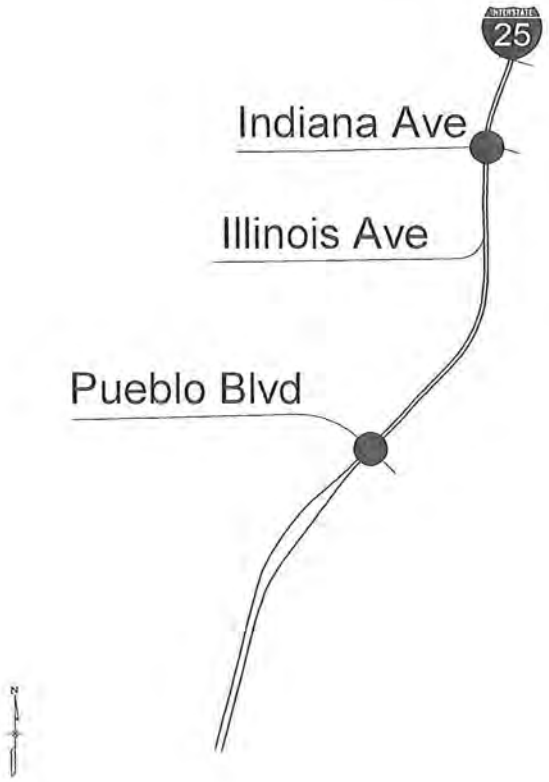


EXHIBIT 2-12
Pueblo Boulevard – Interchange Alternatives

Recommended Interchange Alternative

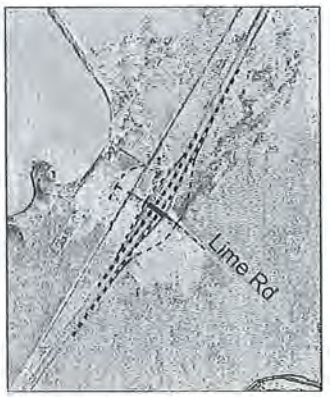
- Pueblo Boulevard Partial Cloverleaf. This interchange alternative utilizes a circular ramp referred to as a cloverleaf to eliminate the need for a left-turn for those motorists traveling to the west with the intention to proceed north on I-25. The ramp in the northeast quadrant will avoid the existing wetland complex.

Future Diamond Interchange Recommendations

It has been determined that if an interchange becomes necessary in the future, this location, approximately midway between Stem Beach Interchange and Pueblo Interchange, would provide adequate spacing. This would comply with the 2-mile spacing requirement in either direction.

Stem Beach Diamond

It is recommended that Stem Beach Interchange be considered an interchange for future replacement and relocation if necessary. The future interchange and the Stem Beach interchange are shown in Exhibit 2-13.



Stem Beach Diamond

Future Diamond

EXHIBIT 2-13
Future and Stem Beach – Interchange Alternatives

2.5 I-25 Alignment and Other Roadway Features Included in the Plan

The interchange and roadway alignment analysis resulted in opportunities to avoid neighborhood impacts and provide additional roadway network that reduces the need for local traffic to use I-25 as their means to get from one location to another in the city.

The following are descriptions of the network enhancement features included in the Recommended Interchange Alternative:

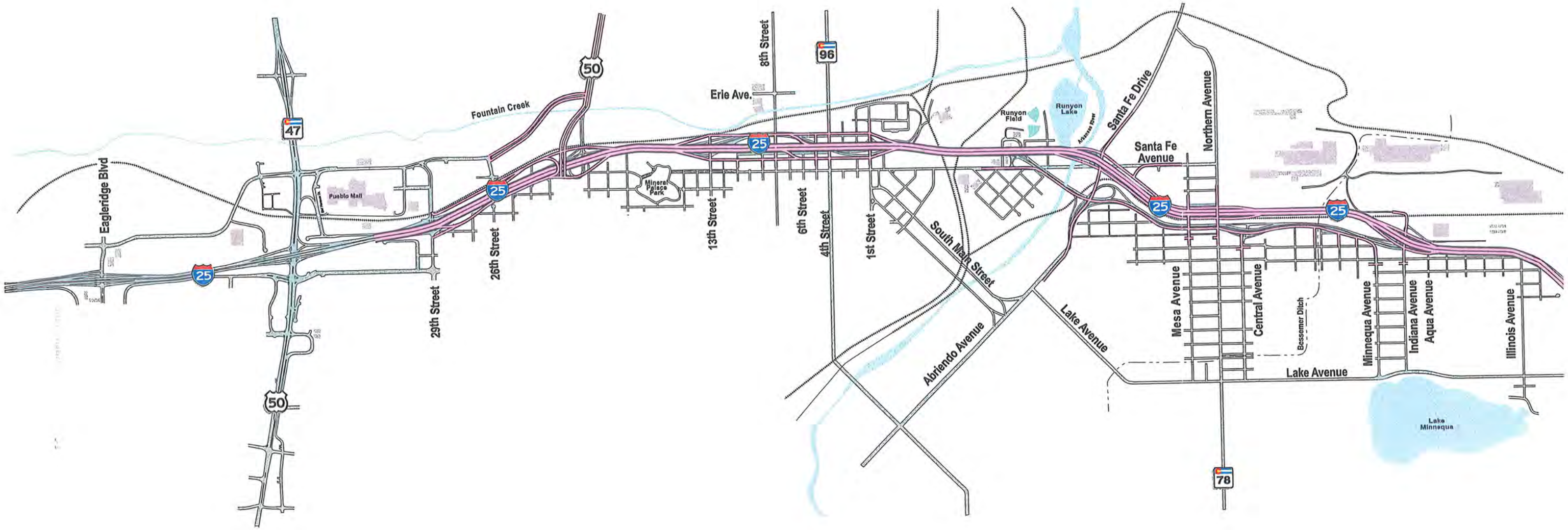
- Extending Dillon Drive south from 26th Street to SH 50B provides an option for local trips to reach downtown destinations without using the interstate.
- Abriendo Avenue and Santa Fe Drive (SH 50C) will be connected by a crossing of the interstate.
- Shifting the I-25 alignment to the east will leave a segment of interstate right-of-way available as an extension of Santa Fe Avenue south to Minnequa Avenue.

2.6 The Recommended Plan

The recommended plan was assembled as a result of numerous meetings and workshops with adjacent stakeholders, CWG, TLT, and PLT, as well as open houses for all citizens. This plan, developed over the course of 2 years with input from over 1,000 citizens of the community, is based on the community values of connectivity to the local network, protection of historic and other community resources, and protection of neighborhoods. The community and the participants came to a consensus on this recommended plan as best meeting the needs of mobility while balancing and minimizing the negative community impacts.

The major elements of the plan are listed below and shown in Exhibit 2-14:

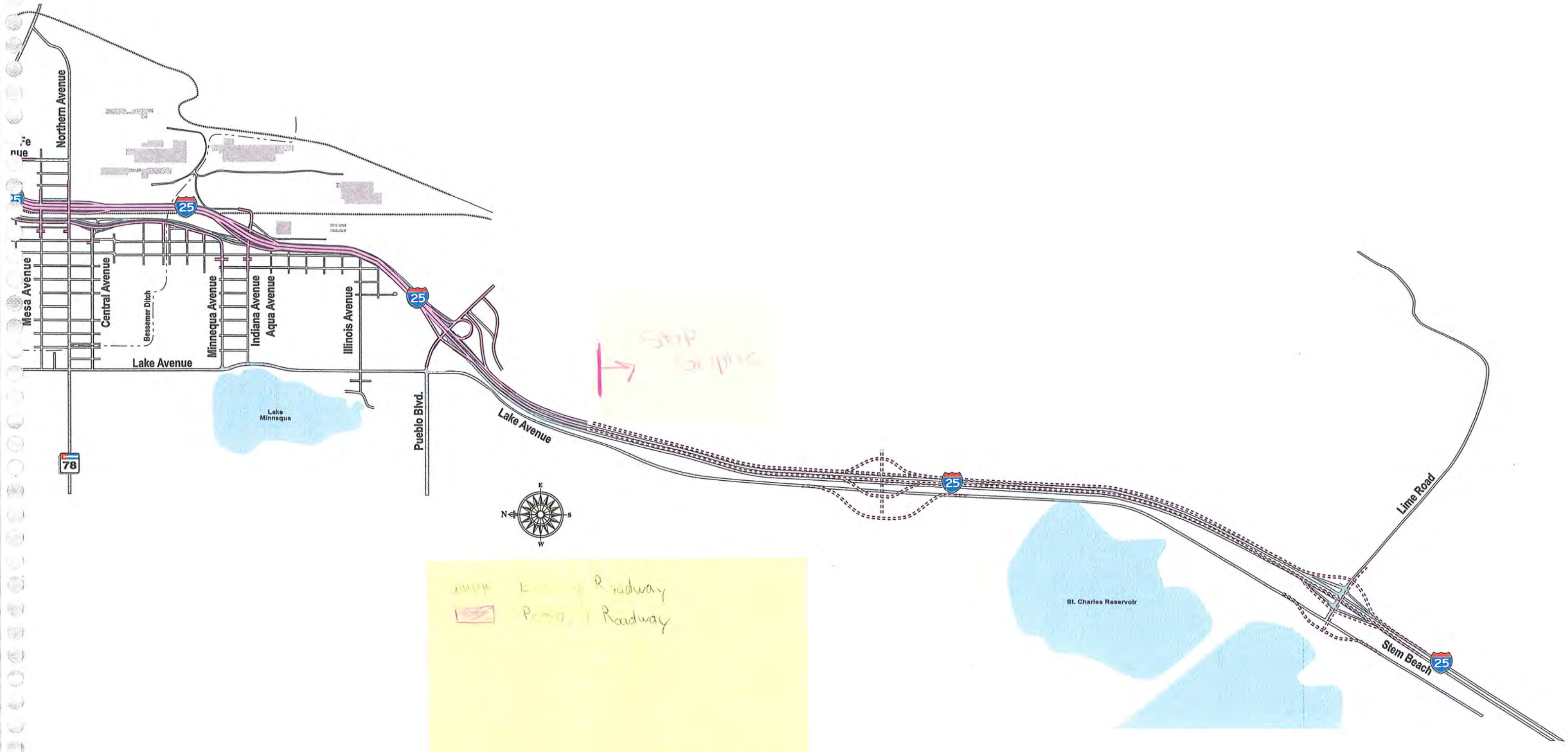
- I-25 will be six lanes, three lanes in each direction from Eagleridge south to Pueblo Boulevard.
- Standard shoulders and acceleration/deceleration lanes will be provided along the length of the corridor.
- I-25 will be straightened through the downtown area and relocated to the east between Abriendo and Indiana. This realignment allows for the extension of Santa Fe Avenue south to Minnequa Avenue.
- South of Pueblo Boulevard, the interstate will be four lanes, two lanes in each direction.



The New
Pueblo Freeway
Preferred Alternative
April 2002

CDOT

CH



Lift with your legs, not your back.

HS&E

Exhibit 2-
Recommended Pl

- Interchanges will be provided as follows:
  - SH 50B diamond interchange with one-way frontage roads to 29th Street.
  - Downtown split diamond from 13th Street south to 1st Street with additional exit ramps to 4th Street. Frontage roads will be provided between the ramps at 13th Street and 1st Street with intersections at 13th Street, 5th Street, 4th Street, and 1st Street.
  - Abriendo Avenue split diamond with Northern Avenue. One-way frontage roads will connect the ramps at Abriendo and Northern.
  - Single point diamond at Indiana Avenue.
  - Partial cloverleaf interchange at Pueblo Boulevard.
  - Diamond interchange option exists approximately midway between Pueblo Boulevard and Stem Beach. (This is an option only and is not an element of this plan.)
  - Diamond interchange at Stem Beach.

SECTION 3.0

Public Involvement

DIVIDERSAPPENDICESNEWPUEBLO.DOC

SECTION 3.0

Public Involvement

The study's approach to a recommended alternative was to engage the public along with the elected officials, local officials, and CDOT in a five-step decisionmaking process. The decision process approach was to encourage the public and stakeholders to participate as a team member in all three levels of evaluations. This approach was dependent on the intensive involvement of the public and the continuous outreach to the public to participate. Participation was continuously open regardless of previous participation.

3.1 Decision Process

The first step of the process was to establish the project leadership teams. Endorsement of team members was given through the signing of an agreement by CDOT, the City of Pueblo, and Pueblo County on the decisionmaking process. This agreement detailed the team's roles and responsibilities and the guidelines under which the project would operate through its completion. The steps of the process are shown in Exhibit 3-1 and indicate when public meetings were part of the process.

3.2 Project Leadership Team (PLT) Roles and Responsibilities

The primary role of the PLT was to make policy-level recommendations regarding funding and take on maintenance/ownership responsibilities. Formal decisions may require actions by respective councils and commissions. The PLT provided guidance, direction, and insights to the consulting team throughout the public involvement and study process. The PLT also acted in an advisory capacity when providing direction on the project approach and strategy.

The PLT members reviewed project documents and communicated project status, issues, and recommendations to their respective agencies.

The following people served as PLT members:

- Bob Torres, CDOT Region 2
- Tom Wrona, CDOT Region 2
- David Miller, CDOT Region 2
- Loretta Kennedy, Pueblo County Commissioner
- Corinne Koehler, Pueblo City Council
- Randy Thurston, Pueblo City Council
- Bill Knapp, CH2M HILL
- Ken Conyers, Kirkham Michael Associates
- Tony Fortino, Transportation Commissioner
- Patrick Avalos, Pueblo City Council
- George Tempel, Transportation Commissioner

3.3 Technical Leadership Team (TLT) Roles and Responsibilities

The roles and responsibilities of the TLT included:

- Guide technical decisions involving data gathering, criteria, and analysis
- Provide technical review of project reports
- Provide technical support and insight with respect to agency issues and regulations
- Coordinate and communicate with their respective agency staff and/or elected officials
- Assist in developing and screening alternatives

Documents provided for review identified what input was needed, what impacts the input had on the project and the schedule, and the time frame requested for response. The input and meeting notes from the TLT were provided to the PLT.

TLT members consist of representatives from:

- CDOT Region 2 Resident Engineer
- CDOT Region 2 Environmental
- CDOT Region 2 Right-of-Way
- CDOT Region 2 Utilities
- CDOT Region 2 Traffic
- CDOT Region 2 Maintenance
- City of Pueblo Transportation
- City of Pueblo Planning
- City of Pueblo Public Works
- City of Pueblo Parks and Recreation
- Pueblo County Public Works
- State Patrol and City Police
- CH2M HILL Consultant Team

3.4 Community Working Group (CWG) Roles and Responsibilities

The CWG was organized around three segments along the I-25 corridor. The primary role for the CWG was to provide local information, goals, and concerns about the problems and solutions under discussion.

The CWG met once per month for 2 hours to review and discuss issues specific to their areas of concern. When issues overlapped at the boundaries of a segment, joint meetings were held to bring the groups to an understanding of neighboring issues. A list of CWG members follows:

Community Working Group Participants

Reuben Aiellano	Joseph Gamma	Ineta Price
Don Alberts	Donna Gamma	Jane Rhodes
Leta Alberts	Joe Gomez	Stan Rivera
Mark Aliff	Kathleen Greer	John Rodriguez
Carol Alumbaugh	Garth Haigh	Peter Roper
Janice Anderson	Rick Hanger	Janice Roybal
Todd Anhlenius	Phil Harmann	Hannah Rush
David Balsick	Claire Harmann	Anthony Sabitini
Frank Bergamo	Jana Hart	Aldea Sabo
James Billings	Anna Hegler	John Schnedler
Janet Boyd	Ray Hegler	Carol Schnedler
Bonner Brice	Dave Hibbert	Chester Sheets
Cliff Brice	Dick Hobbs	H.L. Shriver
Erwin Burk	John Holiman	Phyllis Sowell
Clara Burk	Edith Holiman	Dennis Sowell
Frances Burns	Delores Horton	John Spearing
Louie Carleo	Kathryn Hume	Myles Standish
George Carr	Fred Keury	Frank Starginer
Howard Carr	Thomas Kladek	John Starr
Ernie Castro	Frances Kladek	Darlene Staruh
Paul Conatore	Grant Koury	Frank Stringer
Ken Cooper	Ray Kushnir	Marilyn Sweeney
Diana Cooper	Bob Leach	Denise Thacher
Sam Corsentino	Gary Leonard	Dawn Thompson
Dwight Dauphin	Ted Lopez	Michael Tonne
Kirk Davis	Andrea Lopez	Catherine Tonne
Don Decesaro	Carol Lotenbauer	Clara Torri
Tess Decesro	Rita Lumley	Albert Torri
Ralph Dille	Dennis Mcclare	Bill Trujillo
Jo Donley	James Mcgrath	Larry Trujillo
George Dwight	Karen Mcgrath	Mary Lou Urenda
Russ Ellis	Virginia Mitchell	Ben Valdez
Patty Ellis	Janet Monack	Bill Vidmar
Clara Erwin	Doris Morgan	Barbara Vidmar
Paul Fanning	Chris Nielsen	Ray Warfield
Wayne Farley	Clark Nielsen	Aileen Warfield
Mary Farley	Bob Norris	Everett White
Sophie Faust	Dorothy Olivier	Kathie White
Barb Ferrero	Imogene Parsons	Bill Willging
Peggy Fogel	Todd Pasquin	Jean Williams
Tony Gagliano	Frank Petrocco	Paul Wright
Shirley Gagliano	Helen Porter	

3.5 Stakeholder Roles and Responsibilities

The primary role of stakeholders is to provide critical local information, goals, and values. Stakeholders participate in open houses and workshops, as described below, that offer them an opportunity to interact with project teams to affect the recommendation. Stakeholders are expected to share project information with their neighbors or groups they represent to gather feedback for the project. Participation as a stakeholder is open to all who are interested and able to commit the necessary time.

3.5.1 Open Houses

Open houses are a gathering of stakeholders with an open, non-formatted agenda that typically last 4 to 6 hours. Participants can arrive at their convenience and stay as long as needed to get their questions answered. Stations are set up for each of the relevant issues under consideration, and each station has a project member to answer questions. Participants are able to leave their comments on large paper pads at each station or on comment sheets that can be mailed to the project team. Open Houses are designed to give individuals adequate time to discuss their personal project-related issues with project team members.

3.5.2 Workshops

Workshops are a gathering of stakeholders, generally lasting 6 to 8 hours, with a structured agenda and a defined outcome. Workshops bring stakeholders of diverse backgrounds and issues together to meeting and discuss their common concerns and goals. Workshops involve both large and small group sessions. Large group sessions provide the opportunity to talk and listen to all participants, while small group sessions encourage more in-depth discussion. Workshops are designed to bring large, diverse groups together to set overarching project goals and visions.

3.6 Public Meetings and Topics Covered

Exhibit 3-1 presents a summary of each meeting held with a neighborhood, the CWG, a business group, or the entire community. The topics parallel the decisions being discussed at the TLT and PLT meetings.

Each meeting had a target audience. The targeted audiences ranged from the broad Pueblo community to very focused neighborhood groups from highly impacted areas. The groups invited to individual meetings included property owners adjacent to the project improvements and neighborhoods such as the Grove, which is generally a lower income area and is highly impacted by one alternative. The format of each meeting was designed to be responsive to the conversations. For example, individual meetings were held with property owners when their property may be needed for the improvements, while group meetings were held when the decision was more of a community issue.

EXHIBIT 3-1
Public Meetings Held for I-25 New Pueblo Freeway Project

Dates	Forum	Topics Covered	Attendance	Target Audience/Notification Method
7/6/00	OH	General introduction of project to community	142	Open/Newspaper ads and general mailing
8/12/00	Workshop	Introduce Project, discussed concerns, discussed Corridor Segment Group limits	68	Open/Newspaper ads and general mailing
8/19-9/4/00	STATE FAIR	Gathered Community Issues and Concerns	N/A	
9/5-7/00	CWG	Developed Vision	50	Open/Newspaper announcements and CWG mailing
9/19-21/00	CWG	Listed Concerns	44	Open/Newspaper announcements and CWG mailing
10/3-5/00	CWG	Developed Screening Criteria	39	Open/Newspaper announcements and CWG mailing
10/24-26/00	CWG	Brainstormed Ideas	31	Open/Newspaper announcements and CWG mailing
11/8-9/00	CWG	Reviewed Criteria. Funding Process	25	Open/Newspaper announcements and CWG mailing
12/5-7/00	CWG	First Level Screening. Interchange Overview	32	Open/Newspaper announcements and CWG mailing
1/17-18/01	CWG	Finalized 1st Level Screening. Defined Major Concepts. Second Level Screening	40	Open/Newspaper announcements and CWG mailing
2/14-15/01	CWG	Finalized 2nd Level Screening. Finalize Major Concepts.	33	Open/Newspaper announcements and CWG mailing
3/14-15/01	CWG	Third Level Corridor Screening	31	Open/Newspaper announcements and CWG mailing
4/25/01	CWG	Third Level Corridor Analysis Results. Corridor Recommendation	39	Open/Newspaper announcements and CWG mailing
5/16/01	CWG	Finalize Corridor	32	Open/Newspaper announcements and CWG mailing
5/24/01	OH	Announce corridor recommendation	108	Open/Newspaper ads and general mailing
6/16/01	Workshop	Potential Interchange Location Workshop	39	Open/Newspaper ads and general mailing
7/28/01	Workshop	Potential Interchange Type Workshop	79	Open/Newspaper ads and general mailing
8/6/01	Neighborhood	Bessemer Neighborhood Meeting	30	Neighborhood/Personal mailing
8/8/01	CWG	Prepare for Open House	38	Open/Newspaper ads and general mailing
8/15/01	OH	Announce Interchange recommendations and path forward	130	Open/Newspaper ads and general mailing
8/22/01	Business Group	Downtown Association Meeting	45	Downtown/group's regular meeting announcement
8/23/01	Chamber Offices	Chamber of Commerce Board o f Directors Meeting	18	Business owners/group's regular meeting announcement
8/26/01	YMCA Board Meeting at YMCA	Impacts of Downtown Interchange Alternative	12	YMCA operators by appointment
8/18-9/3/01	State Fair	Presented Alternative Interchange Locations	N/A	

EXHIBIT 3-1
Public Meetings Held for I-25 New Pueblo Freeway Project

Dates	Forum	Topics Covered	Attendance	Target Audience/Notification Method
10/15-17/01	Individual Meetings re: SH 50B to Stem Beach	Discussed Right-of-Way Impacts	60	Adjacent property owners/personal invitations with follow-up calls
10/16/01	Grove Public Meeting	Presented Alternative Alignments that Impact Neighborhood	20	The Grove neighborhood/personal invitations with follow-up calls
10/22-24/01	Individual Meetings re: SH 50B to Stem Beach	Discussed Right-of-Way Impacts	40	Adjacent property owners/personal invitations with follow-up calls
11/14/01	Urban Renewal Authority Press Conference	Project Update	15	Urban renewal authority members/group's regular meeting announcement
11/14/01	Editorial Board Meeting	Project Update	6	Editorial staff of Chieftan/by appointment
11/14/01	Open House covering 29th to SH 50B	Discussed Interchange Options at 29th & SH 50B	62	Open/Newspaper ads and general mailing
12/3/01	Rotary Presentation	Project Update	102	Rotary members/group's regular meeting announcement
12/6/01	PACOG TTC/CAC	Presented Project Progress	24	PACOG/regular meeting
12/11/01	Chamber Workshop	Project Update	15	Chamber members/groups regular meeting announcement
12/27/01	Chamber Workshop	Project Update	17	Chamber members/groups regular meeting announcement
12/28/01	29th Street Neighborhood Meeting with State Rep Tapia	Discussed preferred Alternative at 29th & SH 50B	180	Open/Newspaper ads and general mailing
1/3/02	PACOG TTC/CAC	Presented Traffic Forecasts	30	PACOG/regular meeting
1/15/02	Individual public meetings re: SH 50B to 29th Street	Discussed Right-of-Way and Access Impacts of Alternatives	27	Adjacent property owners/personal invitations with follow-up calls
1/24/02	Downtown Association presentation	Project Update	15	Businesses/group's regular meeting announcement
1/24/02	PACOG BOD Meeting	Project Update	22	PACOG/reg meeting
2/5/02	Public Open House	Presented Recommended Corridor and Interchange Layouts	96	Open/Newspaper ads and general mailing

Total attendance at these meetings has been 1,836. Records of attendance at meetings, written comments, and verbal comments are on file and available for review. Appendix E provides a compendium of comments received.

3.7 Communication and Outreach

3.7.1 News Coverage and Public Notices

News coverage of the new Pueblo freeway project was extensive and included the following:

- News Stories. Thirteen major stories about the study appeared in the *Pueblo Chieftan*, the majority on the front page. In addition, six large stories were published in the *Pueblo Business Journal*.
- Letters to the Editor. Six letters to the editor and two replies from the team/CDOT were published in the *Pueblo Chieftan*.
- Newspaper Ads. Two ads for each open house, workshop, and eight CWG meetings appeared in the *Pueblo Chieftan*.
- Downtown Association Newsletter. This organization published seven stories during the study.
- Pueblo Chamber of Commerce Newsletter. The Chamber published three articles during the study.

3.7.2 Television/Radio

The study received eight mentions or complete television news interviews. Bill Knapp, David Miller, Bob Torres, and Mary Jo Vobejda were on-camera for some of these stories.

Radio station broadcast three news stories focusing on the study and announced every open house and workshop. David Miller was the guest on at least one of these shows.

3.7.3 Hot Line

More than 2,000 calls were made to the hot line or direct to team members during the study. The majority of callers were concerned citizens who wanted more detail about the study as it related to their piece of property. These citizens often requested a meeting with an engineer to gain detailed information regarding specific locations and the impacts of the alternatives under consideration. Thirty to forty percent of the calls were from citizens concerned about the effect of the project on their specific needs. Many of these calls might fit into Environmental Justice issues. The callers were not comfortable calling their City and County representatives and were not inclined to write letters. A small percentage of the calls involved caller confusion regarding the project. Responses were made to all calls.

3.7.4 Web Page

A Web page was constructed specifically for this project. Appendix F contains a sample of the information available to the public. Data are not available to determine the usage of the Web page, but previous experience on other projects in the region and feedback from local citizens indicates substantial usage.

3.7.5 Brochures/Flyers

Flyers were produced as handouts for open houses that detailed the alternatives under consideration at that time. As a final project handout, a brochure was produced detailing the steps, the people, and celebrating the community's involvement in the decision process.

DRAFT

Appendices for I-25 New Pueblo Freeway Alternatives Analysis and Project Development Report

Prepared for

Colorado Department of Transportation

Prepared by

CH2MHILL

SECTION 1.0

Introduction and Project Information

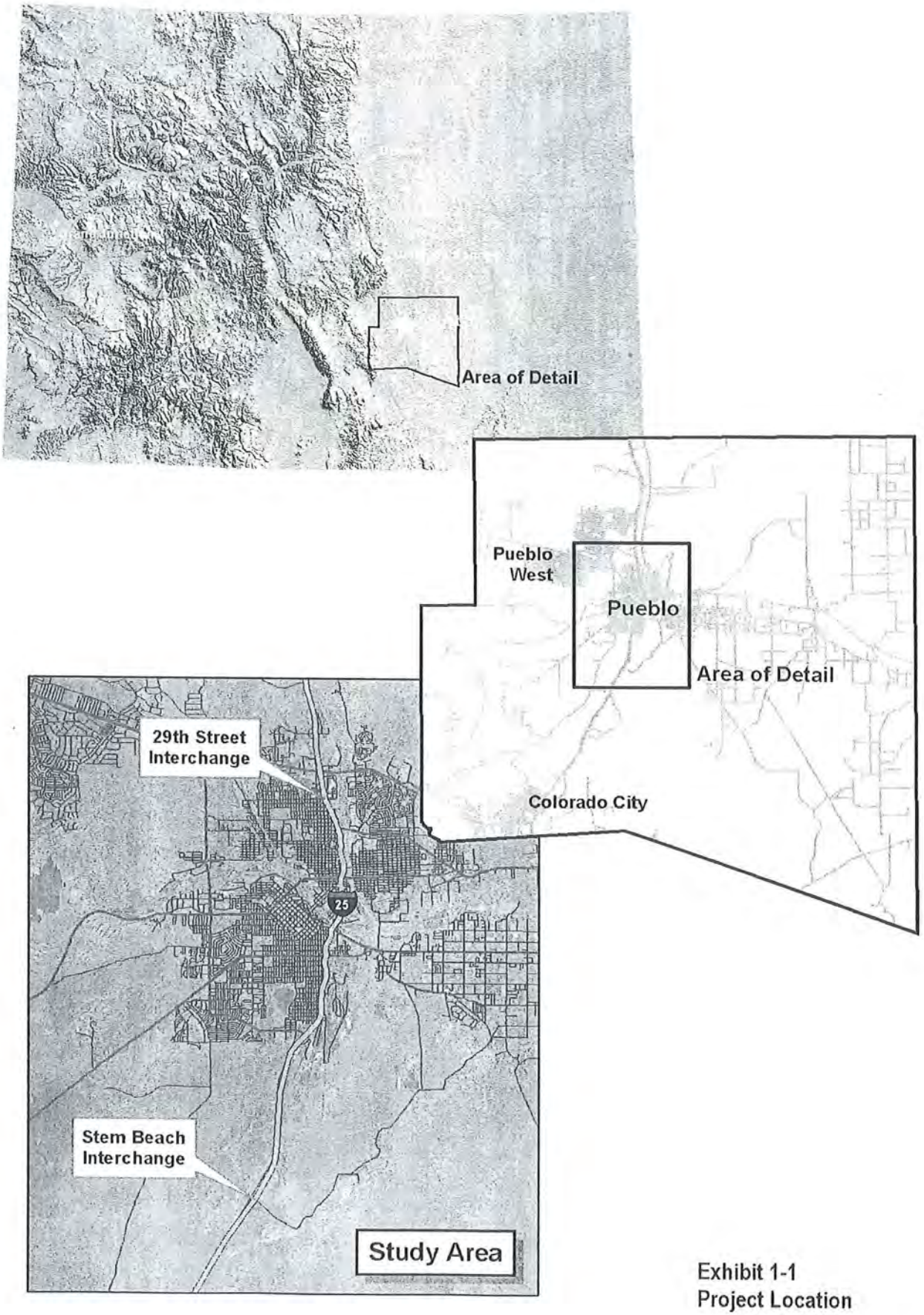


Exhibit 1-1
Project Location

Decision Process

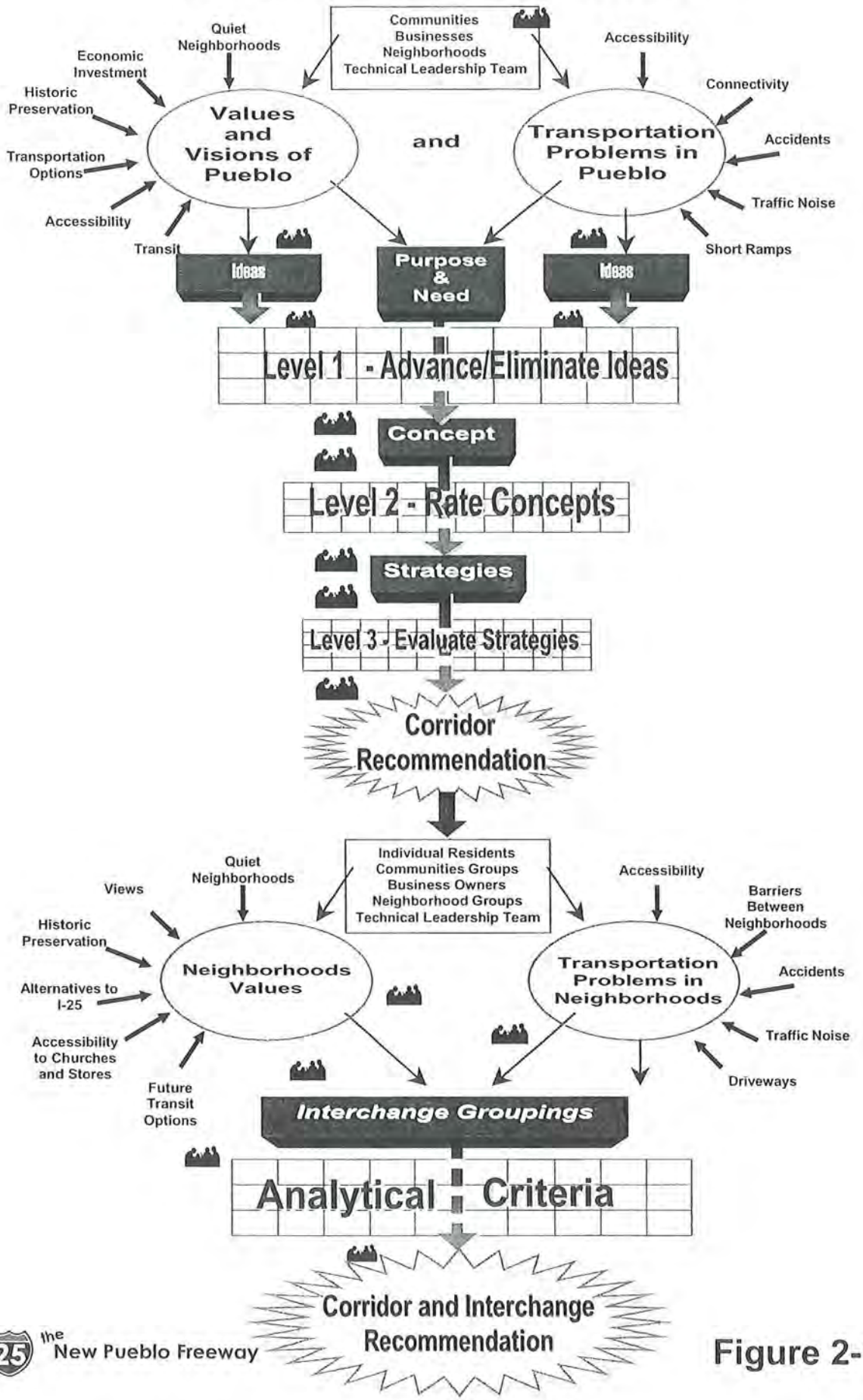


Figure 2-1

Vision

I-25 must provide a balance between the needs of interstate and regional trips with the needs of local trips. Part of the balance must come from an adequate and maintainable local street network that provides alternate routes to local destinations.

I-25 must be a safe facility. Access must be provided to appropriate east/west local streets. Improvements must be accomplished while preserving the environmental, community, business, and the neighborhood values.

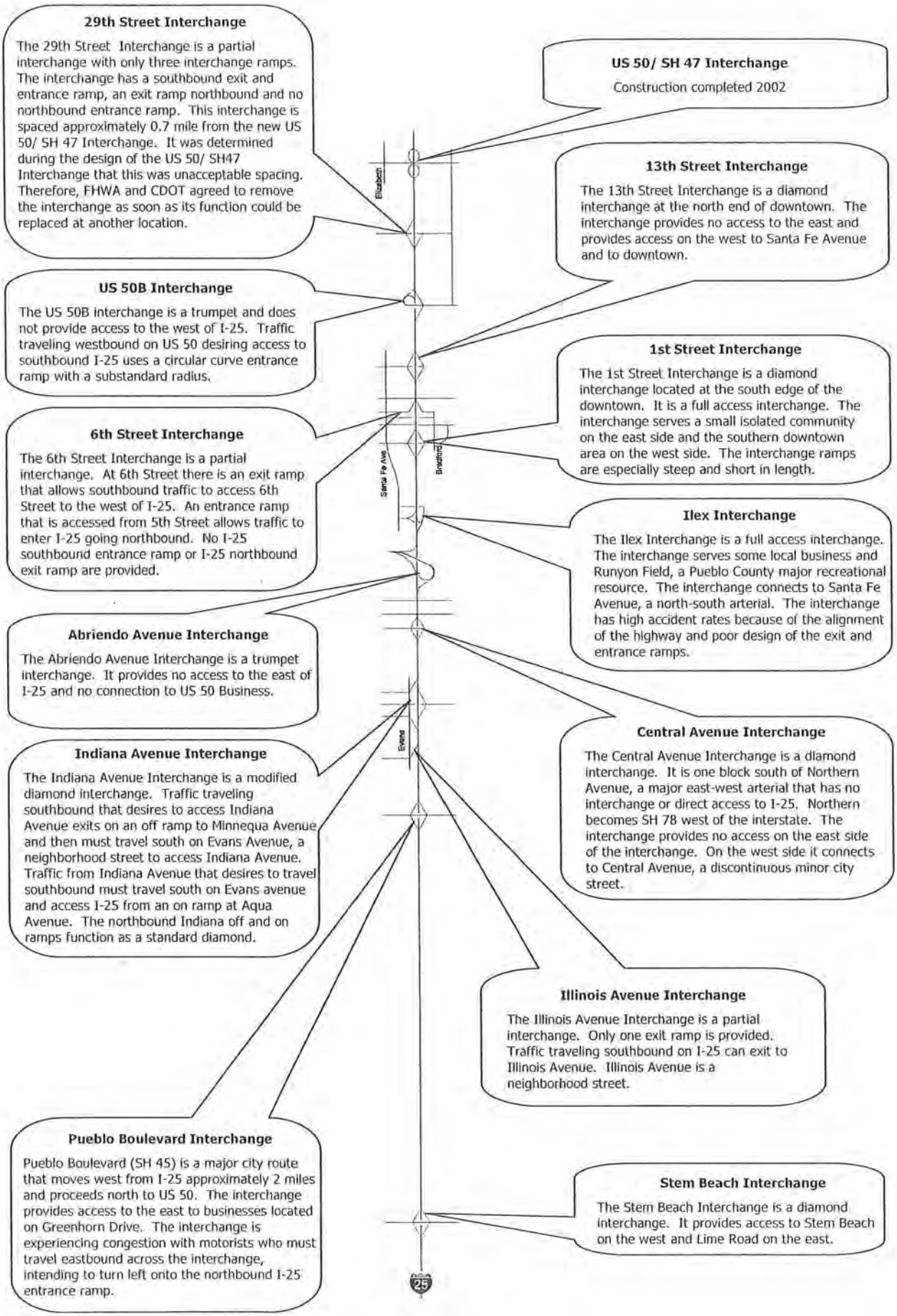
I-25 improvements must follow consistent state-of-the-art aesthetic guidelines that integrate design elements with the community. These guidelines must have community endorsement and reflect the culture, history, and character of Pueblo.

The connection between improvements and surrounding land use must be considered and planned as a part of our vision.

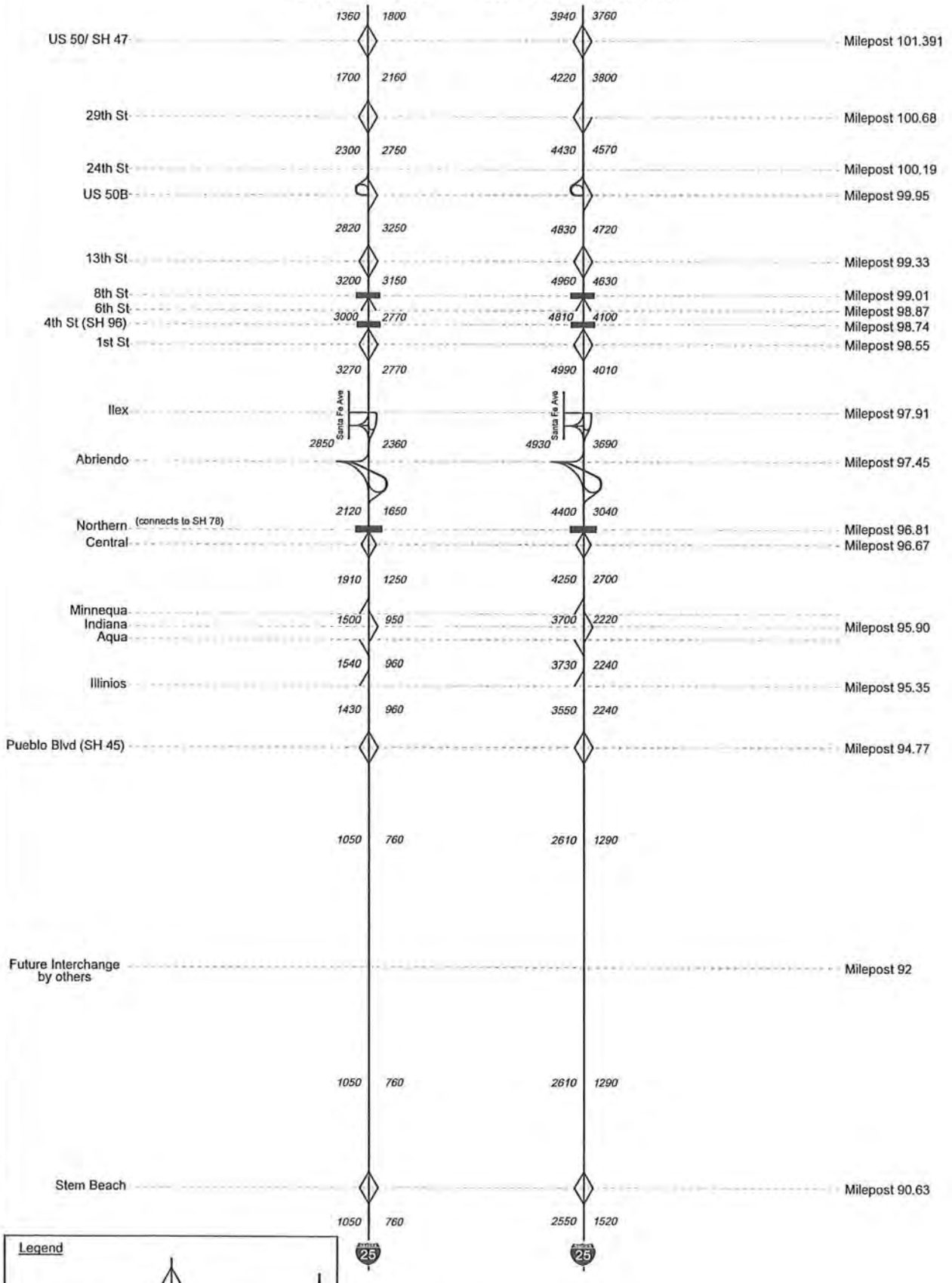
A high standard for the improvements to I-25 must be set and maintained. All improvements must be . . .

- Maintainable
- User friendly
  - Understandable
  - Communicates information clearly
  - Comfortable to drive
  - Provides personnel safety features (i.e., roadside telephones)
  - Meets driver expectations
- Multi-modal
- Fair treatment for those impacted
- Forward looking to accommodate
  - Future travel needs
  - Technology improvements

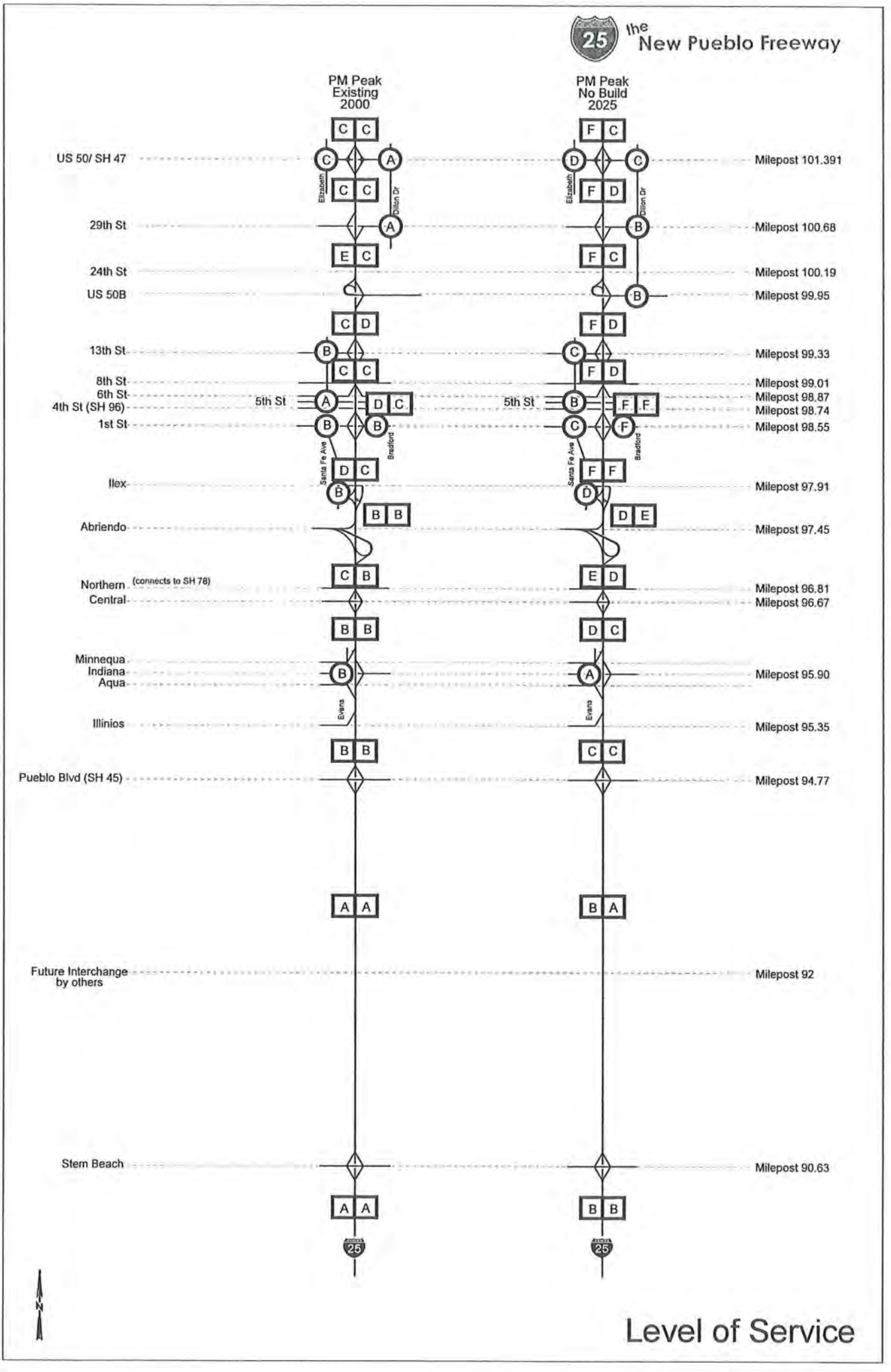
The implementation of this vision requires the continuing partnership between public agencies, the citizens, and private developers to support, implement, and fund improvements.


29th Street Interchange
The 29th Street Interchange is a partial interchange with only three interchange ramps. The interchange has a southbound exit and entrance ramp, an exit ramp northbound and no northbound entrance ramp. This interchange is spaced approximately 0.7 mile from the new US 50/ SH 47 Interchange. It was determined during the design of the US 50/ SH47 Interchange that this was unacceptable spacing. Therefore, FHWA and CDOT agreed to remove the interchange as soon as its function could be replaced at another location.
US 50/ SH 47 Interchange
Construction completed 2002
13th Street Interchange
The 13th Street Interchange is a diamond interchange at the north end of downtown. The interchange provides no access to the east and provides access on the west to Santa Fe Avenue and to downtown.
US 50B Interchange
The US 50B interchange is a trumpet and does not provide access to the west of I-25. Traffic traveling westbound on US 50 desiring access to southbound I-25 uses a circular curve entrance ramp with a substandard radius.
1st Street Interchange
The 1st Street Interchange is a diamond interchange located at the south edge of the downtown. It is a full access interchange. The interchange serves a small isolated community on the east side and the southern downtown area on the west side. The interchange ramps are especially steep and short in length.
6th Street Interchange
The 6th Street Interchange is a partial interchange. At 6th Street there is an exit ramp that allows southbound traffic to access 6th Street to the west of I-25. An entrance ramp that is accessed from 5th Street allows traffic to enter I-25 going northbound. No I-25 southbound entrance ramp or I-25 northbound exit ramp are provided.
Ilex Interchange
The Ilex Interchange is a full access interchange. The interchange serves some local business and Runyon Field, a Pueblo County major recreational resource. The interchange connects to Santa Fe Avenue, a north-south arterial. The interchange has high accident rates because of the alignment of the highway and poor design of the exit and entrance ramps.
Abriendo Avenue Interchange
The Abriendo Avenue Interchange is a trumpet interchange. It provides no access to the east of I-25 and no connection to US 50 Business.
Central Avenue Interchange
The Central Avenue Interchange is a diamond interchange. It is one block south of Northern Avenue, a major east-west arterial that has no interchange or direct access to I-25. Northern becomes SH 78 west of the interstate. The interchange provides no access on the east side of the interchange. On the west side it connects to Central Avenue, a discontinuous minor city street.
Indiana Avenue Interchange
The Indiana Avenue Interchange is a modified diamond interchange. Traffic traveling southbound that desires to access Indiana Avenue exits on an off ramp to Minnequa Avenue and then must travel south on Evans Avenue, a neighborhood street to access Indiana Avenue. Traffic from Indiana Avenue that desires to travel southbound must travel south on Evans avenue and access I-25 from an on ramp at Aqua Avenue. The northbound Indiana off and on ramps function as a standard diamond.
Illinois Avenue Interchange
The Illinois Avenue Interchange is a partial interchange. Only one exit ramp is provided. Traffic traveling southbound on I-25 can exit to Illinois Avenue. Illinois Avenue is a neighborhood street.
Pueblo Boulevard Interchange
Pueblo Boulevard (SH 45) is a major city route that moves west from I-25 approximately 2 miles and proceeds north to US 50. The interchange provides access to the east to businesses located on Greenhorn Drive. The interchange is experiencing congestion with motorists who must travel eastbound across the interchange, intending to turn left onto the northbound I-25 entrance ramp.
Stem Beach Interchange
The Stem Beach Interchange is a diamond interchange. It provides access to Stem Beach on the west and Lime Road on the east.
Elizabeth
Santa Fe Ave
Bradford
Evans
25

the New Pueblo Freeway



Traffic Data


the New Pueblo Freeway
PM Peak Existing 2000
PM Peak No Build 2025
US 50/ SH 47
29th St
24th St
US 50B
13th St
8th St
6th St
4th St (SH 96)
1st St
5th St
Elizabeth
Dillon Dr
Santa Fe Ave
Bradford
Ilex
Abriendo
Northern (connects to SH 78)
Central
Minnequa
Indiana
Aqua
Illinios
Evans
Pueblo Blvd (SH 45)
Future Interchange by others
Stem Beach
Milepost 101.391
Milepost 100.68
Milepost 100.19
Milepost 99.95
Milepost 99.33
Milepost 99.01
Milepost 98.87
Milepost 98.74
Milepost 98.55
Milepost 97.91
Milepost 97.45
Milepost 96.81
Milepost 96.67
Milepost 95.90
Milepost 95.35
Milepost 94.77
Milepost 92
Milepost 90.63
N
Level of Service

APPENDIX A

Evaluation of Existing Conditions

the New Pueblo Freeway

I-25: THE NEW PUEBLO FREEWAY PROJECT

STEM BEACH TO 29th STREET

EVALUATION OF EXISTING CONDITIONS

DOT

CH2MHILL

I-25: The New Pueblo Freeway Project

Stem Beach to 29th Street

Evaluation of Existing Conditions

TABLE OF CONTENTS

Contents, continued

TABLES

1. Introduction

This report has been prepared to summarize an initial evaluation of existing conditions along Interstate 25 through Pueblo, Colorado. The corridor study limits are bounded on the south by Stem Beach and on the north by 29th Street. The majority of the project is urban, becoming rural south of the Pueblo City Limits, at Pueblo Boulevard.

Right-of-way along the urban section is typically narrow and confined by several railroad lines to the east and well-established residential neighborhoods to the west. A steel mill and associated tailings/workings are also located near the roadway at the southeastern end of the corridor. Fountain Creek runs southerly along the corridor into the Arkansas River, which is a central historical district for the City of Pueblo.

Posted speed limits along the urban portion of the mainline range from 50 mph to 65 mph. The posted speed limit along the rural section of the mainline is 75 mph. Posted speed limits at the interchange ramps range from 20 mph to 45 mph.

The following sections document the data collection activities, development of evaluation criteria, and initial evaluation of the existing conditions along the corridor.

2. Data Collection

Data has been collected from several sources at the Colorado Department of Transportation. Available as-builts and record drawings were collected from the Engineering Records Unit. A 'Field Log of Structures', dated June 1999, was obtained from the Bridge Management Systems Unit Internet site. Accident data was requested from the Transportation Safety, Traffic Records Unit for the time period from January 1, 1997 through December1 31, 1999.

A field review was conducted by CH2M HILL on August 10 and 11, 2000. Photographs and field observations were collected and documented for the entire corridor. The field review included detailed observation of the interchange ramps and associated intersections.

An aerial photo of the entire length of corridor was flown on June 20, 2000. This aerial photo was provided electronically at both 5-foot pixels and 2-foot pixels in MrSid Viewer format.

3. Evaluation Criteria

Criteria were developed for evaluation of the existing corridor for geometric features, operational features, and overall performance measures. The criteria were used to rate each segment of the corridor as GOOD, FAIR, and POOR. The following sections describe the components of each criterion and the basis of the rating.

Design speed is the maximum safe speed that can be maintained over a section of roadway when conditions are such that the design features of the road govern. The posted speed limits throughout the corridor were noted and design speeds were set at 5 to 10 mph higher depending on road conditions, topography, and user characteristics. The following table summarizes the design speeds used for the mainline:

TABLE 3-1
Posted Speed vs Design Speed

Corridor Segment	Posted Speed (mph)	Design Speed (mph)
1	75	80
2	65	70
3	55	60
4	50	60
5	50	60
6	50	60
7	55	60
8	55	60

3.1 Geometric Features

3.1.1 Horizontal Alignment

The horizontal alignment was evaluated based on information collected from available as-built drawings and field review observations. Evaluation criteria were established according to CDOT's Design Guide for a maximum superelevation rate of 0.08 feet per foot. This superelevation rate applies to rural and urban roadways that are subjected to icing conditions frequently. The following criteria apply to the horizontal curvature of the mainline and the ramps:

TABLE 3-2
Evaluation Criteria for Horizontal Curves

Design Speed (mph)	Rating of Horizontal Curves		
	Good	Fair	Poor
25	Less than 33° 00'	33° 00'	Greater than 33° 00'
30	Less than 22° 45'	22° 45'	Greater than 22° 45'
35	Less than 16° 00'	16° 00'	Greater than 16° 00'
40	Less than 12° 15'	12° 15'	Greater than 12° 15'
45	Less than 9° 15'	9° 15'	Greater than 9° 15'
50	Less than 7° 30'	7° 30'	Greater than 7° 30'
55	Less than 6° 00'	6° 00'	Greater than 6° 00'
60	Less than 4° 45'	4° 45'	Greater than 4° 45'
65	Less than 3° 45'	3° 45'	Greater than 3° 45'
70	Less than 3° 00'	3° 00'	Greater than 3° 00'
80	Less than 2° 15'	2° 15'	Greater than 2° 15'

Reference: CDOT Design Guide Volume I AASHTO Chapters (English Units) 1995

Rating of the horizontal curves is based primarily on review of available as-built drawings and field observations. Criteria for superelevation runout lengths range from 150 feet to 200 feet with 40% of the superelevation achieved within the horizontal curve or in the entire length of spiral if they exist. As-built information for superelevation rates was not available at the time of this report.

3.1.2 Vertical Alignment

The vertical alignment was evaluated based on information collected from available as-built drawings and field review observations. Evaluation criteria were established according to CDOT's Design Guide for level terrain applicable to rural and urban freeways. The mainline as well as the ramps were evaluated.

The vertical alignment was evaluated using a two step procedure. The first criteria used are simply based on the maximum grade. The following criteria were used to evaluate maximum grades throughout the study area:

TABLE 3-3
Evaluation Criteria for Vertical Grades

Design Speed (mph)	Rating		
	Good	Fair	Poor
30	Level to 5%	5% to 7%	Greater than 7%
40	Level to 4%	4% to 6%	Greater than 6%

TABLE 3-3
Evaluation Criteria for Vertical Grades

Design Speed (mph)	Rating		
	Good	Fair	Poor
45	Level to 3%	3% to 5%	Greater than 55
50	Level to 3%	3% to 5%	Greater than 5%
60	Level to 3%	3% to 5%	Greater than 5%
70	Level to 3%	3% to 5%	Greater than 5%
80	Level to 35	3% to 5%	Greater than 5%

Reference: CDOT Design Guide Volume I AASHTO Chapters (English Units) 1995

The second criteria evaluates the 'critical length of grade' defined by AASHTO as 'the maximum length of a designated upgrade on which a loaded truck can operate without an unreasonable reduction in speed'. Accident rates increase as a vehicle's speed deviates from the average speed. These accident rates increase significantly when the speed is reduced by more than 10 mph. The following criteria were used to evaluate the existing vertical grades for a speed reduction of 10 mph:

TABLE 3-4
Evaluation Criteria for Critical Length of Grade

Percent Upgrade	Length of Grade (feet)
2	2500
3	1400
4	1000
5	750
6	600

Reference: AASHTO Green Book, 1990

3.1.3 Stopping Sight Distance

Stopping sight distance is the combined total of the brake reaction distance and the braking distance. This accounts for the time it takes the driver to recognize that a stop is necessary and the time it takes to actually apply the brakes and stop the vehicle. Criteria have been developed based on wet pavement conditions and braking reaction time of 2.5 seconds. The following criteria were used for evaluation of the corridor:

TABLE 3-5
Evaluation Criteria for Stopping Sight Distance

Design Speed (mph)	Rating		
	Good	Fair	Poor
30	Greater than 200 feet	200 feet	Less than 200 feet
40	Greater than 325 feet	275 feet to 325 feet	Less than 275 feet
45	Greater than 400 feet	325 feet to 400 feet	Less than 325 feet
50	Greater than 475 feet	400 feet to 475 feet	Less than 400 feet
60	Greater than 650 feet	525 feet to 650 feet	Less than 525 feet
70	Greater than 850 feet	625 feet to 850 feet	Less than 625 feet
80	Greater than 1,100 feet	950 feet to 1,100 feet	Less than 950 feet

Reference: CDOT Design Guide, Page 3-2

Rating of the stopping sight distance was based on review of available as-built drawings and field observations. The vertical curves were also evaluated for the existing "K" value. This relates the algebraic difference in grade and length of the vertical curve. The rating of the "K" value was based strictly on the available as-built drawings. For the purposes of this report, evaluation of the "K" value is a secondary check of the stopping sight distance noted above.

TABLE 3-6
Evaluation Criteria for "K" Value – Vertical Curves

Design Speed (mph)	Rating – Crest / (Sag)		
	Good	Fair	Poor
30	Greater than 30 / (40)	30/(40)	Less than 30/(40)
40	Greater than 80/(70)	60/(60) to 80/(70)	Less than 60/(60)
45	Greater than 120/(90)	80/(70) to 110/(90)	Less than 80/(70)
50	Greater than 160/(110)	110/(90) to 160/(110)	Less than 110/(90)
60	Greater than 310/(160)	190/(120) to 310/(160)	Less than 190/(120)
70	Greater than 540/(220)	290/(150) to 540/(220)	Less than 290/(150)

Reference: CDOT Design Guide, Page 3-2

3.1.4 Cross Sectional Elements

Cross sectional elements encompass a wide variety of components of roadway. Lane widths, shoulder widths, clear zone obstructions, side slopes, and guardrail were the components that apply to this corridor. Field observations were noted for these elements and available as-builts were also referenced. The following criteria were used to evaluate the corridor mainline and ramps:

TABLE 3-7
Evaluation Criteria for Cross Sectional Elements

Rating	Criteria
Good	12-foot wide lane
	10-foot wide outside shoulder
	4-foot wide inside shoulder
	30-foot clear zone free of obstructions
	4:1 foreslopes
	3:1 or flatter backslopes
	Guardrail along slopes steeper than 3:1
Fair	11-foot to 12-foot wide lane
	8-foot wide outside shoulder
	2-foot to 4-foot wide inside shoulder
	30-foot clear zone free of obstructions or equipped with barriers
	3:1 to 4:1 foreslopes
	3:1 backslopes
	Guardrail along slopes steeper than 3:1
Poor	Less than 11-foot wide lane
	Less than 8-foot wide outside shoulder
	Less than 2-foot wide inside shoulder
	Obstructions within the 30-foot clear zone
	Steeper than 3:1 foreslopes
	2:1 or steeper backslopes
	No guardrail or other barriers

Reference: CDOT Design Guide, Chapter 4

3.1.5 Decision Sight Distance

Decision sight distance is a measure of advanced notification to the driver for exits from the roadway, major forks, and lane drops. At these locations, drivers must perceive, decide a course of action, and navigate. Evaluation criteria were developed based on CDOT Design Guides. Rating of the decision sight distance is based primarily on field observations and review of the aerial photographs.

TABLE 3-8
Evaluation Criteria for Decision Sight Distance

Design Speed (mph)	Rating		
	Good	Fair	Poor
30	Greater than 625 feet	450 feet to 625 feet	Less than 450 feet
40	Greater than 825 feet	600 feet to 825 feet	Less than 600 feet
45	Greater than 925 feet	675 feet to 925 feet	Less than 675 feet
50	Greater than 1,025 feet	750 feet to 1,025 feet	Less than 750 feet
60	Greater than 1,275 feet	1,000 feet to 1,275 feet	Less than 1,000 feet
70	Greater than 1,450 feet	1,100 feet to 1,450 feet	Less than 1,100 feet
80	Greater than 1,625 feet	1,200 feet to 1,625 feet	Less than 1,200 feet

Reference: CDOT Design Guide, Page 3-15

3.1.6 Exit and Entrance Ramp Design

Exit and entrance ramp design is evaluated based on two elements: 1). the acceleration or deceleration length of taper available to the driver, and 2). the ramp curvature in the vicinity of the point of merge or diverge. The evaluation criteria are based on AASHTO recommendations. Field observations, review of the aerial photograph and available as-builts were used to develop ratings.

TABLE 3-9
Evaluation Criteria for Exit and Entrance Ramp Design

Criteria	Rating		
	Good	Fair	Poor
Entrance Taper	70:1	70:1 to 50:1	Less than 50:1
Exit Taper	2°	2° to 5°	Greater than 5°
Curvature at Nose	Less than 5° 15'	5° 15' to 9° 15'	Greater than 9° 15'
Acceleration Length (60 mph)	Greater than 910 feet	500 feet to 910 feet	Less than 500 feet
Deceleration Length (60 mph)	Greater than 430 feet	315 feet to 430 feet	Less than 315 feet

Reference: AASHTO, 1990; pages 984, 987, 169, 986, and 991

Exit ramps were also evaluated for isolated locations, single exit design, and exits on curved alignments rather than on tangents.

3.1.7 Ramp Design

Apart from the mainline exit and entrance ramp design, an evaluation was made of the overall condition of the interchange ramps. This evaluation is based on cross sectional elements, horizontal and vertical alignment, and functionality. The criteria are generally based on field observations and items noted during the field review. Limited as-built information was available for the ramps. The ramps are rated as FAIR or POOR based on field conditions noted.

3.2 Operational Features

3.2.1 Route Continuity

Route continuity provides a directional path along and throughout the length of the corridor mainline. A continuous through route does not require the driver of the corridor to change lanes and allows vehicular operation to occur on the left of all other traffic (AASHTO, 1990; page 938). This criterion encompasses proper lane continuity and maintenance of basic number of lanes.

The criteria established for route continuity is based on AASHTO guidelines and evaluation was made based primarily on field observations. The rating does not distinguish between GOOD and FAIR. If the route lacks continuity, it is rated as POOR. Otherwise, it is rated as GOOD.

3.2.2 Lane Balance

Lane balance through and beyond interchanges achieves efficient traffic operations. It is a constant number of lanes assigned to a route for a significant distance. Features of this criteria include adding or deleting one lane at a time, removing basic lanes following significant changes in traffic volumes, and minimizing the number of lane changes at exit and entrance locations (AASHTO, 1990; page 942).

To achieve lane balance at entrance ramps, the number of mainline lanes downstream of the ramp should be one less than the combination of mainline lanes prior to the entrance ramp and the number of lanes on the ramp. At exit ramps, lane balance is achieved when the number of mainline lanes prior to the exit ramp is equal to or one greater than the combination of exit ramp lanes and mainline lanes downstream of the exit ramp. For example, if an auxiliary lane is being dropped at an exit ramp, the exit ramp should have an optional exit lane to allow vehicles traveling in the right-most lane to exit without having to merge into the auxiliary lane.

The criteria established for lane balance is based on AASHTO guidelines and evaluation was made based primarily on field observations. The rating does not distinguish between GOOD and FAIR. If the corridor does not maintain lane balance, it is rated as POOR. Otherwise, it is rated as GOOD.

3.2.3 Ramp Sequence

Ramp sequencing evaluates the distance between successive ramp terminals to allow adequate length for maneuvering and adequate space for signing. The following criteria have been established by AASHTO and evaluation was made based on aerial photographs, field observations, and as-built drawings.

TABLE 3-10
Evaluation Criteria for Ramp Sequencing/Ramp Spacing Distances

Ramp-Pair Combination	Rating		
	Good	Fair	Poor
Entrance to Entrance	1,500 feet	1,000 feet to 1,500 feet	Less than 1,000 feet
Exit to Exit	1,500 feet	1,000 feet to 1,500 feet	Less than 1,000 feet
Exit to Entrance	750 feet	500 feet to 750 feet	Less than 500 feet
Entrance to Exit	3,000 feet	2,000 feet to 3,000 feet	Less than 2,000 feet

Reference: AASHTO, 1990; page 983

3.2.4 Signing

Signing of the roadway is directly related to the geometric design. Effective signing informs, warns, and controls drivers. AASHTO provides recommendations on signing of roadways, based on guidance from the MUTCD.

Criteria for the evaluation of existing signing relates to the following:

1. Signs should be placed on structures, outside the clear zone, or behind traffic barriers required to shield other hazard. If this is not feasible, signs should be on breakaway posts.
2. Information signs indicating the relative location to an exit ramp should be placed at a minimum 1/2 mile from the exit, 1/4 mile from the exit, and at the gore point of the exit.
3. MUTCD has set a limit of 5 message units per single sign and a limit of 4 message units per single sign in pairs.

Development of a rating system for signing is based primarily on the hazard to the driver. Therefore, if Criteria 1 is not met, it receives a rating of POOR. If either criteria 2 or 3 are not met, it receives a rating of FAIR. If all three criteria are met, it receives a rating of GOOD. Evaluation of the signing is based on field observations and corridor photographs taken during the field visit.

3.3 Performance Measures

3.3.1 Level of Service

The Highway Capacity Manual defines the level of service (LOS) of a roadway as 'a qualitative measure describing operational conditions within a traffic stream, and their

perception by motorists and / or passengers'. The level of service applies to speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Levels of service range from LOS A, characterizing free flow, to LOS F, characterizing forced or breakdown flow.

Criteria for LOS evaluation of a basic freeway segment, weaving section or merge and diverge areas are defined in terms of density. The following tables are based on the Highway Capacity Manual criteria:

TABLE 3-11
Evaluation Criteria for Level of Service on Basic Freeway Segments

Level of Service	Maximum Density (pc/mi/ln)	70 mph Design Speed		60 mph Design Speed		Rating
		Maximum Speed (mph)	Maximum Service Flow Rate (pc/h/ln)	Maximum Speed (mph)	Maximum Service Flow Rate (pc/h/ln)	
A	≤ 11	≤ 70	770	≥ 60	660	Good
B	≤ 18	≤ 70	1,260	≥ 60	1,080	Good
C	≤ 26	≤ 68.2	1,770	≥ 60	1,560	Good
D	≤ 35	≤ 61.5	2,150	≥ 57.6	2,020	Fair
E	≤ 45	≤ 53.3	2,400	≥ 51.1	2,300	Fair
F	> 45	Demand Exceeds Capacity	Highly variable	Demand Exceeds Capacity	Highly variable	Poor

Reference: Highway Capacity Manual, 2000

TABLE 3-12
Evaluation Criteria for Level of Service for Weaving Sections and Merge/Diverge Areas

Level of Service	Density (pc/mi/ln)	Rating
A	≤ 10	Good
B	≤ 20	Good
C	≤ 28	Good
D	≤ 35	Fair
E	> 35	Fair
F	Demand Exceeds Capacity	Poor

Reference: Highway Capacity Manual, 2000

Traffic volumes (ramp and mainline) are key input for the LOS analysis. CDOT provided September 2000 PM peak-hour traffic volumes for most of the ramps in the study corridor. For the ramps where Year 2000 PM peak-hour count data were not available, 1997 PM peak-hour counts were used with the recommended CDOT annualized growth rate (1.3 percent) to approximate Year 2000 volumes. For the mainline, Average Daily Traffic (ADT) volumes were provided by CDOT in several spot locations along the study corridor. PM peak-hour mainline volumes were estimated using a percentage of the ADT volumes (the k-factor) provided by CDOT as a guide. PM peak-hour levels of service for the I-25 mainline, as well as merge and diverge areas, were then calculated using the Highway Capacity Manual software (HCS2000 release 4.1b).

3.3.2 Accident Rates

Accident rates along the corridor have been analyzed to correlate geometric features, signing, ramp locations, and clear zone obstructions to the safety of the roadway. Accidents are typically caused by several elements, not a single one. These are the human element, the vehicle element, and the highway element. A safe highway is one that has been designed so that a driver needs to make only one decision at a time and is not surprised by an unexpected situation where a decision must be made quickly.

For the purposes of this report, 1997, 1998 and 1999 ADT volumes were obtained from CDOT for the mainline. The average ADT volumes were applied to the mainline at locations just north of the northernmost ramp in both directions. It was assumed that traffic flow was split between NB and SB evenly at 50%.

The latest statewide average traffic accident rates for Colorado are for the calendar year 1998. These rates are developed by CDOT based on reported accident data for the mainline, ramps, and crossroads. Accidents on frontage roads are not included in the calculations. Accident rates per million vehicle miles were compiled for the corridor based on accident data collected from January 1, 1997 through December 31, 1999, using the same criteria as CDOT.

The total accidents per million vehicle-miles of travel for the calendar year 1998 along Colorado rural and urban interstates are 1.02 and 2.07, respectively. The roadway between the Stem Beach interchange and the Pueblo Boulevard interchange is considered rural and the remainder of the corridor is urban.

Evaluation criteria were developed based on the most current information available from CDOT at the writing of this report. The baseline for determining the ratings is based on a value of 25 percent of the statewide average. The following table summarizes the criteria used to evaluate individual segments:

TABLE 3-13
Evaluation Criteria for Accident Rates

Classification	Total Accidents per Million Vehicle-Miles of Travel		
	Good	Fair	Poor
Rural	Less than 0.77	0.77 to 1.28	Greater than 1.28

TABLE 3-13
Evaluation Criteria for Accident Rates

	Total Accidents per Million Vehicle-Miles of Travel		
Urban	Less than 1.55	1.55 to 2.59	Greater than 2.59

3.4 Structures

CDOT regularly surveys all bridge structures over 20 feet on and off the state system. Bridge needs are assessed by the FHWA sufficiency rating system. The rating system consists of two parts, a sufficiency rating and integrity. The sufficiency rating is a numerical value between 0 and 100 which is based on the surveyed condition of all the elements of each bridge structure. Bridges receiving a sufficiency rating below 50 are considered the highest priority needs. The next classification, between 50 and 80, represent the second highest priority. The integrity is a method of identifying structurally deficient or functionally obsolete bridges through a rating assignment. Structurally deficient (SD) bridges are those that are in advanced stages of deterioration or are in marginal condition but still function at a minimum level. Also, included in this categorization are bridges that do not have desired load carrying capacities. Functionally obsolete (FO) bridges are those that have acceptable load carrying capacity but impose unacceptable physical restrictions (i.e., narrow width, restricted vertical clearance, limited sight distance, speed reducing curves, or insufficient waterway adequacy). Bridges which do not fall in either the structurally deficient or functionally obsolete categories are classified as neither (NO).

3.5 Traffic Control

Traffic control can consist of signalized intersections, stop signs, or no control.

4. EVALUATION OF EXISTING CORRIDOR

For purposes of this evaluation, the corridor was divided into 7 segments, numbered from south to north:

- Segment 1 - Stem Beach to Pueblo Boulevard
- Segment 2 - Pueblo Boulevard to Indiana Avenue
- Segment 3 - Indiana Avenue to Central Avenue
- Segment 4 - Central Avenue to Abriendo Avenue
- Segment 5 - Abriendo Avenue to Ilex Street
- Segment 6 - Ilex Street to 1st Street
- Segment 7 - 1st Street to US Hwy 50B
- Segment 8 – US Hwy 50B to 29th Street

Each segment includes the southerly interchange and associated ramps and the mainline north to the subsequent interchange ramps. Locations with partial interchanges are included as part of the major segment. Exhibits of each segment have been compiled to summarize the ratings for each evaluation criteria described in the previous section.

4.1 Segment 1 - Stem Beach to Pueblo Boulevard

This segment of the corridor includes NB and SB Interstate 25 from Stem Beach to Pueblo Boulevard. It includes the Stem Beach INTERCHANGE and the two Salt Creek crossings. The Stem Beach interchange is also referred to as County Road 30 and Lime Road.

There is a frontage road to the west of the interstate, which ends at the Stem Beach interchange. A sign at the frontage road indicates the road south of this point has been abandoned by CDOT. There is also a frontage road to the east of the interstate that runs along the steel mill tailings piles. This frontage road also provides access to an industrial park that is under development.

The Stem Beach interchange provides access to an antique store, an abandoned motel, and gas station / small convenience mart to the west and a 2-lane rural road to the east. There is no access to Stem Beach other than that provided to the property owners.

The posted speed limit through this segment is 75 mph, changing to 65 mph at Pueblo Boulevard. The design speed for this segment is 80 mph. Sheets 1, 2, and 3 (of 6) illustrate this segment.

4.1.1 Geometric Features

The **horizontal alignment** consists of large, sweeping curves joined by long tangential sections resulting in a GOOD rating.

The **vertical alignment** is relatively level except at crossings of Salt Creek resulting in a GOOD rating for the majority of the segment and FAIR for the section that crosses the railroad. The FAIR rating is due to a poor level of driver comfort.

The mainline **stopping sight distance** is rated as GOOD due to the mild vertical grades in this segment.

Cross sectional elements were rated based on field observations. Lane widths are 12-feet, shoulder widths are 8-feet except at bridge crossings, and clear zone widths were adequate with a wide, flat median separating the NB and SB lanes. However, unprotected steep side slopes (on the order of 2:1 to 3:1) were noted during the field review. At the time of the field review, there was no right-of-way fence between the interstate mainline and the frontage road. Guardrail was present at the structures. Due to the steep side slopes, lack of a right-of-way fence on the SB mainline, and narrow shoulders on the overpasses, the overall rating is FAIR.

Decision sight distance is rated as FAIR due to the SB exit taper lane being located near a vertical curve, making it hard to see. The remainder of the segment is rated as GOOD.

The **exit and entrance** rating for the SB mainline is FAIR for the exit ramp due to a short deceleration lane and GOOD for the entrance ramp. The NB exit and entrance ramps both are rated as GOOD due to good merge lane lengths and adequate deceleration length.

The **ramp design** is rated as POOR based on the steep side slopes that are unprotected, and the steep vertical grades.

4.1.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is achieved at all exit and entrances in this segment, therefore it is given a GOOD rating.

Ramp sequence is given a GOOD rating because there is more than adequate distance between interchange ramps.

Signing is generally rated as GOOD but at times is rated FAIR and POOR. The lack of 1/2 mile and 1/4 mile signs prior to the SB Stem Beach exit and NB Pueblo Blvd exit result in the POOR ratings. The FAIR rating is due to the incorrect placement of the SB exit sign in the gore area.

4.1.3 Performance Measures

Level of service for this segment is rated as GOOD. The I-25 mainline and Stem Beach ramps operate at LOS A.

Northbound and southbound **accident rates** for this segment are 0.90 and 0.76, respectively. The northbound segment is rated as FAIR and the southbound segment as GOOD, based on the rural criteria.

4.1.4 Structures

Structures through this segment include the Stem Beach overpass, a railroad crossing, two crossings of Salt Creek, and two CF+I water line crossings. The following table summarizes the structures within this segment. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-1
Summary of Structures within Segment 1

Milepost	Structure Identification	Intersecting Feature	Length of Structure/# of Spans	Sufficiency Rating and Integrity	Year Built / Widened
90.63	L-18-AZ	Stem Beach	249/5	-	1963
92.32	L-18-BY /	Abandoned	106/3	92.7 FO	1963
	L-18-BZ	Railroad	106/3	92.7 FO	1963
92.34	L-18-K	Salt Creek (Service Road)	32/1	90.9 NO	1931
92.76	L-18-BB/	Salt Creek	63/2	96.1 NO	1963
	L-18-BC		63/2	94.1 NO	1963
92.84	L-18-J	CF+I Water Lines (Service Road)	84/2	84.9 NO	1931
92.90	L-18-AX /	CF+I Water Lines	185/4	75.3 FO	1963
	L-18-AY	(Service Road)	185/4	75.3 FO	1963

4.1.5 Traffic Control

There are no signalized intersections within this segment. The ramp approaches are controlled by stop signs.

4.2 Segment 2 - Pueblo Boulevard to Indiana Avenue

This segment of the corridor includes NB and SB Interstate 25 from Pueblo Boulevard to Indiana Avenue. It includes the Pueblo Boulevard interchange and the Illinois Street SB exit ramp.

This segment is characterized as being on the fringe of the Pueblo City limits. Residential areas and a 69kV substation are located to the west of the interstate. The steel mill and railroad are located to the east. The Pueblo Boulevard interchange also provides access to a city park located at the southwest quadrant of the interchange.

The Pueblo Boulevard interchange provides access to the south end of Pueblo and an industrial park to the east. Illinois Avenue is an isolated ramp that provides a SB exit to a residential area and the substation.

The posted speed limit is 65 mph from Pueblo Boulevard to the NB exit ramp at Indiana Avenue. The design speed for this segment is 70 mph. Sheets 3 and 4 (of 6) illustrate the limits of this segment.

4.2.1 Geometric Features

The majority of the **horizontal alignment** through this segment is rated as GOOD due to large horizontal curves. The two horizontal curves leading into the Illinois Avenue exit ramp are rated FAIR because of the broken back curves. Based on field observations, there appears to be adequate superelevation runout length between the horizontal curves.

The **vertical alignment** is rated as FAIR on the north side of Pueblo Boulevard. The vertical alignment is rated as GOOD south of Pueblo Boulevard since it is relatively level. As-built information for the Illinois Avenue section was not available. Based on field observations of this area, the vertical alignment is rated as FAIR.

The mainline **stopping sight distance** is rated as GOOD throughout this segment.

Cross sectional elements were rated based on field observations. The overall rating is POOR due to the frequency of utility poles within the clear zone with no breakaway posts or bases. There is also mountable curb from the Illinois exit ramp without adequate distance from the traveled way. Steep cross slopes were noted at the SB and NB Pueblo Boulevard gore points. There is inadequate distance between the traveled way and the 69 kV electrical substation.

Decision sight distance is rated as GOOD at Pueblo Boulevard. It is rated as FAIR at Illinois Avenue due to the exit on a horizontal curve and obstructed view of the exit.

The **exit and entrance** rating for both Pueblo Boulevard and Illinois Avenue are GOOD due to adequate deceleration lengths and merge distances.

The **ramp design** is rated as GOOD at Pueblo Boulevard although the stopping sight distance on the crossroad is limited. The ramp design is rated as POOR at Illinois Avenue due to it being an isolated ramp and has a one-way lane connecting to a two-way striped, paved street with no stop control at the intersection.

4.2.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is achieved at all exit and entrances throughout this segment; therefore it is rated as GOOD.

Ramp sequence is rated as GOOD throughout the segment except for the SB distance between the entrance ramp from Indiana Avenue and the exit ramp to Illinois Avenue. There is only a distance of 2,200 feet, which is less than the required 3,000 feet, resulting in a FAIR rating for this area.

Signing in the area of the Illinois exit ramp is given a rating of POOR due an inadequate number of signs at the exit ramps in both the NB and SB directions. The gore signs at the Pueblo Boulevard exits are located too far away from the exit, which results in a rating of FAIR.

4.2.3 Performance Measures

Level of service for this segment is rated as GOOD. The NB mainline operates at LOS A and the SB mainline operates at LOS B. The southern ramps at Pueblo Boulevard operate at LOS A; the northern ramps operate at LOS B. The Illinois exit operates at LOS B.

Northbound and southbound **accident rates** for this segment between Pueblo Boulevard and Illinois Avenue are 1.84 and 1.47, respectively. Both segments are rated as FAIR based on the urban criteria.

Northbound and southbound **accident rates** for this segment between Illinois Avenue and Indiana Avenue are 0.81 and 0.68, respectively. Both segments are rated as GOOD based on the urban criteria.

Northbound and southbound **accident rates** for this segment between Indiana Avenue and Central Avenue are 1.51 and 1.28, respectively. Both segments are rated as GOOD based on the urban criteria.

4.2.4 Structures

The only structure located within this segment is the Pueblo Boulevard overpass. The following table summarizes the structure information. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-2
Summary of Structures within Segment 2

Milepost	Structure Identification	Intersecting Feature	Length of Structure/# of Spans	Sufficiency Rating and Integrity	Year Built / Widened
94.77	L-18-BA	Pueblo Boulevard (SH 45)	217/4	79.2 NO	1963/1985

4.2.5 Traffic Control

There are no signalized intersections within this segment. The ramp approaches at Pueblo Boulevard are controlled by stop signs. The SB exit ramp at Illinois is at-grade. There is no traffic control at the transition from one-way to two-way operation.

4.3 Segment 3 - Indiana Avenue to Central Avenue

This segment of the corridor includes NB and SB Interstate 25 from Indiana Avenue to Central Avenue. It includes the Indiana Avenue interchange and the Minnequa Avenue SB exit ramp. This segment of I-25 crosses the Bessemer Ditch, a pedestrian tunnel, and a utility tunnel.

The Indiana Avenue interchange provides access on the west to a Texaco gas station and convenience market and primarily residential neighborhoods. The Centura Hospital (St. Mary Corwin) is also provided access by this interchange to the west. It provides access on the east to the Pepsi Co. plant and the Rocky Mountain Steel Mills.

The posted speed limit through this segment is 55 mph. The design speed for this segment is 60 mph. Sheet 4 (of 6) illustrates the limits of this segment.

4.3.1 Geometric Features

The **horizontal alignment** consists of adequate curves and runout lengths for the superelevation. This segment is rated as GOOD.

Vertical alignment is rated as FAIR through this segment. As-built information for this segment is unavailable at the time of the report and the rating is based solely on field observations.

Stopping sight distance is also rated as FAIR due to the lack of as-built information.

Cross sectional elements were rated as POOR based on field observations. There are severe right-of-way constraints through this segment. Several obstructions are located within the clear zone such as utility poles and light poles at the gore points. Adequate shoulders were observed throughout the majority of this segment, with the exception being narrow shoulders at the north end of the Pepsi plant where the guardrail ends at the barrier wall. The SB mainline is parallel to an alley that backs up to a residential area without adequate clear zone distance.

Decision sight distance is rated as POOR due to the SB exit on a horizontal curve obscuring the view of the ramp. The sign notifying the driver of the exit is also covered with brush. The NB exit is rated as GOOD.

The **exit and entrance** rating for the SB ramps is POOR. The SB exit ramp is an isolated ramp located at Minnequa Avenue. In order to gain access to the SB entrance ramp, the driver must travel through a residential neighborhood to return to the interstate. The NB exit ramp is rated as FAIR due to its location at the end of a horizontal curve. The NB entrance ramp is rated as POOR since it is striped as a two-way road for access to the Pepsi Co. plant and abruptly changes to a one-way entrance to the interstate. Short deceleration lanes were also noted for both exits.

The **ramp design** is rated is POOR as it applies to the conditions noted for exit and entrance design.

4.3.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is achieved at all exit and entrances in this segment, therefore it is given a GOOD rating.

Ramp sequence for the SB exit ramp is given a FAIR rating due to its proximity to the Central Avenue entrance ramp. The NB entrance ramp is given a FAIR rating due to its proximity to the Central Avenue exit ramp. The SB entrance ramp and NB exit ramps are both given FAIR ratings.

Signing for this segment is generally rated as POOR due to the lack of signing for approaching exits as well as the poor location and visibility of the existing signs.

4.3.3 Performance Measures

Level of service for this segment is rated as GOOD. The NB mainline operates at LOS A and the SB mainline operates at LOS B. The Indiana entrance, the Minnequa exit and the Aqua entrance operate at LOS B. The Indiana exit operates at LOS A.

Northbound and southbound **accident rates** for this segment are 1.51 and 1.28, respectively. Both segments are rated as GOOD based on the urban criteria.

4.3.4 Structures

Structures through this segment include the Indiana Avenue overpass, and a crossing of the Bessemer Ditch. The following table summarizes the structures within this segment. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-3
Summary of Structures within Segment 3

Milepost	Structure Identification	Intersecting Feature	Length of Structure/# of Spans	Sufficiency Rating and Integrity	Year Built / Widened
95.90	L-18-M / L-18-W	Indiana Avenue	126/3 126/3	55.0 FO 52.9 FO	1956 1956
96.34	L-18-AS	Bessemer Ditch	22/1	95.1 NO	1957

4.3.5 Traffic Control

There are no signalized intersections within this segment. The ramp approaches are stop-controlled. The adjoining cross streets are not stop-controlled. There are accesses to an adjacent alley and one residential driveway on the SB exit ramp.

4.4 Segment 4 - Central Avenue to Abriendo Avenue

This segment of the corridor includes NB and SB Interstate 25 from Central Avenue to Abriendo Avenue. It includes the Central Avenue interchange.

The Central Avenue interchange provides access to the Minnequa Business District and the State Fairgrounds. The Northern Avenue and Mesa overcrossings, which provide east/west crossings of the interstate, are also included in this segment.

The posted speed limit through this segment is 50 mph. The design speed for this segment is 60 mph. Sheet 4 & 5 (of 6) illustrates the limits of this segment.

4.4.1 Geometric Features

The **horizontal alignment** consists of reversing curves with inadequate superelevation runout length, resulting in a POOR rating.

The **vertical alignment** is given a rating of FAIR. There was no vertical alignment as-built information available at the time of this report. The rating is based solely on the field review and comfort of driving the roadway.

The mainline **stopping sight distance** is rated as FAIR based on the conditions noted in the field.

Cross sectional elements were rated based on field observations and given a rating of POOR. Steep side slopes were noted throughout this segment. There are unprotected bridge piers at Northern Avenue. There is a concrete lined drainage ditch along the SB entrance ramp with inadequate distance from the traveled way.

Decision sight distance is POOR for both NB and SB exit ramps. The NB ramp is hidden by a crest vertical curve and the SB ramp is obscured by steep side slopes.

The **exit and entrance** rating for the NB ramps are POOR. The NB exit ramp is a tangential ramp, which is a possible cause of confusion for the driver. The NB entrance ramp also violates the taper angle. The SB exit and entrance rating is given a rating of FAIR due to short deceleration and acceleration lengths.

The **ramp design** is rated as FAIR due to steep side slopes.

4.4.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is achieved at all exit and entrances in this segment, therefore it is given a GOOD rating.

Ramp sequence is rated as GOOD for all locations except the SB entrance ramp, which is rated as FAIR.

Signing is rated as POOR where an inadequate number of signs exist for the approaching exits.

4.4.3 Performance Measures

Level of service for this segment is rated as GOOD. The NB mainline operates at LOS A south of Central Avenue and LOS B north of Central Avenue. The SB mainline operates at LOS C north of Central Avenue and LOS B south of Central Avenue. The NB Central ramps and the SB Central entrance operate at LOS B. The SB Central exit operates at LOS C.

Northbound and southbound **accident rates** for this segment are 5.79 and 1.43, respectively. The northbound segment is rated as POOR and the southbound segment as GOOD. Both segments are rated based on the urban criteria.

4.4.4 Structures

Structures through this segment include the Central Avenue, Northern Avenue, and Mesa Avenue crossings. The following table summarizes the structures within this segment. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-4
Summary of Structures within Segment 4

Milepost	Structure Identification	Intersecting Feature	Length of Structure/ # of Spans	Sufficiency Rating and Integrity	Year Built / Widened
96.67	L-18-CD	Central Avenue	212/2	99.6 NO	1970
96.81	L-18-AQ	Northern Avenue	298/5	62.0 FO	1957
96.95	L-18-AU	Mesa Avenue	261/5	76.3 FO	1957

4.4.5 Traffic Control

There are no signalized intersections within this segment. The ramp approaches are controlled by stop signs. There are raised median islands at the ramp/crossroad intersections to channelize traffic at the two-way road locations.

4.5 Segment 5 - Abriendo Avenue to Ilex Street

This segment of the corridor includes NB and SB Interstate 25 from Abriendo Avenue to Ilex Street. It includes the Abriendo Avenue interchange. This segment crosses the Arkansas River at its northern boundary. The interchange consists of a directional ramp to the west and a loop ramp for NB entrance.

Abriendo Avenue runs along the crest of the town of Pueblo, south of the freight yard. This interchange provides access to the Pueblo Community College, the State Fairgrounds, and several residential communities. There is a historical riverwalk project underway along the Original Arkansas River route.

The posted speed limit along the mainline is 50 mph. The design speed for this segment is 60 mph. Exhibit 5 illustrates the limits of this segment.

4.5.1 Geometric Features

The **horizontal alignment** is characterized by sharp, back-to-back curves resulting in a rating of POOR. Based on field observations, there is inadequate superelevation runout length provided between the curves as well.

Vertical alignment is rated as POOR based on field observations and comfort of driving the roadway. Limited as-built information was available for review at the time of this report.

Stopping sight distance is rated as POOR based on field observations.

Cross sectional elements were rated as POOR based on field observations. There are steep side slopes approaching the NB exit ramp. Shoulder width is too narrow at the Arkansas River crossing. There is a light pole located at both the NB exit ramp and SB entrance gore points which encroaches on the clear zone. Shoulder widths along the SB mainline are too narrow and there is a concrete ditch along the roadside at the SB entrance ramp. Right-of-way is limited through this segment with established residential neighborhoods on the hillside along the interstate.

Decision sight distance is rated POOR for both SB and NB exit ramps. They are both located on sharp horizontal curves, which obscures the vision of the driver.

The **exit and entrance** rating for this interchange is POOR due to short taper lengths. The SB entrance ramp also provides access to a business within the length of the ramp.

The **ramp design** is rated FAIR due to adequate lane and shoulder widths, and gradual side slopes.

4.5.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is not achieved where the auxiliary lane drops. This location is rated as POOR and the rest of the segment is rated as GOOD.

Ramp sequence is rated as POOR due to the close proximity of the Abriendo and Ilex interchanges.

Signing is rated as FAIR where there is a completeness of the number of signs, but poor spacing. POOR ratings were given to areas that lacked appropriate signing for approaching exit ramps.

4.5.3 Performance Measures

Level of service for this segment is rated as GOOD. The NB mainline operates at LOS B. The SB mainline operates at LOS B north of Abriendo Avenue and LOS C south of Abriendo Avenue. The NB Abriendo ramps and the SB Abriendo exit operate at LOS B. The SB Abriendo entrance operates at LOS C.

Northbound and southbound **accident rates** for this segment are 3.03 and 3.48, respectively. Both segments were rated as POOR based on the urban criteria.

4.5.4 Structures

Structures through this segment include the Abriendo Avenue crossing, a railroad and Arkansas River crossing, and the US 50 crossing. The following table summarizes the structures within this segment. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-5
Summary of Structures within Segment 5

Milepost	Structure Identification	Intersecting Feature	Length of Structure/ # of Spans	Sufficiency Rating and Integrity	Year Built / Widened
97.45	L-18-AV	Abriendo Avenue	206/4	90.5 FO	1958
97.53	L-18-AW	DRGW Railroad	184/4	---	1958
97.59	K-18-AJ	Arkansas River	335/2	76.5 NO	1958
97.69	K-18-AX / K-18-AY	US 50	240/4 240/4	61.2 FO 61.2 FO	1958 1958

4.5.5 Traffic Control

There are no signalized intersections within this segment. The ramps are directional and are not stop-controlled.

4.6 Segment 6 - Ilex Street to 1st Street

This segment of the corridor includes NB and SB Interstate 25 from Ilex Street to 1st Street. It includes the Ilex Street interchange.

The Ilex Street interchange services a portion of Pueblo that is isolated from the rest of town by the railroad, the freight yard, and the Arkansas River. Ilex Street provides access to Runyon State Wildlife Area, Runyon Field, a truck stop, gas station, and a future outdoor amphitheater.

The posted speed limit along the mainline is 50 mph. The design speed for this segment is 60 mph. Sheet 5 (of 6) illustrates the limits of this segment.

4.6.1 Geometric Features

Horizontal alignment is rated as POOR through this segment due to inadequate curves with insufficient runout length for the superelevation.

Vertical alignment is rated as POOR based on steep vertical grades.

Stopping sight distance is rated as POOR throughout this segment.

Cross sectional elements were rated as POOR based on field observations. Shoulder widths are inadequate through much of this segment.

Decision sight distance is rated as POOR. The SB exit ramp is hidden by guardrail and is difficult to see. The NB exit ramp is located at a crest vertical curve, which also hinders the driver's sight.

The **exit and entrance** rating for both the SB and NB is POOR. The SB exit ramp is short and has a short deceleration lane located on a sharp horizontal curve. The NB exit ramp is short and does not provide adequate deceleration length. Both entrance ramps have short merge lanes. The NB entrance ramp is located on a steep vertical grade, making acceleration by large trucks in this area difficult.

The **ramp design** is rated as POOR largely due to the sharp horizontal curves and vertical grades that have to be maneuvered by the large truck volumes in this area.

4.6.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is achieved at all exit and entrances in this segment, therefore it is given a GOOD rating.

Ramp sequence for the southern ramps is given a POOR rating due to the proximity to the Abriendo Avenue interchange. The northern ramps are given a FAIR rating based on the distance of the ramps from the 1st Street interchange.

Signing is rated as POOR along SB I-25 in the area of the Ilex Street interchange due to missing signs for the exits. In the NB direction, the segment is rated as GOOD.

4.6.3 Performance Measures

Level of service for this segment is rated as FAIR for the SB mainline north of Ilex Street and the SB Ilex exit. The rest of the segment is rated as GOOD. The NB mainline operates at LOS B south of Ilex Street and LOS C north of Ilex Street. The SB mainline operates at LOS D north of Ilex Street, LOS C between the Ilex ramps and LOS B south of Ilex Street. The NB Ilex ramps and the SB Ilex entrance operate at LOS B. The SB Ilex exit operates at LOS D.

Northbound and southbound **accident rates** for this segment are 2.58 and 5.16, respectively. The northbound segment is rated as FAIR and the southbound segment as POOR. Both segments are rated based on the urban criteria.

4.6.4 Structures

Structures through this segment include three railroad crossings. The following table summarizes the structures within this segment. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-6
Summary of Structures within Segment 6

Milepost	Structure Identification	Intersecting Feature	Length of Structure/ # of Spans	Sufficiency Rating and Integrity	Year Built / Widened
97.91	K-18-CK / K-18-CL	NP Railroad / Ilex Street / Bennet Street	1,075/13 1,075/14	52.6 NO 39.3 NO	1959 1959
98.23	K-18-CI / K-18-CJ	Service Road / ATSF Railroad	917 / 13 972/13	67.7 NO 68.7 NO	1959 1959

4.6.5 Traffic Control

There are no signalized intersections within this segment. The ramp approaches are controlled by stop signs.

4.7 Segment 7 - 1st Street to US Hwy 50B

This segment of the freeway includes NB and SB Interstate 25 from 1st Street to US Hwy 50B. It includes the 1st Street interchange, the SB 6th Street exit ramp, the NB 5th Street entrance ramp and the 13th Street interchange.

This segment is bounded on the east by Fountain Creek and on the west by commercial businesses and residential neighborhoods. The SB exit ramp at 6th Street provides access to several car dealerships and Midtown Shopping Center. The crossings at 4th Street and 8th Street provide east-west crossing of the interstate. 1st Street provides access to the Pueblo Children's Museum, the Convention Center, and the downtown area that is currently being renovated. 13th Street provides access to Mineral Palace Park located at the northwest quadrant of the 13th Street interchange.

The posted speed limit along the mainline is 55 mph. The design speed for this segment is 60 mph. Exhibits 5 and 6 illustrate the limits of this segment.

4.7.1 Geometric Features

The **horizontal alignment**, in the area of 13th Street, is characterized by reversing curves that provide inadequate superelevation runout length. This results in a POOR rating for majority of this segment.

The **vertical alignment** is rated as POOR due to steep vertical grades throughout the segment and poor driver comfortability.

Stopping sight distance at the vertical curves is rated as POOR.

Cross sectional elements were rated based on field observations. Both the NB and SB mainline receive a rating of POOR due to steep side slopes, and clear zone obstructions. Shoulder widths through the majority of this segment are inadequate. Additionally, the area

between 13th Street and US Hwy 50B contains auxiliary lanes. Since the auxiliary lanes are well utilized, this area should be considered a six-lane freeway section (three lanes in each direction). Therefore, a 10-foot wide inside shoulder should be provided in this area. Various drainage features were noted during the field review indicating that runoff drains from the NB lanes through the median barrier into the SB lanes. Several catch basins were noted along the west side of the SB lanes.

Decision sight distance is rated as GOOD for the NB exit ramps at 1st Street and 13th Street. It is rated as POOR at the SB exit ramps at 1st Street, 6th Street, and 13th Street. Trees obstruct the view at 1st Street, and the 13th Street exit is located on a vertical curve.

All **exit and entrance** ramp designs are given a rating of POOR. 1st Street has short merge lanes; 6th Street is an isolated exit ramp; 5th Street is an isolated entrance ramp; and 13th Street provides exits that can only go west. The driver must use local streets to access either 8th Street or 4th Street to cross the interstate and Fountain Creek to get to the east.

The **ramp design** at 1st Street is rated as POOR due to a lack of stopping sight distance and steep vertical grades. The 6th Street exit ramp and the 13th Street ramps are rated as FAIR. The 6th Street ramp has mountable curb along its length. The 13th Street ramps have narrow shoulders.

4.7.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is not achieved at the 13th Street exit ramps or the 6th Street exit ramp, resulting in a rating of POOR. In the SB direction, the auxiliary lane from US Hwy 50B is dropped/trapped at the 13th Street exit and the auxiliary lane from 13th Street is dropped/trapped at the 6th Street exit. In the NB direction, the auxiliary lane from the 5th Street entrance ramp is dropped/trapped at the 13th Street exit.

Ramp sequence is rated as POOR between the SB entrance ramp from 13th Street and the exit ramp to 6th Street due to their close proximity. The Bradford Street NB entrance ramp is also rated as POOR due to close proximity to the entrance at 1st Street. The northern ramps at 13th Street are rated as POOR in the NB direction and FAIR in the SB direction based on the distance of the ramps from the US Hwy 50B interchange. The remainder of the segment is rated as GOOD.

Signing is given a rating of GOOD throughout the segment. The only exception is at the NB entrance ramp from 1st Street where there are an inadequate number of signs.

4.7.3 Performance Measures

Level of service for this segment is rated as FAIR for the SB 1st Street exit, the NB mainline north of 13th Street and the SB mainline between the 13th Street ramps, between the 6th Street exit and the 1st Street entrance and south of 1st Street. The rest of the segment is rated as GOOD.

The NB mainline operates at LOS C south of 1st Street, LOS B between the 1st Street ramps, LOS C between the 1st Street entrance and 13th Street, and LOS D north of 13th Street. The

SB mainline operates at LOS D north of 13th Street, LOS C between the 13th Street ramps, LOS D between the 13th Street entrance and the 6th Street exit, LOS C between 6th Street and 1st Street, and LOS D south of 1st Street. The SB 13th Street exit operates at LOS B and the SB 1st Street exit operates at LOS D. The rest of the ramps in this segment operate at LOS C.

Northbound and southbound **accident rates** for this segment between 1st Street and 5th Street are 2.61 and 2.61, respectively. Both segments were rated as POOR based on the urban criteria.

Northbound and southbound **accident rates** for this segment between 5th Street and 13th Street are 3.36 and 1.68, respectively. The northbound segment is rated as POOR and the southbound segment as FAIR. Both segments are rated based on the urban criteria.

Northbound and southbound **accident rates** for this segment between 13th Street and US Hwy 50B are 0.97 and 1.50, respectively. Both segments were rated as GOOD based on the urban criteria.

4.7.4 Structures

Structures through this segment include the 1st Street, 4th Street, 5th Avenue, 8th Street, and 13th Street crossings. The following table summarizes the structures within this segment. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-7
Summary of Structures within Segment 7

Milepost	Structure Identification	Intersecting Feature	Length of Structure/ # of Spans	Sufficiency Rating and Integrity	Year Built / Widened
98.55	K-18-CN / K-18-CO	1st Street	156/4 156/4	61.9 FO 61.9 FO	1959 1959
98.74	K-18-CR	SH 96 (4th Street)	166/4	71.7 FO	1959 / 1990
98.81	K-18-CT	5th Avenue	155/4	72.9 FO	1959 / 1991
99.01	K-18-BV	8th Street	1,196/17	78.1 FO	1928 / 1991
99.33	K-18-EN	13th Street	140/3	91.8 FO	1975

4.7.5 Traffic Control

The only signalized intersection within this segment is at 1st Street. The 13th Street ramp transition approaches are controlled by stop signs. The 6th Street exit ramp is one-way to two-way operation at Santa Fe, which is not a stop-controlled intersection. Valley gutters cross the intersection at 1st Street.

4.8 Segment 8 – US Hwy 50B to 29th Street

This segment of the freeway includes NB and SB Interstate 25 from US Hwy 50B to 29th Street. It includes the US Hwy 50B interchange and the 29th Street interchange.

This segment is bounded on the east by Fountain Creek and on the west by commercial businesses and residential neighborhoods. The US Hwy 50B interchange provides access to the Pueblo Memorial Airport. 29th Street provides access to the Pueblo Mall and residential developments, west of I-25.

The posted speed limit along the mainline is 55 mph. The design speed for this segment is 60 mph. Exhibit 6 illustrates the limits of this segment.

4.8.1 Geometric Features

The **horizontal alignment** is characterized by several short reversing curves and a long horizontal curve at 29th Street that provide adequate superelevation runout length. This results in a GOOD rating for this segment.

The **vertical alignment** is rated as GOOD in the area between US Hwy 50B and 29th Street since it is relatively level. Limited as-built information was available between US Hwy 50B and 29th Street; therefore, the rating is based solely on field observation. As-built information was available for the vertical curve at 29th Street. This segment is given a rating of FAIR based on the vertical grades.

Stopping sight distance at the vertical curve at 29th Street is rated as POOR based on the "K" value. The rest of the segment is rated as GOOD.

Cross sectional elements were rated based on field observations. Both the NB and SB mainline receive a rating of FAIR. For a portion of the area between US Hwy 50B and 29th Street there was no guardrail or barrier between the interstate mainlines. Additionally, the area between US Hwy 50B and 29th Street contains auxiliary lanes. Since the auxiliary lanes are well utilized, this area should be considered a six-lane freeway section (three lanes in each direction). Therefore, a 10-foot wide inside shoulder should be provided in this area.

Decision sight distance is rated as FAIR for the SB exit ramp at US Hwy 50B. It is rated as GOOD at the SB exit at 29th Street and the NB exit ramps at US Hwy 50B and 29th Street.

All **exit and entrance** ramp designs at 29th Street are given a rating of GOOD. The NB entrance from US Hwy 50B is rated as GOOD due to the downhill grade and the tangential alignment and the SB US Hwy 50B exit is rated as FAIR due to the curvature at the nose of the gore. The US Hwy 50B NB exit and SB entrance are rated as POOR due to the tangential NB exit and the ramp curvature being carried past the gore nose for the SB entrance.

The **ramp design** at US Hwy 50B is rated as POOR for both NB and SB due to the tight horizontal curves, narrow ramp width for the SB exit and the tangential NB exit. Additionally, the NB US Hwy 50B exit ramp splits to allow access to the frontage road shortly after the ramp exits the mainline. The split in the ramp does not provide adequate separation from the mainline for decision sight distance or to allow appropriate signing for the driver. The ramp design at 29th Street is rated as GOOD for both NB and SB due to the long ramp lengths, good horizontal and vertical design, and the protected steep side slopes.

4.8.2 Operational Features

Lane and route continuity is maintained throughout this segment, therefore it is given a GOOD rating.

Lane balance is not achieved at the US Hwy 50B exits resulting in a rating of POOR. In the NB direction, the auxiliary lane from 13th Street is dropped/trapped at the US Hwy 50B exit. In the SB direction, the auxiliary lane from 29th Street is dropped/trapped at the US Hwy 50B exit. Lane balance is achieved in the NB direction between US Hwy 50B and 29th Street, resulting in a rating of GOOD.

Ramp sequence is rated as FAIR in the SB direction between the US Hwy 50B ramps and for both of the northern ramps at US Hwy 50B based on the distance of the ramps from the 29th Street interchange. The remainder of the segment is rated as GOOD.

Signing is given a rating of POOR throughout the segment due to the lack of appropriate signs and the exit only off-ramps were not appropriately addressed.

4.8.3 Performance Measures

Level of service for this segment is rated as FAIR for the NB mainline south of US Hwy 50B and the SB mainline between 29th Street and US Hwy 50B and between the US Hwy 50B ramps. The rest of the segment is rated as GOOD.

The NB mainline operates at LOS D south of US Hwy 50B and LOS C between US Hwy 50B and 29th Street. The SB mainline operates at LOS C north of 29th Street, LOS E between 29th Street and US Hwy 50B, LOS D between the US Hwy 50B ramps, and LOS C south of US Hwy 50B. The SB US Hwy 50B entrance and the SB 29th Street exit operate at LOS B. The NB 29th Street exit operates at LOS A. The rest of the ramps in this segment operate at LOS C.

Northbound and southbound **accident rates** for this segment between US Hwy 50B and 29th Street are 4.90 and 4.27, respectively. Both segments were rated as POOR based on the urban criteria.

4.8.4 Structures

Structures through this segment include the US Hwy 50B and 29th Street crossings. The following table summarizes the structures within this segment. The sufficiency rating reflects the existing bridge and material conditions with regard to deterioration and loss of section.

TABLE 4-8
Summary of Structures within Segment 8

Milepost	Structure Identification	Intersecting Feature	Length of Structure/ # of Spans	Sufficiency Rating and Integrity	Year Built / Widened

TABLE 4-8
Summary of Structures within Segment 8

Milepost	Structure Identification	Intersecting Feature	Length of Structure/ # of Spans	Sufficiency Rating and Integrity	Year Built / Widened
99.95	K-18-J	US Hwy 50B	206/4	66.1 NO	1958
100.68	K-18-EA/ K-18-EB	29th Street	155/4 155/4	66.9 FO 66.9 FO	1960 1960

4.8.5 Traffic Control

The signalized intersections within this segment are along 29th Street at the junctions with the SB ramps and the NB ramps. The ramps at US Hwy 50B are directional and are not stop-controlled.

5. Evaluation Summary

This report summarizes the findings of an evaluation of existing conditions along Interstate 25 through Pueblo, Colorado. The corridor can generally be divided at Pueblo Boulevard into a rural section and an urban section.

Evaluation of the roadway through the rural section primarily reveals steep side slopes along the wide median, but otherwise adequate geometric and operational features. Narrow shoulders widths were observed at a few of the structure crossings.

Evaluation of the roadway through the urban section reveals conditions that are to be expected within a small town that has experienced growth and is continuing to grow. These conditions include narrow right-of-way between established residential neighborhoods and a large railroad system used for the steel mill. This narrow right-of-way results in utility poles, light poles, fences, and other obstructions within the safe clear zone of the roadway.

Sharp horizontal curves and reversing horizontal curves are common through the urban section resulting in slower running speeds. Narrow shoulders at structure crossings were observed. Steep cross slopes at the gore areas were noted in several locations.

Ramp design was generally observed to be substandard throughout the urban section. Three isolated ramps and two tangential ramps are currently part of this interstate system.

The PM peak-hour level of service analysis reveals generally good operations for the study corridor, with most mainline segments and ramps operating at LOS C or better. Mainline operation degrades to LOS D in the vicinity of downtown, where higher traffic volumes are present. The only segment that operates at LOS E is SB between 29th Street and US Hwy 50B, which is caused by high traffic volume and the friction of the weaving vehicles in this segment.

The majority of the northbound roadway is rated as good to fair for accident rates. The segments between Central Avenue and Ilex Street, 1st Street to 13th Street and US Hwy 50B to 29th Street are rated as poor. Each of the southbound roadway segments are rated as good or fair except the segments between 29th Street and US Hwy 50B, and 5th Street and Abriendo Avenue, where it is rated as poor. The higher than average accident rate between Central Avenue and Ilex Street can generally be attributed to the poor horizontal and vertical alignments in this area. The other areas with poor accident ratings are located in the downtown area and the adjacent built-up urban neighborhoods, which have higher traffic volumes and more congestion.

P:\158128\Cad\NDM Files\pueblo1.dgn

GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT
	VERTICAL ALIGNMENT
	STOPPING SIGHT DISTANCE
	CROSS SECTION
	DECISION SIGHT DISTANCE
	EXIT AND ENTRANCE DESIGN
	RAMP DESIGN
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY
	LANE BALANCE
	RAMP SEQUENCE
	SIGNING
PERFORMANCE MEASURES	LEVEL OF SERVICE
	ACCIDENT RATES

A A A A

0.76

LEGEND

0.00 Total Accident Rate

C Exit Level of Service

A Entrance Level of Service

D Mainline Level of Service

GOOD

FAIR

POOR

N/A

US 50

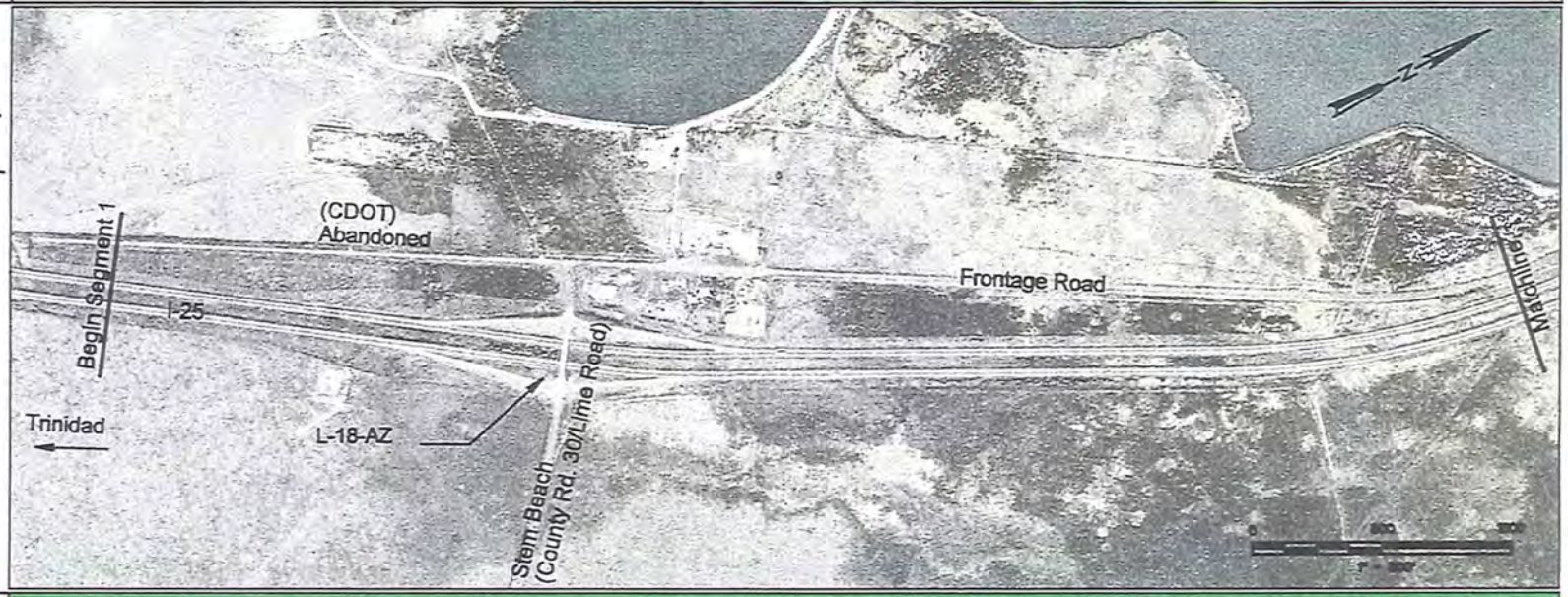
IST ST.

CENTRAL AVE

PUEBLO BLVD

SALT CREEK

KEY MAP



GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT
	VERTICAL ALIGNMENT
	STOPPING SIGHT DISTANCE
	CROSS SECTION
	DECISION SIGHT DISTANCE
	EXIT AND ENTRANCE DESIGN
	RAMP DESIGN
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY
	LANE BALANCE
	RAMP SEQUENCE
	SIGNING
PERFORMANCE MEASURES	LEVEL OF SERVICE
	ACCIDENT RATES

A A A A

0.90

COLORADO DEPARTMENT OF TRANSPORTATION

CH2MHILL
100 Inverness Terrace East
Englewood, CO. 80112
Phone: 303-771-0900

REGION 2

PUEBLO I-25 CORRIDOR STUDY
29TH STREET TO STEM BEACH
INTERSTATE 25

ANALYSIS OF EXISTING FREEWAY
STEM BEACH TO MP 91.7

Project No.
158128
FIGURE 1-2
SHEET 1 OF 6

P:\158128\Cad\NDM\Files\pueblo2.dgn

GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT	
	VERTICAL ALIGNMENT	
	STOPPING SIGHT DISTANCE	
	CROSS SECTION	
	DECISION SIGHT DISTANCE	
	EXIT AND ENTRANCE DESIGN	
	RAMP DESIGN	
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY	
	LANE BALANCE	
	RAMP SEQUENCE	
	SIGNING	
PERFORMANCE MEASURES	LEVEL OF SERVICE	A
	ACCIDENT RATES	0.76

LEGEND

0.00 Total Accident Rate

G Exit Level of Service

A Entrance Level of Service

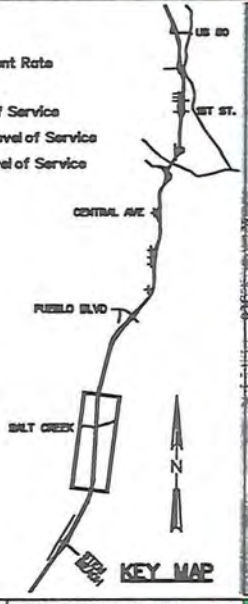
D Mainline Level of Service

GOOD

FAIR

POOR

N/A



KEY MAP

GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT	
	VERTICAL ALIGNMENT	
	STOPPING SIGHT DISTANCE	
	CROSS SECTION	
	DECISION SIGHT DISTANCE	
	EXIT AND ENTRANCE DESIGN	
	RAMP DESIGN	
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY	
	LANE BALANCE	
	RAMP SEQUENCE	
	SIGNING	
PERFORMANCE MEASURES	LEVEL OF SERVICE	A
	ACCIDENT RATES	0.90

COLORADO DEPARTMENT OF TRANSPORTATION

CH2MHILL
100 Inverness Terrace East
Englewood, CO. 80112
Phone: 303-771-0900
REGION 2

PUEBLO I-25 CORRIDOR STUDY
29TH STREET TO STEM BEACH
INTERSTATE 25

ANALYSIS OF EXISTING FREEWAY
MP 91.7 TO MP 93.5

Project No. 158128

FIGURE 1-3

SHEET 2 OF 6

P:\158128\Cad\NDM\Files\pueblo3.dgn

GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT
	VERTICAL ALIGNMENT
	STOPPING SIGHT DISTANCE
	CROSS SECTION
	DECISION SIGHT DISTANCE
	EXIT AND ENTRANCE DESIGN
	RAMP DESIGN
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY
	LANE BALANCE
	RAMP SEQUENCE
	SIGNING
PERFORMANCE MEASURES	LEVEL OF SERVICE
	ACCIDENT RATES

LEVEL OF SERVICE: A, A, A, B, B

ACCIDENT RATES: 0.76, 1.47

LEGEND

0.00 Total Accident Rate

C Exit Level of Service

A Entrance Level of Service

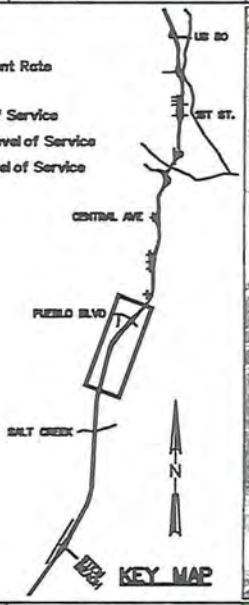
D Mainline Level of Service

GOOD

FAIR

POOR

N/A



GEOMETRIC FEATURES	HORIZONTAL ALIGNMENT
	VERTICAL ALIGNMENT
	STOPPING SIGHT DISTANCE
	CROSS SECTION
	DECISION SIGHT DISTANCE
	EXIT AND ENTRANCE DESIGN
	RAMP DESIGN
OPERATIONAL FEATURES	LANE & ROUTE CONTINUITY
	LANE BALANCE
	RAMP SEQUENCE
	SIGNING
PERFORMANCE MEASURES	LEVEL OF SERVICE
	ACCIDENT RATES

LEVEL OF SERVICE: A, A, A, B, A

ACCIDENT RATES: 0.90, 1.84

COLORADO DEPARTMENT OF TRANSPORTATION

CH2MHILL
100 Inverness Terrace East
Englewood, CO. 80112
Phone: 303-771-0900

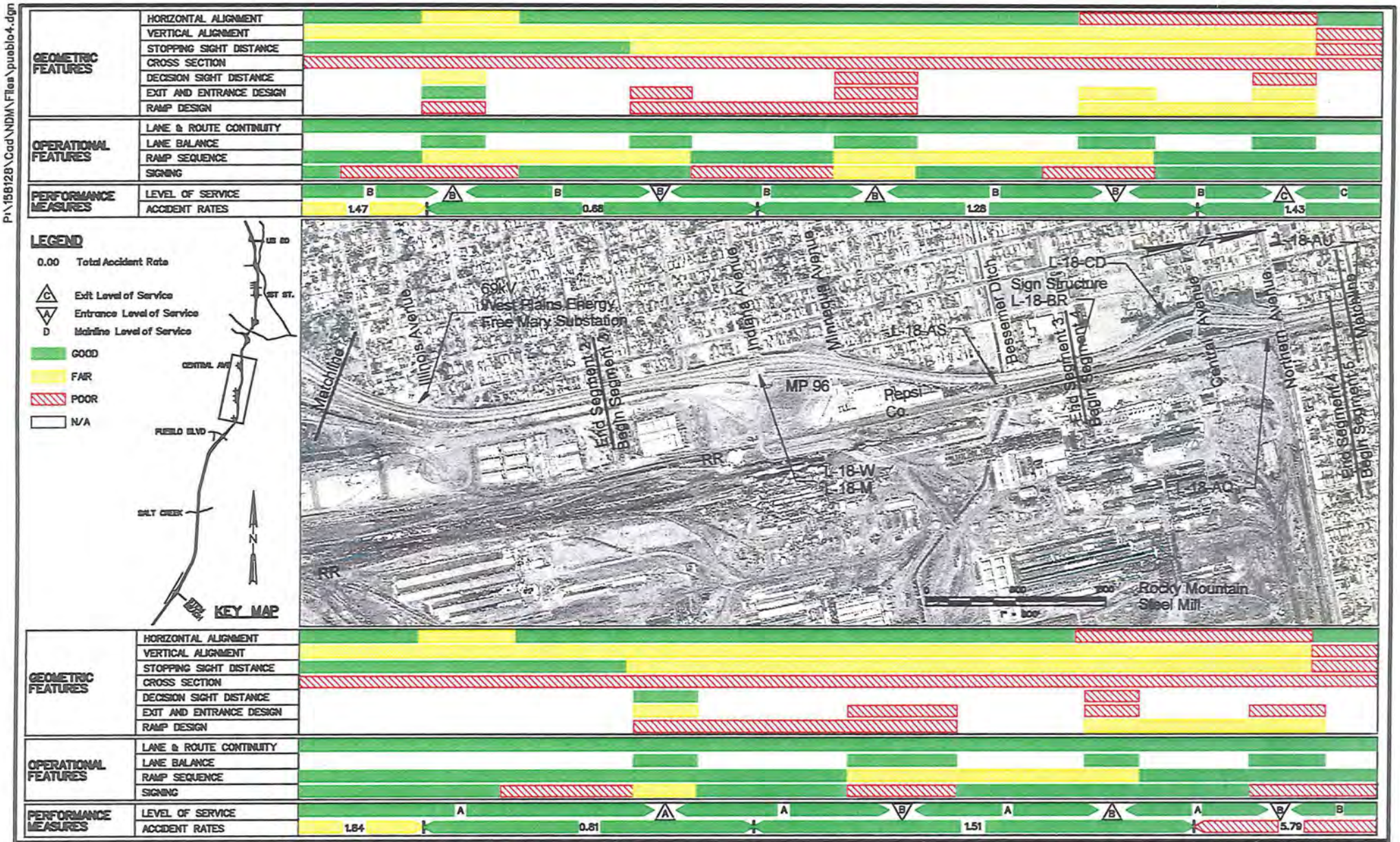
REGION 2

PUEBLO I-25 CORRIDOR STUDY
29TH STREET TO STEM BEACH
INTERSTATE 25

ANALYSIS OF EXISTING FREEWAY
MP 93.5 TO ILLINOIS AVENUE

Project No.
158128
FIGURE 1-4
SHEET 3 OF 6

P:\158128\Cad\NDM\Files\pueblo4.dgn



COLORADO DEPARTMENT OF TRANSPORTATION

CH2MHILL
100 Inverness Terrace East
Englewood, CO. 80112
Phone: 303-771-0900

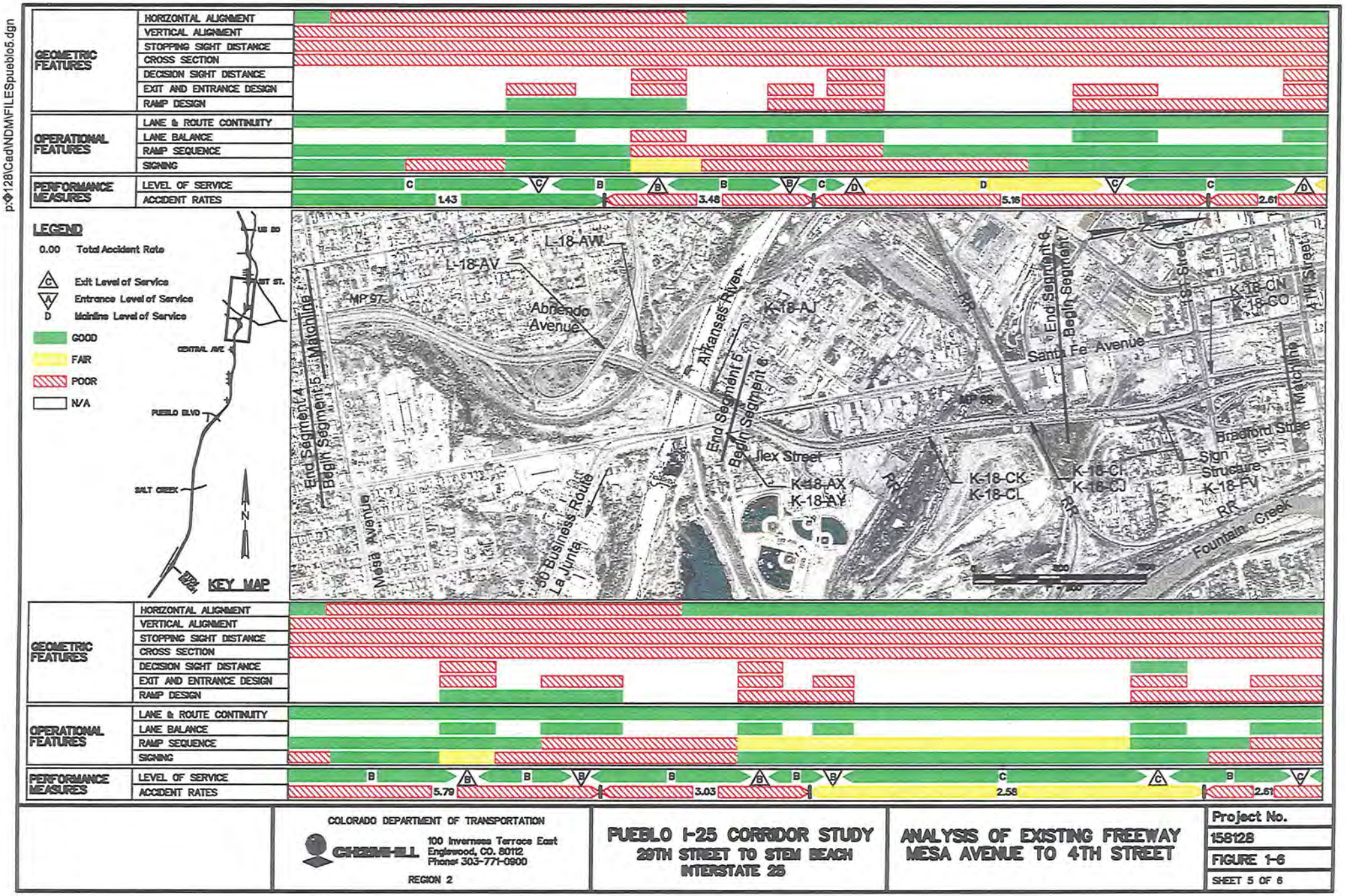
REGION 2

PUEBLO I-25 CORRIDOR STUDY
29TH STREET TO STEM BEACH
INTERSTATE 25

ANALYSIS OF EXISTING FREEWAY
ILLINOIS AVENUE TO MESA AVENUE

Project No.
158128
FIGURE 1-5
SHEET 4 OF 6

p:\128\Cad\NDM\FILES\pueblo5.dgn



COLORADO DEPARTMENT OF TRANSPORTATION

CH2MHILL
100 Inverness Terrace East
Englewood, CO. 80112
Phone: 303-771-0900
REGION 2

PUEBLO I-25 CORRIDOR STUDY
29TH STREET TO STEM BEACH
INTERSTATE 25

ANALYSIS OF EXISTING FREEWAY
MESA AVENUE TO 4TH STREET

Project No.	158128
FIGURE 1-6	
SHEET 5 OF 6	

P:\158128\Cad\NDM\Files\pueblo6.dgn

COLORADO DEPARTMENT OF TRANSPORTATION

CH2MHILL
100 Inverness Terrace East
Englewood, CO. 80112
Phone: 303-771-0900

REGION 2

PUEBLO I-25 CORRIDOR STUDY
29TH STREET TO STEM BEACH
INTERSTATE 25

ANALYSIS OF EXISTING FREEWAY
4TH STREET TO US HWY 50B

Project No.
158128
FIGURE 1-7
SHEET 6 OF 6

APPENDIX B

Level 1 – Advance/Eliminate Ideas

the New Pueblo Freeway

Criteria Definitions

Level 1

Evaluation process

All of the ideas presented to the project team through the technical team meetings, citizen meetings, the State Fair, the web site and the hot line will be processes through Level 1. Level 1 screening will advance or eliminate ideas into Level 2. The main purpose of Level 1 screening is to eliminate ideas that do not meet the projects goals stated in the Vision.

The Level 1 screening will yield a shorter list of ideas that will be formed into concepts, for example an idea of 'build a bypass' could be further defined as 'build a bypass to the east of the city with no improvements to the existing I-25'. The concepts will then be grouped into the following categories: Transit, Alternate Routes, Highway, Bypass, Interchanges and Network Concepts, Amenities/Features/Goals, and Transportation System Management.

The purpose of Level 2 evaluation is to look at each concept and comparing it to other concepts in the same category, rate that concept's ability to meet the project goals and address the stated concerns. The evaluation will give all project participants the opportunity to discuss the concepts, how they meet the projects goals and how they might be improved to make them better meet the project goals.

The rating given through the Level 2 criteria will result in a list of concepts in order of how they best meet the project goals. Using these ratings, strategies will be developed. These strategies will be combinations of concepts from the different categories that support each other, that strengthen the weakness of one concept, and that include appropriate amenities.

Level 3 analysis will be completed on each of the strategies. The Level 3 analysis will measure very specific items, it will be quantitative more that qualitative, and will result in a corridor recommendation and an interchange and network recommendation. The final recommendation will be a complete package with a major concept supported by interchanges and local network improvements. Further, the final recommendation will include amenities such as landscaping and lighting that are consistent with the major concept.

Level 1

Advance or eliminate ideas

The following questions will be asked about each idea and will be answered Yes or No.

Ideas receiving all Yes answers will be advanced to Level 2 evaluation.

Any idea with a No answer will be reviewed. These ideas may add value as an amenity, a feature, as a goal or an enhancement. Some ideas may be best forwarded to other planning studies, such as a statewide planning. Yet, other ideas may be great elements of a solution when combined with other ideas. And some ideas will be forwarded to City, County and State maintenance groups to address.

If the idea could add value to any final recommendation then it will be moved from the 'idea' group into a one of the following categories:

Amenities/Features/Goals/Enhancements
Statewide Program
Transportation System Management (TSM)
Best Combined with Other Ideas

If an idea receives a NO answer AND it can add no value to a final recommendation then that idea will be eliminated.

Categories

Amenities/Features/Goals/Enhancements

This category collects and saves the ideas that make an idea and eventually a strategy more "livable". Ideas that will be put into the category include tolling to fund the project, noise walls to mitigate sound levels, and bikepaths to connect destinations. These ideas are best finalized when the major strategy is defined because bikepaths are best designed when the roadway and bridge locations are know.

Statewide Programs

This category will collect the ideas that are statewide in their scope. Ideas such as a passenger train between Pueblo and Denver with event ticket packages or the "Super Slab" plan for a very limited access high speed freeway between Pueblo and Fort Collins. These ideas may improve access within the study area to a degree, however, they are beyond this projects ability to implement. As a community we can forward our support for these ideas on to the appropriate agencies.

Transportation System Management (TSM)

TSM ideas include alternatives that improve the existing system with little or no construction. These ideas add operating capacity to the system by improving the trip for the majority of the traffic. Such ideas include better signal synchronization, adding new signals, and building left and/or right turn lanes.

Best Combined with Other Ideas

These are ideas that address a specific location and alone may not improve mobility or safety except at that location. Because these are important ideas and when used with ideas at other locations will combine to make a strong solution, these ideas will be collected and combined.

Level 1 Criteria

The following are brief descriptions of each of the questions and how it addresses one of the project's goals or participant's concerns.

Environmental/ Community Values

Can environmental impacts be mitigated?

This question addresses one of the project goals stated in the Vision, "... improvements must be accomplished while preserving the environmental, community, and the neighborhood values." This is a difficult question to answer in the absolute, because the ideas may not have a great deal of definition at this time. However, it is valuable to think about the environmental impacts an idea COULD have and if those can be mitigated.

Is this compatible with local goals and objectives?

This question is in response to community concerns about improvements that may work against local plans, for example a community may be planning a park on the north side of a street across from their homes, if an idea would change the street into a freeway then the idea would not be compatible with the local goals. This question will also help in a discussion of what would it take to make an idea compatible with local goals and objectives, thus helping to give definition to compatible ideas.

Does this preserve future transportation mobility options?

The Vision for the New Pueblo Freeway states that improvements must be forward looking to accommodate future travel needs. This question looks at ideas that might serve a need only in the short term. For example, to reduce speed one idea might be to let the street surfaces deteriorated, this idea would work in the short term but is not looking toward the future.

Does this idea improve the aesthetics of the community?

A frequently repeated goal, concern and idea has been to improve the 'look' of the highway. This question provides an opportunity to think about and discuss options for different ideas that would ensure that the aesthetics of the community are considered, as ideas become concepts and eventually strategies.

Mobility

Is this idea compatible with the existing and planned transportation system?

This question addresses a concern that an idea could be in conflict with the existing and planned systems. Existing and planned transportation systems have been developed based on existing land use and planned land use that has been determined to maximize the communities resources and goals. The planned land use patterns in the Transportation Elements of Master Plans has considered the connections and effects land use and transportation facilities have on each other. Therefore this question is asked, so that ideas that would not be compatible with existing plans are eliminated.

Ideas that are not in current plans, but would be compatible with them will be advanced.

Will mobility within the study area be improved?

The goals stated in the Vision for the New Pueblo Freeway include a desire to balance the needs of various trips within the area and to provide access to destinations with the area. These are measures of the mobility of people and goods. This question simply measures if an idea would improve the mobility of the interstate, regional, and local trips to reach their destinations

Safety

Does this idea improve safety?

Again, this question reflects one of the projects goals stated in the Vision, 'I-25 must be a safe facility.' The lack of definition of ideas hampers our ability to answer this question with an absolute. However, for any ideas that clearly can not improve safety in any way, this question will eliminate them or recognize them as amenities and enhancements.

Implementation

Is this a proven technology?

This question helps eliminate ideas that may be too futuristic to be planned now. It recognizes ideas that need more testing to prove the effectiveness. This question is particularly important with transit ideas because unproven technologies are not funded in the same ways as technologies that have been proven in revenue service.

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Super Slab – east of Pueblo	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	**Statewide Program** Forward to Responsible Agency
Monorail to Denver	Yes	**No**	Yes	Yes	**No**	Yes	Yes	Yes	
High speed train to Denver	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Passenger Rail to Denver	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Use Hwy 71 as an alternate route north from SH50	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Tolls in Denver &Springs to pay for this	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Limit hours trucks can travel	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Hwy 50 should be 4 lanes	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Monorail System to Denver. Include tickets packages for events in Denver	Yes	**No**	Yes	Yes	**No**	Yes	Yes	Yes	
Maglev to Denver	Yes	**No**	Yes	Yes	**No**	Yes	Yes	Yes	
Light Rail – Pueblo to Colo Springs	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Take trucks off I-25	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Make trucks stay in the right lane	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
SH50 to the east needs to have fewer signals	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	**TSM Concepts Advance to Level 2** These ideas will improve mobility slightly at the location specified. These are ideas that improve the effectiveness of the existing system with a relatively small financial investment. These ideas will be carried forward in a package of ideas called Transportation Systems Management (TSM).
Dual lefts westbound on Pueblo Blvd at I-25	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
A ramp to get in left lane from Lake Ave	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Add a turn arrow on southbound SH50 at Pueblo Blvd	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Synchronize signals on Northern for better east/west travel	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Signals at Eagleridge and Elizabeth	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Move signal at 1st Street ramp	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Need signal at Freedom Ford on SH50	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Improve signing for SH50 to the west	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Emergency pull offs	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Rename 50 and/or 47	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Catwalks – pedestrian walkways	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Amenity Feature Goal Advance to Level 2
Use Concrete not asphalt	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
More truck parking areas.	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Landscaping treatments	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Increase the ROW	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Improve the drainage	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Better lighting	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	
Put signs up far enough ahead	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Bike and Pedestrian crossovers	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Pedestrian crossing between 29th and SH50 – also at SH50 near Baltimore	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Solve drainage problems at 13th and 29th	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Fix drainage at I-25 and 15th Street	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Tollway around the city	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Bike/Ped btwn Runyon & HARP	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Sound wall to protect houses on I-25	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Sound walls along Mineral Palace Park area, then music could be in the park again	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Landscaping – partner with local businesses	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Dress up the views – Museum	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Hide some views – like Rocky Mtn Steel	Yes	No	Yes	No	Yes	Yes	Yes	Yes	
Preserve ROW for future transit	Yes	No	Yes	No	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Landscaping – low maintenance – related to the surroundings—trees—wildflowers – use water	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	**Amenity Feature Goal** Advance to Level 2
Light intersections and interchanges	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Good signing for destinations and points of interest	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Indiana provides access for 3 major employers	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Replace the I-25 bridge south of 1st	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	
Elevate I-25 at the south end of town to gain some views of the lakes	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Minimize signing for advertising	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Signs should tie to the color scheme with street furniture/street lights. Develop a unique image/color scheme	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Consider storm sewers/drainage when determining the landscaping choices.	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Need better lane markings	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Elevate portions of I-25 through town to eliminate barriers.	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Lower I-25 through town and eliminate barriers	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Build a viaduct from Abriendo to 1st Street	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Park-n-Ride at Eagleridge	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	
Realign US50 east of I-25 to make it continuous to the east. Rename SH47 as US50.	Yes	**No**	Yes	**No**	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Build a parallel route	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Major Concepts Advance to Level 2
Beltway on the east – Bragdon to Stem Beach with no widening to I-25	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Greater access to local streets	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
HOV lanes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Build alternate routes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Loop around the town	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
8 lanes on I-25 (4 in each direction)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
6 lanes on I-25 (3 in each direction)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Extend Stem Beach to east and connect it up again on the north end of town	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Straighten the curves	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Car pool lanes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Make an alternate route for trucks	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Double deck I-25	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Shift I-25 east between Abriendo & 13th	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Perimeter Road	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Double deck the interstate	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Bypass on the west	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
4 lanes on I-25 (2 in each direction) Bring existing up to design standards	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Bypass around Pueblo with limited access	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Longer exits on 13th, 6th, 1st, & Indiana	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	* Best Combined w/ Other Ideas Advance to Level 2 These ideas might improve mobility and safety at a single location; however, over the study area this increase in mobility and safety will be negligible unless several of these ideas are combined. Each idea will be an element, combined with others, to form a solution.
Improve acceleration and deceleration lanes	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend 13th to the East from I-25.	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Don't extend 13th Street to east.	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Frontage Roads	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
One way frontage roads	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Through street between 13th Street and 29th Street on the east side of I-25	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Elevate 13th street	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Eliminate the 1st Street interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend 1st street over the Fountain	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
More access between 1st and 13th	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Consider 24th Street	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Connect Abriendo and Santa Fe	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Redo the Abriendo interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Need a bridge to get to Belmont from Eagleridge	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Close the Ilex interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Illinois interchange has ramps that are too short	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Improve Indiana interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Add an interchange at Northern	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Add another interchange between Pueblo Blvd and Stem Beach	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Dillon Drive south to Pueblo Blvd	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Extend Northern to east with connection to Santa Fe	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	* Best Combined w/ Other Ideas Advance to Level 2 These ideas might improve mobility and safety at a single location; however, over the study area this increase in mobility and safety will be negligible unless several of these ideas are combined. Each idea will be an element, combined with others, to form a solution.
Extend 24th to the west to SH45 and connect to SH50B	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Add a 9th Street interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Central Avenue northbound ramp need accel length	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Fix the curves at the Belmont interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Improve 24th Street to Pueblo Blvd	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Close Illinois	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Improve Indiana exit	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Improve the Evans and Indiana 4-way stop	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Provide an alternate route to the Mesa	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Need access to the Bessemer Historic archives	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Need more crossings of the Arkansas	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Make Northern the east/west street west from 50B. Have an interchange at Northern and I-25	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Have an interchange at 13th and I-25	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Lengthen entrance ramp at 1st and I-25	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Close 1st Street interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Build a 24th Street Interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Don't use 24th Street as an interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Add an interchange between 29th and 13th	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Add a southbound exit from 4th Street	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Move interchange to 4th Street	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Fix 6th Street ramp – it is too sharp	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Extend 13th to the west to newly extend Dillon Drive	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	* Best Combined w/ Other Ideas Advance to Level 2 These ideas might improve mobility and safety at a single location; however, over the study area this increase in mobility and safety will be negligible unless several of these ideas are combined. Each idea will be an element, combined with others, to form a solution.
Extend 1st Street to extended Dillon	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
4th and 8th Street as one way pairs	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Widen 4th as major arterial	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Interchange at 4th – close 6th and 1st	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Split diamond between 1st/4th/6th Use Albany on the west Use Bradford on the east	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Fix curves at Ilex	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Widen bridges on 50 west to improve the route	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Northern interchange/eliminate Abriendo interchange/close Central	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Overpass/underpass at Abriendo	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Split diamond from Central to Abriendo	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Alternate access to Pepsi and fix Indiana northbound ramp	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Use Overton Road to Colo Springs	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
If close Ilex, check Santa Fe/ Northern/ 1st Street for truck use	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Locust to extend Dillon	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Look at traditional interchange at Indiana	Yes	Yes *	Yes	Yes*	Yes	Yes	Yes	Yes	
Extend proposed Purcell to the east to Saint Charles Road	Yes	Yes *	Yes	Yes*	Yes	Yes	Yes	Yes	
Improve Lime Road	Yes	Yes *	Yes	Yes*	Yes	Yes	Yes	Yes	
Extend Dillon south to Burnt Mill Road	Yes	Yes *	Yes	Yes*	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Elevate I-25 from Indiana to the Arkansas with the goal of eliminating a barrier -- join with park uses – use steel mill land	Yes	Yes *	Yes	Yes*	Yes	Yes	Yes	Yes	* Best Combined w/ Other Ideas Advance to Level 2 These ideas might improve mobility and safety at a single location; however, over the study area this increase in mobility and safety will be negligible unless several of these ideas are combined. Each idea will be an element, combined with others, to form a solution.
Tunnel I-25 from Indiana to the Mesa District	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Santa Fe south to Pueblo Blvd	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Indiana to east and connect to Santa Fe extended	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Central to east and connect to Santa Fe extended	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Connect Eden to Pueblo Blvd with a truck route	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Realign I-25 to the east at Northern	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Improve the interchange at Eagleridge	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Realign I-25 to the east through Rocky Mountain Steel	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Put full interchanges at major east/west arterials	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Keep Frontage Road on west side continuous between Stem Beach and Lake	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Upgrade Stem Beach ramps for accel/decel	Yes	Yes*	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend the proposed Purcell east to the an extended Dillon	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Connect 50B with 24th Street and rename Joe Martinez	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Santa Fe to Northern and have interchange at Northern and I-25	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Connect Abriendo and Santa Fe with no interchange with I-25	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	* Best Combined w/ Other Ideas Advance to Level 2 These ideas might improve mobility and safety at a single location; however, over the study area this increase in mobility and safety will be negligible unless several of these ideas are combined. Each idea will be an element, combined with others, to form a solution.
Extend Dillon south and overpass I-25 to connect to Santa Fe	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Erie north to cross river and connect to Dillon	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend eastside Frontage Road to Indiana	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Use Hwy 96 as a city route	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Replace the bridges	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Wider lanes	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Widen ramps	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Another route to Pueblo West	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Have deceleration lanes for all ramps	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Ring road around Pueblo	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend Troy south and connect to Aspen Road	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
One way Frontage Road system within Downtown – consider Texas turn arounds	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Extend 13th to the east and connect it to 12th and to Troy	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Close Ilex and make Abriendo a full interchange with Santa Fe	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Right offs only at Ilex	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Split diamond from 1st, 6th, 8th, and 13th	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
Close 1st interchange	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	
One way Frontage Road from 8th to 50B on east/west	Yes	Yes *	Yes	Yes *	Yes	Yes	Yes	Yes	

Level 1 – Advance/Eliminate Ideas

Criteria Category / Ideas	Mobility		Environmental	Safety	Implementation	Community Values			Comments
	Can this idea be compatible with the existing or planned transportation system?	Will mobility within the study area be improved?	Can environmental impacts be mitigated?	Does this idea improve safety?	Is this a proven technology?	Can this be compatible with local goals and objectives?	Does this preserve future transportation mobility options?	Does this idea improve the aesthetics of the community?	
Simple clover leaf interchanges	Yes	Yes	Yes	Yes	Yes	**No**	Yes	Yes	Eliminate due to impacts of additional land needed.
East west freeway	Yes	Yes	Yes	**No**	Yes	Yes	Yes	Yes	Forward to City for inclusion into correct study
Don't change the Ilex interchange	Yes	Yes	Yes	**No**	Yes	Yes	Yes	Yes	Eliminate due to existing safety hazard
Build a bypass on Troy Avenue	Yes	Yes	Yes	Yes	Yes	**No**	Yes	Yes	Eliminate due to impacts of additional land needed.
Bypass on the west—start at Beacon Hill tie to Pueblo Blvd back to I-25	Yes	Yes	Yes	Yes	Yes	**No**	Yes	Yes	Eliminate due to impacts of additional and needed.
Install a light at 102	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	Complete
Need to fix Pinon underpass	Yes	Yes	Yes	Yes	Yes	**No**	Yes	Yes	Forward to north study
Have the Chamber fix the Welcome sign on the south end of town.	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	Complete
Repair potholes	Yes	**No**	Yes	Yes	Yes	Yes	Yes	Yes	Completed
Do nothing	**No**	**No**	Yes	**No**	Yes	Yes	Yes	Yes	Must move forward
Need a state-of-the-art truck stop	Yes	**No**	Yes	**No**	Yes	**No**	Yes	Yes	Private development

Transportation Systems Management (TSM)
Travel Demand Management (TDM)

TSM describes the process to make the best use of an existing transportation system. It encompasses maintenance of existing infrastructure, efficiency improvements such as those achieved through deployment of Intelligent Transportation Systems (ITS) technologies, and strategic capacity expansion on the roadway system.

TDM describes a wide range of actions that are general toward improving the efficiency of travel demand. These programs as designed to maximize the people-moving capability of the transportation system by increasing the number of persons in a vehicle, or by influencing the time of, or need to, travel. To accomplish these types of changes, TDM programs must rely on incentives or disincentives to make these shifts in behavior attractive. TDM programs are implemented to reduce traffic congestion, air pollution, parking space needs, and/or increase the number of persons using High Occupancy Vehicle Lanes (HOV).

Signal Systems and Signing *Ideas*

- Reduce signals along US 50
- Synchronize signals on Northern for better east/west travel
- Need signals at Eagleridge and Elizabeth
- Move signal at 1st Street ramp
- Need signal at Wills Boulevard and US 50
- Improve signing for US50 to the west

Build Options *Ideas*

- Dual lefts westbound on Pueblo Blvd at I-25
- A direct connection from Lake Ave to I-25
- Emergency pull offs

Land Use *Ideas*

- Manage sprawl to maintain downtown viability.
- Manage land use and development along bypass routes.

Other TSM & TDM Possibilities . . .

TSM . . .
- Real time commuter information
- Traffic operations center
- Incident management programs
- Variable message signs
- Traffic signal timing
- Access management
- Smart highways
- Smart vehicles

TDM . . .
- Marketing ridesharing, transit, non-motorized modes, and/or telecommuting at a higher level.
- Establishing telecommute centers
- providing enhanced ride-matching services
- Facilitating vanpools, carpools
- Subsidizing transit pass and/or guaranteed ride home programs
- Establishing preferential parking location policies
- Implementing alternative work schedule programs.
- Establishing more rigorous parking cash-out policies
- Establishing for-profit carpools
- Land use modifications.

Intelligent Transportation Systems (ITS) Possibilities . . .

ITS is used to manage the existing system, enhance the accessibility and usability of multiple modes of transportation, and preserve and protect the environment through efficient system management. Enhanced options provided through easily accessed information will empower all system users.

ITS tools include variable messages signs (VMS), highway advisory radios (HAR), close circuit TV for highway monitoring, weigh-in-motion devices for commercial vehicles, automatic traffic recording stations for tracking volume, type and speed of vehicles, ramp metering at interchanges, and roadway sensors for pavement and weather conditions. Other ITS techniques include information on current road conditions provided through websites, radio and TV broadcasts, call in numbers and kiosks at event centers.

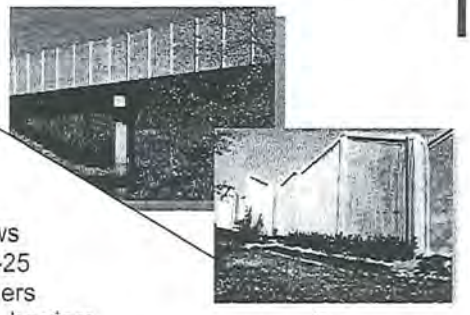
Key elements of ITS include: traffic signal control; freeway management; transit management; incident management; electronic toll collection; electronic fare payment; railroad crossings; emergency response; regional multi-modal traveler information

Community Ideas for TSM and TDM

the New Pueblo Freeway

Amenities / Features / Goals / Enhancements

This category collects and saves the ideas that make an idea and eventually a strategy more "livable". Ideas considered in this category include noise walls to mitigate sound levels, and pedestrian and bike paths to connect destinations. These ideas are best finalized when the major strategy is defined because bikepaths are best designed when the roadway and bridge locations are known.



- Use Concrete not asphalt
- Provide better lane markings
- Minimize signing for advertising
- Dress up some views, and hide some views
- Provide sound walls to protect houses on I-25
- Lower I-25 through town and eliminate barriers
- Elevate portions of I-25 through town to eliminate barriers
- Consider signs that tie to a unique image/color scheme with street furniture and street lighting
- Elevate I-25 at the south end of town to gain some views of the lakes
- Provide good signing for destinations and points of interest
- Provide better lighting at intersections and interchanges
- Increase the ROW and preserve for future transit
- Add pedestrian/bike walkways and crossovers
- Add a Park-n-Ride at Eagleridge
- Consider more truck amenities
- Add landscaping treatments
- Consider transit amenities

AltStrategiesSM&TSM/April 26, 2002

Community Ideas for

Amenities

Features

Goals

Enhancements

25 the New Pueblo Freeway

APPENDIX C

Level 2 – Rate Concepts

Level 2 – Ranking of Major Corridor Concept

Criteria Category / Concepts	Environmental			Community Values		Mobility			Safety	Implementation					Comments
	Can this be built within the existing right-of-way?	How well does this support our environmental values?	Will this concept have community support?	How well does this concept support our current economic community investments?	Does this concept provide new transportation options?	Is travel time improved?	Does this improve access to major destinations?	Does this concept eliminate barriers to mobility?	Would the construction of this concept result in improvements to existing high accident locations?	How easy is this to construct?	Are maintenance costs decreased with this concept?	Is this concept consistent with existing agency plans and policies?	What is the capital cost of this concept?	How consistent is this with national design guidelines?	
No-Build	○	◒	●	●	●	●	●	●	●	○	●	●	○	●	High hazard locations will be addressed by State maintenance monies
Bypass Concepts –Relocating existing I-25															
Double Deck I-25	◒	●	●	●	◒	○	●	●	◒	●	●	●	●	○	Local use control is critical
Bypass(es) to the east of Pueblo	●	●	◒	●	○	◒	●	◒	◒	○	●	●	◒	○	
Bypass(es) to the West of Pueblo	●	●	◒	●	○	◒	◒/●	◒	◒	○	●	●	◒	○	Close In / Far West
Alternate Route Concepts															
High Speed, Limited Access Alternate Route	●	●	◒	◒	◒	○	◒	◒	○	◒	●	◒	●	○	
Lower Speed, Managed Access Alternative Route	◒	◒	◒	○	○	◒	○	○	○	◒	◒	○	◒	○	
Transit Concepts															
HOV/carpool lanes on I-25 with an expanded Bus System and park-n-ride facilities	◒	◒	◒	○	○	○/●	○	◒	○	◒	◒	○	◒	○	Transit / Autos — Most mobility and accessibility improvements are from bus circulator
I-25 Concepts															
4 lanes on I-25 with continuous acceleration and deceleration lanes	◒	◒	○	○	●	◒	◒	●	○	●	○	○	◒	○	Possible mitigation to existing barriers by elevating or tunneling the roadway. Potential ammenities that lessen barriers could include pedestrian bridges
6 lanes on I-25	●	◒	◒	○	○	○	○	●	○	◒	◒	○	◒	○	
8 lanes on I-25	●	●	◒	◒	◒	○	○	●	○	◒	●	◒	●	○	

○ Good ◒ Fair ● Poor

the New Pueblo Freeway

Criteria Definitions

Level 2

Evaluation process

All of the ideas presented to the project team through the technical team meetings, citizen meetings, the State Fair, the web site and the hot line will be processes through Level 1. Level 1 screening will advance or eliminate ideas into Level 2. The main purpose of Level 1 screening is to eliminate ideas that do not meet the projects goals stated in the Vision.

The Level 1 screening will yield a shorter list of ideas that will be formed into concepts, for example an idea of 'build a bypass' could be further defined as 'build a bypass to the east of the city with no improvements to the existing I-25'. The concepts will then be grouped into the following categories: Transit, Alternate Routes, Highway, Bypass, Interchanges and Network Concepts, Amenities/Features/Goals, and Transportation System Management.

The purpose of Level 2 evaluation is to look at each concept and comparing it to other concepts in the same category, rate that concept's ability to meet the project goals and address the stated concerns. The evaluation will give all project participants the opportunity to discuss the concepts, how they meet the projects goals and how they might be improved to make them better meet the project goals.

The rating given through the Level 2 criteria will result in a list of concepts in order of how they best meet the project goals. Using these ratings, strategies will be developed. These strategies will be combinations of concepts from the different categories that support each other, that strengthen the weakness of one concept, and that include appropriate amenities.

Level 3 analysis will be completed on each of the strategies. The Level 3 analysis will measure very specific items, it will be quantitative more that qualitative, and will result in a corridor recommendation and an interchange and network recommendation. The final recommendation will be a complete package with a major concept supported by interchanges and local network improvements. Further, the final recommendation will include amenities such as landscaping and lighting that are consistent with the major concept.

Level 2

Rate the Concepts

No concepts will be eliminated during the Level 2 evaluation.

The following questions will be answered using a 3 tiered rating system. Each criterion has a definition and the actual measurement to be used, such as good/fair/poor, high/medium/low or yes/somewhat/no.

These questions will be answered using the rankings of

Good/High/Yes 

Fair/Medium/Somewhat 

Poor/Low/No 

Corridor Criteria

Environmentall Community Values

Can this concept be built within the existing right-of-way?

This question will be answered YES/SOMEWHAT/NO for each concept. Each concept will have a defined right-of-way 'footprint', if that is appropriate. Using the 'footprint' an assessment will be made of the right-of-way needs for the concepts. Again this measurement will be a comparison between the concepts in each category.

A YES answer would indicate concepts that can be build within the existing right-of-way. A concept that may take small amounts of right-of-way for the entire length or a few areas where significant right-of-way may be needed will be rated as SOMEWHAT. A concept that requires all new right-of-way or significant right-of-way along the entire length of the concept.

How well does this support our environmental values?

This question will be answered HIGH/MEDIUM/LOW and the results will come from a discussion first of our environmental values and then how well they are supported by the concept.

The environmental values will include both the natural and manmade environments. So each concept can be discussed as to how it affects historic sites, parks, wildlife habitat, culture centers and other items brought forward by the participants.

HIGH will be given to concepts that support and protect all of our natural and manmade environments. A LOW rating will indicate a concept with many impacts to the environmental resources of the community.

Items of economic investment are covered in a later criterion.

Will this concept have Community Support?

The answer to this question will be discussed in each of the Community Working Groups (CWG). The measurement will be YES/SOMEWHAT/NO. If all CWG support the concept then it will be rated with a YES. If only some of the CWG members support the concept and/or concerns have recorded through the project process about this type of concept it will be rated with a SOMEWHAT. And if no support is found for a concept it will be rated with a NO.

How well does this concept support our current economic community investments?

The measure for this criterion will be HIGH/MEDIUM/LOW. A concept that is rated as HIGH will be very supportive of all of the current community investments along the corridor. A concept that receives a MEDIUM rating would be one that is somewhat supportive or supports on some of the current investments. The LOW rating would be one that does not support any of the current community investments.

Does this concept provide new transportation options?

Because one of the project's stated goals is to be future looking, this criterion will measure a concept's ability to be flexible or it's ability to provide for the future.

The measure will be GOOD/FAIR/POOR. Each concept will need to be discussed to understand the issues of expandability, reusability, and support that a concept may take away from a future option.

Mobility

Is travel time improved?

For each concept a qualitative measure will be made for travel time improvements. Each concept will be compared with the other concepts in the same category to determine the improvement of travel time from Stem Beach north to the Eagleridge

Interchange. These limits have been chosen because some concepts would reroute trips from I-25 at the south end of town and reconnect those trips at the north end of Pueblo.

This question can rate, within each category, each concept's ability to improve travel time from the above beginning point of the trip to the trip's destination.

The measurement will be GOOD/FAIR/POOR for this criterion.

Does this improve access to major destinations?

A map showing the current major destinations within the city will be prepared. These will include the historic downtown, HARP, State Fair Grounds, library, Pueblo Community College, Mesa District, hospitals, and others agreed upon by the technical team and the CWG.

The measure will be HIGH/MEDIUM/LOW. With HIGH representing a concept that would provide access to all of the destinations noted. A MEDIUM rating would indicate that access to some of the destinations was indirect and a LOW rating would be given to a grouping that provided only indirect access to all of the destinations noted.

Does this concept eliminate barriers to mobility?

A map showing the current barriers, such as I-25, Fountain Creek, Arkansas River, the State Hospital, Rocky Mountain Steel, and the railroad tracks, will be prepared. Others agreed upon by the technical team and the CWG will be added.

The measure will be HIGH/MEDIUM/LOW. With HIGH representing a concept that would eliminate all of the barriers. A MEDIUM rating would indicate that elimination or access across some of the barriers was achieved and a LOW rating would be given to a grouping that eliminated no barriers.

Safety

Would the construction of this concept result in improvements to existing high accident locations?

Again a map of the I-25 high accident locations will be prepared. Each concept will be evaluated based on its ability to improve existing high accident locations. It is assumed that if a concept makes any improvements within the area of an existing high accident location, the improvements would address the reasons for the accidents.

HIGH/MEDIUM/LOW will be the measurement used. HIGH being most or all of the existing high accident locations are within the influence of the concept. A MEDIUM

rating will be used when a concept makes changes in only some of the high accident locations, some being around half. The LOW rating will be used when a concept makes changes in very few or none of the existing high accident locations.

High accident location is defined as those interchanges, intersections and stretches of road with accident rates at 80% and higher of the states average accident rate for that type of facility.

It is noted that if a location does not meet this criterion it does not mean that improvements within that area would not address those lesser accident problems.

Implementation

How easy is this to construct?

Each concept will be reviewed for the common or extraordinary methods of construction that would be needed to make the improvement. Much of this measurement is of the ability to maintain traffic during construction.

YES/SOMEWHAT/NO will be the measures used for this criterion. YES will indicate that the concept can be build using common or traditional methods of construction and traffic can be maintained at all times during construction. SOMEWHAT indicates that a concept could be build using common construction methods but that traffic during construction would be greatly disrupted or even stopped. SOMEWHAT could also indicate that a concept would require non-traditional methods of construction but that traffic could be maintained at all times during that construction. NO will indicate that a concept would require extraordinary methods of construction and would disrupt traffic during that construction.

Are maintenance costs decreased with this concept?

A long standing goal of CDOT and agencies that maintain the streets and highways, is to reduce maintenance costs. To measure each concept for it's ability to reduce maintenance costs, issues such as increased lane miles and improved conditions will be considered. A concept that would lower maintenance costs would be rated GOOD for this criterion.

Is this concept consistent with existing agency plans and policies?

This question addresses a concern that an concept could be in conflict with the existing agency plans and policies. Agencies develop plans and policies to direct the development of transportation facilities. This criterion measures how proposed

concepts might support (be compatible with) or might not support what agencies have planned.

The measurement will be YES/SOMEWHAT/NO. If all participating agencies support the concept then it will be rated with a YES. If only some of the agencies support the grouping and/or concerns have been recorded through the project process about this type of concept it will be rated with a SOMEWHAT. And if no support is found for a concept it will be rated with a NO.

What is the capital cost of this concept?

A table of construction costs for each type of construction will be prepared. Using this table and reviewing the concept an assessment will be made that indicates an overall LOW/MEDIUM/HIGH) cost for the concept (in this measurement HIGH COST would be rated poorly. These ratings are comparisons within each category of alternatives

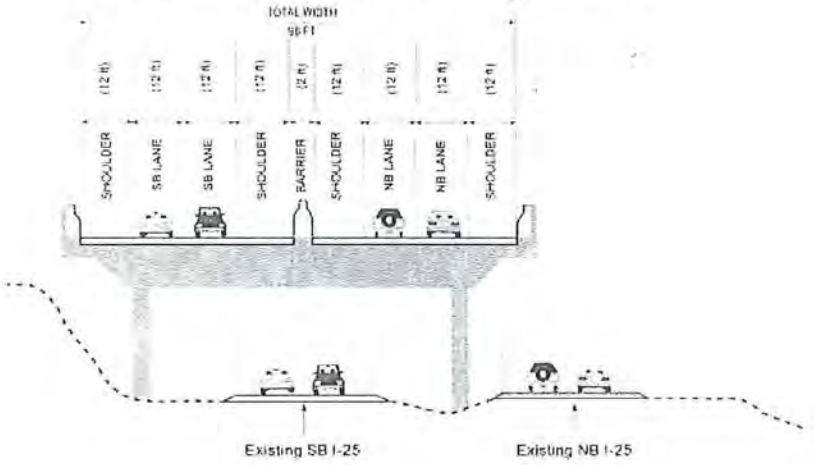
How consistent is this with national design guidelines?

This criterion is measuring each concept against the national guidelines for construction of highways, roads, interchanges and intersections. The technical team will review each concept for consistency with national design guidelines.

The measure will be GOOD/FAIR/POOR. A concept that is GOOD meets all of the national guidelines. A FAIR rating would indicate a concept that might require some variances from national guidelines, but these variances may be minor or commonly requested and are consistent with the overall goals of the guidelines. A concept that receives a POOR rating is one that has many and serious issues in meeting the national guidelines.

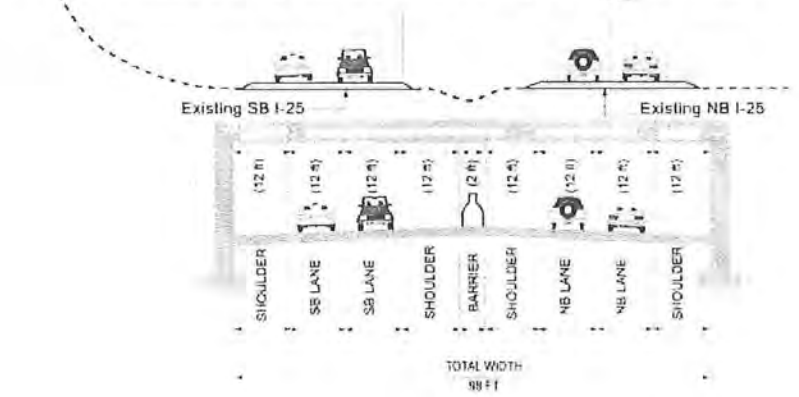
Bypass Concepts

Double Decking I-25



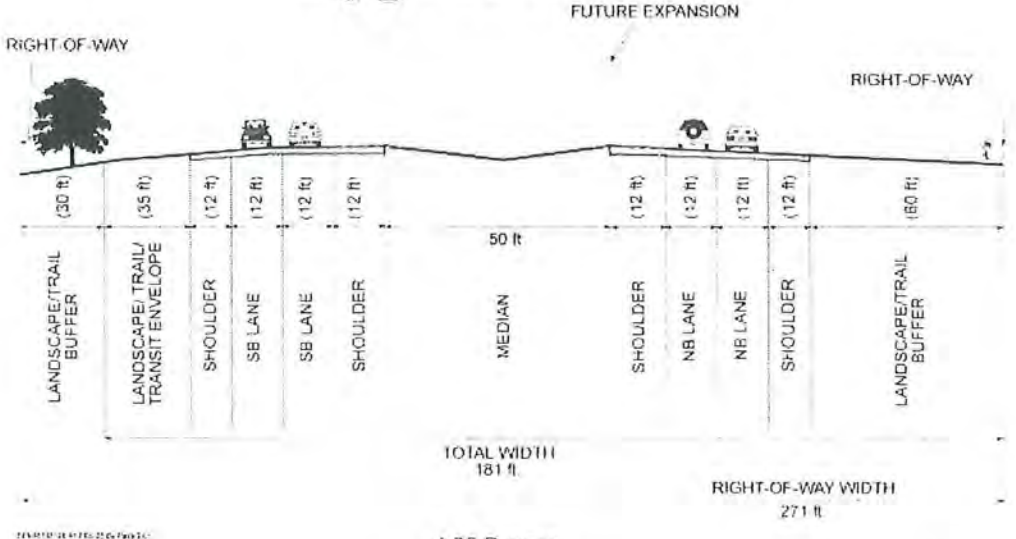
Double Decking of I-25

Tunnel Under Existing I-25



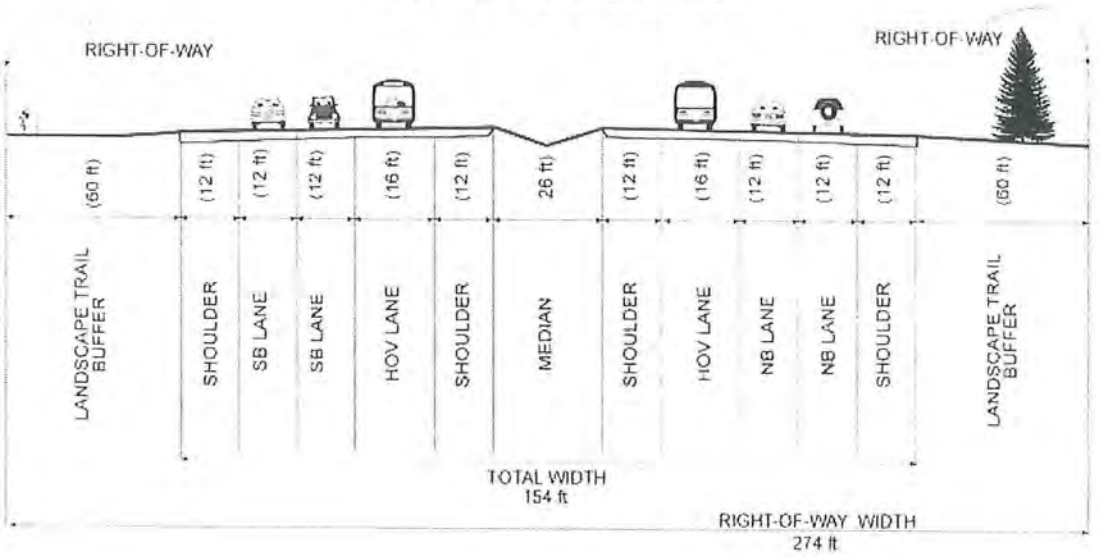
Tunnel Under Existing I-25

Bypass I-25



I-25 Bypass

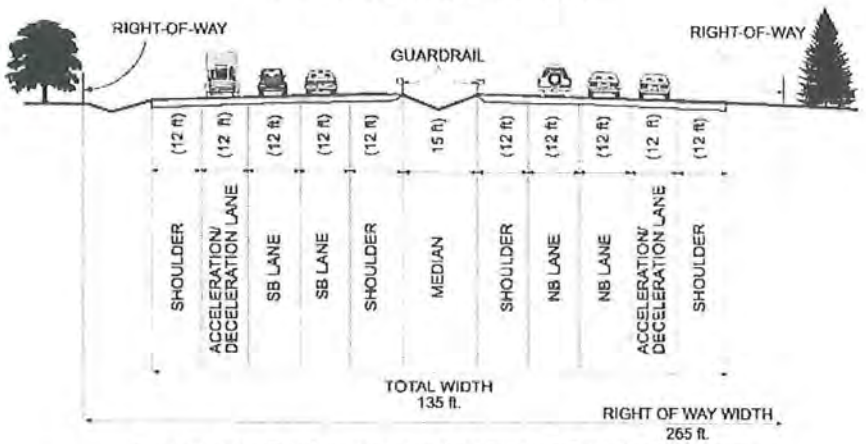
HOV Lanes on I-25



HOV Lanes on I-25

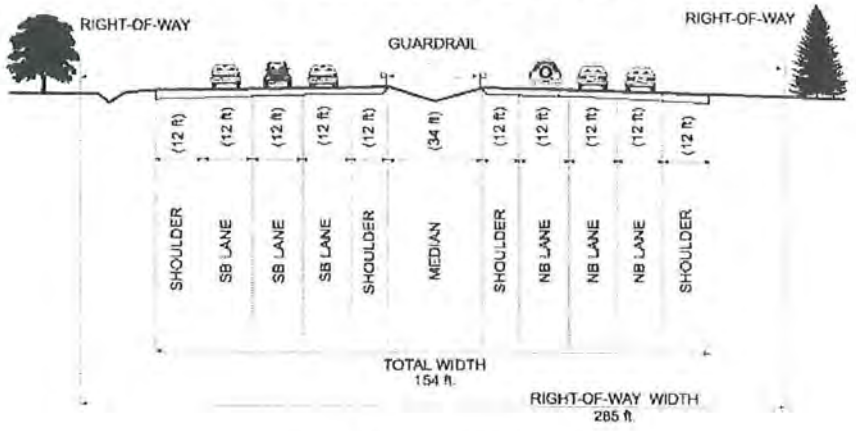
I-25 Concepts

4 Lanes on I-25



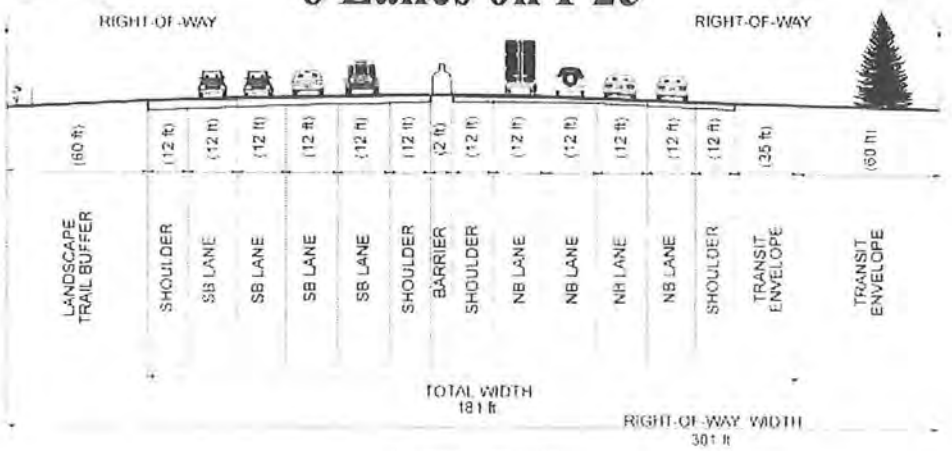
4 Lanes on I-25 with Continuous Acceleration/Deceleration Lanes

6 Lanes on I-25



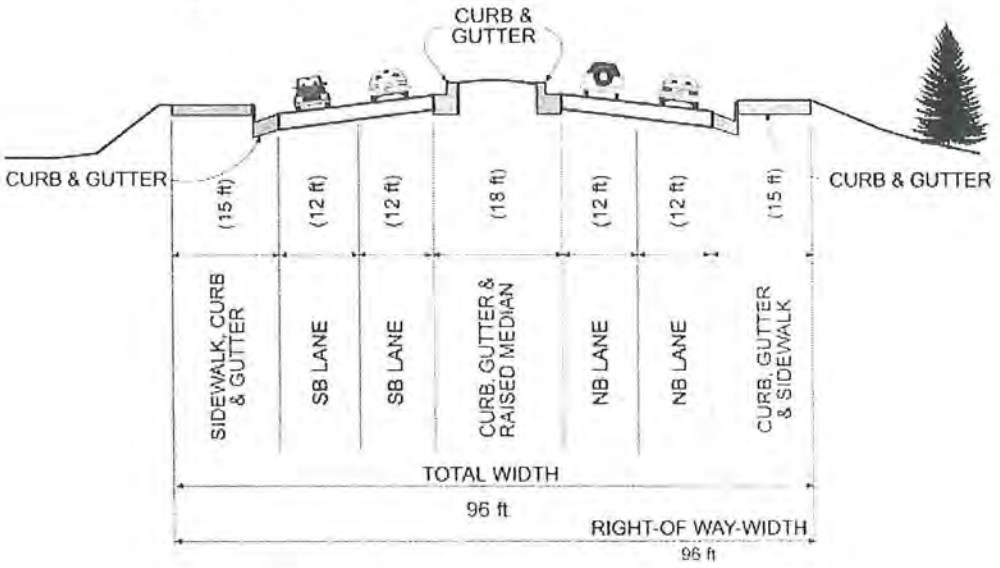
6 Lanes on I-25

8 Lanes on I-25



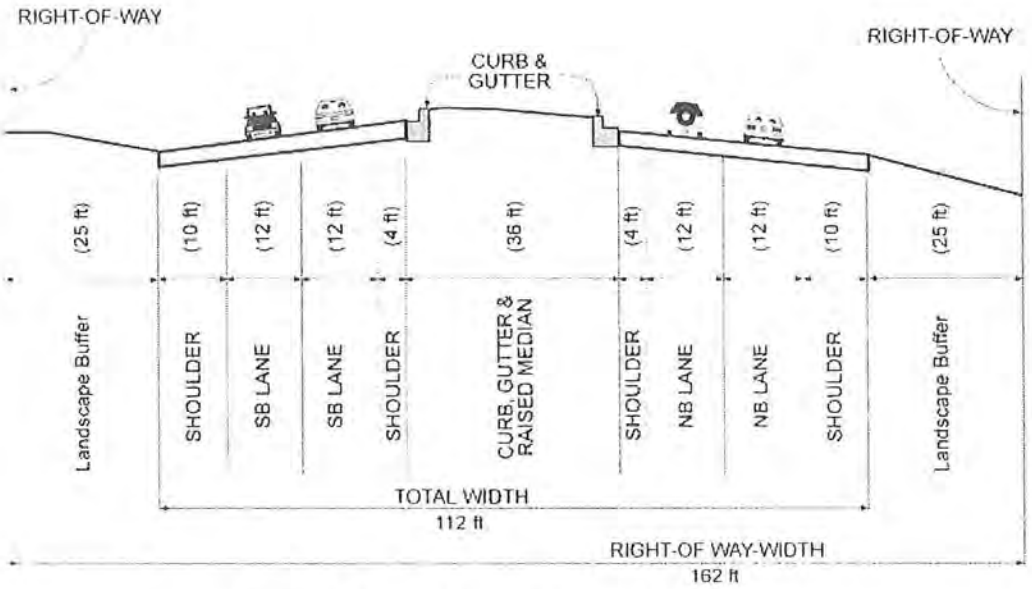
8 Lanes on I-25

Lower Speed, Managed Access Alternate Route



Lower Speed, Managed Access Alternate Route

High Speed, Limited Access Alternative Route



High Speed, Limited Access Alternate Route

APPENDIX D

Level 3 – Evaluate Strategies

the New Pueblo Freeway

Criteria Definitions

Level 3

Evaluation Process

All of the ideas presented to the project team through the technical team meetings, citizen meetings, the State Fair, the web site and the hot line will be processed through Level 1. Level 1 screening will advance or eliminate ideas into Level 2. The main purpose of Level 1 screening is to eliminate ideas that do not meet the projects goals stated in the Vision.

The Level 1 screening will yield a shorter list of ideas that will be formed into concepts, for example an idea of 'build a bypass' could be further defined as 'build a bypass to the east of the city with no improvements to the existing I-25'. The concepts will then be grouped into the following categories: Transit, Alternate Routes, Highway, Bypass, Interchanges and Network Concepts, Amenities/Features/Goals, and Transportation System Management.

The purpose of Level 2 evaluation is to look at each concept and comparing it to other concepts in the same category, rate that concept's ability to meet the project goals and address the stated concerns. The evaluation will give all project participants the opportunity to discuss the concepts, how they meet the projects goals and how they might be improved to make them better meet the project goals.

The rating given through the Level 2 criteria will result in a list of concepts in order of how they best meet the project goals. Using these ratings, strategies will be developed. These strategies will be combinations of concepts from the different categories that support each other, that strengthen the weakness of one concept, and that include appropriate amenities.

Level 3 analysis will be completed on each of the strategies. The Level 3 analysis will measure very specific items, it will be quantitative more than qualitative, and will result in a corridor recommendation

An interchange grouping and network recommendation will be developed after the preferred corridor is identified. These will be analyzed with criteria developed for interchanges and networks.

The final recommendation will be a complete package with a preferred corridor, supported by an interchange grouping and local network improvements. Further, the final recommendation will include amenities such as landscaping, bikepaths and lighting that are consistent with the recommendation.

Criteria

Environmental

1. Amount of new right-of-way.

The measure for this criterion will be the acres of new right-of-way needed to build the strategy.

2. Number of existing houses/businesses within the new right-of-way.

The measure for this will be a count of the existing houses and businesses within the new right-of-way. These houses and businesses may or MAY NOT be purchased for the project. Design features may accommodate or protect these houses and businesses.

3. Cumulative Impact Discussion

This will be a discussion of the cumulative impacts to the natural and manmade environments resulting from the strategy. Issues to be covered include environmental justice and land use. Also reviewed will be impacts to 4(f) and 6(f) properties, wetlands, wildlife habitat, threatened and endangered species and historic properties. Finally impacts from increased noise, decreased air quality and water quality will be reviewed and discussed.

Measurements will be made by overlaying each strategy on a map of the environmental resource and then measured in the following ways.

Environmental justice land areas (ethnic and low income)	population within the buffer on each side of the ROW
4(f)6(f) properties	acres within the ROW
Wetlands	acres within the ROW
Potential very high-quality wildlife habitat	acres within the ROW
Potential threatened and endangered species	acres with the ROW
Eligible historic properties	Number of properties within the buffer on each side of ROW lines
Noise	Number of houses within the buffer on each side of ROW
Air Quality	The average speed for the network will be calculated for the strategy versus the no build.
Water Quality	acres of additional impervious area

Community Values

1. Is this strategy compatible with neighborhood and local business plans/goals/objectives?

This question addresses a concern that a strategy could be in conflict with the existing or planned community goal. Communities and local businesses have been developed based on existing transportation facilities. This criterion measures how changes to the existing transportation system might still support (be compatible with) or might not support what communities and local business have planned. A review of the Comprehensive Plan will be included. This will be discussed with the Community Working Groups (CWG) and other established community groups.

A measurement of Good, Fair, Poor for both neighborhoods and businesses, individually, will be recorded.

2. Does this strategy promote local trips on local roads and regional trips on I-25?

A table will be prepared, comparing trips on the different facilities to the no build condition. The roadways that will be analyzed are Pueblo Blvd, Elizabeth/Greenwood, Dillon (if applicable), Hudson, Troy and Interstate 25. Trips (vph-vehicles per hour) on key links at PM peak will be analyzed.

A measurement of Good, Fair, Poor will be recorded.

3. Does this strategy support our current and ongoing economic investments in the community?

Comments for each strategy will be prepared as to how the current and ongoing economic investments in the community are impacted, positively or negatively. Investments that will be considered in this measurement include HARP, the Historic Union Districts, the Mesa Junction District, the new Library, the State Fair complex, the Art Center, the Runyon complex, the downtown business center and the I-25/US50/SH47 interchange and roadway improvements.

A measurement of Good, Fair, Poor will be recorded.

Mobility

1. Planning Level of Service – PM Peak.

A map showing Level-of-Service (LOS) will be developed for the major roadways in the strategy. These will be calculated using the forecasts from the PACOG model for the year 2025.

The roadways that will be analyzed are Pueblo Blvd, Elizabeth/Greenwood, Hudson, Troy and Interstate 25. The LOS will be calculated for the p.m. peak hour.

2. *Travel time (I-25 from Stem Beach to Pinon).*

A map showing the travel time for each strategy for I-25 from Stem Beach to Pinion. These times will be taken from the PACOG model for the year 2025 for the p.m. peak hour.

3. *Traffic volumes.*

A map showing the traffic forecasts for this strategy will be prepared. The forecasts will be developed using the PACOG model for the year 2025.

The roadways where volumes will be shown are Pueblo Blvd, Elizabeth/Greenwood, Hudson, Troy and Interstate 25. The forecasts will be average daily traffic (ADT).

Implementation

1. *What is the comparative cost of this strategy?*

A cost of the strategy will be calculated using CDOT cost estimating methods for program development. These costs will be shown in current dollars.

Comparative costs do not include costs for tunneling or elevating portions of I-25.

The cost of the currently committed projects is $70,000,000. These improvements are assumed as part of all strategies; however, the costs for these projects is not included in the comparative costs of each strategy.

2. *What are the additional operations and maintenance costs of this strategy?*

A long-standing goal of CDOT and other local agencies that maintain the streets and highways is to reduce maintenance costs. The measure will be an annual operation and maintenance cost for the additional facilities in this strategy, in current dollars.

3. *Does this strategy have a major agency or legislative hurdle?*

This question addresses a concern that a strategy could be in conflict with the existing agency plans, policies and laws. Agencies develop plans and policies to direct the development of transportation facilities. This criterion measures how proposed strategies might support (be compatible with) or might not support what agencies have planned.

A measurement of Yes, Some, No will be recorded.

3. *Can this strategy be implemented in segments that are functional and fundable?*

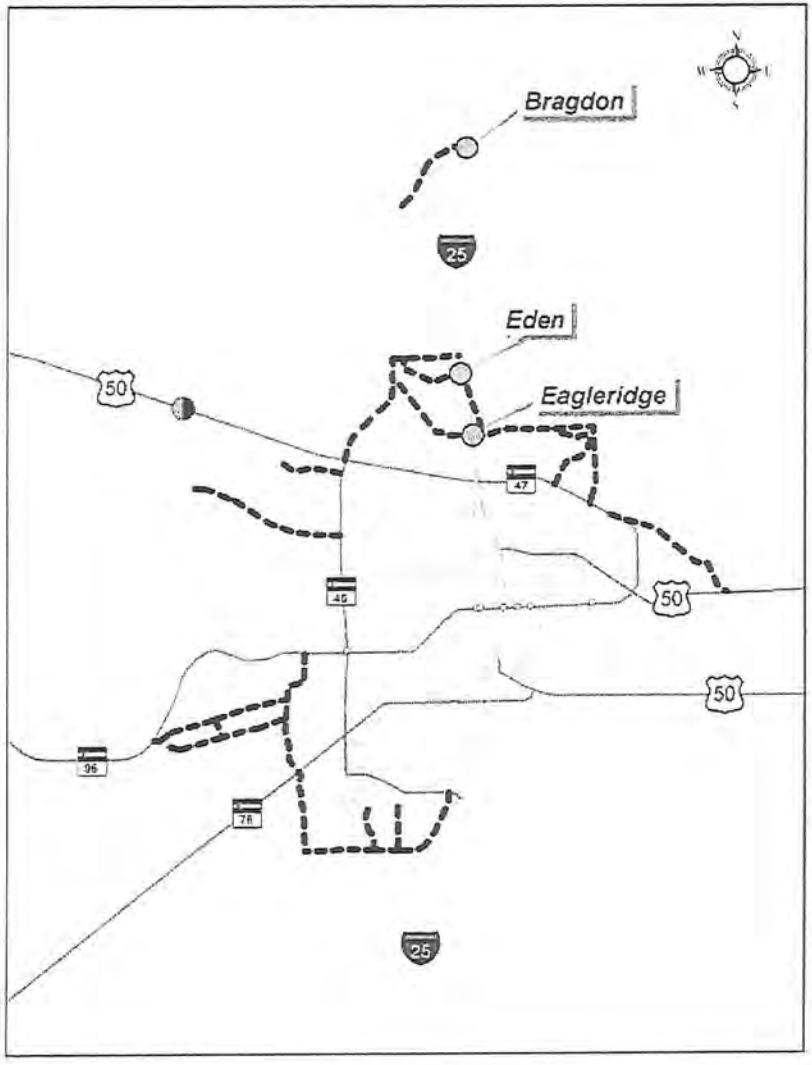
This measurement will test if a strategy can be broken into several projects and matched over time to available funding, but still provides an immediate improvement as each project is completed.

A measurement of Yes, Some, No will be recorded

Currently Committed Projects

Includes projects currently anticipated by the Colorado Department of Transportation, and the City and the County of Pueblo, within the next 20 years.

Not all of these projects have identified funding at this time.

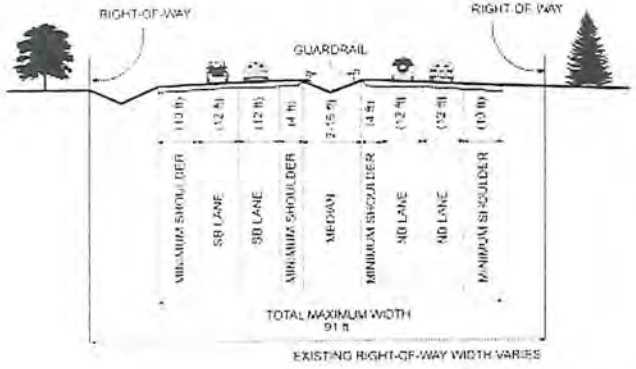


the New Pueblo Freeway

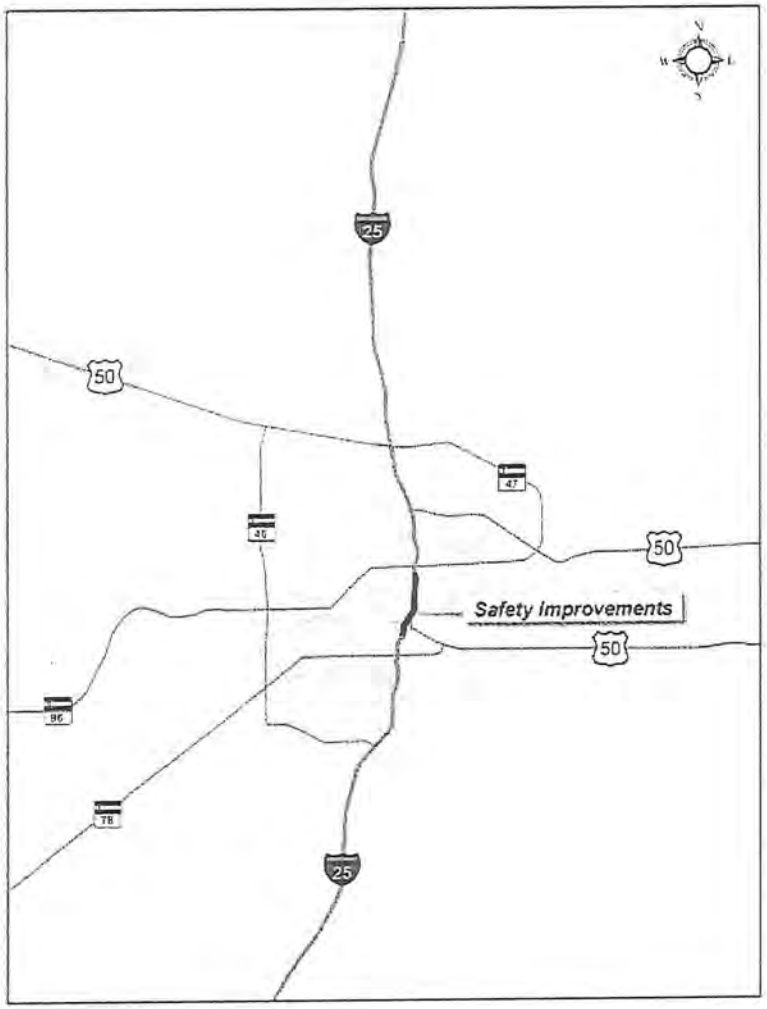
I-25 Safety Improvement Strategy

- Safety improvements on I-25 - 1st to Abriendo
- Replace existing structures from 1st to Abriendo
- Assume minimal additional ROW
- Circulator Bus System
- Transportation Systems Management (TSM)
- Travel Demand Management (TDM) this would include enhanced signing to direct travelers to Downtown
- Intelligent Transportation Systems (ITS)
- Amenities – Bike paths, Landscaping, etc

I-25 Safety Improvements from 1st St to Abriendo Ave



Assumed posted speed 50 mph



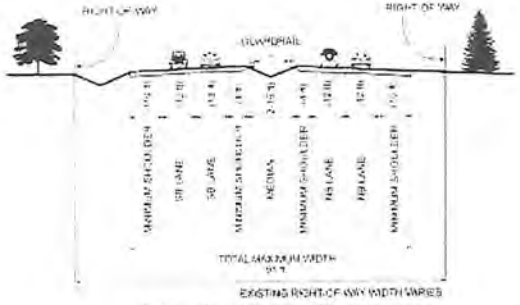
I-25 Safety Improvement Strategy

the New Pueblo Freeway

I-25 Safety Improvement Strategy with a Low Speed Loop

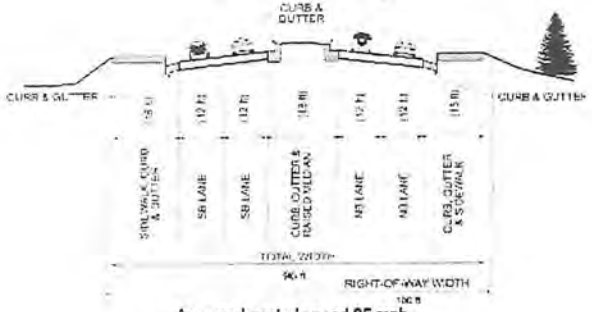
- I-25 Safety Improvement
  - Safety improvements on I-25 from 1st to Abriendo
  - Replace existing structures from 1st to Abriendo
  - Assume minimal additional ROW
- Low Speed Loop
  - Managed Access
  - Dillon, on the east side of I-25, extended south to Pueblo Boulevard and north to Eden
  - Pueblo Boulevard extended north to Eden
- Circulator Bus System
- Transportation Systems Management (TSM)
- Travel Demand Management (TDM)
- Intelligent Transportation Systems (ITS)
- Amenities: bike and pedestrian paths, landscaping, etc

I-25 Safety Improvements from 1st St to Abriendo Ave

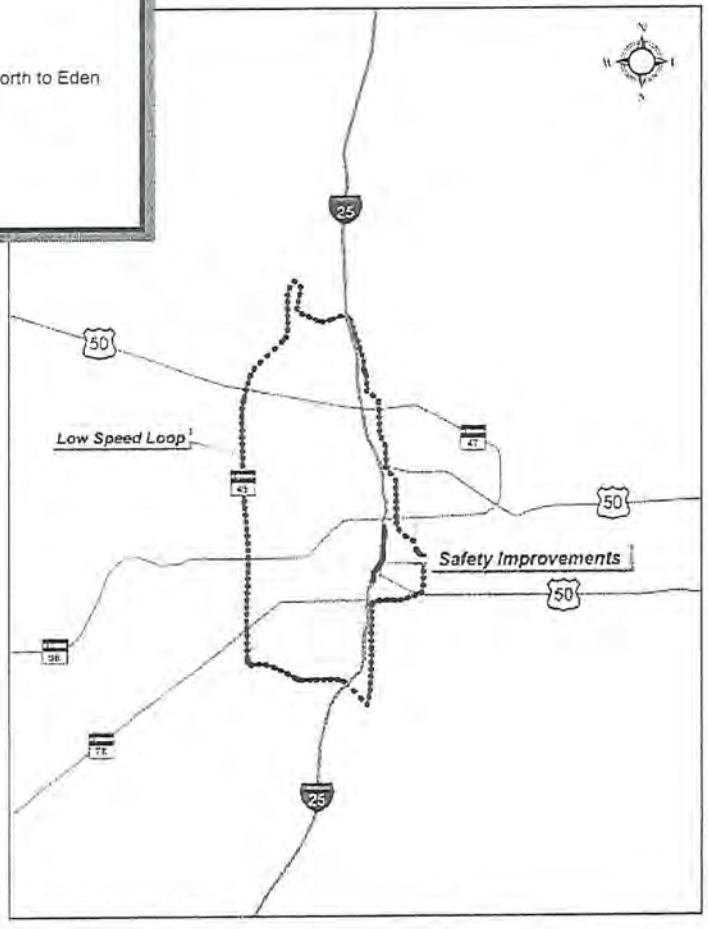


Assumed posted speed 50 mph

Low Speed Loop



Assumed posted speed 35 mph



I-25 Safety Improvement Strategy with a Low Speed Loop

the New Pueblo Freeway

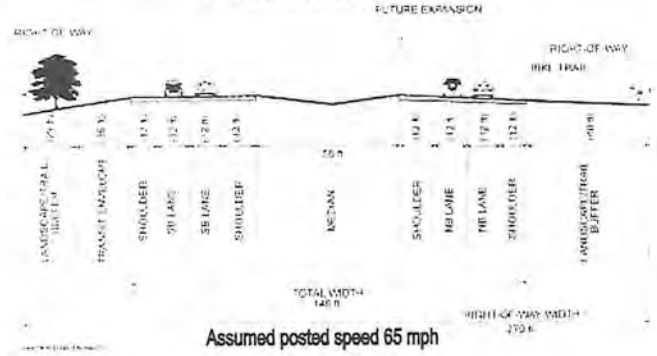
April 26, 2002

Relocated I-25 Strategy with a Parkway

Relocated I-25 Strategy with a Parkway

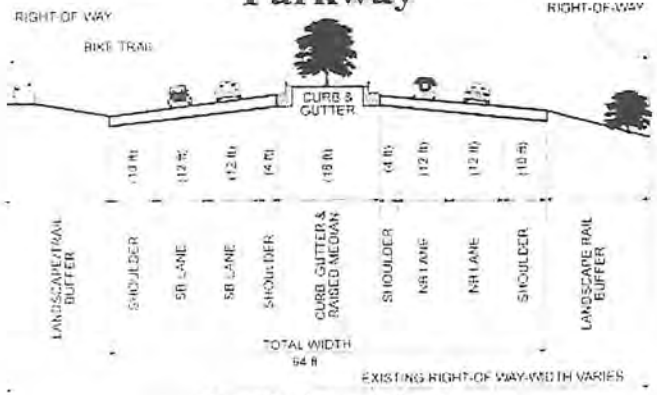
- Relocated I-25
  - 5 New Interchanges
- Parkway
  - I-25 from Pinon to Stem Beach will be reconstructed as a Parkway
  - Replace 9 Interchanges with Intersections
- Circulator Bus System
- Transportation Systems Management (TSM)
- Travel Demand Management (TDM) this would include enhanced signing to direct travelers to Downtown
- Intelligent Transportation Systems (ITS)
- Amenities – Bike paths, Landscaping, etc

Relocated I-25

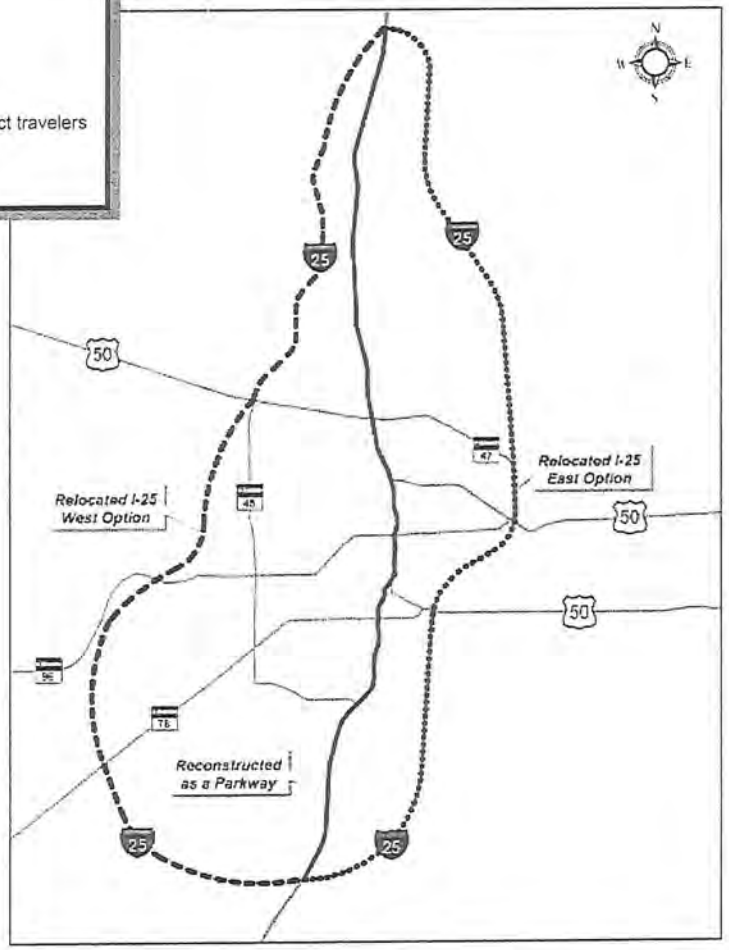


Assumed posted speed 65 mph

Parkway



Assumed posted speed 45 mph



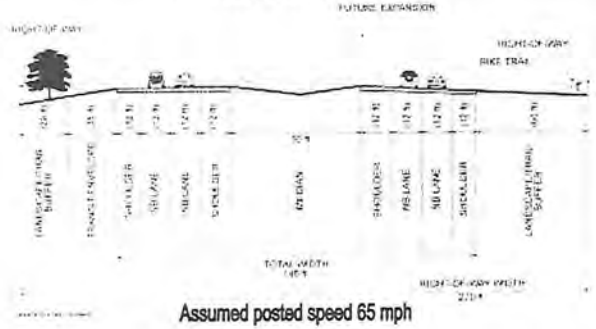
Relocated I-25 Strategy with a Parkway

the New Pueblo Freeway

Relocated I-25 Strategy with a Freeway

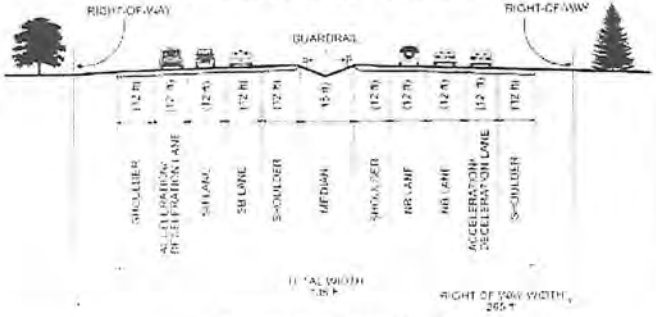
- Relocated I-25
  - 5 New Interchanges
- Freeway
  - Improve I-25 from 29th Street to Stem Beach with 4 lanes and continuous accel/decel lanes
- Circulator Bus System
- Transportation Systems Management (TSM)
- Travel Demand Management (TDM) this would include enhanced signing to direct travelers to Downtown
- Intelligent Transportation Systems (ITS)
- Amenities – Bike paths, Landscaping, etc

Relocated I-25

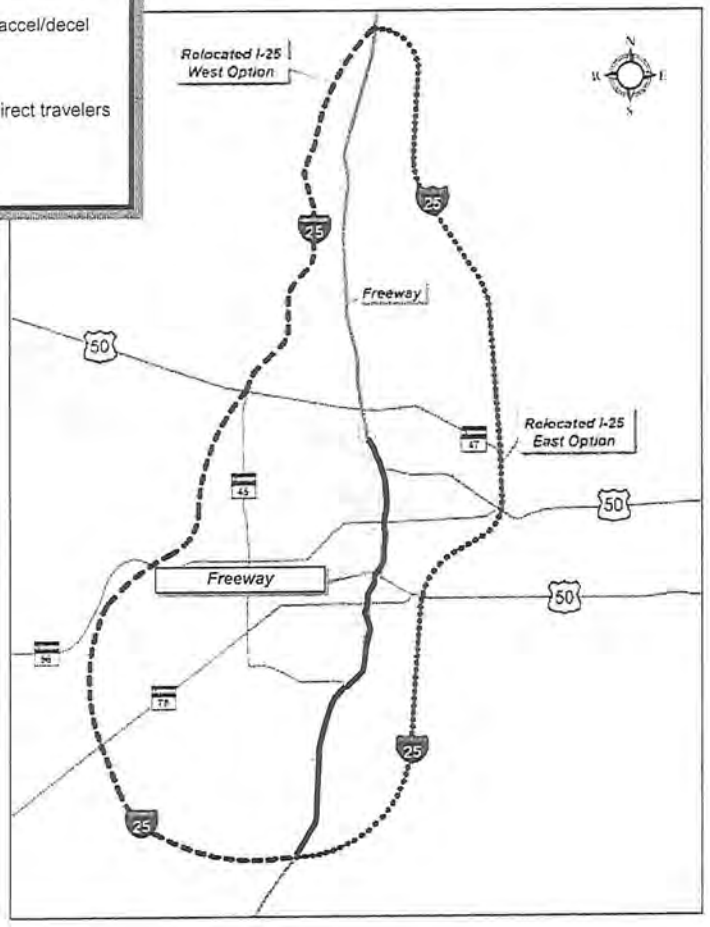


Assumed posted speed 65 mph

Freeway from 29th St to Stem Beach



Assumed posted speed 55 mph



Relocated I-25 Strategy with a Freeway

the New Pueblo Freeway

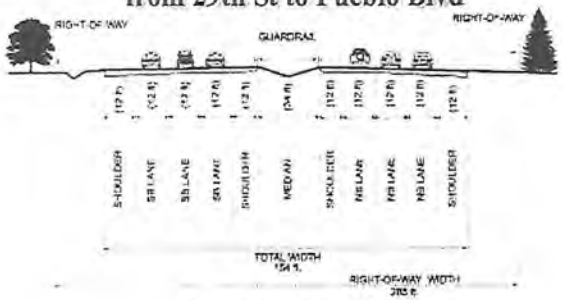
April 26, 2002

I-25 Strategy with 6 Lanes and a Low Speed Loop

I-25 Strategy with 6 Lanes and a Low Speed Loop

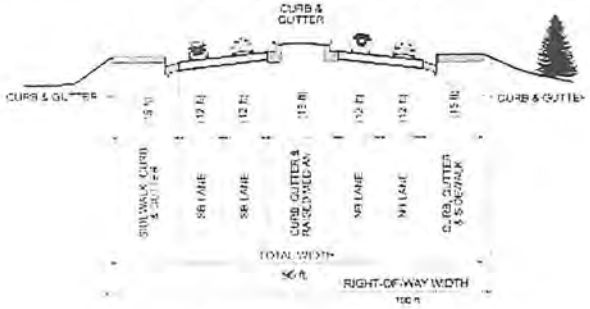
- 6 Lanes on I-25
  - Rebuild 9 Interchanges
  - I-25 with 6 lanes from 29th St to Pueblo Blvd & 4 lanes from Pueblo Blvd to Stem Beach
  - Replace Structures from 29th St to Stem Beach
- Low Speed Loop
  - Managed Access
  - Dillon, on the east side of I-25, extended south to Pueblo Boulevard and north to Eden
  - Pueblo Boulevard extended north to Eden
- Circulator Bus System
- Transportation Systems Management (TSM)
- Travel Demand Management (TDM)
- Intelligent Transportation Systems (ITS)
- Amenities – Bike paths, Landscaping, etc

6 Lanes on I-25 from 29th St to Pueblo Blvd

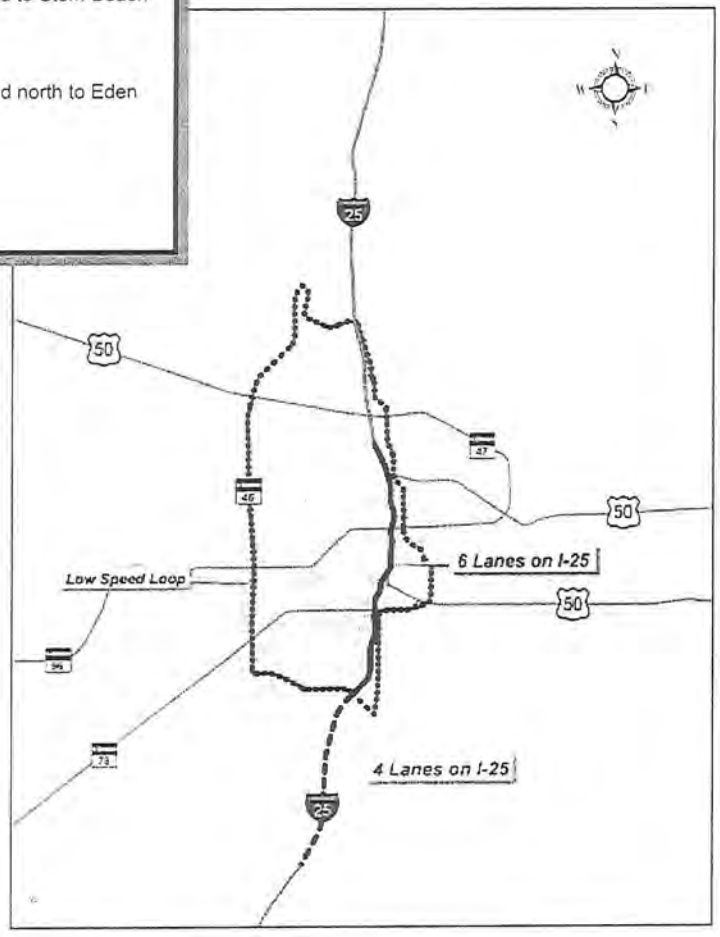


Assumed posted speed 55 mph

Low Speed Loop



Assumed posted speed 35 mph



I-25 Strategy with 6 Lanes and a Low Speed Loop

the New Pueblo Freeway

April 26, 2002

the New Pueblo Freeway

Level 3 Analysis

Criteria / Strategies	Unit of Measure	Currently Committed Projects (Formerly No-Build)	I-25 Safety Improvement Strategy	I-25 Safety Improvement Strategy with a Low Speed Loop	Relocated I-25 with a Parkway (I-25 / Parkway)	Relocated I-25 with a Freeway (I-25 / Freeway)	I-25 Strategy with 6 Lanes and a Low Speed Loop
Mobility							
Planning Level of Service – PM Peak Hour	LOS	See attached map					
Travel Time (I-25 from Stem Beach to Pinon)	minutes	24	24	24	25 / 31	24 / 25	22
Traffic Volumes	ADT	See attached map					
Implementation							
What is the comparative cost of this strategy?*	Year 2000 $ (million)	0**	$66.5	$236.5	$794.5	$1,250.5	$772.0
What are the additional operations and *** maintenance costs of this strategy?	$ million / year	0	0	$0.4	$1.1	$1.3	$0.5
Does this strategy have a major agency or legislative hurdle?	Yes – Some - No	Some	Some	Some	Yes	Yes	No
Can this strategy be implemented in segments that are functional and fundable?	Yes - Some - No	Yes	Yes	Yes	No	No	Yes
Environmental Summary							
		The currently committed projects appear to have little or no additional environmental impacts on natural habitats. As the average speed of the network decreases air quality may degrade and travel time will increase.	The I-25 Safety Improvement Strategy appears to have little or no environmental impacts due to additional right-of-way. This strategy only addresses safety improvements from 1st to Abriendo Ave. As congestion on I-25 increases over the next 20 years, travel time and air quality will be impacted.	This Strategy will impact the ethnic and low-income population already impacted by the existing I-25 and additional populations will be impacted by the low speed loop. The low speed loop will also impact protected lands and habitat. These impacts to wildlife and habitat could be reduced or avoided by minor modifications of the proposed loop alignment.	The Parkway will improve connectivity between communities along exiting I-25 without taking wildlife habitat or historic properties. The Relocated I-25 has impacts to wetlands and potential wildlife. Further, the relocation of the interstate could result in urban sprawl, which could impact the downtown economic viability.	This Strategy has the greatest environmental impacts. The relocated I-25 impacts the same natural environment as the previous strategy. While the freeway portion of the strategy has impacts to the manmade environment: ethnic and low-income population and historic properties. Again, the relocation of the interstate could result in urban sprawl, which could impact the downtown economic viability.	The improvement of I-25 to 6 lanes will impact the manmade environment already impacted by existing I-25: ethnic and low-income population, number of houses and historic properties. The low speed loop will impact the natural environment: 4(f) and 6(f) land, wetlands, potential very high-quality wildlife habitat, and potential threatened and endangered species habitat. The impacts could be reduced by modifications to the alignment.
Community Values							
					West / East	West / East	
Is this strategy compatible with neighborhood and local business plans/goals/objective?	Good - Fair – Poor neighborhood / business	Poor / Fair	Poor / Fair	Poor / Fair	Good / Poor	Poor / Poor	Poor / Fair	Poor / Fair	Poor / Good
Does this strategy promote local trips on local roads and regional trips on I-25?	Good - Fair – Poor vph on key links for PM peak (see map)	Poor	Poor	Fair	Good	Good	Fair	Fair	Fair
Does this strategy support our current and on going economic investments in the community?	Good - Fair - Poor	Poor	Fair	Good	Poor	Poor	Poor	Poor	Good

Implementation Notes

** Comparative costs do not include costs for tunneling or elevating portions of I-25.*

*** The cost of the currently committed projects is $70,000,000. These improvements are assumed as part of all strategies; however, the cost for these projects is not included in the comparative cost of each strategy.*

**** Operations and Maintenance costs for each strategy are annual costs. Each strategy would include the expenses of $4,700,000 for an expanded bus system, these are not included in these comparative costs.*

See reverse side for individual criteria and measurements

Comparative Costs

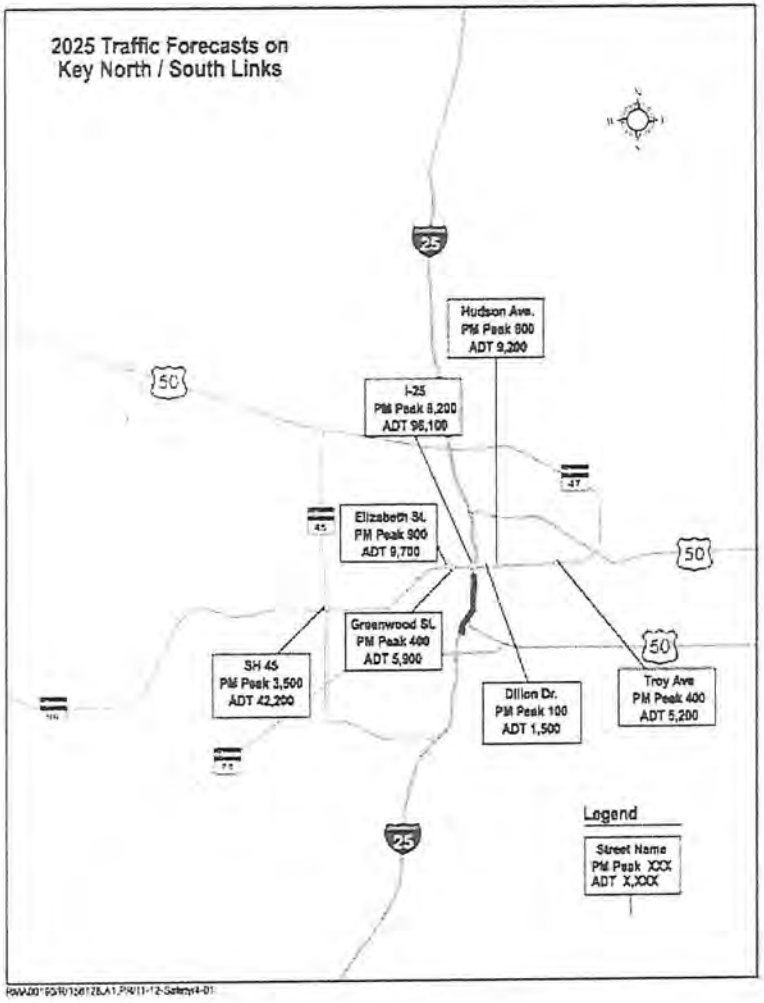
Criteria / Strategies	Currently Committed Projects (Formerly No-Build)	I-25 Safety Improvement Strategy	I-25 Safety Improvement Strategy with a Low Speed Loop	Relocated I-25 with a Parkway	Relocated I-25 with a Freeway	I-25 Strategy with 6 Lanes and a Low Speed Loop
Safety Improvements on I-25		$ 46,800,000	$ 46,800,000	-	-	-
Low Speed Loop		-	$ 130,325,000	-	-	$ 130,325,000
Relocated I-25		-	-	$ 261,300,000	$ 287,300,000	-
Parkway		-	-	$ 158,600,000	-	-
Freeway		-	-	-	$ 378,300,000	-
6 Lanes on I-25		-	-	-	-	$ 390,000,000
Circulator Bus System		$ 3,360,000	$ 3,360,000	$ 3,360,000	$ 3,360,000	$ 3,360,000
Transportation Systems Management (TSM) & Travel Demand Management (TDM)		$ 260,000	$ 260,000	$ 6,240,000	$ 8,840,000	$ 2,600,000
Intelligent Transportation Systems (ITS)		$ 1,300,000	$ 1,300,000	$ 31,200,000	$ 44,200,000	$ 13,000,000
Amenities (% of comparative cost)		$ 14,510,000	$ 14,510,000	$ 59,750,000	$ 183,120,000	$ 121,680,000
Right-of-Way		-	$ 39,600,000	$ 273,720,000	$ 345,000,000	$ 110,880,000
Total	$ 70,000,000	$ 66,230,000	$ 236,155,000	$ 794,170,000	$1,250,120,000	$ 771,845,000

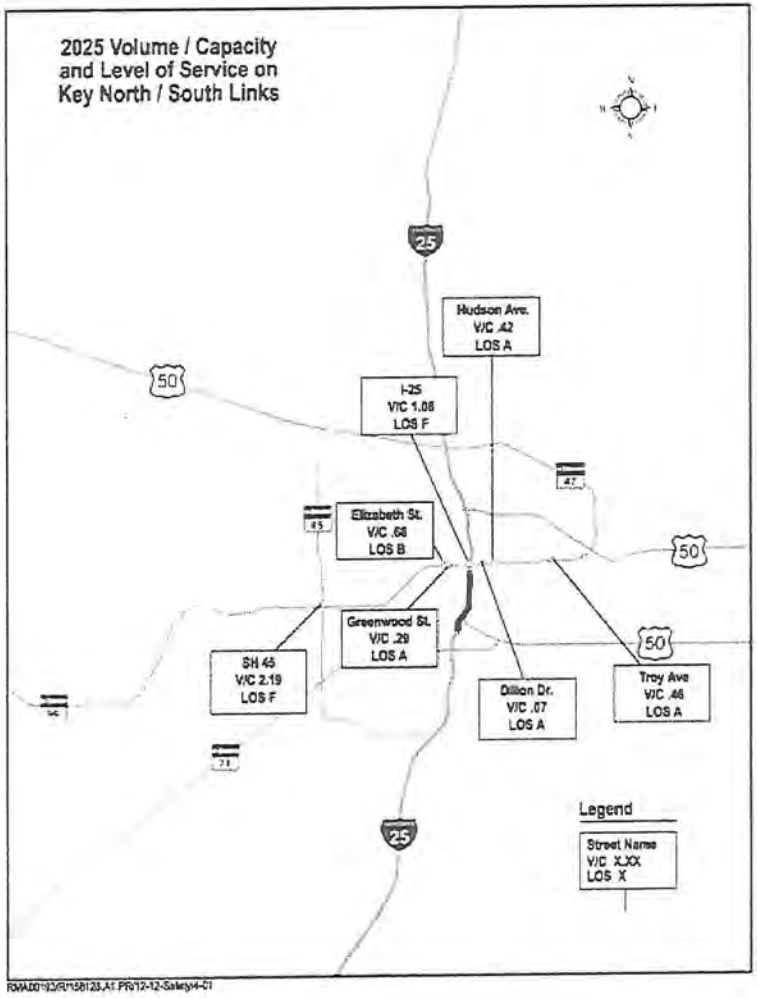
Environmental

Criteria / Strategies	Unit of Measure	Currently Committed Projects (Formerly No-Build)	I-25 Safety Improvement Strategy	I-25 Safety Improvement Strategy with a Low Speed Loop	Relocated I-25 with a Parkway (West / East)		Relocated I-25 with a Freeway (West / East)		I-25 Strategy with 6 Lanes and a Low Speed Loop
Amount of new right-of way	acres ROW needed for strategy	0	0	90.9	785.5	720.0	927.8	859.4	250.9
Number of existing houses/businesses within the new ROW	houses existing houses and businesses within the ROW	0	0	10	0	20	50	70	90
Environmental Justice land areas (ethnic and low income)	population within the buffer on each side of the ROW	1,300	1,300	4,100	1,400	1,700	1,600	1,900	4,300
4(f) and 6(f) lands	acres within the ROW	0	0	2.4	0.2	0	3.6	3.5	6.6
Wetlands	acres within the ROW	0	0	3.5	21.5	20.1	22.5	21.2	4.8
Potential very high-quality wildlife habitat	acres within the ROW	0	0	0	69.3	19.8	74.2	24.7	4.9
Potential threatened & endangered species habitat	acres within the ROW	0	0	10.1	19.2	21.5	23.7	25.9	14.9
Eligible historic properties	properties within the buffer on each side of the ROW/within ROW	14 / 0	14 / 0	16 / 0	14 / 0	14 / 0	14 / 1	14 / 1	16 / 1
Noise	houses within the buffer on each side of the ROW	450	450	1350	460	520	550	620	1460
Air quality	average speed (mph) average speed on the network	29	29	29	30	30	31	31	29
Water quality	acres of additional impervious area	0	0	87.3	279.3	256.0	305.9	282.7	129.0

the New Pueblo Freeway

I-25 Safety Improvement Strategy

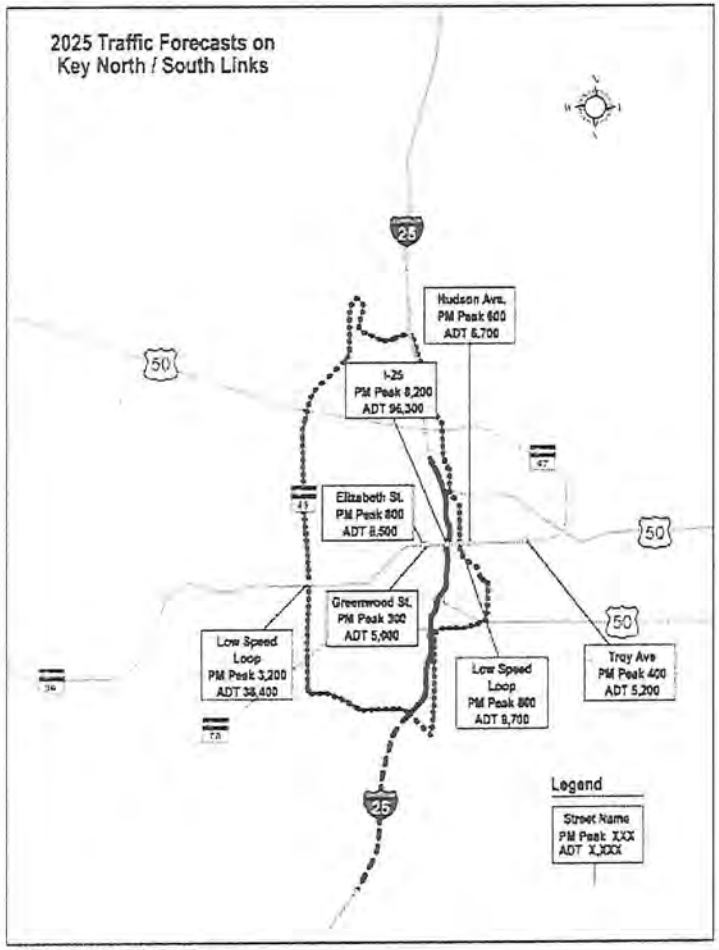


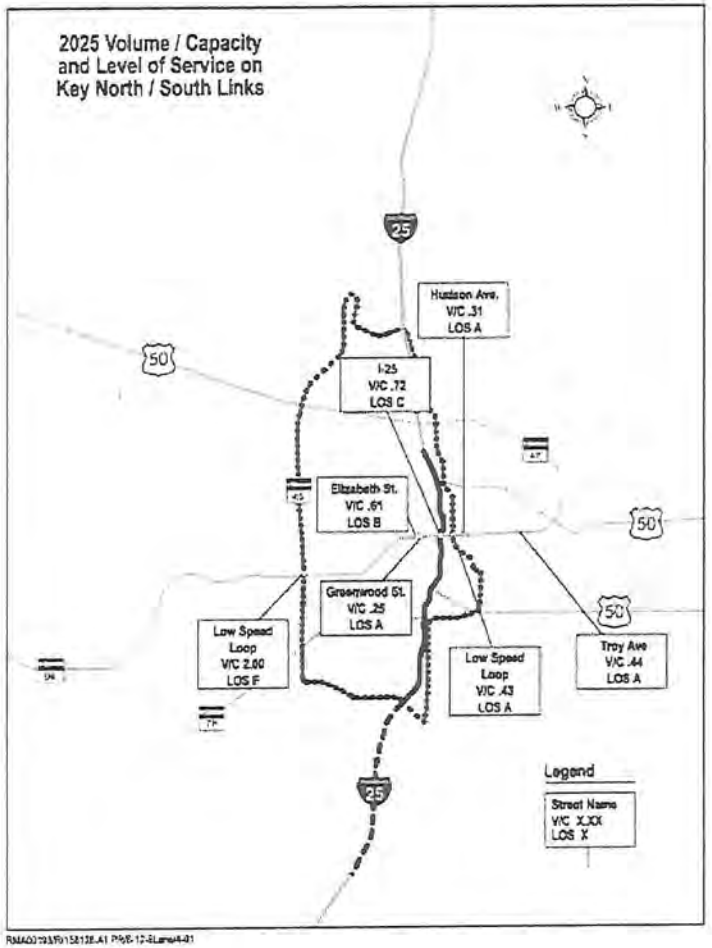


April 26, 2002

the New Pueblo Freeway

I-25 Strategy with 6 Lanes and Low Speed Loop

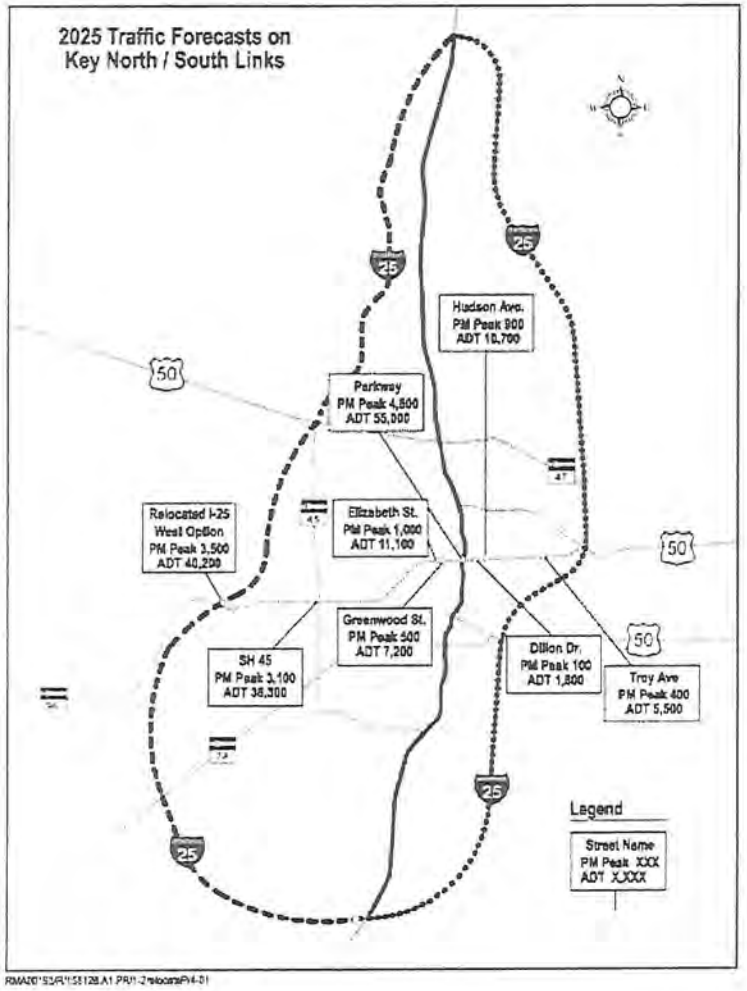


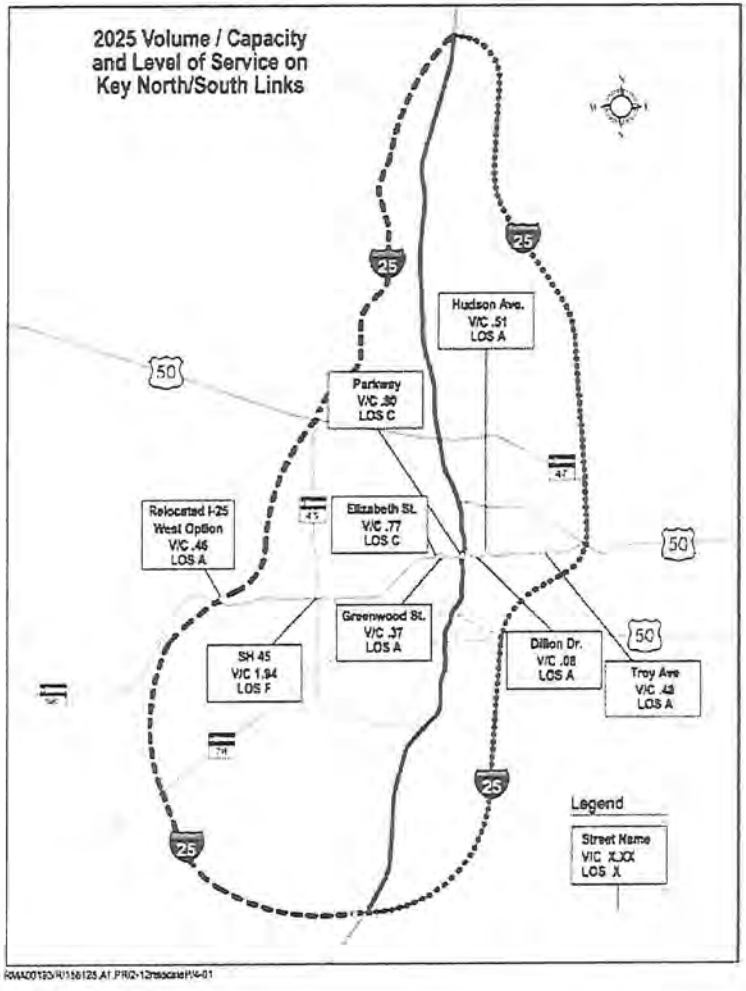


April 26, 2002

the New Pueblo Freeway

Relocated I-25 Strategy with a Parkway

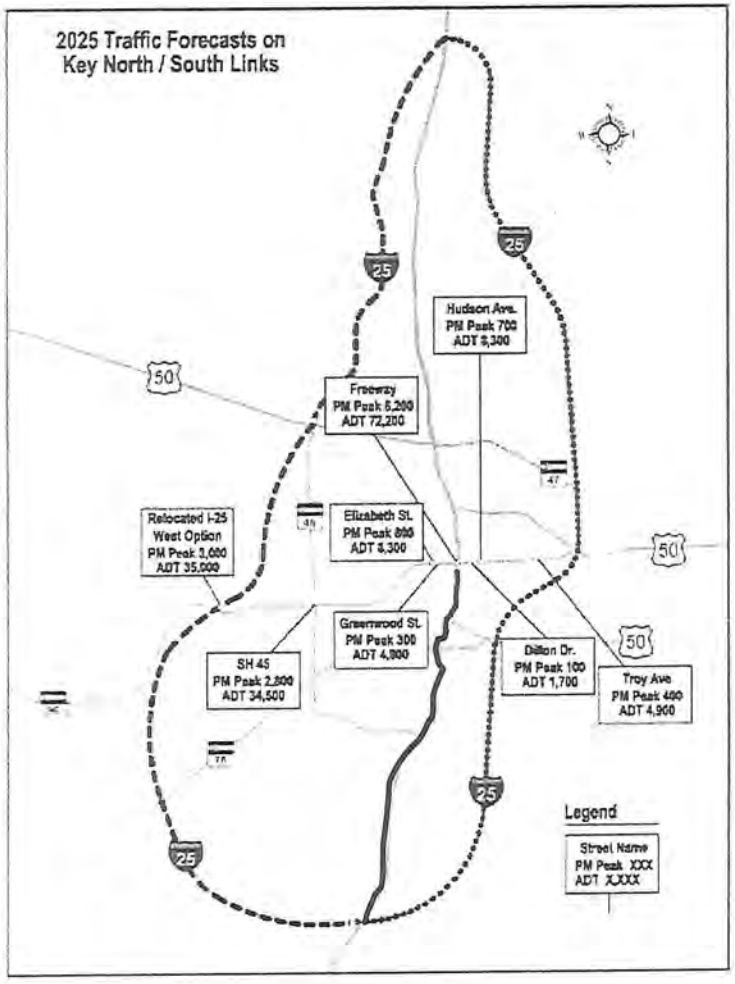


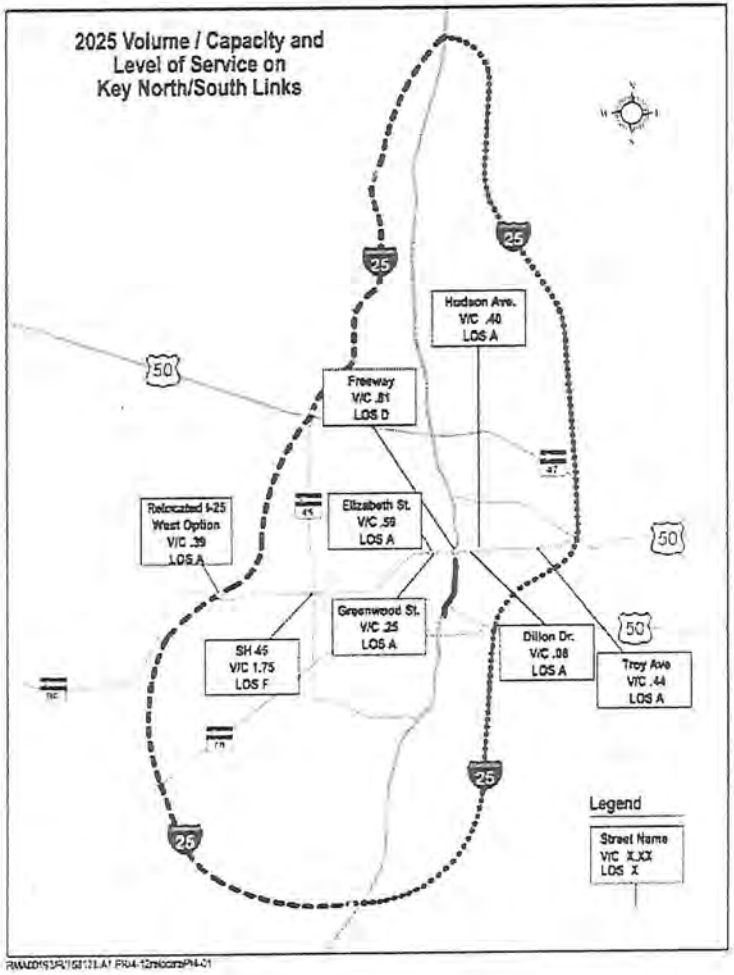


April 26, 2002

the New Pueblo Freeway

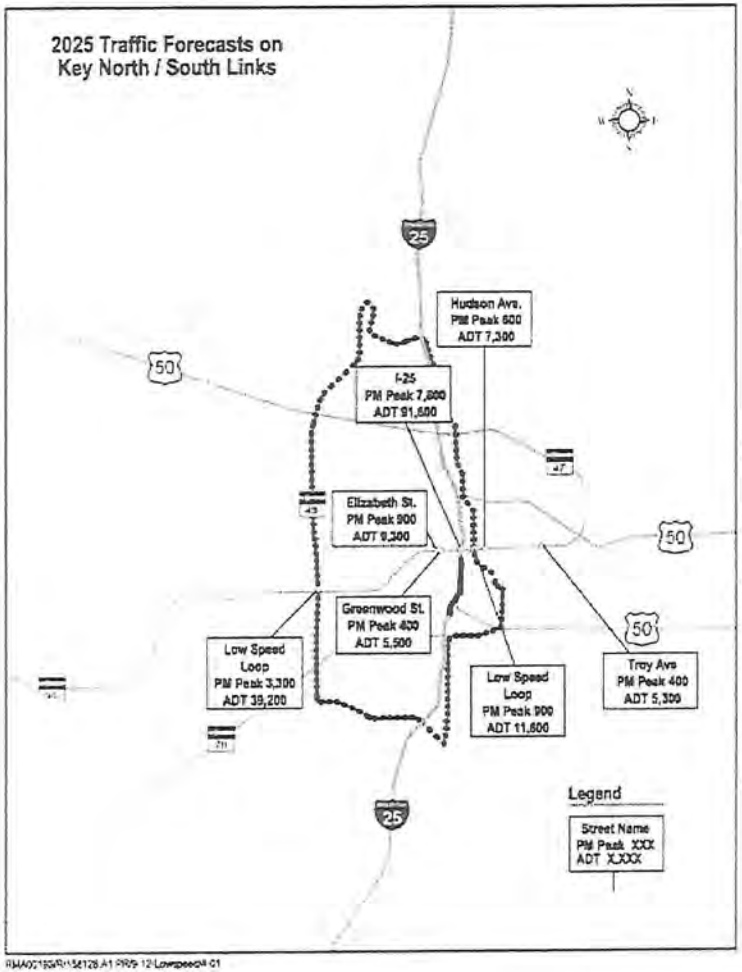
Relocated I-25 Strategy with a Freeway

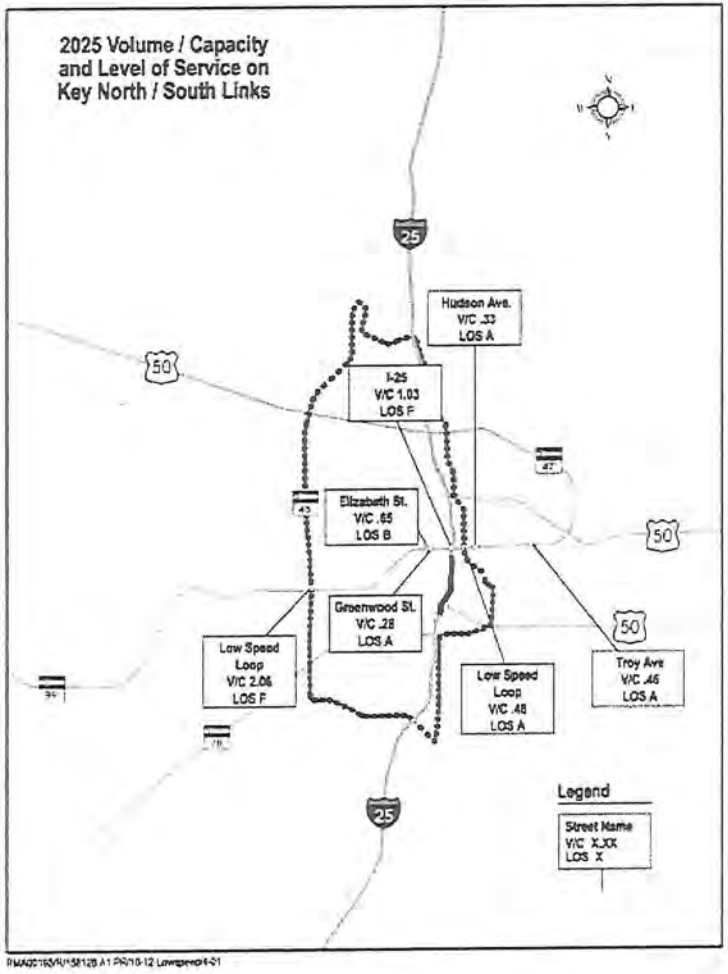




the New Pueblo Freeway

I-25 Safety Improvement Strategy with Low Speed Loop

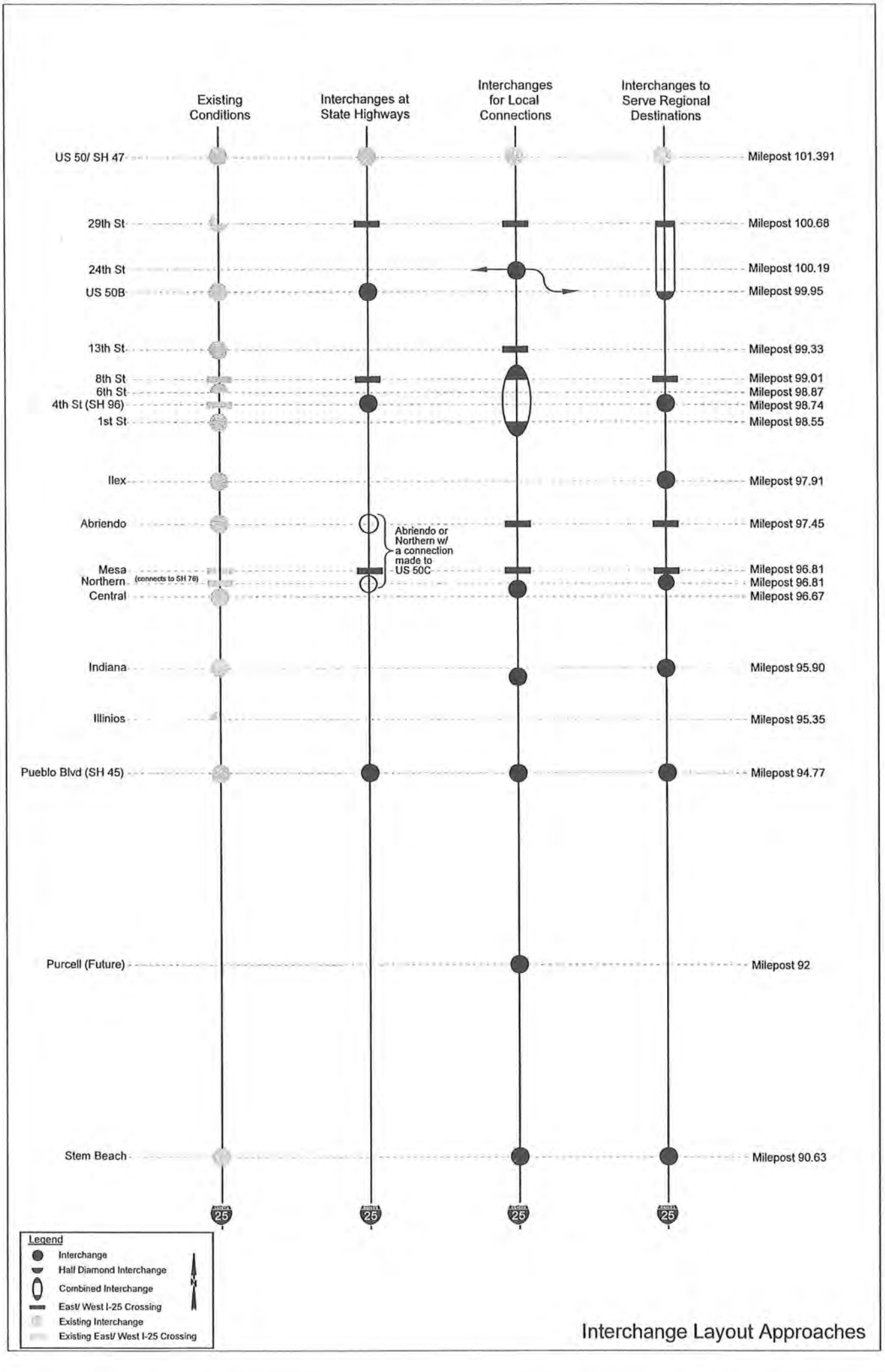




April 26, 2002

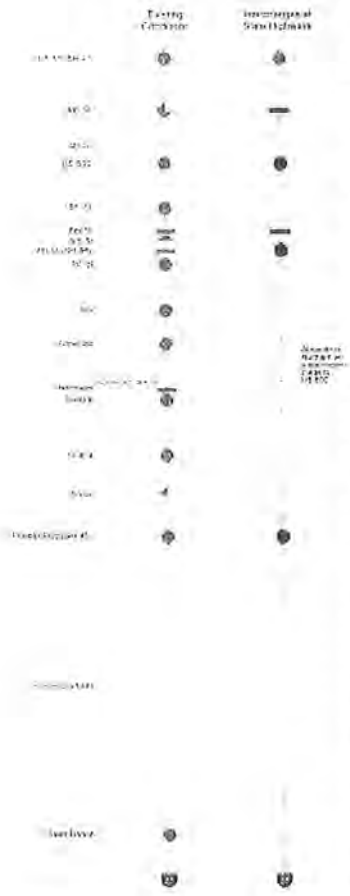
APPENDIX E

Development of Interchange Evaluation


Existing Conditions
Interchanges at State Highways
Interchanges for Local Connections
Interchanges to Serve Regional Destinations
US 50/ SH 47
Milepost 101.391
29th St
Milepost 100.68
24th St
Milepost 100.19
US 50B
Milepost 99.95
13th St
Milepost 99.33
8th St
Milepost 99.01
6th St
Milepost 98.87
4th St (SH 96)
Milepost 98.74
1st St
Milepost 98.55
Ilex
Milepost 97.91
Abriendo
Milepost 97.45
Abriendo or Northern w/ a connection made to US 50C
Mesa
Milepost 96.81
Northern (connects to SH 78)
Milepost 96.81
Central
Milepost 96.67
Indiana
Milepost 95.90
Illinios
Milepost 95.35
Pueblo Blvd (SH 45)
Milepost 94.77
Purcell (Future)
Milepost 92
Stem Beach
Milepost 90.63
25
Legend
Interchange
Half Diamond Interchange
Combined Interchange
East/ West I-25 Crossing
Existing Interchange
Existing East/ West I-25 Crossing
Interchange Layout Approaches

Summary and Conclusions on Interchange Approaches

I-25 the New Pueblo Freeway



Summary of Analysis and Public Input of Interchange Approaches

Introduction

During the Public Workshop on June 16, 2001, four interchange approaches were reviewed and discussed. Members of the Project Leadership Team, the Technical Leadership Team, and over 60 citizens came together to discuss the alternatives available for interchanges on I-25. The advantages and disadvantages for each approach were discussed. The following summarizes the feasibility of the different interchange alternatives presented.

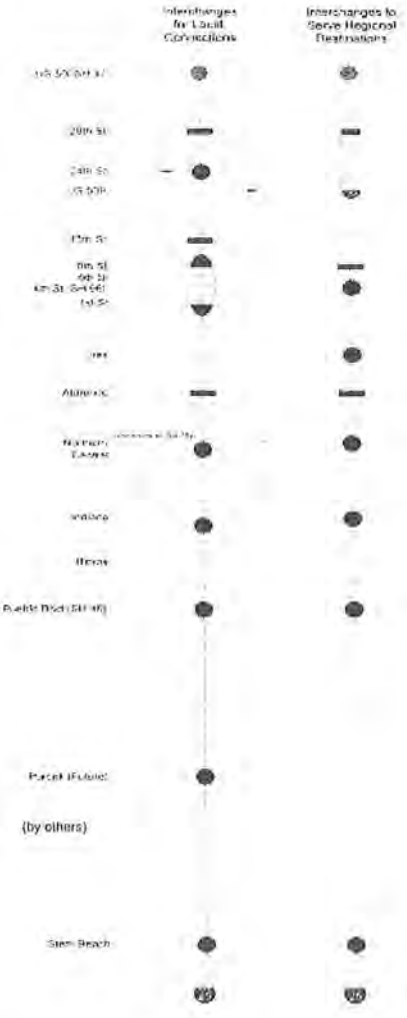
Existing Conditions

This approach violates current interchange spacing requirements set forth by national design guidelines. The result of the close spacing of these interchanges is inadequate acceleration and deceleration lengths on ramps, as well as very high accident rates at the interchanges. Therefore this approach, or the no-build alternative, will not be taken forward.

Interchanges at State Highways

This approach provides interchanges at state highways only and does not serve local access needs. Furthermore, the goal of this approach to interchange only with state highways is provided for in the other 2 approaches. Therefore, this approach, as a stand-alone group of interchanges will not be taken forward.

Interchanges for Local Connections and Interchanges to Serve Regional Destinations



These approaches differ in the areas of 29th Street, 24th Street, and SH 50B, in the downtown area from 13th Street to 1st Street, and also in the area of Ilex, Abriendo, and Northern. These two approaches are similar from Northern Avenue south to Stem Beach, with the exception of a proposed future interchange between Pueblo Boulevard and Stem Beach, planned and constructed by others. Let's discuss each section separately.

29th Street, 24th Street, and SH 50B

Five interchange alternatives between 29th and SH50B were reviewed. The alternatives included a Half Diamond at 29th Street with an overpass on SH50B, an Improved Trumpet Interchange with connection to SH50B and a Partial Cloverleaf interchange at SH50B. All five alternatives advanced to layout analysis.

13th Street and 1st Street

In this section 2 major alternatives were reviewed. The first alternative is an interchange split between 8th Street and 1st Street. This type of interchange provides access to the cross streets between the ramps. It was noted that the split interchange would provide disbursed access to the many downtown destinations.

The second major alternative was a single interchange at 4th Street. During the review of these alternatives it was noted that the single interchange at 4th Street would result in all traffic entering or exiting downtown, as well as all traffic work destinations south of Mineral Palace Park, using this single point of access. Great concern was expressed about the additional improvements that would have to be completed on 4th Street and other network streets to accommodate additional traffic. Based on the impacts to the network that would result from a single 4th Street interchange, this alternative will not be taken forward.

An additional alternative will be reviewed in this area. This alternative will look at an 8th Street and 1st Street split diamond. This alternative will review a split interchange between 13th and 1st Streets.

Illex, Abriendo, and Northern

Adequate spacing is required between all alternatives. To have an interchange at Ilex, no interchange to the north meets the spacing requirements if it is south of 4th Street. A single interchange at 4th Street has been determined as not feasible, therefore, an interchange at Ilex can not be considered. To provide adequate access to the businesses, residents, and the park in the Ilex area, several network enhancements are under consideration.

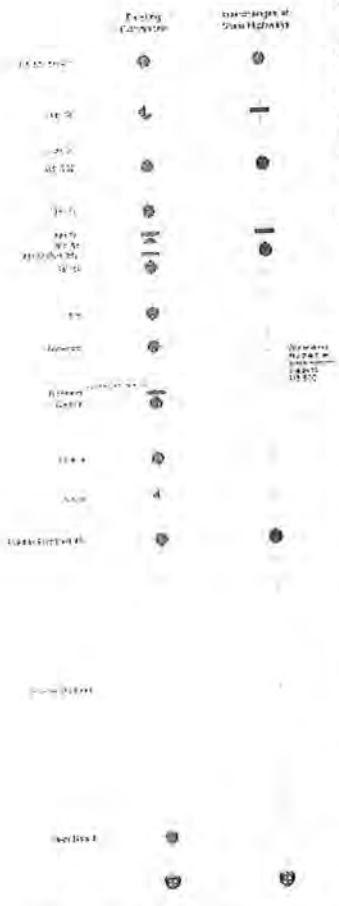
As a result of numerous suggestions to interchange with Abriendo, the major alternatives in this segment are an interchange at Abriendo with an overpass at Northern; an interchange at Northern with an overpass at Abriendo; and a relocated I-25 with an interchange south of the existing Abriendo interchange.

South of Northern Avenue to Stem Beach

Interchanges will be provided at Indiana, Pueblo Boulevard, and Stem Beach. A new interchange could be accommodated at approximately milepost marker 92 and would be planned, financed, and constructed by others rather than CDOT.

Summary and Conclusions on Interchange Approaches

the New Pueblo Freeway



Summary of Analysis and Public Input of Interchange Approaches

Introduction
During the Public Workshop on June 16, 2001, four interchange approaches were reviewed and discussed. Members of the Project Leadership Team, the Technical Leadership Team, and over 60 citizens came together to discuss the alternatives available for interchanges on I-25. The advantages and disadvantages for each approach were discussed. The following summarizes the feasibility of the different interchange alternatives presented.

Existing Conditions
This approach violates current interchange spacing requirements set forth by national design guidelines. The result of the close spacing of these interchanges is inadequate acceleration and deceleration lengths on ramps, as well as very high accident rates at the interchanges. Therefore this approach, or the no-build alternative, will not be taken forward.

Interchanges at State Highways
This approach provides interchanges at state highways only and does not serve local access needs. Furthermore, the goal of this approach to interchange only with state highways is provided for in the other 2 approaches. Therefore, this approach, as a stand-alone group of interchanges will not be taken forward.

Interchanges for Local Connections and Interchanges to Serve Regional Destinations

These approaches differ in the areas of 29th Street, 24th Street, and SH 50B, in the downtown area from 13th Street to 1st Street, and also in the area of Ilex, Abriendo, and Northern. These two approaches are similar from Northern Avenue south to Stem Beach, with the exception of a proposed future interchange between Pueblo Boulevard and Stem Beach, planned and constructed by others. Let's discuss each section separately.

29th Street, 24th Street, and SH 50B
Five interchange alternatives between 29th and SH50B were reviewed. The alternatives included a Half Diamond at 29th Street with an overpass on SH50B, an Improved Trumpet Interchange with connection to SH50B and a Partial Cloverleaf interchange at SH50B. All five alternatives advanced to layout analysis.

13th Street and 1st Street
In this section 2 major alternatives were reviewed. The first alternative is an interchange split between 8th Street and 1st Street. This type of interchange provides access to the cross streets between the ramps. It was noted that the split interchange would provide disbursed access to the many downtown destinations.

The second major alternative was a single interchange at 4th Street. During the review of these alternatives it was noted that the single interchange at 4th Street would result in all traffic entering or exiting downtown, as well as all traffic work destinations south of Mineral Palace Park, using this single point of access. Great concern was expressed about the additional improvements that would have to be completed on 4th Street and other network streets to accommodate additional traffic. Based on the impacts to the network that would result from a single 4th Street interchange, this alternative will not be taken forward.

An additional alternative will be reviewed in this area. This alternative will look at an 8th Street and 1st Street split diamond. This alternative will review a split interchange between 13th and 1st Streets.

Ilex, Abriendo, and Northern
Adequate spacing is required between all alternatives. To have an interchange at Ilex, no interchange to the north meets the spacing requirements if it is south of 4th Street. A single interchange at 4th Street has been determined as not feasible, therefore, an interchange at Ilex can not be considered. To provide adequate access to the businesses, residents, and the park in the Ilex area, several network enhancements are under consideration.

As a result of numerous suggestions to interchange with Abriendo, the major alternatives in this segment are an interchange at Abriendo with an overpass at Northern; an interchange at Northern with an overpass at Abriendo; and a relocated I-25 with an interchange south of the existing Abriendo interchange.

South of Northern Avenue to Stem Beach
Interchanges will be provided at Indiana, Pueblo Boulevard, and Stem Beach. A new interchange could be accommodated at approximately milepost marker 92 and would be planned, financed, and constructed by others rather than CDOT.

Legend
- Interchange
- Half Diamond Interchange
- Combined Interchange
- East/ West I-25 Crossing
- Existing Interchange
- Existing East/ West I-25 Crossing

the New Pueblo Freeway

Interchange Criteria Definitions

APRIL 29, 2002

Interchange Grouping Criteria

Environmental

1. Amount of new right-of-way.

The measure for this criterion will be the acres of right-of-way needed to build the interchange grouping.

2. Number of existing houses/businesses within the new right-of-way.

The measure for this will be a count of the existing houses and businesses within the new right-of-way. These houses and businesses may or MAY NOT be purchased for the project. Design features may accommodate or protect these houses and businesses.

Community Values

1. How well does this interchange grouping support our current economic community investments?

Comments for each interchange grouping will be prepared as to how the current and ongoing economic investments in the community are impacted, positively or negatively.

2. Will this interchange grouping have Community Support?

The answer to this question will be discussed in each of the Community Working Groups (CWG). The measurement will be YES/SOMEWHAT/NO. If all CWG support the grouping then it will be rated with a YES. If only some of the CWG members support the grouping and/or concerns have recorded through the project process about this type of grouping it will be rated with a SOMEWHAT. And if no support is found for a grouping it will be rated with a NO.

3. Can this interchange grouping be easily signed?

A common concern gathered through the project process has been one of User Friendly and this has been further defined by some as to the ease with which a driver can understand how to reach their destination. This is being measured by the ability of an interchange grouping to be signed according to the state's guidelines. Each grouping will have a major guide sign layout completed and this will be the base for measuring if a grouping is easy to sign.

4. *Is this interchange grouping compatible with neighborhood and local business plans/goals/objectives?*

This question addresses a concern that an interchange grouping could be in conflict with the existing or planned community goal. Communities and local businesses have been developed based on existing transportation facilities. This criterion measures how changes to the existing transportation system might still support (be compatible with) or might not support what communities and local business have planned. This criterion will be discussed with the Community Working Groups (CWG) and other established community groups.

The discussion will be captured in comments about each interchange grouping.

Mobility

1. *Does this interchange grouping connect with the east/west State Highways of 50 (A,B.C), 96, 78 and 45?*

The measure will be a count of the connections to State Highways that the interchange grouping provides.

2. *Does this interchange grouping serve major interstate trip purposes, such as industrial, recreational, Central Business District, and major employers?*

The measurement for this criterion will be a count of the interstate trip purposes served by the interchange grouping. Comments will be included to discuss how these trips are served.

3. *Does this interchange grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?*

A map showing the current major destinations within the city will be prepared. These will include the historic downtown, HARP, State Fair Grounds, library, Pueblo Community College, Mesa District, USC, Airport Industrial Park, race track (dogs), mall, hospitals, and others agreed upon by the technical team and the CWG.

The measure will be a count of the destinations that have improved access with this interchange grouping.

4. *Is the spacing between interchanges adequate?*

The measurement will be a distance between interchanges and comments on the adequacy of the spacing based on national design guidelines.

The spacing requirements for interchanges are found in the Federal guidelines for highway construction. These guidelines will be presented during the CWG meetings.

Safety

1. Number of hazardous locations improved.

A map of I-25 and adjacent existing high accident locations will be prepared. Each interchange grouping will be evaluated based on its ability to improve existing high accident locations. It is assumed that if a interchange grouping that makes any improvements within the area of an existing high accident location, the improvements would address the reasons for the accidents.

It is noted that if a location does not meet this criterion it does not mean that improvements within that area would not address those lesser accident problems. It is further noted that if a grouping does not make improvements within a high accident location that does not mean that no improvements will be made.

Implementation

1. How consistent is this with national design guidelines?

This criterion is measuring each grouping against the national guidelines for construction of highways, roads, interchanges and intersections. The technical team will review each grouping for consistency with national design guidelines.

The measure will be a count of the possible variances from national design guidelines that would be needed to build this interchange grouping.

2. What is the comparative cost of this grouping?

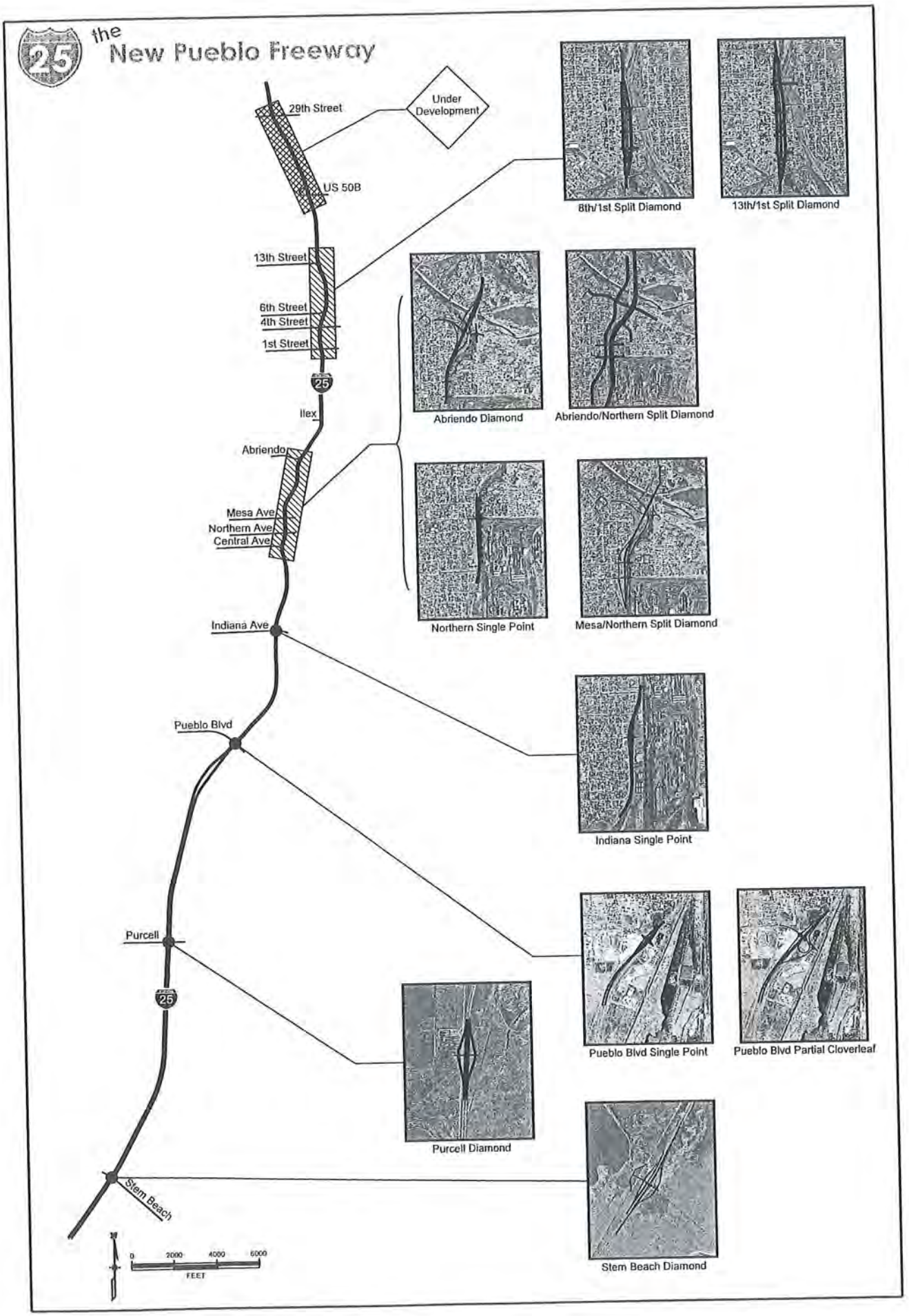
The comparative cost of this grouping will be calculated.

2. How difficult is this to construct? How difficult is it to maintain local traffic during construction?

Each interchange grouping will be reviewed for the common or extraordinary methods of construction that would be needed to construct each grouping. Much of this measurement is of the ability to maintain traffic during construction.

YES/SOMEWHAT/NO will be the measures used for this criterion. YES will indicate that the concept can be build using common or traditional methods of construction and traffic can be maintained at all times during construction. SOMEWHAT indicates that a concept could be built using common construction methods but that traffic during construction would be greatly disrupted or even stopped. SOMEWHAT could also indicate that a concept would require non-traditional methods of construction but that

traffic could be maintained at all times during that construction. NO will indicate that a concept would require extraordinary methods of construction and would disrupt traffic during that construction.



Interchange Concepts

the New Pueblo Freeway

Ranking of Interchange Groupings

13th Street to 1st Street	Environmental			Community Values				Mobility				Safety	Implementation		
	1. Amount of new right-of-way. *	2. Number of houses/ businesses within the new right-of-way. *	3. Environmental Summary.	1. How well does this grouping support our current economic community investments?	2. Will this interchange grouping have community support?	3. Can this interchange grouping be easily signed?	4. Is this interchange grouping compatible with neighborhood and local business plans/goals/ objectives? Neighborhood / Business	1. Does this interchange grouping connect with the east/west State Highways of 50, 96, 78, and 45?	2. Does this grouping serve major interstate trip purposes such as industrial, recreational, Central Business District, and major employers?	3. Does this grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?	4. Is the spacing between interchange groupings adequate?	1. Number of hazardous locations improved.	1. Is this grouping consistent with national design guidelines?	2. Comparative cost of interchange grouping. (Interchange construction only)	3. How difficult is this to construct? How difficult to maintain traffic during construction?
Existing Conditions	0 acres	0	No additional impacts			Yes		No	Yes	Yes	No	0	No	0	---
8th / 1st Split Diamond	13.3 acres	18	• Impacts to businesses and residences • Environmental Justice impacts • Potential impacts to: Historic property Flood plains Wetlands Wildlife Threatened and endangered species Water quality			Yes		Yes	Yes	Yes	Yes	6th 1st mainline curvature	Yes	$40M	Somewhat difficult to construct
13th / 1st Split Diamond	14.8 acres	18	• Impacts to: Mineral Palace Park 4 (f) and 6(f) land • Impacts to the railroad • Impacts to businesses and residences • Environmental Justice impacts • Potential impacts to: Historic property Flood plains Wetlands Wildlife Threatened and endangered species Water quality	Note 1		Yes	Note 1	Yes	Yes	Yes	Yes Note 2	6th 1st mainline curvature	Yes Note 2	$60M	Very difficult to construct

* *These numbers reflect what is needed in addition to what was previously calculated for the I-25 corridor.*

Note 1 *Impacts to Mineral Palace Park and railroad impacts.*
Note 2 *US 50B Interchange would have to be moved further north.*

April 29, 2002

the New Pueblo Freeway

Ranking of Interchange Groupings

Ilex to Central	Environmental			Community Values				Mobility				Safety	Implementation		
	1. Amount of new right-of-way. *	2. Number of houses/ businesses within the new right-of-way. *	3. Environmental Summary.	1. How well does this grouping support our current economic community investments?	2. Will this interchange grouping have community support?	3. Can this interchange grouping be easily signed?	4. Is this interchange grouping compatible with neighborhood and local business plans/goals/ objectives? Neighborhood / Business	1. Does this interchange grouping connect with the east/west State Highways of 50, 96, 78, and 45?	2. Does this grouping serve major interstate trip purposes such as industrial, recreational, Central Business District, and major employers?	3. Does this grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?	4. Is the spacing between interchange groupings adequate?	1. Number of hazardous locations improved.	1. Is this grouping consistent with national design guidelines?	2. Comparative cost of interchange grouping. (Interchange construction only)	3. How difficult is this to construct? How difficult to maintain traffic during construction?
Existing Conditions	0 acres	0	No additional impacts			Yes		No	Somewhat	Somewhat	No	0	No	0	---
Abriendo Diamond Interchange Mesa Overpass Northern Overpass	11 acres	5	• Probable impacts to businesses and residences • Impacts to the railroad • Potential hazardous waste • Potential impacts to: 4(f) and 6(f) Land Environmental Justice Historic property Threatened and endangered species Water quality			Yes		Somewhat Note 1	Somewhat	Somewhat	Yes	Ilex Abriendo Central mainline curvature	Yes	$90M	Somewhat difficult to construct
Abriendo Overpass Mesa Overpass Northern Interchange	1 acres	6	• Potential impacts to businesses and residences • Impacts to the railroad • Potential hazardous waste • Potential impacts to: 4 (f) and 6(f) Land Environmental Justice Historic property Water quality			Yes		Yes	Yes	Yes	Yes	Ilex Abriendo Central mainline curvature	Yes	$60M	Standard Construction
Abriendo / Northern Split Diamond (includes relocation of I-25)	22 acres	37	• Probable impacts to businesses and residences • Impacts to the railroad • Potential impacts to: 4(f) and 6(f) Land Environmental Justice Historic property Water quality			Yes		Yes	Yes	Yes	Yes	Ilex Abriendo Central mainline curvature	Yes	$130M	Standard Construction
Abriendo Overpass Mesa/Northern Split Diamond	33 acres	70	• Potential impacts to businesses and residences • Impacts to the railroad • Potential hazardous waste • Potential impacts to: 4 (f) and 6(f) Land Environmental Justice Historic property Water quality			Yes		Yes	Yes	Yes	Yes	Ilex Abriendo Central mainline curvature	Yes	$70M	Somewhat Difficult to Construct

* *These numbers reflect what is needed in addition to what was previously calculated for the I-25 corridor.*

Note 1 Connects with US 50C.

April 29, 2002

the New Pueblo Freeway

Ranking of Interchange Groupings

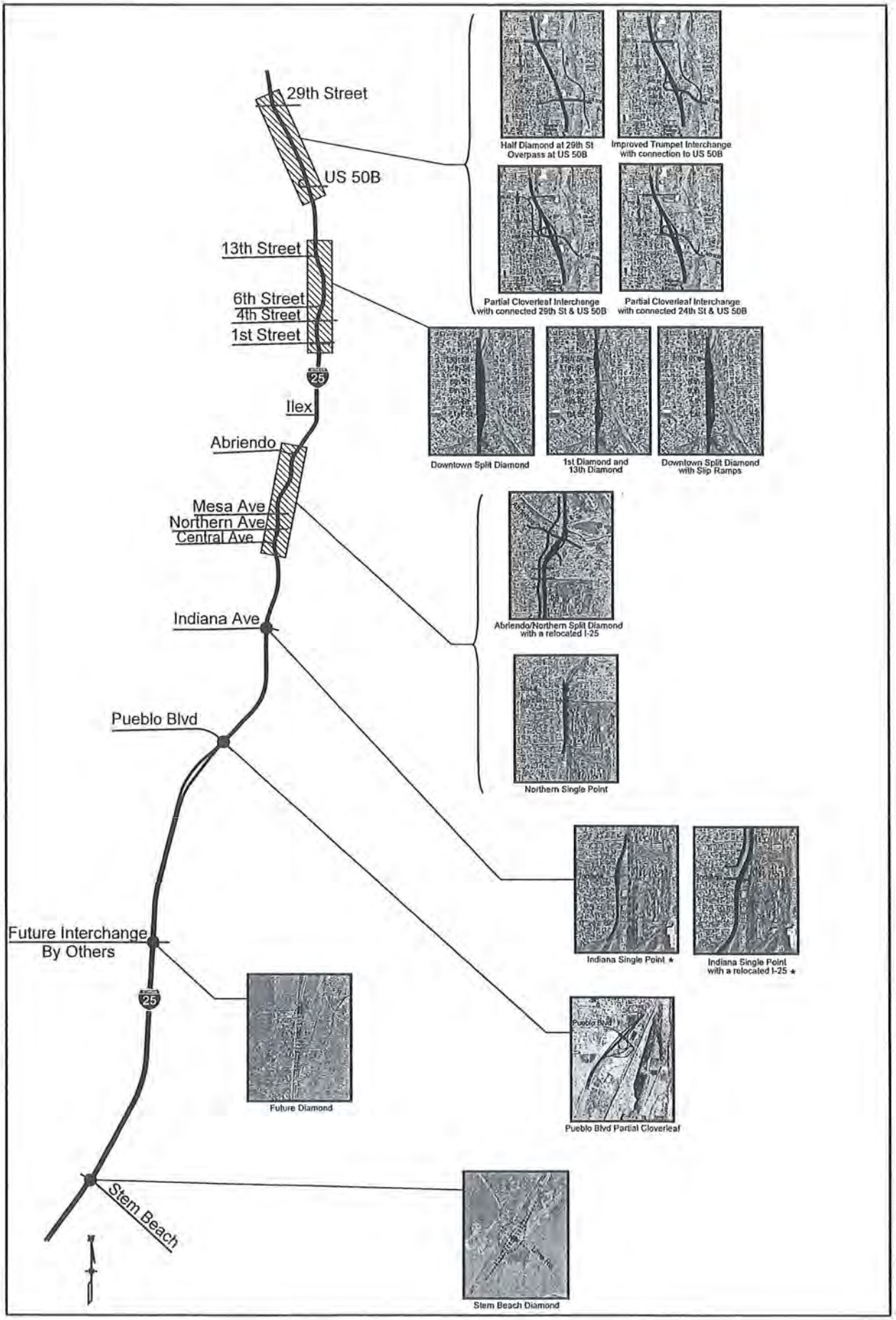
Indiana to Stem Beach

	Environmental			Community Values				Mobility				Safety	Implementation		
	1. Amount of new right-of-way. *	2. Number of houses/ businesses within the new right-of-way. *	3. Environmental Summary	1. How well does this grouping support our current economic community investments?	2. Will this interchange grouping have community support?	3. Can this interchange grouping be easily signed?	4. Is this interchange grouping compatible with neighborhood and local business plans/goals/ objectives? Neighborhood / Business	1. Does this interchange grouping connect with the east/west State Highways of 50, 96, 78, and 45?	2. Does this grouping serve major interstate trip purposes such as industrial, recreational, Central Business District, and major employers?	3. Does this grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?	4. Is the spacing between interchange groupings adequate?	1. Number of hazardous locations improved.	1. Is this grouping consistent with national design guidelines?	2. Comparative cost of interchange grouping. (Interchange construction only)	3. How difficult is this to construct? How difficult to maintain traffic during construction?
Existing Conditions	0 acres	0	No additional impacts			Yes		Yes	Yes	Somewhat	No	0	No	0	---
• Single Point Diamond @ Indiana • Single Point Diamond @ Pueblo Blvd. • Diamond @ Purcell** • Diamond @ Stem Beach	26 acres	0	**Indiana Interchange** • Impacts to businesses and residences • Potential hazardous waste • Potential impacts to: Environmental Justice Historic property Water quality **Pueblo Blvd Interchange** • Potential hazardous waste • Potential impacts to: Businesses and residences Wetlands Threatened and endangered species Water quality **Stem Beach** • Potential hazardous waste • Potential impacts to: Wetlands Wildlife Threatened and endangered species Water quality			Yes		Yes	Yes	Yes	Yes	Illinois Stem Beach	Yes	$60M	Standard Construction
• Single Point Diamond @ Indiana • Partial Cloverleaf @ Pueblo Blvd. • Diamond @ Purcell** • Diamond @ Stem Beach	44 acres					Yes								$70M	Standard Construction

* *These numbers reflect what is needed in addition to what was previously calculated for the I-25 corridor.*

** *Future interchange by others*

April 29, 2002



Interchange Alternatives

* The interchange selection at Indiana is dependent on the interchange selection at Northern.

the New Pueblo Freeway

Ranking of Interchange Groupings

29th to US 50B	Environmental			Community Values				Mobility				Safety	Implementation		
	1. Amount of new right-of-way. *	2. Number of houses/ businesses within the new right-of-way. *	3. Environmental Summary.	1. How well does this grouping support our current economic community investments?	2. Will this interchange grouping have community support?	3. Can this interchange grouping be easily signed?	4. Is this interchange grouping compatible with neighborhood and local business plans/goals/ objectives? Neighborhood / Business	1. Does this interchange grouping connect with the east/west State Highways of 50, 96, 78, and 45?	2. Does this grouping serve major interstate trip purposes such as industrial, recreational, Central Business District, and major employers?	3. Does this grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?	4. Is the spacing between interchange groupings adequate?	1. Number of hazardous locations improved.	1. Is this grouping consistent with national design guidelines?	2. Comparative cost of interchange grouping. (Interchange construction only)	3. How difficult is this to construct? How difficult to maintain traffic during construction?
Existing Conditions	0 acres	0	No additional impacts			Yes		Yes	Somewhat	Somewhat	No	0	No	0	---
Half Diamond at 29th St Overpass at US 50B	2 acres	11	• Potential impacts to businesses and residences • Potential impacts to: Noise			Somewhat		No	No	No	Yes	US 50B	No Note 1	$25M	Standard construction
Improved Trumpet Interchange with connection to US 50B	27 acres	65	•Probable impacts to businesses and residences •Potential impacts to: Noise Wetlands Wildlife Threatened and endangered species Water quality			Yes		Yes	Somewhat	Somewhat	Yes	US 50B	Yes	$45M	Standard Construction
Partial Cloverleaf Interchange with connected 29th St and US 50B	53 acres	141	• Probable impacts to: Businesses and residences Noise Historic property • Potential impacts to: Wetlands Wildlife Threatened and endangered species Water quality			Yes		Yes	Yes	Yes	Yes	US 50B	Yes	$55M	Standard Construction
Partial Cloverleaf Interchange with connected 24th St and US 50B	30 acres	62	• Probable impacts to businesses and residences • Potential impacts to: Noise Wetlands Wildlife Threatened and endangered species Water quality			Yes		Yes	Yes	Yes	Yes	US 50B	Yes	$50M	Standard Construction

* *These numbers reflect what is needed in addition to what was previously calculated for the I-25 corridor.*

Note 1 *FHWA recommends full interchanges. Partial interchanges require a variance.*

April 29, 2002

the New Pueblo Freeway

Ranking of Interchange Groupings

13th Street to 1st Street	Environmental			Community Values				Mobility				Safety	Implementation		
	1. Amount of new right-of-way. *	2. Number of houses/ businesses within the new right-of-way. *	3. Environmental Summary.	1. How well does this grouping support our current economic community investments?	2. Will this interchange grouping have community support?	3. Can this interchange grouping be easily signed?	4. Is this interchange grouping compatible with neighborhood and local business plans/goals/ objectives? Neighborhood / Business	1. Does this interchange grouping connect with the east/west State Highways of 50, 96, 78, and 45?	2. Does this grouping serve major interstate trip purposes such as industrial, recreational, Central Business District, and major employers?	3. Does this grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?	4. Is the spacing between interchange groupings adequate?	1. Number of hazardous locations improved.	1. Is this grouping consistent with national design guidelines?	2. Comparative cost of interchange grouping. (Interchange construction only)	3. How difficult is this to construct? How difficult to maintain traffic during construction?
Existing Conditions	0 acres	0	No additional impacts			Yes		No	Yes	Yes	No	0	No	0	---
Downtown Split Diamond	16 acres	29	• Impacts to floodplain • Impacts to the railroad • Impacts to businesses and residences • Environmental Justice impacts • Potential impacts to: Historic property Wetlands Wildlife Threatened and endangered species Water quality			Yes	Note 1 & 5	Yes	Yes	Yes	Yes Note 2	6th 1st mainline curvature	Yes Note 2	$60M	- Standard construction - RR Relocation - Phasing would be required
Downtown Split Diamond w/ SB Slip Ramp to 4th St NB Slip Ramp to 8th St	16 acres	29	• Impacts to floodplain • Impacts to the railroad • Impacts to businesses and residences • Environmental Justice impacts • Potential impacts to: Historic property Wetlands Wildlife Threatened and endangered species • Water quality			Yes	Note 1	Yes Note 4	Yes	Yes	Yes Note 2	6th 1st mainline curvature	Yes Note 2	$60M	- Standard construction - RR Relocation - Phasing would be required
1st Diamond Interchange 13th St Diamond Interchange	15 acres	20	• Impacts to floodplain • Impacts to the railroad • Impacts to businesses and residences • Environmental Justice impacts • Potential impacts to: Historic property Wetlands Wildlife Threatened and endangered species Water quality			Yes	Note 1	No	Yes	Somewhat	No Note 2	6th 1st mainline curvature Note 3	No	$45M	- Standard construction - RR Relocation - Phasing would be required

* *These numbers reflect what is needed in addition to what was previously calculated for the I-25 corridor.*

Note 1 *Impacts to Mineral Palace Park and railroad impacts are undesirable, however access to 13th St and existing Santa Fe are desirable for business.*
Note 2 *US 50B Interchange would have to be moved further north.*
Note 3 *The minimum required spacing between the 1st St Interchange and the 13th St Interchange can not be achieved.*
Note 4 *Direct SH 96 (4th St) East /West access from the interstate.*
Note 5 *Connectivity with 6th St from the north and south.*

April 29, 2002

the New Pueblo Freeway

Ranking of Interchange Groupings

Ilex to Central	Environmental			Community Values				Mobility				Safety	Implementation		
	1. Amount of new right-of-way. *	2. Number of houses/ businesses within the new right-of-way. *	3. Environmental Summary.	1. How well does this grouping support our current economic community investments?	2. Will this interchange grouping have community support?	3. Can this interchange grouping be easily signed?	4. Is this interchange grouping compatible with neighborhood and local business plans/goals/ objectives? Neighborhood / Business	1. Does this interchange grouping connect with the east/west State Highways of 50, 96, 78, and 45?	2. Does this grouping serve major interstate trip purposes such as industrial, recreational, Central Business District, and major employers?	3. Does this grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?	4. Is the spacing between interchange groupings adequate?	1. Number of hazardous locations improved.	1. Is this grouping consistent with national design guidelines?	2. Comparative cost of interchange grouping. (Interchange construction only)	3. How difficult is this to construct? How difficult to maintain traffic during construction?
Existing Conditions	0 acres	0	No additional impacts			Yes		No	Somewhat	Somewhat	No	0	No	0	---
Abriendo Overpass Mesa Overpass Northern Interchange	7 acres	32	• Potential impacts to businesses and residences • Impacts to the railroad • Potential hazardous waste • Potential impacts to: 4 (f) and 6(f) Land Environmental Justice Historic property Water quality			Yes		Yes	Somewhat	Somewhat	Yes	Ilex Abriendo Central mainline curvature	Yes	$78 M	- Difficult Construction - RR relocation - Phasing would be needed
Abriendo / Northern Split Diamond (includes relocation of I-25)	22 acres	37	• Probable impacts to businesses and residences • Impacts to the railroad • Potential impacts to: 4(f) and 6(f) Land Environmental Justice Historic property Water quality			Yes		Yes Note 1	Yes	Yes	Yes	Ilex Abriendo Central mainline curvature	Yes	$80 M	- Standard Construction - Very little traffic control during construction needed

* *These numbers reflect what is needed in addition to what was previously calculated for the I-25 corridor.*

Note 1 Connects with US 50C.

the New Pueblo Freeway

Ranking of Interchange Groupings

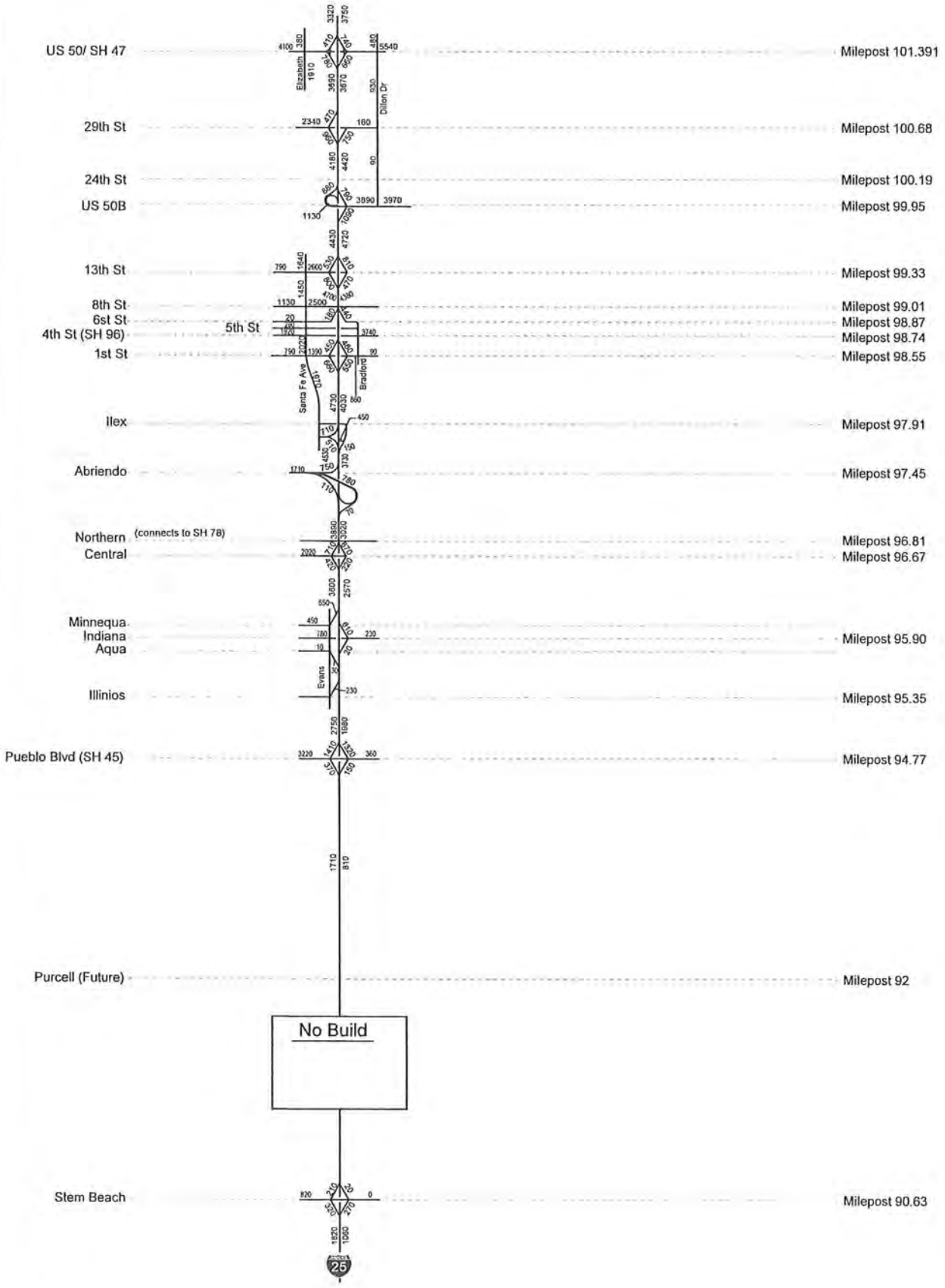
Indiana to Stem Beach	Environmental			Community Values				Mobility				Safety	Implementation		
	1. Amount of new right-of-way. *	2. Number of houses/ businesses within the new right-of-way. *	3. Environmental Summary	1. How well does this grouping support our current economic community investments?	2. Will this interchange grouping have community support?	3. Can this interchange grouping be easily signed?	4. Is this interchange grouping compatible with neighborhood and local business plans/goals/ objectives? Neighborhood / Business	1. Does this interchange grouping connect with the east/west State Highways of 50, 96, 78, and 45?	2. Does this grouping serve major interstate trip purposes such as industrial, recreational, Central Business District, and major employers?	3. Does this grouping serve trips beginning outside of Pueblo with destinations within Pueblo, such as the State Fair, Lake Pueblo and the Historic District?	4. Is the spacing between interchange groupings adequate?	1. Number of hazardous locations improved.	1. Is this grouping consistent with national design guidelines?	2. Comparative cost of interchange grouping. (Interchange construction only)	3. How difficult is this to construct? How difficult to maintain traffic during construction?
Existing Conditions	0 acres	0	No additional impacts			Yes		Yes	Yes	Somewhat	No	0	No	0	---
• Single Point Diamond @ Indiana • Partial Cloverleaf @ Pueblo Blvd. • Diamond @ Purcell** • Diamond @ Stem Beach	44 acres	0	**Indiana Interchange** • Impacts to businesses and residences • Potential hazardous waste • Potential impacts to: Environmental Justice Historic property Water quality **Pueblo Blvd Interchange** • Potential hazardous waste • Potential impacts to: Businesses and residences Wetlands Threatened and endangered species Water quality **Stem Beach** • Potential hazardous waste • Potential impacts to: Wetlands Wildlife Threatened and endangered species Water quality			Yes		Yes	Yes	Yes	Yes	Illinois Stem Beach	Yes	$70M	Standard Construction

* *These numbers reflect what is needed in addition to what was previously calculated for the I-25 corridor.*

** *Future interchange by others*

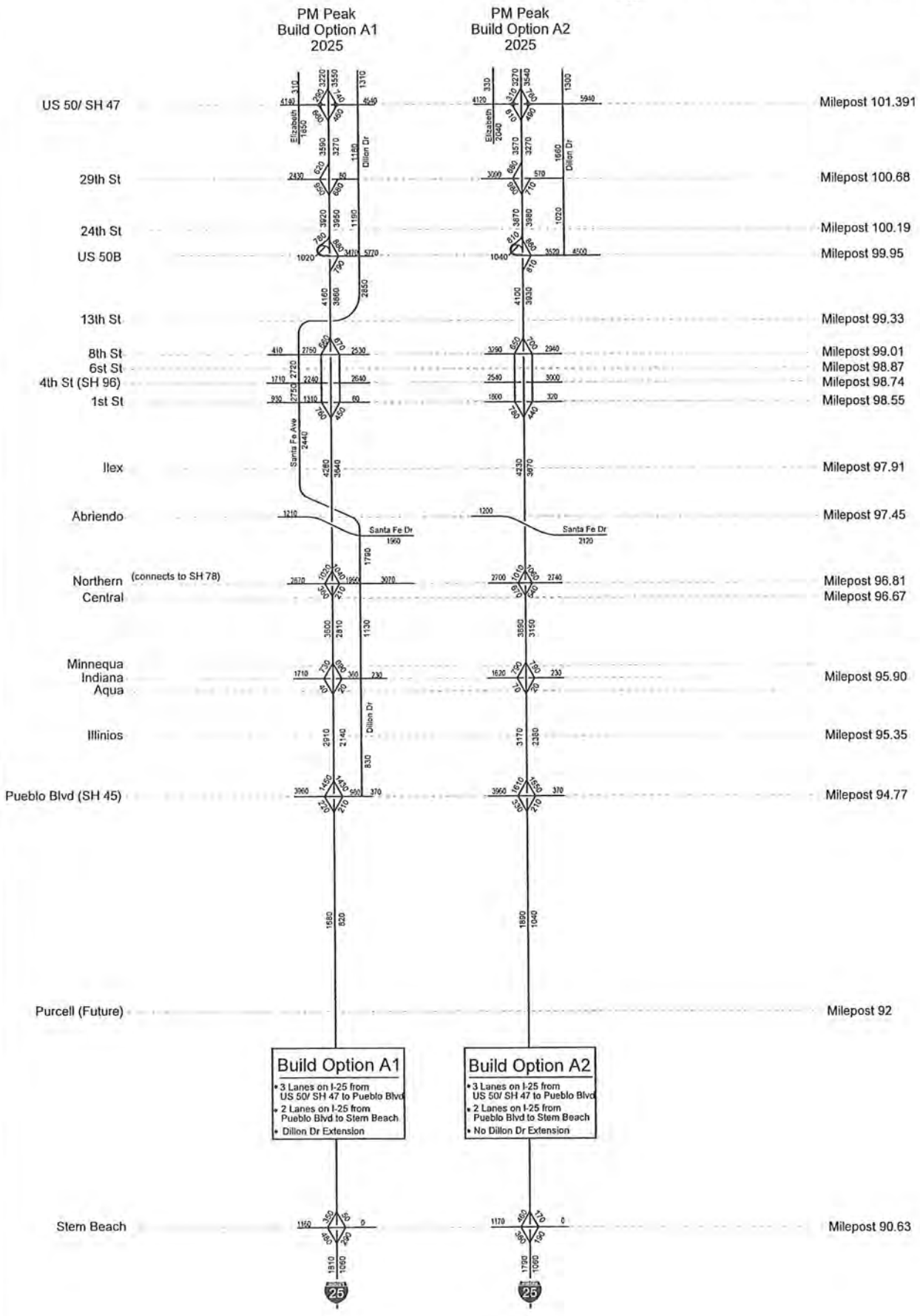
the New Pueblo Freeway

PM Peak
No Build
2025



Traffic Data

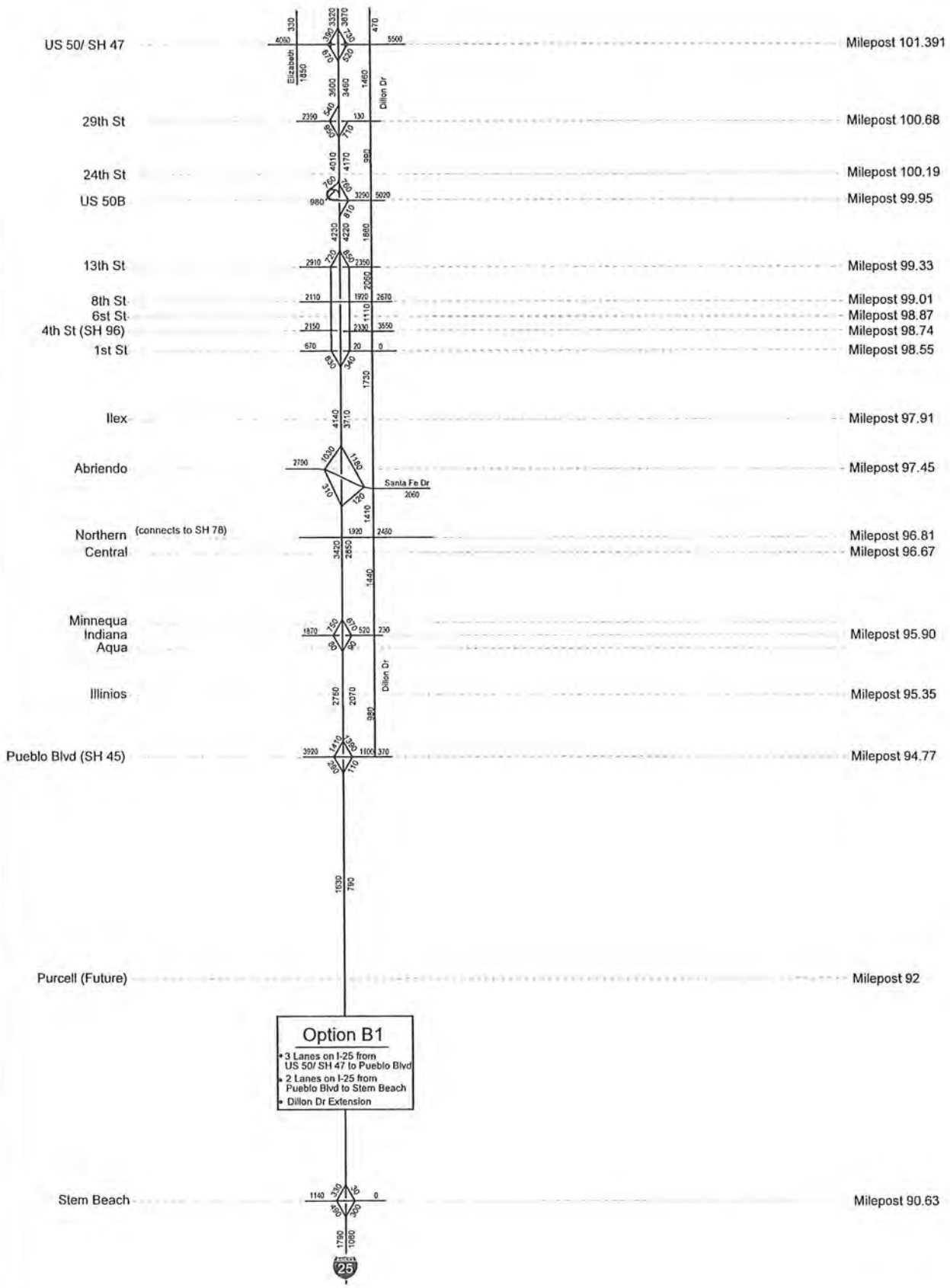
the New Pueblo Freeway



Traffic Data

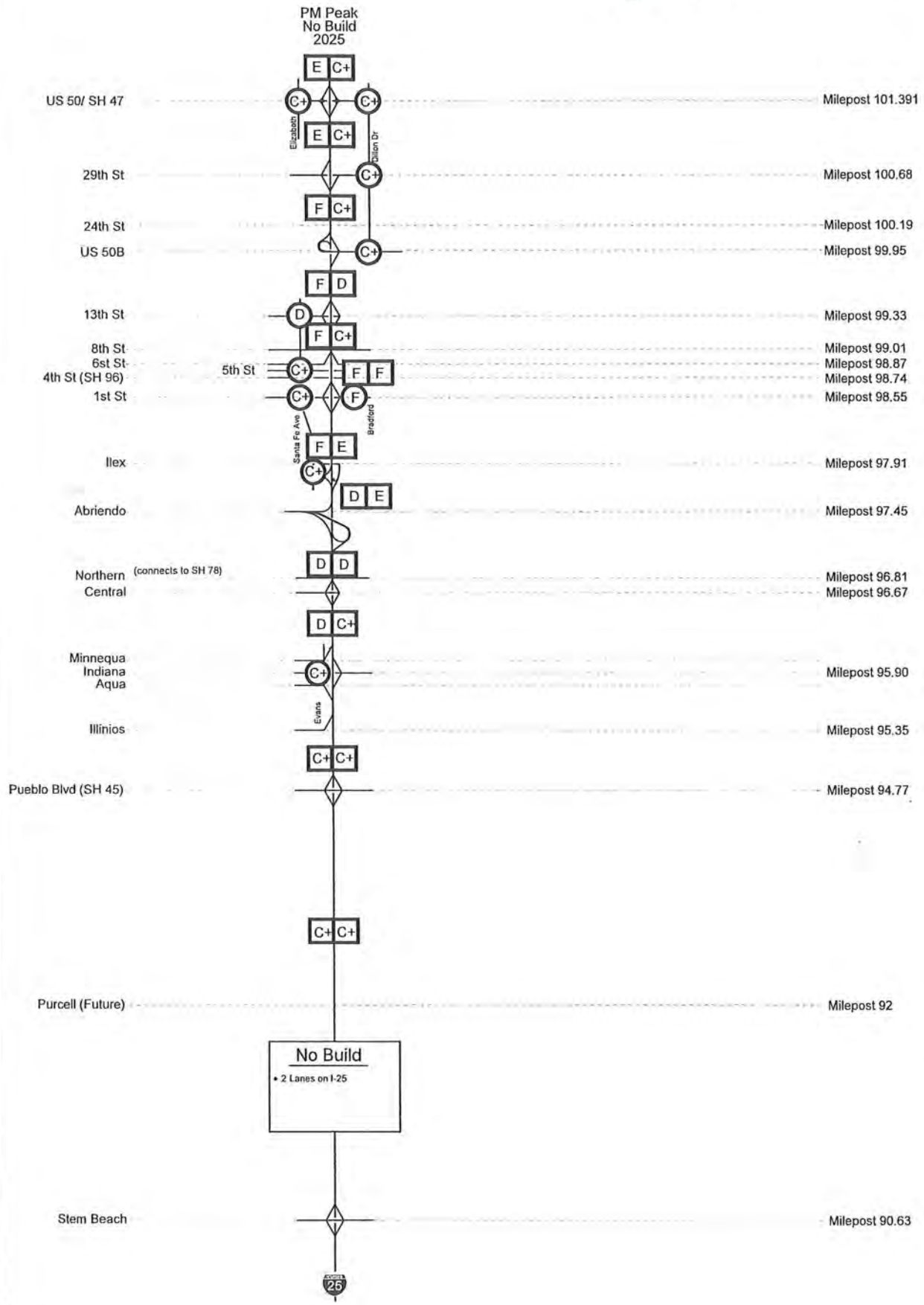
the New Pueblo Freeway

PM Peak
Build Option B1
2025



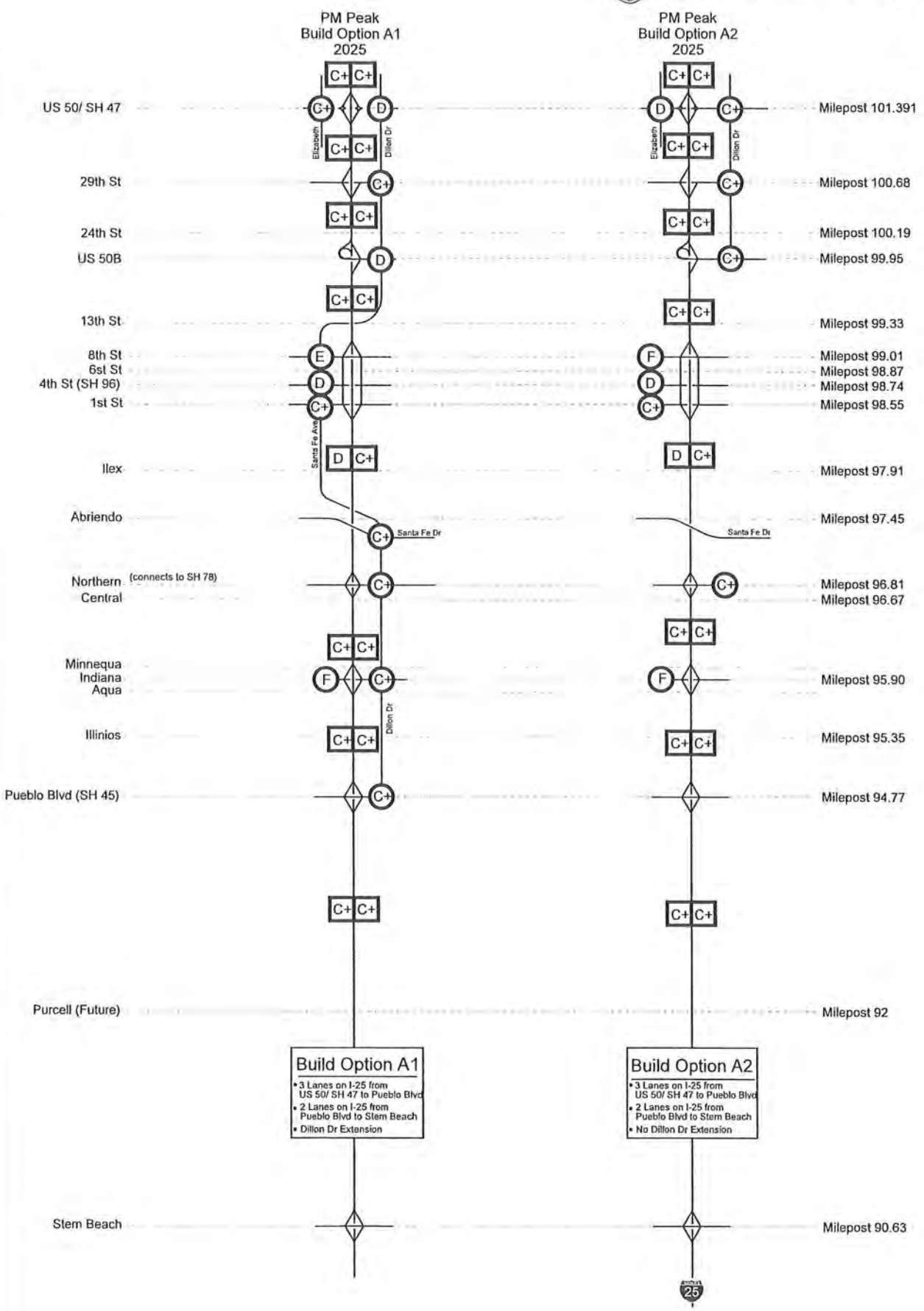
Traffic Data

the New Pueblo Freeway



Level of Service

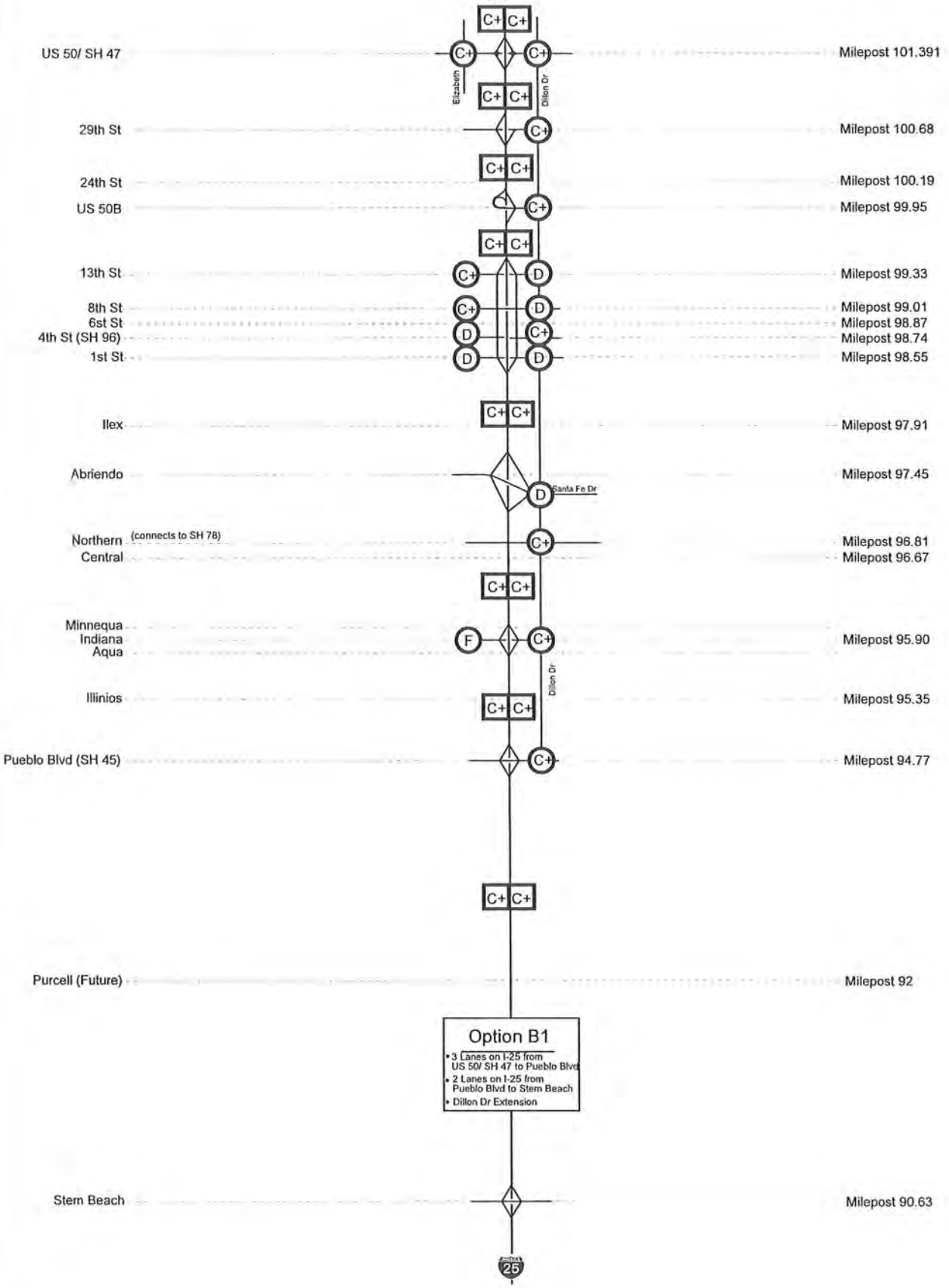
the New Pueblo Freeway



Level of Service

the New Pueblo Freeway

PM Peak
Build Option B1
2025



N

Level of Service

APPENDIX F

Community Comment Tracking

the New Pueblo Freeway

Summary of Input

This document summarizes all comments into subjects and tallies the number of times the subject was recorded.

Summarized and Tallied Comments
(from July 2000 to August 2001)

Corridor	
Add more interchanges or improve existing. Need to extend ramp acceleration length. Many interchanges ramps are unsafe.	55
Straighten curves— elevation (banking) is at the incorrect direction on the curves. Especially difficult for trucks.	41
Widen I-25 to 8 lanes (4 each way) to provide for future growth.	33
Wider lanes	26
Noise levels have increased dramatically since the structures between 24th and 28th ` west side of 29th Street, were removed. Truck noise is especially frustrating. Highway noise unbearable, a horrendous issue.	21
Improve east/west mobility. Provide access for east-west traffic to reduce local use of the freeway.	18
Minimize taking of residential properties for right-of-way (for realignment and ramps). Many have generations who invested in their properties. Would like to see neighborhoods come before commercial trucks. Protect highway neighbors. Need to protect investments. Look at impacts to any of our improvements. Concern about relocations, moving expenses, age, fair compensation, etc.	17
Support community visions and plans. Protect historic values: MPP, Union, Bessmer, Mesa Junction.	13
Lower speed limit; better speed enforcement	13
Widen I-25 to 3 lanes each direction—6 total lanes.	12
Accel/decel lanes throughout need to be longer.	10
Need landscaping—shade trees and flowers. Beautify I-25, needs to be cleaned up and maintained.	10
Need better signage and lane markings in advance.	10
Need more and better access to and from local streets and I-25. Access to existing and growing areas..	9
Suggest all trucks stay in right lane traveling through cities and towns and maybe travel 10 miles slower than automobiles as in Texas. Keep trucks out of neighborhoods. Limit hours when trucks can travel, especially during rush hour.	9
Congestion on I-25—needs upgrading.	8
Better lighting on ramps and improved maintenance of lights along interstate	8
Increase ROW for better landscaping and need it to be maintained, using less water intensive landscaping treatments *(use detention of water and create wetland landscape areas).*	7
Isolated neighborhoods need to be connected with pedestrian and bikes. Use of pedestrian bridges.	7
Mass transit / high speed train up the Front Range / light rail	6
Protect the 'flavor' of Pueblo, accessible and quick to get around, no rush hours. Use local artists and talent to reflect 'flavor' of Pueblo	6
Drainage Problems—existing and as a result of projects	6
Need frontage roads on both sides of the interstate for local traffic.	6
Plan for the future. Protect future options now.	6
Repair potholes, exit ramps, entry ramps, and aging structures along I-25 need repair.	6
It's just fine the way it is now. Leave it the way it is.	6
I-25 needs upgrading.	5
Provide HOV/car pool lanes.	4
Need additional alternate routes to handle traffic detours when I-25 has to be closed due to crashes, etc.	4
Maintain and create views of businesses, parks, etc. Do not block them all with cement barriers	4
Limited access is nice; should reduce the number of interchanges on I-25. (*Reducing interchanges gives a country feel.)*	4
Limit growth opportunities. Less people, less roads.	4
Improve safety with realignment, many accidents at exit/entrance ramps	4
Walls and landscaping need to be maintained.	3
Why have major E/W Rt (8th) and no connection. Too many exits that don't go anywhere.	3
Protect historic areas	3

Summary of Input

This document summarizes all comments into subjects and tallies the number of times the subject was recorded.

Summarized and Tallied Comments
(from July 2000 to August 2001)

Emergency access to hospital	2
Use alternative transportation methods.	2
I-25 corridor needs a monorail system. (*Package travel linkages could be made with the Broncos, AVS, Rockies, etc.; hotels, Broadway plays, and car rentals.)*	2
Do not do any construction. Need to make the developers pay for the problems they create with their developments and the traffic that they bring. Why should taxpayers pay for improved roads to handle these developments and the traffic they create.	2
Should get input from developers.	1
Need better access for Bessimer Historic Archives	1
No alternate routes to the Mesa	1
Be sure to watch for sight distances	1
Accident locations need to be identified and addressed.	1
Consider existing and future land use	1
Feel that we should make better local routes for local trips and close off ramps other than at both ends of the city, only providing on ramps at current locations. All along the front range we are widening and improving our interstates to hand quick local trips, rather than making providing better local trips for local travelers.	1
Don't make more lanes, provide alternate routes.	1
Need to get north/south mobility	1
Soundwalls will reduce right-of-way takes.	1
Awareness of hazardous materials through Pueblo.	1
Road work needs to be done at night as much as possible. Need a better construction process and faster construction time frames.	1
Construction people without an attitude and clean up their language.	1
Concerned about how money will be allocated for this "New" freeway.	1
Increase budget so more can be done.	1
Need SH 96 exit.	1
Need a better South entrance to the mall.	1
Need an exit between 29th Street and 13th Street.	1
Need a more direct route to Fairgrounds.	1
Concerned about clean up of CF&I site when they leave? Clean up in industrial areas	1
If an interchange is closed, look at who is impacted and how to serve that access.	1
Should utilize simple clover leafs on freeway I-25 especially at junction I-25 and Hwy 50 East and West.	1
Keep existing interchange if they are being used.	1
Fix/improve the interchanges around CF&I; there is no convenient north/south access through town.	1
Need for interchange(s) between Pueblo Boulevard and Stem Beach	1
Tight turns in Downtown.	1
Don't need more lanes.	1
Tolls in Denver & Springs to pay for Pueblo freeway improvements.	1
I-25 should be 8 lane from Ft. Collins to Fountain & 6 lane the rest of the way from border to border. Also, as cities sprawl the speed limit continually decrease more & more miles. It should be 75 mph all the way with limited access & parallel highways for slower and/or local traffic.	1
Improvements user friendly to all citizens	1
Protect Mineral Palace Park.	1
There were substantial impacts to the lower-income neighborhoods in the 1950's as a result of the Pueblo Freeway. There is a lot of fear of how these new improvements may negatively impact houses, business, and neighborhoods. Call for CDOT to equally weigh the improvements/ consequences of proposed changes to our neighborhoods and community.	1

Summary of Input

This document summarizes all comments into subjects and tallies the number of times the subject was recorded.

Summarized and Tallied Comments
(from July 2000 to August 2001)

Concern about houses on the east side of Currie Street at the 800 and 900 block.	1
Thermal inversion, bad gas and air at I-25 and US50. East of US50, north and south of I-25.	1
Please put in a light or something to help congestion at #102.	1
Move traffic signal at 1st Street ramp.	1
Raise speed limit on I-25.	1
A mandatory speed limit of 45mph enforced after Santa Fe exit due to accidents "semis".	1
Do not widen it, it just brings more traffic.	1
More guard rails.	1
Tear it all out & start over again using concrete and not asphalt.	1
More truck parking areas.	1
Protect investments: HARP, Historic District, Convention Center	1
People need to understand how changes (their loss) benefits the community	1
Be watchful of wildlife impacts	1
Going through town seems like a perpetual bridge; therefore in the winter the road conditions are extremely slick.	1
Concern with impacts to Pueblo economy	1
Use land that is open	1
Consider the geology; blue shale	1
Double deck as Seattle & Chicago.	1
Understanding traffic origins/destination	1
Park South of Illinois too close to Freeway – kids playing, pedestrians walking along freeway in Minnequa neighborhood.	1

Beltway / Bypass	
Beltway around Pueblo without using I-25.	52
Make a tollway east to go around Pueblo.	2
Re-route commercial traffic to a Bypass Hwy.	2
Use Hwy 71 as an alternate route North from Hwy 50.	1

13th Street	
13th Street needs to be straighten – suggest an interchange.	2
Extend 13th to the East from I-25.	1
Elevate 13th Street so that the river can go where it wants to.	1
Add lane south of US50 Bypass to 13th Street.	1
Don't extend 13th Street to east.	1
13th needs to have 2 lanes.	1

1st Street	
Lengthen entrance ramp SB at 1st Street., no room to accelerate, and poor sight distance—not safe, and the slope is especially difficult for truckers.	26
1st Street on ramp is a nightmare, ramps are too short and dangerous.	6
Improve 1st Street and Ilex interchange curves too sharp, very dangerous. Ramps need to be longer.	5
I-25 at 1st Street needs r repair.	5
Northbound from 1st Street to 13th accel/dead lane need to be improved.	4
1st St. entrance southbound on I-25 should be eliminated not enough room to enter.	4
Avoid Santa Fe and go to 1st NB. Need to make the bridges between Santa Fe and 1st exit 3 lanes,	3
Don't eliminate 1st Street. Don't want to see 1st Street closed	2

Summary of Input

This document summarizes all comments into subjects and tallies the number of times the subject was recorded.

Summarized and Tallied Comments
(from July 2000 to August 2001)

1st and 6th too many curves.	2
Need more access 1st to 13th and straighten.	2
Elevate over Ilex, 1st.	1
1st Street one way streets – confusing.	1
1st Street on ramp Southbound widen to 3 lanes all the way .	1
1st exit South need 4 lanes.	1
Extend 1st Street over Fountain.	1
Merging lanes on 1st and 5th too close.	1
Tight turns between 1st and exit 95 need to be addressed.	1
1st Street is dangerous—needs more sign and bridge widened.	1
1st Street ramps too windy .	1
1st St. to NB can't get on safely, no courteous oncoming traffic. 1st to SB can't get on safely too narrow at Runyen & further South to Indy.	

24th Street	
24th Street EW connection from Airport to Pueblo West needs improvements.	2
Want a 24th St interchange.	1
Don't make 24th St. an exit, nor a through-street to the west side of Pueblo. It will absolutely ruin the old north side neighborhood, which is already struggling to stay a residential area.	1

29th Street	
Love 29th St exit, works very good.	2
Exit 29th Street, Highway 50, Provide access to Lincoln Home site.	1
SH50 and 29th were problems, but getting better.	2
Put an entrance onto I-25 between 29th St. and W 13th.	1

4th Street	
4th Street should be a full interchange.	7
4th Street/Lincoln/Thatcher should not become major highway.	1
Need exit lane on and off 4th to 13th .	1
4th exit south need 4 lanes.	1

6th Street	
6th Street – off ramp too sharp, and need to flatten the curves (truckers have trouble)..	3

9th Street	
Need ramps on 9th Street.	1

Abriendo	
1st Street Interchange on-ramp Southbound bad. Abriendo Exit is really skinny (ramp). Abriendo to NB on Ramps – People stopped on I-25 due to no room to merge. Too short, too steep.	13
Abriendo and 13th to straighten out the curves.	5
Develop Abriendo Interchanges to connect Santa Fe Dr. and Abriendo directly off I-25.	3
More lanes; 3 or 4 lanes wide.	3

Summary of Input

This document summarizes all comments into subjects and tallies the number of times the subject was recorded.

Summarized and Tallied Comments
(from July 2000 to August 2001)

It would be better to take both sides of a block and not leave just 2 or 3 houses left on one side to face the highway, such as planned by cut-off—900 block of east Abriendo.	2
Ice hazard on NB on ramp at Abriendo; cars slide into median barrier.	1
Abriendo bridges north too curvy.	1
Straighten out curves at Abriendo and Ilex.	1
Abriendo exit getting onto the freeway has too many trees--cannot see.	1

Arkansas	
More lanes. Need for more lanes crossing Arkansas.	1
Arkansas as River Bridge too narrow. Make it wider. "S" curves need to be straightened.	1

Belmont	
Belmont Interchange needs to be improved; curves too tight.	4

Central	
Central Ave NB – bad accel.	2
Central Avenue & South to west; trees are obstructing view.	1
Keep Central Ave Interchange 4 lanes going north and south (8 lanes).	1

Eagleridge	
Improve the interchange at Eagleridge. The old pillars make it difficult to see cross traffic.	3
Extend 3 lanes past Eagleridge Blvd.	2
Need better traffic flow on Eagleridge.	1
Need a bridge to get to Belmont from Eagleridge.	1

Ilex	
Problems at Ilex interchange—needs improvements. Curves too tight and confusing. Dangerous	25
Ilex off and on ramps are too short.	5
Straighten the Ilex interchange.	3
Ilex interchange is good for big rigs as is . Don't want major changes to interchange.	2
Accidents on Ilex at Santa Fe	2
Video detection at Ilex/Santa Fe has improved backups on southbound off ramp.	1
Take the on ramps out at Ilex and leave the off ramps.	1
Close Ilex Interchange.	1
Add a lane Southbound between 1st Street & Ilex.	1
Ilex interchange—top level for through and lower level – local.	1
Relocate Ilex interchange.	1
Elevate over Ilex, 1st.	1

Illinois	
Close Illinois to avoid wrong way. Illinois is a waste. Redesign of interchange will require demolition of homes/neighborhoods on the east side of Evans Avenue.	3
Illinois interchange ramp too sharp.	2

Summary of Input

This document summarizes all comments into subjects and tallies the number of times the subject was recorded.

Summarized and Tallied Comments
(from July 2000 to August 2001)

Indiana	
Indiana Interchange is confusing., Tough to get on exit; ramps are too short. Dangerous. Needs improvements.	6
Suggest diamond interchange at Indiana.	2
Need to improve Indiana exit for the many trucks coming to the Steel Mill, Pepsi, the RR plant, and Ashley hardware trucks, and also leaving south and north.	1
Need sound walls along I-25 from Indiana	1
Iowa/Indiana ramps are too close to the cross streets.	1

Pueblo Boulevard	
Develop a long-range plan for another interchange between Pueblo Blvd. (Lake Avenue) south and Stem Beach. A ramp to get in left lane from Lake Ave. Need dual left turns Westbound on Pueblo Blvd. At I-25.	1
A turn arrow needed Southbound at Sh50 to Pueblo Blvd.	1
Extend Pueblo Blvd. to the north around Northridge.	1
Pueblo Blvd Interchange is good.	1

Pueblo West	
Need another route to Pueblo West.	3
Need another connection to Pueblo West.	1

Runyon	
Runyon is too short to accel & merge, can't see traffic to merge.	2
Runyon area is dangerous due to filled queue on South bound off ramps.	1

Stem Beach	
Make new I-25 from Stem Beach swinging out east and connecting up again on the north end of town about 1 or 2 miles north of the Sam's Club exit. This would mean 2 new bridges, one across the Fountain and one across the Arkansas, big cost. Safer.	2
Own a motel and RV park off the Stem Beach exit. We have made many requests for a "phone" sign at this exit, and feel that and would feel blessed if could get a lodging sign. Stem Beach is the only place between the Rye exit and Southgate exit where there is a phone. There have been many accidents close to our exit but there is nothing to let drivers know there is help here. During the blizzard of 1997, people were out stranded on I-25 but didn't know there was a phone and shelter nearby. Just the phone sign alone could save lives.	1

Projects not directly related to project	
Need to fix the Pinon underpass and it needs to be included in this project	4
The area north to the El Paso County Line should be considered in this study. SH 116 to County Line.	3
Very good job. Good coverage, lots of positive comments about maps. CDOT's process is commendable, fair, and on track; OH was helpful to share concerns, gain understanding.	2
Hwy 50 situation is a disaster.	2
Consider coming north on I-25 to Pueblo County/El Paso County Line. The project should be all of I-25 north through Pueblo then south.	2
I think this study should be on 24th St exit.	1
Dust at Detention Basin is bad—need to use water trucks.	1
Most people like all the new construction SH47/Dillon.	1
Unhappy with access to Burger King and Parts America.	1

Summary of Input

This document summarizes all comments into subjects and tallies the number of times the subject was recorded.

Summarized and Tallied Comments
(from July 2000 to August 2001)

Improvements at North end are great.	1
Have the Chamber fix the Welcome sign on the south end of town.	1
Commute to Denver weekly Pueblo is definitely much better than the bottleneck highway at Colorado Springs and Denver. The new 47/25 will be great! 29th St too!	1
Need soundproof wall on 29th St – 24th (North I-25).	1
Support existing projects	1
Driver education	1
Driver courtesy	1
Concerned about "Super Slab" front range toll road which didn't think needed to do.	1
SH50 to the east needs to have less signals.	1
I-25 north will be the main street into Pueblo. If you would put a counter on cars entering Pueblo from the north, you will see we get a lot of movement north. Why exclude us? You need to have the best highway you can coming into Pueblo so that people traveling I-25 would like to stop and visit. I-25 is also a trucker route and excluding those 16 miles north is wrong.	1
Finish the holes you dug at 27th – 26th and Court.	1
Love the new turn lanes on #50.	1
Need to put a camera at SH50/I-25 so that the web site shows progress.	1
Love the I-25/US50/SH47 web site.	1
US 50 impacts us—coordinate with US 50 study	1
2 lanes from Pueblo to La Junta; these roads are congested and very dangerous.	1
I travel to Pueblo for employment from out of the area, and happy with what has been done so far	1

the New Pueblo Freeway Summary of Concerns

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category

(from July 2000 to date)

CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety

Community Values

Too ugly! Weeds cover the beautiful wall. Everything is brown & dead except Central.	CV	
How does Pueblo have as good image when the freeway is not maintained. Look at the terrible way is kept up. Trees and brush are wild along side Mineral Palace Park, and we have lost the view of the beautiful park, band shell, lake, etc. Look at the mess along the beautiful sound wall at the Abriendo exit all the way to the Central Ave Exit. Needs to be cleaned up--bad impression for visitors. Increase ROW for more landscaping. Use detention of water and create wetland landscape areas. More landscaping along South of 1st Street – widen to , more better looking.	CV	
Beautify I-25.	CV	
Clean it up – especially the downtown area. Landscaping is key!	CV	
Need better landscaping.	CV	
More landscaping along South of 1st Street – widen to , more better looking.	CV	
Clean it up over the South side.	CV	
Less Ugly.	CV	
Widen ROW to beautify	CV	
There were substantial impacts to the lower-income neighborhoods in the 1950's as a result of the Pueblo Freeway. There is a lot of fear of how these new improvements may negatively impact houses, business, and neighborhoods. Call for CDOT to equally weigh the improvements/consequences of proposed changes to our neighborhoods and community.	CV	
Concern about houses on the east side of Currie Street at the 800 and 900 block.	CV	
Park east of 1st Street interchange—do not want to have it destroyed.	CV	
Concerns with the possible impact of changes to the Interstate on his family, residence, and property, as well as other existing neighborhoods and business adjacent to the roadway.	CV	
Relocation, housing, moving expense, age, etc.	CV	
I have lived at this residence all of my life, and I would hate to move. I feel that some exits need to be widened but the freeway on the south side does not have as much traffic as on the north side.	CV	
My home is situated along I-25. I like the location because of the access to I-25 to go north or south in the city. This has and continues to be my home. I am going through a lot of remodeling and upgrading. I enjoy my neighborhood. I am concerned.	CV	
would like to see our neighborhoods come first, not the cement trucks.	CV	
Please do not consider placing Illinois exit closer to my home, and if you do, please take my home.	CV	
Lots 6 thru 10 was connected. When I-25 was put in, property was cut in half, even the house which is 100 years old. The lots together make up for lost land taken by state. Could not afford a different home.	CV	
Bicycle/Pedestrians crossing desperately needed!	CV	
Would like to see wall extended on west side of I-25, south of Abriendo.	CV	
Need sound walls along I-25 from Inidiana	CV	
Need soundproof wall on 29th St – 24th (North I-25).	CV	
Cement barriers are blocking our views of the majestic Colorado mountains.	CV	
In favor of sound walls.	CV	
When will sound wall on west side of I-25, south of Abriendo be extended.	CV	
Sound walls needed.	CV	
Need sound walls along I-25 from Inidiana	CV	
Protect investments: HARP, Historic District, Convention Center	CV	
Landscaping; low maintenance	CV	

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category
(from July 2000 to date)

CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety		
Techniques to reduce right-of-way such as walls	CV	
Protect highway neighbors	CV	
Existing corridor supports uses surrounding it	CV	
Protect existing uses along corridor	CV	
Protect investments	CV	
Protect the 'flavor' of Pueblo, accessible and quick to get around, no rush hours	CV	
Protect Mineral Palace Park—don't take land	CV	
Protect historic values: MPP, Union, Bessmer, Mesa Junction	CV	
Use local artists and talent to reflect 'flavor' of Pueblo	CV	
Protect neighborhoods from noise	CV	
See businesses/parks/views	CV	
Look at impacts to any of our improvements	CV	
Landscaping using less water intensive landscaping	CV	
Aesthetics—walls and bridges	CV	
How can elements reflect Pueblo	CV	
How are choices made regarding elements such as noise walls and landscaping	CV	
What improvements done well, equitable, reflects Pueblo. Vsitors impressions of Pueblo—different at different interchanges—need, continuity of "look", no divided neighborhoods—can we preserve and even reunite? People get stuck (south) need help (call boxes) services	CV	
Make it easier to like Pueblo	CV	
Protect and Preserve Views of city	CV	
Cost of walls and space for walls – need a balance	CV	
Views as you enter the town	CV	
Minimize taking of residential properties for right-of-way (for realignment and ramps)	CV	
Replacement housing	CV	
Neighborhood impacts when properties are taken—roads realigned	CV	
Local road conditions	CV	
Adequate bike/pedestrian facilities	CV	
Complete/finish look to landscaping	CV	
Taking homes	CV	
Taking right-of-way	CV	
Impacts of property purchases	CV	
Disruption of neighborhoods, historic districts, properties	CV	
Coordination with neighborhood plans	CV	
Integration of I-25 and neighborhood uses	CV	
Traffic in neighborhoods	CV	
Pedestrian and bike facilities that help tie the neighborhood uses together = safety	CV	
Taking of historical properties	CV	
People need to understand how changes (their loss) benefits the community	CV	
Disruption to properties/businesses	CV	
Beautify the city along I-25	CV	
Protect historic areas	CV	
Support community visions and plans	CV	
Isolated neighborhoods--pedestrian and bikes	CV	
Walls can cover some views – back yards	CV	

Summary of Concerns

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category
(from July 2000 to date)

CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety

Environmental		
Concerned about clean up of CF&I site when they leave? Clean up in industrial areas	E	
Noise levels have increased dramatically since the structures between 24th and 28th ' west side of 29th Street, were removed. Truck noise is especially frustrating.	E	
I am concerned about the increased noise level at my residence since the structures between 24th and 28th were removed. At certain times, depending on wind, weather, atmosphere, you can no longer carry on a normal conversation on my patio in the 400 block of West 27th.	E	
Increased noise since the removal of houses along the west side of I-25 south of 29th Street. Especially frustrated w/ truck break noises. Has used a noise measuring device and said levels are approaching 70 DbA.	E	
Highway noise unbearable, a horrendous issue.	E	
Dust at Detention Basin, need water truck.	E	
Thermal inversion, bad gas and air at I-25 and US50. East of US50, north and south of I-25.	E	
Walls; protect neighbors from noise and look good	E	
Noise barriers, sloped and look good	E	
Tourist friendly community	E	
Wildlife impacts	E	
Noise attenuation and view preservation – need a balance	E	
Flooding of roads	E	
Drainage Problems—existing and as a result of projects	E	
Noise impacts	E	
Implementation		
Sound barriers would be nice for the residents off the interstate. Help to keep their property values from devaluating.	I	
Hate construction. Don't want Denver traffic, mostly H/S travel.	I	
Better road repair HWY50 E. Like Mall Interchange – keep the same.	I	
Hwy 50 situation is a disaster.	I	
Don't try to fit it all at once	I	
Do not do any construction – Denver will be a mess for 5-7 years.	I	
Construction work faster time frames. Road work needs to be done at night as much as possible. Better construction process.	I	
Construction people without an attitude and clean up their language.	I	
Most people like all the new construction SH47/Dillon.	I	
SH50 construction is frustrating.	I	
Concerned about how money will be allocated for this "New" freeway.	I	
Stem Beach exit/entrance, does the public have to pay for it's reconstruction when the new cement plant is who needs the work done?	I	
Increase budget.	I	
Limit growth opportunities.	I	
Less people, just no new roads.	I	
Concern with impacts to Pueblo economy	I	
Use land that is open	I	
Want a practical solution	I	
Good signing on and off interstate	I	

Summary of Concerns

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category (from July 2000 to date)		
CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety		
Consider the geology; blue shale	I	
Cost	I	
Maintenance should be easy and ID who will maintain	I	
Plan for the future--development direction	I	
Consider existing and future land use	I	
Cost of major improvements	I	
Costs	I	
Priorities for projects	I	
Protect expenditures/current investments	I	
Plan for future needs, especially bridges	I	
Mobility		
Don't encourage more or faster traffic.	M	
I-25 is OK, just needs more signs.	M	
better freeway signs.	M	
Need additional streets.	M	
Interchanges are not at main streets.	M	
Need more crossings off Fountain Creek.	M	
We need good alternate routes to handle traffic detours when I-25 has to be closed due to crashes, etc.	M	
Drivers need to speed up, not stop on accel lanes.	M	
Repave I-25.	M	
Avoid downtown, get local traffic to use other road.	M	
It is really jacked-up make it one way out of town.	M	
More alignment to major city streets.	M	
Better advanced warning for interchange closures.	M	
Leave current I-25 as business route.	M	
Need parallel routes through town to keep local traffic off I-25.	M	
Higher speed limit.	M	
I-25, RR, and river are barriers.	M	
Get through traffic through faster and finish Highway 50.	M	
Existing highway needs improvements.	M	
Why have major E/W Rt (8th) and no connection.	M	
Think of our future needs.	M	
Provide access for east-west traffic to reduce local use of the freeway.	M	
Need major East/West connections ie 4th St., longer accel/decel lanes.	M	
Major E/W thoroughfare.	M	
No good E-W routes.	M	
Better east/west connectors.	M	
Better east/west connections	M	
We are in dire need of East/West connection to relieve congestion.	M	
Too many cars and too old	M	
Congestion on I-25. Traffic congestion needs to be addressed.	M	
Less traffic at rush hours.	M	

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category
(from July 2000 to date)

CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety		
E-W connector on Hwy 50 – to 24th St. P.W.	M	
Huge growth on Eldridge N.	M	
Not enough E/W connections. Confusing to visitors. Connect 50B to 24th. Need ways to get to central part of town.	M	
More east to west main streets through town.	M	
Really need better east/west highways.	M	
East/west connector to Pueblo West.	M	
limited routes N/S, E/W.	M	
An east/west road across Fountain north of the Belmont Interchange.	M	
Lack of east/west routes.	M	
Exits need to be widened	M	
Too many exits that don't go where you need.	M	
better merging and exiting patterns	M	
New longer entrances – 1st St and Santa Fe	M	
Also better acceleration entrances and exits.	M	
reduce number of exits.	M	
No real direct route to Fairgrounds.	M	
Too few interchanges crossing over/under I-25 (only US50 and 5th Street).	M	
Reduce the number of interchanges.	M	
Close/reduce number of interchanges.	M	
Keep interchange to hospital.	M	
Keep existing interchange if they are being used.	M	
Fix/improve the interchanges around CF&I; there is no convenient north/south access through town.	M	
Almost all the interchanges need improvement.	M	
Congestion on Freeway ramps is caused by back ups onto Freeway. Need to look at freeways in Houston—have free flows at end of ramps.	m	
Longer on and off ramps.	M	
Too much traffic, ramps are difficult.	M	
Make ramps longer.	M	
Like the downtown ramp locations which keep a small downtown feel, so don't change the Interstate.	M	
have continuous on/off ramps.	M	
and create longer ramps.	M	
Take the on ramps out at Ilex and leave the off ramps.	M	
longer ramps.	M	
Better on and off ramps for access.	M	
Tight ramps, good luck.	M	
All on ramps should be much longer--very unsafe.	M	
Take some of the curves out. Too many accidents happen with the short exit ramp ways when entering I-25.	M	
Get trucks off the highway. Keep truck accidents away from main traffic flow.	M	
Want to get people where they want to go	M	
Access to destinations	M	
Easy access on and off the interstate	M	

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category
(from July 2000 to date)

CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety		
On and off at same interchanges	M	
Want to provide for local trips	M	
Want to provide roads that give trip alternatives	M	
Need to get north/south mobility	M	
Improved east/west mobility	M	
On and off ramps are too short—not enough room	M	
Access to major (many) destinations	M	
Minimize lane changes	M	
Easy/direct access	M	
Improvements user friendly to all citizens	M	
Consider bypassing the city but keep the current I-25 corridor	M	
Plan for future—may need to look 30-40 years out	M	
Protect future options now!	M	
If close an interchanges need to look at who is impacted, how to serve that access	M	
Neighborhood traffic flow	M	
Alternate routes to major destinations—disburse traffic	M	
Attractive routes	M	
Access to business areas	M	
Need for interchange(s) between Pueblo Boulevard and Stem Beach	M	
Strategic plan for interchange(s) or access	M	
Good/improved access/traffic to areas with business/destinations	M	
Understanding traffic origins/destination	M	
Continuous one-way frontage roads	M	
Long stretch of I-25 without interchanges gives county road feel	M	
Balance between interstate and local roads	M	
Increase truck traffic—need more room/shoulders	M	
Plan for truck traffic operations to be safe	M	
Limited access is nice	M	
Illinois exit could be closed, may need to upgrade others	M	
Entrances/Exits: narrow lanes, sharp turns, short accel length, speed on ramps vs speed on I-25, traffic backups on freeway, short distance to stops, confusing intersections	M	
Ramps should accommodate trucks	M	
1st Street ramp entrance to I-25 is suicidal.	M	
SH 60 and 29th were problem areas but getting better	M	
Loves 29th Street	M	
Concerned about the Ilex intersection on I-25.	M	
What are they going to do with the Ilex.	M	
29th Street exit works better	M	
Unhappy with access to Burger King and Parts America	M	
Freeway needs to be made wider with more lanes.	M	
Truck traffic in neighborhoods	M	
Emergency access to hospital	M	
Confusing lanes/intersections	M	
Backups on the freeway	M	
Curves on I-25	M	

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category
(from July 2000 to date)

CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety		
Narrow exit lanes	M	
Truck operations at Ilex are adequate	M	
Access to Rocky Mountain Steels for trucks	M	
Benefit of frontage roads for access	M	
Access to existing and growing areas	M	
Not enough alternate roads for access	M	
Response to accidents on I-25 can tie up officers for a very long time, and delay everyone	M	
Accident locations need to be identified	M	
Entrance/exit ramps	M	
I walk the I-25/Elizabeth Frontage Road off 50 and mall. Eagleridge changes to traffic flow is going to be great. Keep up the good work.	M	
We feel you need extend the project to the Pinion underpass and north to County Line. Pinion underpass needs to be rebuilt. It cannot handle Big trucks nor our cattle trucks.	M	
We feel, the community of Pinion, that you need to do a study and include I-25 to MM116 in this project. We feel that the stretch of I-25 north to MM116 is in need of repair and upgrading of the underpasses	M	
Have always lived in Pinion and we have a cattle ranch and it is hard for truckers to get through the underpasses, and hay trucks also have problems. The Pinion truck stop needs a 2-lane underpass and needs to be brought up to standard, which is not at standards now. These underpasses are not taken care of—cement is breaking off the road under the underpass.	M	
Need more lanes crossing Arkansas	M	
We need another way to mall besides Indiana	M	
Confusing street names vs. interchange location – better signing	M	
Difficult to give directions to destinations	M	
Process		
Consider coming north on I-25 to Pueblo County/El Paso County Line. The project should be all of I-25 north through Pueblo then south.	P	
The area north to County Line should be considered in this study. SH 116 to County Line.	P	
I agree this South study needs to be done; however, this study needs to be expanded to include North Pueblo County up to the County Line. All of the growth is moving north.	P	
Extend project north I-25 to County Line.	P	
I-25 will be the main street into Pueblo. If you would put a counter on cars entering Pueblo from the north, you will see we get a lot of movement north. Why exclude us? You need to have the best highway you can coming into Pueblo so that people traveling I-25 would like to stop and visit. I-25 is also a trucker route and excluding those 16 miles north is wrong.	P	
Finish the holes you dug at 27th – 26th and Court.	P	
Should get input from developers.	P	
I think it's a great idea. Agree we need to repair I-25, needs a lot of work	P	
Love the new turn lanes on #50.	P	
Need to put a camera at SH50/I-25 so that the web site shows progress.	P	
Very good job. Good coverage, lots of positive comments about maps. Summary – CDOT's process is commendable, fair, and on track; OH was helpful to share concerns, gain understanding. The open house was very beneficial. Make maps big enough for all neighborhoods to be seen. Like map and great idea to be here at the Fair How about a drawing for the map. Nice map.	P	

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category (from July 2000 to date)		
CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety		
Love the I-25/SUSD/47 web site.	P	
Attended a few meetings and appreciate the information	P	
You'll throw away my suggestions anyway.	P	
Good information	P	
US 50 impacts us—coordinate with US 50 study	P	
Coordination with local plans and other state plans	P	
Coordinate with future plans (HARP extended)	P	
Safety		
No safe place for breakdowns	S	
2 lanes from Pueblo to La Junta; these roads are congested and very dangerous.	S	
The angel of elevation (banking) is at the incorrect direction on the curves – especially at the Abriendo exit.	S	
Fix it so trucks don't tumble. (curves) won't use HWY 50 to SB I-25 due to tight curve.	S	
Accidents onIlex at Santa Fe – 150', signal narrow, pavement condition	S	
1st St. to NB can't get on safely, no courteous oncoming traffic. 1st to SB can't get on safely too narrow at Runyen & further South to Indy.	S	
Get rid of Dead Man curve.	S	
Video detection at Ilex/Santa Fe has improved backups on southbound off ramp.	S	
Ice hazard on NB on ramp at Abriendo; cars slide into median barrier.	S	
Concerned about safety.	S	
I've always thought a heavy truck only road would be safer than what we have now.	S	
Accidents near Abriendo I/C due to curved alignment.	S	
Runyen area is dangerous due to filled queue on South bound off ramps.	S	
Central Avenue & South to West; trees are obstructing view.	S	
. Park South of Illinois too close to Freeway – kids playing, pedestrians walking along freeway in Minnequa neighborhood.	S	
Do not widen it, it just brings more traffic.	S	
Going through town seems like a perpetual bridge. Therefore in the winter the road conditions are extremely slick. Also the addition of a longer entrance lane would be a very big plus.	S	
Be sure to watch for sight distances	S	
Fix dangerous curves	S	
Aging structures along I-25 need repair	S	
Lower speed limit.	S	
speed minimum.	S	
I-25 should never be more than 55 mph through Pueblo.	S	
Slow traffic down on Highway I-25-US50. It is getting out of hand. Young people are zigzagging in and out of traffic at a high rate of speed.	S	
Need speed enforcement through town.	S	
Does the highway or interstate regulate traffic speed? Trucks speed and need to be slowed. Suggest all trucks stay in right lane traveling through cities and towns and maybe travel 10 miles slower than automobiles as in Texas.	S	
A mandatory speed limit of 45mph enforced after Santa Fe exit due to accidents "semis".	S	
More traffic cops to give tickets, lower speed limits, drive better, no tailgating..	S	
Better speed control – maintain the 75 miles per hour. Need better speed control.	S	
Good lighting off edge of street far enough that there are no dark spots	S	

Summary of Concerns

This document includes all comments as recorded and categorized by criteria—excluding ideas (alternatives).

Comments By Criteria Category

(from July 2000 to date)

CV = Community Values E = Environmental I = Implementation M = Mobility P = Process S = Safety		
Poor maintenance of light alonginterstate	S	
Cost of signing on interstate	S	
Improve Safety—realignment	S	
Safety of ramp movements	S	
Accidents at exits/entrances	S	
Speed problems	S	
Hazardous materials through Peublo	S	
Safe transportation system	S	
No safe place to pull over	S	
Lighting	S	

General Comments

Improvements at North end are great.
Most historic block in Pueblo Evans between Northern & Mesa (Gus's Bar).
Commute to Denver weekly Pueblo is definitely much better than the bottleneck highway at Colorado Springs and Denver. The new 47/25 will be great! 29th St too!
Driver education
Driver courtesy
Enforcement on I-25 causes problems.
Utilities along I-25
Police on I-25 are not able to serve others
Support existing projects

APPENDIX G

The New Pueblo Freeway Website

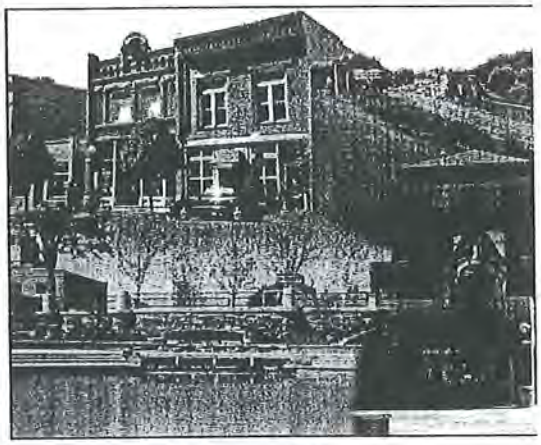
the New Pueblo Freeway

Welcome to the New Pueblo Website

Pueblo Transportation Improvements

North 25 Study click here to enter

Project Background and Overview



The first contract to build the Pueblo Freeway, now designated as Interstate 25, was awarded in 1949. It took 10 years for the freeway to be completed through Pueblo. Now, 41 years later there is a need to study and redesign the freeway to fit current and future demands. The Colorado Department of Transportation (CDOT) is sponsoring this study and redesign.

One of CDOT's goals for this project is to develop a plan that respected the traditions and trends of the Pueblo community. To reach this goal CDOT is conducting a process that includes a community voice through leadership teams and an open commu process. CDOT has formed a team consisting of representatives from the city, county, a community to explore the roles I-25 currently plays in the community and what roles I- should play in the community's future.

This team began with a Workshop to define the context of I-25 in the community and to capture the concerns, goals, and criteria by which solutions could be developed. Alternatives were then developed and analyzed through a series of screening efforts. Starting with a brainstorming exercise and carefully analyzing, screening, and refining alternatives to create the ideal recommendations for the I-25 corridor through Pueblo.

Problem Statemer
(50Kb Adobe Acrobat Docume

Vison
(38Kb Adobe Acrobat Docume

This effort culminated into a recommended action plan to then be taken further through environmental clearances and design once funding sources are identified. This was and continue to be accomplished through a decision-making process that follows these 5 ste Project Planning and Endorsement; Concerns and Criteria Development; Alternatives Development; Alternatives Analysis; Recommendation. (see The Process for a full description).

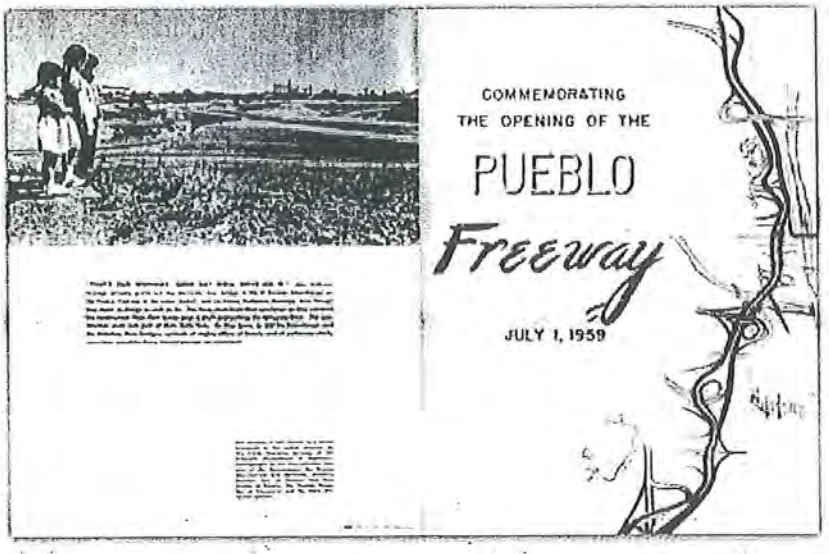
Home | Background | Project Map | Project Team | The Process | Study | Events | Stay Involved | Contacts

Last Update: October 4, 2001
Maintained by CH2M HILL

the New Pueblo Freeway

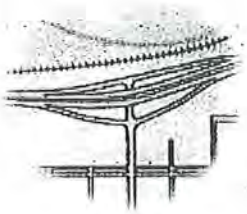
Background

Take A Good Look



Why Does I-25 Need a 'Good Look'?

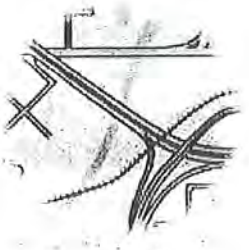
13th Street
Close to river and railroad; Drainage problems; April '99 storm impacted the railroad



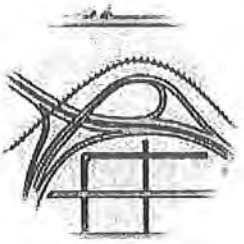
1st Street
Steep ramps; Insufficient merge length; Aging bridge; Landscaping opportunity; Main entrance to downtown; Drainage problems

Ilex
High-accident location; Main access to Runyon complex; Key commercial access; Drainage problems

Arkansas River Crossing
Narrow roadway; Environmental concerns

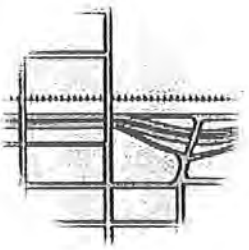


Abriendo



I-25 creates a barrier between neighborhoods; Narrow roadway; Aesthetic opportunity (view of downtown); Gateway to Abriendo area; Water quality concerns in this area; Close proximity to railroad; Lack of pedestrian facilities

Mesa, Northern, Central



Tight curves and narrow roads; Aging bridges; Drainage problems; Confusing street names

Indiana

Uncommon, 3-street interchange; Driver expectations: Speed change, Neighborhood access, Shared frontage road ramp; No pedestrian facilities; Homes close to I-25; Noise levels; Main entrance to steel mill

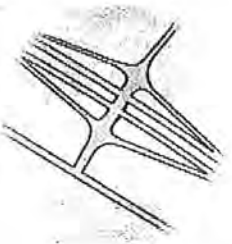
Illinois

Off-ramp directly into neighborhood

Pueblo Boulevard

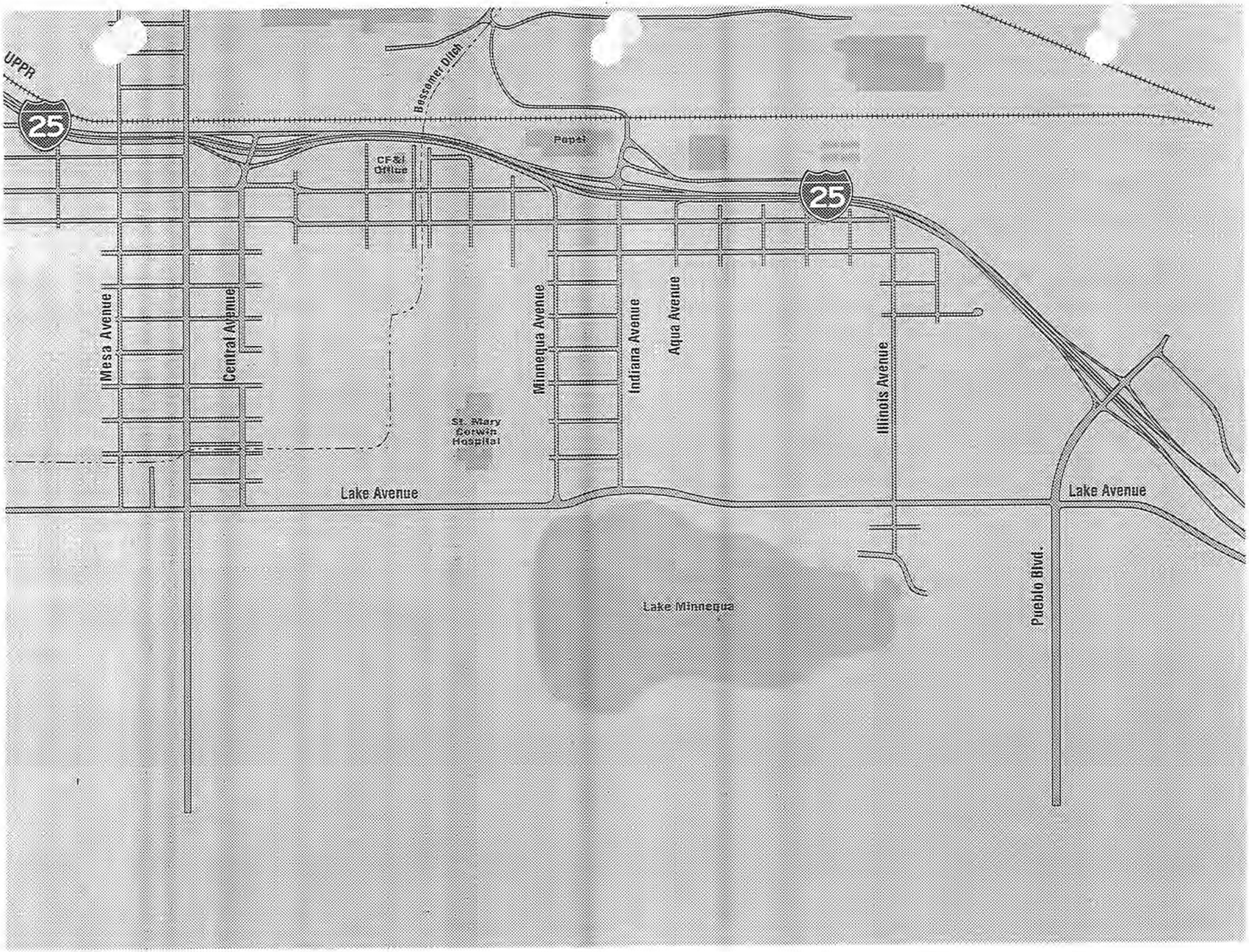
Significant "loop" road Southside development increasing

Stem Beach



Development increasing; Limited sight distance; Drainage problems

Home | Background | Project Map | Project Team | The Process | Study | Events | Stay Involved | Contacts


UPPR
25
Bessemer Ditch
Papet
CF&I Office
25
Mesa Avenue
Central Avenue
Minnequa Avenue
Indiana Avenue
Aqua Avenue
Illinois Avenue
St. Mary Corwin Hospital
Lake Avenue
Lake Avenue
Lake Minnequa
Pueblo Blvd.

the New Pueblo Freeway

Project Team

Project and Technical Leadership Teams

Project Leadership Teams - Technical Leadership Teams (PLT - TLT)
During the first step of the process Leadership Teams were established. Endorsement was given through the signing of an agreement by CDOT, the City of Pueblo and Pueblo County on the decision making process under which the project will op through its completion.

Project Leadership Team (PLT) Roles and Responsibilities
The primary role of the Project Leadership Team (PLT) will be to make policy level recommendations regarding funding, maintenance/ownership responsibilities. Formal decisions may require actions by respective councils a commissions. The PLT will provide guidance, direction, and insights to the consulting team throughout the publi involvement and study process. The PLT will also act in an advisory capacity when providing direction on the pr approach and strategy. The PLT will review project documents and communicate project status, issues, and recommendations to their agencies.

PLT members are:
- Bob Torres, CDOT Region 2
- Tom Wrona, CDOT Region 2
- David Miller, CDOT Region 2
- Loretta Kennedy, Pueblo County Commissioner
- Corinne Koehler, City Council, Pueblo
- Bill Knapp, CH2M HILL
- Ken Conyers, Kirkham Michael Associates

Roles and Responsibilities The roles and responsibilities of the Technical Leadership Team include:
- Guide technical decisions involving data gathering, criteria, and analysis
- Technical review of project reports
- Technical support and insight with respect to agency issues and regulations
- Coordination and communication with their respective agency staff and/or elected officials
- Assistance in developing and screening alternatives

Documents provided for review will identify what input is needed, what impacts the input will have on the projec the schedule, and the time frame requested for response. The input and meeting notes from the Technical Lead Team will be provided to the Project Leadership Team.

Technical Leadership Team (TLT) Roles and Responsibilities
The roles and responsibilities of the Technical Leadership Team include:
- Guide technical decisions involving data gathering, criteria, and analysis

· Technical review of project reports
· Technical support and insight with respect to agency issues and regulations
· Coordination and communication with their respective agency staff and/or elected officials
· Assistance in developing and screening alternatives

Documents provided for review will identify what input is needed, what impacts the input will have on the projec the schedule, and the time frame requested for response. The input and meeting notes from the Technical Leac Team will be provided to the Project Leadership Team.

TLT members consist of representatives from:
· CDOT Region 2 Resident Engineer
· CDOT Region 2 Environmental
· CDOT Region 2 ROW
· CDOT Region 2 Utilities
· CDOT Region 2 Traffic
· CDOT Region 2 Maintenance
· City of Pueblo Transportation
· City of Pueblo Planning
· City of Pueblo Public Works
· City of Pueblo Parks and Recreation
· Pueblo County Public Works
· State Patrol · City Police
· CH2M HILL Consultant Team

 enter web photo gallery

Home | Background | Project Map | Project Team | The Process | Study | Events | Stay Involved | Contacts

the New Pueblo Freeway

The Decision Process

5-Step Decision Making Process

Fundamental to any project is the design and execution of the decision making process, and it's interdependen the public process. The project schedule for public input and technical decisions will be planned around the 5-st process described below.

Step 1: Project Planning and Endorsement.

The first element of Step 1 is to establish the Leadership Teams, and gain endorsement by those Teams on the decision making process under which the project will operate through its completion. The key is to gain the endorsement of this process by CDOT, the City of Pueblo, and Pueblo County. This step begins with an endors meeting of the Leadership Teams and then an open house announcing the project and the process to the comn

Step 2: Concerns and Criteria Development.

The goal of this step is to gain a better understanding of all Stakeholders concerns about the current interstate within the project area. Through meetings with the Project Leadership Team, the Technical Leadership Team, a various Stakeholder meetings, these concerns will then be used to develop the evaluation criteria. These criteri be applied to each alternative to measure how well an alternative meets the stated project goals.

Step 3: Alternatives Development.

This step develops alternatives that will be analyzed in Step 4. These alternatives are gathered in Leadership T meetings and in various Stakeholder meetings.

Step 4: Alternatives Analysis.
Steps 3 and 4 are iterative as alternatives are developed and analyzed. The criteria developed in Step 2 are us measure how well each alternative meets the goals set by the project. Each alternative and its analysis are revi Leadership meetings as well as with Stakeholders.

Step 5: Recommendation.
Based on the results from previous steps, a strategy will be developed for the corridor. The strategy will include major transportation elements needed, mitigation, and enhancements that are desired, and guidelines for implementation.

Last Update: February 14, 2002
Maintained by CH2M HILL

the New Pueblo Freeway

Problem Statement
(50Kb Adobe Acrobat Document)

Vison
(38Kb Adobe Acrobat Document)

Study Process Flow Chart
(120Kb Adobe Acrobat Document)

Summary of Concerns
(256Kb Adobe Acrobat Document)

Summary of Input
(268Kb Adobe Acrobat Document)

Ideas Level 1
(398Kb Adobe Acrobat Document)

Concepts Level 2
(113Kb Adobe Acrobat Document)

Level 3 Corridor
(2,773Kb Adobe Acrobat Document)

Level 3 Interchanges
(102Kb Adobe Acrobat Document)

CORRIDOR recommendations

INTERCHANGE concepts

Transportation Fact Sheets
CLICK HERE

The Study

Communication, Leadership, and Support

The primary role of Stakeholders has been to provide critical local informa goals, and values. Stakeholders have been meeting in various formats. Ea these offer an opportunity for stakeholders to interact with project teams affect the recommendation. Stakeholders are expected to share project information with their neighbors or groups they represent to gather feedb the project. Community Leadership and Support is an ongoing process of and individual meetings with community leaders to maintain a flow of information. A two-way communication first to the community about the p progress and then input from the community to the project. This commun has been facilitated by the inclusion of community leaders on the Project Leadership Team.

Community Working Group

Work sessions were held to bring stakeholders together to discover their common goals and priorities relating to transportation issues along I-25 t Pueblo. Each Community Working Group (CWG) meeting was conducted ir facilitated, yet informal small group. The groups met bimonthly to work th the 5 step decision-making process; brainstorming ideas and screening cr to arrive at a recommendation for improvements to I-25 through Pueblo.

enter web photo gallery

Much more to be done...

The next steps include the refinement of the interchange concepts with de about the right-of-way that will be needed, how driveways may need to cl if properties have to be purchased or can they be improved to accommod interchange, and how we can refine the concept to lessen the impacts. Du the refinement of the interchange concepts, meetings will be held with neighborhoods and businesses directly effected by I-25 improvements.

The engineers and planners will also be finalizing the environmental revie analysis and the environmental document. The work will review historic resources, wetlands, parks, neighborhoods that have been impacted previ air and water quality, as well as noise impacts. These issues will be discus with the neighbors as information become available.

Your input will continue to be important to the outcome of the plan. Pleas for newspaper announcements, invitations to neighborhood meetings and if you can.

Home | Background | Project Map | Project Team | The Process | Study | Events | Stay Involved | Contacts

Last Update: February 14, 2002
Maintained by CH2M HILL

the New Pueblo Freeway

Events

Overview

The Colorado Department of Transportation (CDOT) is sponsoring the study and redesign of Interstate 25 through Pueblo. The study has utilized an open commun process to develop a plan for the New Pueblo Freeway that respects the traditions trends of the Pueblo community. Through a series of open houses, workshops anc regular Community Working Group meetings, the voice of the people of Pueblo ha and will continue to be heard. Numerous alternatives for the redesign of the New Freeway were generated, analyzed and screened, which will result in a final recommended action plan for rebuilding Interstate 25 through Pueblo.

Open House Events back to top

Open House May 24, 2001
Thousands of people have offered their ideas, their concerns, and their goals for t New Pueblo Freeway. The community and civic leaders gathered together on May 2001 to view the outcome of the decision-process for identification of the I-25 Recommended Corridor, and to jump start the next steps of identifying interchan locations and the network streets that best support traffic flow in Pueblo.

Open House July 6, 2000
The community and civic leaders gathered together on July 6. 2000 to discuss ide how I-25 serves Pueblo's current needs, where the shortfalls of the freeway are, a what they saw as the future needs of the interstate. Input was gathered and reco for use during the study.

Open House Comments
(119Kb Adobe Acrobat Document)

Open House August 15, 2001
The community and civic leaders gathered together on August 15, 2001 to review outcome of the decision-process and to discuss I-25 interchange concepts. The di that occurred will help with the next step of detailed interchange design.

enter web photo gallery

Workshops t t back to top

Public Workshop August 12, 2000

A large Workshop was held August 12, 2000 at the Pueblo Convention Center to bring the community together and learn about the project and study process. The community was invite discuss concerns, ideas, and insights, as well as to begin to understand what I-25 does today the role it should play in the future. Attendance included approximately 70 from the communit along with approximately 20 project, city, county, and CDOT staff. A Community Information F was conducted prior to the start of the work sessions which displayed a history of I-25, the prc and process, and a provided mechanism for public comment. Following introduction of the prc team and clarification of their roles, a brief presentation was given about the project and proce The workshop participants broke into groups to discuss and list their concerns, ideas, and ins The large group reconvened and discussed their common "Vision" for the project.

Notes From Workshop
(208Kb Adobe Acrobat Document)





Workshop June 16, 2001

A workshop was held on June 16, 2001 at the Pueblo Convention Center to discus the community ideal interchange locations, spacing, and design. The community reviewed several different interchange approaches to help determine where the b interchange locations on I-25 would be to best serve the transportation needs of I The workshop participants broke into smaller groups to discuss the pros and cons each interchange approach. The large group reconvened and a brief summary of v each smaller group talked about was presented.

Workshop July 28, 2001

A workshop was held on July 28, 2001 at the Pueblo Convention Center to discuss the community I-25 Interchange Concepts. The community reviewed several diffe interchange concepts. The workshop participants broke into smaller groups to dis impacts and benefits of each interchange concept. The large group reconvened ar brief summary of what each smaller group talked about was presented.

Community Working Groups (CWG)

back to top

An ongoing series of two-hour work sessions were held with the community. Thes Community Working Groups allowed for discussion of specific issues and the development of criteria by which decisions would be made. Using these criteria, alternatives were developed to create ideal recommendations for the I-25 corrido

State Fair t t back to top

2000 Colorado State Fair
At the 2000 Colorado State Fair, the Colorado Department of Transportation and the Pueblo secured a booth displaying a large map of the project corridor. Patrons of the stopped to see the corridor up close and discuss their ideas, insight, and concerns w project staff and engineers. All input was gathered and recorded for use during the s

 enter web photo gallery

2001 Colorado State Fair
The Colorado Department of Transportation returned to the Colorado State Fair tc showcase the project's progress. A large map of the project corridor with the proj interchange layouts was on display for fair visitors to stop by and see. Project sta engineers were on hand to answer questions and address concerns.

Additional Outreach back to top

Project team members gave numerous presentations at meetings of service grou high schools and other organizations. Comments and concerns were collected and attendees were encouraged to join the Community Work Groups for further involvement. As the project continues to move forward, neighborhood meetings w held with neighborhoods and businesses impacted by I-25 improvements.

Home | Background | Project Map | Project Team | The Process | Study | Events | Stay Involved | Contacts

Last Update: February 14, 2002
Maintained by CH2M HILL

the New Pueblo Freeway

Stay Involved

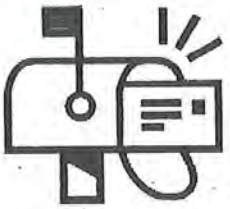
the New Pueblo Freeway

How to Get More Information

Project Web Site

www.i25pueblo.com

Project Hotline 549-0501



mail comments to . . .

New Pueblo Freeway
P.O. Box 536
Pueblo, CO 81002

Contacts		
David Miller	CDOT Project Manager	719.546-5404
Bill Knapp	CH2M HILL Project Manager	719.633-8805
Glenn Ballantyne	Public Relations	719.232-3387
Loretta Kennedy	Pueblo County Commissioner	719.583.6535
Randy Thurston	Pueblo City Council	

Home | Background | Project Map | Project Team | The Process | Study | Events | Stay Involved | Contacts

Last Update: February 20, 2002
Maintained by CH2M HILL

the New Pueblo Freeway

Contacts

Project Hotline: (719) 549-0501
E-mail Address: pueblo@ch2m.com

David Miller	**CDOT Project Manager**	(719) 546-5404
Bill Knapp	**CH2M HILL Project Manager**	(719) 633-8805
Glenn Ballantyne	**Public Relations**	(719) 232-3387
Loretta Kennedy	**Public County Commissioner**	(719) 583-6535
Randy Thurston	**Pueblo City Council**	

Home | Background | Project Map | Project Team | The Process | Study | Events | Stay Involved | Contacts

Last Update: February 20, 2002
Maintained by CH2M HILL