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

Prepared for

**Colorado Department of Transportation**

Prepared by

CH2MHILL

May 2002

\\JAGUAR\DP\DEN PUBLICATIONS\TRANSPORTATION\I25PUEBLOREPORT T032002001DEN

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# 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.

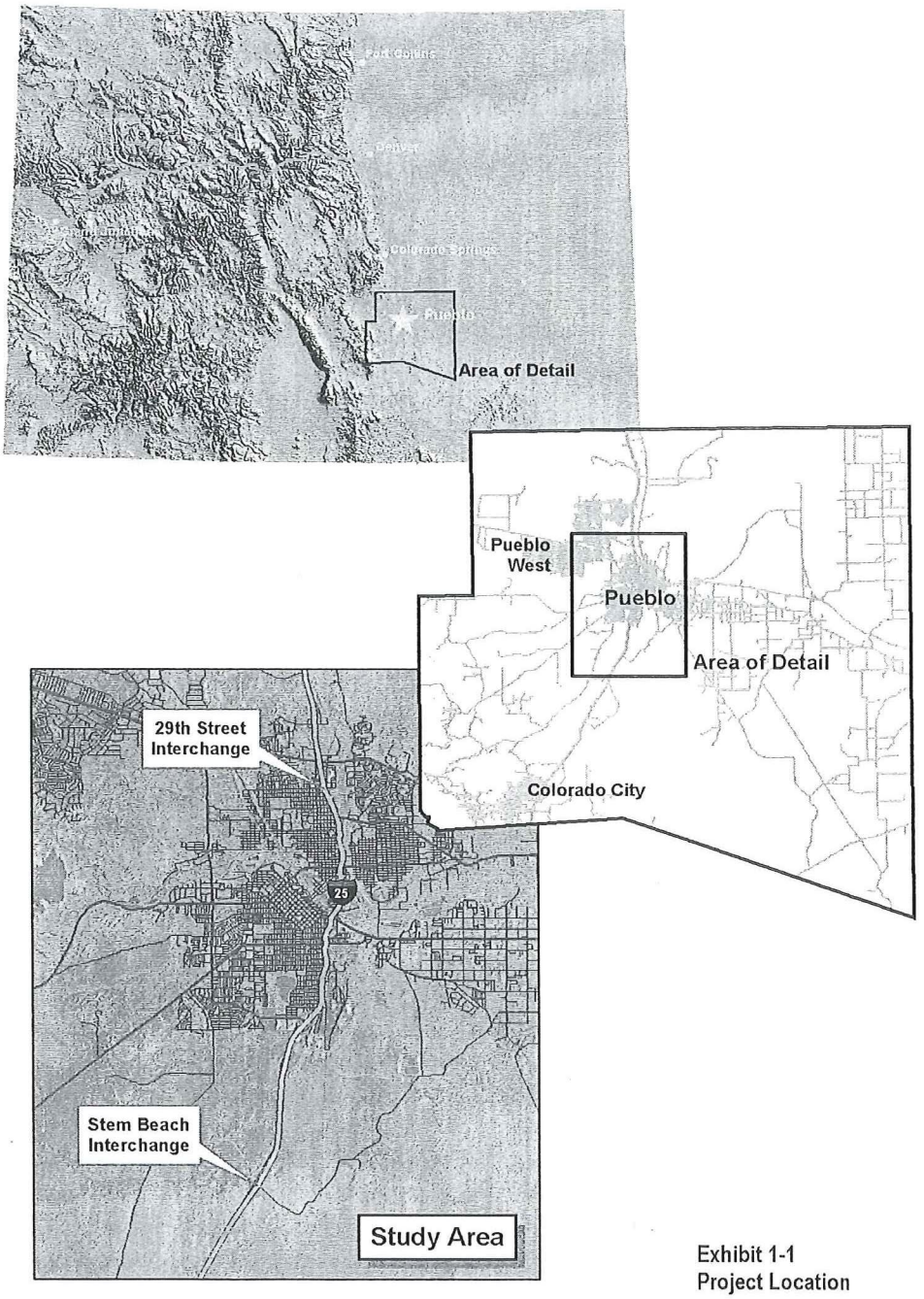



Exhibit 1-1
Project Location

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.

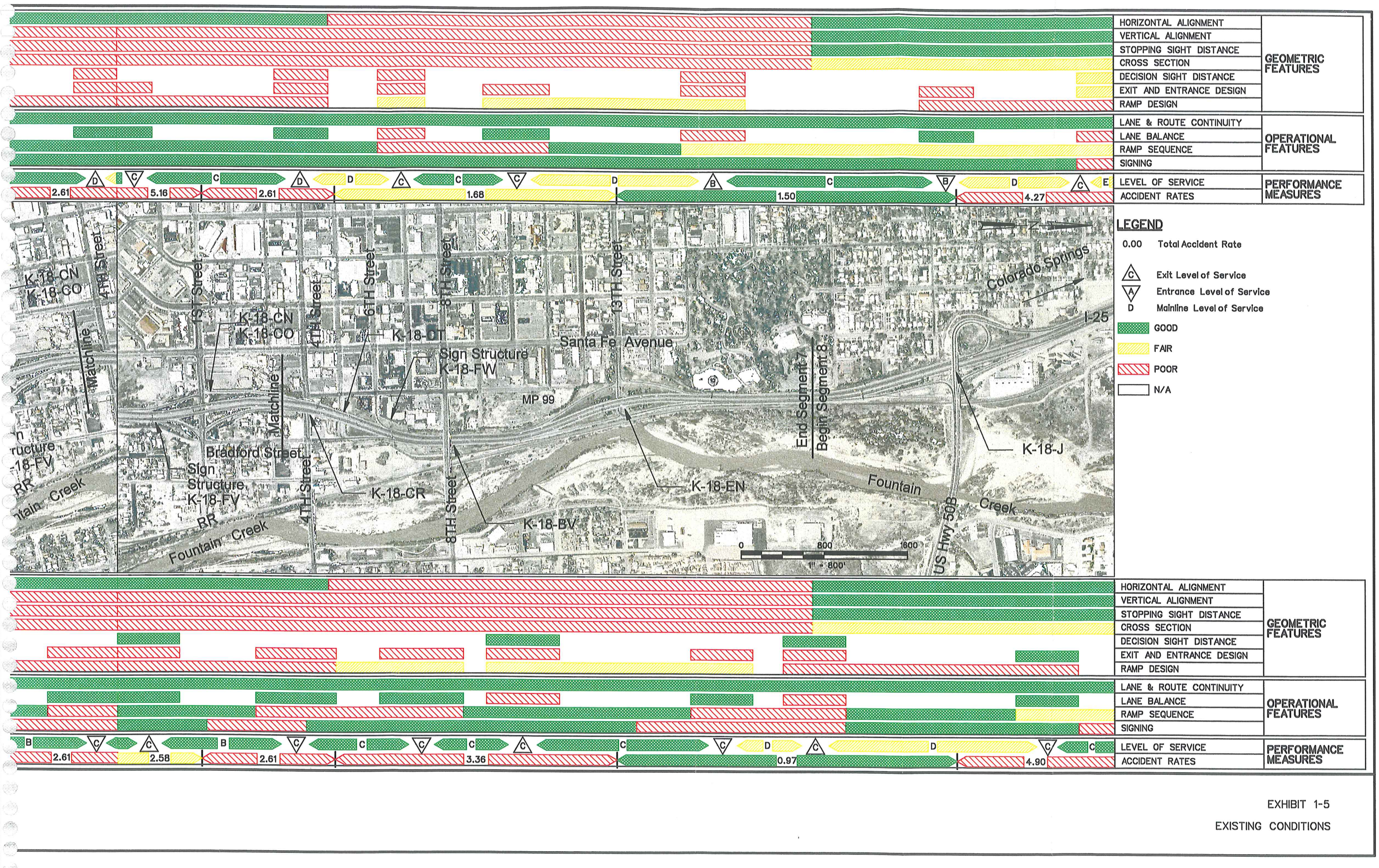
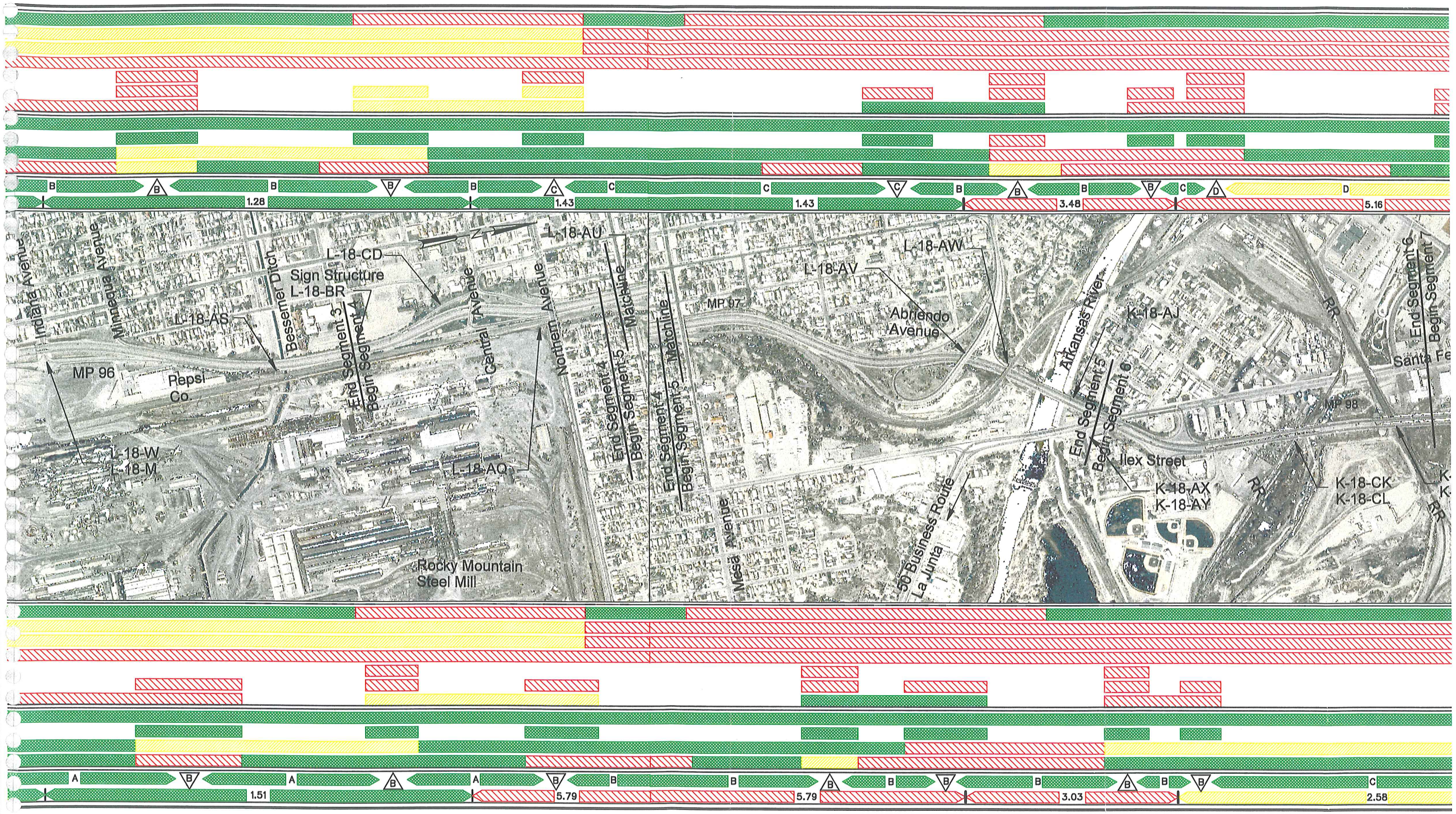



EXHIBIT 1-5

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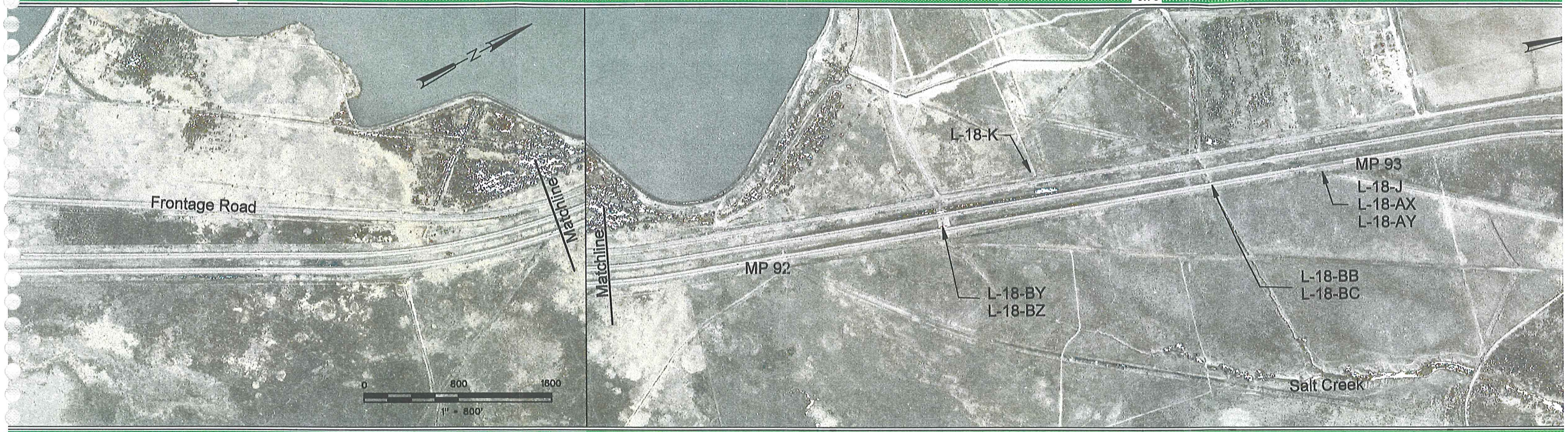


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Frontage Road
I-25
Matchline
MP 94
Sign Structure
L-18-CF
Pueblo City Limits
End Segment 1
Begin Segment 2
Pueblo Boulevard
Illinois Avenue
MP 95
Matchline
L-18-BA
Tailings
Matchline
Illinois Avenue
69kV
West Plains Energy
Free Mary Substation
End Segment 2
Begin Segment 3
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| 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

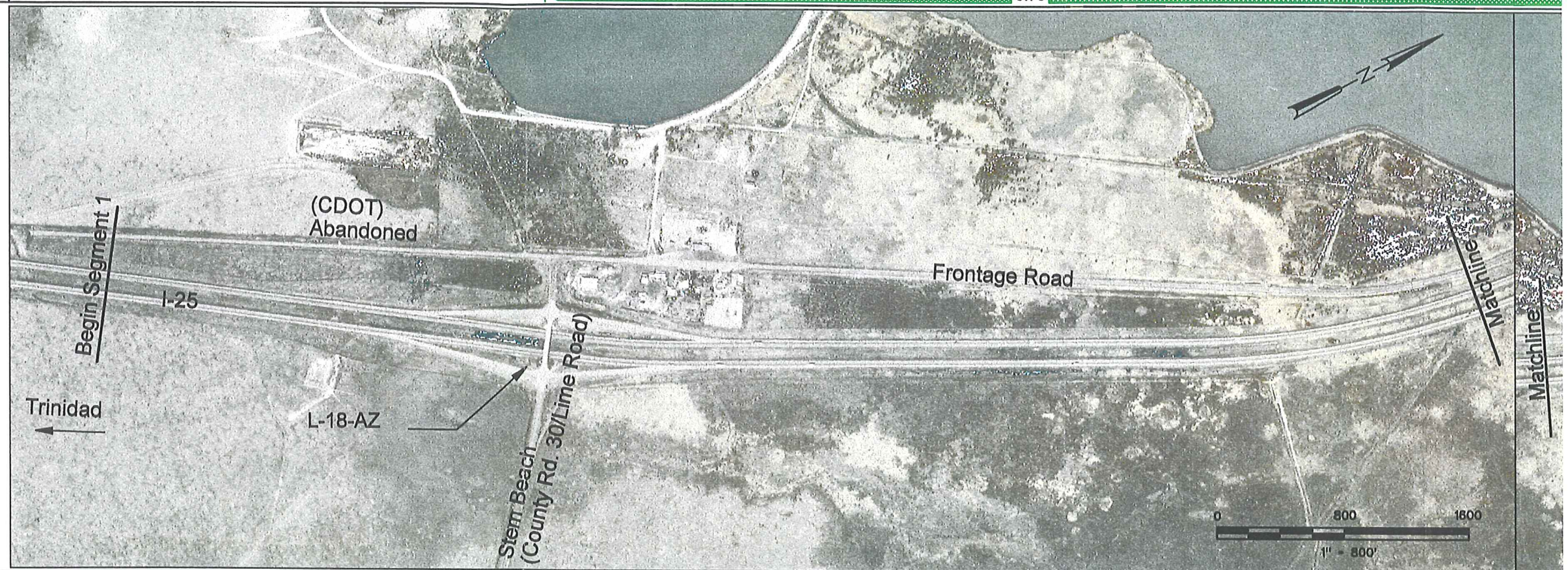
D Mainline Level of Service

GOOD

FAIR

POOR

N/A




| | |
|---|---|
| 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

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.

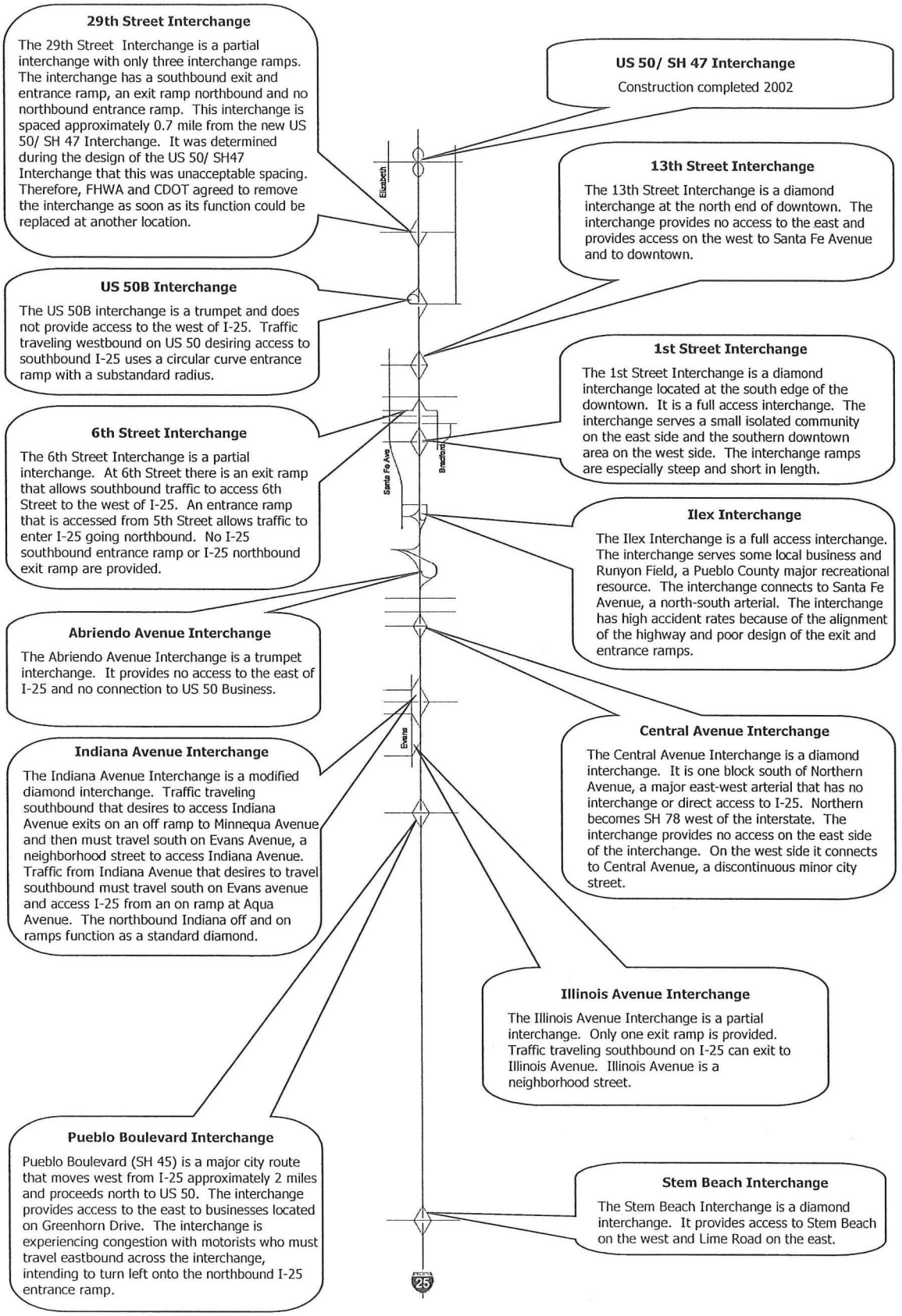



**EXHIBIT 1-6**
Existing Interchange Layout

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.

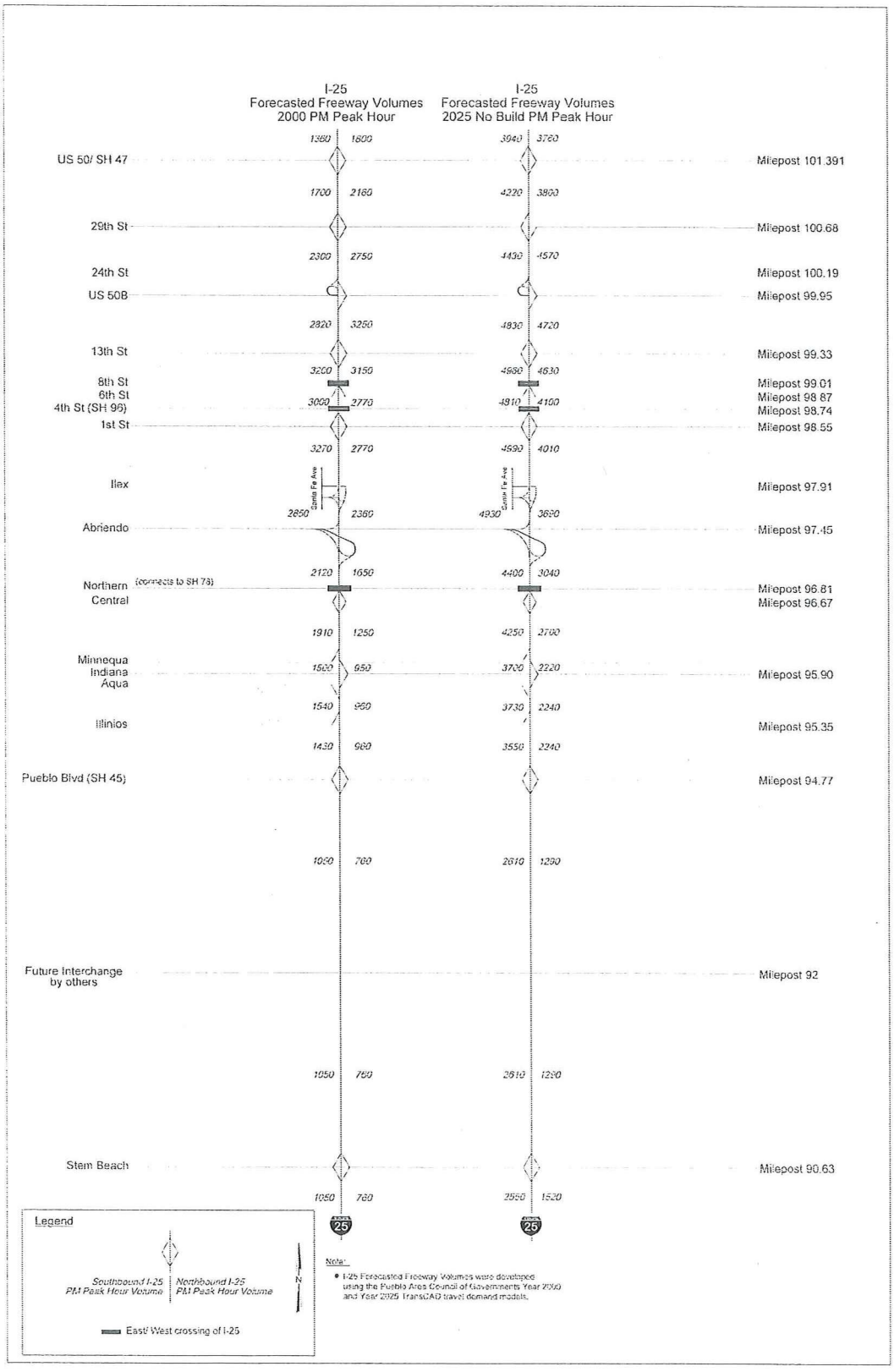



**EXHIBIT 1-7**
Traffic Data

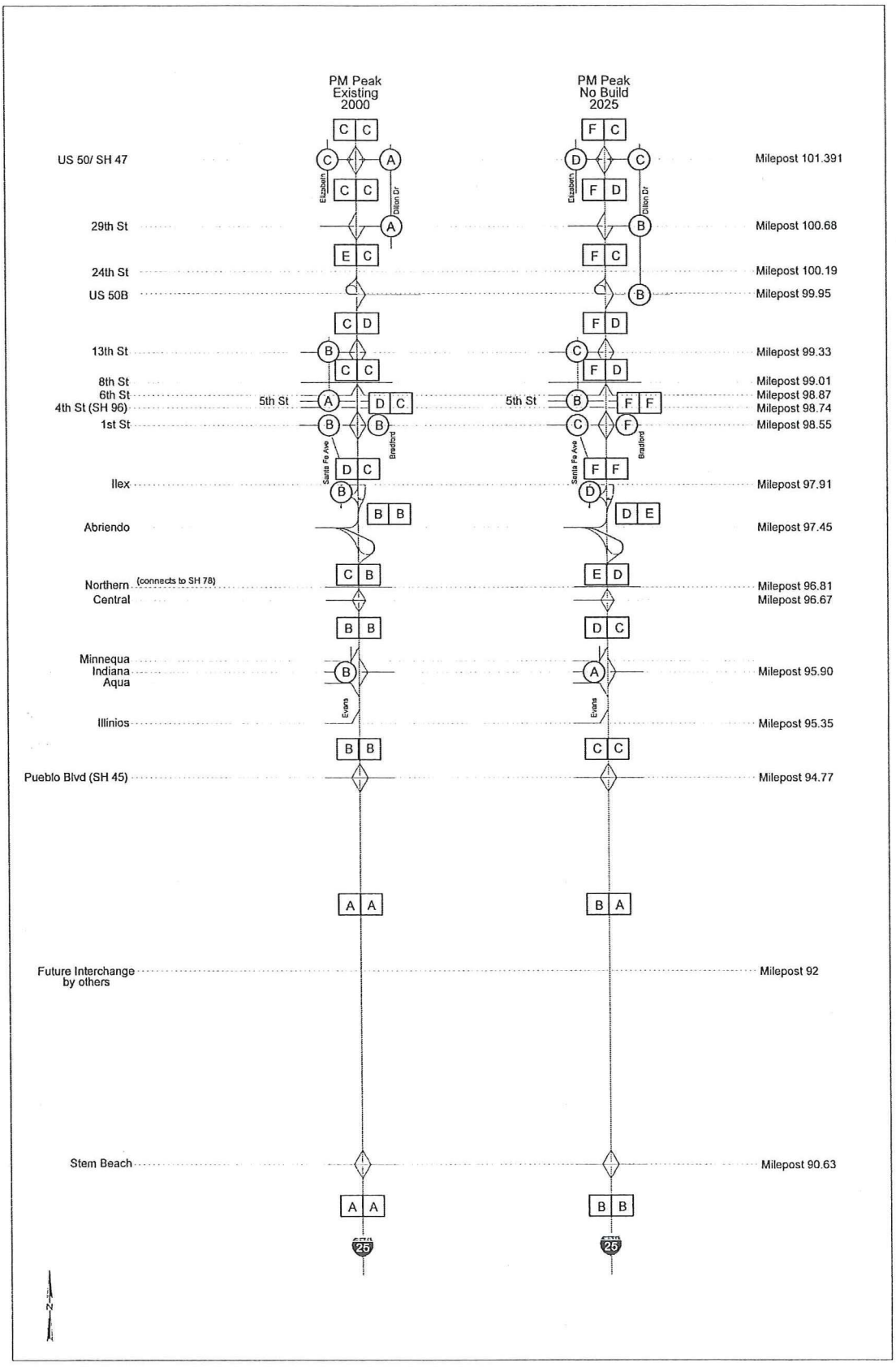



**EXHIBIT 1-8**
Level of Service

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.

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[1] Title 23 Code of Federal Regulations.

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

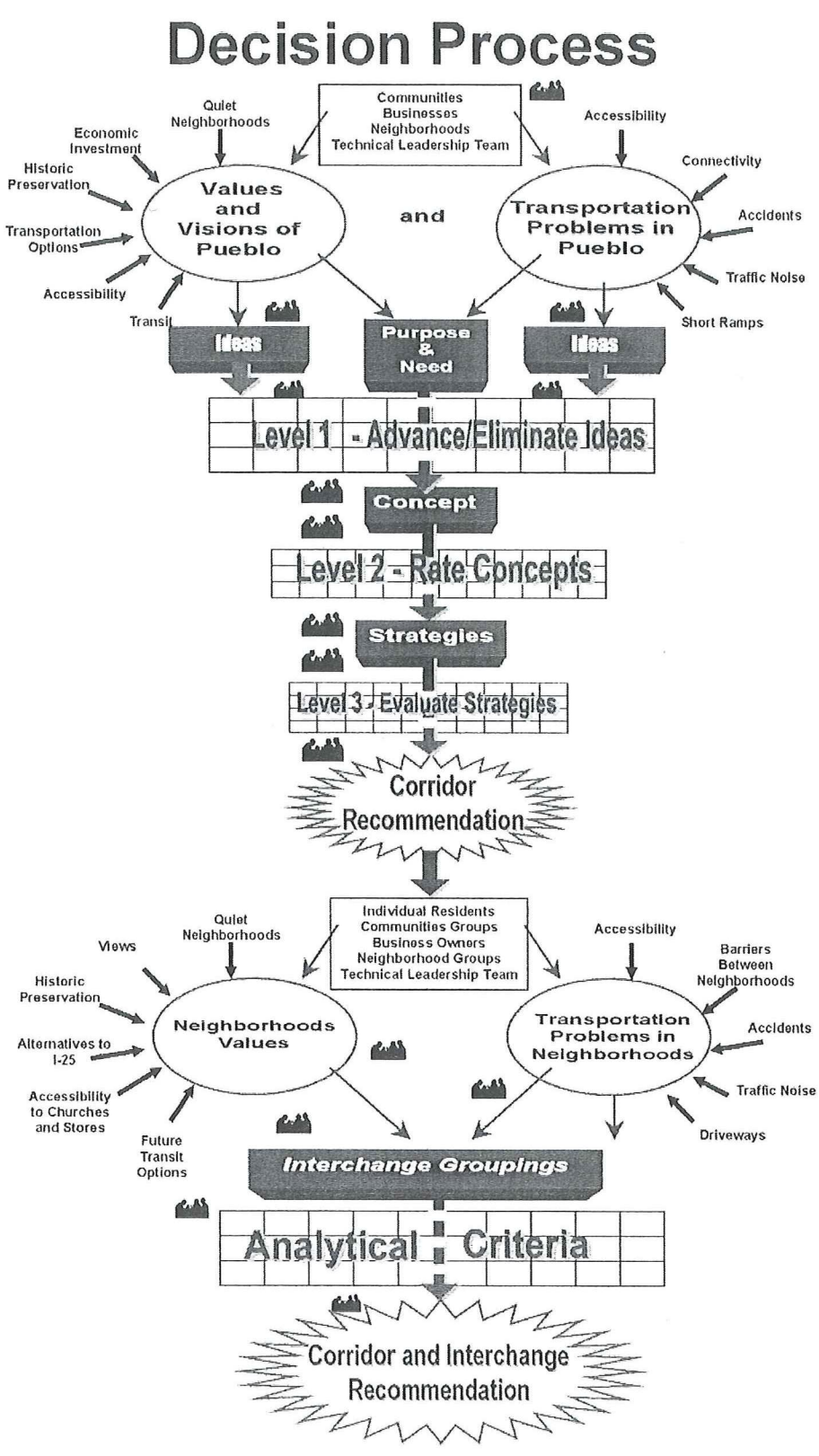



**EXHIBIT 2-1**
Decision Process

## 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 | Yes* | | | | | Major Concepts Advance to Level 2 |
| 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 | *All questions were answered "Yes" in every criteria category for each of these ideas. | | | | | |
| Four lanes on I-25 (two in each direction) and bring existing up to design standards | | | | | | |
| Bypass around Pueblo with limited access | | | | | | |

**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. |
| **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

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)

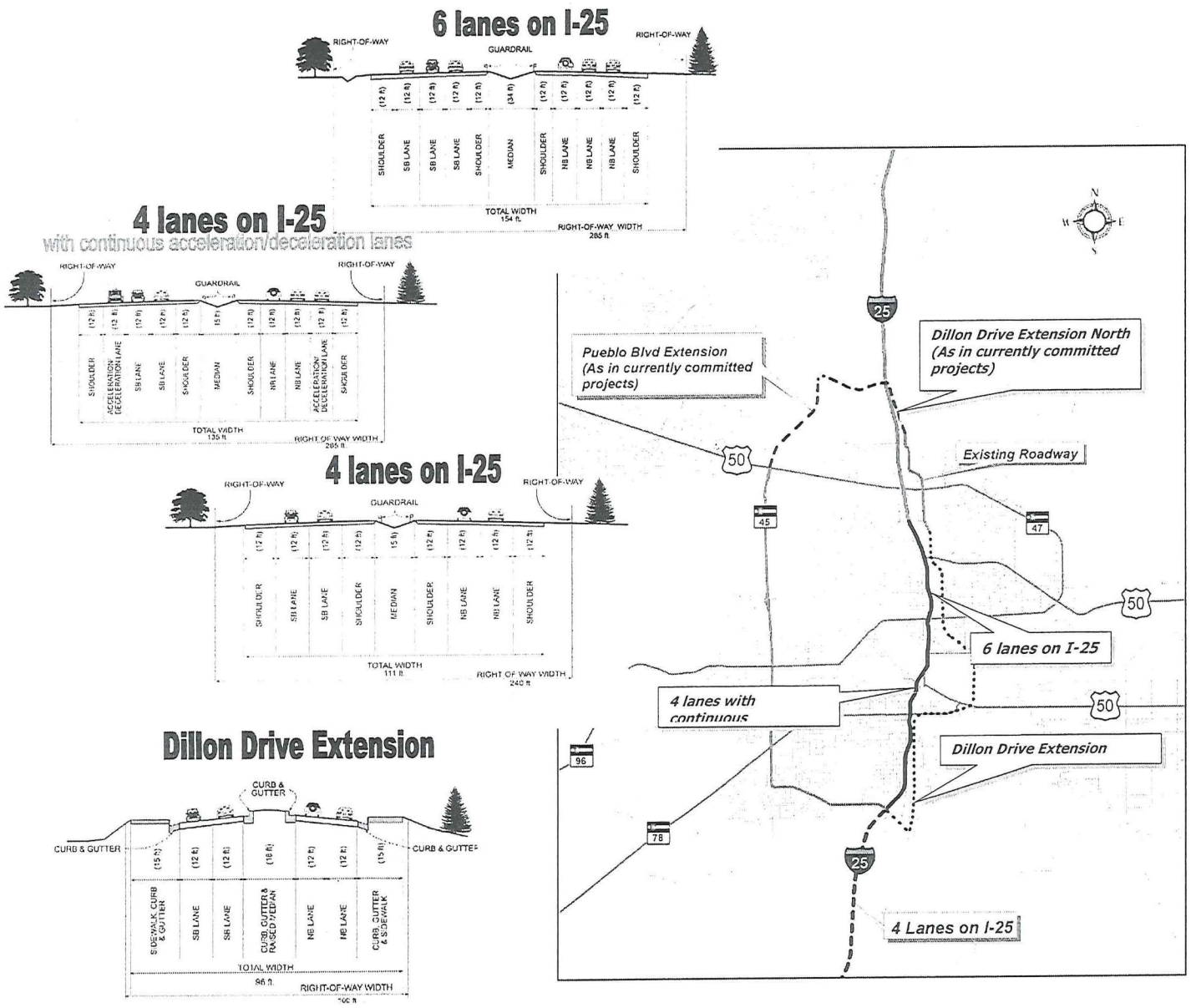



EXHIBIT 2-6
Corridor Recommendations

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.

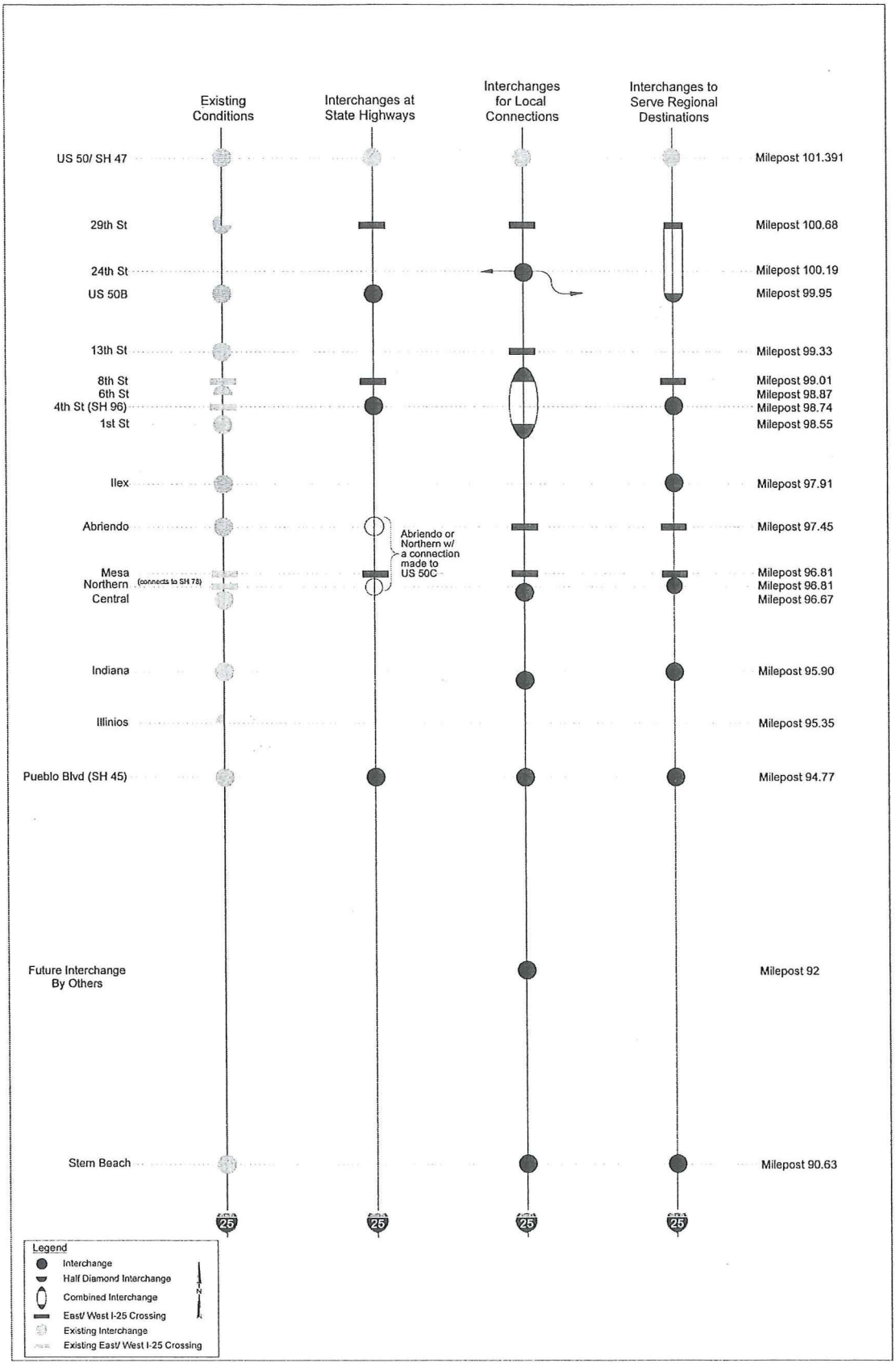



**EXHIBIT 2-7**
Interchange Groupings

### 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.

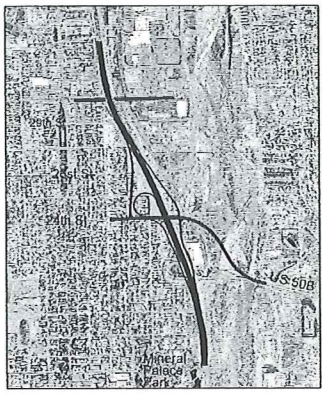
- Improved Trumpet Interchange with connection to SH 50B. This alternative provides the same interstate access on SH 50B as the existing interchange but expands the existing SH 50B interchange configuration to provide improved turning curve radii and improved interstate acceleration, deceleration lanes, 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.

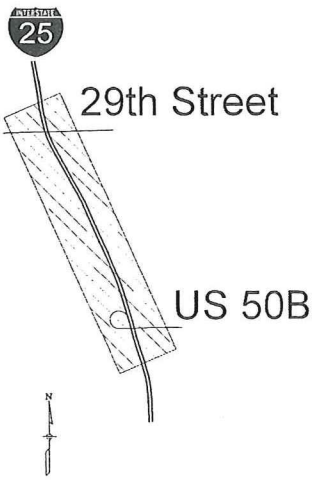
Half Diamond at 29th St Overpass at US 50B

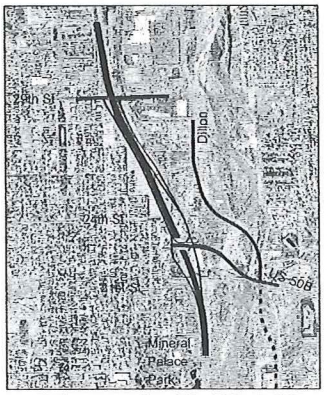
Improved Trumpet Interchange with connection to US 50B

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.

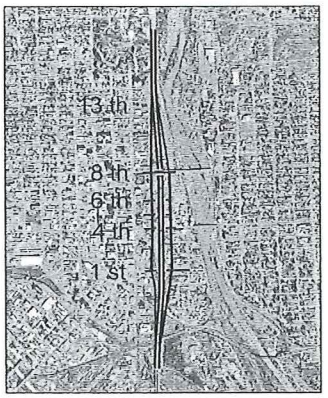
### Downtown

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.

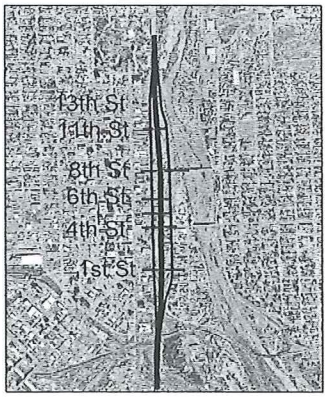
- 8th Street through 1st Street Split Diamond. This interchange alternative provides a separation between the ramps at 8th Street and the ramps to the interstate at 1st Street. The separation allows one-way frontage roads to disburse traffic to desired locations, while connecting both the north and south 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.

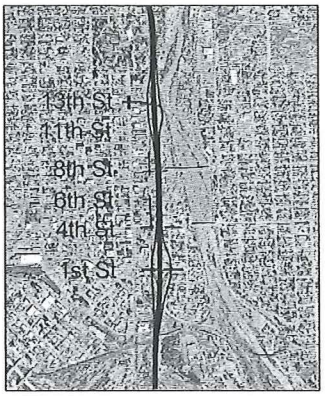
- 1st Street Diamond and 13th Street Diamond. This alternative provides two full diamond interchanges for the Downtown area. Access to the Downtown area and major connecting streets would need to filter through a network with discontinuities. This alternative was eliminated because it did not disburse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



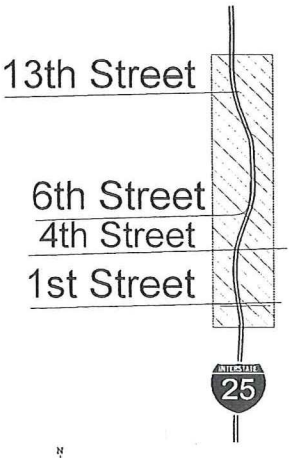

8th/1st Split Diamond




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.

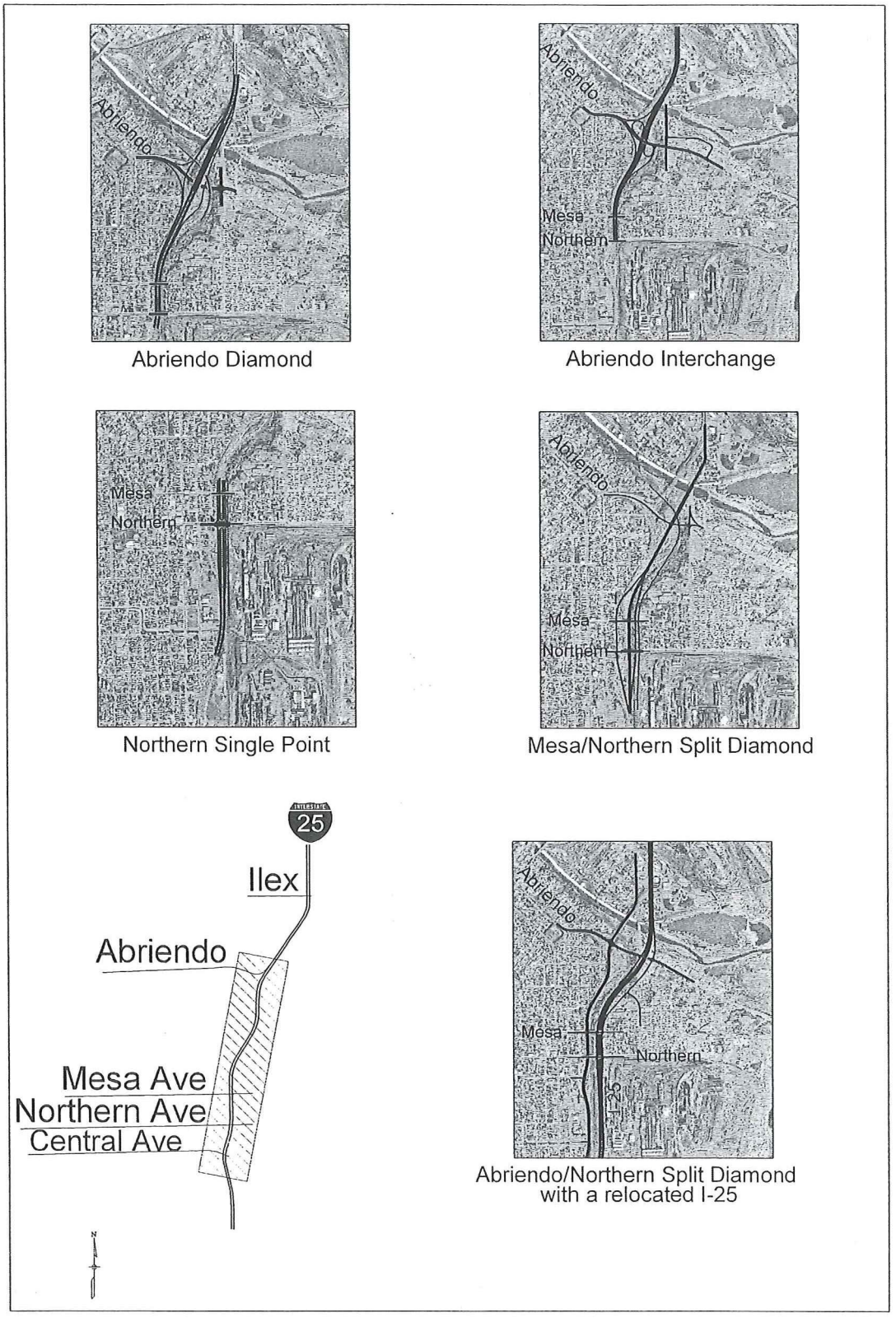



**EXHIBIT 2-10**
Abriendo Avenue to Northern Avenue – Interchange Alternatives

### 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

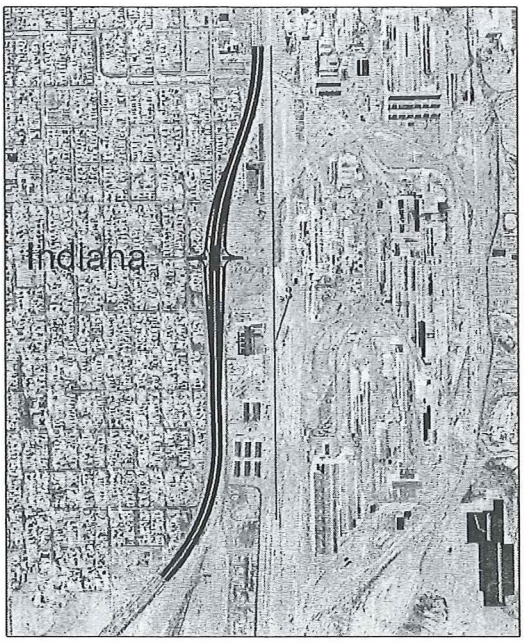
- Indiana Single Point with a relocated I-25. This alternative differs in that the roadway, and therefore the single point interchange at Indiana Avenue, would be relocated east of the existing I-25 and the residential neighborhood. It was chosen because it was consistent with the relocation of I-25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

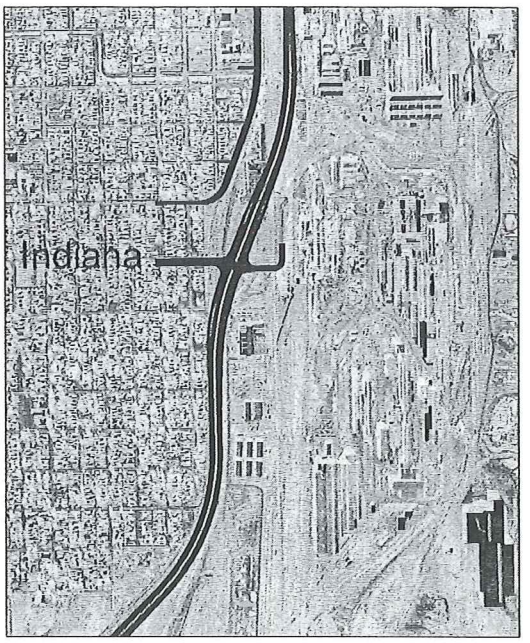
### Pueblo Boulevard Interchange

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.

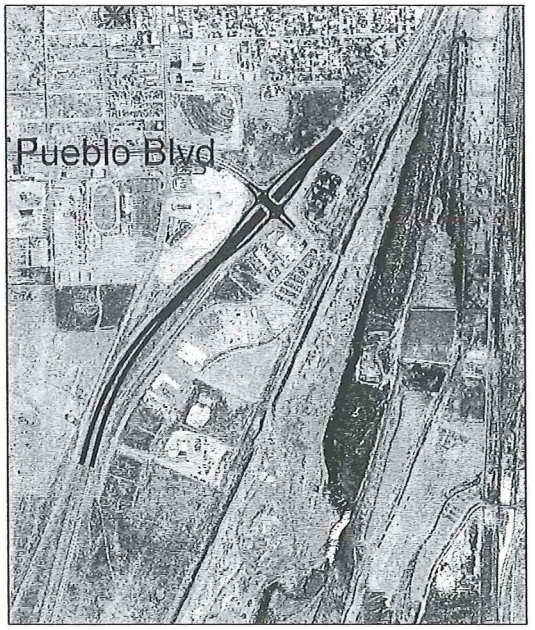



Indiana Single Point

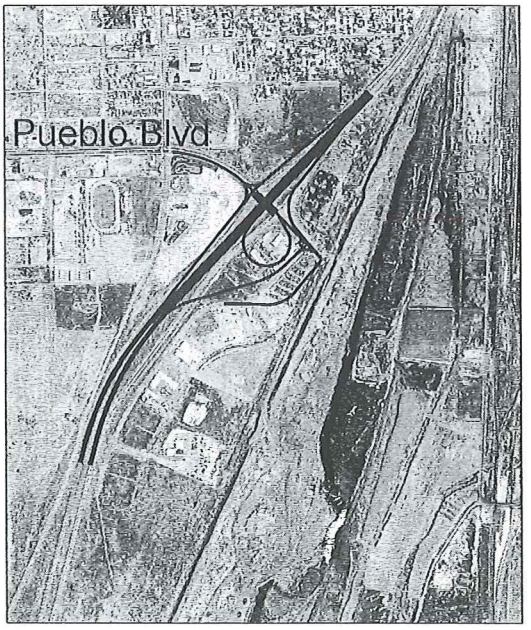



Indiana Single Point
with a relocated I-25

**EXHIBIT 2-11**
Indiana Avenue – Interchange Alternatives




Pueblo Blvd Single Point




Pueblo Blvd Partial Cloverleaf

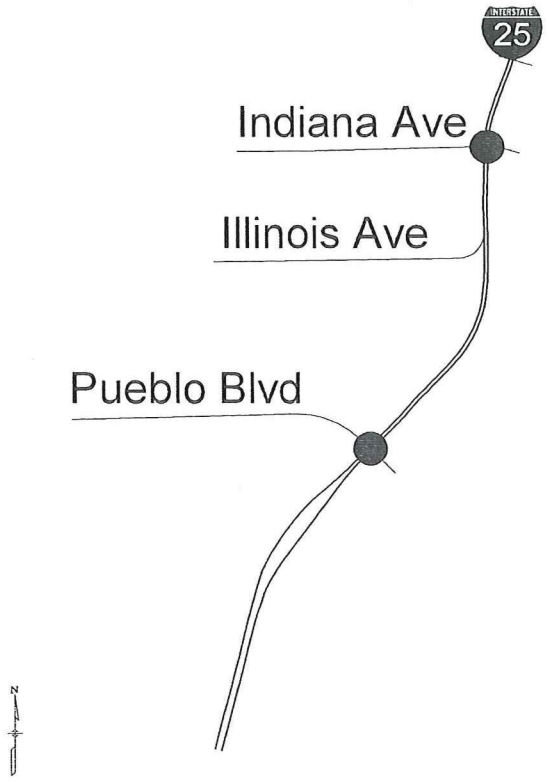



**EXHIBIT 2-12**
Pueblo Boulevard – Interchange Alternatives

### Recommended Interchange Alternative

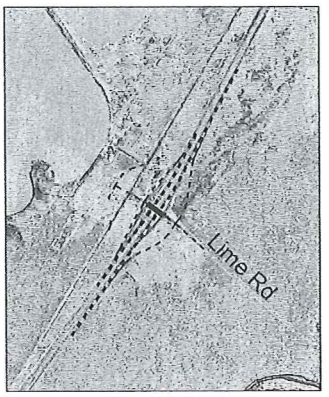
- Pueblo Boulevard Partial Cloverleaf. This interchange alternative utilizes a circular ramp referred to as a cloverleaf to eliminate the need for a left-turn for those motorists traveling to the west with the intention to proceed north on I-25. The ramp in the northeast quadrant will avoid the existing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

### Future Diamond Interchange Recommendations

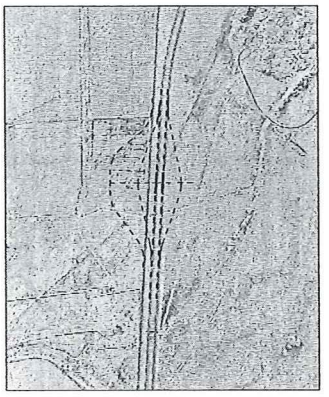
It has been determined that if an interchange becomes necessary in the future, this location, approximately midway between Stem Beach Interchange and Pueblo Interchange, would provide adequate spacing. This would comply with the 2-mile spacing requirement in either direction.

### 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

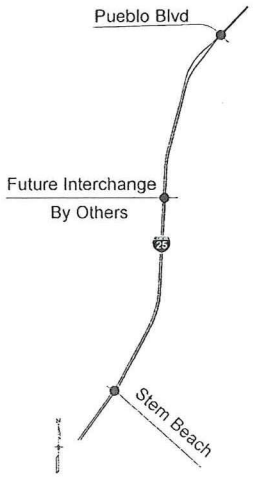



**EXHIBIT 2-13**
Future and Stem Beach – Interchange Alternatives

## 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:

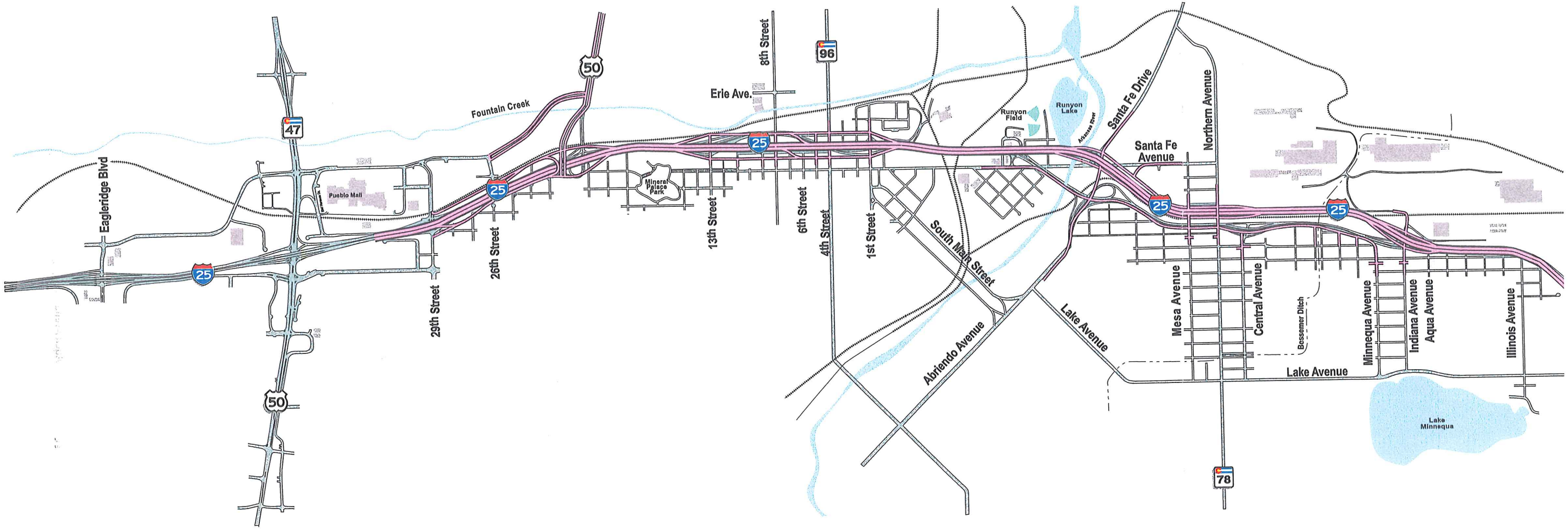
- Extending Dillon Drive south from 26th Street to SH 50B provides an option for local trips to reach downtown destinations without using the interstate.
- Abriendo Avenue and Santa Fe Drive (SH 50C) will be connected by a crossing of the interstate.
- Shifting the I-25 alignment to the east will leave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

ISSUE: A2, AC

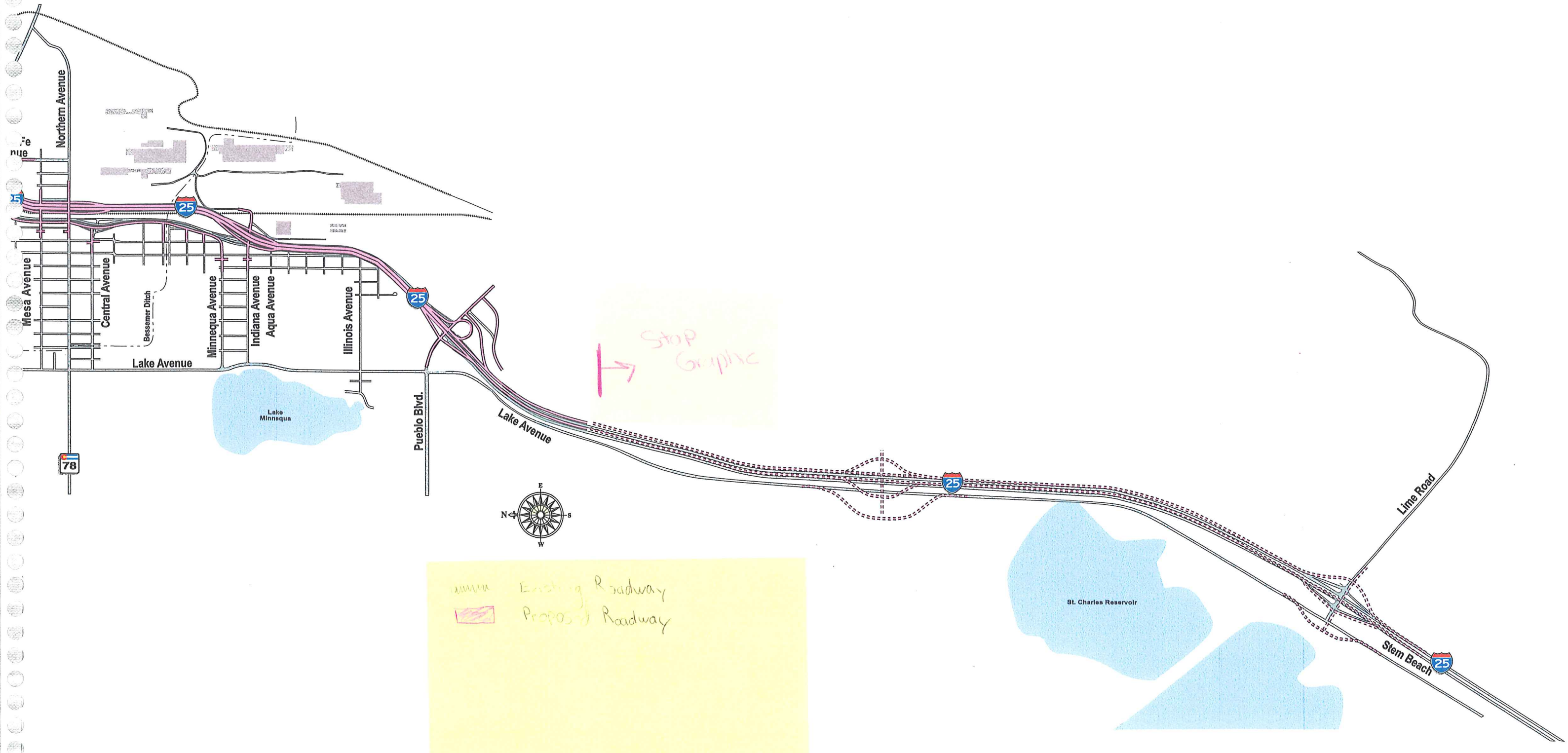



**Exhibit 2-**
Recommended Pl

- 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

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

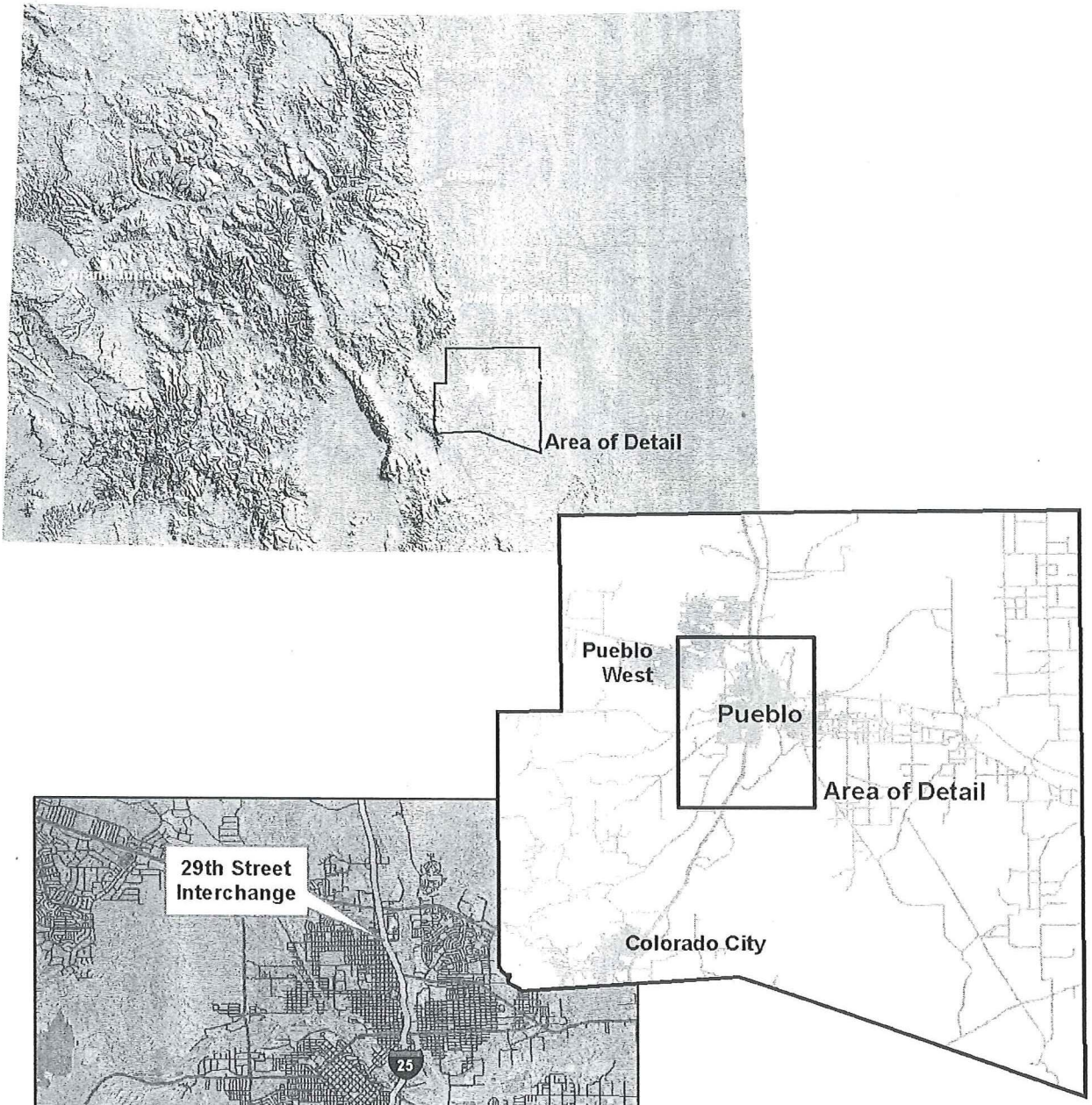



Exhibit 1-1
Project Location

# Decision Process

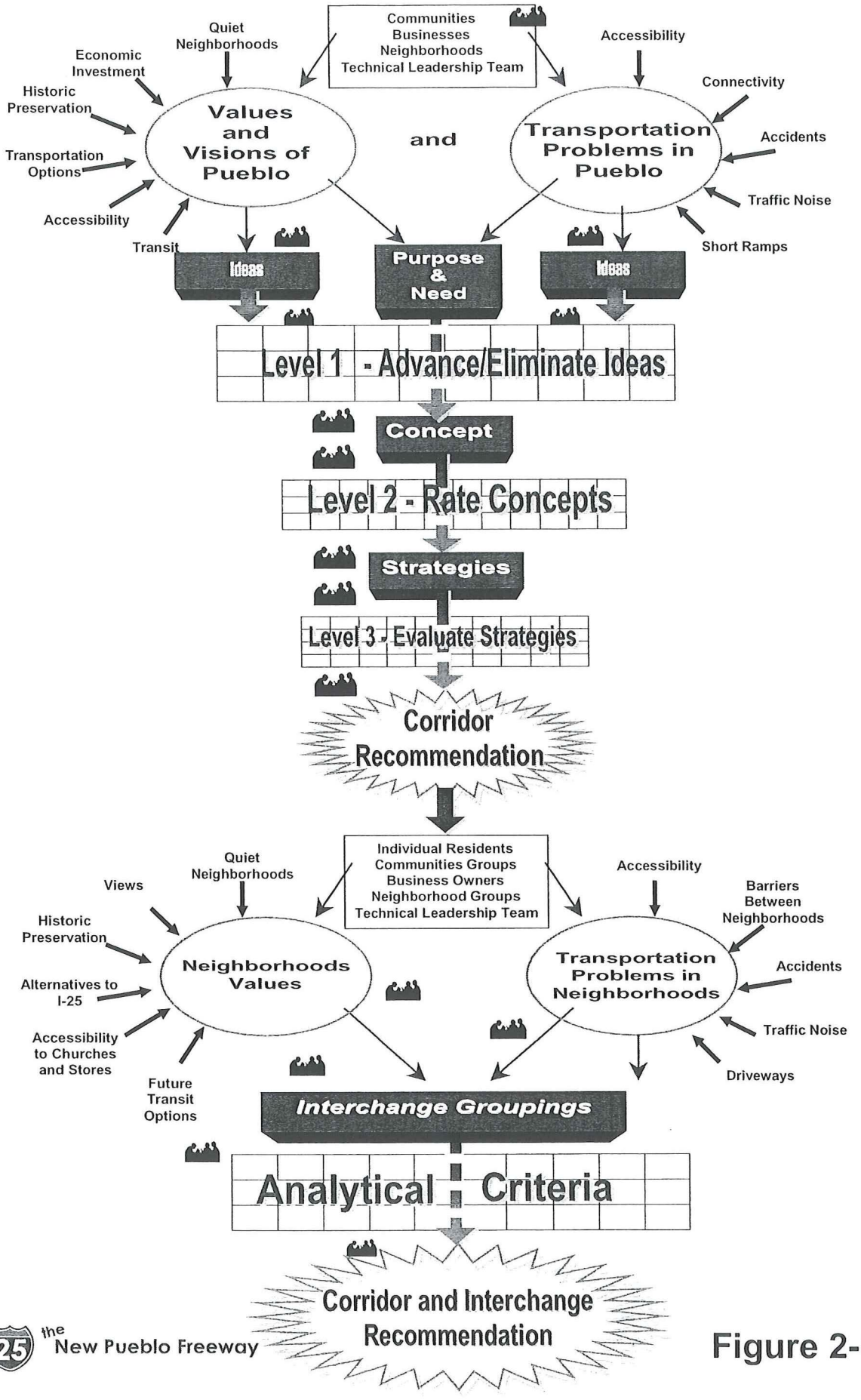





Figure 2-1

# *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.

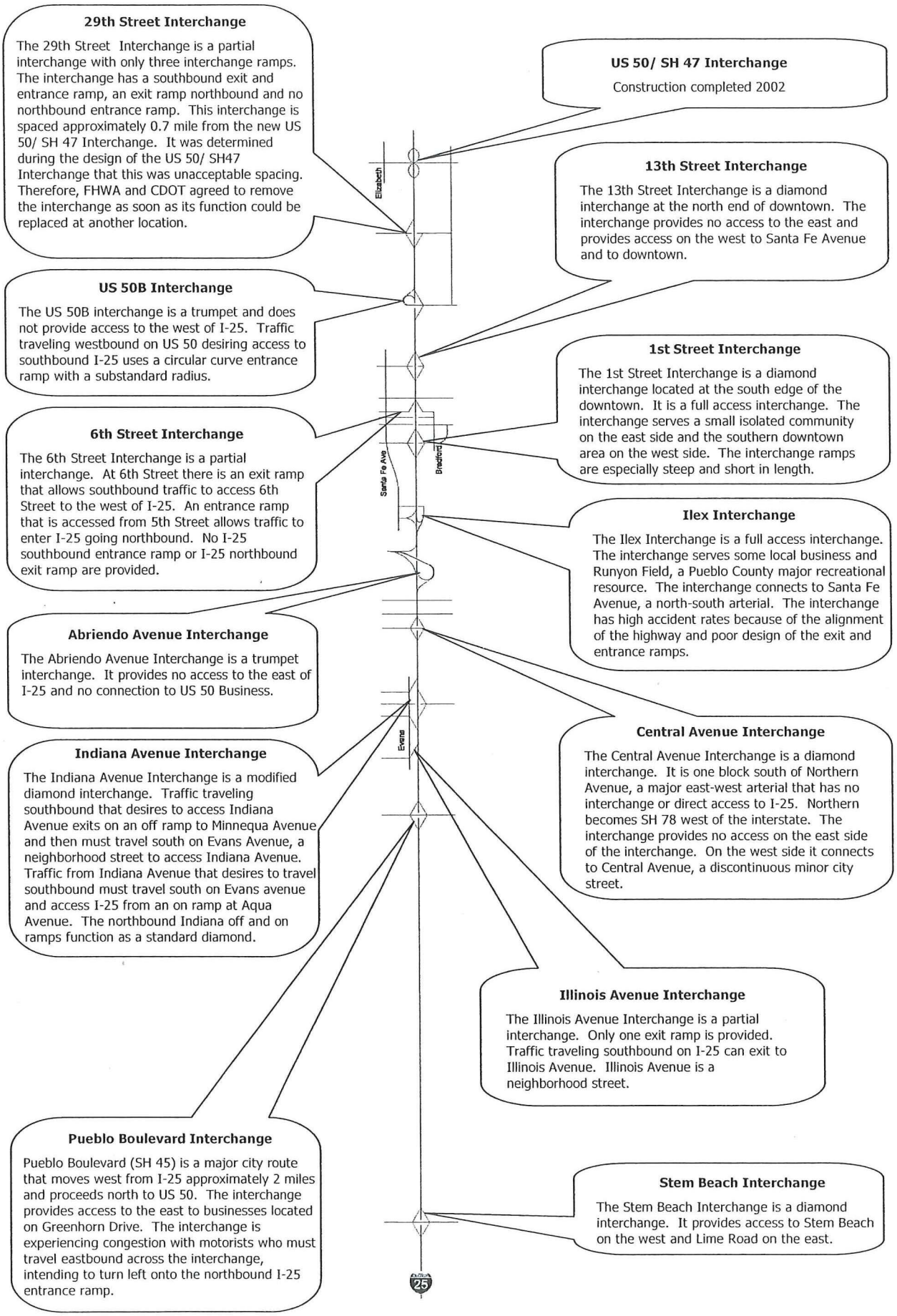
I-25 improvements must follow consistent state-of-the-art aesthetic guidelines that integrate design elements with the community. These guidelines must have community endorsement and reflect the culture, history, and character of Pueblo.

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

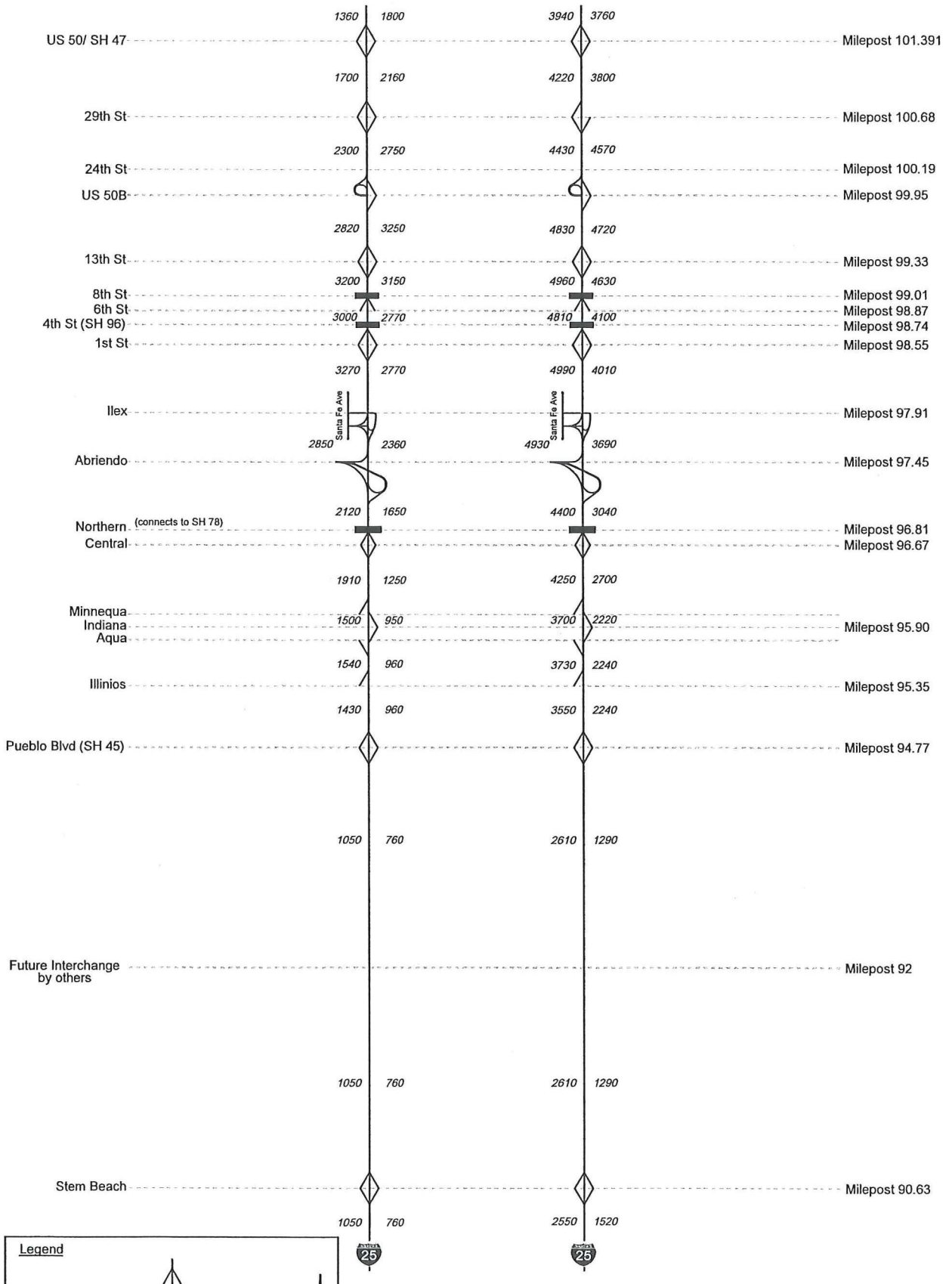
A high standard for the improvements to I-25 must be set and maintained. All improvements must be . . .

- 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.

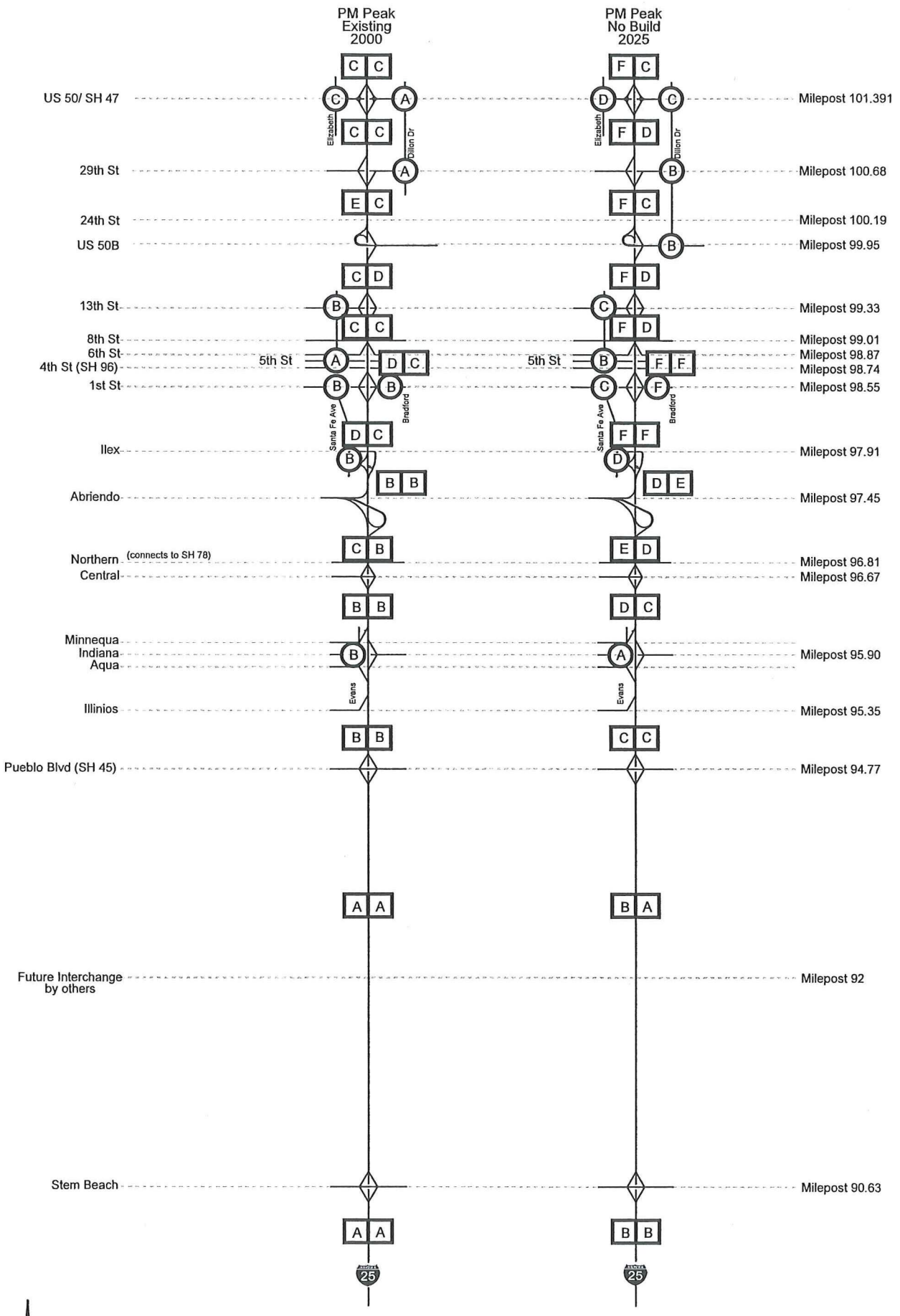

29th Street Interchange
The 29th Street Interchange is a partial interchange with only three interchange ramps. The interchange has a southbound exit and entrance ramp, an exit ramp northbound and no northbound entrance ramp. This interchange is spaced approximately 0.7 mile from the new US 50/ SH 47 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




# 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

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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 / L-18-BZ | Abandoned Railroad | 106/3 106/3 | 92.7 FO 92.7 FO | 1963 1963 |
| 92.34 | L-18-K | Salt Creek (Service Road) | 32/1 | 90.9 NO | 1931 |
| 92.76 | L-18-BB/ L-18-BC | Salt Creek | 63/2 63/2 | 96.1 NO 94.1 NO | 1963 1963 |
| 92.84 | L-18-J | CF+I Water Lines (Service Road) | 84/2 | 84.9 NO | 1931 |
| 92.90 | L-18-AX / L-18-AY | CF+I Water Lines (Service Road) | 185/4 185/4 | 75.3 FO 75.3 FO | 1963 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 /<br>L-18-W | Indiana Avenue | 126/3<br>126/3 | 55.0 FO<br>52.9 FO | 1956<br>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 /<br>K-18-AY | US 50 | 240/4<br>240/4 | 61.2 FO<br>61.2 FO | 1958<br>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 /<br>K-18-CL | NP Railroad /<br>Ilex Street /<br>Bennet Street | 1,075/13<br>1,075/14 | 52.6 NO<br>39.3 NO | 1959<br>1959 |
| 98.23 | K-18-CI /<br>K-18-CJ | Service Road /<br>ATSF Railroad | 917 / 13<br>972/13 | 67.7 NO<br>68.7 NO | 1959<br>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 /<br>K-18-CO | 1st Street | 156/4<br>156/4 | 61.9 FO<br>61.9 FO | 1959<br>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/<br>K-18-EB | 29th Street | 155/4<br>155/4 | 66.9 FO<br>66.9 FO | 1960<br>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.

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| | |
|---|---|
| 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

Exit Level of Service

Entrance Level of Service

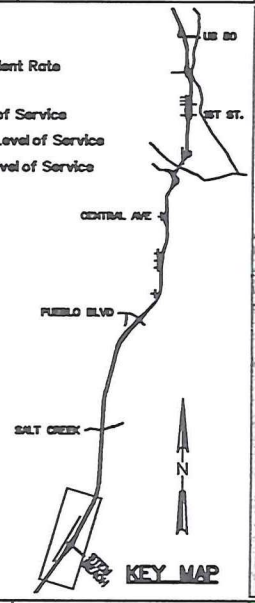
D Mainline Level of Service

GOOD

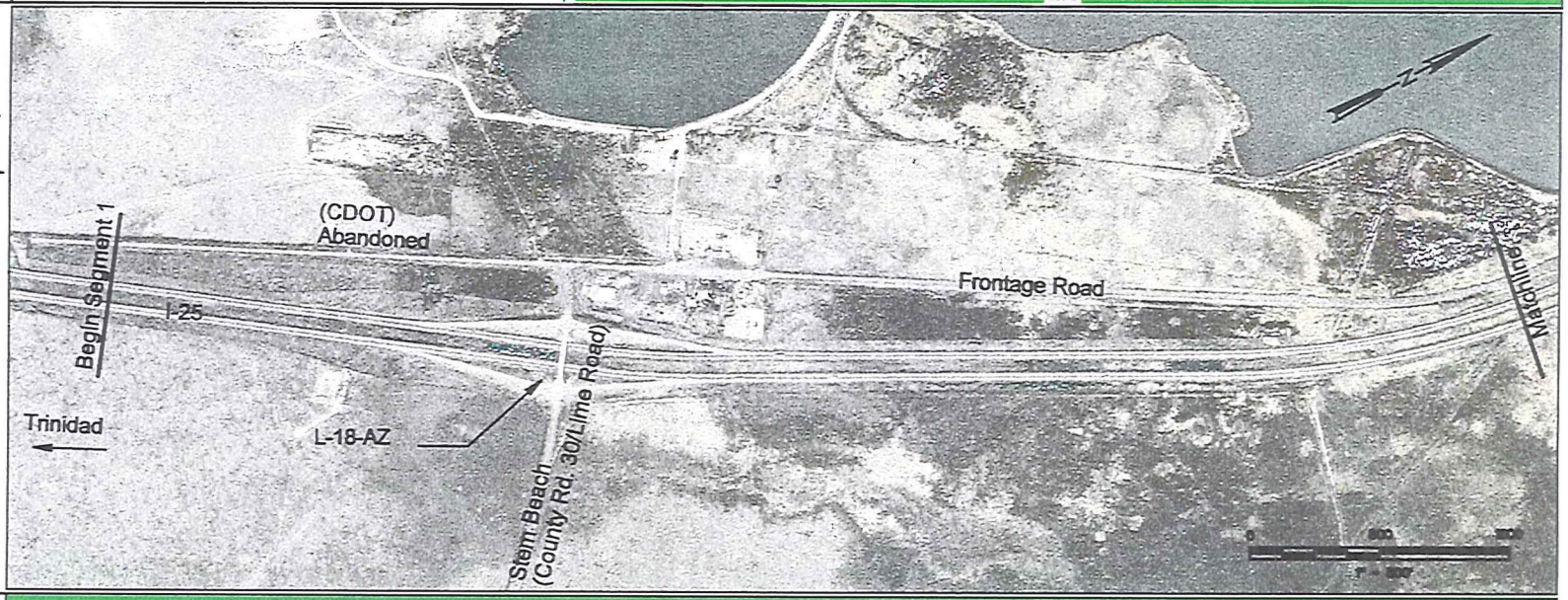
FAIR

POOR

N/A




KEY MAP

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| GEOMETRIC FEATURES | HORIZONTAL ALIGNMENT |
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| | 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

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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 | |

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| 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
0.76

**LEGEND**

0.00 Total Accident Rate

G Exit Level of Service

A Entrance Level of Service

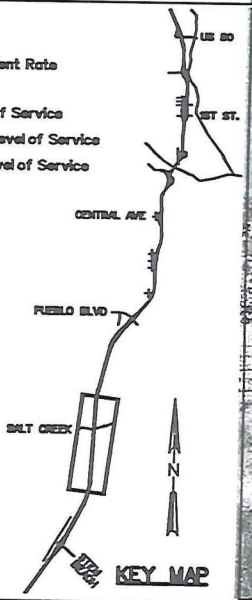
D Mainline Level of Service

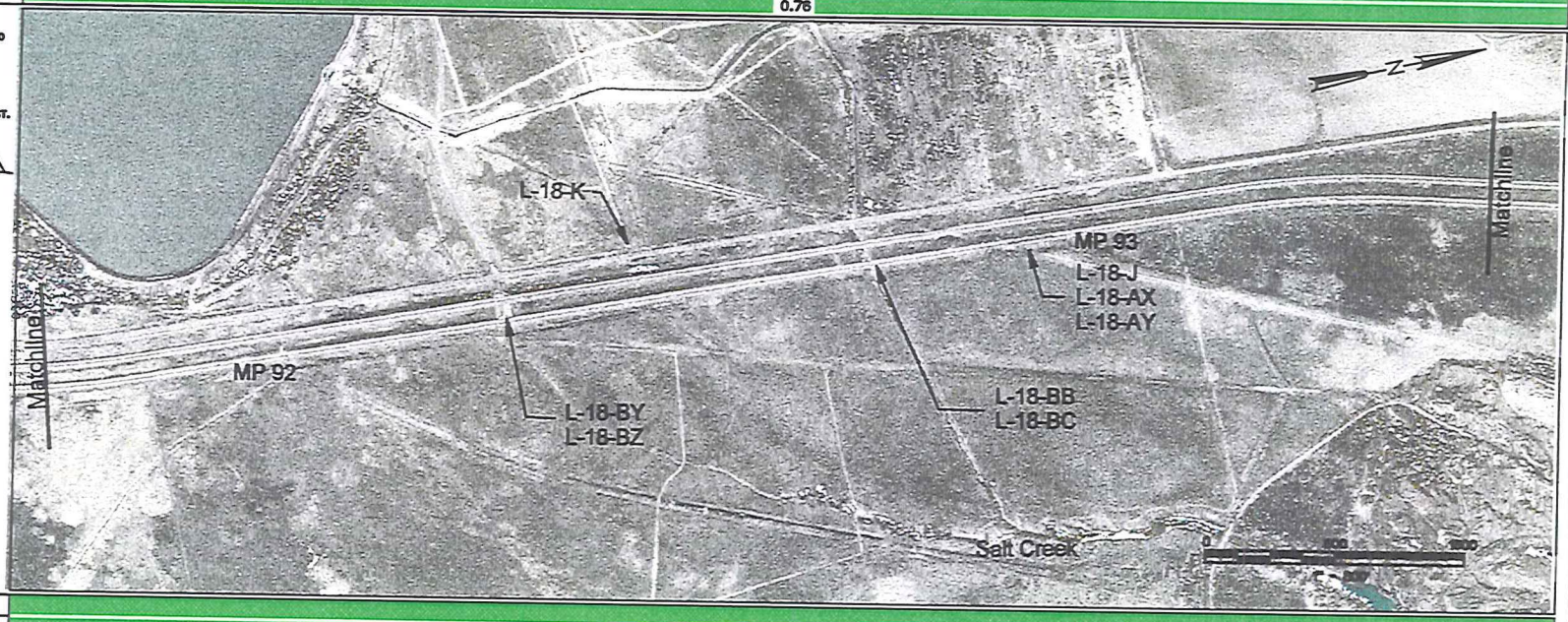
GOOD

FAIR

POOR

N/A

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| 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
0.90

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# 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

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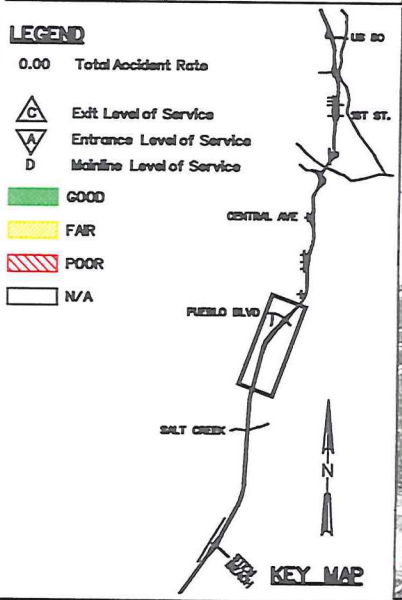
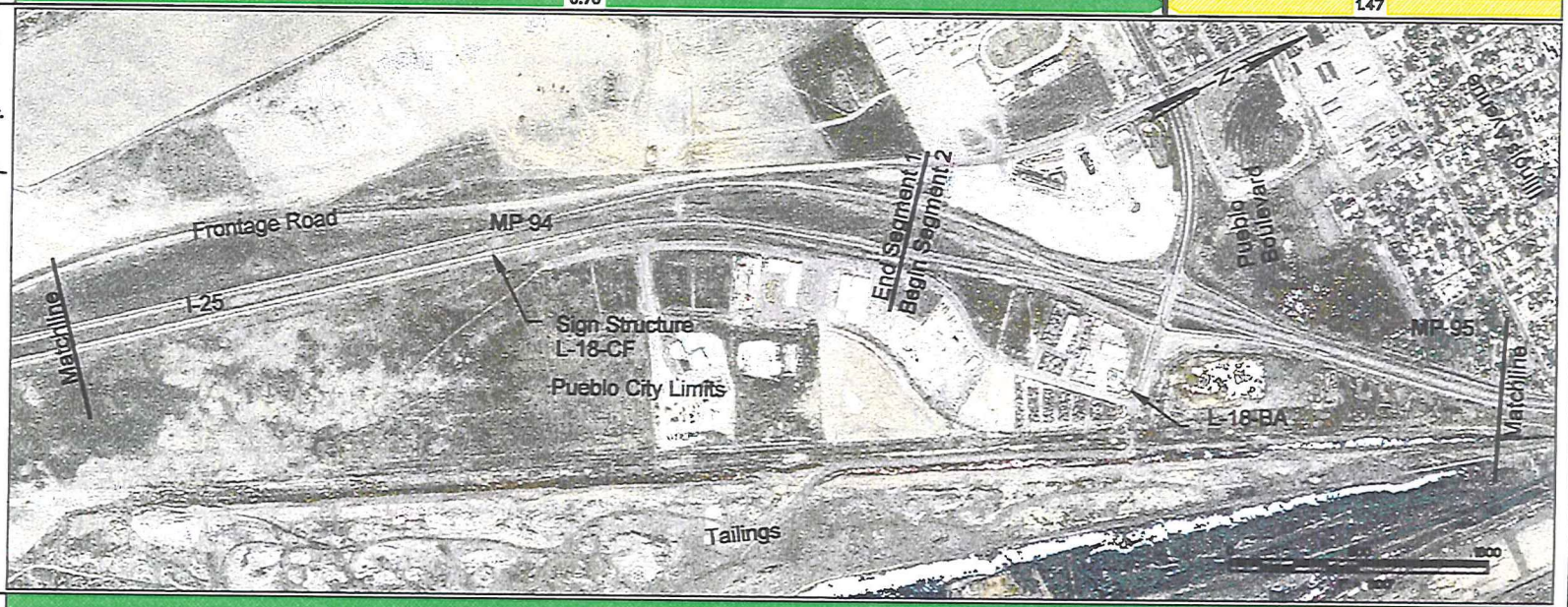
| | |
|---|---|
| GEOMETRIC FEATURES | HORIZONTAL ALIGNMENT |
| | VERTICAL ALIGNMENT |
| | STOPPING SIGHT DISTANCE |
| | CROSS SECTION |
| | DECISION SIGHT DISTANCE |
| | EXIT AND ENTRANCE DESIGN |
| | RAMP DESIGN |
| OPERATIONAL FEATURES | LANE & ROUTE CONTINUITY |
| | LANE BALANCE |
| | RAMP SEQUENCE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

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|---|---|
| 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 B A
0.90 1.84

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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

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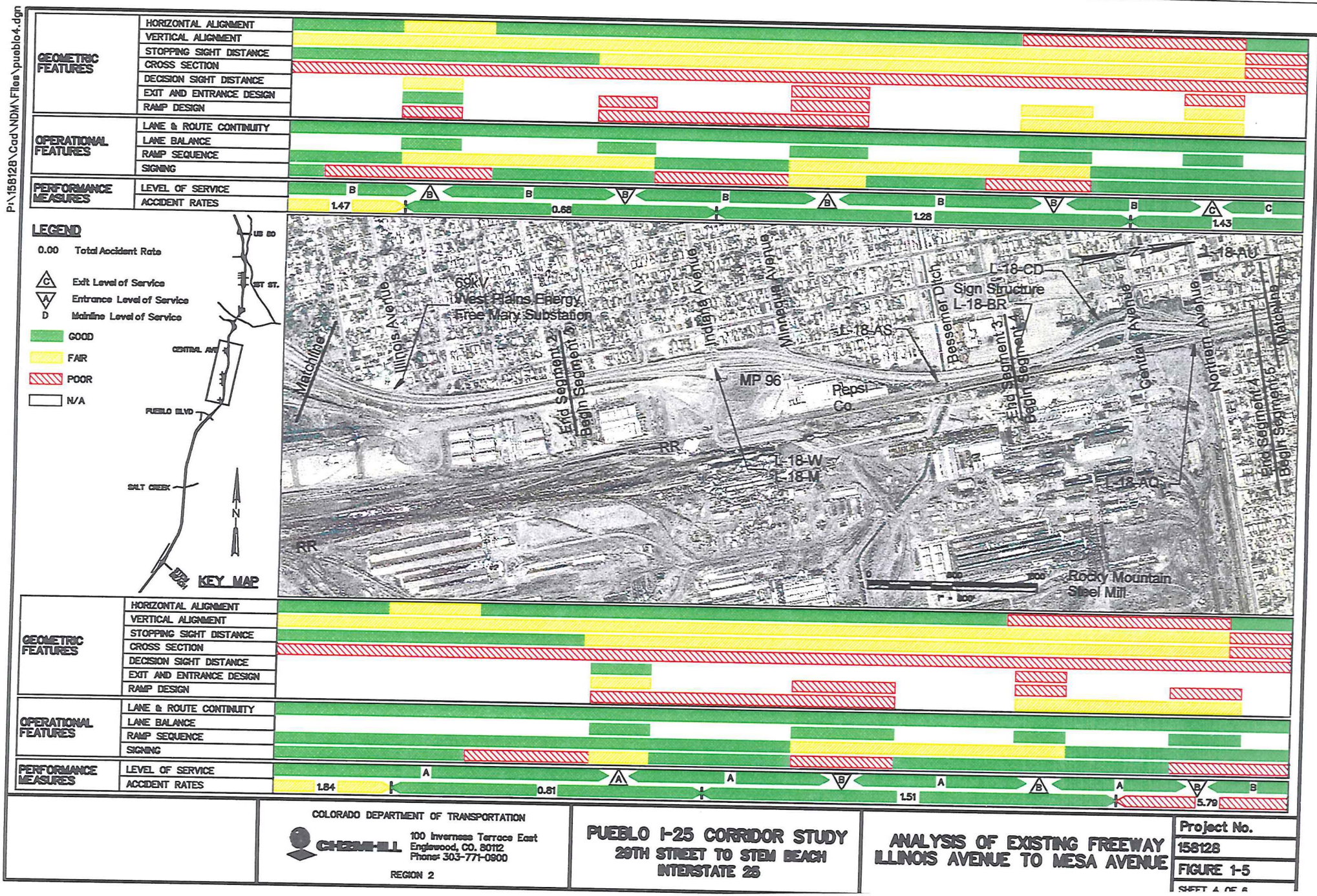


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REGION 2

# 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

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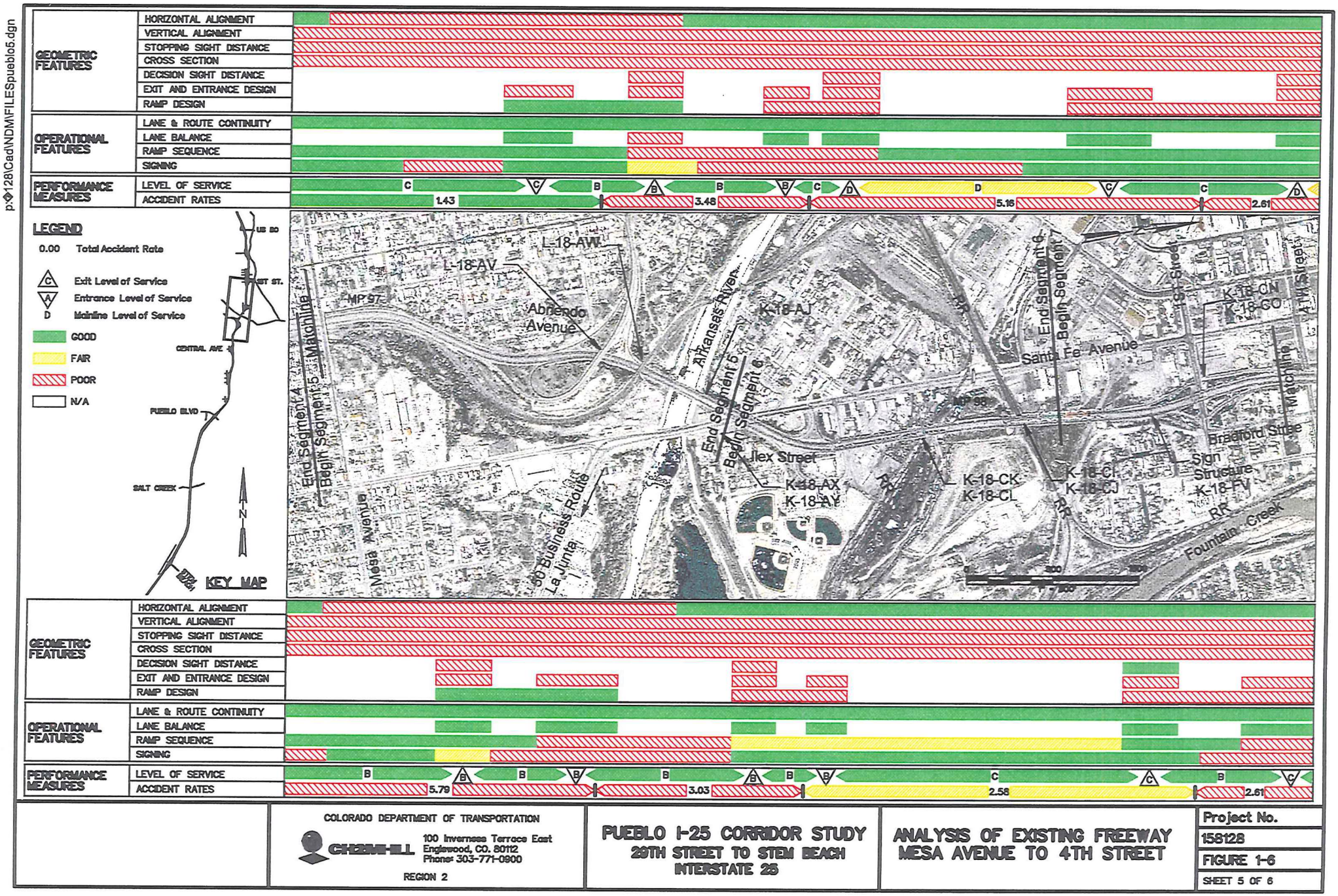


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REGION 2

# 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 |

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| | |
|---|---|
| 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: C C D D C C C D B C B D C E

ACCIDENT RATES: 5.18 2.61 1.68 1.50 4.27

**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

KEY MAP

US 50

3RD ST.

CENTRAL AVE.

PUEBLO BLVD.

SALT CREEK

N

1ST Street

4TH Street

6TH Street

8TH Street

13TH Street

K-18-CN

K-18-CO

K-18-CT

Sign Structure K-18-FW

Santa Fe Avenue

MP 99

Matchline

End Segment 8

Begin Segment 7

Colorado Springs

I-25

Bradford Street

Sign Structure K-18-FY

K-18-CR

K-18-EN

K-18-J

RR

Fountain Creek

K-18-BV

Fountain Creek

US Hwy 50B

| | |
|---|---|
| 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: C B C C C C C C C D C D C C

ACCIDENT RATES: 2.58 2.61 3.36 0.97 4.90

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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 | |
| 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 | **Amenity Feature Goal** **Advance to Level 2** |
| 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<br>Advance to Level 2<br>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 | |
| 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 | * Best Combined w/ Other Ideas Advance to Level 2 |
| 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 | 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. |
| 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 |
| 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<br>Use Albany on the west<br>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 | |

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.

# 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 | |
| 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 | |

*** 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.

# 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<br>Advance to Level 2<br>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.

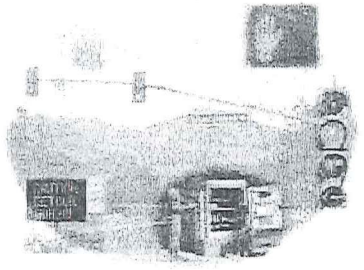
ITS tools include variable messages signs (VMS), highway advisory radios (HAR), close circuit TV for highway monitoring, weigh-in-motion devices for commercial vehicles, automatic traffic recording stations for tracking volume, type and speed of vehicles, ramp metering at interchanges, and roadway sensors 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*



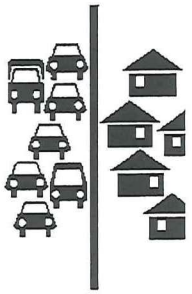
# Community Ideas for TSM and TDM

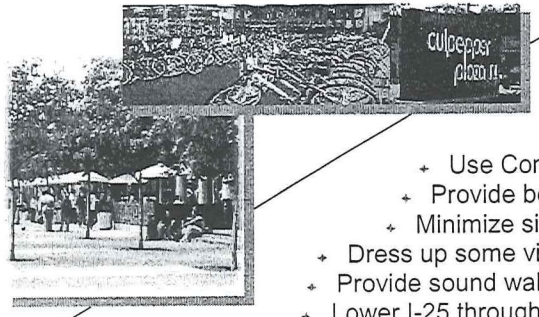
the New Pueblo Freeway

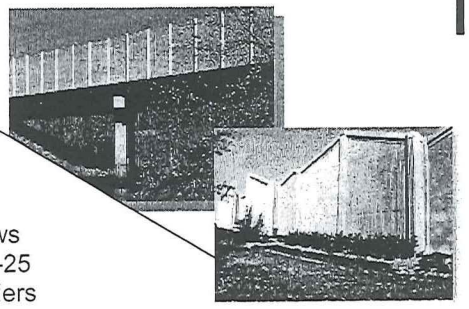


# Amenities / Features / Goals / Enhancements

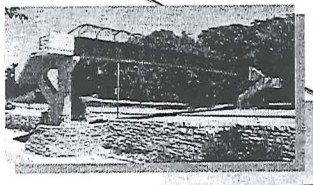
**This category collects and saves the ideas that make an idea and eventually a strategy more "livable". Ideas considered in this category include noise walls to mitigate sound levels, and pedestrian and bike paths to connect destinations. These ideas are best finalized when the major strategy is defined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

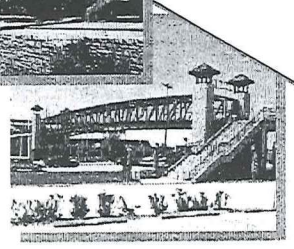


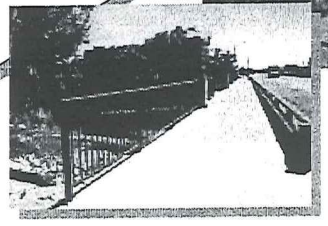


- Use Concrete not asphalt
- Provide better lane markings
- Minimize signing for advertising
- Dress up some views, and hide some views
- Provide sound walls to protect houses on I-25
- Lower I-25 through town and eliminate barriers
- Elevate portions of I-25 through town to eliminate barriers
- Consider 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

the New Pueblo Freeway

DOT

# 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 | ● | ● | ◒ | ◒ | ◒ | ○ | ○ | ● | ○ | ◒ | ● | ◒ | ● | ○ | |

CH2MHILL

April 26, 2002

○ 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*

## *Environmental/ 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

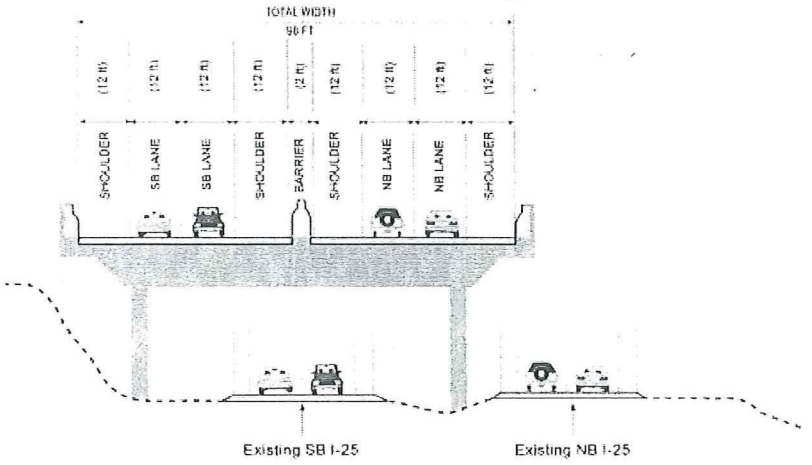
### *How consistent is this with national design guidelines?*

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

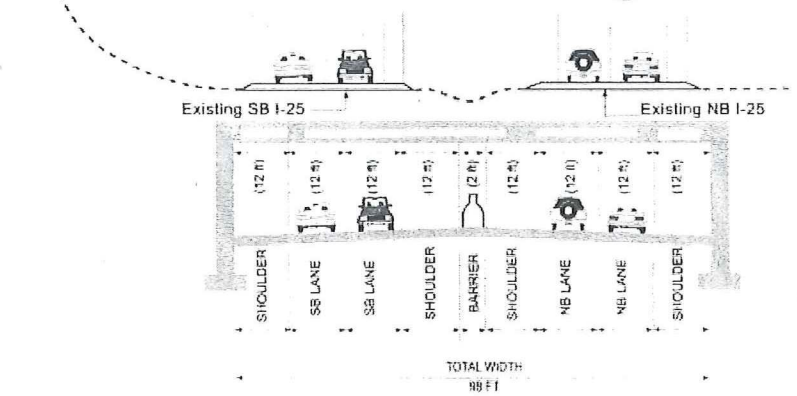
# Double Decking I-25




Double Decking of I-25

DEN/R1538128.A1.PR/Double Decking of I-25 1-01

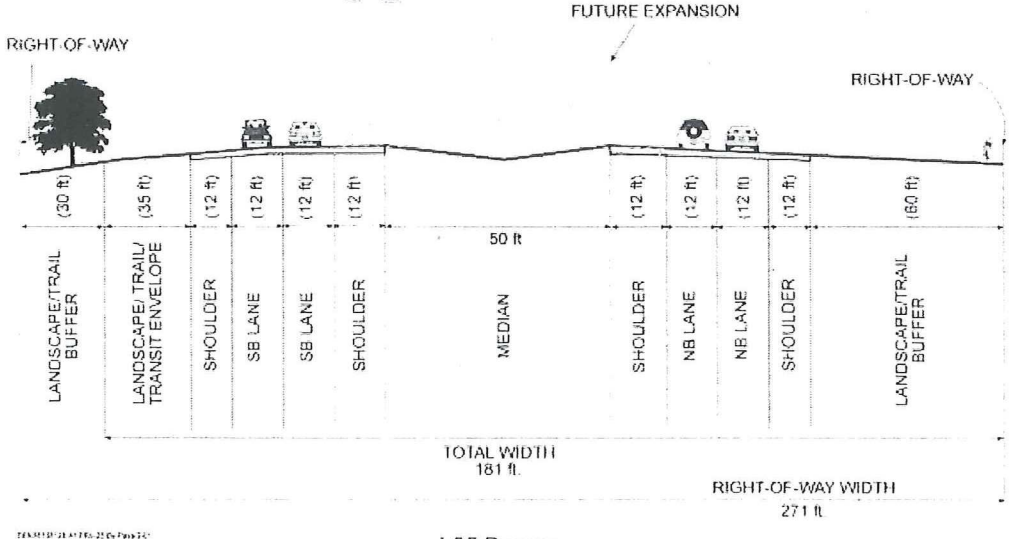
# Tunnel Under Existing I-25




Tunnel Under Existing I-25

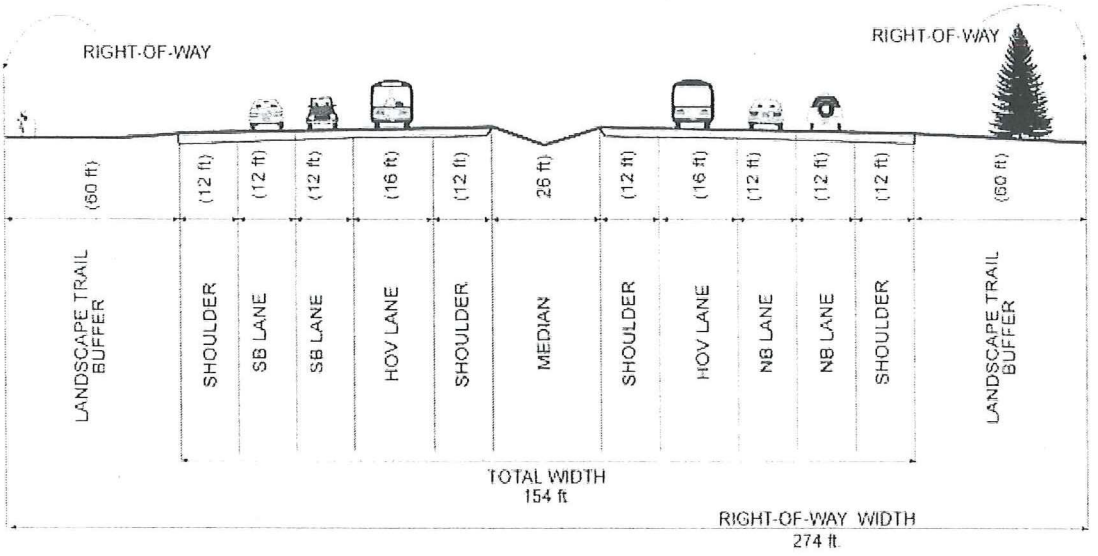
DEN/R1538128.A1.PR/Tunnel Under Existing I-25 1-01

# Bypass I-25




I-25 Bypass

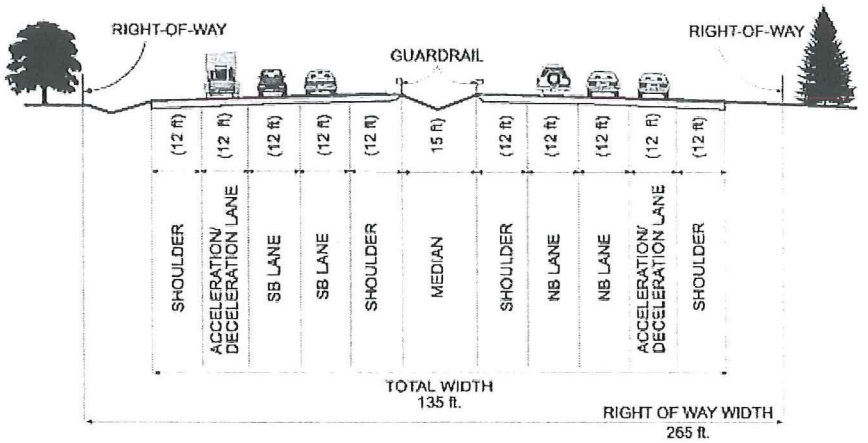
# HOV Lanes on I-25




HOV Lanes on I-25

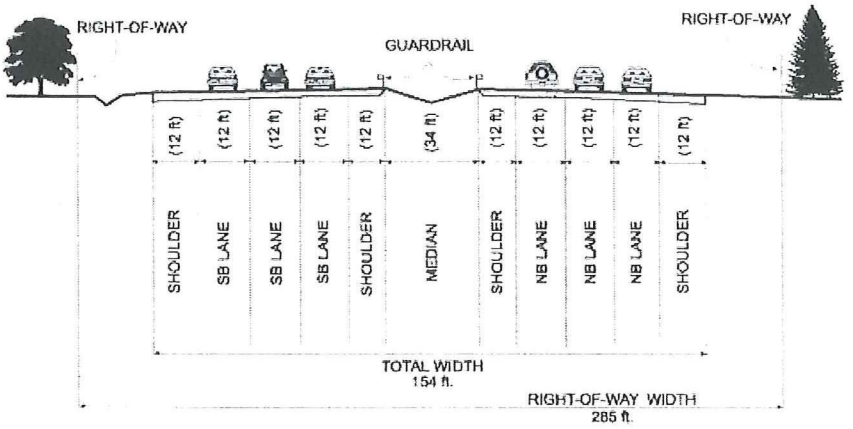
I-25 Concepts

# 4 Lanes on I-25



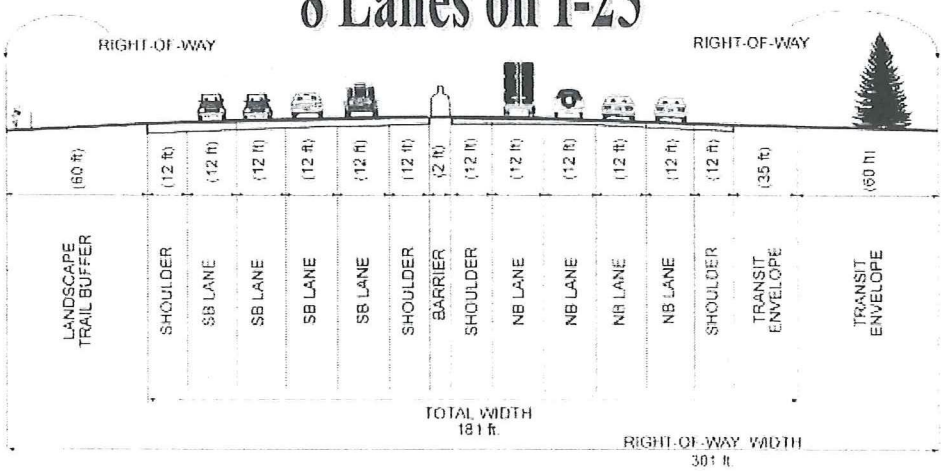

4 Lanes on I-25 with Continuous Acceleration/Deceleration Lanes

# 6 Lanes on I-25




6 Lanes on I-25

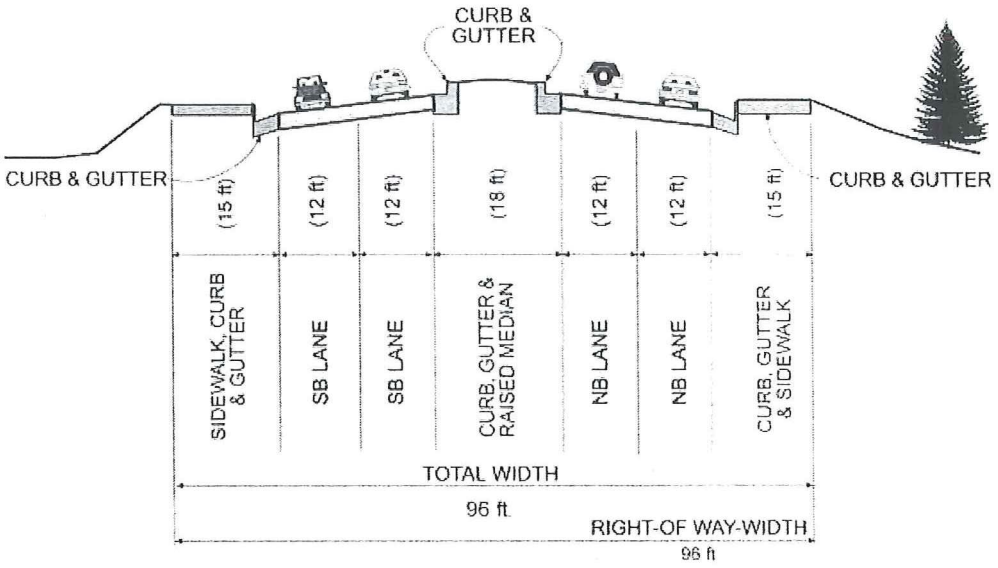
# 8 Lanes on I-25




8 Lanes on I-25

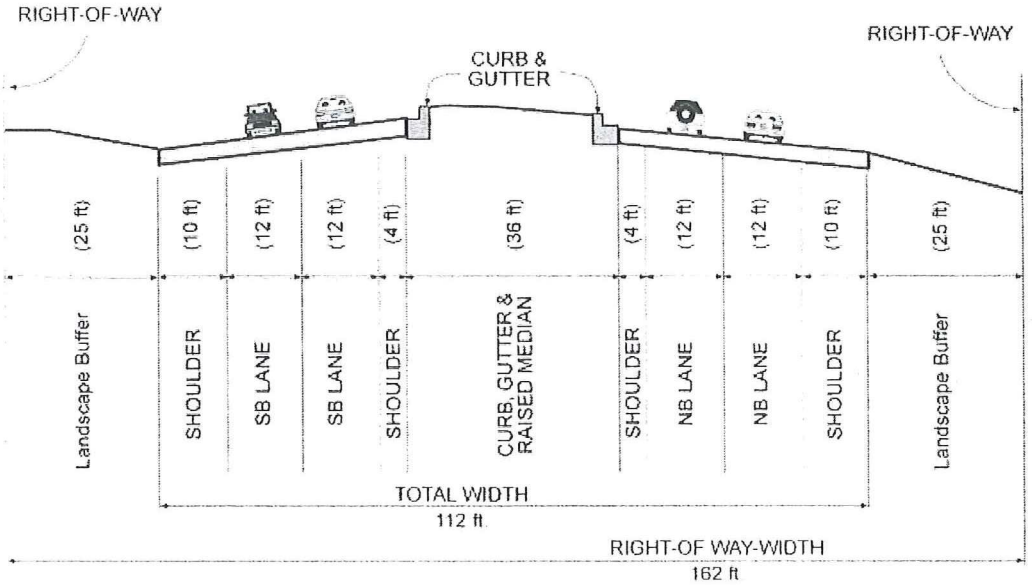
Alternative Route Concepts

# 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.

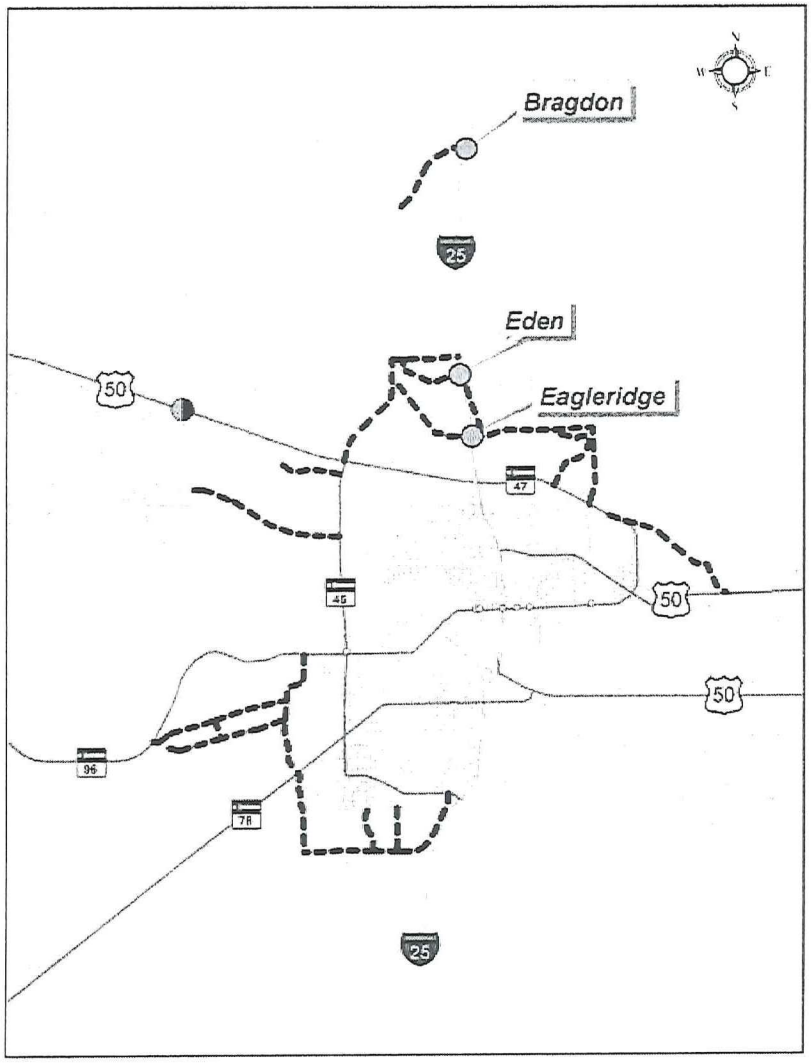
## 3. *Can this strategy be implemented in segments that are functional and fundable?*

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

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.



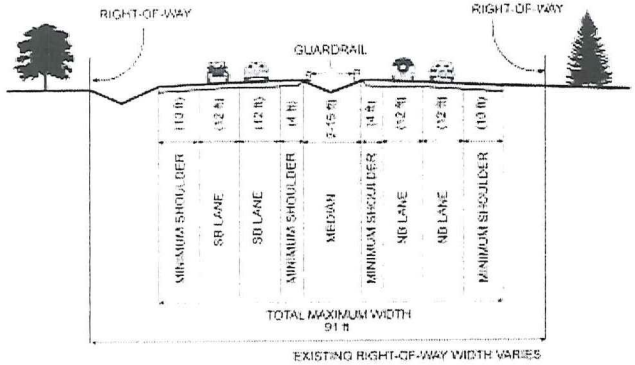

# Currently Committed Projects

the New Pueblo Freeway

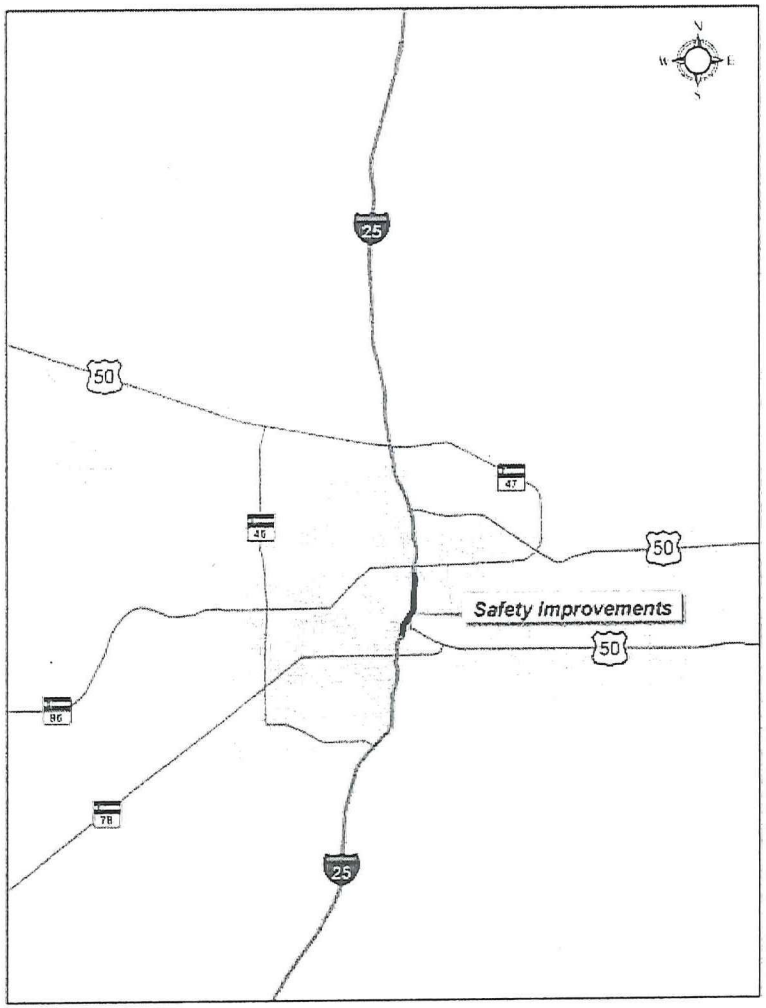
## I-25 Safety Improvement Strategy

- 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**



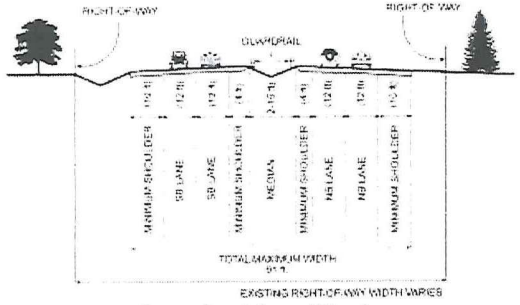

# I-25 Safety Improvement Strategy

the New Pueblo Freeway

# I-25 Safety Improvement Strategy with a Low Speed Loop

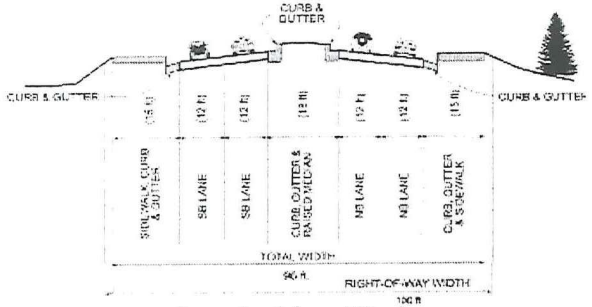
- I-25 Safety Improvement
  - Safety improvements on I-25 from 1st to Abriendo
  - Replace existing structures from 1st to Abriendo
  - Assume minimal additional ROW
- Low Speed Loop
  - Managed Access
  - Dillon, on the east side of I-25, extended south to Pueblo Boulevard and north to Eden
  - Pueblo 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

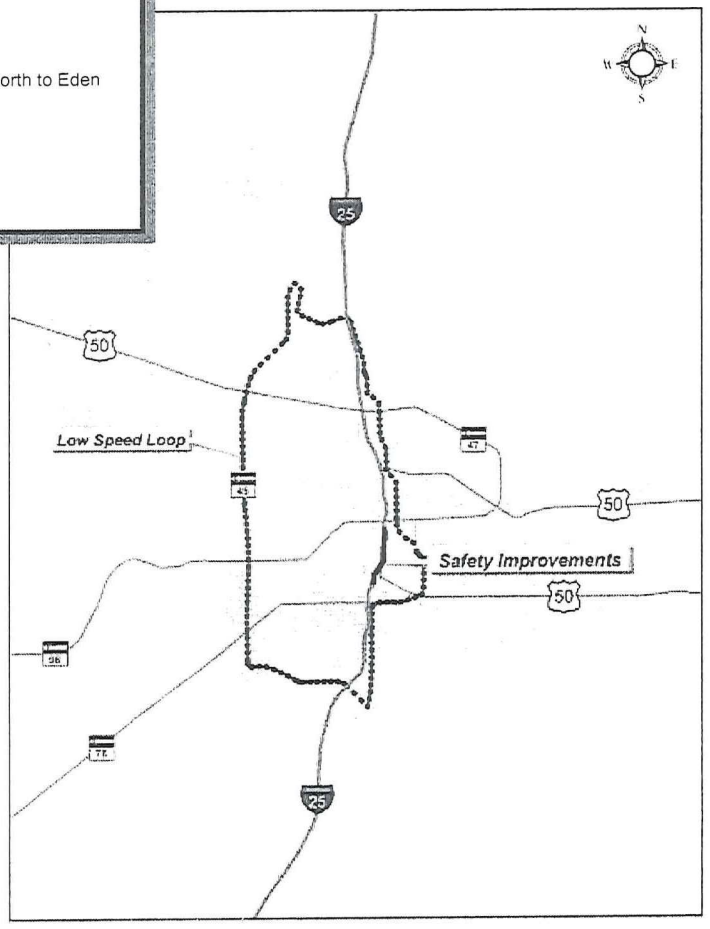



Assumed posted speed 50 mph

## Low Speed Loop




Assumed posted speed 35 mph




# I-25 Safety Improvement Strategy with a Low Speed Loop

the New Pueblo Freeway

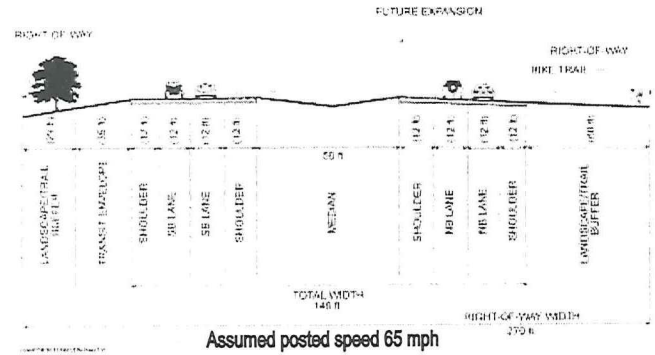
April 26, 2002

# Relocated I-25 Strategy with a Parkway

## Relocated I-25 Strategy with a Parkway

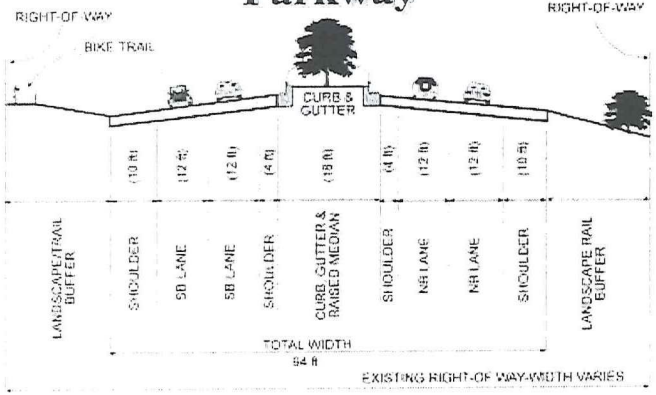
- Relocated I-25
  - 5 New Interchanges
- Parkway
  - I-25 from Pinon to Stem Beach will be reconstructed as a Parkway
  - Replace 9 Interchanges with Intersections
- Circulator Bus System
- Transportation Systems Management (TSM)
- Travel Demand Management (TDM) this would include enhanced signing to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

## Relocated I-25

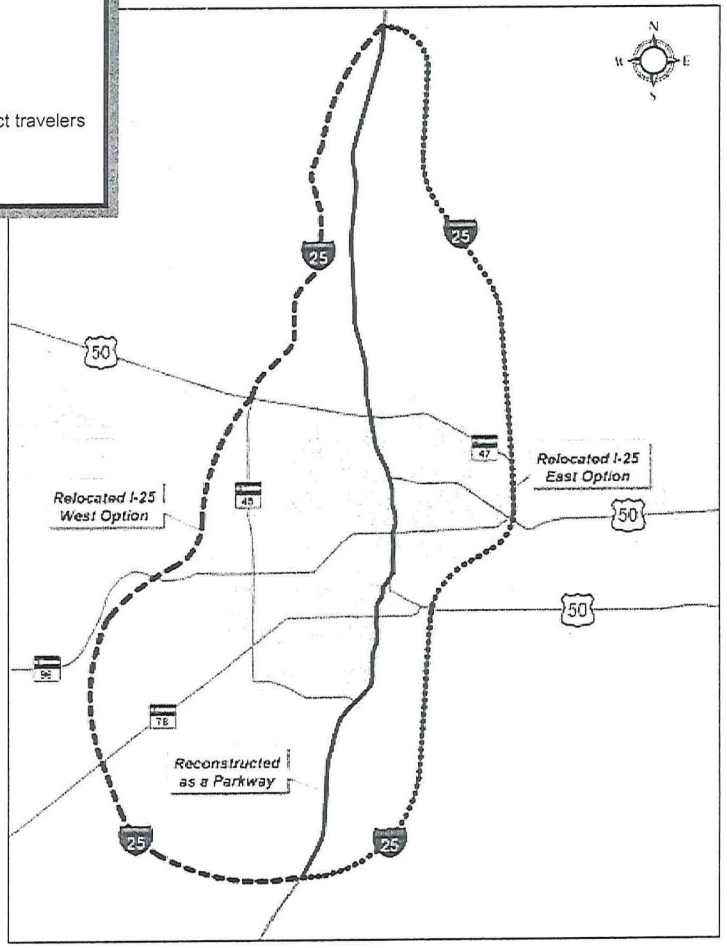



Assumed posted speed 65 mph

## Parkway




Assumed posted speed 45 mph



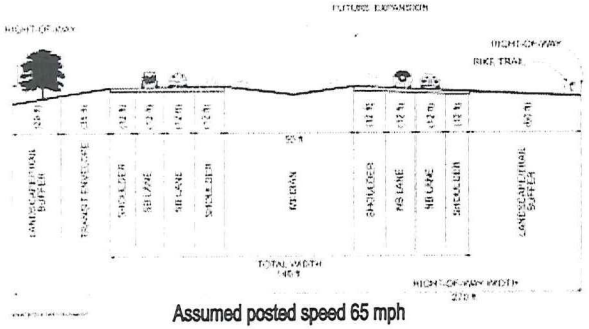

# Relocated I-25 Strategy with a Parkway

the New Pueblo Freeway

## Relocated I-25 Strategy with a Freeway

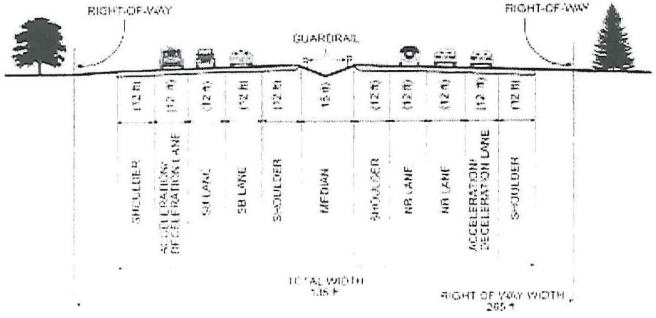
- Relocated I-25
  - 5 New Interchanges
- Freeway
  - Improve I-25 from 29th Street to Stem Beach with 4 lanes and continuous accel/decel lanes
- Circulator Bus System
- Transportation Systems Management (TSM)
- Travel Demand Management (TDM) this would include enhanced signing to direct travelers to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

### Relocated I-25

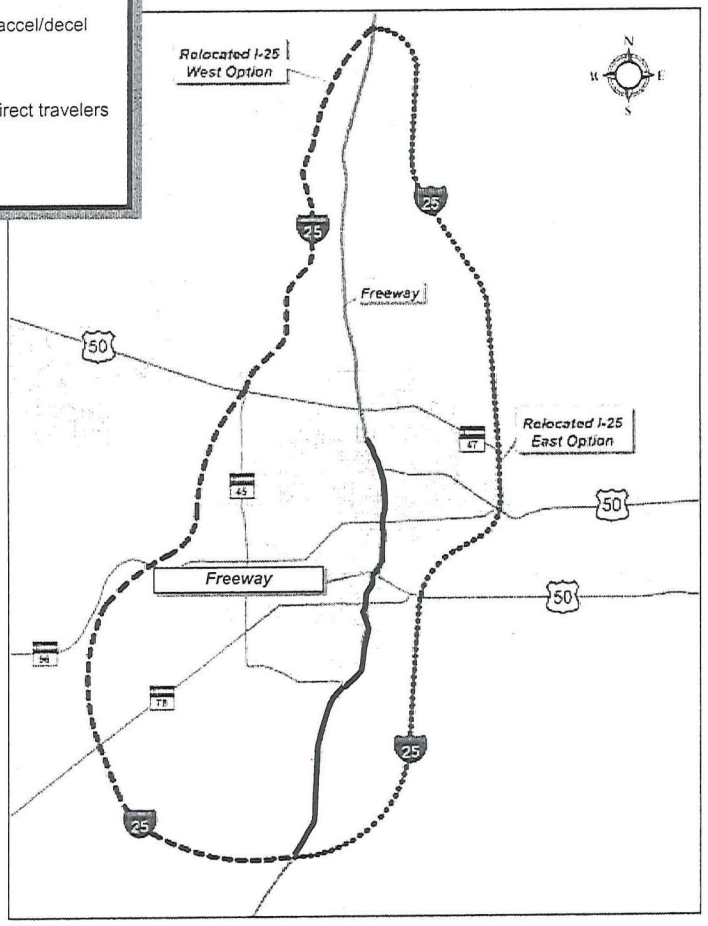



Assumed posted speed 65 mph

### Freeway from 29th St to Stem Beach




Assumed posted speed 55 mph




# Relocated I-25 Strategy with a Freeway

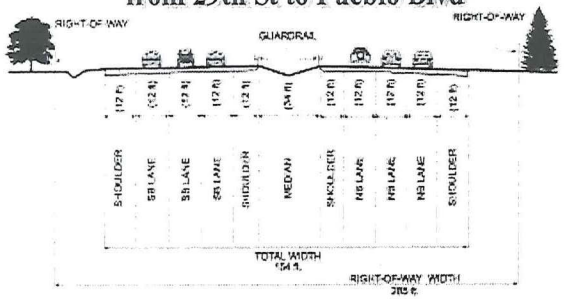
the New Pueblo Freeway

April 26, 2002

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

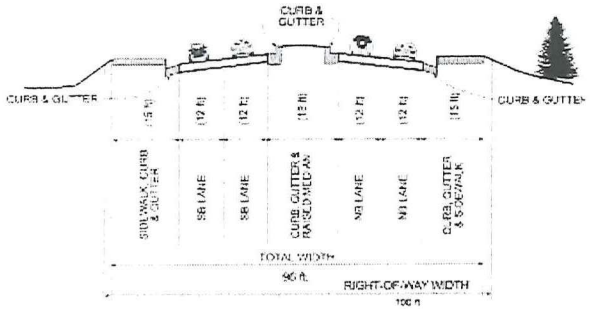
- 6 Lanes on I-25
  - Rebuild 9 Interchanges
  - I-25 with 6 lanes from 29th St to Pueblo Blvd & 4 lanes from Pueblo Blvd to Stem Beach
  - Replace Structures from 29th St to Stem Beach
- Low Speed Loop
  - Managed Access
  - Dillon, on the east side of I-25, extended south to Pueblo Boulevard and north 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

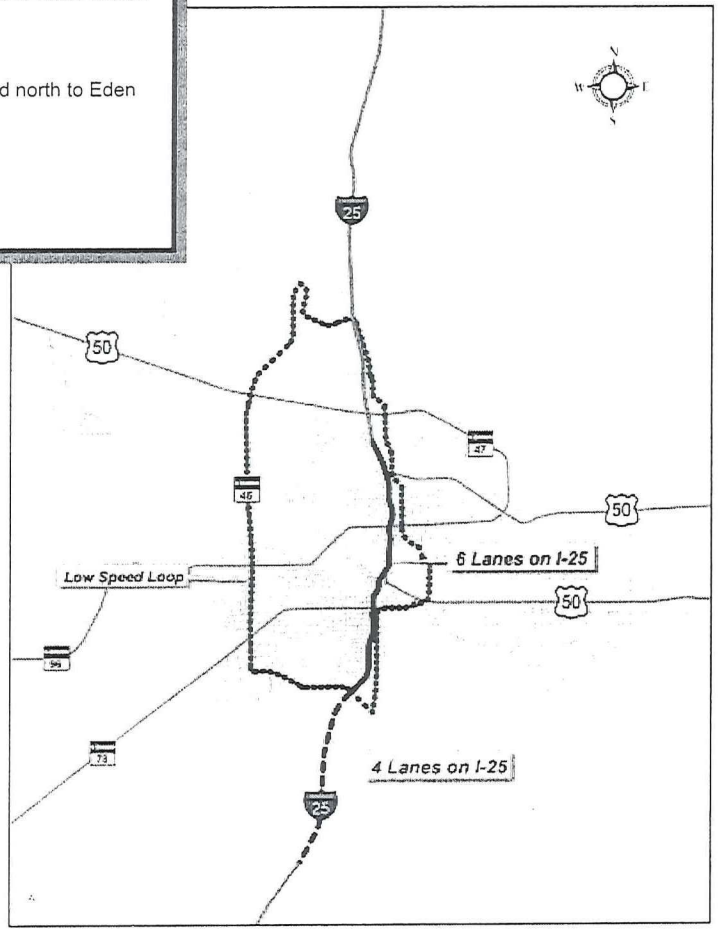



Assumed posted speed 55 mph

## 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 |

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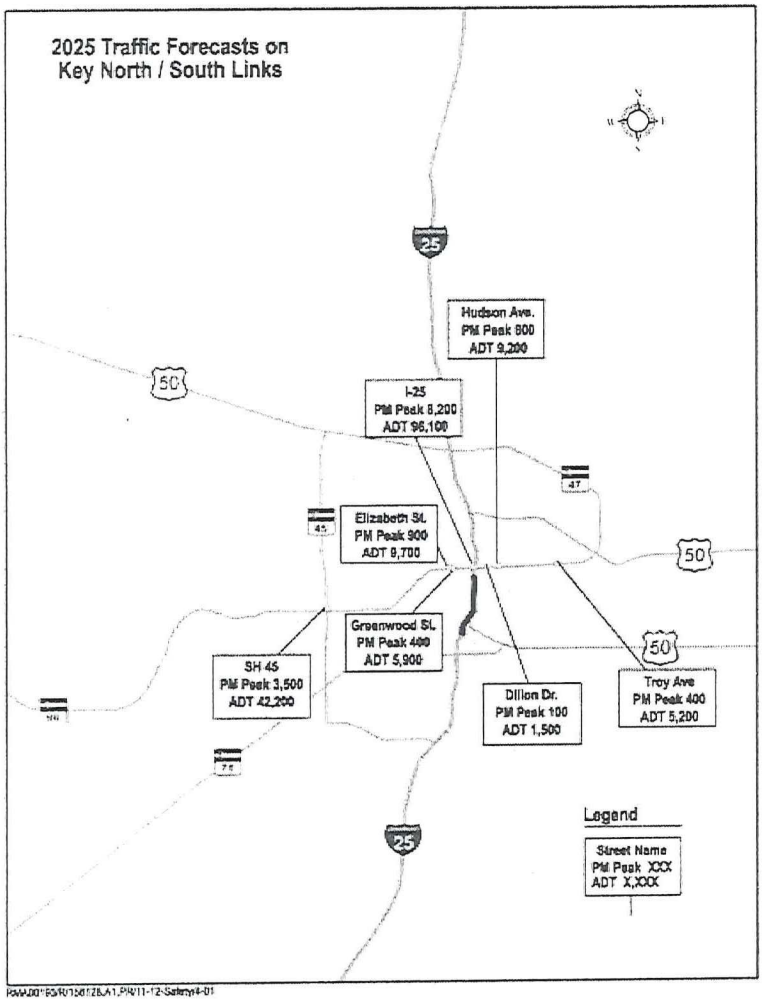
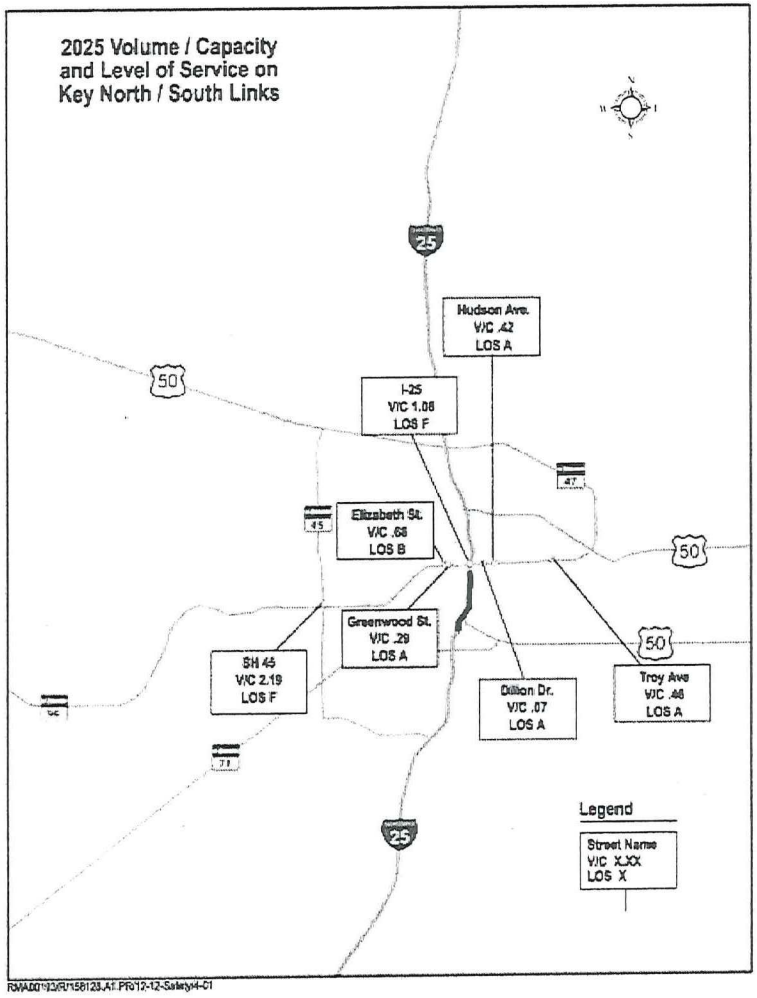
# I-25 Safety Improvement Strategy

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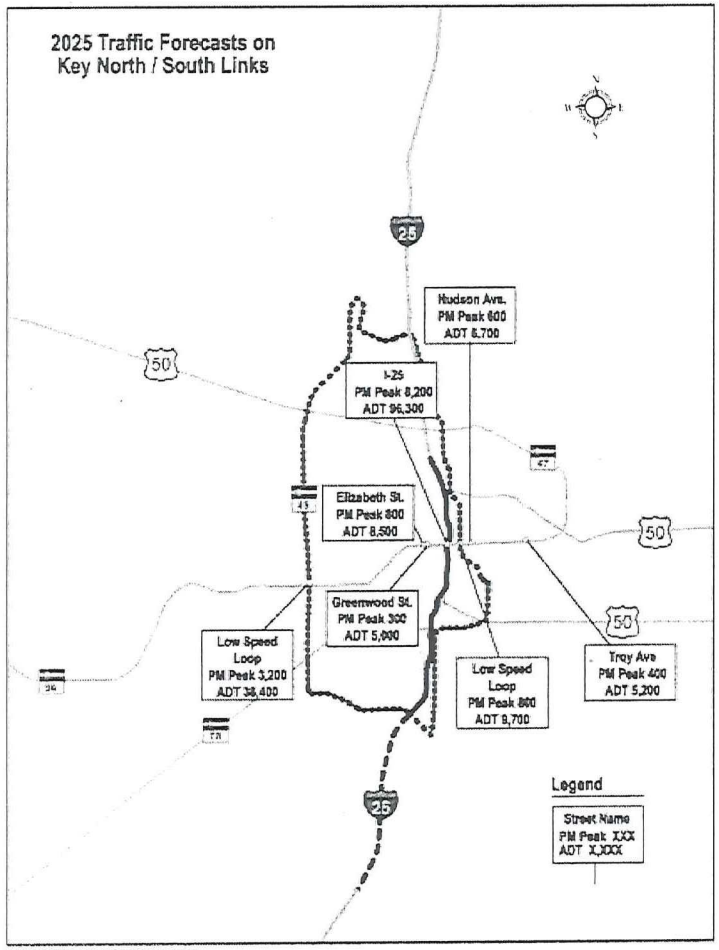
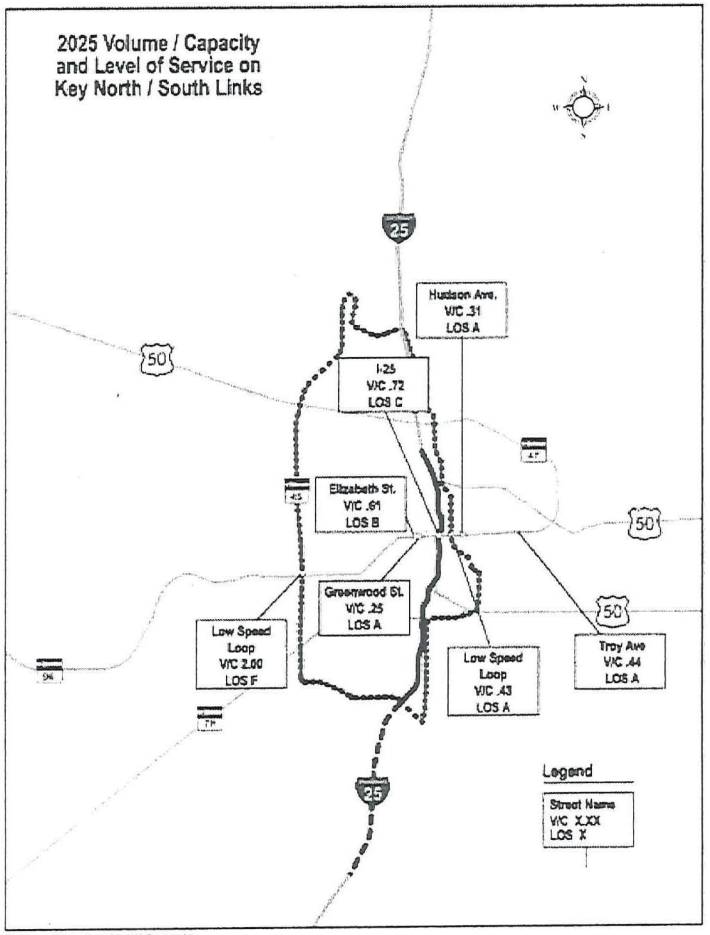
# I-25 Strategy with 6 Lanes and Low Speed Loop

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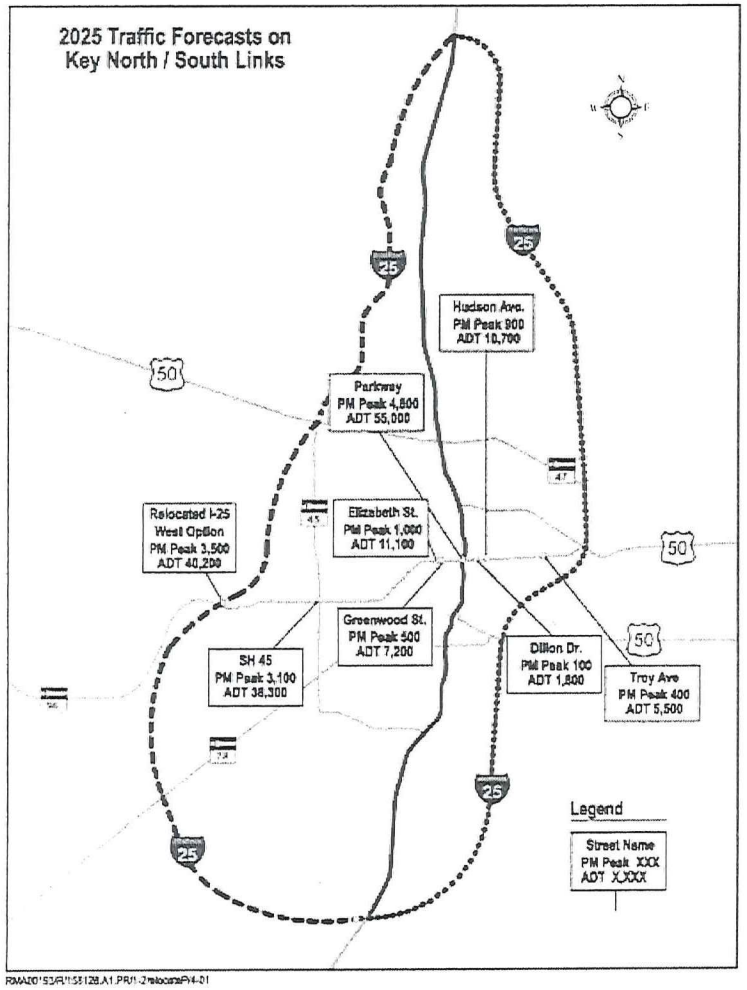
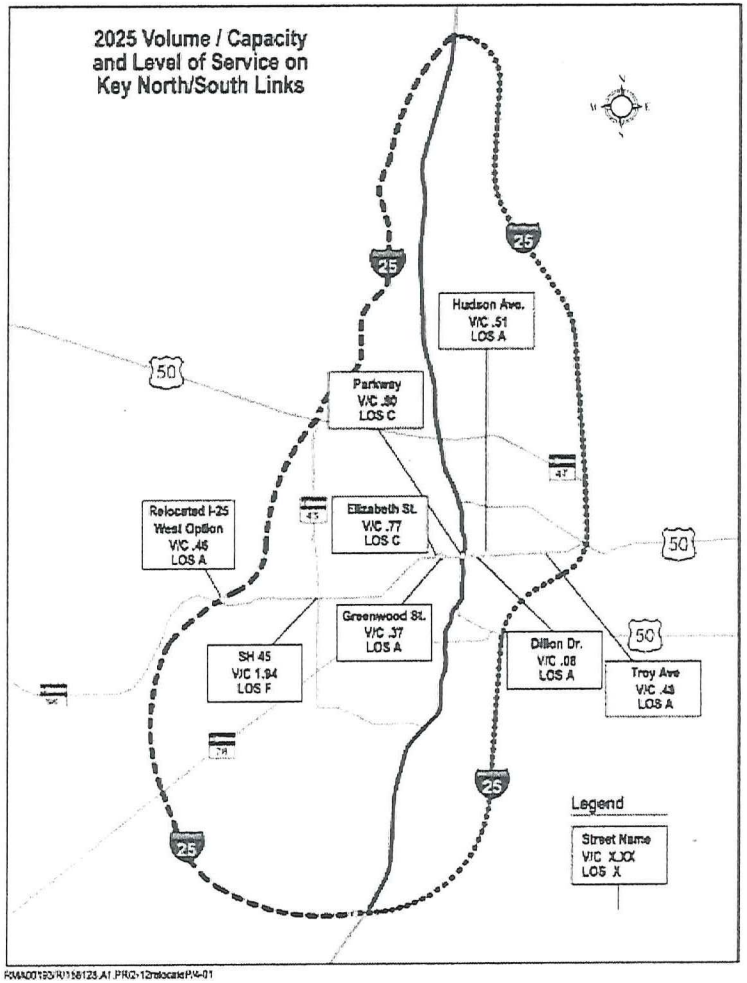
# Relocated I-25 Strategy with a Parkway

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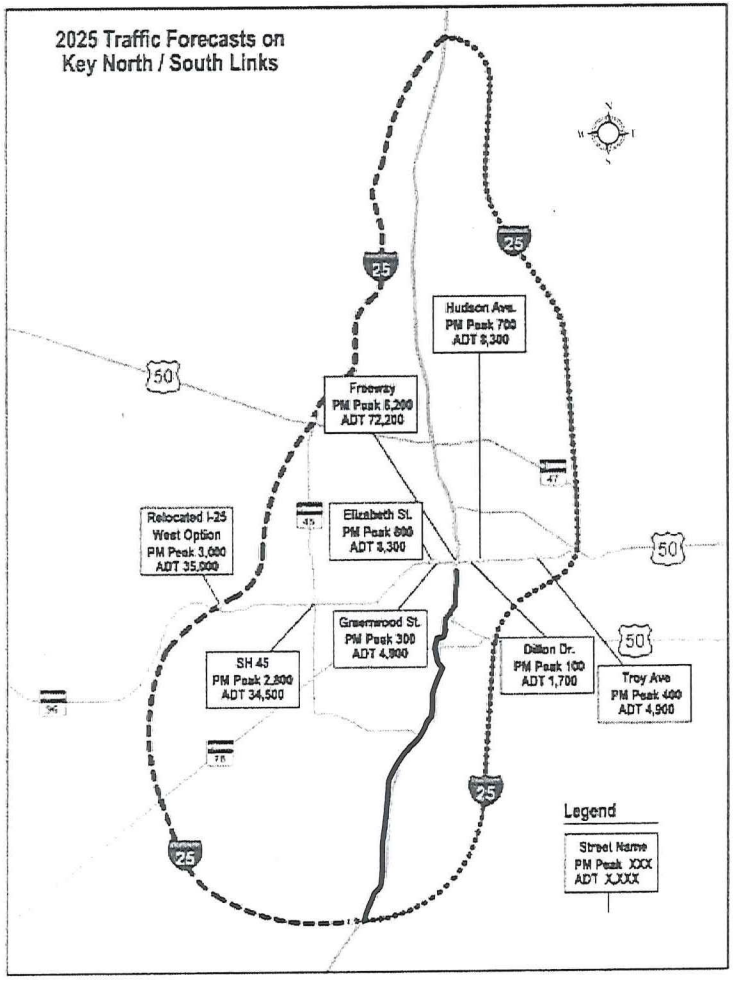
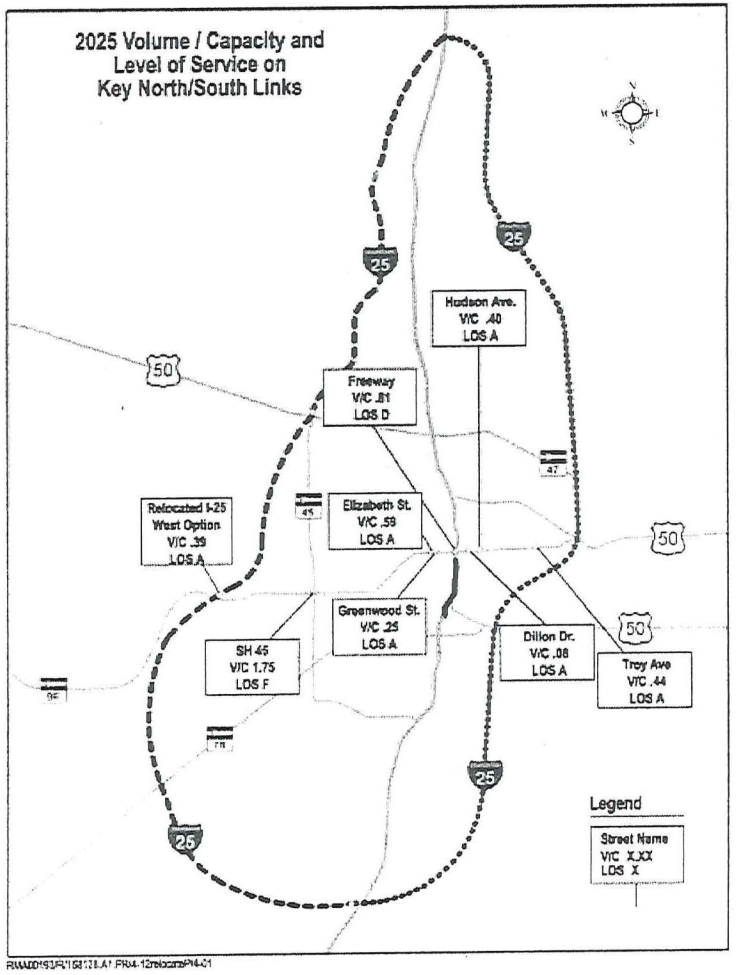
# Relocated I-25 Strategy with a Freeway

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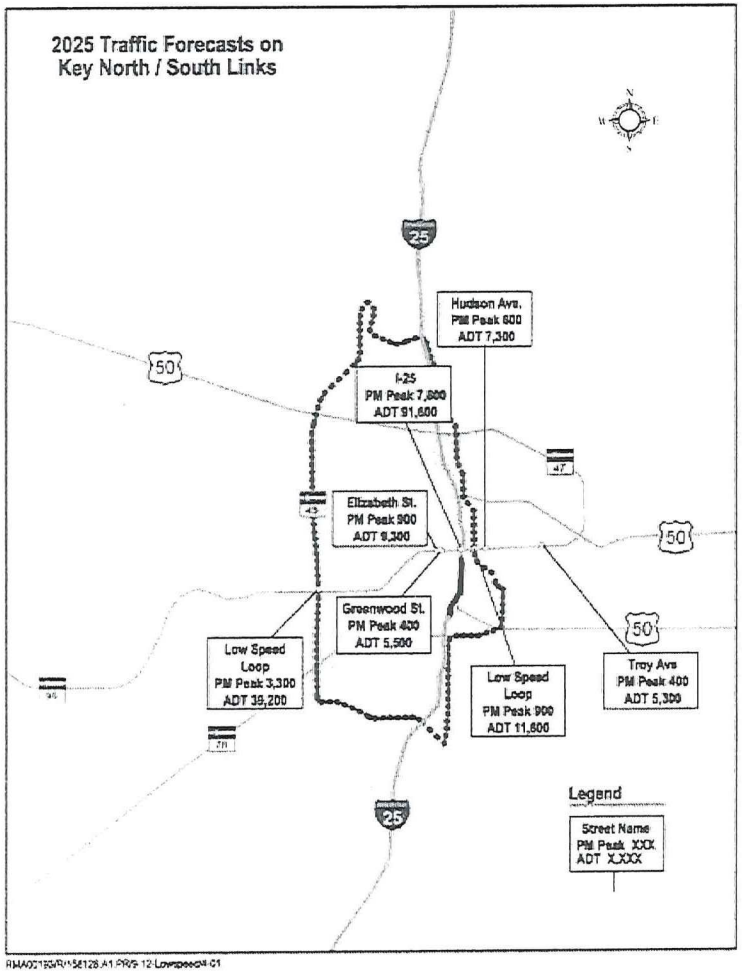
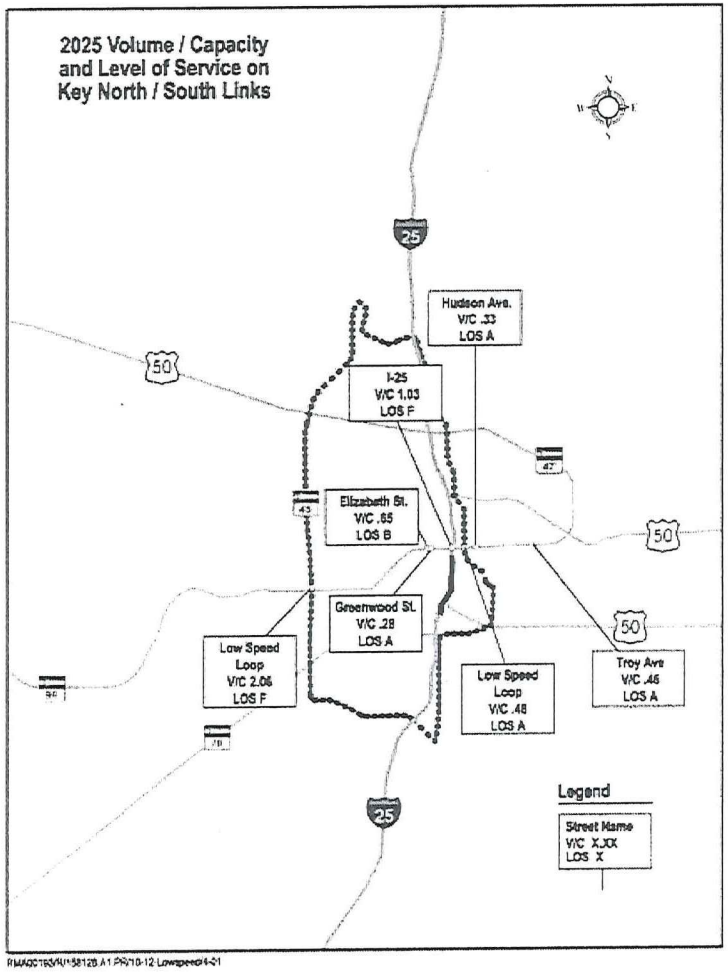
# I-25 Safety Improvement Strategy with Low Speed Loop

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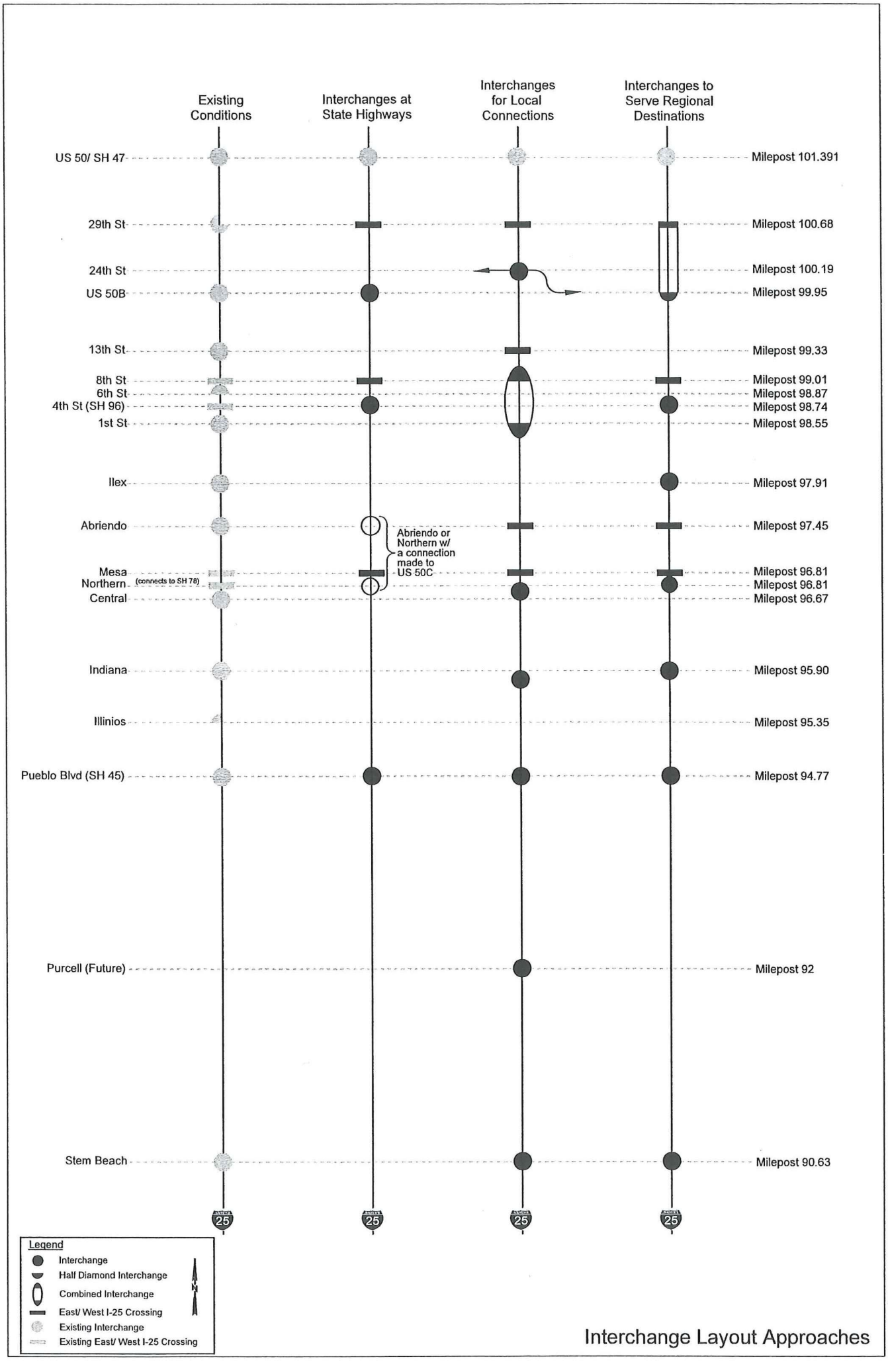
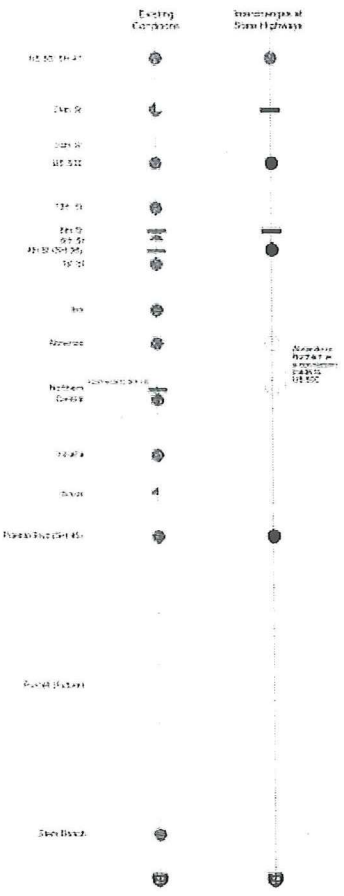
APPENDIX E

# 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
N
Interchange Layout Approaches

# 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.

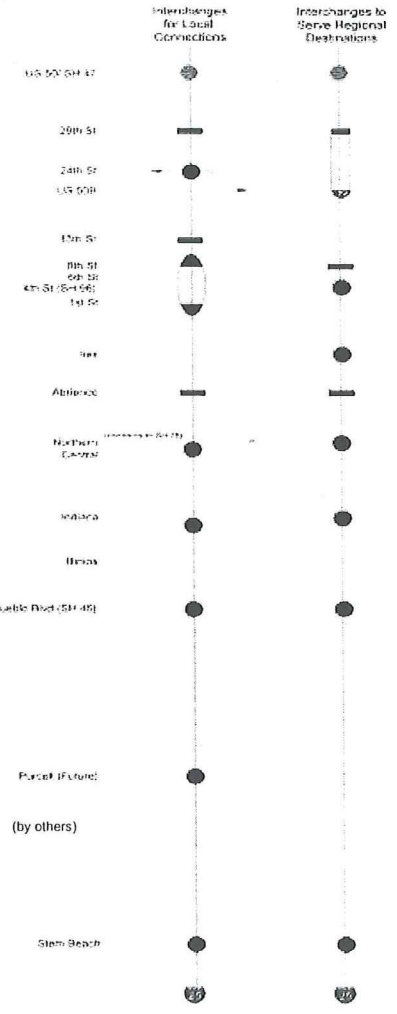
### Existing Conditions

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.

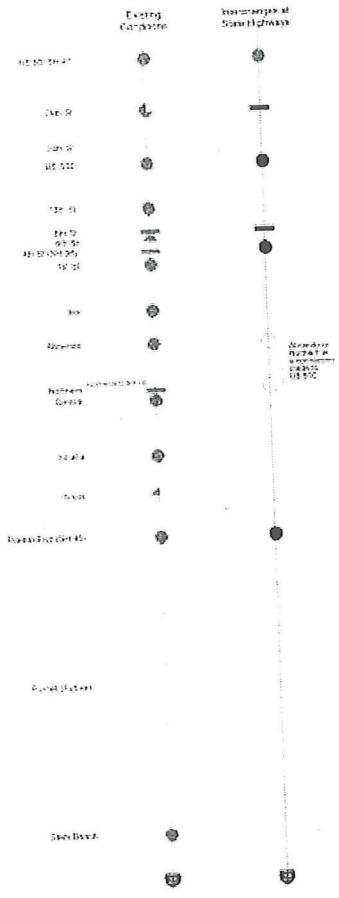
As a result of numerous suggestions to interchange with Abriendo, the major alternatives in this segment are an interchange at Abriendo with an overpass at Northern; an interchange at Northern with an overpass at Abriendo; and a relocated I-25 with an interchange south of the existing Abriendo interchange.

**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.

# Summary and Conclusions on Interchange Approaches

the New Pueblo Freeway



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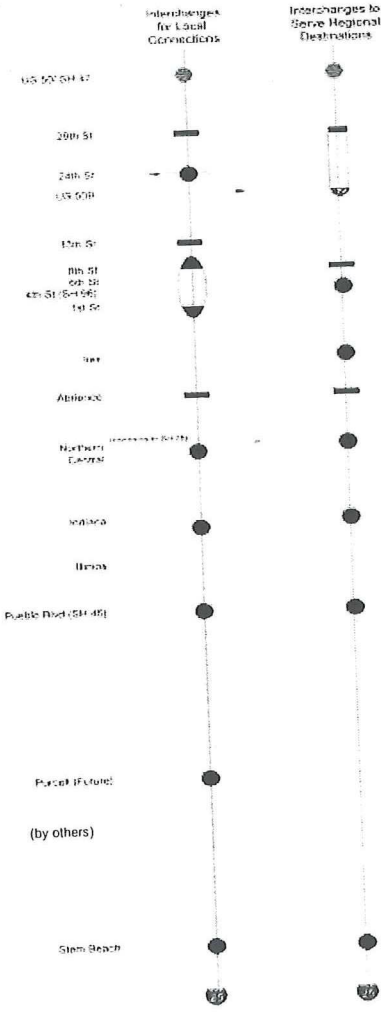
## Interchanges for Local Connections and Interchanges to Serve Regional Destinations

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**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?*

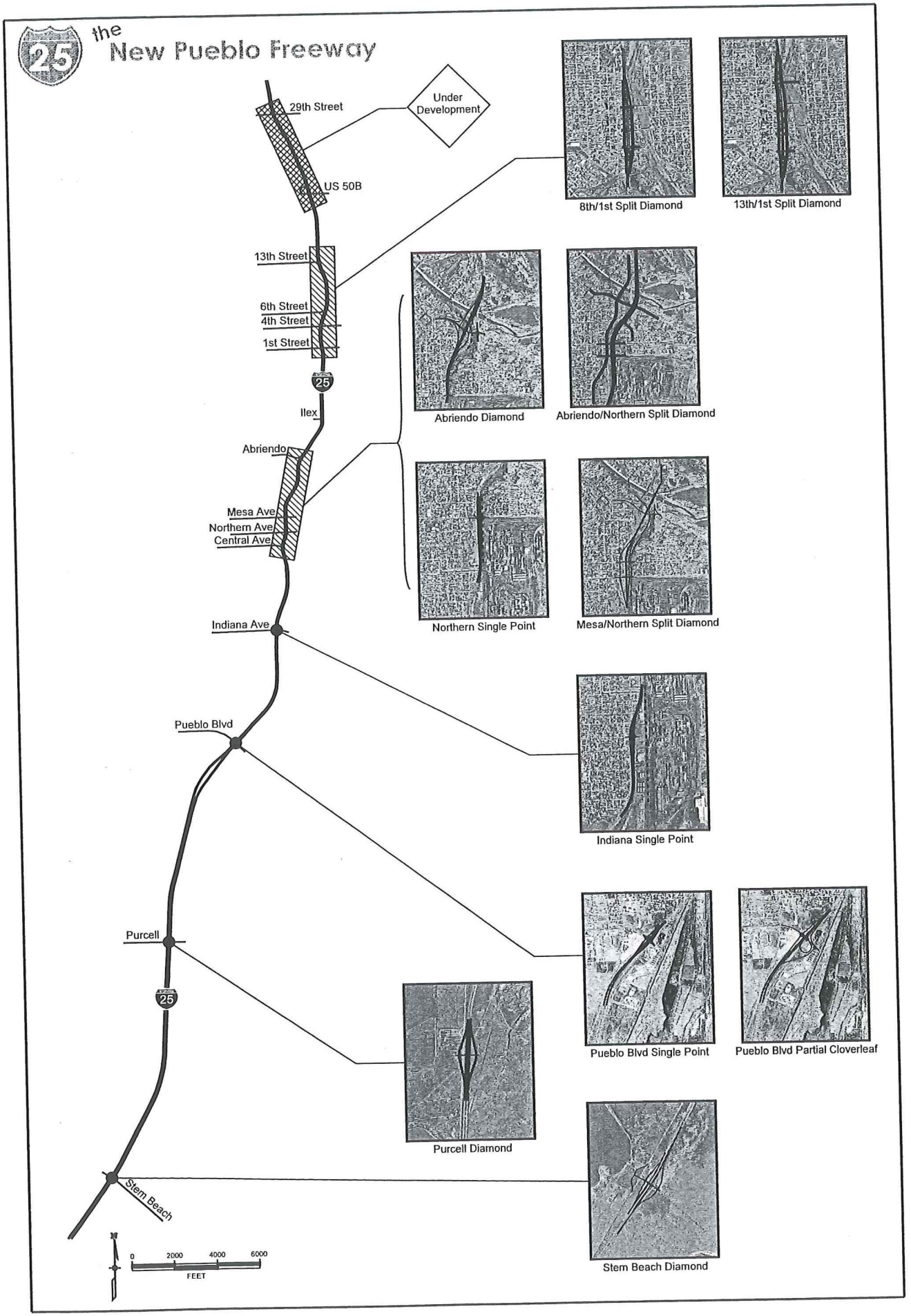
The comparative cost of this grouping will be calculated.

### *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<br>• Environmental Justice impacts<br>• Potential impacts to:<br>Historic property<br>Flood plains<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>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:<br>Mineral Palace Park<br>4 (f) and 6(f) land<br>• Impacts to the railroad<br>• Impacts to businesses and residences<br>• Environmental Justice impacts<br>• Potential impacts to:<br>Historic property<br>Flood plains<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>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.*

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<br>Mesa Overpass<br>Northern Overpass | 11 acres | 5 | • Probable impacts to businesses and residences<br>• Impacts to the railroad<br>• Potential hazardous waste<br>• Potential impacts to:<br>4(f) and 6(f) Land<br>Environmental Justice<br>Historic property<br>Threatened and endangered species<br>Water quality | | | Yes | | Somewhat<br>Note 1 | Somewhat | Somewhat | Yes | Ilex Abriendo Central mainline curvature | Yes | $90M | Somewhat difficult to construct |
| Abriendo Overpass<br>Mesa Overpass<br>Northern Interchange | 1 acres | 6 | • Potential impacts to businesses and residences<br>• Impacts to the railroad<br>• Potential hazardous waste<br>• Potential impacts to:<br>4 (f) and 6(f) Land<br>Environmental Justice<br>Historic property<br>Water quality | | | Yes | | Yes | Yes | Yes | Yes | Ilex Abriendo Central mainline curvature | Yes | $60M | Standard Construction |
| Abriendo / Northern Split Diamond<br>(includes relocation of I-25) | 22 acres | 37 | • Probable impacts to businesses and residences<br>• Impacts to the railroad<br>• Potential impacts to:<br>4(f) and 6(f) Land<br>Environmental Justice<br>Historic property<br>Water quality | | | Yes | | Yes | Yes | Yes | Yes | Ilex Abriendo Central mainline curvature | Yes | $130M | Standard Construction |
| Abriendo Overpass<br>Mesa/Northern Split Diamond | 33 acres | 70 | • Potential impacts to businesses and residences<br>• Impacts to the railroad<br>• Potential hazardous waste<br>• Potential impacts to:<br>4 (f) and 6(f) Land<br>Environmental Justice<br>Historic property<br>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.*

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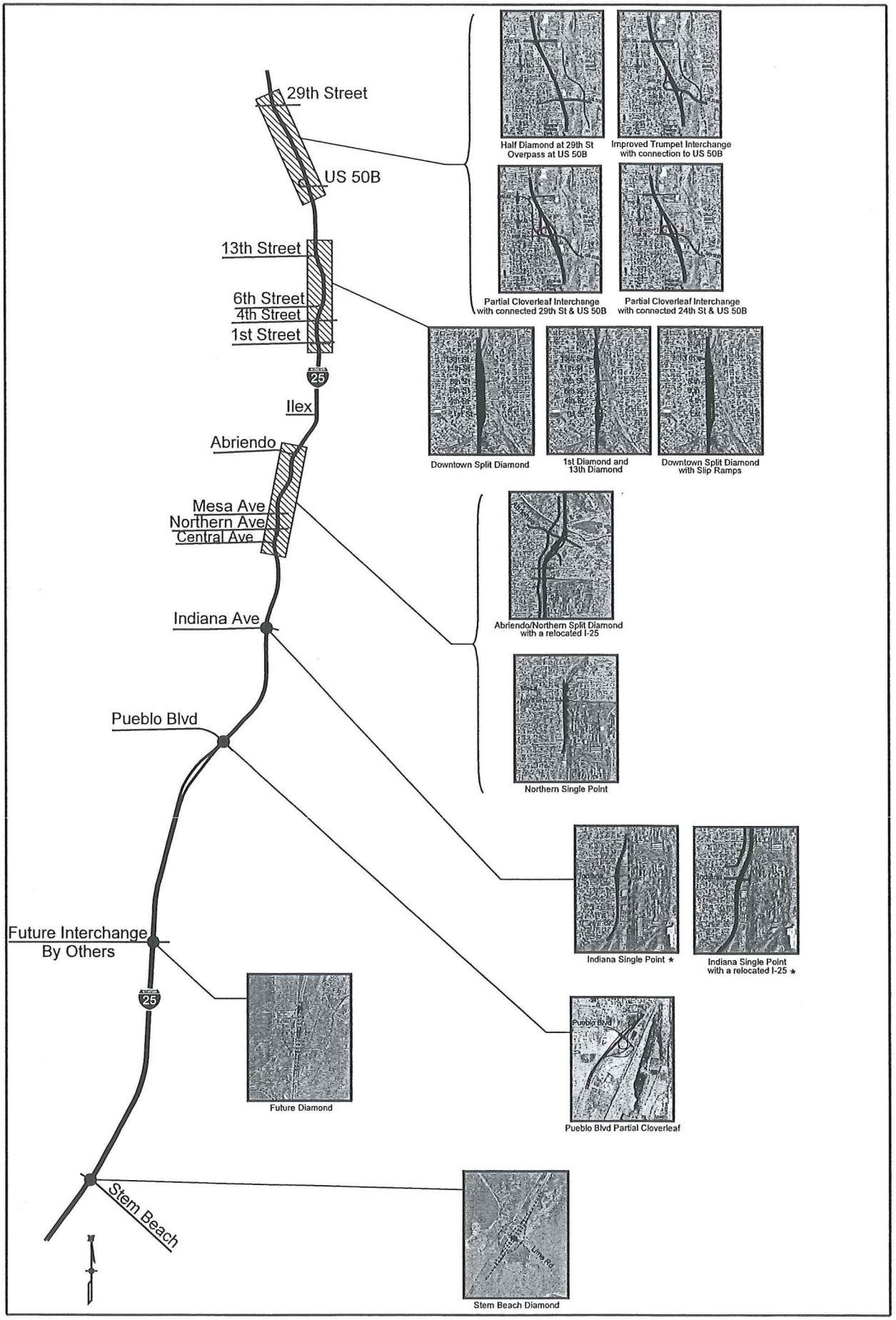
the New Pueblo Freeway

# 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 | Poor | Mix | Yes | Mix | Yes | Yes | Somewhat | No | 0 | No | 0 | --- |
| • Single Point Diamond @ Indiana<br>• Single Point Diamond @ Pueblo Blvd.<br>• Diamond @ Purcell**<br>• Diamond @ Stem Beach | 26 acres | 0 | **Indiana Interchange**<br>• Impacts to businesses and residences<br>• Potential hazardous waste<br>• Potential impacts to:<br>Environmental Justice<br>Historic property<br>Water quality<br><br>**Pueblo Blvd Interchange**<br>• Potential hazardous waste<br>• Potential impacts to:<br>Businesses and residences<br>Wetlands<br>Threatened and endangered species<br>Water quality<br><br>**Stem Beach**<br>• Potential hazardous waste<br>• Potential impacts to:<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>Water quality | Fair | Mix | Yes | Mix | Yes | Yes | Yes | Yes | Illinois Stem Beach | Yes | $60M | Standard Construction |
| • Single Point Diamond @ Indiana<br>• Partial Cloverleaf @ Pueblo Blvd.<br>• Diamond @ Purcell**<br>• Diamond @ Stem Beach | 44 acres | | | Fair | Fair | Yes | Fair / Mix | | | | | | | $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*




# 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<br>Overpass at US 50B | 2 acres | 11 | • Potential impacts to businesses and residences<br>• Potential impacts to:<br>Noise | | | Somewhat | | No | No | No | Yes | US 50B | No<br>Note 1 | $25M | Standard construction |
| Improved Trumpet Interchange with connection to US 50B | 27 acres | 65 | •Probable impacts to businesses and residences<br>•Potential impacts to:<br>Noise<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>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:<br>Businesses and residences<br>Noise<br>Historic property<br>• Potential impacts to:<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>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<br>• Potential impacts to:<br>Noise<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>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.*

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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<br>• Impacts to the railroad<br>• Impacts to businesses and residences<br>• Environmental Justice impacts<br>• Potential impacts to:<br>Historic property<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>Water quality | | | Yes | Note 1 & 5 | Yes | Yes | Yes | Yes<br>Note 2 | 6th 1st mainline curvature | Yes<br>Note 2 | $60M | - Standard construction<br>- RR Relocation<br>- 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<br>• Impacts to the railroad<br>• Impacts to businesses and residences<br>• Environmental Justice impacts<br>• Potential impacts to:<br>Historic property<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>• Water quality | | | Yes | Note 1 | Yes<br>Note 4 | Yes | Yes | Yes<br>Note 2 | 6th 1st mainline curvature | Yes<br>Note 2 | $60M | - Standard construction<br>- RR Relocation<br>- Phasing would be required |
| **1st Diamond Interchange**<br><br>**13th St Diamond Interchange** | 15 acres | 20 | • Impacts to floodplain<br>• Impacts to the railroad<br>• Impacts to businesses and residences<br>• Environmental Justice impacts<br>• Potential impacts to:<br>Historic property<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>Water quality | | | Yes | Note 1 | No | Yes | Somewhat | No<br>Note 2 | 6th 1st mainline curvature<br>Note 3 | No | $45M | - Standard construction<br>- RR Relocation<br>- 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.*

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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<br>Mesa Overpass<br>Northern Interchange | 7 acres | 32 | • Potential impacts to businesses and residences<br>• Impacts to the railroad<br>• Potential hazardous waste<br>• Potential impacts to:<br>4 (f) and 6(f) Land<br>Environmental Justice<br>Historic property<br>Water quality | | | Yes | | Yes | Somewhat | Somewhat | Yes | Ilex<br>Abriendo<br>Central<br>mainline curvature | Yes | $78 M | - Difficult Construction<br>- RR relocation<br>- Phasing would be needed |
| Abriendo / Northern Split Diamond<br>(includes relocation of I-25) | 22 acres | 37 | • Probable impacts to businesses and residences<br>• Impacts to the railroad<br>• Potential impacts to:<br>4(f) and 6(f) Land<br>Environmental Justice<br>Historic property<br>Water quality | | | Yes | | Yes<br>Note 1 | Yes | Yes | Yes | Ilex<br>Abriendo<br>Central<br>mainline curvature | Yes | $80 M | - Standard Construction<br>- 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

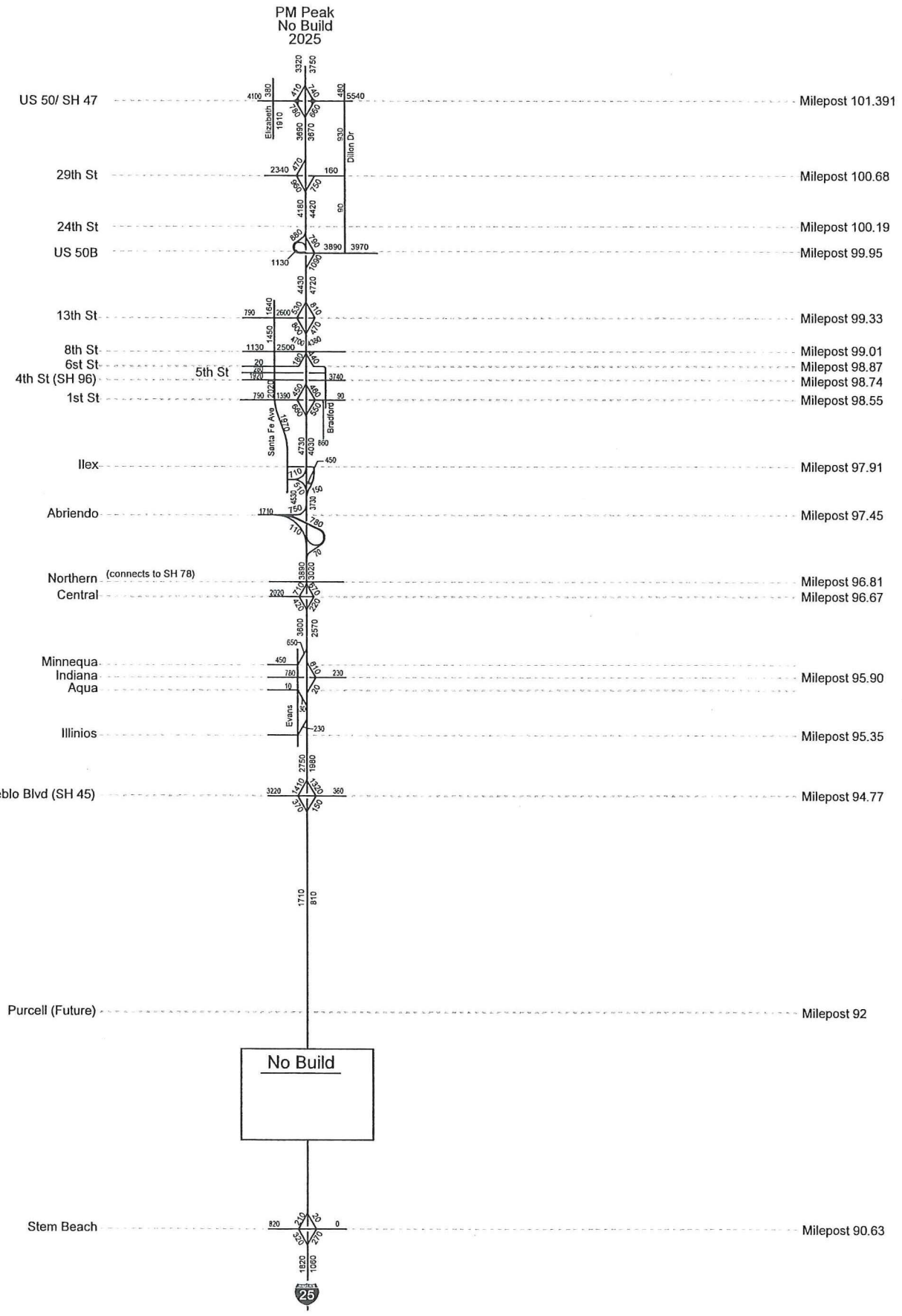
# Ranking of Interchange Groupings

| 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<br>• Partial Cloverleaf @ Pueblo Blvd.<br>• Diamond @ Purcell**<br>• Diamond @ Stem Beach | 44 acres | 0 | **Indiana Interchange**<br>• Impacts to businesses and residences<br>• Potential hazardous waste<br>• Potential impacts to:<br>Environmental Justice<br>Historic property<br>Water quality<br><br>**Pueblo Blvd Interchange**<br>• Potential hazardous waste<br>• Potential impacts to:<br>Businesses and residences<br>Wetlands<br>Threatened and endangered species<br>Water quality<br><br>**Stem Beach**<br>• Potential hazardous waste<br>• Potential impacts to:<br>Wetlands<br>Wildlife<br>Threatened and endangered species<br>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.*

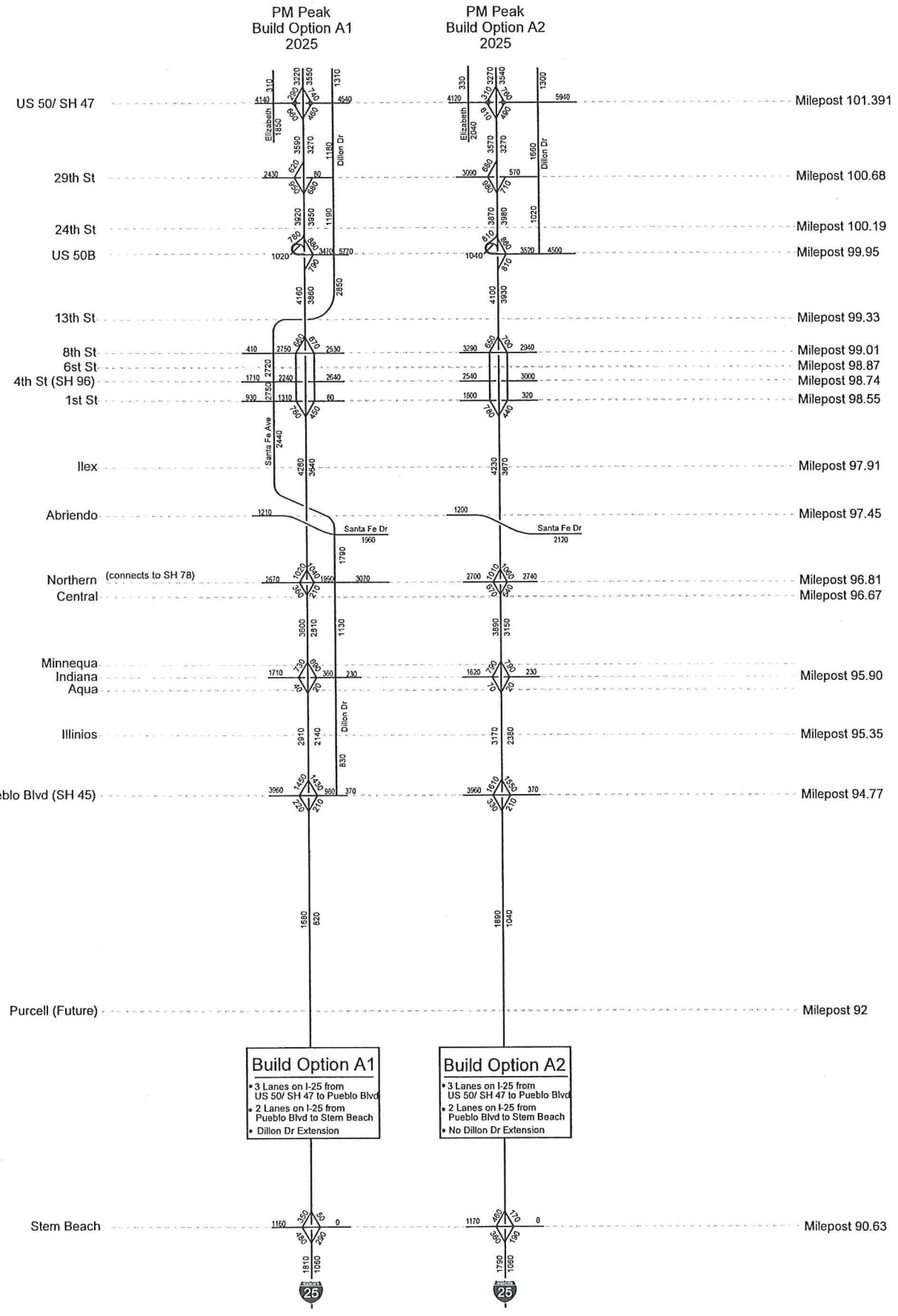
** *Future interchange by others*

the New Pueblo Freeway




# Traffic Data

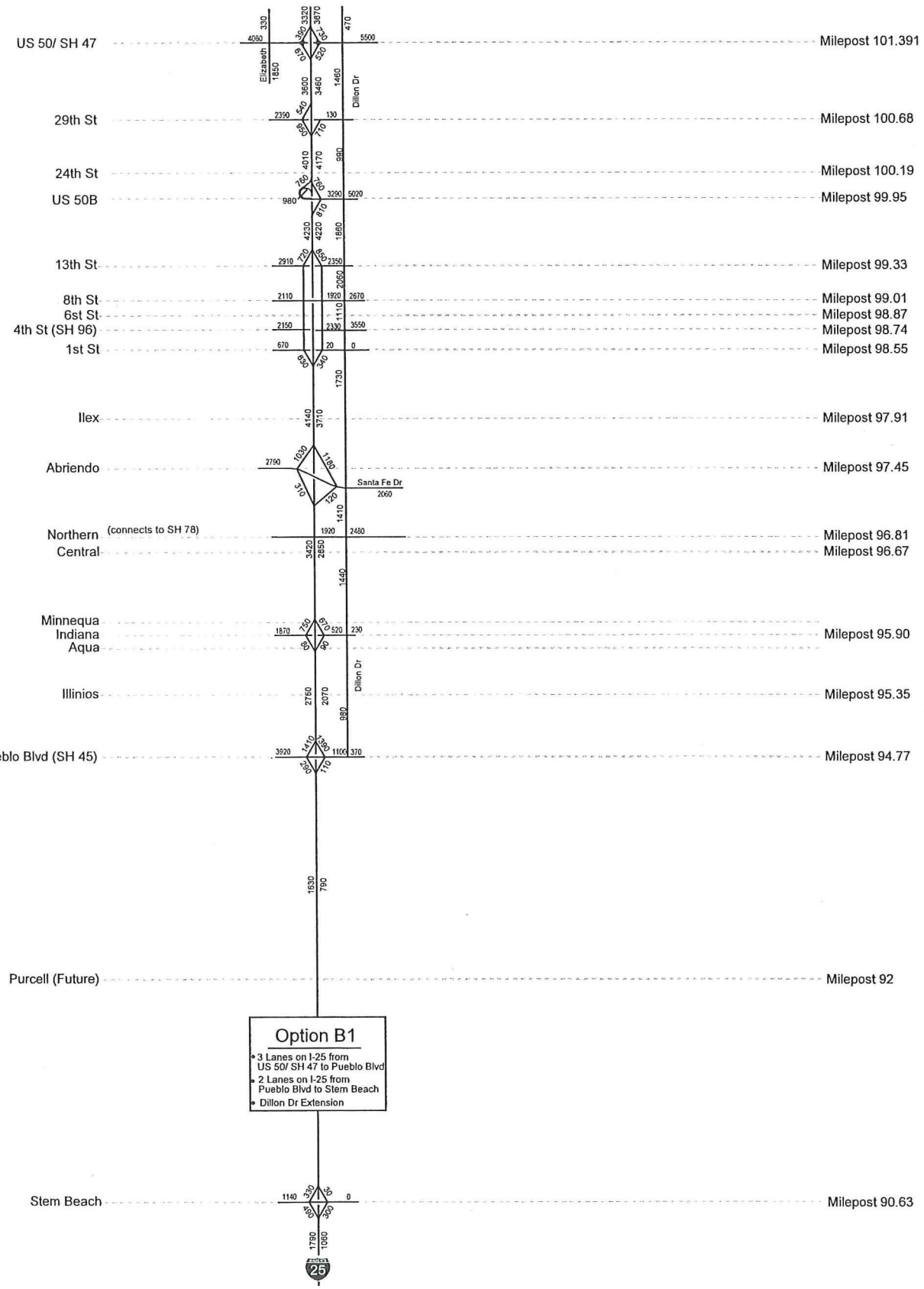
the New Pueblo Freeway




# Traffic Data

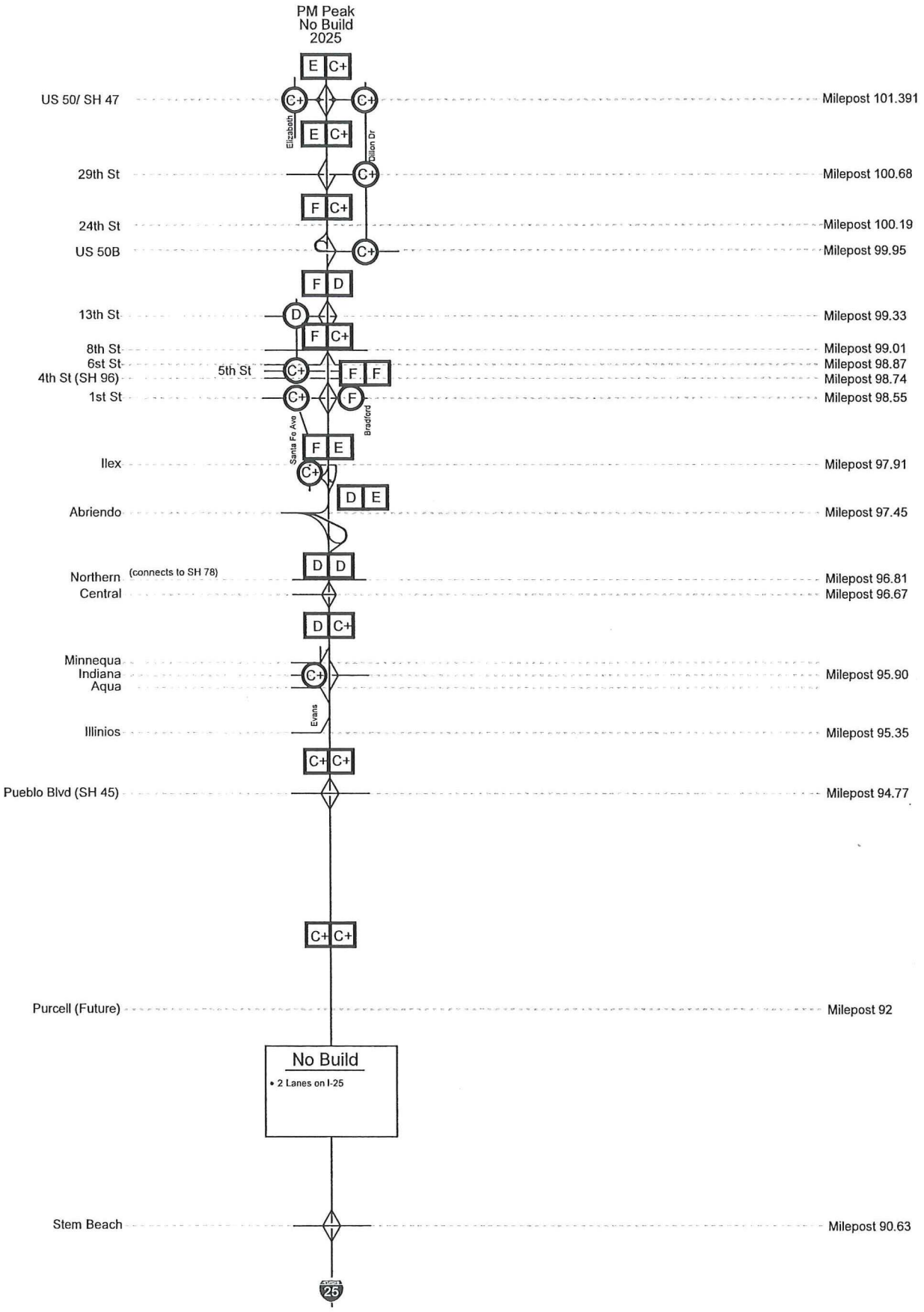
the New Pueblo Freeway

PM Peak
Build Option B1
2025



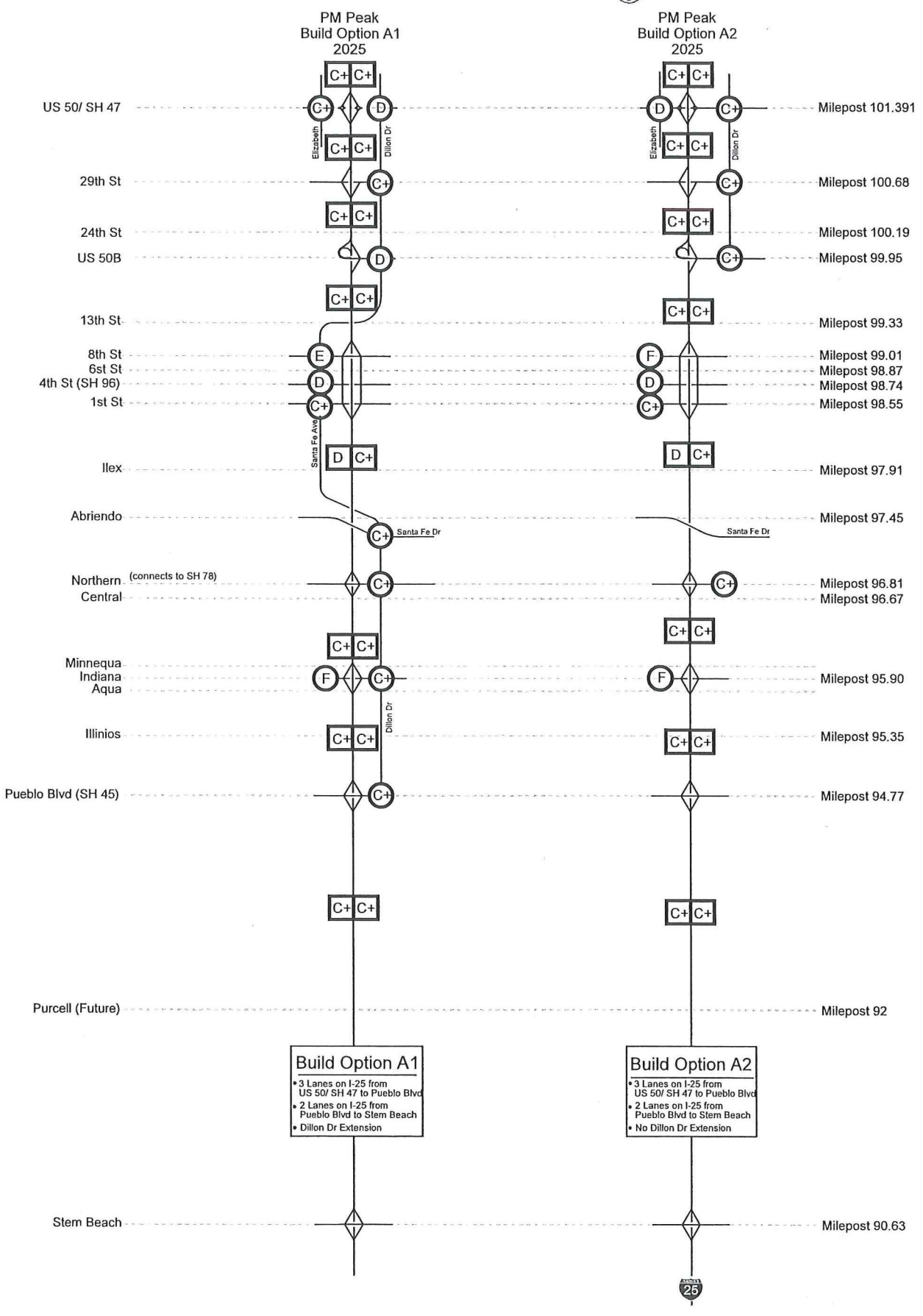

# Traffic Data

the New Pueblo Freeway



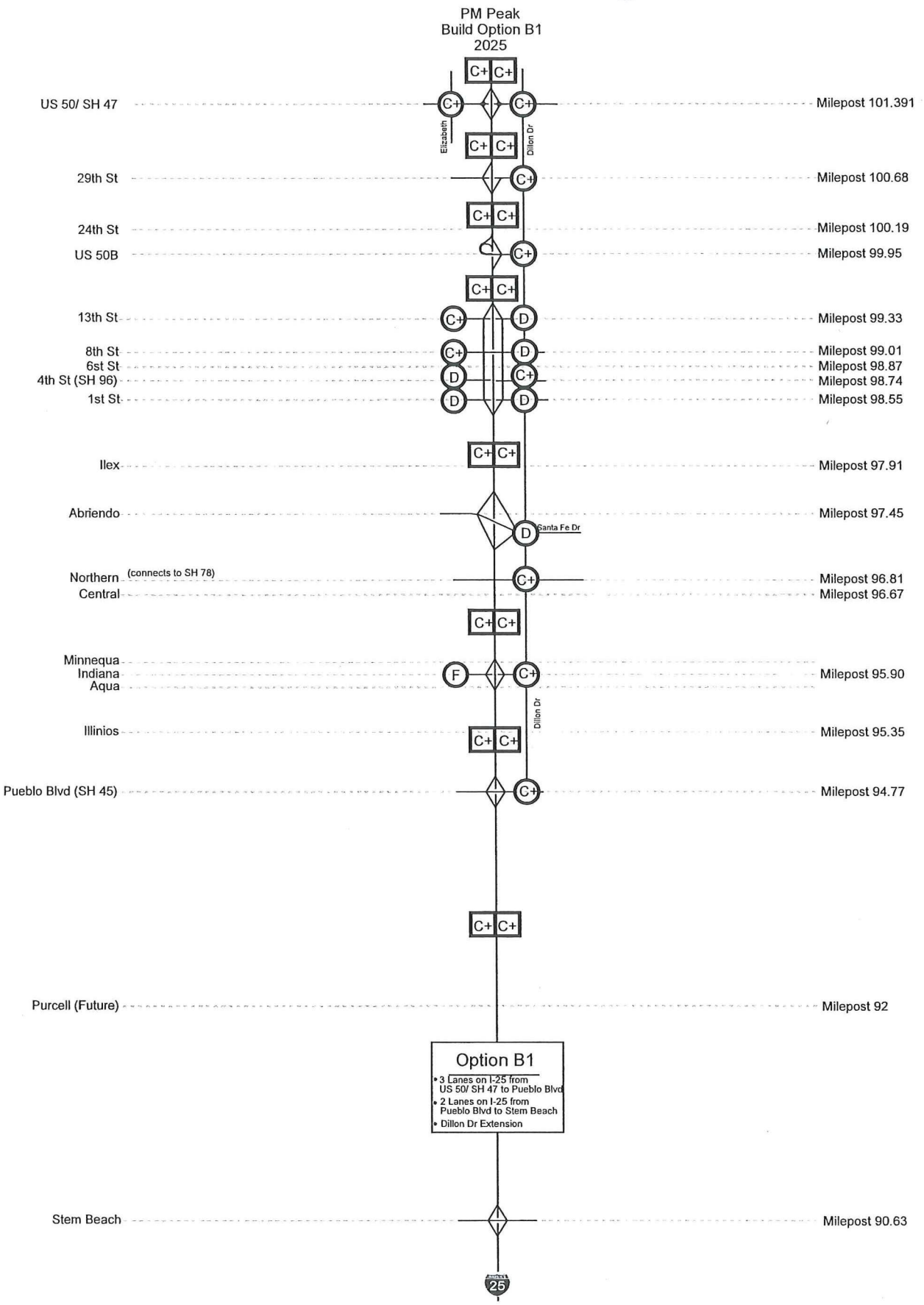

# Level of Service

the New Pueblo Freeway




# Level of Service

the New Pueblo Freeway




# 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 |

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)

| | |
|---|---|
| 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

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## 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

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## 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 | |

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 | | |
|---|---|---|
| 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 | |

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## Comments By Criteria Category
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| 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 | |

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## 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 | |

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## 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 | |

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## 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

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## 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



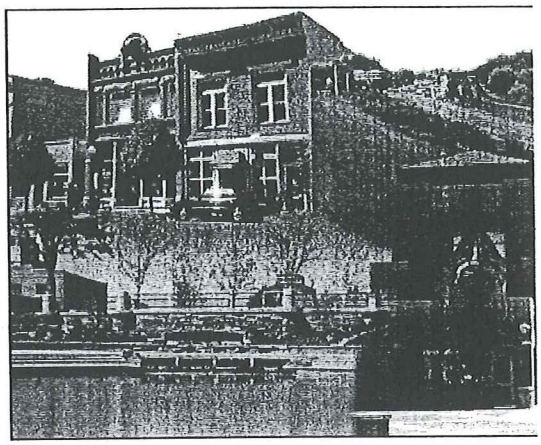
## Welcome to the New Pueblo Website

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

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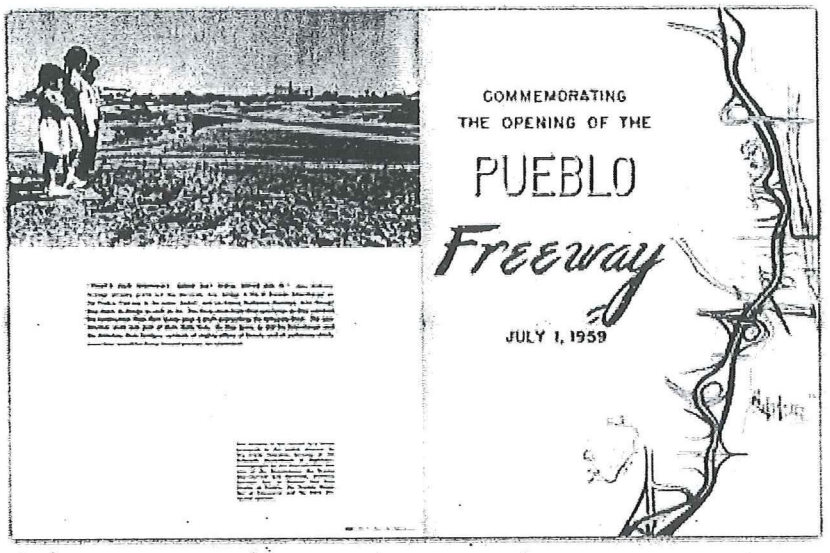
# the New Pueblo Freeway



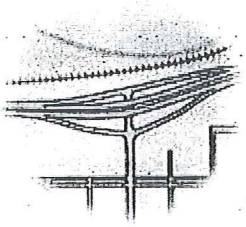
## Background

### Take A Good Look

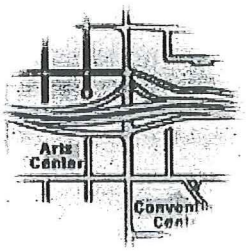



### Why Does I-25 Need a 'Good Look'?

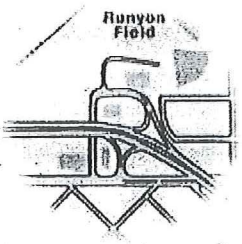
**13th Street**
Close to river and railroad; Drainage problems; April '99 storm impacted the railroad



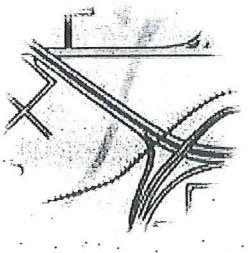
**1st Street**
Steep ramps; Insufficient merge length; Aging bridge; Landscaping opportunity; Main entrance to downtown; Drainage problems



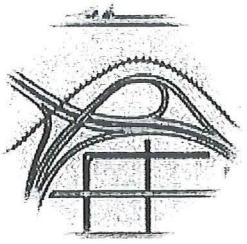

**Ilex**
High-accident location; Main access to Runyon complex; Key commercial access; Drainage problems




**Arkansas River Crossing**
Narrow roadway; Environmental concerns

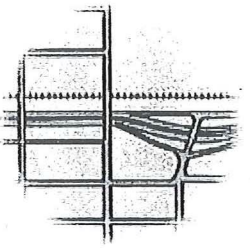


**Abriendo**



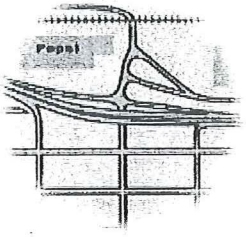
I-25 creates a barrier between neighborhoods; Narrow roadway; Aesthetic opportunity (view of downtown); Gateway to Abriendo area; Water quality concerns in this area; Close proximity to railroad; Lack of pedestrian facilities

**Mesa, Northern, Central**



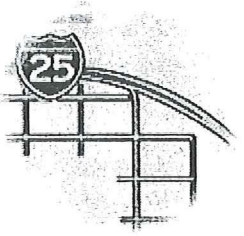
Tight curves and narrow roads; Aging bridges; Drainage problems; Confusing street names

**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**

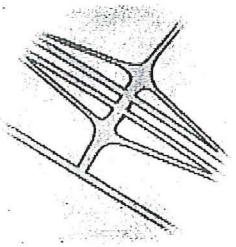



Off-ramp directly into neighborhood

**Pueblo Boulevard**

Significant "loop" road Southside development increasing

**Stem Beach**



Development increasing; Limited sight distance; Drainage problems

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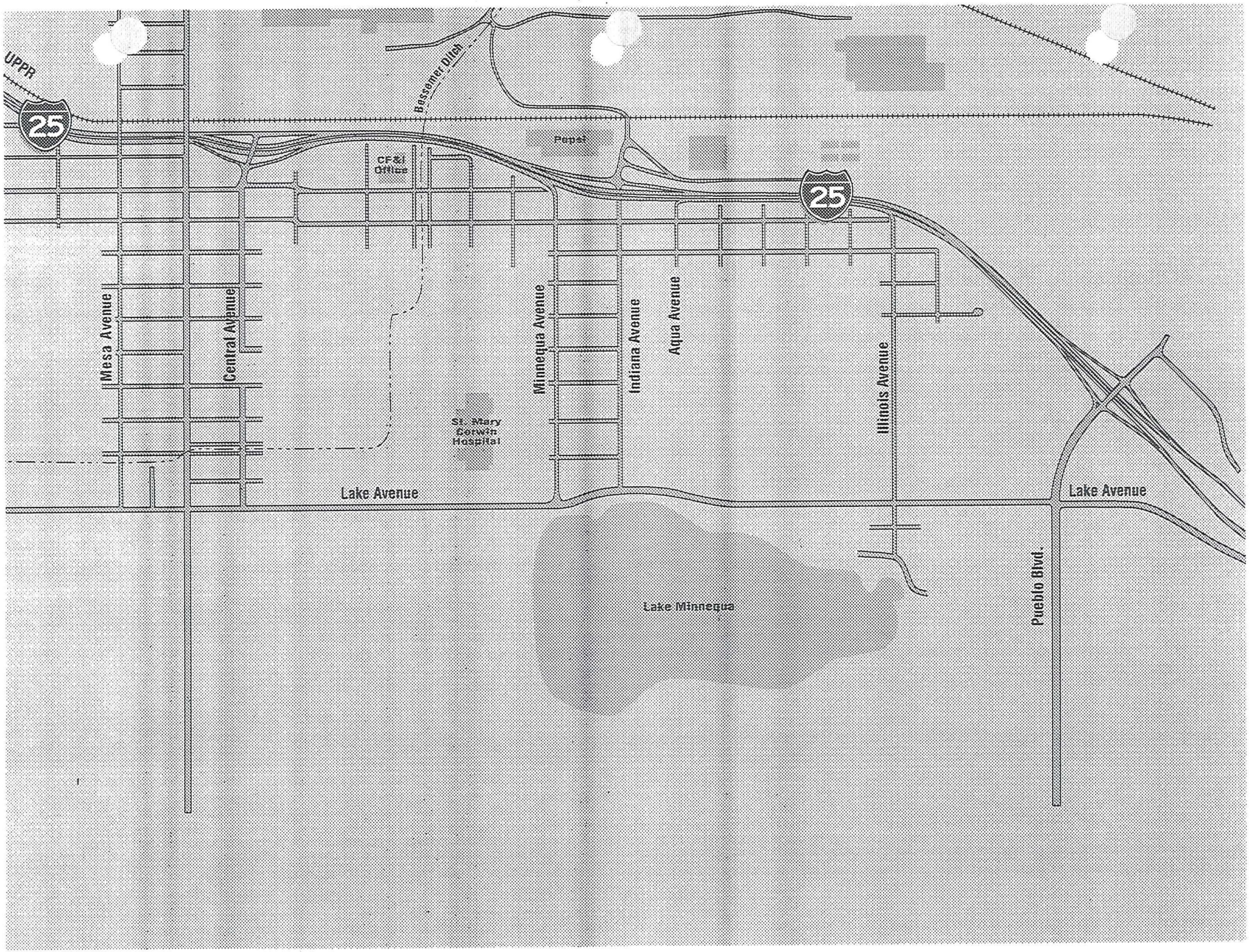
UPPR
25
Bessemer Ditch
Pepsi
CF&I Office
25
Mesa Avenue
Central Avenue
Minnequa Avenue
Indiana Avenue
Aqua Avenue
Illinois Avenue
St. Mary Corwin Hospital
Lake Avenue
Lake Avenue
Lake Minnequa
Pueblo Blvd.

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

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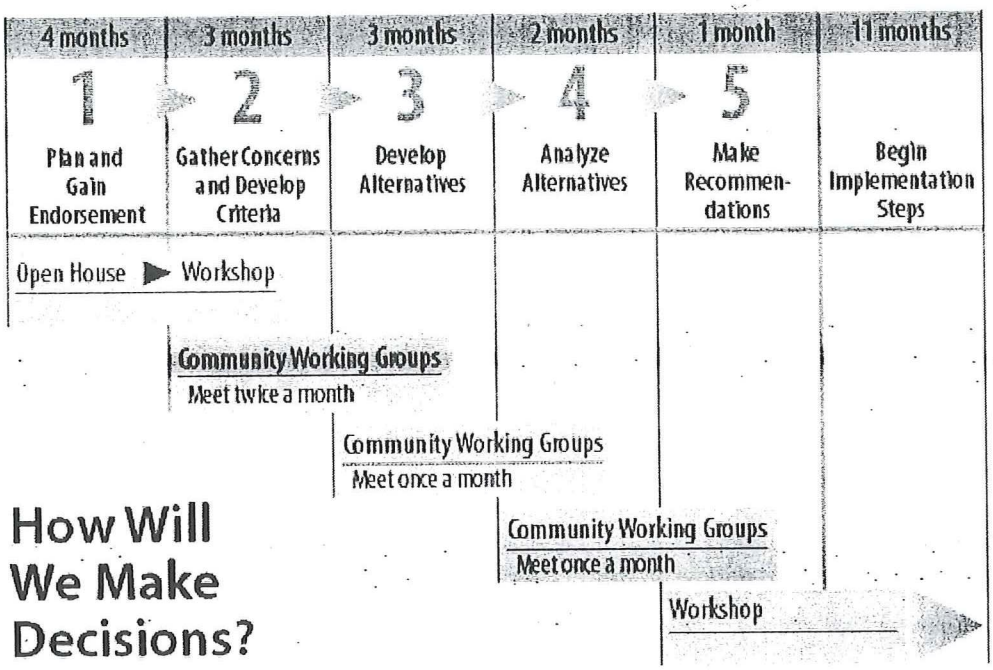
# the New Pueblo Freeway



## 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 interdependenc 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.

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# 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)

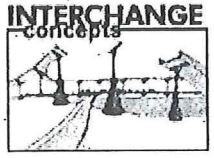
Concepts Level 2
(113Kb Adobe Acrobat Document)

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

Level 3 Interchanges
(102Kb Adobe Acrobat Document)

25 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.

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**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.

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# the New Pueblo Freeway



## Events

Overview

Open House Events

Workshops

Community Working Groups

State Fair

Additional Outreach

## 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 t 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.

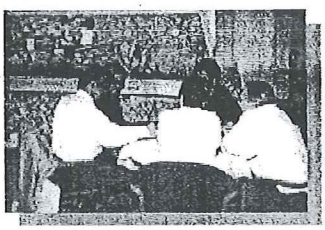
enter web photo gallery

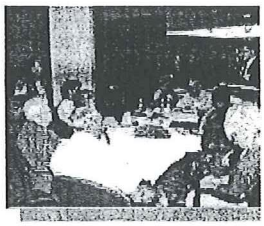
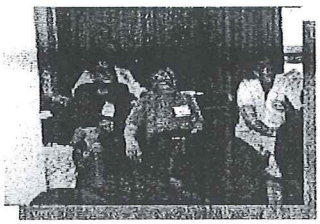
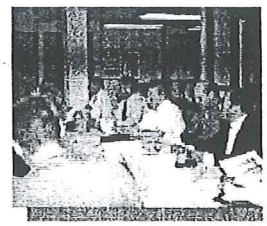
# Workshops t t back to top

**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.

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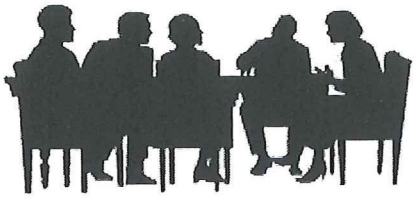
# the New Pueblo Freeway



## Stay Involved

the New Pueblo Freeway

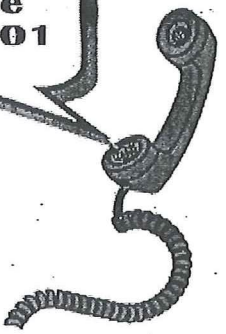
### How to Get More Information

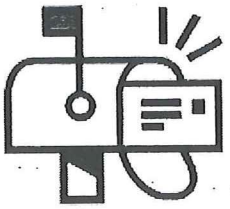


Project Web Site

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 | |

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# 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** | |



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# Appendix B
# Agency Consultation and Coordination

**APPENDIX B**

# Agency Consultation and Coordination

# Agency Scoping Meeting Summary

# The New Pueblo Freeway Draft EIS
# Agency Scoping Meeting

ATTENDEES: See full list on page 2

LOCATION: FHWA 3rd Floor Conference Room, 555 Zang, Lakewood, Colorado

MEETING DATE: February 13, 2003

SUBJECT: New Pueblo Freeway

PROJECT: 158128; IM 0251-156; SA 12831

AUTHOR: Dirk D. Draper/CH2M HILL

## INTRODUCTION

These meeting notes reflect the decisions and action items agreed on at this meeting. Please advise the Author as soon as possible if your meeting notes reflect any substantial differences from these notes.

On February 13, 2003, FHWA and CDOT hosted the Agency Scoping Meeting for the Draft Environmental Impact Statement (DEIS) of the New Pueblo Freeway. The meeting was held in the 3rd floor conference room of the FHWA office in Lakewood. The purpose of the meeting was to exchange information with resource management agencies about the project, and solicit feedback on the *Environmental Methodology Report* CH2M HILL has written for the project. The meeting began at 10 a.m. and lasted until 12:15 p.m.

## INVITATION AND PARTICIPATION

CH2M HILL worked with FHWA and CDOT Region 2 to identify federal, state and local agency representatives to invite to the scoping and coordination meetings. The Table below lists individuals based in Denver and their participation at the Scoping Meeting. Invitations to the meeting were emailed by Chris Horn/FHWA, on Friday, January 31, 2003, with the *Environmental Methodology Report* and *Information Package* attached as PDF files. Written invitations were mailed to the same individuals the following week, along with copies of the same two documents. CH2M HILL called each individual by telephone on Monday and Tuesday, February 10-11, 2003, to remind them of the meeting and determine their intent to participate. Representatives from HUD were identified late in this process. Following several telephone calls during the week, email invitations were sent by CH2M HILL to two HUD representatives on Wednesday, February 12, 2003.

The project sponsors will hold an "Agency Coordination Meeting" in Pueblo on February 27, 2003, for local agencies. The email and letter invitations identified this meeting to all recipients for their convenience. Please refer to the separate Agency Coordination Meeting Summary from that event for more information.

## PARTICIPANTS

| Agency/Individual, Specialty | Invited | Attended |
|---|---|---|
| **Federal and State Transportation Agencies** | | |
| FHWA/Charmaine Farrar, Manager | No | Yes |
| FHWA/Dennis Durbin, Environmental | Yes | Yes |
| FHWA/Chris Horn, Project Manager | Yes | Yes |
| FHWA/Monica Pavlik, Environmental | No | Yes |
| FHWA/Edrie Vinson, Environmental | Yes | No |
| CDOT Region 2/Dick Annand, RPEM | Yes | Yes |
| CDOT Region 2/Judy DeHaven, Environmental | Yes | Yes |
| CDOT Region 2/David Miller, Project Manager | Yes | Yes |
| CDOT EP/Mike Banovich , Landscape Architect | No | Yes |
| CDOT EP/Tom Boyce, Water Quality | Yes | No |
| CDOT EP/Dan Jepson, Cultural Resource Mgr-Archaeologist | Yes | Yes |
| CDOT EP/Gordon McEvoy, Water Quality | No | Yes |
| CDOT EP/Jerry Piffer, Air Quality, Environmental Justice | Yes | Yes |
| CDOT EP/Lisa Schoch, Historian | Yes | Yes |
| CDOT EP/Rebecca Vickers, Environmental Manager | Yes | No |
| CDOT EP/Steve Wallace, Paleontologist | Yes | Yes |
| **Denver Resource Agencies** | | |
| Advisory Council on Historic Preservation/Don Klima, Manager | Yes | No |
| Army Corps of Engineers/Anita Culp, Floodplains | Yes | Yes |
| CDPHE/Air Pollution Control Division/Jim DiLeo, Air Quality | Yes | Yes |
| CDPHE/Solid Waste/Pat Martinek, Hazardous Materials | Yes | Yes |
| CDPHE/Water Quality/Kathleen Reilly, Water Quality | Yes | No |
| EPA/Sarah Fowler, 404 program | No | Yes |
| EPA/Debra Lebow, NEPA | Yes | Yes |
| FEMA/John Liou, Floodplains | Yes | Yes |
| Fish and Wildlife Service/Allison Michael, Listed species | Yes | Yes |
| HUD/Guadalupe Herrera, Environmental Justice | Yes | No |
| HUD/Howard Kutzer, Environmental Justice | Yes | No |
| SHPO/Dan Corson, Historical and Archaeological | Yes | No |
| **Consultant Team in Attendance** | | |
| CH2M HILL/Bill Knapp, EIS Project Manager | | |
| CH2M HILL/Dirk Draper, Environmental Planner | | |
| CH2M HILL/Andrea Garcia, EIS Task Manager | | |
| CH2M HILL/Mary Jo Vobejda, EIS Public Involvement Manager | | |

## AGENDA

The agenda is attached and was followed in conducting the meeting.

## DISPLAYS AND HANDOUTS

Bill Knapp/CH2M HILL Project Manager, conducted the majority of the first half of the meeting using a PowerPoint slide show that introduced participants to the project background and extensive development phase activities.

Mary Jo Vobejda/CH2M HILL Public Involvement Specialist, briefed the group on the public involvement strategies and activities that were conducted during the Feasibility Study. She highlighted the variety of methods used to engage the public in the decision making process that occurred during planning.

Bill Knapp provided an overview of the environmental issues that were discovered during the Feasibility Study and explained the reasons an EIS is warranted. Bill talked through the EIS schedule, which shows a completion date of December 2004 for a DEIS submittal.

Andrea Garcia/CH2M HILL EIS Task Manager, described FHWA and CDOT early agency coordination efforts. This included an October 7, 2002, field trip and informal resource agency briefings conducted in November and December 2002. She described the purpose of the *Environmental Methodology Report* and how it will be used to guide the EIS study process. She said that comments are being accepted on the report through March 13, 2003.

A number of maps and oversized figures were displayed at the meeting, including aerial photos overlain with map outlines of each alternative that were approximately 8 feet long, and one aerial photograph of the corridor that was approximately 12 feet long.

Participants at the meeting were provided with a meeting agenda and an 11" x 17" map of each of the three alternatives. A number of copies of the *Environmental Methodology Report* and *Info Package* were distributed at the meeting.

## ACTION ITEMS

These action items were identified in the Agency Scoping meeting:

- CH2M HILL will send updated maps of the Existing I-25 Alignment Alternative to meeting participants.
- CH2M HILL will send copies of the agenda and 11x17 maps to agency representatives who were invited but unable to attend the Agency Scoping or Coordination meetings.
- CH2M HILL to change CDPHE contact to Kathleen Reilly and delete Bill McKee's name from the Contact List, and to delete Van Truan/Corps from the Contact List.
- EPA will provide CH2M HILL with examples of air toxins mitigation measures.
- Judy DeHaven/CDOT R2 will provide a copy of new CDOT noise guidance to CH2M HILL.
- Chris Horn/FHWA will provide FHWA guidance on Cumulative Impacts (February 2003) to CDOT and CH2M HILL.
- CH2M HILL to provide Steve Wallace, CDOT paleontologist with aerial photographs at 1" = 2000' scale for his fieldwork.
- Agency representatives will submit comments on the *Environmental Methodology Report* to Andrea Garcia/CH2M HILL by March 13, 2003.
- After March 13, 2003, CH2M HILL will revise the *Environmental Methodology Report* to reflect comments from FHWA, CDOT, and participants at the Scoping and Coordination meetings. Copies of the revised *Environmental Methodology Reports* will be provided to agency representatives on the Scoping Contact List.

## DISCUSSION

During the hour-long question-and-answer session CH2M HILL recorded comments and questions on a display easel. The transcript of comments is attached. Much of the discussion focused on floodplains, air toxins, and secondary impacts.

### *Floodplains*

John Liou/FEMA advised that numerous studies of Fountain Creek are underway; consistency is needed in approach and assumptions on all studies of Fountain Creek, including the New Pueblo Freeway. FEMA noted that revising the models of Fountain Creek's complex floodplains is a process further complicated by the interim status of hydrology modeling. John suggested that hydraulics modeling will be needed for 10 miles of Fountain Creek.

FEMA noted that its stringent floodway criteria and Executive Order 11988 on floodplains must be followed in planning the New Pueblo Freeway.
COE/FEMA/PPACG need to define roles/responsibility among themselves, given the multiple concurrent studies and interim status of baseline data.

Bill Knapp confirmed that potential impacts to the floodplains were presented to the public during the initial project planning. He noted that additional analysis and results will be shared with public during the EIS.

Also see comment on indirect impacts in the Wetlands discussion, below.

### *Air Quality and Air Toxics*

Chris Horn asked whether the *Environmental Methodology Report* section is too detailed for an attainment area. After discussion, participants agreed that further meetings are needed with FHWA, CDOT, EPA and APCD regarding the level of air quality analysis needed in Pueblo. CH2M HILL explained that existing I-25 through-lanes operate at Level of Service (LOS) C or better, while some existing interchanges along I-25 operate at LOS D or better. Future traffic operations (2025) are anticipated to operate at LOS F.

NEPA requires some discussion of conformity with limited hot spot analysis, given the forecast of LOS F. Jim DiLeo/APCD and Debra Lebow/EPA requested a qualitative statement on particulates in the DEIS, and suggested that standard language from those agencies be applied to the air quality analysis. EPA may not require heavy detailed analysis, but the agency does have mitigation measures to implement now, for example, requiring construction vehicles to use cleaner diesel fuel, and implement dust control measures.

EPA explained its position that air toxins are a more important topic than pollutants in Pueblo. Impacts from air-borne toxins could be an important element in a project's environmental justice evaluation if potential impacts are concentrated in specific neighborhoods and mitigation is not implemented. EPA cited the example that fugitive dust containing heavy metals is a concern, and may be an issue at the steel mill, especially when excavations occurs.

EPA is requiring that some mitigation measures for air toxins be addressed in the DEIS. The agency does have mitigation measures to implement now (for example I-70 East corridor an EPA/Denver City project) and will provide examples to CH2M HILL. CDOT does not currently have a department policy on air toxins.

*Cultural and Paleontological Resources*

Dan Jepson/CDOT EP, asked about the level of public interest in historic preservation in Pueblo, and what had been the level of involvement in public meetings. CH2M HILL described a high level of local pride and interest in cultural resources, and cited multiple local historical groups operating in Pueblo. CH2M HILL summarized attendance at the public participation events as consistently high, with high level of local interest and understanding.

Dan Jepson noted that the *Environmental Methodology Report* section on cultural resources should be more detailed and reflect archaeological and paleontological investigations and Native American consultations, all of which will be conducted by CDOT. He also requested that given the size and complexity of historic resources in this study area the consultant team have very close contact with CDOT-EP, especially Dan and Lisa Schoch/CDOT EP. Dan offered that when CH2M HILL meets with local groups on historic resource issues, CDOT would be willing to attend. Bill Knapp noted that one of the public workshops is specifically focused on historical resources.

Steve Wallace/CDOT EP paleontologist, requested aerial photographs at 1" = 2000' scale for his fieldwork. He also noted that CDOT would need Rights of Entry agreements to do paleontology fieldwork.

*Hazardous Materials*

Debra Lebow/EPA, requested that the DEIS address the potential presence of lead-based paint, especially in residences and bridges. She also asked if we had methodology established on how to report and address methamphetamine labs (a growing concern in many urban areas).

One participant asked whether any of the alternatives would directly affect the mill, and whether a brownfields approach was appropriate. After discussion FHWA and CDOT agreed to confer with EPA on potential funding sources under their brownfields programs.

*Alternatives Analysis*

One participant asked if the EIS will revisit all of the original alternatives evaluated in the preliminary planning. CH2M HILL confirmed that these alternatives will be evaluated and documented.

*Noise*

CDOT recommended the *Environmental Methodology Report* to be revised to reflect the agency's new regulations on noise. Judy DeHaven/CDOT R2 will provide a copy of the guidance to CH2M HILL.

***Erosion/Sedimentation*** especially in Fountain Creek

Anita Culp/Corps asked how sedimentation and erosion would be addressed in the EIS, and noted that stormwater and MS4 permits will be needed. She also noted that mitigation will be required, not "may" as currently stated in the *Environmental Methodology Report*.

John Liou/FEMA asked that the EIS address how to ensure protection of highway from flooding. The Corps asked that during design Dillon Crossing be made perpendicular to Fountain Creek, if possible, to minimize impacts.

### *Water Quality*

One participant asked for identification of the City's water sources. CH2M HILL explained that Pueblo obtains its water from the Arkansas River and Pueblo Reservoir.

Gordon McEvoy/CDOT EP suggested that the DEIS clarify the water use type that is impacted by project activities, and to distinguish between potable or industrial uses because water quality needs may vary among uses.

### *Wetlands and T & E*

Allison Michael/USFWS asked that the DEIS include analysis include "water bodies, wildlife" for their important connections with riparian communities. She also noted that the agenda identified these resources, but the *Environmental Methodology Report* did not. CH2M HILL explained that wetlands and riparian habitat would be evaluated in the DEIS, as identified in the *Environmental Methodology Report*, and acknowledged that the agenda, which is based on the FHWA Technical Advisory does vary on that topic.

Anita Culp/Corps asked that care be taken in delineating wetlands in 2003, and to not base our analysis or conclusions on current hydrology. She suggested that during drought conditions we not rely only on hydrology but map the wetland features based on vegetation.

One commentor noted that Executive Order 11990 on Wetlands Protection should be identified as guidance in *Environmental Methodology Report*.

One commentor noted that the DEIS analysis of wetlands include discussion of the impacts on off-site gravel pits for aggregate, and suggested that this is a potentially important issue. The suggestion was made that we treat this potential impact as disclosure issue—that is, identify it in Indirect Effects or Cumulative Impacts, and don't ignore it as a potential impact.

Another commentor noted that this same issue applied to floodplains—that is, gravel mining can indirectly affect floodplains.

### *Green Building Practices*

Pat Martinik/CDPHE requested that green building practices be implemented wherever possible; for example, recycling old concrete and using recycled tires in noise walls. The commentor suggested that CDOT build these practices into contractual incentives for contractor. Bill Knapp suggested this be reflected in any project advertisements so contractors could reflect this approach in their bids. Another commentor suggested that

balancing recycling and other green practices be among the topics in the context sensitive solutions workshops.

### *Visual*

One participant advised that FHWA and CDOT should use the federal Highway Beautification Act as guidance on visual impacts.

### *Cumulative Impacts*

Chris Horn recommended the *Environmental Methodology Report* be revised to reflect the February 3, 2003, FHWA-published interim guidance on cumulative impacts. Chris Horn said he would provide this document to CDOT and CH2M HILL.

## ARCHIVED MATERIALS

Contact list
*Information Package*
*Environmental Methodology Report*
Transcript of comments recorded on easel at meeting
11 x 17 maps
Invitation email
Invitation letter
B.Knapp PowerPoint presentation slides
Sign-In sheets

the New Pueblo Freeway

# Agency Scoping Meeting

Please Sign In

## February 13, 2003

| Name | Affiliation | Contact Information ONLY IF IT HAS CHANGED |
|---|---|---|
| Steve Wallace | CDOT Environmental | |
| MIKE BANIOVICH | " | |
| GORDON McEVOY | " " Water Quality | GORDON.mcevoy@dot.state.co.us (303) 757-9343 |
| Lisa Schoch | CDOT History | |
| DAN JEPSON | CDOT Archaeo./Cultural Res. | |
| Jerry Piffer | CDOT - Env. Programs | |
| Charmaine Farrar | FHWA | |
| Pat Martinek | CDPHE | |
| Alison Michael | USFWS | |
| Anita Culp | Corps of Engineers | |
| DICK ANNAND | CDOT - R2 | |
| Mary Jo Vobejda | CH2M HILL | |
| Andrea Garcia | CH2M Hill | |
| Judy Dethaven | CDOT R2 | |
| David Miller | CDOT R2 | |
| John Liou | FEMA. RS | |

the New Pueblo Freeway

# Agency Scoping Meeting

Please Sign In

**February 13, 2003**

| Name | Affiliation | Contact Information ONLY IF IT HAS CHANGED |
|---|---|---|
| Jim DiLeo | Dept of Health Air Pollution Control | |
| Dennis Durbin | FHWA | |
| Monica Pavlik | FHWA | (303) 964-6730 x 352 monica.pavlik@fhwa.dot.gov |
| Chris Horn | FHWA | |
| Sarah Fowler | EPA - 404 Program | |
| DEBORAH LEBOW | EPA - NEPA | |
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# The New Pueblo Freeway Draft EIS Agency Coordination Meeting

ATTENDEES: See full list on page 2

LOCATION: Interim Library Conference Room, 701 Court Street, Pueblo, Colorado

MEETING DATE: February 27, 2003

SUBJECT: New Pueblo Freeway

PROJECT: 158128; IM 0251-156; SA 12831

AUTHOR: Dirk D. Draper/CH2M HILL

## INTRODUCTION

These meeting notes reflect the decisions and action items agreed on at this meeting. Please advise the Author as soon as possible if your meeting notes reflect any substantial differences from these notes.

On February 27, 2003, FHWA and CDOT hosted an Agency Coordination Meeting for the Draft Environmental Impact Statement (DEIS) of the New Pueblo Freeway. The meeting was held in the Interim Library for the City-County Library in Pueblo. The purpose of the meeting was to exchange information with resource management agencies about the project, and solicit feedback on the *Environmental Methodology Report* CH2M HILL has written for the project. The meeting began at 10 a.m. and lasted until 11:50 a.m.

## INVITATION AND PARTICIPATION

CH2M HILL worked with FHWA and CDOT Region 2 to identify federal, state and local agency representatives to invite to the scoping and coordination meetings. The Table below lists individuals based in Pueblo and their participation at the Coordination Meeting. Invitations to the meeting were emailed by Chris Horn/FHWA, on Friday, January 31, 2003, with the *Environmental Methodology Report* and *Information Package* attached as PDF files. Written invitations were mailed to the same individuals the following week, along with copies of the same two documents. CH2M HILL called each individual by telephone on Tuesday and Wednesday, February 25-26, 2003, to remind them of the meeting and determine their intent to participate.

The project sponsors held an "Agency Scoping Meeting" in Lakewood on February 13, 2003. The email and letter invitations identified the February 13th meeting to all recipients for their convenience. Please refer to the separate Agency Scoping Meeting Summary from that event for more information.

## PARTICIPANTS

| Agency/Individual, Specialty | Invited | Attended |
|---|---|---|
| **Federal and State Transportation Agencies** | | |
| FHWA/ Dennis Durbin, Environmental | Yes | Yes |
| CDOT Region 2/Dick Annand, RPEM | Yes | Yes |
| CDOT Region 2/Judy DeHaven, Environmental | Yes | Yes |
| CDOT Region 2/David Miller, Project Manager | Yes | Yes |
| **Pueblo Resource Agencies** | | |
| Bessemer Historical Society/Maria Sanchez | Yes | No |
| City of Pueblo/Dan Centa, Transportation | Yes | Yes |
| City of Pueblo/David Cockrell, Neighborhoods | No | Yes |
| City of Pueblo/Tom Cvar, Public Works | Yes | No |
| City of Pueblo/Bob Gilliland, Parks | No | Yes |
| City of Pueblo/Jim Munch | Yes | Yes |
| City of Pueblo/Jack Quinn, Housing Authority | Yes | Yes |
| City of Pueblo/Rich Zajac, Parks | Yes | Yes |
| Colorado Division of Wildlife/Al Trujillo | Yes | No |
| Colorado Division of Wildlife/Kevin Kaczmerek | Yes | No |
| PACOG/Bill Moore, Director | Yes | Yes |
| Pueblo County/Kim Headley, Planning | Yes | No |
| Pueblo County/Greg Severance, Public Works | Yes | No |
| Pueblo County/Del Olivas, Social Services | Yes | No |
| Pueblo County/ Jeffrey Woeber, Planning | Yes | Yes |
| Pueblo County, City of Pueblo/Emmet Hance, Health Department | Yes | Yes |
| Pueblo County, City of Pueblo/Chris Nevin-Wood, Health Department | Yes | No |
| Pueblo County Historical Society/George Williams | Yes | Yes |
| U.S. Army Corps of Engineers/Van Truan, Manager | Yes | No |

**Consultant Team in Attendance**
CH2M HILL/Bill Knapp, EIS Project Manager
CH2M HILL/Andrea Garcia, EIS Task Manager
CH2M HILL/Mary Jo Vobejda, EIS Public Involvement Manager
CH2M HILL/Dirk Draper, Environmental Planner
Ballantyne Marketing/Glenn Ballantyne, Public Involvement

## AGENDA

The agenda is attached and was followed in conducting the meeting.

## DISPLAYS AND HANDOUTS

Bill Knapp/CH2M HILL Project Manager, conducted the majority of the first half of the meeting using a PowerPoint slide show and display maps that introduced participants to the project background and extensive development phase activities.

MaryJo Vobejda/CH2M HILL Public Involvement Task Manager, briefed the group on the public involvement strategies and activities that were conducted during the Feasibility Study. She highlighted the variety of methods used to engage the public in the decision making process that occurred during planning.

Bill Knapp provided an overview of the environmental issues that were discovered during the Feasibility Study and explained the reasons an EIS is warranted. Bill talked through the EIS schedule, which shows a DEIS submittal in December 2004.

Andrea Garcia/CH2M HILL EIS Task Manager, described FHWA and CDOT early agency coordination efforts. This included an October 7, 2002, field trip and informal resource

agency briefings conducted in November and December 2002. She described the purpose of the *Environmental Methodology Report* and how it will be used to guide the EIS study process. She said that comments are being accepted on the report through March 13, 2003.

A number of maps and oversized figures were displayed at the meeting, including aerial photos approximately 6 feet long overlain with map outlines of each build alternative.

Participants at the meeting were provided with a meeting agenda and three 11" x 17" maps of each of the alternatives, one overlaid on an aerial photograph. A number of copies of the *Environmental Methodology Report* were distributed at the meeting. Participants were asked to register on the Sign-In Sheet.

## ACTION ITEMS

These action items were identified in the Agency Scoping meeting:

- CH2M HILL will send copies of the agenda, 11x17 maps, and minutes from both agency meetings to participants and invitees.
- Distribute Air Quality Technical Memo, when it is completed, to Pueblo County Health Department.
- Reach out to residents in the Prairie neighborhood, east of St. Mary's School, in discussions about potential impacts to and replacement of Benedict Park.
- Involve St. Charles Water District in the project if their points of diversion on the Arkansas River are to be affected.
- Agency representatives will submit comments on the *Environmental Methodology Report* to Andrea Garcia/CH2M HILL by March 13, 2003.
- After March 13, 2003, CH2M HILL will revise the *Environmental Methodology Report* to reflect comments from FHWA, CDOT, and participants at the Scoping and Coordination meetings. Copies of the revised *Environmental Methodology Reports* will be provided to agency representatives on the Scoping Contact List.

## DISCUSSION

During the hour-long question-and-answer session CH2M HILL recorded comments and questions on a display easel. Much of the discussion focused on neighborhood impacts and local economic development.

### *Agency Coordination*

Jim Munch/City asked how local agencies can best coordinate on the project with federal and state agencies. Bill Knapp reviewed opportunities for meetings that include context sensitive solution workshops, topic-specific open houses, monthly meetings with FHWA, and periodic meetings with the resource management agencies.

Bill Moore/PACOG asked how conflicts between agencies would be resolved. Denny Durbin/FHWA explained that FHWA will try to resolve issues whenever possible, but if that is not possible FHWA, as the lead agency, will make the final decision.

Emmet Hance/City-County Health Department said the County Health Department would be interested in coordinating with the Air Pollution Control Division (in Colorado Department of Health and Environment) and seeing the air quality deliverables when they are available. Andrea Garcia noted that APCD and EPA had attended the Agency Scoping meeting and that air toxins was subject of considerable discussion. She said that a more detailed air quality methodology report would be written before the air quality analysis is conducted. The report will be reviewed by air quality staff from FHWA, CDOT, APCD, EPA, and PACOG.

Jim Munch asked how the three community working groups would be involved in the EIS. Bill Knapp confirmed they would be involved, and that coordination efforts would begin following the scoping activities that are now underway.

### *Project Alternatives*

Dan Centa/City asked why the south end of the project footprint had changed from the Feasibility Study, and whether that would affect the study. Bill Knapp responded that the EIS will evaluate all areas affected. He noted that the original study area ended at Pueblo Boulevard, as does the EIS, and that the Stem Beach interchange was added later to reflect a very long-term planning horizon. Bill also explained that the EIS study area ending at Pueblo Boulevard does not affect opportunities to improve the Stem Beach interchange at any time in the future.

Jim Munch asked whether the Dillon Street extension is included in the EIS boundaries, and whether the potential impact on Erie Avenue would be included in the EIS. Bill Knapp confirmed that the EIS includes the extension of Dillon Street but not the future/potential impacts associated with a connection to Erie.

George Williams/Pueblo Historical Society asked if a bypass entirely around the city had been suggested. David Miller/CDOT R2 and others explained that this had been explored and determined not to be desirable for the City to remove all traffic from the interstate.

### *Local Traffic*

Dan Centa voiced concern about how the present configuration of access roads could shift traffic to Mesa from Northern, which is the opposite of what needs to happen. He suggested this intersection be examined to ensure it achieves the project's objectives, and that traffic calming and signage be used to reduce unwanted cut-through traffic. David Cockrell/City also noted that traffic speeds and volumes west of Mesa are a concern for schools in this area.

David Cockrell expressed support for a below-grade I-25 because it would reduce noise.

Bill Moore asked what decision was reached in building a slip ramp at Mesa/Northern. Bill Knapp explained that there was not sufficient room to construct the ramp under Mesa and the concept has been determined not to be feasible.

Dan Centa suggested that to improve local connectivity the project must include robust pedestrian and bicycle facilities. Jim Munch recommended that to improve connectivity the study must begin by identifying where the highway is a barrier and where it is not.

### *Project Phasing*

Jim Munch asked if the project could be phased to implement some segments as partial funding becomes available. Bill Knapp and David Miller confirmed that no formal decision had been made and that this would be evaluated and implemented if appropriate. Judy DeHaven/CDOT R2 also noted that CDOT will talk with EPA about how brownfields approaches could be used in some areas of the corridor to limit remediation requirements and expedite highway improvements.

### *Community Parks*

George Williams suggested that residents in the Prairie neighborhood, east of St. Mary's School, be included in discussions about potential impacts to Benedict Park, noting that this is one of few parks on the east side, and is heavily used by those residents. He also noted that the layout of the park be considered as well as the acreage of the park, and expressed concern that the long-thin footprint identified by Bill Knapp may not be usable as a park.

George Williams asked if indirect impacts (such as noise) on Mineral Palace Park will be evaluated and addressed, and how potential impacts will be balanced. He cited as an example how a noise wall could protect the quiet but block views into the park. Bill Knapp confirmed that indirect impacts will be addressed, and agreed that some balancing like this will be required, but it is too early to determine how an issue like this would be resolved.

### *Neighborhoods*

David Cockrell requested that the new *Bessemer Neighborhood Plan* be considered in the EIS plan. David noted he is the City's representative working with the neighborhood. He also commented that in any redevelopment, parking at the site will be important, and that boundaries just south of the Bessemer Ditch and future access points are all being considered now.

### *Historic Properties*

Jim Munch said that a new local historic preservation commission regulates demolition of historic properties. He noted potential impacts along Bradford and asked whether CDOT would comply with local regulations on demolition. Judy DeHaven asked if relocation was an appropriate option that would avoid demolition and preserve these properties. These issues will be addressed in the EIS.

David Cockrell observed that a local group, supported by students from the University of Colorado, is working on nominating Mineral Palace Park as a national historic district. Another commentor noted that creation of a Northside Historic District is being explored now.

Jim Munch asked if the EIS will consider induced economic impacts and development pressure near interchanges. He suggested that the secondary impacts analysis should evaluate the "big picture" such as the location of hazardous materials sites relative to the

interstate. Bill Knapp and others confirmed that we will evaluate secondary and indirect impacts in the EIS.

### *Environmental Justice*

Andrea Garcia noted that the project sponsors were aware of potential impacts related to environmental justice. She asked Jack Quinn/City Housing Authority if he had suggestions of how to effectively engage low income and minority neighborhoods in the planning process. Jack Quinn responded that he understood that the seniors' high rise north of Mineral Palace Park would not be impacted under the present footprint.

Bill Knapp asked specifically for suggestions about how to engage the East Grove neighborhood in planning activities. Emmet Hance acknowledge this is difficult and recommended being tenacious in efforts to engage neighborhoods. Jack Quinn noted that the Grove neighborhood has many rentals and thus residents are unlikely to participate.

### *Water Resources*

Jim Munch recommended that St. Charles Water District be involved in the project if their points of diversion are to be affected. He also noted that the Bureau of Reclamation may undertake a NEPA study on reauthorizing the dam and minimum flow requirements associated with a pipeline project to Colorado Springs, and recommended the project team coordinate with the Bureau's effort.

George Williams observed that public works has some emergency floodgates that may be affected, and asked if they were involved. Andrea Garcia noted that Public Works was invited to today's meeting, that we would coordinate with them, and that they would be provided with meeting minutes.

## ARCHIVE MATERIALS

Contact list
*Information Package*
*Environmental Methodology Report*
Transcript of comments recorded on easel at meeting
11 x 17 maps
Invitation email
Invitation letter
B.Knapp PowerPoint presentation slides
Sign-In sheets

the New Pueblo Freeway

# Agency Coordination Meeting

Please Sign In

**February 27, 2003**

| Name | Affiliation | Contact Information ONLY IF IT HAS CHANGED |
|---|---|---|
| Bill Knapp | CH2M Hill | |
| Andrea Garcia | CH2M Hill | |
| Dirk Draper | CH2M HILL | |
| David Miller | CDOT | |
| Dennis Durbin | FHWA | |
| George Williams | P.C.H.S | |
| Eminet Hance | Pueblo City-Co Health Dept. | |
| Jeffrey Woeber | Pueblo County Planning & Dev. | |
| Dan Centa | City | |
| Mary Jo Vobejda | CH2M HILL | |
| Dick Annand | CDOT-R2 | |
| Bill Moore | Administrator, Pueblo MPO | |
| Judy Dethaven | CDOT-R2 | |
| Jack Quinn | Pueblo Housing Auth | 1414 N. Santa Fe Pueblo, CO 81003 |
| David Cockrell | City Neighborhood Planning | |
| Jim Mench | City of Pueblo | |

the New Pueblo Freeway

# Agency Coordination Meeting

Please Sign In

**February 27, 2003**

| Name | Affiliation | Contact Information ONLY IF IT HAS CHANGED |
|---|---|---|
| RICH ZAJAC | CITY PARKS & RECREATION DEPT. | |
| Bob Gibbland | City Parks + Rec Dept | |
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# Section 6(f) Correspondence

Colorado State Parks
State Trails Program - Southern Colorado Trails Coordinator
4255 Sinton Road • Colorado Springs, Colorado 80907 • Phone (719) 227-5259 • FAX (719) 227-5264 • www.parks.state.co.us

February 16, 2005

Richard Annand
Region Planning & Environmental Manager
Colorado Department of Transportation
P.O. Box 536 – 905 Erie Avenue
Pueblo, CO 81002

Re: LWCF funded improvements along I-25 in Pueblo

Dear Mr. Annand:

On January 28th you and I met with Andrea Garcia and Scott Asher of CH2MHill, and Steven Meier of the City of Pueblo at the location of the US Highway 50 and Fountain Creek Trail crossing in Pueblo, Colorado. I appreciate you and your staff taking the time to show me the proposed I-25 expansion project and how it might affect the Fountain Creek Trail and other projects funded by Land and Water Conservation Fund and other funding sources we have managed grants on.

From walking the site with CDOT and CH2MHill representatives I feel that there is little chance that the I-25 Expansion Project, which includes improvements to US Highway 50 at this location where it joins I-25, will negatively impact the Fountain Creek Trail. By constructing one or more retaining walls where the trail crosses under Highway 50 and goes down beside Fountain Creek, you will keep the toe of the slope of the highway from encroaching on the trail surface. It appears to me that the surface of the trail, the footbridge over the small stream beside the highway, and a small three-foot right of way along the trail for signs, etc., are all the improvements that have been funded by our grant where the trail crosses the CDOT right of way.

In fact, I think the new construction will present an exciting opportunity to actually improve the setting and features surrounding the trail where it crosses under the highway. Hopefully, the retaining wall(s) installed by CDOT will be decorative in nature reflecting the park-like setting the City of Pueblo has planned for that location.

Additionally, there are two shortcomings with the trail as it exists today. First, it is so low next to Fountain Creek as it crosses under the existing Highway 50 bridge that it periodically floods. Second, where the trail intersects the footbridge just on the south side of Highway 50, there is a hard 90-degree bend, which creates a dangerous blind corner for trail users. If construction

STATE OF COLORADO • COLORADO STATE PARKS
Bill Owens, Governor • Russell George, Executive Director, Department of Natural Resources • Lyle Laverty, Director, Colorado State Parks
Colorado Board of Parks and Outdoor Recreation: • Dr. Tom Ready, Chair, Natural Areas Representative • Doug Cole, GOCO Representative
Wade Haerle, Member • Tom Glass, Member • Antonette DeLauro, Member

Colorado State Parks

State Trails Program - Southern Colorado Trails Coordinator

4255 Sinton Road • Colorado Springs, Colorado 80907 • Phone (719) 227-5259 • FAX (719) 227-5264 • www.parks.state.co.us

crews do find it necessary to go on to the trail for reconstruction of the highway, I would ask that they fix these two areas by raising the trail bed by two feet where it goes under the highway bridge and by straightening that portion of the trail where it meets the footbridge. This would allow trail users to more safely use the trail, even when the creek is high.

It is my understanding from talking to you and CH2MHill that the remaining two LWCF funded projects near the I-25 expansion will not be affected. Either of the proposed new bridge crossings near Runyon Park and Runyon Field will not impact this park at all, and will miss them altogether.

Again, I appreciate your assistance in showing me this proposed project. If you need me for any related information that I may be able to provide, feel free to call me. Best of luck on this project.

Sincerely,

Casey Swanson

Cc: ✓Scott Asher
Steven Meier
Lori Malcolm

STATE OF COLORADO • COLORADO STATE PARKS

Bill Owens, Governor • Russell George, Executive Director, Department of Natural Resources • Lyle Laverty, Director, Colorado State Parks

Colorado Board of Parks and Outdoor Recreation: • Dr. Tom Ready, Chair, Natural Areas Representative • Doug Cole, GOCO Representative

Wade Haerle, Member • Tom Glass, Member • Antonette DeLauro, Member

# Section 106 Consultation

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

September 7, 2004

David Cockrell
Pueblo Historic Preservation Commission
Dept. of Community Development
City of Pueblo
211 E. D Street
Pueblo, CO 81003

SUBJTCT: APE and Survey Methodology for Historic Resources, CDOT Project IM 0251-156, I-25: The New Pueblo Freeway Environmental Impact Statement

Dear Mr. Cockrell:

This letter and the attached materials constitute the Federal Highway Administration (FHWA) and Colorado Department of Transportation's (CDOT)'s request for your review of and comment on the Area of Potential Effect (APE) and proposed survey methodology for the Environmental Impact Statement (EIS) for the project referenced above. The purpose of the EIS is to determine potential environmental impacts for proposed capacity improvements along eight miles of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

Components of the two build alternatives include:

- Widening I-25 to six lanes,
- Improving interchanges at Pueblo Blvd, Indiana Avenue, Abriendo Avenue, 1st Street, 13th Street, US 50B, and 29th Street
- Adding a new interchange at Northern Avenue
- Removing interchanges at Illinois Avenue, Central Avenue, Ilex Street, and 6th Street

**Establishing the APE**

A number of meetings to define the APE for this project have been held with representatives from FHWA, CDOT, the State Historic Preservation Officer (SHPO), the Bessemer Historical Society, and the City of Pueblo. An initial meeting with Dan Corson, Jim Green and Joseph Saldibar of the SHPO office was held in November 2002 to introduce the project. In July 2003, representatives of CDOT and consultant CH2M Hill again met with staff from the SHPO including Joe Saldibar, to discuss the proposed APE. In September 2003 several meetings to solicit local input were held with various Pueblo representatives, including:

- Donna Alber, Historic Preservation Commission, City of Pueblo
- David Cockrell, Historic Preservation Commission, Neighborhood Planning, City of Pueblo
- Cathy Green, Director of Planning, City of Pueblo
- Corinne Koehler, President, Bessemer Historical Society
- Jim Munch, City Planner, City of Pueblo

- Kerrelyn Trent, Historic Preservation Commission, City of Pueblo
- Jordan Glynis, City of Pueblo

A final meeting was held on December 22, 2003 with representatives from the City of Pueblo, your organization, and the Bessemer Historical Society to gather additional comments on the proposed APE. Based on the results of this meeting, adjustments to the APE were made and the changes were applied to the map enclosed with this submittal.

The following objectives were considered when defining the APE:

1. According to the Section 106 guidelines, the APE must include any direct or indirect impacts that may be caused by the undertaking. In addition to determining impacts to any properties within the defined APE, indirect visual or auditory impacts will be analyzed for all NRHP eligible or listed properties within the APE.

2. The proposed APE allows for all project-related actions, such as interchange reconstruction, frontage road relocation, or alignment shifts.

3. The APE must be supported by sufficient documentation to enable reviewing parties to understand its basis.

The following description of the proposed APE for the I-25/New Pueblo Freeway corresponds with the boundary illustrated on the enclosed map:

1. Pueblo Boulevard interchange north to the Rocky Mountain Steel Mill: The APE encompasses areas that would be directly impacted by the two build alternatives, including a commercial area southeast of the interchange that will be acquired and removed to accommodate a loop ramp. Immediately south of the mill near Nevada Avenue, the APE extends 830 feet east-to-west across I-25. This section of the APE includes two blocks of residences in close proximity to I-25 that may be impacted by the improvements.

2. South edge of the Steel Mill to Northern Avenue: The APE averages approximately 700 feet east-to-west and includes the first row of Steel Mill buildings, including blast furnace foundations and private rail lines on the mill property. West of I-25, the boundary includes two blocks of residences and light industrial areas in the Minnequa neighborhood.

3. Northern Avenue to 1st Street: In this area, the APE encompasses commercial, industrial and residential areas extending to a maximum 3150 feet east-to-west near Summit Avenue, before decreasing to 160 feet, or roughly the size of the footprint for the existing highway alignment. East of I-25 between Northern and Summit, the boundaries include two blocks outside areas directly affected by the two build alternatives.

4. 1st Street north to 15th Street: The APE east of the interstate begins to narrow as both build alternatives closely follow the existing alignment of I-25, and adding highway capacity is accomplished with less disturbance. In the middle of this section, near W. 8th Street, the APE measures 1,200 feet east-to-west. An additional area is present which measures 700 feet east over Fountain Creek along the footprint of W. 8th Street. The east side of Santa Fe Avenue, and buildings that back up to improvements to remove horizontal curvature in the mainline of the highway, are also included in this section of the APE.

4. 15th Street north to 29th Street: The east boundary of the APE remains west of Fountain Creek except to reflect improvements to the bridge on US Highway 50B and the proposed extension of Dillon Drive south to US 50B. Along both W. 17th Street and above W. 26th Street the APE extends to a maximum 1,700 feet east-to-west. The area from W. 15 to W. 19th Streets includes Mineral Palace Park and 500 ft for the first row of residences that back up to the interstate. All of Mineral Palace Park is included in the APE, reflecting the historic nature of the park and features therein.

**Methodology**

FHWA and CDOT propose the following methodology to assess features in all areas of the APE, except the Rocky Mountain Steel Mill:

1. The survey will evaluate all buildings and features 45 years old or older within the APE that have not been previously documented.

2. All properties that have been previously recorded on Colorado Office of Archaeology and Historic Preservation (OAHP) site forms will be reevaluated and site forms will be submitted with updated recommendations on eligibility.

3. Photographs of all resources (isolates, sites and structures) in the APE will be provided to the State Historic Preservation Office (SHPO) as part of the survey. The locations of these resources will be marked on an accompanying site map or topographic map and documented on the appropriate OAHP site forms. Potential historic districts will be identified and discussed in the survey report, including a list of all buildings in the APE and potential district(s), with contributing and non-contributing status, construction date, architectural style, and address. A map will be provided that shows the locations of all contributing buildings within the APE and potential district(s).

The nature and scope of survey for the Rocky Mountain Steel Mill site remains to be determined, as this is dependent on the wishes and cooperation of the owners. The scheduled work will be sufficient to assess features within the APE as they relate to the overall plant site.

Historic archaeological resources will be inventoried and evaluated within the APE; the potential for prehistoric resources will be evaluated, and selected areas will be intensively inventoried. The areas to be surveyed will be based on the amount of surface disturbance and extant buildings.

We request your comments regarding the Area of Potential Effect and the proposed methodology for the historic survey. We have also sent this letter and the enclosed map to the SHPO, the City of Pueblo, and the Bessemer Historical Society for comment.

Thank you in advance for your prompt attention to this matter. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures: map

cc: David Miller, CDOT Region 2 Engineering, Project Manager
Dick Annand/Judy DeHaven, CDOT Region 2 Environmental Office
Andrea Garcia, CH2M Hill Senior Transportation Planner
Chris Horn/Monica Pavlik, FHWA

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

September 7, 2004

Ms. Georgianna Contiguglia
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJTCT: APE and Survey Methodology for Historic Resources, CDOT Project IM 0251-156, I-25: The New Pueblo Freeway Environmental Impact Statement

Dear Ms. Contiguglia:

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- David Cockrell, Historic Preservation Commission, Neighborhood Planning, City of Pueblo
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The following description of the proposed APE for the I-25/New Pueblo Freeway corresponds with the boundary illustrated on the enclosed map:

1. Pueblo Boulevard interchange north to the Rocky Mountain Steel Mill: The APE encompasses areas that would be directly impacted by the two build alternatives, including a commercial area southeast of the interchange that will be acquired and removed to accommodate a loop ramp. Immediately south of the mill near Nevada Avenue, the APE extends 830 feet east-to-west across I-25. This section of the APE includes two blocks of residences in close proximity to I-25 that may be impacted by the improvements.

2. South edge of the Steel Mill to Northern Avenue: The APE averages approximately 700 feet east-to-west and includes the first row of Steel Mill buildings, including blast furnace foundations and private rail lines on the mill property. West of I-25, the boundary includes two blocks of residences and light industrial areas in the Minnequa neighborhood.

3. Northern Avenue to 1st Street: In this area, the APE encompasses commercial, industrial and residential areas extending to a maximum 3150 feet east-to-west near Summit Avenue, before decreasing to 160 feet, or roughly the size of the footprint for the existing highway alignment. East of I-25 between Northern and Summit, the boundaries include two blocks outside areas directly affected by the two build alternatives.

4. 1st Street north to 15th Street: The APE east of the interstate begins to narrow as both build alternatives closely follow the existing alignment of I-25, and adding highway capacity is accomplished with less disturbance. In the middle of this section, near W. 8th Street, the APE measures 1,200 feet east-to-west. An additional area is present which measures 700 feet east over Fountain Creek along the footprint of W. 8th Street. The east side of Santa Fe Avenue, and buildings that back up to improvements to remove horizontal curvature in the mainline of the highway, are also included in this section of the APE.

4. 15th Street north to 29th Street: The east boundary of the APE remains west of Fountain Creek except to reflect improvements to the bridge on US Highway 50B and the proposed extension of Dillon Drive south to US 50B. Along both W. 17th Street and above W. 26th Street the APE extends to a maximum 1,700 feet east-to-west. The area from W. 15 to W. 19th Streets includes Mineral Palace Park and 500 ft for the first row of residences that back up to the interstate. All of Mineral Palace Park is included in the APE, reflecting the historic nature of the park and features therein.

**Methodology**

FHWA and CDOT propose the following methodology to assess features in all areas of the APE, except the Rocky Mountain Steel Mill:

1. The survey will evaluate all buildings and features 45 years old or older within the APE that have not been previously documented.

2. All properties that have been previously recorded on Colorado Office of Archaeology and Historic Preservation (OAHP) site forms will be reevaluated and site forms will be submitted with updated recommendations on eligibility.

3. Photographs of all resources (isolates, sites and structures) in the APE will be provided to the State Historic Preservation Office (SHPO) as part of the survey. The locations of these resources will be marked on an accompanying site map or topographic map and documented on the appropriate OAHP site forms. Potential historic districts will be identified and discussed in the survey report, including a list of all buildings in the APE and potential district(s), with contributing and non-contributing status, construction date, architectural style, and address. A map will be provided that shows the locations of all contributing buildings within the APE and potential district(s).

The nature and scope of survey for the Rocky Mountain Steel Mill site remains to be determined, as this is dependent on the wishes and cooperation of the owners. The scheduled work will be sufficient to assess features within the APE as they relate to the overall plant site.

Historic archaeological resources will be inventoried and evaluated within the APE; the potential for prehistoric resources will be evaluated, and selected areas will be intensively inventoried. The areas to be surveyed will be based on the amount of surface disturbance and extant buildings.

We request your comments regarding the Area of Potential Effect and the proposed methodology for the historic survey. We have also sent this letter and the enclosed map to the City of Pueblo Planning Department, the Bessemer Historical Society, and the Pueblo Historic Preservation Commission for comment.

Thank you in advance for your prompt attention to this matter. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures: map

cc: David Miller, CDOT Region 2 Engineering, Project Manager
Dick Annand/Judy DeHaven, CDOT Region 2 Environmental Office
Andrea Garcia, CH2M Hill Senior Transportation Planner
Chris Horn/Monica Pavlik, FHWA
George Williams, Pueblo Historical Society

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

September 7, 2004

Corinne Koehler
Bessemer Historical Society
1612 E. Abriendo Avenue
Pueblo, CO 81004

SUBJTCT: APE and Survey Methodology for Historic Resources, CDOT Project IM 0251-156, I-25: The New Pueblo Freeway Environmental Impact Statement

Dear Ms. Koehler:

This letter and the attached materials constitute the Federal Highway Administration (FHWA) and Colorado Department of Transportation's (CDOT)'s request for your review of and comment on the Area of Potential Effect (APE) and proposed survey methodology for the Environmental Impact Statement (EIS) for the project referenced above. The purpose of the EIS is to determine potential environmental impacts for proposed capacity improvements along eight miles of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

Components of the two build alternatives include:

- Widening I-25 to six lanes,
- Improving interchanges at Pueblo Blvd, Indiana Avenue, Abriendo Avenue, 1st Street, 13th Street, US 50B, and 29th Street
- Adding a new interchange at Northern Avenue
- Removing interchanges at Illinois Avenue, Central Avenue, Ilex Street, and 6th Street

**Establishing the APE**

A number of meetings to define the APE for this project have been held with representatives from FHWA, CDOT, the State Historic Preservation Officer (SHPO), your organization, the Pueblo Historic Preservation Commission, and the City of Pueblo. An initial meeting with Dan Corson, Jim Green and Joseph Saldibar of the SHPO office was held in November 2002 to introduce the project. In July 2003, representatives of CDOT and consultant CH2M Hill again met with staff from the SHPO including Joe Saldibar, to discuss the proposed APE. In September 2003 several meetings to solicit local input were held with various Pueblo representatives, including:

- Donna Alber, Historic Preservation Commission, City of Pueblo
- David Cockrell, Historic Preservation Commission, Neighborhood Planning, City of Pueblo
- Cathy Green, Director of Planning, City of Pueblo
- Corinne Koehler, President, Bessemer Historical Society
- Jim Munch, City Planner, City of Pueblo
- Kerrelyn Trent, Historic Preservation Commission, City of Pueblo
- Jordan Glynis, City of Pueblo

A final meeting was held on December 22, 2003 with representatives from the City of Pueblo, your organization, and the Pueblo Historic Preservation Commission to gather additional comments on the proposed APE. Based on the results of this meeting, adjustments to the APE were made and the changes were applied to the map enclosed with this submittal.

The following objectives were considered when defining the APE:

1. According to the Section 106 guidelines, the APE must include any direct or indirect impacts that may be caused by the undertaking. In addition to determining impacts to any properties within the defined APE, indirect visual or auditory impacts will be analyzed for all NRHP eligible or listed properties within the APE.

2. The proposed APE allows for all project-related actions, such as interchange reconstruction, frontage road relocation, or alignment shifts.

3. The APE must be supported by sufficient documentation to enable reviewing parties to understand its basis.

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**Methodology**

FHWA and CDOT propose the following methodology to assess features in all areas of the APE, except the Rocky Mountain Steel Mill:

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We request your comments regarding the Area of Potential Effect and the proposed methodology for the historic survey. We have also sent this letter and the enclosed map to the SHPO, the City of Pueblo, and the Pueblo Historic Preservation Commission for comment.

Thank you in advance for your prompt attention to this matter. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures: map

cc: David Miller, CDOT Region 2 Engineering, Project Manager
Dick Annand/Judy DeHaven, CDOT Region 2 Environmental Office
Andrea Garcia, CH2M Hill Senior Transportation Planner
Chris Horn/Monica Pavlik, FHWA

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

September 10, 2004

Mr. George Williams
Pueblo County Historical Society
Vail Hotel
217 S. Grand Avenue
Pueblo, CO 81003

SUBJTCT: APE and Survey Methodology for Historic Resources, CDOT Project IM 0251-156, I-25: The New Pueblo Freeway Environmental Impact Statement

Dear Mr. Williams:

This letter and the attached materials constitute the Federal Highway Administration (FHWA) and Colorado Department of Transportation's (CDOT)'s request for your review of and comment on the Area of Potential Effect (APE) and proposed survey methodology for the Environmental Impact Statement (EIS) for the project referenced above. The purpose of the EIS is to determine potential environmental impacts for proposed capacity improvements along eight miles of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

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We request your comments regarding the Area of Potential Effect and the proposed methodology for the historic survey. We have also sent this letter and the enclosed map to the SHPO, City of Pueblo Planning Department, the Bessemer Historical Society, and the Pueblo Historic Preservation Commission for comment.

Thank you in advance for your prompt attention to this matter. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures: map

cc: David Miller, CDOT Region 2 Engineering, Project Manager
Dick Annand/Judy DeHaven, CDOT Region 2 Environmental Office
Andrea Garcia, CH2M Hill Senior Transportation Planner
Chris Horn/Monica Pavlik, FHWA

COLORADO
HISTORICAL
SOCIETY

**The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137**

September 13, 2004

Brad Beckham
Manager, Environmental Programs Branch
Colorado Department of Transportation
Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, CO 80222

Re: CDOT Project IM 0251-156, I-25: The New Pueblo Freeway Environmental Impact Statement (CHS #43967)

Thank you for your correspondence dated September 7, 2004 and received by our office on September 9, 2004 regarding the above-mentioned project.

After review of the submitted information, we are not able to complete our review of your boundary for the proposed Area of Potential Effect (APE). In order to complete our review, please provide an explanation of how the APE boundary incorporates potential indirect effects.

In the case of the Rocky Mountain Steel Mill, the lead agency must make a reasonable and good faith effort to carry out appropriate identification efforts, as stipulated in 36 CFR 800.4 If the lead agency can not gain access to the property for the purposes of conducting a survey, the lead agency should consult with the SHPO and consulting parties regarding the eligibility of the Rocky Mountain Steel Mill. (As a note, resource 5PE.543.1/CF&I Corporation Headquarters-Medical Building and resource 5PE.543.2/CF&I Corporate Headquarter-Offices have been previously identified.)

If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Coordinator, at (303) 866-4678.

Sincerely,

Mark Wolfe

For Georgianna Contiguglia
State Historic Preservation Officer

cc: Lisa Schoch/CDOT

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

April 25, 2006

Catherine Barrier
CH2M Hill
1515 Poydras Street
Suite 2110
New Orleans, LA 70112

Subject: New Pueblo Freeway Cultural Resources Files

Dear Catherine:

Enclosed are a total of 7 CDs with the New Pueblo Freeway files for your review. Six of the CDs include the Microsoft Word files (e.g., survey report, site forms, district forms) for the initial review we completed last October 2005. All of these files include CDOT's revisions in "track changes," but for several of the districts, the comments were just highlighted in red. These CDs include the following items:

CD 1: Survey report with CDOT comments in "track changes", and CDOT's first review comments broken down by neighborhood and non-district. This CD also includes a file of the historic archaeological forms. The files are divided by district name, and I double-checked and it looks like most of these were dumped into the overall district files, but I don't believe the non-district HA files are in the larger non-district file (if that makes sense!) Also, please take a look at the file of "tested sites"—I'm not sure these were placed in the larger district files.

CD 2: Site forms for the Grove neighborhood—includes both the architectural site forms and the historic archaeology (HA) files, which are in a separate folder within the larger Grove folder.

CD 3: Site forms for Bessemer and Blocks neighborhoods—includes architectural and HA site forms. HA is embedded in each neighborhood. For the Blocks, the HA starts with site number 5PE 5452. For Bessemer, the HA forms start with 5PE5466.

CD 4: Includes management date forms for each of the proposed districts and re-evaluation forms for previously documented properties. Note that this CD contains some extra files that were included in the original CDs produced by WCRM. I think some of the additional files were drafts that WCRM forgot to remove from the final CDs.

CD 5: Site forms for East Mesa Neighborhood, including architectural and HA. HA is in a separate file marked "EastMesaHA" within the larger file. There is also an additional file that I believe includes some architectural forms. This CD also includes the properties that were not part of any of the proposed districts (Non-District)—I think there is a mix of architectural and HA for the non district properties.

CD 6: Site forms for Goat Hill, Lake Minnequa, and Mineral Palace Park neighborhoods, including architectural and HA. The HA for Goat Hill is in a separate folder. The HA for Lake Minnequa and Mineral Palace Park are not separated from the main file, but can be

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

July 26, 2007

Ms. Georgianna Contiguglia
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJTCT: Eligibility Determinations, CDOT Project IM 0251-156, I-25 New Pueblo Freeway Environmental Impact Statement

Dear Ms. Contiguglia:

This letter and the enclosed materials constitute the Federal Highway Administration (FHWA) and Colorado Department of Transportation's (CDOT)'s request for concurrence on historic property eligibility determinations for the Environmental Impact Statement (EIS) referenced above. The purpose of the EIS is to analyze potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102). We previously consulted with your office regarding the Area of Potential Effects (APE) and survey methodology for this undertaking in a series of meetings in 2002 and 2003, and via correspondence in September 2004. Please note that a report and site forms for historic archaeological resources will be forwarded for your review separately in the near future.

**Eligibility Determinations**

The survey report and site forms were completed by Western Cultural Resource Management (WCRM) and CH2M Hill under contract to CDOT. The survey resulted in the identification of three proposed historic districts (Mineral Palace Park, Goat Hill, Bessmer/Lake Minnequa) and 852 individual architectural resources that are not within historic districts (non-district). Of the non-district properties, we have evaluated fifteen as eligible for the National Register of Historic Places: 5PE584, 5PE588, 5PE3938, 5PE4504, 5PE4505, 5PE4510, 5PE4532, 5PE4536, 5PE4539, 5PE4540, 5PE4629, 5PE4971, 5PE4972, 5PE5080, and 5PE5088. The survey also included the reconnaissance-level evaluation of the Minnequa Works, formerly known as the Colorado Fuel & Iron steel mill.

For your convenience, the site forms for all properties comprising this submittal are organized in accordion file folders labeled according to district or non-district status. Also included herewith is a comment matrix on compact disk for use during the review. In addition, five aerial maps are enclosed for your review: three showing the project alternatives and two that depict the boundaries of the potential historic districts and previously identified historic districts.

We request your concurrence with the determinations of eligibility outlined in the survey report, enclosed forms and attached spreadsheet. Your response is necessary for the Federal Highway Administration's compliance with Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's regulations.

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

July 27, 2007

Mr. Wade Broadhead
Historic Preservation Commission
Dept. of Community Development
City of Pueblo
211 East D. Street
Pueblo, CO 81003

SUBJTCT: Eligibility Determinations, CDOT Project IM 0251-156, I-25 New Pueblo Freeway Environmental Impact Statement

Dear Mr. Broadhead:

This letter and the enclosed materials constitute the Federal Highway Administration (FHWA) and Colorado Department of Transportation's (CDOT)'s request for comments on historic property eligibility determinations for the Environmental Impact Statement (EIS) referenced above. You recently received the survey report, site forms, and a comment matrix from our consultant CH2M Hill. The purpose of the EIS is to analyze potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102). We previously consulted with your organization regarding the Area of Potential Effects (APE) and survey methodology for this undertaking in a series of meetings in 2002 and 2003. Please note that a report and site forms for historic archaeological resources will be forwarded for your review separately in the near future.

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Enclosed with this letter are two aerial maps for your review: one that depicts the boundaries of the potential historic districts identified for this project, and one that indicates locations of historic districts identified in 1981. Per our telephone discussion on July 27, 2007, we will be sending copies of maps depicting the project alternatives in a separate submittal.

As a local preservation organization with a potential interest in these historic resources, we welcome your comments regarding our determinations of eligibility. Given the size of this submittal, we are aware that the standard 30-day review time frame may not be sufficient for your staff and the additional consulting

**Historic Preservation Commission**
211 East D Street
Pueblo, CO 81003
719-553-2259 (Phone)
719-553-2359 (Fax)
719-553-2611 (TTY)
www.pueblo.us

Susan Pelto, Chair
Donna Alber
Deborah Espinosa
Tanya Jones
Mark Mihelich
Kerrelyn Trent
Gary L. Trujillo

August 8, 2007

Mr. Brad Beckham
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Avenue
Shumate Building
Denver, CO 80222

Dear Mr. Beckham:

We have received all the materials for the New Pueblo Freeway Section 106 Review in consultation with your office. We are pleased to have this opportunity to provide feedback on the history of Pueblo, and the Pueblo Historic Preservation Commission takes this responsibility seriously.

I have been in contact with the other interested parties such as Bessemer Historical Society, Historic Preservation, Inc., and the Pueblo County Historical Society and am trying to coordinate the review between these organizations. We have devised a system to review the report and all the associated site forms, and are beginning work in earnest this week. Since this is one of the largest projects of its kind in Colorado, and our Commission primarily operates on volunteer hours, we will need to request an additional forty-five (45) days for review. We have conducted three meetings to organize the review in addition to a form-by-form inventory to verify that we posses all the forms that were on your attached spreadsheet. All the hard copy forms are accounted for, but we are missing a little over 100 sites electronically. Since we have yet to receive the archaeological site forms, we may have to request additional time to finish the review of those resources.

I will stay in contact during the process and keep you updated on our progress.

Sincerely,

Wade Broadhead
Land Use Planner
Historic Preservation Commission

WB/ktm

*The programs and services of the City of Pueblo are accessible to people with disabilities. For accessibility information contact the Planning & Land Use Administration Departments at 719-553-2359 (TTY users – 719-553-2611). The City of Pueblo is an Equal Opportunity Employer.*

**Historic Preservation Commission**
211 East D Street
Pueblo, CO 81003
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http://pueblo.us/historicpreservation

Susan Pelto, Chair
Donna Alber
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Tanya R. Jones
Mark Mihelich
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Gary L. Trujillo

August 29, 2007

Mr. Brad Beckham
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Ave.
Shumate Building
Denver, CO 80222

Dear Mr. Beckham:

We have now been reviewing the Section 106 materials for one month. After I presented an update on the progress of the review at our August 23, 2007 meeting, the Pueblo Historic Preservation Commission voted to request an extension of the Section 106 review time. Due to the massive amounts of information and forms, we respectfully request an additional **two weeks** to finalize our review and draft a thorough letter of response. The reasons for our request are described below.

First, now that a number of Commissioners and volunteers have viewed the materials, it is becoming clear that the historical background on the site forms, and some of the historic context sections, are woefully inadequate to determine if a property is significant or not. Also, the many uncorrected typographical errors also indicate that these forms may not be "finished". In this light we have to try and do your consultants' homework for them. To that end, we are organizing sessions with residents and local history experts in the neighborhoods to try and determine the major events and personalities that shaped these unique places. We fear that our comments may be dismissed so we are actively trying to put together strong historical backgrounds for subject properties and neighborhoods for future meetings regarding eligibility. Although your consultants rightfully identified "Pueblo's Ethnic Heritage and Influences of Ethnic Groups on Pueblo's Past", your consultants did not seem to make the link with those structures and businesses that embody and characterize a distinctive ethnic group in a particular neighborhood.

Second, the initial proposed review period was slated for March 2007. Our Commission had special meetings and spent a lot of time and resources gearing up for the planned review. Now that it has arrived five months later than anticipated we are not as prepared to review the materials as we were in March. Meanwhile, we are reviewing our first residential Historic District Nomination in thirty (30) years and this project requires an enormous amount of Staffs' time. While the SHPO can simply devote more resources to their review to finish in the allotted time, we must rely on the kindness and sacrifice of volunteers and some City Staff, who are tasked to accomplish a number of other goals besides Section 106 Review.

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We acknowledge the massive scope of the project and the difficulty in conducting and organizing such a broad review. However, since the project is being paid for with tax dollars, and the City will eventually be using the data for a number of preservation projects, we would like to hold the standard of work to the highest level. Also, we do not wish to see some of our important historical sites destroyed or discarded in the future because we had limited time to adequately review the site forms.

Sincerely,

Wade Broadhead
Land Use Planner
Historic Preservation Commission

Deborah Espinosa, HPC Commissioner

Mark Mihelich, HPC Commissioner

Kerrelyn Trent, HPC Commissioner

Susan May Pettis
Chair, HPC

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9259

DEPARTMENT OF TRANSPORTATION

September 10, 2007

Mr. Wade Broadhead
Historic Preservation Commission
Dept. of Community Development
City of Pueblo
211 East D. Street
Pueblo, CO 81003

SUBJTCT: Section 106 Review Extension, CDOT Project IM 0251-156, I-25 New Pueblo Freeway Environmental Impact Statement

Dear Mr. Broadhead:

Thank you for your letter of August 29, 2007. We appreciate your efforts to review the New Pueblo Freeway Section 106 materials, and are sensitive to your staffing issues and other time commitments. Given these factors, we agree to extend your review time frame an additional two weeks beyond the original date of September 28th, and will look forward to your response on or before October 12, 2007.

We would also like to respond to your comments regarding information gaps on the site forms and historical context of the survey report. It is not our expectation that you will conduct additional research as part of your review. We have requested your comments on the National Register eligibility determinations we submitted; if you do not believe there is adequate documentation, please clarify this and outline your additional information needs in your response.

If you have questions, please contact CDOT Senior Staff Historian Lisa Schoch at 303-512-4258 or via email at lisa.schoch@dot.state.co.us.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

cc: Dick Annand/Judy DeHaven, CDOT Region 2 Environmental Office
Chris Horn/Monica Pavlik, FHWA
Andrea Garcia, CH2M Hill Senior Transportation Planner
C/F

October 11, 2007

Brad Beckham
Manager, Environmental Programs Branch
Colorado Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, CO 80222

Re: CDOT Project IM 0251-156; I-25 Pueblo Freeway Environmental Impact Statement; Determinations of Eligibility. (CHS #44746)

Dear Mr. Beckham,

Thank you for your correspondence dated July 26, 2007 regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided additional information, we were able to concur with the finding of eligibility for the resources listed in the attached spreadsheet (see attached CD-ROM). Please refer to the column referenced as "SHPO Comments."

For the remaining surveyed properties, staff was unable to concur on the proposed findings of eligibility. Please see our general comments below.

- It was difficult to get a feel for the neighborhood surveys. The site forms were submitted as either being a part of a historic district or as individual properties located outside proposed historic districts. Neighborhoods were not submitted as a whole and it was difficult to determine the contributing and non-contributing properties to a possible neighborhood historic district.
- The historic or original boundaries of the surveyed neighborhoods are not clear. These boundaries are needed in order to evaluate whether or not the properties identified as being not individually eligible have the potential to be contributing to a neighborhood historic district. Also, it is hard to evaluate the proposed historic boundaries for the historic districts when the larger neighborhood boundaries are not clear.
- A majority of the forms feature Statements of Significance (item 42) that are actually discussions of integrity. Often item 39/Area(s) of Significance is left blank; however, the context study identified several areas of significance for the study area.
- On many of the forms, the Construction History (item 29) states additions to the original house, but the addition is not seen in the photos.
- On many of the forms, the Construction History (item 29) doesn't match what is stated in item 42. At times item 29 will state there are no changes, and item 42 will state a property is not eligible due to significant changes.
- Many of the forms state that a property is not eligible due to the application of stucco to the exterior. Stucco is a historic building material and, if added during the period of significance for the building or district, it can contribute to the eligibility of the property. There is no discussion of the historic use of stucco in Pueblo in the historic context report or on the site forms.

- Site forms for commercial or community landmark buildings, such as schools or churches, do not address the significance of these resources. Often the site form is marked as the property not having any significant historical associations; however; the context study discusses the importance of local corner or neighborhood stores. The Star Nursery (5PE.4486, 5PE.4488, 5PE.4489, 5PE.4493, and 5PE.4495) is a well-know property in Pueblo, but the site form states research yielded no information. Were local resources used to understand the local history?
- The Historical Background (item 35) does not include the history of the surveyed property. Often the history is for the overall neighborhood.
- On many of the site forms, the Architectural Description (section III) does not match the attached photographs.
- Many of the site forms have assembly errors, such as the house addresses not matching the location maps or the attached photographs not matching the house addresses.
- The Goat Hill Management Data Form is confusing. The form has contradicting information in the text and charts. The chart found on page 9 of 9 is in direct contradiction to the loose chart on oversized paper. The finding that the historic district is significant at the state level of significance is not justified in the form.
- Some of the forms, especially in the Mineral Palace Park Historic District, use the tax assessor's default date of 1900. From staff review, we were able to determine that many of the buildings were either built before or after the 1900 default date. Some forms also have conflicting information on the date of construction, such as 5PE.4493 states both 1882 and 1920 as dates of construction. It is not clear which date is used in the discussion of significance in item 42.
- Many of the site forms only have one photograph attached and sometimes the view of the house is obscured by a fence or trees.

The above comments are general in nature, but apply to the site forms that we were not able to complete an evaluation.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30-day review period provided to other consulting parties. If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Coordinator, at (303) 866-4678.

Sincerely,

Mark Walfe

for Georgianna Contiguglia
State Historic Preservation Officer

**Historic Preservation Commission**
211 East D Street
Pueblo, CO 81003
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Susan Pelto, Chair
Donna Alber
Deborah Espinosa
Tanya Jones
Mark Mihelich
Kerrelyn Trent
Gary L. Trujillo

October 12, 2007

From: Wade Broadhead, Land Use Planner and Susan Pelto, Chair Historic Preservation Commission
Through: Jerry Pacheco, Assistant City Manager of Community Development

Mr. Brad Beckham
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Avenue
Shumate Building
Denver, CO 80222

Dear Mr. Beckham:

We thank you for the opportunity to provide consultation on over 800 historic resources your consultant documented as part of the New Pueblo Freeway project in accordance with Section 106 of the National Historic Preservation Act. City of Pueblo staff attempted to coordinate a response between Historic Pueblo, Inc., The Bessemer Historical Society, Pueblo County Historical Society, interested citizens, and residents of the East Mesa and Goat Hill neighborhoods. This fall was a busy time for all involved and we were not able to review the forms in as much detail as we would have liked, and we thank you for your extension. We did, however, have a number of Historic Preservation Commissioners, HPI members, and interested citizens who live in the proposed areas provide feedback on the work. Unfortunately, we were not able to review every site form. The forms in Box 3 pertaining to the Bessemer District were the ones examined in the least detail. The following letter addressed some global issues with the product, makes suggestions, and ends with a list of sites that we disagree with your consultant's recommendations.

The review effort consisted of five of the seven historic preservation commissioners, City Staff, members of Historic Preservation, Inc., a preservation specialist/director of the Pueblo County Historical Society, and other amateur local historians with a great wealth of experience with Pueblo. The reviewers utilized both the hard copy forms and the digital copies via their home computers, so both resources were valuable to our effort. We are lucky enough to have many volunteers who helped without compensation. All reviewers involved noticed some of the same 'global' issues with the product, and many arrived at their findings independently. We have attached their unedited comments in cases where we received a formal letter describing their review (attachments #2 and #3).

We understand that this is one of the largest historic survey projects in CDOT's history and appreciate the enormous effort that must have gone into the draft report and site forms. However, the product that we reviewed does not appear to be finished. The numbers of errors, inconsistencies, and lack of historical information made it difficult for us to effectively agree or disagree with your

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consultant's recommendations. We will first address the context and general comments, then the site forms, and finally present the sites we either disagree with their recommendations of eligibility, or do not have enough information to make the decision.

## Context Study and General Comments

The context study was filled with important information and touched on a number of important themes important for the development of the City. However, we would like to point out a few errors and omissions in the text. We also wanted to make some 'global' or universal comments that affect both the context report as well as the individual site forms.

1) The Goat Hill Historic District is not in Goat Hill. After a meeting with some of the long time residents of the area, Goat Hill is the area south of 1st Street. The area proposed as a National Register Historic District is north of 1st street and has a different shared history. Although your researchers got the history of Goat Hill right, they got the location wrong. The proposed district is made up of larger Victorian homes predating the biggest Italian immigration waves of the early 1900s. The residents of Goat Hill knew the large Victorians only as boarding homes. An appropriate name may be the Bradford or Patton (subdivision) historic district. Further research predating the Italian immigration should be conducted to determine prominent members of this community. Also, there was no church in the Goat Hill neighborhood proper (see bottom of first paragraph in section 5.2.2 paragraph).
2) We don't understand why the Grove and East Mesa neighborhoods are not eligible while the Bessemer and Goat Hill districts are eligible for the National Register district. In some cases portions of the Grove and East Mesa areas have more integrity than the proposed districts. Not having a thorough history of alterations limits our ability to concur with your recommendations. Also, the Nuckolls Packing Plant should be mentioned as an important part of the Grove landscape.
3) The Blocks neighborhood description is wrong. The Blocks is a thin swath of homes in the curvilinear streets directly abutting the bluff. The area west of Abriendo, on normally platted street networks is called Mesa Junction. Originally it was called Mesa, but 'The Mesa', currently refers to St. Charles Mesa. Numerous reviewers who lived in the area objected to the area west of Abriendo being considered part of the Blocks (originally called Corona Park). The Blocks proper have a specific and different historical development and demographic than the areas across the street. Recently the City conducted a neighborhood survey for the blocks area and it only covered the winding streets east of Abriendo to the bluffs edge. Please revise the map on Figure 4.3.
4) The flood of 1921 is only mentioned indirectly in the Grove neighborhood history instead of being in the main historical timeline. The 1921 flood was a pivotal moment in Pueblo's history and it greatly affected neighborhoods in the study area and the City as a whole. More discussion about the direct and indirect impacts to the study area is needed.
5) Section 4-10 talks about the settlement of Pueblo around streetcar lines. Although this is true, the original development was around the 'speculative city' model of platted 25-foot lots prior to the streetcar. As far as we understand the streetcar dropped its line onto the existing street grid and the development then grew off of those established lines.
6) Although it is one of your three specific APE themes one of them was: 2) Pueblo's *Ethnic Heritage and the Influences of Ethnic Groups on Pueblo's Past,* the realization of this theme is woefully underrepresented in the site form data. Your consultants did not identify any patterns in your data at all despite having to inventory some of the largest, original, ethnic enclaves in Pueblo. Without a detailed history of the political, social, and neighborhood histories it was

impossible to identify important locations or residences. Your themes were not translated very well into the actual study, which was little more than a simple inventory of homes. One example of these missed patterns in that data was evident in Goat Hill. There are a number of building periods on Goat Hill, with one occurring during 1922. One of our Pueblo Work's Engineers is the grandson of one of those original Goat Hill residents and he states that one (or many) of those houses was actually moved to Goat Hill from the lowlands after the flood. So beyond representing your #2 theme perfectly as a strong ethnic community, some of that construction is strongly associated with an important event in Pueblo's history and the reaction to that event. Finally, if your histories do not have enough detail it is impossible to determine what type of influence that had on Pueblo's history. After meeting with Goat Hill and East Mesa residents we realized that numerous original families went on to heavily influence the city.

7) A number of researchers pointed out inconsistencies with the eligibility statements for the Northern Avenue Commercial District. Some of these places were important parts of the community and fit in with your grocery store and 'watering holes/bar' histories. Some of the buildings have only slight modifications, and even some of the modifications may be historic.
8) Many commissioners and volunteers have issues with the Bessemer Historic District. The approach appears to be "broad-stroke" and numerous properties are included that have been seriously compromised. Also, we find it strange that a district can be so large with only one or the steel mill individually eligible property. We believe there should be more detail and discretion with this district. Perhaps a series of mini districts where integrity is high would be more appropriate.
9) Many volunteers and commissioners were dismayed to see some of the city's most important remaining, neighborhood grocery stores and bars recommended as ineligible. These 'ethnic town halls' acted as places where people could eat and drink, but also provided commercial, distribution, and economic services as well as important social services for the neighborhoods. Your own context study spends a great deal of time talking about these types of resources and it was baffling to see them recommended as ineligible. These structures are almost never unaltered, but many of the alterations took place over 50 years ago. Also, the commercial building attached to a residential house is the model for these types of resources and an important part of the social and architectural history, not a reason to recommend it as ineligible. Places like Gus's, Gaglianos, Zolseman's, Eilers, and Martices (in Goat Hill) are a crucial link to Pueblo's past, and even more important today because many are still operating. Your context survey seemed to understand the importance of these places, but your field researchers failed to recognize and nominate them as eligible for preservation.
10) Finally, we find it hard to believe that besides the proposed historic districts that only 15 other structres are eligible. Again without a history of alterations and social background for the homes and structures it is impossible to concur with your recommendations. The ethnic and labor history of Pueblo is difficult to incorporate into a research design, but it is important to highlight this important history that represented so many individuals in Pueblo. If, like your consultants claim, that many of these areas have lost integrity, then some of the few structures or blocks that do retain integrity should be eligible for preservation. Staff recognizes that a lot of historic integrity has been lost in Pueblo, and that perhaps, mini-districts composing small blocks could be nominated.
11) We saw at least two forms saying no historical info for Star Nursery was found, even though it still exists about two doors away.
12) We noticed the row of shacks on Greenwood south of 29th St. still considered part of the "affluent" Mineral Park neighborhood. Perhaps they shouldn't be considered part of the neighborhood. ("Sharps" Addition.) In general we found that the APE sites in the Mineral

Palace Park Historic District are not closely associated with the history of the affluent history of the greater North Side. The City is currently reviewing an application for a local historic North Side District that is much farther to the west and south of the APE study area. The area in the APE study area is largely lower middle class, later infill.

13) We have noticed many broad, blanket statements without justification, e.g., "an unsympathetic addition". Why are some alterations unsympathetic? If the alteration does not show in a photo, how can we tell?
14) When it comes to additions, the Assessor's Office Records are suspect (according to the forms, which frequently say "An addition..., but "No additions...according to Assessor's office), but accurate when it comes to the "Actual" date of the building, frequently 1900 (usually an incorrect construction date) Any building with a wing or an L-shape is assumed to have an addition, regardless of what the Assessor's office says.

## Site Forms

In many cases our reviewers were disposed to agree with the overall assessment of eligibility but noticed mistakes in the site forms, incorrect or incomplete information. We acknowledge that although many of these neighborhoods are still strong ethnics enclaves, they may have lost architectural integrity to such a degree that they are no longer eligible for the NRHP. I will address some of the major areas where we encountered:

***Date of construction***. The dates of construction were often listed as 1900 since that is the date when the assessor's office lost most of their records in a flood. However, any historical architect would realize that the styles of the homes place them at an earlier date. Reverse Directories (Polk Directories), Sanborn's, and original plats exist and can be consulted to at least find a date range of construction. This problem is very apparent when looking at the homes near the Steel Mill. It is difficult to assess a neighborhood's development and significance if it was built in 1885 as one of the first residential developments adjacent to the Steel Mill, and it is listed as 1900. We would like to see more detailed dates of construction or at least date ranges based on research, recording of the original plat, and architectural styles 1895-1900 etc.

***Architectural styles***. The architectural descriptions are sometimes too vague and inaccurate. Too many homes are labeled "no style" when clearly they have a plain vernacular style. After Consulting *Houses By Mail: A Guide to Houses From Sears, Roebuck and Company* (Stevenson and Jandl: 1986), most of the homes in many of the neighborhood appear to be Sears Kit or Sears inspired buildings. We would like to see more refined descriptions and accurate assessment of styles. If enough homes are "no style" then simply identify and name a vernacular style or sub style of some other larger movement. Also, one picture is not enough to agree with the recommendations in most cases. When descriptions of side and rear facades are mentioned as 'losing integrity' and we have no pictures, it becomes impossible to agree or disagree with your recommendations.

***Historical Background***. This section on the site forms is perhaps the most glaring example of what we thought of as "incomplete". Almost all of the forms list the first owner, or what appears to be one of the first owners and then states that no additional information could be found. A number of recent survey reports from the City as well as a number of volunteer nominations have unearthed tremendous data on even the most modest residences. We understand that the level of historic research for 800 homes cannot be the same as an individual National Register property. Yet, without sufficient information about the early residents, we cannot determine if the home has significance. The commission needs additional information regarding chains of ownerships and associations with local/regional business owners and political figures. Even if many of these buildings have lost

integrity we need to know the original histories of these places to make a firm assessment. We have been told by other researchers that Pueblo has a very good database of historical resources for this type of research. If your consultants need some guidance about where these things are located we would be happy to do all we can to assist.

Many of the names of the original owners of modest homes in the Goat Hill and Bessemer neighborhood are prominent family names in Pueblo's history or have members currently shaping the city's future. The survey report and historical context specifically mention the development of neighborhoods and ethnic history as important features of Pueblo's history, but the overarching themes do not seem to be carried over into the site forms. Numerous examples of completely intact modest worker/laborer housing are not listed as eligible, nor are specific blocks with high degrees of integrity listed as small districts.

***Integrity Statements.***
A number of our reviewers pointed out that there were a number of inconsistencies between the Section 42/43 statements. Houses with good integrity are then said to be not eligible because of loss of integrity. "Loss of integrity" appears to be rather inconsistent as well throughout the document. Without adequately addressing the later history of modifications to specific neighborhoods (Goat Hill, Bessemer, East Mesa) the authors assume that stucco was a later addition when in some cases it may have been original. The nature and types of changes may have also reflected specific historical conditions related to the local change in demographics or economics. City Staff has a large archive of WPA photos from 1938 of the entire city, which we would be happy to provide them as a resource to look at changes through time on modest worker housing.

Some reviewers noted that very small things were being used to recommend a home as ineligible for the NRHP. If a house has original wood windows but aluminum storm windows it could be noted as 'lost integrity'. The commission has a problem with so much of the City being deemed ineligible without really addressing the unique working class and ethnic history that built the City.

## Sites With Disagreements

The following is a list (#1) of sites that the reviewers in Pueblo disagree with the consultant's recommendation. In many cases we disagreed because we didn't have enough information, but in others we disagreed because we felt the social history or the architectural history was sufficient and important enough to warrant it as eligible for the NRHP.

We all found this to be a very difficult task due to the unique nature of old worker class housing which does not weather the elements as well as the Rosemount Mansion. However, we feel these resources and their histories are important, and that we need to know more about the original construction styles and techniques. We do not want to write off the entire history of Pueblo because of stucco. In some cases stucco was used historically and in some cases it was reapplied historically and may have been a way for peoples from Italy and New Mexico (or Mexico) to associate with their homelands or blend in to Pueblo's climate which is more related to Santa Fe than Connecticut or Chicago.

## Attachments:

**1. Sites with Disagreements / non-concurrence list**
**2. PCHS/Burrer letter**
**3.Clay letter**

Ives Burrer Comments

| | |
|---|---|
| 5PE 4852 | Window replacement may diminish integrity, but is that the only cause for non-contribution? |
| 5PE 4905 | Is stucco original? |
| 5PE 4954 | Disagree with non-contribution. Warrants further investigation. |
| 5PE 4958 | Disagree with non-contribution. Warrants further investigation. |
| 5PE 4961 | If lack of windows leading to diminished integrity is the cause for non-contribution, how can this be determined if they don't even know if the windows exist under the boards? |
| 5PE 4963 | If lack of windows leading to diminished integrity is the cause for non-contribution, how can this be determined if they don't even know if the windows exist under the boards? |
| 5PE 4965 | This building has more storefront modifications than most in the proposed district. How can this be contributing? Arbitrary decision. |
| 5PE 4968 | Warrants further investigation. Not enough photographs. |
| 5PE 5120 | This building has burned down. Should not be included in inventory, or if it is, noted as non-extant. |
| 5PE 5134 | Coflicting statements of significance. Stucco appears to be original. |
| 5PE 5164 | Windows appear original in the photo provided. Only storms have been added. Warrants further investigation |
| 5PE 5165 | Good integrity, yet is non-contributing @ 1953. What is the cutoff for the period of significance? |
| 5PE 5169 | Windows appear original in the photo provided. Only storms have been added. Warrants further investigation |
| 5PE 5175 | Date of 1953? |
| 5PE 5176 | Date of 1957? |
| 5PE 5177 | Date of 1958, but is listed as being contributing to the district. Explain. |
| 5PE 5186 | Stucco appears to be original. |
| 5PE 5188 | Fenestration modifications of what type? Not enough photographs are provided for a reviewer to confirm this determination. |
| 5PE 5194 | Stucco appears to be original. |
| 5PE 5205 | Has a clearly incompatible additions, yet is listed as contributing. Disagree. |
| 5PE 5209 | Diminished integrity. Should not be listed as contributing. |
| 5PE 5210 | Conflict in statements of physical integrity. |
| 5PE 5224 | Diminished integrity. Should not be listed as contributing. |
| 5PE 5228 | Diminished integrity. Should not be listed as contributing. |
| 5PE 5229 | Diminished integrity. Should not be listed as contributing. |

| | |
|---|---|
| 5PE 5237 | Date of 1956? |
| 5PE 5238 | If there is are side and back additions that cause this property to be non-contributing, more photographs must be provided to determine this. |
| 5PE 5296 | Physical integrity slightly diminished, but is significant. Associated with CF&I. |
| 5PE 4541 (Goat Hill Dist.) | Association with J.K. Sweeney warrants local significance, and eligibility in the NRHP. |

| New Pueblo Freeway Section 106 Sites With Disagreements | | | |
|---|---|---|---|
| BOX 1 | | | |
| | | | |
| **SITE NUMBER** | **ADDRESS** | | |
| 5PE4490 | 1924 N. SANTA FE AVE. | | |
| 5PE4531 | 315-317 E. 4TH ST. | | |
| 5PE4533 | 319-321 E. 4TH ST. | | |
| 5PE4537 | 307 BRADFORD AVE | | |
| 5PE4539 | 403 E. 4th St. | | |
| 5PE4540 | 403 E. 4th St. | | |
| 5PE4542 | 320 E. 4TH ST. | | |
| 5PE4545 | 212 E 3rd st | | |
| 5PE4546 | 304 BRADFORD ST | | |
| 5PE4564 | 321 E. 2nd ST | | |
| 5PE4566 | 311 E. 3RD ST | | |
| 5PE4701 | 525 MOFFAT | | |
| 5PE4705 | 513 MOFFAT | | |
| 5PE4707 | 508 MOFFAT | | |
| 5PE4718 | 602 MOFFAT | | |
| 5PE4725 | 601 STANTON | | |
| 5PE4733 | 501 STANTON | | |
| 5PE4746 | 921 CURRIE | | |
| 5PE4777 | 118 ARROYO | | |
| 5PE4778 | 120 ARROYO | | |
| 5PE4771 | 103 SUMMIT | | |
| 5PE4785 | 1136 ELM ST. | | |
| 5PE4579 | 332 E. 1ST. ST | | |
| 5PE4577 | 316 E. 1ST. ST. | | |
| 5PE4585 | 311 RIVER | | |
| | | | |
| | | | |
| BOX 2 | | | |
| | | | |
| **SITE NUMBER** | **ADDRESS** | | |
| 5PE4810 | 1214 ELM ST. | | |
| 5PE4812 | 1218 ELM ST. | | |
| 5PE4813 | 1220 ELM ST. Gaglianos | | |
| 5PE4821 | 1232 - 1234 ELM ST. | | |
| 5PE4837 | 1203 ELM ST. | | |
| 5PE4838 | 1201 ELM ST. | | |
| 5PE5000 | 611 E. ARROYO | | |
| 5PE5005 | 713 E. ARROYO | | |
| 5PE5008 | 700 TOPEKA AVE | | |
| 5PE5014 | 715 TOPEKA AVE | | |
| 5PE5016 | 706 HILL PL | | |
| 5PE5019 | 716 HILL PL | | |
| 5PE5020 | 413 RUSH ST. | | |
| 5PE5025 | 1004 EGAN AVE | | |
| 5PE5028 | 1048 S. SANTA FE | | |

| | | | |
|---|---|---|---|
| 5PE5035 | 1018 S. SANTA FE | | |
| 5PE5036 | 1012 S. SANTA FE | | |
| 5PE5037 | 1008 S. SANTA FE | | |
| 5PE5039 | 1000 S. SANTA FE | | |
| 5PE5040 | 1040 1/2 S. SANTA FE | | |
| 5PE5041 | 1109 S. SANTA FE | | |
| 5PE5043 | 422 KELLY AVE | | |
| 5PE5044 | 410 KELLY AVE | | |
| 5PE5045 | 412 KELLY AVE | | |
| 5PE5046 | 771 S. SANTA FE | | |
| 5PE5050 | 736 MOFFAT AVE | | |
| 5PE5051 | 734 MOFFAT AVE | | |
| 5PE5052 | 410 W. 28TH ST. | | |
| 5PE5053 | 414 W.28TH ST. | | |
| 5PE5054 | 2701 N. GRAND | | |
| 5PE5055 | 2725 N. GRAND | | |
| 5PE5056 | 409 W. 27TH ST | | |
| 5PE5059 | 2224 N. MAIN | | |
| 5PE5067 | 421 BEECH ST. | | |
| 5PE5073 | 425 BEECH ST. | | |
| 5PE5076 | 416 KELLY AVE | | |
| 5PE5080 | 200 S. SANTA FE | | |
| 5PE5081 | 210 S. SANTA FE. | | |
| 5PE5082 | 641 ELM ST. | | |
| | | | |
| | | | |
| **BOX 3** | | | |
| | | | |
| **SITE NUMBER** | **ADDRESS** | | |
| 5PE5206 | 2017 E. EVANS AVE | | |
| 5PE5207 | 2011 E. EVANS AVE | | |
| 5PE5211 | 2100 E. ROUTT | | |
| 5PE5212 | 2110 E. ROUTT | | |
| 5PE5218 | 2140 E. ROUTT | | |
| 5PE5219 | 411 AQUA AVE | | |
| 5PE5220 | 2131 E. EVANS | | |
| 5PE5221 | 2121 E. EVANS | | |
| 5PE5222 | 2119 E. EVANS | | |
| 5PE5223 | 2117 E. EVANS | | |
| 5PE5224 | 2113 E. EVANS | | |
| 5PE5227 | 2101 E. EVANS | | |
| 5PE5228 | 402 INDIANA AVE | | |
| 5PE5229 | 410 INDIANA AVE | | |
| 5PE5232 | 2012 E. EVANS | | |
| 5PE5234 | 2018 E. EVANS | | |
| 5PE5235 | 2022 E. EVANS | | |
| 5PE5237 | 2028 E. EVANS | | |
| 5PE5238 | 2032 E. EVANS | | |
| 5PE5243 | 2114 E. EVANS | | |
| 5PE5244 | 2118 E. EVANS | | |
| 5PE5246 | 2124 E. EVANS | | |

| | | | |
|---|---|---|---|
| 5PE5248 | 2210 E. EVANS | | |
| 5PE5254 | 2300 E. EVANS | | |
| 5PE5255 | 2308 E. EVANS | | |
| 5PE5268 | 2428 E. EVANS | | |
| 5PE5269 | 2430 E. EVANS | | |
| 5PE5271 | 2516 E. EVANS | | |
| 5PE5273 | 2526 E. EVANS | | |
| 5PE5274 | 2530 E. EVANS | | |
| *Pueblo either disagrees with the recommendation of eligibility on all these sites, | | | |
| or does not have sufficent information to conurr with the consultants recommendation. | | | |
| City of Pueblo and Pueblo Historic Preservation Coordinated Review, | | | |
| August through October 12, 2007. | | | |

October 11, 2007

Wade Broadhead
Land Use Planner
Department of Community Development
City of Pueblo 211 E. 'D' Street
Pueblo, Colorado 81003

Wade:

After reviewing the required documentation to comply with Section 106 guidelines in the Area of Potential Affect of the New Pueblo Freeway Project, I have a few concerns with the quality and accuracy of the forms provided.

1. The inventory forms provided include minimal information as a basis for determination for NRHP Districts, and individual listings. Even if a property were eligible, the information is not enough to form a concrete basis to that fact. The forms lack proper pictures indicating the features of the property, and usually only show the primary façade.

2. Detailed information about the contexts of the districts, the Bessemer/Minnequa Heights District in particular, is lacking. The same statement of significance and history is neither adequate nor appropriate for the entire broad-range district proposed. The two neighborhoods are distinct, and I cannot see how the two can be incorporated into one district.

3. Information included in each form in the statement of significance repeatedly refers to what should be important facts about the property or district as "probably due to" or "could be because." Was there not proper research to determine if something that affects the significance is a fact, and not speculation?

4. For the time that the consultant had to prepare the forms, including the delays in getting us the forms, the work presented appears hastily prepared, and not enough time was spent to properly conduct an inventory of each property, and to form substantial contexts for the districts in question. Determination of eligibility of a property is arbitrary and subjective, as is the case with stuccoed properties, and the age of the property.

It is therefore my recommendation that the forms be revised by the consultant to provide adequate information to determine potential districts and important site that lie within the APE. I do not believe that as the forms are prepared currently, they could not be used to adequately determine what properties in the APE are eligible and

important to our history. I will follow up with a list of specific property forms I have issues with.

Thank you for allowing me the opportunity to review this work.

Best Regards,

Weston Burrer
Director
Pueblo County Historical Society

September 18, 2007

Hello Wade,

I have reviewed all of the site forms in boxes 1 & 2. This includes the proposed districts of both Mineral Palace and Goat Hill. A few of the sites were missing from the disc and were therefore not re-evaluated.

In most cases, I would agree with the evaluations performed by the agency for the Colorado Historical Society-Office of Archaeology Historic Preservation. There are some notable exceptions which I have coded accordingly. Some properties my warrant a physical inspection or further research to determine whether or not they in fact may be eligible for either NRHP or Local designation.

The areas along the I-25 corridor retain very little or none of its original historic fabric. Many of the houses in these areas are small modest dwellings which have been altered and substantial architectural and historic integrity has been lost. Its unfortunate that almost without exception, many of the structures have been re-muddled with the replacement of windows, roofs, additions and stucco sheathing over brick and wood siding. While a number of houses exist that were originally constructed in the late 19th or early 20th century, many lack any identifiable architectural style.

According to the agencies evaluation, the age of many of the properties, indicate a construction date of 1900. This is probably based on the age reported by the Pueblo County Assorts office and is without doubt inaccurate. I did not indicate the discrepancy on the matrix unless the property was in question regarding its eligibility for either Local or NRHP designation.

If you have any questions regarding my review or need further help on this matter, please do not hesitate to contact me. I am sorry I did not get further along in the review, but time did not permit. Thanks for letting me help with this project, it has been most interesting.

Regards,

Kermit Clay

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

October 8, 2008

Mr. Edward C. Nichols
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJTCT: Eligibility Determinations for Five Historic Districts, CDOT Project IM 0251-156, I-25, New Pueblo Freeway Environmental Impact Statement

Dear Mr. Nichols:

This letter and the enclosed materials constitute the Federal Highway Administration (FHWA) and Colorado Department of Transportation's (CDOT)'s request for concurrence on Eligibility Determinations for the Environmental Impact Statement (EIS) referenced above. The purpose of the EIS is to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102). We previously consulted with your office regarding the Area of Potential Effects (APE) and survey methodology in a series of meetings in 2002 and 2003, and via correspondence in September 2004. In July 2007 we submitted eligibility determinations for your review and in June 2008 FHWA and CDOT met with your staff and the consulting parties to discuss assorted historic properties issues. This submittal includes eligibility determinations for five proposed historic districts along the project corridor.

**Eligibility Determinations**

CDOT has identified five proposed neighborhood historic districts that are recommended eligible to the National Register of Historic Places: the North Side Neighborhood (5PE5517), Second Ward (5PE5518), Grove (5PE5519), Blocks (5PE5520), and Steelworks Suburb (5PE5523). Please see the attached management data forms for more information about the district potential of these resources.

Several of the proposed districts were identified with different names and boundaries in previous consultation, but additional research and fieldwork assisted CDOT in making the revised determinations provided in this submittal. In the July 2007 consultation, CDOT identified three proposed districts: the Mineral Palace Park Neighborhood (now the North Side Neighborhood district), the Goat Hill Neighborhood (now the Second Ward district), and the Bessemer/Lake Minnequa Neighborhood (now part of the larger Steelworks Suburb district). CDOT also described several neighborhoods in the survey report in July 2007 that were not identified as districts but are now recommended as proposed districts (the Grove and Blocks Neighborhoods) or are part of a larger proposed district (East Mesa and Minnequa Heights Neighborhoods).

We request your concurrence with determinations of eligibility and proposed boundaries for these five districts. Your response is necessary for the Federal Highway Administration's compliance with Section

106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's regulations.

We have sent this same submittal to the City of Pueblo Planning Office and will provide a copy of their response once we receive it. As you know, the City of Pueblo has agreed to facilitate the review of these materials with the other Section 106 consulting parties for this project.

Thank you in advance for your prompt attention to this matter. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Management Data Forms for 5PE5517, 5PE5518, 5PE5519, 5PE5520, 5PE5523
Map of potential districts
Photos of Grove Neighborhood

cc: David Miller, CDOT Region 2
Dick Annand/Judy DeHaven, CDOT Region 2 Env.
Chris Horn, FHWA

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

October 8, 2008

Mr. Wade Broadhead
Historic Preservation Commission
Dept. of Community Development
City of Pueblo
211 East D Street
Pueblo, CO 81003

SUBJTCT: Eligibility Determinations for Five Historic Districts, CDOT Project IM 0251-156, I-25, New Pueblo Freeway Environmental Impact Statement

Dear Mr. Broadhead:

This letter and the enclosed materials constitute the Federal Highway Administration (FHWA) and Colorado Department of Transportation's (CDOT)'s request for comments on Eligibility Determinations for the Environmental Impact Statement (EIS) referenced above. The purpose of the EIS is to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102). We previously consulted with your organization regarding the Area of Potential Effects (APE) and survey methodology for this undertaking in a series of meetings in 2002 and 2003. In July 2007 we submitted eligibility determinations for your review and in June 2008 FHWA and CDOT met with staff from the State Historic Preservation Officer (SHPO) and the consulting parties to discuss assorted historic properties issues. This submittal includes eligibility determinations for five proposed historic districts along the project corridor.

**Eligibility Determinations**

CDOT has identified five proposed neighborhood historic districts that are recommended eligible to the National Register of Historic Places: the North Side Neighborhood (5PE5517), Second Ward (5PE5518), Grove (5PE5519), Blocks (5PE5520), and Steelworks Suburb (5PE5523). Please see the attached management data forms for more information about the district potential of these resources.

Several of the proposed districts were identified with different names and boundaries in previous consultation, but additional research and fieldwork assisted CDOT in making the revised determinations provided in this submittal. In the July 2007 consultation, CDOT identified three proposed districts: the Mineral Palace Park Neighborhood (now the North Side Neighborhood district), the Goat Hill Neighborhood (now the Second Ward district), and the Bessemer/Lake Minnequa Neighborhood (now part of the larger Steelworks Suburb district). CDOT also described several neighborhoods in the survey report in July 2007 that were not identified as districts but are now recommended as proposed districts (the Grove and Blocks Neighborhoods) or are part of a larger proposed district (East Mesa and Minnequa Heights Neighborhoods).

As a local preservation organization with an interest in these historic resources, we welcome your comments regarding our determinations of eligibility. It is our understanding that your office will facilitate the review of these materials with the other Section 106 consulting parties for this project. We have enclosed an additional set of site forms, map, and photos for distribution to the other consulting parties. We appreciate your efforts in this regard. Your response is necessary for the Federal Highway Administration's compliance with Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's regulations.

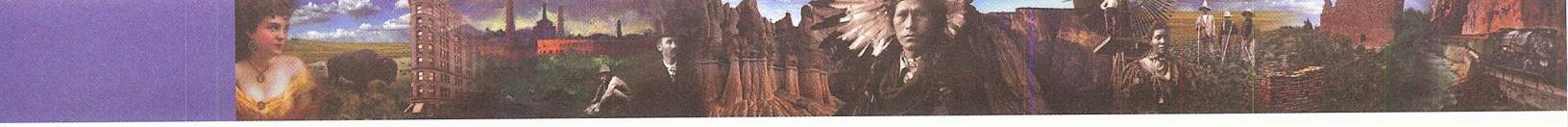
We have sent this same submittal to the SHPO for review. Thank you in advance for your prompt attention to this matter. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Management Data Forms for 5PE5517, 5PE5518, 5PE5519, 5PE5520, 5PE5523 (2 sets)
Map of potential districts (2 copies)
Photos of Grove Neighborhood (2 copies)

cc: David Miller, CDOT Region 2
Dick Annand/Judy DeHaven, CDOT Region 2 Env.
Chris Horn, FHWA



OFFICE *of* ARCHAEOLOGY *and* HISTORIC PRESERVATION

October 27, 2008

Brad Beckham
Manager, Environmental Programs Branch
Colorado Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, CO 80222

Re: CDOT Project IM 0251-156; I-25 Pueblo Freeway Environmental Impact Statement; Determinations of Eligibility. (CHS #44746)

Dear Mr. Beckham,

Thank you for your correspondence dated and received on October 8, 2008 and for the additional information received by email on October 24, 2008 regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided additional information, we concur with the recommended finding of potentially eligible and boundaries for the National Register of Historic Places for the resources listed below.

- 5PE.5517; North Side Neighborhood Historic District
- 5PE.5518; Second Ward Historic District. Under Item 10 of the Management Data Form, information is provided on why the Goat Hill neighborhood, located south of 1st Street, is not included in Second Ward Historic District. Was the Goat Hill neighborhood evaluated as a separate potential historic district?
- 5PE.5520; The Blocks Historic District.
- 5PE.5523; Steelworks Suburbs Historic District.
- 5PE.5519; The Grove Historic District.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30-day review period provided to other consulting parties. If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Manager, at (303) 866-4678.

Sincerely,

Susan M. Collins for

Edward C. Nichols
State Historic Preservation Officer

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

November 13, 2008

Mr. Edward C. Nichols
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJECT: Determinations of Eligibility for Archaeological Sites, CDOT Project IM 0251-156, New Pueblo Freeway EIS, Pueblo County

Dear Mr. Nichols:

Enclosed for your review is the archaeological resources survey report and associated site forms for the project referenced above. The Federal Highway Administration and Colorado Department of Transportation (CDOT) are preparing an Environmental Impact Statement to address potential social, economic and environmental impacts resulting from improvements to approximately seven miles of Interstate 25 through the City of Pueblo. Proposed modifications will include highway widening, realignment of dangerous curves, improved access at entrance and exit ramps, and other improvements to expedite the flow of traffic. Archaeologists with consulting firms WCRM and CH2MHill, under contract to CDOT, conducted a survey of the Area of Potential Effect (APE) between 2003 and 2005, undertook test excavations at a small sample of sites, and authored the report. As noted in the report, the APE was established in coordination with your office and several local consulting parties, and documentation to that effect is in your files.

The survey resulted in the documentation of 127 historic archaeological sites, the majority of which consist of vacant lots exhibiting varying degrees of visible archaeological evidence, subsurface potential, and/or associated archival data. Eight sites selected at random were subjected to test excavations, of which five were evaluated as eligible for the National Register of Historic Places (NRHP). Eighty-six (86) sites are assessed as needing additional data prior to completing a final NRHP evaluation, and 36 sites are recommended not eligible. As noted in the report, the large number of "need data" localities is a result of lack of permission to access most of the private properties within the APE, and therefore having to complete archaeological assessments from property boundaries (coupled with available archival information).

A copy of the report and site forms has been provided to Wade Broadhead at the City of Pueblo, who has agreed to facilitate review of the materials by the local consulting parties (including the City Planning Office, Pueblo Historic Preservation Commission and Bessemer Historical Society). We will forward any comments received from the consulting parties to you when received.

We request your concurrence with our determinations of eligibility as outlined above and in the enclosed documents. An atlas consisting of aerial photos of the APE that show the location of each site is also enclosed to facilitate your review. Please note, however, that the atlas is provided as a general finding aid and should not be utilized to infer effects to archaeological resources; a formal effects finding will be submitted to you at a later date. If you have questions about this submittal please contact CDOT Senior Staff Archaeologist Dan Jepson at (303)757-9631, or via Email at daniel.jepson@dot.state.co.us.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures

**Historic Preservation Commission**
211 East D Street
Pueblo, CO 81003
719-553-2259 (Phone)
719-553-2359 (Fax)
719-553-2611 (TTY)
www.pueblo.us

Susan Pelto, Chair
Donna Alber
Deborah Espinosa
Tanya Jones
Mark Mihelich
Kerrelyn Trent
Gary L. Trujillo

November 24, 2008

From: Wade Broadhead, Land Use Planner and Mark Mihelich, Chair Historic Preservation Commission
Through: Jerry Pacheco, Director of Planning and Community Development

Mr. Brad Beckham
Colorado Department of Transportation
Environmental Programs Branch
4201 E. Arkansas Avenue
Shumate Building
Denver, CO 80222

Dear Mr. Beckham:

We thank you for the opportunity to provide consultation on the proposed potential historic districts your consultant documented as part of the New Pueblo Freeway project in accordance with Section 106 of the National Historic Preservation Act. City of Pueblo staff attempted to coordinate a response between Historic Pueblo, Inc., The Bessemer Historical Society, and Pueblo County Historical Society. We were not able to get a thorough review by as many parties as we did with the first batch of site forms, however most people felt the work was generally of a much higher standard that it didn't warrant extensive review by numerous volunteers. We feel that the consultants captured most of the social history and now have the approximate boundaries of each "neighborhood" as well as the major overriding themes of each. Staff and the Chair of the HPC did review the forms and identified a few areas of concern.

1) **Goat Hill**: We acknowledge that Goat Hill is the most problematic area in the survey corridor. We felt that your consultant did a good job discovering the history of the landform, but may not have divided it correctly. I think the Second Ward form is very good, and identifies that there is an older, different area of significance north of 1st Street. The paragraph that talks about the "Goat Hill" area as being ineligible is probably correct. However, we would probably prefer to see a separate form with the history, pictures, and then the same statement of "insignificance" documented on the Second Ward forms. Just because Goat Hill is probably not architecturally significant doesn't mean we shouldn't identify it as a separate neighborhood, and just say that it no longer conveys its original significance due to alterations. Extend the Goat Hill Boundary to Clearance Road, and perhaps mention some of the neighborhood that used to be there before the flood of 1921, and the separation by the highway in the 1950s.

*The programs and services of the City of Pueblo are accessible to people with disabilities. For accessibility information contact the Planning & Land Use Administration Departments at 719-553-2359 (TTY users – 719-553-2611).*
*The City of Pueblo is an Equal Opportunity Employer.*

2) **Steelworks Suburb.** One reviewer noted that the Greek Orthodox Church was built in 1907 not 1927. I think you are thinking about St. Paul's Russian Orthodox, which moved circa 1923.

2b) The boundary of the district is problematic. We understand the intent and we agree that the mill functions as the pivotal point of the district, but you could also say that major portions of the town are associated with that district as well. As drawn, the district does not convey a unified period or history nor do they incorporate the great sub-neighborhood diversity the HPC would probably want to landmark at some point. I would advocate for a Bessemer District, and then an East Mesa district as it actually has a quite different time frame and evolution in many ways (post Flood boom and 1940s boom). We feel the large boundary compresses too much history into one large district that fails to convey the original significance and may make later smaller district nominations problematic.

2c) Under early building types, you fail to mention that Queen Anne, and especially Queen Anne cottages, are the predominate building stock in much of the older parts of Bessemer.

2d) Additional information of how the district was platted, and built out (i.e. Minnequa Town Company) here would be helpful.

2e) The integrity of the area is suspect. There should be a much more detailed statement about the integrity of the homes in the district. We notice that there are great blocks here and there but differed maintenance, vacant homes, and the pervasive stucco alterations have greatly reduced the integrity of the area as a whole, making surviving pockets that much more significant. As much as I love, respect, and appreciate the history of Bessemer, large pockets no longer convey the feeling of a Steelworks Suburb in the stated period of significance from a NRHP perspective.

2f) The architecture and housing section is a bit weak and uninformed. The majority of the houses do have a style, and the author could even go as far as naming vernacular styles present in the study area if he/she could not identify a style. Norman cottages are very rare in the Steelworks area, although craftsmen bungalows are common. The 1880s-1930 building boom should be discussed and identified in greater detail. The pre-1930s building boom may help refine district boundaries. Mentioning some items about the styles, locations, and association with time frames when the mill was booming versus busting would be helpful.

2g) The discussion of ethnicity is a little weak, since it is probably the basis for much of the significance of the residential area near the steel mill.

2h) What is the status of the Mill? Our commission is very worried about the sudden loss of crucial structures at the mill and how the mill will function in this historic district.

3) **Blocks-** Corona Park would be a better historic name for the "historic district". The Blocks is probably a better name for the current, living neighborhood.

3b) Corona Park has a great history and a very intentional design by Palmer, who hired John Blair, an early landscape artist from Chicago, to lay out the pattern in a fashion based off of Riverside in Chicago (Riverside is now named as a seminal piece of subdivision work shown in all planning books). The layout of the area is absolutely crucial to understanding its significance and meaning. The words "Corona Park" were cast in concrete and placed on the bluff slope under 229 Midway, and feature prominently on all 1930s photos of Mesa Junction/Blocks. Corona Park has a very interesting history associated with Palmer and his vision for South Pueblo, I'm not sure the history captured all that makes the area significant.

4) **Grove-** Discussion of the impact of the Alpha Beta packing plant is absent, otherwise I agree with most of the statements. The one comment about resettling in the same location after the flood is a little off base from our records. I've found that many people relocated to the northern portion of the East Mesa neighborhood after the flood, as well as other parts of Bessemer, the Russian Orthodox Church and congregation being a prime example.

We will be happy to provide any further information or discus any of the above-mentioned items during the consultation process.

Sincerely,

Wade Broadhead
Planner
City of Pueblo
719-553-2248

December 5, 2008

Brad Beckham, Manager
Environmental Programs Branch
Department of Transportation
4201 E. Arkansas Avenue
Shumate Building
Denver, Colorado 80222

Re: Determinations of Eligibility for Archaeological Sites, CDOT Project IM 0251-156, New Pueblo Freeway EIS, Pueblo County (CHS #43967)

Dear Mr. Beckham,

Thank you for your correspondence dated and received by our office on November 13, 2008 regarding the subject project. Following our review of the inventory report and accompanying site forms, we offer the following comments:

We concur with your determination that 5PE5408, 5PE5431, 5PE5458, 5PE5467, and 5PE5483 are **eligible** for the National Register of Historic Places (NRHP).

We concur with your determination that a finding of **need data** is appropriate for the following 86 sites: 5PE5395, 5PE5397, 5PE5398, 5PE5399, 5PE5401, 5PE5402, 5PE5403, 5PE5404, 5PE5405, 5PE5407, 5PE5409, 5PE5410, 5PE5415, 5PE5416, 5PE5417, 5PE5418, 5PE5419, 5PE5420, 5PE5421, 5PE5422, 5PE5423, 5PE5424, 5PE5425, 5PE5426, 5PE5427, 5PE5428, 5PE5429, 5PE5430, 5PE5433, 5PE5435, 5PE5437, 5PE5438, 5PE5439, 5PE5442, 5PE5446, 5PE5447, 5PE5449, 5PE5450, 5PE5451, 5PE5452, 5PE5453, 5PE5455, 5PE5460, 5PE5461, 5PE5463, 5PE5464, 5PE5466, 5PE5468, 5PE5469, 5PE5470, 5PE5471, 5PE5472, 5PE5474, 5PE5475, 5PE5476, 5PE5477, 5PE5478, 5PE5479, 5PE5480, 5PE5481, 5PE5484, 5PE5485, 5PE5486, 5PE5487, 5PE5488, 5PE5489, 5PE5491, 5PE5493, 5PE5495, 5PE5496, 5PE5497, 5PE5499, 5PE5502, 5PE5503, 5PE5504, 5PE5505, 5PE5506, 5PE5507, 5PE5508, 5PE5509, 5PE5510, 5PE5511, 5PE5513, 5PE5514, 5PE5515, and 5PE5516.

We concur with your determination that the following sites are **not eligible** for the NRHP: 5PE1770, 5PE5307, 5PE5400, and 5PE5492.

We concur with your determination that sites 5PE5434, 5PE5436, 5PE5473, and 5PE5500 – recorded from the street – are **not eligible** for the NRHP, due to the fact that they have been entirely paved over with asphalt. However, it is possible that unidentified archaeological resources may be discovered beneath the asphalt that currently covers these properties. If this

occurs, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with our office.

Our understanding is that for the historic architectural resources located within potential historic districts, CDOT has deferred making a recommendation regarding whether they are "contributing" or "non-contributing" to the districts until a final right-of-way (ROW) alternative has been selected. Our office recommends that the same process be employed for these historical archaeological resources. As such, we **do not concur** that all vacant urban lots may be considered non-contributing elements of the potentially eligible districts. It remains unknown whether any cultural remains located at these lots may "convey the significant qualities of the districts" by providing information important to history.

It would greatly facilitate our review of this project if you could please provide a table or other documentation (maps may be helpful) that groups these properties according to the potential historic districts within which they are located.

We **do not concur** with your determination that 5PE5305 (Chencho/Chehcho Shrine) is not eligible for the NRHP. Our office recommends that additional historic archival and/or ethnographic research be conducted to determine the origin of this site, and/or the original or present use of this site. Our office recommends that a finding of **need data** is appropriate for this site until additional research can be completed.

We **do not concur** with your determination that the following 27 sites are not eligible for the NRHP: 5PE5088, 5PE5396, 5PE5406, 5PE5411, 5PE5412, 5PE5413, 5PE5414, 5PE5432, 5PE5440, 5PE5441, 5PE5443, 5PE5444, 5PE5445, 5PE5448, 5PE5454, 5PE5456, 5PE5457, 5PE5459, 5PE5462, 5PE5465, 5PE5482, 5PE5490, 5PE5494, 5PE5498, 5PE5501, 5PE5512, and 5PE5581. These sites were not intensively inventoried, but rather "observed from the perimeter of the site." Our office recommends that a finding of **need data** is appropriate for these sites until adequate inventory can be completed.

Our office recognizes the difficulty in obtaining private property access in an urban environment, especially for a project of this magnitude. In addition, as discussed in Section 3.6.2 of the inventory report, our office acknowledges the efforts that were made to assess archaeological potential for all vacant lots. However, in light of the results obtained from those sites that *were* intensively inventoried and/or tested, we feel that the "system [that] was developed to forecast the locations of intact cultural deposits" may not have been adequate. The system to which we refer is discussed in Section 3.6.2, on page 3-7 of the inventory report:

> "The system includes three levels of potential for archaeological remains: good, fair, and low. Good potential was assigned to those sites that had visible evidence of artifacts or features as observed from the off-site viewing point, as well as evidence of previous use on the Sanborn Fire Insurance maps and/or in the city directories. Sites determined to be of fair potential had no visual evidence of cultural materials or features, but did have indicators of previous occupancy from archival sources or had visual evidence of archaeological deposits and no archival documentation. Sites with

low potential had neither the observable evidence on the ground nor archival evidence of previous occupation. Sites with low potential for archaeological deposits have been recommended as not eligible for the NRHP…"

Our concern is that of the eight sites that were test excavated, five were determined to be eligible for the NRHP. This indicates the possibility that intensive inventory and/or testing may be likely to reveal (buried) cultural deposits, which may render a seemingly vacant lot eligible for the NRHP under criterion D, and possibly under criteria A or B. These potential deposits may not always be depicted on the Sanborn Fire Insurance maps or in the city directories (e.g., middens), but still be able to yield information important in history or prehistory.

Additionally, we observe that the historical archaeological survey was limited to vacant lots and open lands, not including yards surrounding standing structures.

Our office suggests that CDOT consider a "Phased identification and evaluation" approach per 36 CFR 800.4(b)(2) which states,

> "Where alternatives under consideration consist of corridors or large land areas, or were access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts. … The process should establish the likely presence of historic properties within the area of potential effects for each alternative or inaccessible area through background research, consultation and an appropriate level of field investigation, taking into account the number of alternatives under consideration, the magnitude of the undertaking and its likely effects, and the views of the SHPO/THPO and any other consulting parties. As specific aspects or locations of an alternative are refined or access is gained, the agency official shall proceed with the identification and evaluation of historic properties in accordance with paragraphs (b)(1) and (c) of this section."

While we acknowledge that this identification effort began years ago, and proceeded in several stages as described in the report, it is not complete at this time. We look forward to additional consultation regarding future identification and evaluation of historical archaeological properties within the area of potential effects.

Thank you for the opportunity to comment. We look forward to receiving responses to the above comments and to additional consultation for the proposed project. If we may be of further assistance please contact Shina duVall, Section 106 Compliance Manager, at (303) 866-4674 or shina.duvall@chs.state.co.us.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer
ECN/SAD

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

February 18, 2009

Mr. Edward C. Nichols
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

**Subject:** Revised Determinations of Eligibility for Five Archaeological Sites, Project IM 0251-156, New Pueblo Freeway EIS, Pueblo County (CHS #43967)

Dear Mr. Nichols:

In correspondence dated December 5, 2008, you commented on Determinations of Eligibility for 127 historic archaeological sites located within the Area of Potential Effects for the project referenced above. Subsequent to that date additional information was obtained for four sites that affect their National Register eligibility recommendations; one additional site determined to *need data* as noted in your letter was actually subjected to test excavations in 2005 and recommended by CDOT in our November 13, 2008 submittal to be *not eligible*.

Based on supplementary field investigations, archival research, and information provided by local informants as facilitated by Wade Broadhead at the City of Pueblo, we have determined that sites 5PE5305, 5PE5406, 5PE5433 and 5PE5475 are *not eligible* for the National Register of Historic Places (NRHP). Site 5PE5457 was previously recommended *not eligible* based on test excavations. Information specific to each site is outlined below, and re-evaluation forms for four sites are enclosed for your review.

**5PE5305:** This site was initially characterized in 2003 as a "historic shrine" but it is in fact a modern memorial and "peace park" erected in memory of a young Pueblo resident who died in 2001. The site lacks archaeological integrity and does not exhibit the potential to contain significant intact buried deposits. While the memorial may be important to members of the local community, the site meets none of the criteria for eligibility for the NRHP nor does it have sufficient historical significance to warrant eligibility under Criteria Consideration F for commemorative properties, or Criteria Consideration G for properties less than fifty years old. Because of the memorial's potential importance among members of the local Hispanic community, CDOT will evaluate the site in the context of the Socioeconomic and/or Environmental Justice categories during its on-going National Environmental Policy Act (NEPA) analysis.

**5PE5406:** This was the location of the Centennial High School athletic fields prior to construction of the new Centennial High campus in 1973. The lot was subsequently abandoned and remained undeveloped, although it reportedly occasionally served as the location of a used car lot. Over the last thirty-five years numerous episodes of fill dirt disposal have occurred at this location. After the initial site recordation in 2005, the US Geological Survey constructed an office building and parking lot on the southern portion of the site. The northern portion of the site also experienced widespread and severe disturbance at that time, including earthwork conducted by heavy equipment and the disposal of construction refuse. In addition, a large storm water drainage ditch was constructed which flanks the site on the north and east. (The site

was visited by CDOT Staff Archaeologist in early February 2009.) As a result of the extensive disturbance and the nature of the original use, the site lacks physical integrity and does not have potential for significant intact archaeological deposits. 5PE5406 is recommended *not eligible* for the NRHP.

**5PE5433:** Subsequent to the initial recordation of this site in 2005, the Cambria Hotel was constructed at this location and opened for business in October 2008. The lot is entirely occupied by the hotel, its parking lots, new sidewalks, and landscaping. The entire parcel has been graded or otherwise built on and no evidence remains of historic concrete foundations or any other features noted in 2005. Consequently, the site does not have potential for significant intact archaeological deposits and is recommended as *not eligible*.

**5PE5475:** The 1922 Sanborn Insurance Co. maps indicate this area was vacant with the exception of a small lumber shed associated with the Newton Lumber Company. It measured roughly 12' by 7'and was likely a simple wood post and shed roof structure. Demolition of the shed and construction of the existing parking lot have destroyed all vestiges of the structure (again, as ascertained by a field visit to the site in February 2009.) There is no potential for significant intact archaeological deposits given the limited function and slight stature of the structure formerly present in this location. 5PE5475 is recommended *not eligible* for the NRHP.

**5PE5457:** Test excavations conducted by WCRM at this site in 2005 revealed extensive disturbance due to multiple episodes of Arkansas River flooding in addition to modern disturbance associated with the Saint Charles Mesa Water District. The survey report notes the completion of testing on p. 3-4, Table 5.3 (p. 5-8) lists the site as *not eligible*, and the site form (a copy of which is in OAHP files) clearly details the results of the test excavations. The site lacks integrity and does not have potential for significant intact archaeological deposits.

The site forms previously submitted provide more detailed information about each of the five sites. We request your concurrence with the determinations of eligibility as outlined above and in the accompanying re-evaluation forms. If you have questions or require additional information in order to complete your review, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303)757-9631, or via Email at daniel.jepson@dot.state.co.us.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

February 18, 2009

Mr. Wade Broadhead
Planning & Community Development
City of Pueblo
211 East D Street
Pueblo, CO 81003

**Subject:** Revised Determinations of Eligibility for Five Archaeological Sites, Project IM 0251-156, New Pueblo Freeway EIS, Pueblo County

Dear Mr. Broadhead:

In correspondence dated December 5, 2008, the State Historic Preservation Officer (SHPO) commented on Determinations of Eligibility for 127 historic archaeological sites located within the Area of Potential Effects for the project referenced above. Subsequent to that date additional information was obtained for four sites that affect their National Register eligibility recommendations; one additional site determined to *need data* as noted in the SHPO letter was actually subjected to test excavations in 2005 and recommended by CDOT in our November 2008 submittal to be *not eligible*.

Based on supplementary field investigations, archival research, and information provided by local informants, we have determined that sites 5PE5305, 5PE5406, 5PE5433 and 5PE5475 are *not eligible* for the National Register of Historic Places (NRHP). Site 5PE5457 was previously recommended *not eligible* based on the results of test excavations. Information specific to each site is outlined below, and re-evaluation forms for four sites are enclosed for your information.

**5PE5305:** This site was initially characterized in 2003 as a "historic shrine" but it is in fact a modern memorial and "peace park" erected in memory of a young Pueblo resident who died in 2001. The site lacks archaeological integrity and does not exhibit the potential to contain significant intact buried deposits. While the memorial may be important to members of the local community, the site meets none of the criteria for eligibility for the NRHP nor does it have sufficient historical significance to warrant eligibility under Criteria Consideration F for commemorative properties, or Criteria Consideration G for properties less than fifty years old. Because of the memorial's potential importance among members of the local Hispanic community, CDOT will evaluate the site in the context of the Socioeconomic and/or Environmental Justice categories during its on-going National Environmental Policy Act (NEPA) analysis.

**5PE5406:** This was the location of the Centennial High School athletic fields prior to construction of the new Centennial High campus in 1973. The lot was subsequently abandoned and remained undeveloped, although it reportedly occasionally served as the location of a used car lot. Over the last thirty-five years numerous episodes of fill dirt disposal have occurred at this location. After the initial site recordation in 2005, the US Geological Survey constructed an office building and parking lot on the southern portion of the site. The northern portion of the site also experienced widespread and severe disturbance at that time, including earthwork conducted by heavy equipment and the disposal of construction refuse. In addition, a large storm water drainage ditch was constructed which flanks the site on the north and east. (The site

was visited by a CDOT Staff Archaeologist in early February 2009.) As a result of the extensive disturbance and the nature of the original use, the site lacks physical integrity and does not have potential for significant intact archaeological deposits. 5PE5406 is recommended *not eligible* for the NRHP.

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**5PE5457:** Test excavations conducted by WCRM at this site in 2005 revealed extensive disturbance due to multiple episodes of Arkansas River flooding in addition to modern disturbance associated with the Saint Charles Mesa Water District. The survey report notes the completion of testing on p. 3-4, Table 5.3 (p. 5-8) lists the site as *not eligible*, and the site form (a copy of which is in OAHP files) clearly details the results of the test excavations. The site lacks integrity and does not have potential for significant intact archaeological deposits.

The accompanying site re-evaluation forms, in addition to the site forms previously submitted, provide more detailed data about each of the sites. This information has been submitted to the SHPO for Section 106 compliance purposes, and is provided to the project consulting parties (via your office) for review and comment. Should you elect to submit comments we request that you do so within 30 days of receipt of this letter.

If you have questions regarding the information provided above or on the enclosures, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303)757-9631, or via Email at daniel.jepson@dot.state.co.us.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

March 3, 2009

Mr. Edward C. Nichols
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJECT: Additional Eligibility Determinations (Historic Resources), CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Nichols:

This letter and enclosed materials constitute an additional request for concurrence on Eligibility Determinations for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

**Previous Consultation**

We previously consulted with your office regarding the Area of Potential Effects (APE) and survey methodology in a series of meetings in 2002 and 2003, and via correspondence in September 2004. In July 2007 we submitted eligibility determinations for your review and in June 2008 FHWA and CDOT met with your staff and the consulting parties to discuss assorted historic properties issues. In October 2008, we consulted with you and the consulting parties regarding the eligibility of five proposed neighborhood districts within the project APE. This submittal includes the following elements:

1) Eligibility determinations for 88 properties that were re-surveyed
2) Evaluation of district potential for the Goat Hill Neighborhood
3) Revised Architectural Resources Survey Report
4) Site forms for three properties that are within the project APE but were not included in the 2007 eligibility determination consultation.
5) Management Data Forms for the proposed districts and neighborhoods
6) Electronic copy of a spreadsheet of the resurveyed properties for your use during review (sent via email)

**Eligibility Determinations**

*Resurveyed Properties*: The 88 properties were initially evaluated in 2005 and submitted to your office with eligibility determinations in 2007. These properties were resurveyed as part of a revised survey methodology that is described in more detail on page 2-3 of the attached survey report. Of the 88 properties, twenty-two are located in the Grove Neighborhood, five are within the proposed Grove historic district boundary, and sixty-five are within the proposed Steelworks Suburbs Neighborhood District (5PE5523). Two of the 88 properties—5PE4710 and 5PE5050—were found to be individually

eligible and are located in the Grove Neighborhood. Please see the enclosed site forms for CDOT's determinations of eligibility for these properties.

As a point of clarification, sixteen of the resurveyed properties were found to be individually not eligible in the 2007 consultation with your office but they are being resubmitted because they are now within the Steelworks Suburb Historic District and we are requesting concurrence on their contributing/non-contributing status. These properties are: 5PE4735, 5PE4739, 5PE4740, 5PE4741, 5PE4742, 5PE4743, 5PE4745, 5PE4752, 5PE4753, 5PE4767, 5PE4768, 5PE4774, 5PE4883, 5PE4890, 5PE4891, and 5PE4892.

*Goat Hill Neighborhood (5PE6893)*
During the October 2008 consultation regarding the proposed historic districts, your staff asked for more information about the district potential of the Goat Hill neighborhood. CDOT subsequently evaluated Goat Hill, assigned it a separate number, and documented it on a management data form. The survey report was also revised to include historical background information about Goat Hill. Additional historical research was conducted, a boundary was established for the Goat Hill neighborhood, and a reconnaissance-level field survey (including updated photographs of every residential property within the Goat Hill neighborhood boundary) was completed. Per the revised survey methodology for this project, the properties within the Goat Hill neighborhood are being *treated* as eligible for the purposes of Section 106; however, it is CDOT's assertion that these properties can be treated as individually eligible as part of this methodology, but that the overall neighborhood can still lack district potential. Based on the additional research and field survey, it was determined that the Goat Hill neighborhood may have significance but lacks integrity, and does not have historic district potential. Please see the enclosed management data form and the survey report for more information about the analysis of the Goat Hill neighborhood.

*Additional Properties*
This submittal also includes two newly-recorded resources that were not included in the 2007 eligibility consultation: the Colorado Fuel & Iron Plant Site (5PE5138) and a segment of the Colorado & Wyoming Railroad (5PE5139). The Santa Fe Avenue Bridge (5PE3938), which was evaluated as eligible in the 2000 Statewide Historic Bridge Inventory, is also within the project APE. We have included a copy of the bridge site form for your convenience, but are not requesting your concurrence since the resource has already been determined officially eligible.

We have sent this information to the City of Pueblo Planning Office and will provide a copy of their response once we receive it. As you know, the City of Pueblo has agreed to facilitate the review of these materials with the other Section 106 consulting parties for this project.

We request your concurrence with the determinations of eligibility provided in the submitted materials. Given the size of this submittal, we are aware that the standard 30-day review time frame may not be sufficient. Please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258 as soon as possible to discuss a reasonable review period. If you require additional information, please contact Ms. Schoch.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:

Revised Architectural Resources Survey Report
Appendix A: Management Data Forms for Proposed Historic Districts
Appendix B: Site forms, maps and tables of Resurveyed properties
Appendix C: Site forms, maps and tables of Combined 2005 and 2008 Survey results

cc: David Miller, CDOT Region 2 Eng. (w/o enclosures)
Dick Annand/Judy DeHaven, CDOT Region 2 Env. (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

March 4, 2009

Mr. Wade Broadhead
Historic Preservation Commission
Dept. of Community Development
City of Pueblo
211 East D. Street
Pueblo, CO 81003

SUBJECT: Additional Eligibility Determinations (Historic Resources), CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Broadhead:

This letter and enclosed materials constitute an additional request for comments on Eligibility Determinations for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

**Previous Consultation**

We previously consulted with you regarding the Area of Potential Effects (APE) and survey methodology in a series of meetings in 2002 and 2003. In July 2007 we submitted eligibility determinations and in June 2008 FHWA and CDOT met with SHPO staff and the consulting parties to discuss assorted historic properties issues. In October 2008, we consulted with SHPO and the consulting parties regarding the eligibility of five proposed neighborhood districts within the project APE. This letter includes the following elements:

1) Responses to your November 2008 letter
2) Eligibility determinations for 88 properties that were re-surveyed
3) Evaluation of district potential for the Goat Hill Neighborhood
4) Revised Architectural Resources Survey Report
5) Site forms for three properties that are within the project APE but were not included in the 2007 eligibility determination consultation.
6) Management Data Forms for the proposed districts and neighborhoods
7) Electronic copy of a spreadsheet of the resurveyed properties for your use during review (sent via email)

**Responses to Comments**

Below we address comments and suggestions from your November 2008 letter regarding Goat Hill, the Steelworks Suburb, the Blocks, and the Grove.

*Goat Hill:* Per your request, CDOT conducted additional research and field survey, and documented the Goat Hill neighborhood on a separate management data form. Please see the discussion of eligibility determinations below for more information.

*Steelworks Suburb*: We appreciate the suggestions and additional information regarding the architecture, ethnic background, integrity, and proposed boundary of the Steelworks Suburb district. Your primary concern is that the district boundary is too large to "convey a unified period or history" and you suggested that the district should be divided into at least two or three smaller districts, with separate boundaries for the Bessemer and East Mesa neighborhoods. We believe that the current boundary is appropriate both in its ability to encompass the elements of the district, and for Section 106 compliance purposes. Based on 36 CFR 800.4, we have made a reasonable and good faith effort to research and define the Steelworks Suburb district and have no plans to revise the boundary at this time. We have provided your office with a strong foundation for additional research and field survey that might result in changes to this proposed boundary in the future. In addition, revising the boundary will not alter the status of the Steel Mill and its associated neighborhoods as identified historic properties that will be evaluated under Section 106 for project-related effects.

With regard to your question about the status of the steel mill, it is currently owned by Evraz Group S.A., a Russian conglomerate registered in Luxembourg. The company has been removing buildings associated with coke production that were just off the main entrance from Indiana Avenue. CDOT does not have any plans at this time to re-evaluate the property's significance, and for the purposes of this project, still finds that it is an important part of the Steelworks Suburb historic district.

*Blocks*
At your suggestion, CDOT changed the Blocks neighborhood name to "Corona Park" in both the site form and the survey report.

*Grove*
We did not revise the Grove Neighborhood historic district site form to include information about the Alpha Beta packing plant, but recognize that it likely has an historic association with that neighborhood. The plant is not within the project Area of Potential Effects and was not documented during the historic architectural survey.

**Eligibility Determinations**
*Resurveyed Properties*: The 88 properties were initially evaluated in 2005 and submitted to the consulting parties with eligibility determinations in 2007. These properties were resurveyed as part of a revised survey methodology that is described in more detail on page 2-3 of the attached survey report. Of the 88 properties, twenty-two are located in the Grove Neighborhood, five are within the proposed Grove historic district boundary, and sixty-five are within the proposed Steelworks Suburbs Neighborhood District (5PE5523). Two of the 88 properties—5PE4710 and 5PE5050—were found to be individually eligible and are located in the Grove Neighborhood. Please see the enclosed site forms for CDOT's determinations of eligibility for these properties.

As a point of clarification, sixteen of the resurveyed properties were found to be individually not eligible in the 2007 consultation with SHPO but they are being resubmitted because they are now within the Steelworks Suburb Historic District and we are requesting SHPO concurrence on their contributing/non-contributing status. These properties are: 5PE4735, 5PE4739, 5PE4740, 5PE4741, 5PE4742, 5PE4743, 5PE4745, 5PE4752, 5PE4753, 5PE4767, 5PE4768, 5PE4774, 5PE4883, 5PE4890, 5PE4891, and 5PE4892.

*Goat Hill Neighborhood (5PE6893)*
During the October 2008 consultation regarding the proposed historic districts, SHPO asked for more information about the district potential of the Goat Hill neighborhood. CDOT subsequently evaluated Goat Hill, assigned it a separate number, and documented it on a management data form. The survey report was also revised to include historical background information about Goat Hill. Additional historical research was conducted, a boundary was established for the Goat Hill neighborhood, and a reconnaissance-level field survey (including updated photographs of every residential property within the Goat Hill neighborhood boundary) was completed. Per the revised survey methodology for this project, the properties within the Goat Hill neighborhood are being *treated* as eligible for the purposes of Section 106; however, it is CDOT's assertion that these properties can be treated as individually eligible as part of this methodology, but that the overall neighborhood can still lack district potential. Based on the additional research and field survey, it was determined that the Goat Hill neighborhood may have significance but lacks integrity, and does not have historic district potential. Please see the enclosed management data form and the survey report for more information about the analysis of the Goat Hill neighborhood.

*Additional Properties*
This submittal also includes two newly-recorded resources that were not included in the 2007 eligibility consultation: the Colorado Fuel & Iron Plant Site (5PE5138) and a segment of the Colorado & Wyoming Railroad (5PE5139). The Santa Fe Avenue Bridge (5PE3938), which was evaluated as eligible in the 2000 Statewide Historic Bridge Inventory, is also within the project APE. We are not requesting SHPO concurrence since the resource has already been determined officially eligible.

As a local preservation organization with an interest in these historic resources, we welcome your comments regarding our determinations of eligibility. Given the size of this submittal, we are aware that the standard 30-day review time frame may not be sufficient. Please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258 as soon as possible if you believe you will need additional time.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Revised Architectural Resources Survey Report
Appendix A: Management Data Forms for Proposed Historic Districts
Appendix B: Site forms, maps and tables of Resurveyed properties
Appendix C: Site forms, maps and tables of Combined 2005 and 2008 Survey results

cc: David Miller, CDOT Region 2 Eng. (w/o enclosures)
Dick Annand/Judy DeHaven, CDOT Region 2 Env. (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

03-18-09P01:31 RCVD

March 6, 2009

Brad Beckham, Manager
Environmental Programs Branch
Department of Transportation
4201 E. Arkansas Avenue
Shumate Building
Denver, Colorado 80222

Re: Revised Determinations of Eligibility for Five Archaeological Sites, CDOT Project IM 0251-156, New Pueblo Freeway EIS, Pueblo County (CHS #43967)

Dear Mr. Beckham,

Thank you for your correspondence dated February 18, 2009 (received by our office on February 20, 2009) regarding the subject project.

Following our review of the additional information provided, we concur with your determination that the following sites are **not eligible** for the National Register of Historic Places (NRHP): 5PE5305, 5PE5406, 5PE5433, 5PE5457, and 5PE5475.

Thank you for the opportunity to comment. We look forward to additional consultation for the proposed project. If we may be of further assistance please contact Shina duVall, Section 106 Compliance Manager, at (303) 866-4674 or shina.duvall@chs.state.co.us.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer
ECN/SAD

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

April 13, 2009

Mr. Edward C. Nichols
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJECT: Additional Information, Colorado Fuel & Iron Plant Site (5PE5138), CDOT Project IM 0251-156, I-25, New Pueblo Freeway Environmental Impact Statement

Dear Mr. Nichols:

On March 3, 2009, CDOT submitted for your review additional eligibility determinations for the Environmental Impact Statement (EIS) referenced above. Among the materials submitted was the site form for the Colorado Fuel & Iron Plant Site (5PE5138). The plant is a contributing feature of the larger Steelworks Suburb Historic District (5PE5523), which your staff agreed is potentially eligible for the National Register of Historic Places. The district's period of significance is from 1881 to 1945, whereas the period of significance for the individual plant extends from its construction in 1880 to 1959, when the plant's growth reached its zenith and began to decline. Because the neighborhoods in the Steelworks Suburb are so closely tied to the history of the plant, and the periods of significance for the district and the plant overlap, CDOT has determined that the plant should be evaluated as a contributing element of the proposed district and not as an individually eligible resource, and that the period of significance for the overall Steelworks Suburb district should be expanded to include the years from 1880 to 1959. CDOT proposes to retire the individual site number for the plant, and asks that you attach the individual site form for the plant to the site form for the Steelworks Suburb district (5PE5523) for informational purposes.

We request your concurrence with the eligibility determination for the Colorado Fuel & Iron Plant site. We have sent this information to the City of Pueblo Planning Office; we will provide a copy of the City's response to you when received.

Thank you in advance for your prompt attention to this matter. Because this information has a bearing on the ongoing review of 88 additional eligibility determinations presently in your possession, we are requesting your comments on or before the extended review deadline of May 1, 2009. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:

cc: David Miller, CDOT Region 2
Dick Annand/Judy DeHaven, CDOT Region 2 Env.
Chris Horn, FHWA

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

April 13, 2009

Mr. Wade Broadhead
Historic Preservation Commission
Dept. of Community Development
City of Pueblo
211 East D. Street
Pueblo, CO 81003

SUBJECT: Additional Information, Colorado Fuel & Iron Plant Site (5PE5138), CDOT Project IM 0251-156, I-25, New Pueblo Freeway Environmental Impact Statement

Dear Mr. Broadhead:

On March 4, 2009, CDOT submitted for your review additional eligibility determinations for the Environmental Impact Statement (EIS) referenced above. Among the materials submitted was the site form for the Colorado Fuel & Iron Plant Site (5PE5138). The plant is a contributing feature of the larger Steelworks Suburb Historic District (5PE5523), which your staff agreed is potentially eligible for the National Register of Historic Places. The district's period of significance is from 1881 to 1945, whereas the period of significance for the individual plant extends from its construction in 1880 to 1959, when the plant's growth reached its zenith and began to decline. Because the neighborhoods in the Steelworks Suburb are so closely tied to the history of the plant, and the periods of significance for the district and the plant overlap, CDOT has determined that the plant should be evaluated as a contributing element of the proposed district and not as an individually eligible resource, and that the period of significance for the overall Steelworks Suburb district should be expanded to include the years from 1880 to 1959. CDOT proposes to retire the individual site number for the plant, and asks that you attach the individual site form for the plant to the site form for the Steelworks Suburb district (5PE5523) for informational purposes.

We request your comments on the eligibility determination for the Colorado Fuel & Iron Plant site. We have sent this information to the State Historic Preservation Officer (SHPO) for compliance purposes.

Thank you in advance for your prompt attention to this matter. Because this information has a bearing on the ongoing review of 88 additional eligibility determinations presently in your possession, we are requesting your comments on or before the extended review deadline of May 8, 2009. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303) 512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:

cc: David Miller, CDOT Region 2
Dick Annand/Judy DeHaven, CDOT Region 2 Env.
Chris Horn, FHWA

OFFICE *of* ARCHAEOLOGY *and* HISTORIC PRESERVATION

April 15, 2009

Brad Beckham
Manager, Environmental Programs Branch
Colorado Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, CO 80222

Re: Additional Eligibility Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Beckham,

Thank you for your correspondence dated March 3, 2009 and received by our office on March 5, 2009 regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we concur with the recommended determinations of National Register eligibility for the surveyed properties. We concur that Colorado Fuel & Iron Plant Site/5PE.5138 should be included as a contributing element within the National Register-eligible Steelworks Suburb Historic District/5PE.5523.

If unidentified archaeological resources are discovered during construction, work must be interrupted until the resources have been evaluated in terms of the National Register criteria, 36 CRF 60.4, in consultation with this office.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30-day review period provided to other consulting parties. If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Coordinator, at (303) 866-4678.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer

COLORADO HISTORICAL SOCIETY
1300 BROADWAY DENVER COLORADO 80203 TEL 303/866-3395 FAX 303/866-2711 *www.coloradohistory-oahp.org*

B

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

August 7, 2009

Mr. Edward C. Nichols
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJECT: Additional Eligibility Determinations (Historic Resources), CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Nichols:

This letter and the enclosed materials constitute a request for concurrence on additional eligibility determinations for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts of proposed capacity improvements along an eight-mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

**Previous Consultation**

CDOT has been in consultation with your office and the consulting parties since 2004. Our most recent submittal in March 2009 included the revised Architectural Resources Survey Report and eligibility determinations for re-surveyed properties and districts. This submittal contains the following items:

1) Revised Area of Potential Effects (APE) map showing changes to the boundary
2) Eligibility determinations and associated architectural inventory forms for 10 newly-recorded properties
3) Re-evaluation forms for three previously-recorded properties
4) Response to City of Pueblo comments regarding eligibility of King Taco (5PE4958)

**Area of Potential Effects Revisions**

In April 2009, CDOT met with Amy Pallante of your staff to discuss new information about impacts to properties outside the existing APE boundary and to propose a methodology for how to assess those properties as part of the Section 106 process. During the meeting Ms. Pallante was in agreement with the APE changes and the proposed approach to identification of resources. The enclosed map reflects what was agreed upon at that meeting. A copy of the meeting minutes has also been included for your convenience.

**Eligibility Determinations**

*Newly Documented Properties*: Eight of the ten newly-documented properties were identified when it was determined that there were additional impacts outside the APE boundary. Of these, seven properties are within the boundary of the proposed Steelworks Suburb Historic District (5PE5523): 5PE6919, 5PE6920, 5PE6921, 5PE6922, 5PE6923, 5PE6924, and 5PE6925, and are evaluated as non-contributing features of that district. There are three newly-recorded properties that are not within districts. The

Speken Wrecking Company (5PE6918) and Wagner Rents building (5PE6936) are assessed as *not eligible*, and the former Newton Lumber Company (5PE5042) is evaluated as *eligible*.

*Re-Evaluated Properties*: Three properties that were documented during the initial 2003 field survey for this project have subsequently been demolished: 5PE4517, 5PE4519, and 5PE4525. We have re-evaluated these properties and determined that they are *not eligible*. Please see the site forms and updated photos for more information about these properties.

*King Taco (5PE4958):* During our March 2009 consultation we received comments from the Pueblo Historic Preservation Commission regarding the eligibility of King Taco, a 19th century commercial building located in the Steelworks Suburb potential historic district (5PE5523). The Commission believes that despite modifications, the building still conveys the character-defining elements of its architectural style. The primary alterations have been to the building fenestration. Many of the windows have been replaced with incompatible modern windows and the original window openings have been altered, boarded, or brick-filled. On the second story, there are instances where part of the original window opening has been boarded or bricked, and a small sliding window with metal frame has been inserted into the remaining opening. The central corner entrance is recessed but has a new door and one of the windows flanking the entrance door has been boarded. In addition, the display windows on the lower story have been replaced and the associated transoms boarded or replaced with modern windows. A large window that once extended above the corner entrance was removed and bricked. CDOT has reviewed this property again and continues to support its original assessment that due to modifications to some of the defining characteristics of this corner commercial building, the property is not individually eligible. However, we do believe the property is a contributing element to the Steelworks Suburb potential historic district (5PE5523).

We have sent this information to the City of Pueblo Historic Preservation Commission and will provide a copy of their response once we receive it. As you know, the City of Pueblo has agreed to facilitate the review of these materials with the other Section 106 consulting parties for this project.

We request your concurrence with these determinations of eligibility and your comments regarding the revised APE boundary. Please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258 with any questions or concerns.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Architectural Inventory Forms for 13 properties
Meeting Minutes, April 30, 2009
Revised APE map

cc: David Miller, CDOT Region 2 Eng. (w/o enclosures)
Dick Annand/Judy DeHaven, CDOT Region 2 Env. (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

August 11, 2009

Mr. Wade Broadhead, Planner/HPC Staffer
Department of Planning & Community Development
City of Pueblo
211 East D Street
Pueblo, CO 81003

SUBJECT: Additional Eligibility Determinations (Historic Resources), CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement

Dear Mr. Broadhead:

This letter and the enclosed materials constitute a request for comments on additional eligibility determinations for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts of proposed capacity improvements along an eight-mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

**Previous Consultation**

CDOT has been in consultation with your office since 2004 regarding this project. Our most recent submittal in March 2009 included the revised Architectural Resources Survey Report and eligibility determinations for re-surveyed properties and districts. This submittal contains the following items:

1) Revised Area of Potential Effects (APE) map showing changes to the boundary
2) Eligibility determinations and associated architectural inventory forms for 10 newly-recorded properties
3) Re-evaluation forms for three previously-recorded properties
4) Response to City of Pueblo comments from May 2009 correspondence

**Area of Potential Effects Revisions**

Last spring CDOT learned that there were some direct impacts to properties outside the established Area of Potential Effects for the project. These areas include parcels between South Santa Fe and I-25, a row of properties along Currie Avenue in the Steelworks Suburb proposed historic district, and parcels west and east of I-25 just north of the Grove neighborhood. In April 2009, CDOT met with Amy Pallante of the SHPO staff to discuss these changes to the APE boundary and to propose a methodology for how to assess those properties as part of the Section 106 process. During the meeting Ms. Pallante was in agreement with the APE changes and the proposed approach to identification of resources. The enclosed map reflects what was agreed upon at that meeting. A copy of the meeting minutes has also been included for your convenience.

**Eligibility Determinations**

*Newly Documented Properties*: Eight of the ten newly-documented properties were identified when it was determined that there were additional impacts outside the APE boundary. Of these, seven properties

are within the boundary of the proposed Steelworks Suburb Historic District (5PE5523): 5PE6919, 5PE6920, 5PE6921, 5PE6922, 5PE6923, 5PE6924, and 5PE6925, and are evaluated as non-contributing features of that district. There are three newly-recorded properties that are not within districts: one of these—the Speken Wrecking Company (5PE6918)—was evaluated as part of the APE revision process and was determined *not eligible*. The other two properties were not evaluated as part of the initial field survey, so they were subsequently evaluated and included in this submittal: the Wagner Rents building (5PE6936) is assessed as *not eligible*, and the former Newton Lumber Company (5PE5042) is evaluated as *eligible*.

*Re-Evaluated Properties*: Three properties that were documented during the initial 2003 field survey for this project have subsequently been demolished: 5PE4517, 5PE4519, and 5PE4525. We have re-evaluated these properties and determined that they are *not eligible*. Please see the site forms and updated photos for more information about these properties.

**Response to Comments**

In your May 8, 2009 response to CDOT's March 2009 eligibility determinations, you provided comments on both the Architectural Resources Survey Report and select site forms. We appreciate the time and effort taken to review and comment on the submitted materials and also greatly appreciate your perspective on and knowledge of local history. The survey report has gone through at least one major revision and reprinting to address concerns from SHPO and incorporate information from your office about Pueblo's neighborhoods; as such, there are no immediate plans to produce another version of the report. However, we encourage the City of Pueblo Historic Preservation Commission to use the survey report information for the development of future neighborhood surveys and research projects.

With regard to the individual site forms, we noted that many of your comments addressed the information provided in site form Items 21 (Architectural Style), 35 (Historical Background), 42 (Statement of Significance) and 45 (District Potential). There are many comments that suggest different architectural styles or forms for Item 21, or that request more historical research on specific properties (Item 35). CDOT has no plans to conduct additional research on the individual properties that were resurveyed and submitted to you in March 2009. Sufficient research was conducted to determine whether the resurveyed properties are individually eligible or contributing features of a district, and we have also received SHPO concurrence on those findings. Nevertheless, several of your comments were specific to eligibility, so we have responded to those below. With the exception of the King Taco property, your original comment is followed by CDOT's response.

*King Taco (5PE4958):* During our March 2009 consultation we received comments from your organization regarding the eligibility of King Taco, a 19th century commercial building located in the Steelworks Suburb potential historic district (5PE5523). You indicated that despite modifications, the building still conveys the character-defining elements of its architectural style, as the primary alterations have been to the building fenestration. Many of the windows have been replaced with incompatible modern windows and the original window openings have been altered, boarded, or brick-filled. On the second story, there are instances where part of the original window opening has been boarded or bricked, and a small sliding window with metal frame has been inserted into the remaining opening. The central corner entrance is recessed but has a new door and one of the windows flanking the entrance door has been boarded. In addition, the display windows on the lower story have been replaced and the associated transoms boarded or replaced with modern windows. A large window that once extended above the corner entrance was removed and bricked. CDOT has reviewed this property again and continues to support its original assessment that due to modifications to some of the defining characteristics of this corner commercial building, the property is not individually eligible to the National Register of Historic

Places (NRHP). However, we do believe the property is a contributing element to the Steelworks Suburb potential historic district (5PE5523).

*City of Pueblo*: 5PE4740 - Non-contributing, cottage.
*CDOT Response*: The property is currently identified as a contributing element of the Steelworks Suburb Historic District (5PE5523). Please clarify whether you think the property should be non-contributing.

*City of Pueblo*: 5PE5211 - Great integrity, craftsman
*CDOT Response*: All properties within proposed districts were evaluated for contributing or non-contributing status. The Steelworks Suburb potential historic district (5PE5523) is significant under Criterion C for its examples of architecture, including Craftsman style bungalows. Because this house was built within the period of significance for the district and it conveys the architectural significance of the district, it was evaluated as individually not eligible, but as a contributing element of the district.

*City of Pueblo*: 5PE5227 - Pursued nomination, early five and dime store/grocery/mercantile at important Indiana Gate entrance to CF&I
*CDOT Response*: Although this property was evaluated as individually not eligible, it was found to be a contributing element of the Steelworks Suburb historic district. It was built within the period of significance for the district, and based on research it appears to have served CF& I plant employees as well as residents in the nearby neighborhoods. Its history is tied to the steel mill and neighborhoods within the district.

*City of Pueblo*: 5PE5241 - Important bar at the entrance to Indiana Gate. Modification in 1940, during boom period. 1945-1960 highest point of CF and I operation.
*CDOT Response*: Like 5PE5227, this property was found to be a contributing element to the Steelworks Suburb historic district. It was built within the district period of significance and given the additional information your office provided, it likely has an association with the steel workers and the surrounding neighborhoods.

*City of Pueblo*: 5PE4701 - bad pictures and information overall
*CDOT Response*: Attached are additional photos of the house. As you can see, vegetation and fencing have obstructed every possible view of the building. The house is located in the Grove neighborhood, outside of the established boundary identified for the Grove historic district (5PE5519). Based on the site visit, the house does not have the associations with events or individuals to be significant under Criteria A or B. Under Criterion C, it is a simple wood frame building—possibly a shotgun house—that does not appear to be a good example of this architectural type due to minor modifications including the application of vinyl siding.

*City of Pueblo*: 5PE4712 - Roof form and divided light windows looks earlier than 1948.
*CDOT Response*: We agree that the divided light windows probably pre-date 1948, but this is the date provided by the Pueblo County Assessor material and was probably an adjustment to account for the 1996 remodel date. Regardless of its actual year of construction, CDOT still maintains that the property is not a good example of a simple wood frame or even Minimal Traditional house due to incompatible modifications to the windows.

As a consulting party for this project, we welcome your comments on the additional determinations of eligibility and the revised APE boundary. With past submittals for this project, your office has acted as the main contact and has facilitated reviews with the other consulting parties; we trust that you will continue to serve in that capacity. A second copy of the site forms and other materials is included

herewith to assist in this process. Please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258 with any questions or concerns.

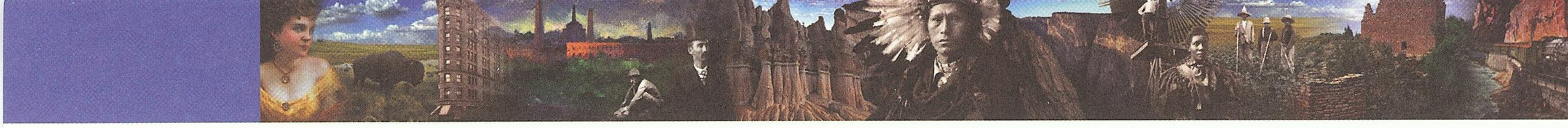
Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:

Architectural Inventory Forms for 13 properties (2 sets)
Meeting Minutes, April 30, 2009 (2 copies)
Revised APE map (2 copies)
Additional photos for 5PE4701 (2 sets)

cc: David Miller, CDOT Region 2 Eng. (w/o enclosures)
Dick Annand/Judy DeHaven, CDOT Region 2 Env. (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)
Edward Nichols, Colorado SHPO (w/o enclosures)



OFFICE *of* ARCHAEOLOGY *and* HISTORIC PRESERVATION

August 26, 2009

Brad Beckham
Manager, Environmental Programs Branch
Colorado Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, CO 80222

Re: Additional Eligibility Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Beckham,

Thank you for your correspondence dated August 7, 2009 and received by our office on August 12, 2009 regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we concur with the recommended findings of eligibility for the properties listed below.

- 5PE.5042
- 5PE.6936
- 5PE.4517
- 5PE.4519
- 5PE.4525
- 5PE.6918
- 5PE.6919
- 5PE.6920
- 5PE.6921
- 5PE.6922
- 5PE.6923
- 5PE.6924
- 5PE.6925

If unidentified archaeological resources are discovered during construction, work must be interrupted until the resources have been evaluated in terms of the National Register criteria, 36 CRF 60.4, in consultation with this office.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30-day review period provided to other consulting parties. If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Manager, at (303) 866-4678.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

April 1, 2010

Mr. Edward C. Nichols
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJECT: Effects Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Nichols:

This letter and enclosed report constitute a request for concurrence on Effects Determinations for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

**Previous Consultation**

Section 106 consultation for this project has been ongoing since 2002. We consulted with your office regarding the Area of Potential Effects (APE) and survey methodology in a series of meetings in 2002 and 2003, and via correspondence in September 2004. In July 2007 we submitted eligibility determinations for your review, and in June 2008 FHWA and CDOT met with your staff and the consulting parties to discuss assorted historic properties issues. In October 2008, we consulted with you and the consulting parties regarding the eligibility of five proposed neighborhood districts within the project APE. We also consulted with you in March 2009 and in August 2009 regarding eligibility of additional properties.

**Effect Determinations**

The enclosed Determination of Effects Report includes an analysis of impacts of the No Action Alternative, descriptions of the direct and indirect impacts of the Proposed Build Alternatives, effect determinations of the Build Alternatives on historic properties, and proposed mitigation measures for adverse effects. The report includes effect determinations for 196 properties that were either determined eligible or are being treated as eligible for the purposes of Section 106. This includes five proposed historic districts that have a combined total of 587 contributing properties. Please see the report for more specific information about the effect determinations.

Enclosed for your use is a spreadsheet that lists the properties, summarizes the types of effects by alternative, and includes the effect determination for each Build Alternative. We have enclosed it in hard copy with this submittal, but will also forward it to your office electronically. Please note that the Newton Lumber Company (5PE5042) and the Union Pacific Railroad (5PE1776) are listed in the enclosed table, but effect determinations for these properties (as well as eligibility and effect

determinations for some additional properties not previously documented) will be submitted separately in the near future.

We have also enclosed a copy of the *New Pueblo Freeway Aesthetics Guidelines*, which provides an overview of proposed aesthetic treatments for the project corridor, including a conceptual drawing of the restoration plan for the historic Mineral Palace Park. The Determination of Effects Report references the Aesthetics Guidelines so we have included it for reference and information purposes only. We are not requesting comments on these guidelines.

This submittal has been sent to the City of Pueblo Planning Office and will provide a copy of their response once we receive it. As you know, the City of Pueblo has agreed to facilitate the review of these materials with the other Section 106 consulting parties for this project.

We request your concurrence with the determinations of effects provided in the submitted materials. Given the size of this submittal, we are aware that the standard 30-day review time frame may not be sufficient. Please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258 as soon as possible to discuss a reasonable review period. If you require additional information, please contact Ms. Schoch.

Very truly yours,

Brad Beckham

Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Determination of Effects report
Determination of Effects CD
Effects Recommendations Response Table
New Pueblo Freeway Aesthetics Guidelines

cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

April 1, 2010

Mr. Wade Broadhead
Planner/HPC Staffer
Department of Planning & Community Development
211 East D. Street
Pueblo, CO 81003

SUBJECT: Effects Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Broadhead:

This letter and enclosed report constitute a request for comments on Effects Determinations for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102). CDOT has been in consultation with your office since 2004. Our most recent submittal in August 2009 included additional eligibility determinations for properties within the Area of Potential Effects (APE).

**Effect Determinations**

The enclosed Determination of Effects Report includes an analysis of impacts of the No Action Alternative, descriptions of direct and indirect impacts of the Proposed Build Alternatives, effect determinations of the Build Alternatives on historic properties, and proposed mitigation measures for adverse effects. The report includes effect determinations for 196 properties that were either determined eligible or are being treated as eligible for the purposes of Section 106. This includes five proposed historic districts that have a combined total of 587 contributing properties. Please see the report for more specific information about the effect determinations.

Enclosed for your use is a spreadsheet that lists the properties, summarizes the types of effects by alternative, and includes the effect determination for each Build Alternative. We have enclosed it in hard copy with this submittal, but will also forward it to your office electronically. Please note that the Newton Lumber Company (5PE5042) and the Union Pacific Railroad (5PE1776) are listed in the enclosed table, but effect determinations for these properties (as well as eligibility and effect determinations for some additional railroad and other properties not previously documented) will be submitted separately in the near future.

We have also enclosed a copy of the *New Pueblo Freeway Aesthetics Guidelines*, which provides an overview of proposed aesthetic treatments for the project corridor, including a conceptual drawing of the restoration plan for the historic Mineral Palace Park. The Determination of Effects Report references the Aesthetics Guidelines so we have included it for reference and information purposes only. We are not requesting comments on these guidelines.

As a consulting party for this project, we welcome your comments on the additional determinations of eligibility and the revised APE boundary. With past submittals for this project, your office has acted as the main contact and has facilitated reviews with the other consulting parties for this project. We have provided a second copy of the Determination of Effects Report and a CD of the report and other materials to assist in this process. Given the size of this submittal, we are aware that the standard 30-day review time frame may not be sufficient. Please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258 as soon as possible to discuss a reasonable review period.

Very truly yours,

Brad Beckham, Manager
Environmental Programs Branch

Enclosures:

Determination of Effects report (2 copies)
Determination of Effects CD
Effects Recommendations Response Table
New Pueblo Freeway Aesthetics Guidelines

cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

April 16, 2010

Mr. Edward C. Nichols
State Historic Preservation Officer
History Colorado - The Colorado Historical Society
1560 Broadway, Suite 400
Denver, CO 80202

SUBJECT: Determinations of Effects for Archaeological Sites, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #43967)

Dear Mr. Nichols:

This letter and the enclosed materials constitute a request for concurrence on Determinations of Effects for archaeological sites located within the Area of Potential Effect (APE) of the project referenced above. As you will recall, the EIS will be used to determine the nature and degree of environmental impacts resulting from proposed capacity and safety improvements along an eight-mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard on the south (milepost 94) and 29th Street on the north (milepost 102).

**Previous Consultation**

Section 106 consultation for the project has been ongoing since 2002. However, the vast majority of that coordination has focused on standing structures and other resources in the historic built environment. All correspondence specific to archaeological surveys and site eligibility determinations was submitted to your office separately beginning in November 2008. Of the 127 historic archaeological localities present in the APE, five sites are officially eligible for the National Register of Historic Places (NRHP), 13 sites are not eligible, and 109 sites require additional data in order to make a final NRHP eligibility assessment. No prehistoric or historic sites affiliated with Native American occupation of the area were documented.

In 2009 we consulted informally with OAHP Compliance Officer Shina DuVall regarding strategies to address the 26 "need data" sites that will be directly impacted by one or both of the proposed Build Alternatives. At this time, however, we intend to defer official consultation for all the need data sites until later in the NEPA documentation process, likely subsequent to selection of a preferred alternative as a result of public comments on the draft EIS. Once a preferred alternative is chosen we will have a definitive idea regarding the number and type of sites for which we will or may need to conduct additional investigations.

**Effects Determinations**

Three project alternatives are under consideration, including the No Action Alternative and two Build Alternatives referred to as the "Existing" and "Modified." Only two of the NRHP eligible sites (5PE5458, 5PE5483) would be subject to direct impacts and therefore adverse effects, both as a result of implementation of the Modified Alternative. The remaining three NRHP eligible sites (5PE5408, 5PE5431 and 5PE5467) would be avoided by construction regardless of alternative. The No Action and Existing Alternatives would each result in *no historic properties affected*.

If the Modified Alternative is eventually selected as preferred, sites 5PE5458 and 5PE5483 would be adversely affected by earth-moving equipment during construction. As shown on the enclosed aerial photograph of the Modified Alternative (the third page of the enclosed packet), the I-25 mainline and associated northbound on-ramp each bisect portions of 5PE5458 (identified as a blue outline), and cutting and filling activities during construction would likely destroy the entire site.

The Modified Alternative would also directly impact 5PE5483, although in a different manner (refer to the fifth and sixth pages of the packet): the area containing the site would be encompassed by a new location for Benedict Park, a city-owned facility. The park presently exists in a different location and configuration in Pueblo, but the location as illustrated on the attachment is proposed for a newly constructed park. 5PE5483 would likely be destroyed by earth moving associated with construction of the park. Regardless of the type of impact to 5PE5458 and 5PE5483, however, it is our judgment that the sites are significant chiefly because of what can be learned by data recovery and have minimal value for preservation in place.

As noted above, we will consult with you at a later date regarding the disposition of and final eligibility determinations for the 26 "need data" sites that either would or likely would be adversely affected by the project. Nonetheless, the following data specific to the number of need data sites directly impacted by each alternative is provided for your general information: the Existing Alternative would impact 16 sites, and the Modified Alternative would impact 18 sites. Ten sites have impacts common to both Alternatives.

This information has been forwarded to the City of Pueblo Planning Office, a Section 106 consulting party, for review and comment. As you are aware, the City of Pueblo has agreed to facilitate the review of all compliance related materials with the other consulting parties participating in the project. We will provide you with copies of any comments received.

We request your concurrence with the determinations of effects provided herein and as illustrated in the accompanying materials. If you have questions or require additional information to complete your review, please contact CDOT Senior Staff Archaeologist Dan Jepson at (303) 757-9631, or via Email at daniel.jepson@dot.state.co.us.

Very truly yours,

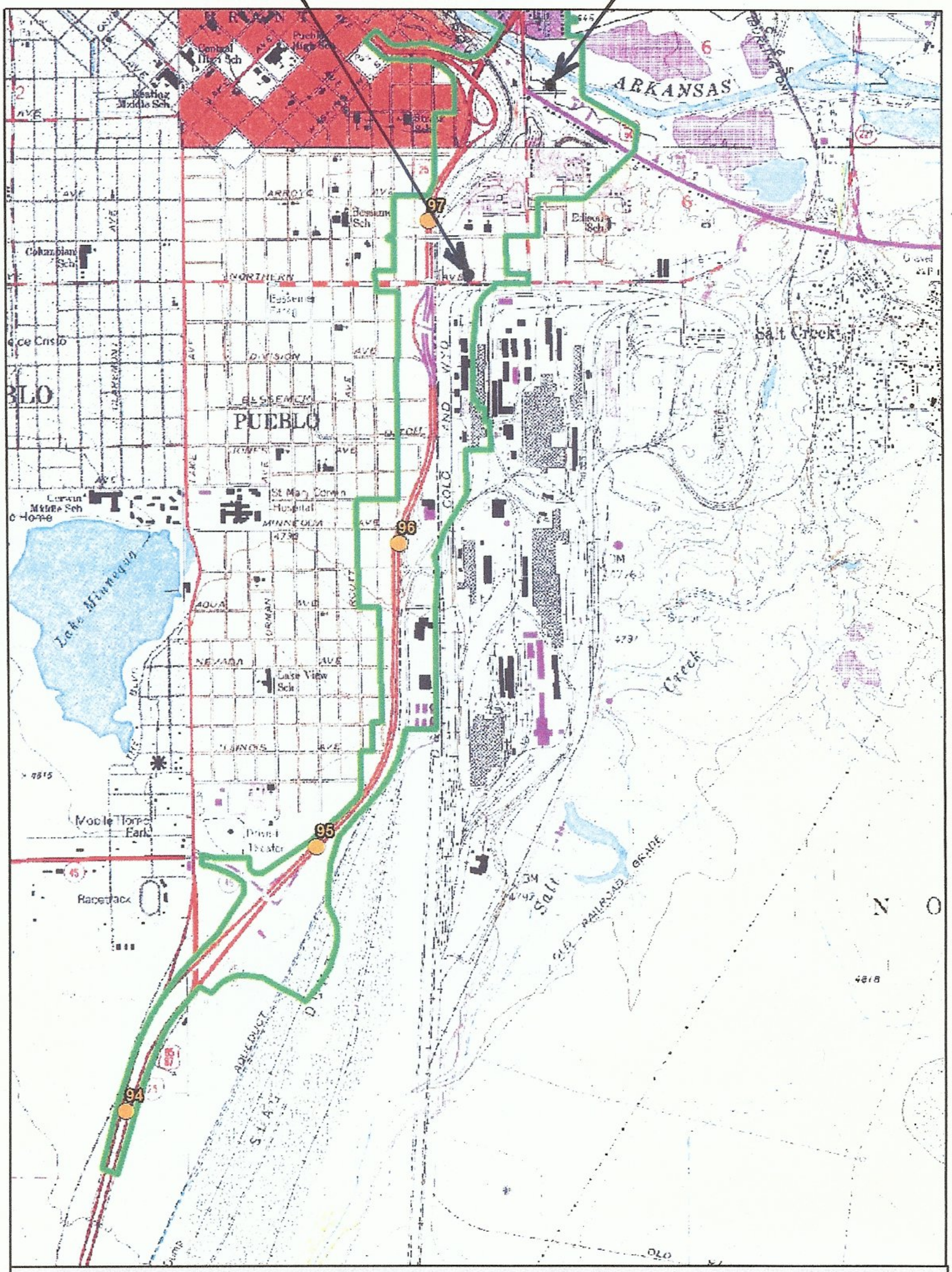
for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Aerial photo plan sheets
Benedict Park illustration

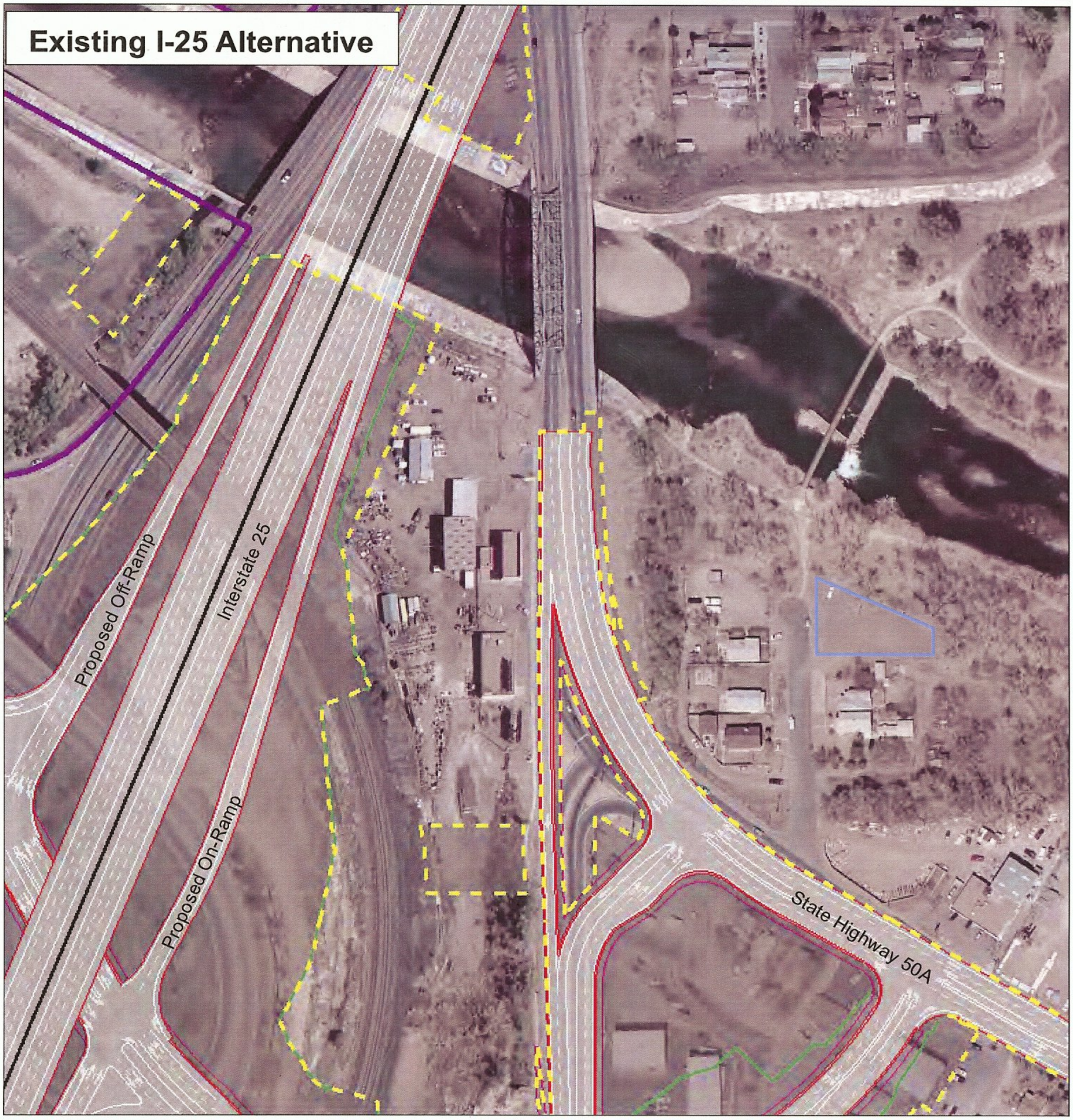
cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)
Sara Orton, CH2Mhill

5PE5483

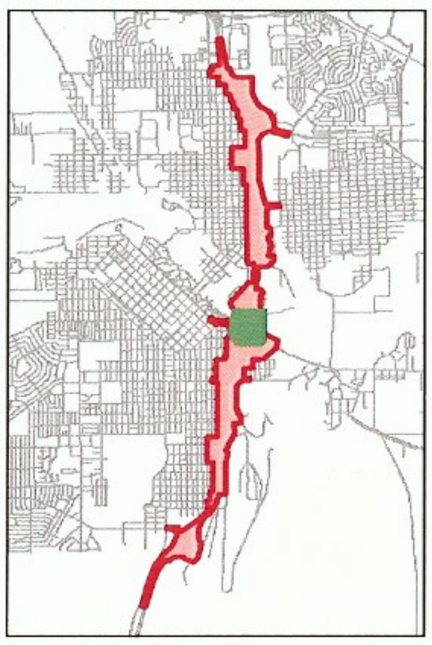
5PE5458



# Existing I-25 Alternative




5PE5458



**Legend**

- Archaeological Sites
- Proposed Impact Area
- Toe of Slope
- Edge of Pavement
- Proposed Noise Walls
- Proposed Retaining Walls
- Sidewalk
- Historic Districts

Projection:
Colorado State Plane Grid
South Zone, NAD83
Aerial Photography 2004

Notes:
This is a draft document and subject to change.
Atlas updated 06/02/2009

Feet
0 100 200

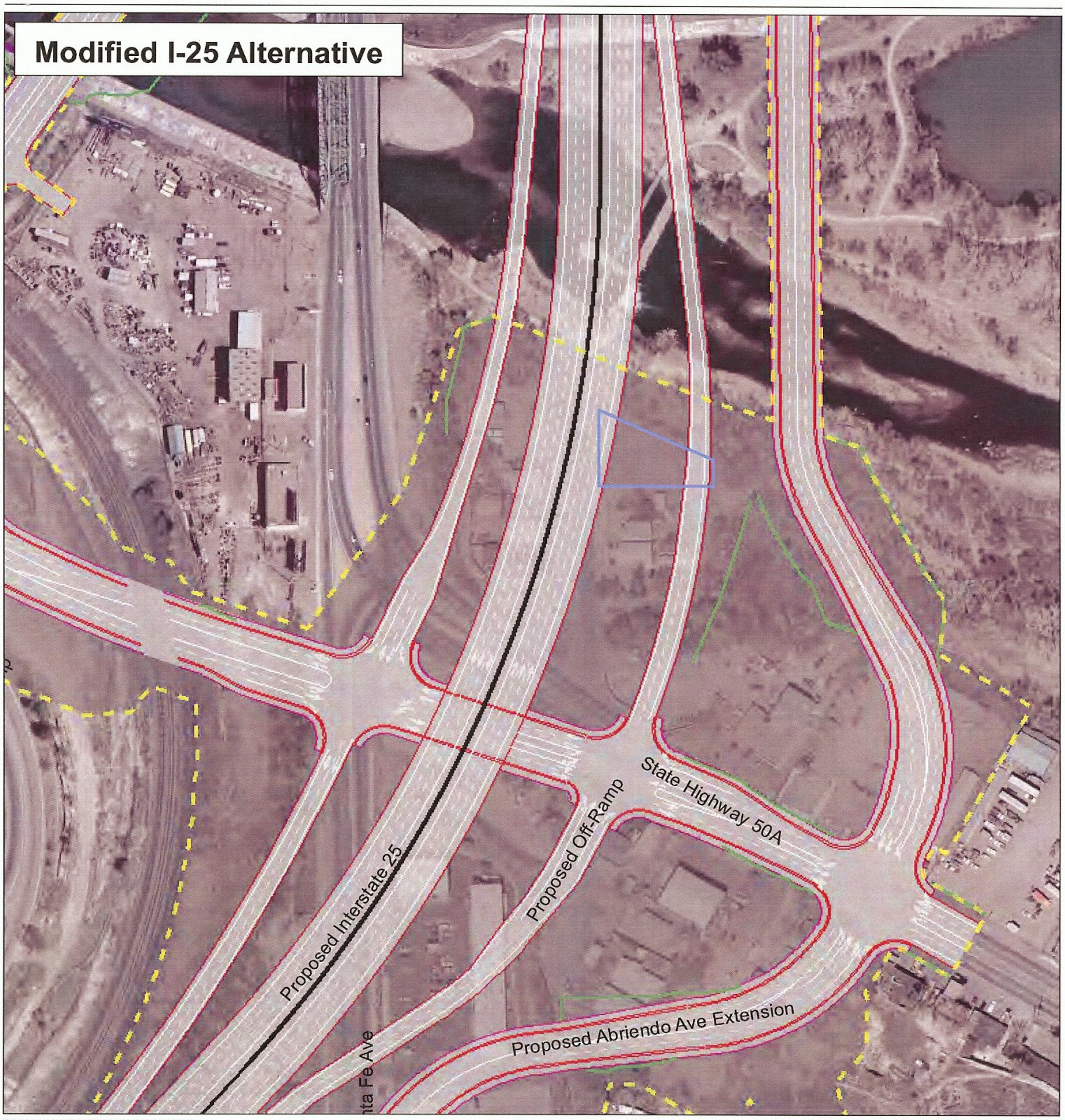
N

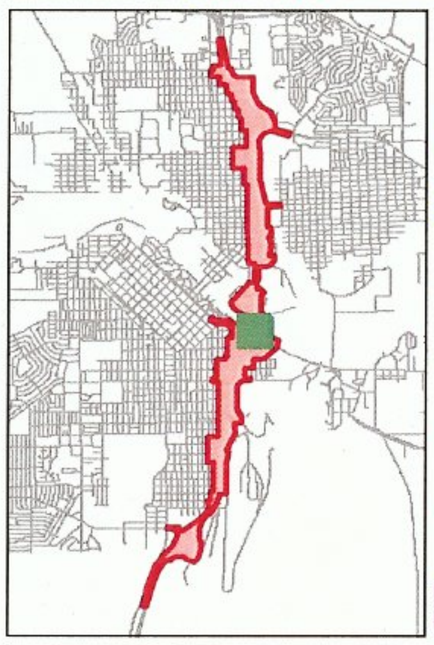
the 25 New Pueblo Freeway

CH2MHILL

\\COBRA\GIS\PROJECTS\NEWPUEBLOFREEWAY\MASTER_CONSOLIDATION_WORKING\MAPFILES\CULTURALVARCHEO_EXISTING_5PE5458.MXD BWARD 3/11/2010 09:36:04

# Modified I-25 Alternative



## Legend

- Archaeological Sites
- Proposed Impact Area
- Toe of Slope
- Proposed Noise Walls
- Edge of Pavement
- Sidewalk
- Historic Districts

5PE5458

Projection:
Colorado State Plane Grid
South Zone, NAD83
Aerial Photography 2004

Feet
0 100 200

N

Notes:
This is a draft document and subject to change.
Atlas updated 06/02/2009

the New Pueblo Freeway

CH2MHILL

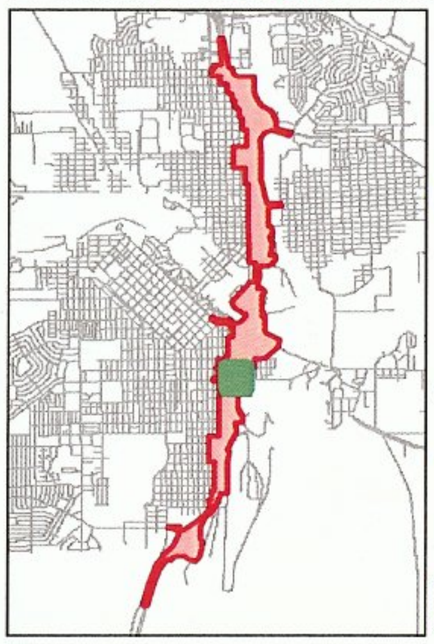
# Existing I-25 Alternative

Mesa Ave

Interstate 25

Taylor Ave

Northern Ave



## Legend

- Archaeological Sites
- Proposed Impact Area
- Toe of Slope
- Edge of Pavement
- Proposed Noise Walls
- Proposed Retaining Walls
- Sidewalk
- Historic Districts

5PE5483

Projection:
Colorado State Plane Grid
South Zone, NAD83
Aerial Photography 2004

Feet
0 100 200

N

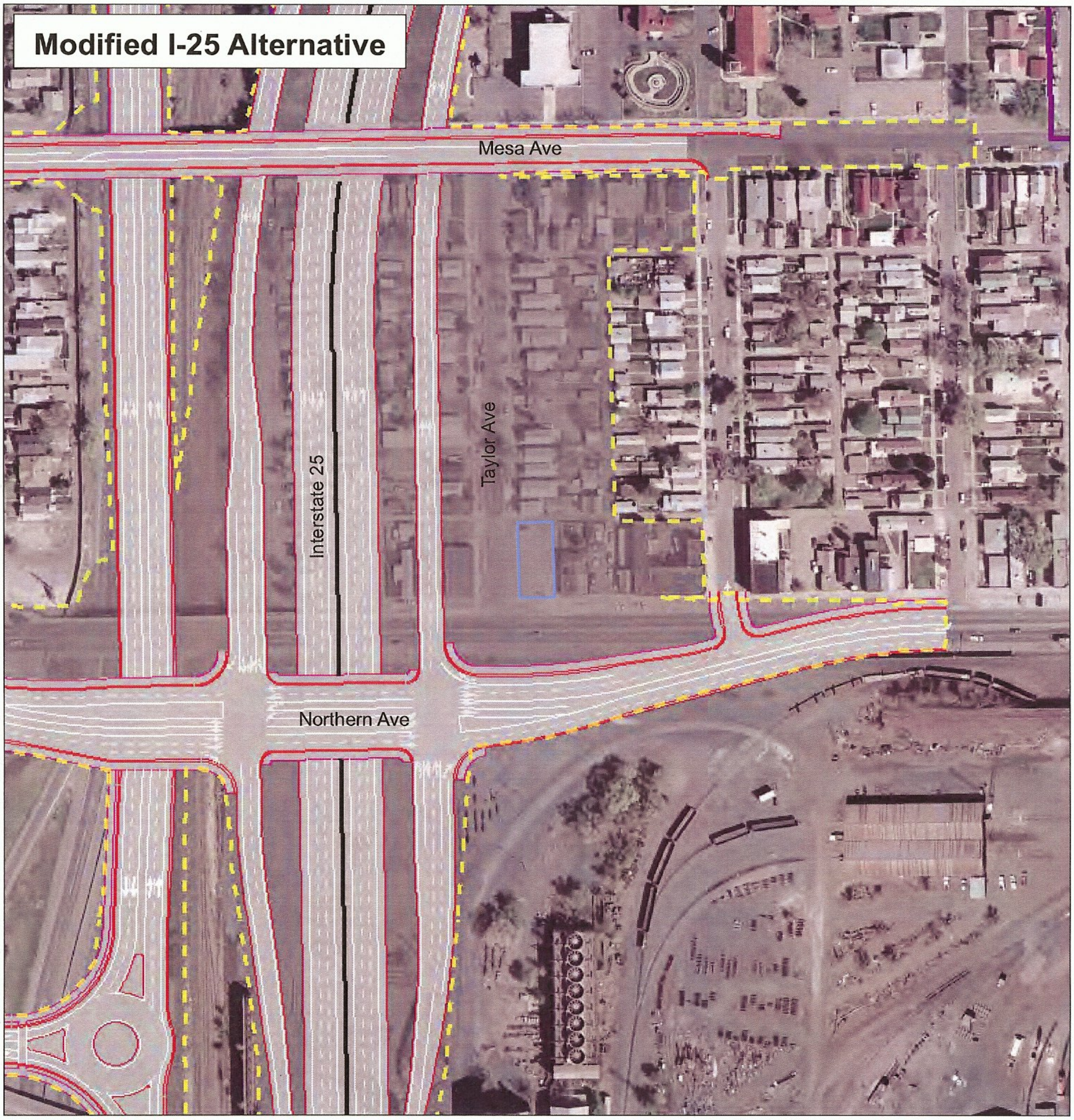
Notes:
This is a draft document and subject to change.
Atlas updated 06/02/2009

the 25 New Pueblo Freeway

CH2MHILL

\\COBRA\GIS\PROJECTS\NEWPUEBLOFREEWAY\IMASTER_CONSOLIDATION_WORKING\MAPFILES\CULTURAL\ARCHEO_EXISTING_5PE5483.MXD BWARD 3/11/2010 09:13:31

# Modified I-25 Alternative



## Legend

- Archaeological Sites
- Proposed Impact Area
- Toe of Slope
- Proposed Noise Walls
- Edge of Pavement
- Sidewalk
- Historic Districts

5PE5483

Projection:
Colorado State Plane Grid
South Zone, NAD83
Aerial Photography 2004

Notes:
This is a draft document and subject to change.
Atlas updated 06/02/2009

Feet
0 100 200

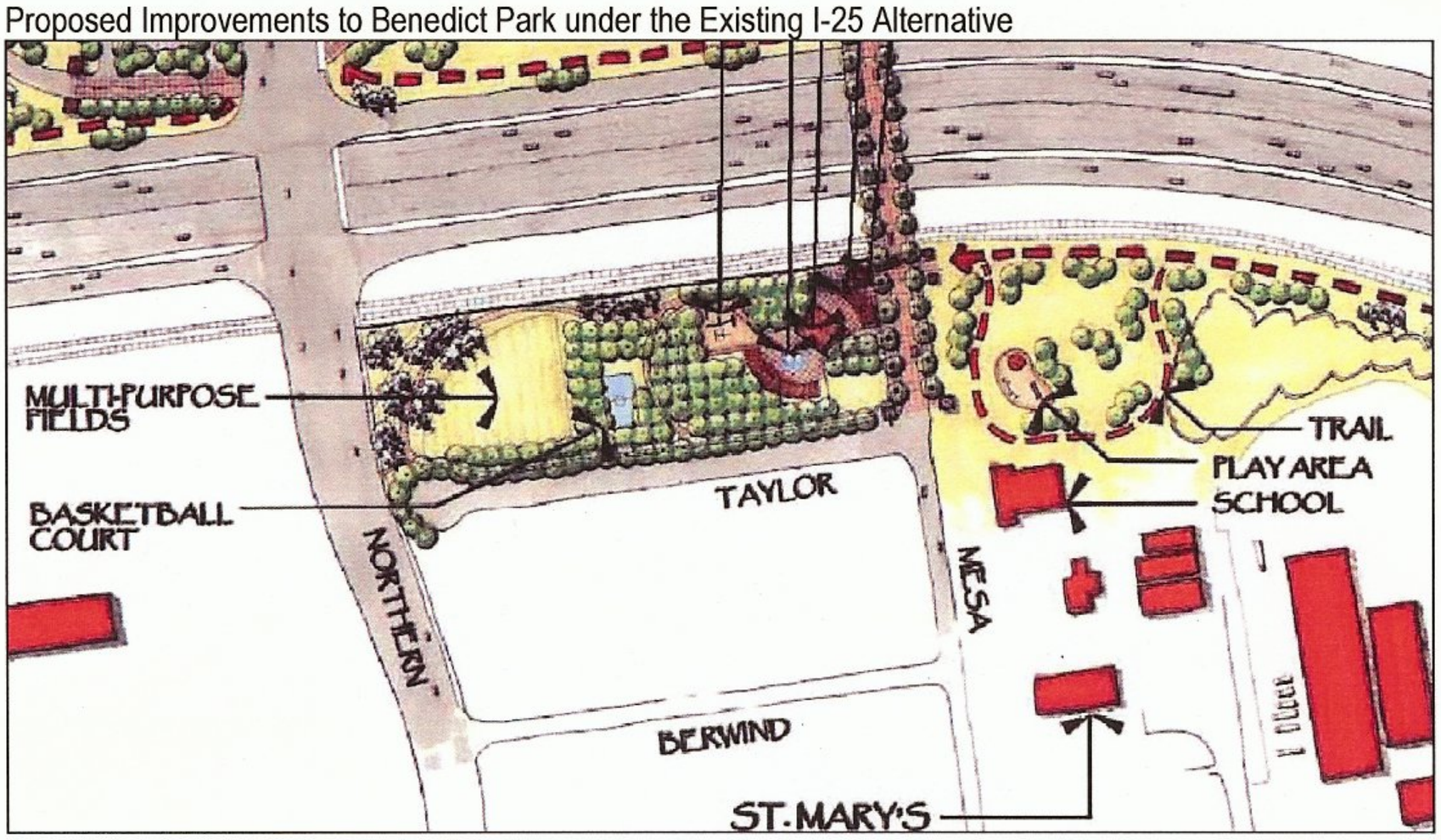
N

25 the New Pueblo Freeway

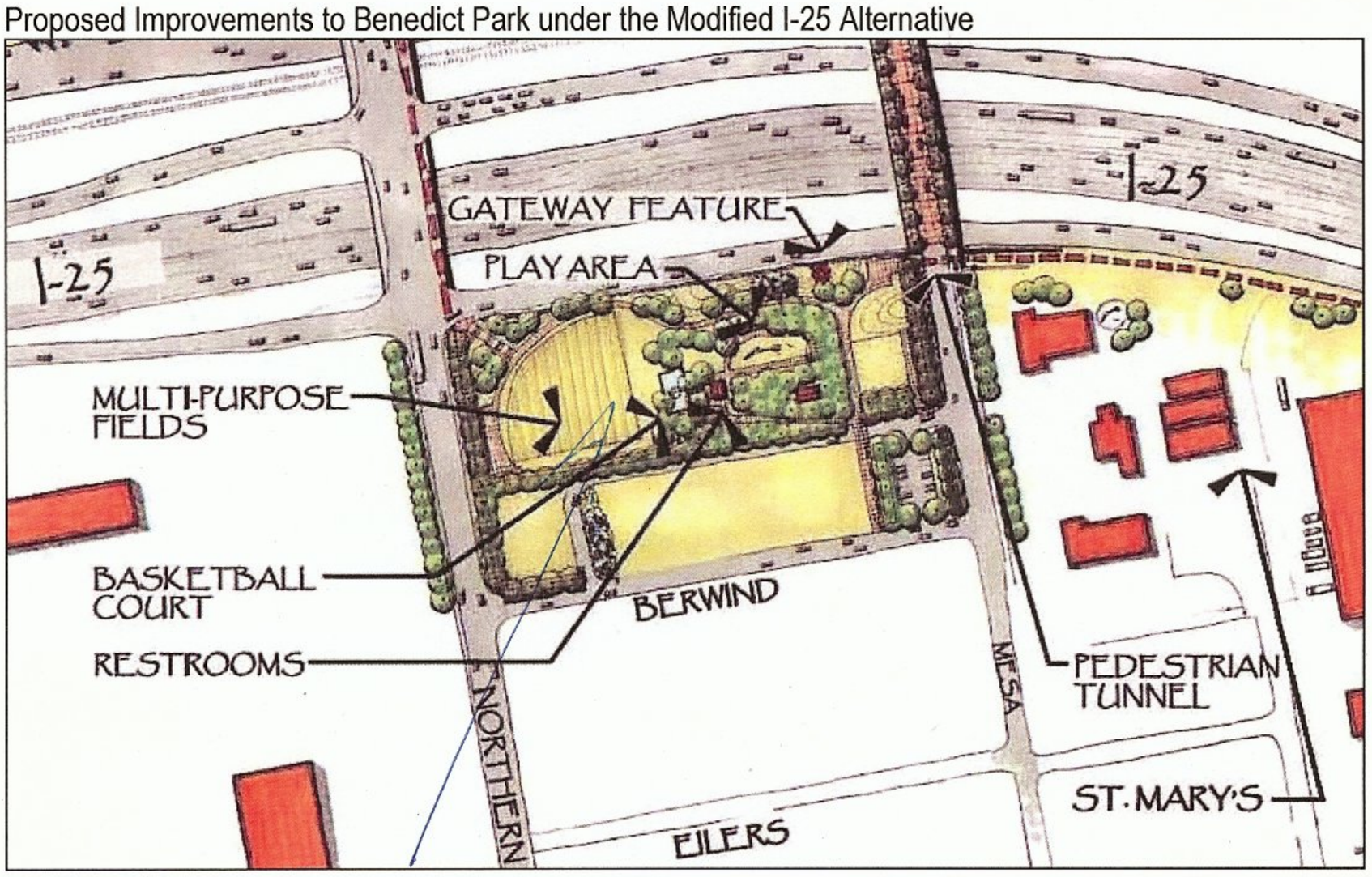
CH2MHILL

\\COBRA\GIS\PROJECTS\NEWPUEBLOFREEWAY\MASTER_CONSOLIDATION_WORKING\MAPFILES\CULTURAL\ARCHEO_MODIFIED_5PE5483.MXD BWARD 3/11/2010 09:24:41

Proposed Improvements to Benedict Park under the Existing I-25 Alternative




Proposed Improvements to Benedict Park under the Modified I-25 Alternative




APPROX LOCATION OF SPES483

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**
Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

April 16, 2010

Mr. Wade Broadhead
Historic Preservation Commission
City of Pueblo
211 East D Street
Pueblo, CO 81003

SUBJECT: Determinations of Effects for Archaeological Sites, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement

Dear Mr. Broadhead:

This letter and the enclosed materials constitute a request for comments on Determinations of Effects for archaeological sites located within the Area of Potential Effect (APE) of the project referenced above. As you are aware, the EIS will be used to determine the nature and degree of environmental impacts resulting from proposed capacity and safety improvements along an eight-mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard on the south (milepost 94) and 29th Street on the north (milepost 102).

**Previous Consultation**

Section 106 consultation for the project has been ongoing since 2002. However, the vast majority of that coordination has focused on standing structures and other resources in the historic built environment. All correspondence specific to archaeological surveys and site eligibility determinations was submitted to the State Historic Preservation Officer and consulting parties beginning in November 2008. Of the 127 historic archaeological localities present in the APE, five sites are officially eligible for the National Register of Historic Places (NRHP), 13 sites are not eligible, and 109 sites require additional data in order to make a final NRHP eligibility assessment. No prehistoric or historic sites affiliated with Native American occupation of the area were documented.

In 2009 we consulted informally with you as well as representatives of the Office of Archaeology and Historic Preservation regarding strategies to address the 26 "need data" sites that will be directly impacted by one or both of the proposed Build Alternatives. At this time, however, we intend to defer official consultation for all the need data sites until later in the NEPA documentation process, likely subsequent to selection of a preferred alternative as a result of public comments on the draft EIS. Once a preferred alternative is chosen we will have a definitive idea regarding the number and type of sites for which we will or may need to conduct additional investigations.

**Effects Determinations**

Three project alternatives are under consideration, including the No Action Alternative and two Build Alternatives referred to as the "Existing" and "Modified." Only two of the NRHP eligible sites (5PE5458, 5PE5483) would be subject to direct impacts and therefore adverse effects, both as a result of implementation of the Modified Alternative. The Existing Alternative would result in *no historic properties affected*. The remaining three NRHP eligible sites (5PE5408, 5PE5431 and 5PE5467) would be avoided by construction regardless of alternative.

If the Modified Alternative is eventually selected as preferred, sites 5PE5458 and 5PE5483 would be adversely affected by earth-moving equipment during construction. As shown on the enclosed aerial photograph of the Modified Alternative (the second page of the enclosed packet), the I-25 mainline and associated northbound on-ramp each bisect portions of 5PE5458 (identified as a blue outline), and cutting and filling activities during construction would likely destroy the entire site.

The Modified Alternative would also directly impact 5PE5483, although in a different manner (refer to the fourth and fifth pages of the packet): the area containing the site would be encompassed by a new location for Benedict Park, a city-owned facility. The park presently exists in a different location and configuration in Pueblo, but the location as illustrated on the attachment is proposed for a newly constructed park. 5PE5483 would likely be destroyed by earth moving associated with construction of the park. Regardless of the type of impact to 5PE5458 and 5PE5483, however, it is our judgment that the sites are significant chiefly because of what can be learned by data recovery and have minimal value for preservation in place.

As noted above, we will consult with you at a later date regarding the disposition of and final eligibility determinations for the 26 "need data" sites that either would or likely would be adversely affected by the project. Nonetheless, the following data specific to the number of need data sites directly impacted by each alternative is provided for your general information: the Existing Alternative would impact 16 sites, and the Modified Alternative would impact 18 sites. Ten sites have impacts common to both Alternatives.

This information has been forwarded concurrently to the State Historic Preservation Officer for compliance review. As with past reviews for this project, it is our understanding that you will facilitate review of these materials by the other local consulting parties and compile any comments in a single transmittal to CDOT.

Please complete your review and forward any comments to CDOT Senior Staff Archaeologist Dan Jepson within 30 days of receipt of this correspondence. If you have questions about the information contained herein, please contact Mr. Jepson at (303) 757-9631, or via Email at daniel.jepson@dot.state.co.us.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Aerial photo plan sheets
Benedict Park illustration

cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)
Sara Orton, CH2Mhill (w/o enclosures)

NATIONAL TRUST FOR HISTORIC PRESERVATION®

**Mountains/Plains**
OFFICE

April 29, 2010

Ms. Lisa Schoch
CDOT
Environmental Programs Branch
4201 East Arkansas Ave.
Denver, CO 80222

Re: I-25 Pueblo Freeway Section 106 Consultation

Dear Lisa:

As a follow-up to email and in-person communication with you, we are writing to seek National Historic Preservation Act Section 106 consulting party status for the I-25 Pueblo Freeway project. The National Trust would like to participate actively in the review process as a "consulting party" under Section 106 of the NHPA, pursuant to 36 C.F.R. § 800.2(c)(6).

The National Trust for Historic Preservation is a private nonprofit organization chartered by Congress in 1949 to promote public participation in the preservation of our nation's heritage, and to further the historic preservation policy of the United States. *See* 16 U.S.C. § 468. The Mountains/Plains Office provides technical assistance to eight states, including Colorado. With the strong support of our 250,000 members around the country, including nearly 3,000 members in Colorado, the National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government.

We are particularly interested in this project because of its potential to affect the historic buildings and structures associated with the Colorado Fuel and Iron (CF & I) complex which is bisected by the existing alignment of I-25. We have provided a $5,000 grant to the Bessemer Historical Society for a master plan for the CF & I administrative complex buildings on the west side of the existing corridor. We hope that investment will not be lost in the realignment.

Because of the National Trust's knowledge and concern about historic properties potentially affected by the project, we believe we can provide important information and a valuable perspective as a consulting party under Section 106.

**Mountains/Plains Office**
535 16th Street, Suite 750
Denver, CO 80202,
P 303.623.1504
F 303.623 1508.
E mpro@nthp.org
**Serving: CO, KS, MT, ND, NE, SD, UT & WY**

**National Office**
1785 Massachusetts Avenue, NW
Washington, DC 20036
P 202.588.6000
F 202.588.6038
E info@nthp.org
www.PreservationNation.org

Please include us in your distribution list for public notices of any meetings, and for the circulation of any documents for comment.

We look forward to participating as the review and consultation process moves forward for the I-25 Pueblo Freeway.

Sincerely,

Amy Cole
Sr. Program Officer &
Regional Attorney

cc: Amy Pallante, CO State Historic Preservation Office
Jim Hare, Colorado Preservation, Inc.
Wade Broadhead, Department of Planning and Community Development, City of Pueblo

Colorado Preservation, Inc.
333 W. Colfax Avenue, Suite 300 | Denver, CO 80204 | Phone 303.893.4260 | Fax 303.893.4333

May 5, 2010

Ms. Lisa Schoch
CDOT
Environmental Programs Branch
4201 E Arkansas Avenue
Denver, CO 80222

RE: Section 106 Consultation for I-25 (Pueblo Freeway Section)

Dear Ms. Schoch:

Please accept this letter as a formal request for Colorado Preservation, Inc. to be granted National Historic Preservation Act Section 106 consulting party status for the I-25 Pueblo Freeway project.

Colorado Preservation, Inc. was formed in 1984 and continues to serve Colorado as the only private, statewide historic preservation advocacy organization. Our preservation programs and initiatives include *Saving Places* which is the largest statewide historic preservation conference in the nation, a cultural resources survey team, a preservation project manager, the Colorado Preserve America Youth Summit, HistoriCorps, and the Colorado's Most Endangered Places Program. These programs are designed to serve urban and rural communities, providing historic preservation education, training, technical support, and advocacy.

The CF&I complex was added to the 1999 Colorado's Most Endangered Places List. While great progress has been made with the rehabilitation and reuse of what now serves as the Steelworks Museum of Industry and Culture, our understanding is that the I-25 project has the potential to adversely impact the historic complex on the east side of the I-25 corridor. These buildings and structures represent a very historically significant industrial landscape, and CPI wishes to provide knowledge and input as a consulting party under Section 106.

Please don't hesitate to call or email with any questions. I look forward to working with CDOT and the other preservation stakeholders on developing alternatives that will not result in adverse impacts on the CF&I complex.

Regards,

Patrick A. Eidman
Endangered Places Program Coordinator

Bessemer Historical Society
Steelworks
Museum of Industry & Culture
CF&I Archives

May 10, 2010

(resent 7/23/2010)

Brad Beckham, Manager-Environmental Programs Branch
Colorado Dept. of Transportation
Shumate Building
4201 East Arkansas Avenue
Denver, CO 80222

Re: Review of Section 106 study of I-25 Recommended Changes

Dear Mr. Beckham,

I have reviewed the document, "Determination of Effects to Historic Properties: I-25 New Pueblo Freeway Improvement Project", a Section 106 study, in relationship to the proposed changes to I-25 through the City of Pueblo. The document covers all aspects of the interstate through the city of Pueblo but I found the study rather confusing in trying to follow the different proposals for changes to the interstate. I just reviewed the area around the historic CF&I Office complex and the Evraz Rocky Mountain Steel Mill in the historic area of Bessemer. Many other areas of Pueblo are very important but I only had time to consider the area around the historic steel mill. The other area of great concern is the Mineral Palace Park area and any changes to the historic feel and look of the park that previously was destroyed in the building of I-25 in the 1950's.

It is imperative if and when changes are made to the historic Bessemer neighborhood that the impact is minimal to any historic businesses including Gagliano's, Gus' Place, St. Mary's Church and School, the neighborhood parks and the historic structures of the steel mill and the CF&I administration buildings. The connectivity of neighborhoods also must be considered a top priority which was never considered when the interstate was originally designed and implemented.

The Bessemer Historical Society (BHS) is **strongly opposed** to closing off the historic tunnel under I-25. This tunnel is remembered by many as the place where they either walked under I-25 to get to work or stood and waited for their husband, father or grandfather as they walked through to go home from their shift. The tunnel evokes a very emotional experience for hundreds, if not, thousands of people as it was a time when work was hard and families spend so much time together.

BHS is also **strongly opposed** to the tear down of buildings related to the steel mill. The historic stacks are all that remain of the old blast furnaces. The blast furnace stacks and the buildings represent a time when steel was made from raw materials not from recycling from scrape as it is currently.

215 Canal Street - Pueblo, CO 81004
(719) 564-9086 - (719) 564-9681 fax
www.cfisteel.org

In the booklet, "New Pueblo Freeway, Aesthetic Guidelines" changes were proposed for the BHS property that does not conform to the BHS master plan and has never been discussed with BHS. The recommendations are not part of the master plan of the Society. Reviewing this study was the first I saw of the shotgun homes and a historic walking tour route on the property. The plans highlight views to the steel mill but in your proposal you are destroying the structures everyone would want to view from the site. On the same schematic the building owned and renovated by Pueblo Electrics does not show and it is a very historic structure.

The Bessemer Historical Society appreciates how some of the exits and entrances to I-25 need to be modified but a complete redesign of the interstate is not warranted based on the current usage of the highway.

Thank you for allowing the Bessemer Historical Society, the owner of 5.7 acres of historic properties, located adjacent to the interstate to voice an opinion on the recommended changes.

Sincerely,

Corinne Koehler
President of the Board of Directors
Bessemer Historical Society

May 17, 2010

Brad Beckham
Manager
Colorado Department of Transportation
Environmental Planning Branch
4201 East Arkansas Avenue
Denver, CO 80222

RE: Effects Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Beckham:

Thank you for your correspondence dated April 1, 2010 and received by our office on April 6, 2010 regarding the review of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106). We concur with the recommended findings of effects except for the properties listed below. We have included the excel spreadsheet as well.

- 5PE.5050. According to the effects report on page 5-51, a finding of no historic properties affected is recommended for the Existing I-25 Alternative, but the effects spreadsheet includes a recommendation of no adverse effect. We concur with the recommendations provided in the effects spreadsheet.
- 5PE.5517. Land from within Mineral Palace Park, a contributing resource to the North Side Historic District, will be required as well mitigation will affect the historic significance of the park. In our opinion, the cumulative effects to a contributing property within the historic district would be an adverse effect, as defined in 36 CFR 800.5(a)(2)(i), 36 CFR 800.5(a)(2)(ii), and 36 CFR 800.(a)(2)(iv).
- 5PE.5519. We concur with the recommended finding of effect for the Existing I-25 Alternative, but we do not concur with the recommended finding for Modified I-25 Alternative. In our opinion, a finding of adverse effect would be appropriate for the Modified I-25 Alternative because a contributing element within a historic district is being demolished. Please refer to 36 CFR 800.5(a)(2)(i), 36 CFR 800.5(a)(2)(ii), and 36 CFR 800.(a)(2)(iv).

In regard to resources that were recommended as having adverse effect, we request further consultation on the nature of the adverse effects. For properties suffering demolition, we would like to explore further options to try to avoid or minimize the adverse effects.

If unidentified archaeological resources are discovered during construction, work must be interrupted until the resources have been evaluated in terms of the National Register criteria, 36 CRF 60.4, in consultation with this office.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Manager, at (303) 866-4678.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE486 | Bessemer Ditch | Alteration to Segment of Linear Resource | No Adverse Effect | Impact To Segment of Linear Resource | No Adverse Effect | concur |
| 5PE564 | 711 N. Albany Avenue | Indirect | Adverse Effect | Indirect | Adverse Effect | concur |
| 5PE571 | 2723 Grand Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE584 | 426 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE586 | Mineral Palace Park | Partial Acquisition | Adverse Effect | Partial Acquisition | Adverse Effect | concur |
| *5PE1776 | Union Pacific Railroad | Indirect Impact to Segment of Linear Resource | | Impact To Segment of Linear Resource | no recommendation at this time | |
| 5PE3938 | Santa Fe Avenue Bridge | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4179 | 1612 E. Abriendo Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4436 | 814 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4437 | 501 W. 29th Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4438 | 331 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4439 | 325 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4440 | 323 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4441 | 321 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4443 | 2826 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4444 | 2808 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4445 | 2824 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4446 | 2814 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4447 | 2820 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4448 | 2816 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4449 | 405 W. 28th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4450 | 2629 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4451 | 411 W. 28th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4452 | 219 E. Ash Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4453 | 411 W. 28th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4454 | 2627 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4455 | 2611 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4456 | 2621 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4457 | 2607 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4458 | 2617 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4459 | 2534 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4460 | 2605 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4461 | 2512 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4462 | 2603 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4463 | 2510 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4464 | 2528 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4466 | 2526 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4467 | 2419 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4468 | 2514 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4469 | 2415-17 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4471 | 2330 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4472 | 2427 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4473 | 2324-26 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4474 | 2405 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4475 | 2314 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4476 | 2401 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4477 | 2310 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4478 | 2322 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4479 | 2306 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4480 | 2318 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4481 | 101 W. 21st Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4482 | 2302 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4484 | 100 W. 23rd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4485 | 2026 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4486 | 2006 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4487 | 2020 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4488 | 2002 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4489 | 2015 N. Albany Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4491 | 2017 N. Albany Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4493 | 2011 N. Albany Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4495 | 115 W. 20th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4498 | 1415 N. Santa Fe Avenue | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4499 | 1405 N. Santa Fe Avenue | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4500 | 106 W. 15th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4502 | 1210 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4503 | 1128 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4504 | 1300 N. Santa Fe Avenue | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4505 | 1012 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4506 | 1028 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4507 | 1102 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4509 | 620 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4510 | 902 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4512 | 524 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4513 | 418 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4514 | 416 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4515 | 410 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4516 | 412 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4518 | 408 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4520 | 402 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4557 | 219 E. 2nd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4562 | 221 E. 2nd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4566 | 311 E. 3rd Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4581 | 329 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4582 | 317 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4583 | 313 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4584 | 316 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4585 | 311 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4586 | 314 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4587 | 305 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4588 | 312 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4589 | 303 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4590 | 301 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4591 | 217 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4592 | 218 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4593 | 219 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4594 | 220 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4595 | 221 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4596 | 222 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4597 | 302 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE5013 | 224 N. Chester Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5015 | 719 Topeka Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5016 | 706 Hill Place | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5018 | 712 Hill Place | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5022 | 920 Egan Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| *5PE5042 | 1103-07 S. Santa Fe Avenue | Indirect | | Partial Acquisition | | |
| 5PE5043 | 422 Kelly Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5044 | 410 Kelly Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5045 | 412 Kelly Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5050 | 736 Moffat Avenue | Indirect | No Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5052 | 410 W. 28th Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5054 | 2701 N. Grand Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5056 | 409 W. 27th Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5057 | 403 W. 27th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5059 | 2224 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5062 | 413 E. Ash Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5064 | 404 E. Ash Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5067 | 421 Beech Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5068 | 423 Beech Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5069 | 425 Beech Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE5106 | 950 Haven Place | None | No Historic Properties Affected | Indirect | No Adverse Effect | concur |
| 5PE5139 | Colorado & Wyoming Railroad | Relocation of Segment of Linear Resource | Adverse | Relocation of Segment of Linear Resource | Adverse | concur |
| 5PE5287 | 2621 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5288 | 2617 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5289 | 2615 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5290 | 2520 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5291 | 2516 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5292 | 2424 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5293 | 106 E. 24th Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5294 | 107 E. 24th Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5295 | 2200 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5304 | 217 E. 2nd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5517 | North Side Historic District | Partial Acquisition | No Adverse Effect | Partial Acquisition | No Adverse Effect | do not concur |
| 5PE5518 | Second Ward Historic District | Partial Acquisition | Adverse Effect | Partial Acquisition | Adverse Effect | concur |
| 5PE5519 | The Grove Historic District | Indirect | No Adverse Effect | Indirect | No Adverse Effect | Do not concur with recommendation for Modified I-25 Alt. Concur with Exisiting I-25 Alt. |
| 5PE5520 | Corona Park Historic District | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5523 | Steelworks Suburbs Historic District | Partial Acquisition | Adverse Effect | Partial Acquisition | Adverse Effect | concur |

*ill be discussed in an Addendum*

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE486 | Bessemer Ditch | Alteration to Segment of Linear Resource | No Adverse Effect | Impact To Segment of Linear Resource | No Adverse Effect | concur |
| 5PE564 | 711 N. Albany Avenue | Indirect | Adverse Effect | Indirect | Adverse Effect | concur |
| 5PE571 | 2723 Grand Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE584 | 426 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE586 | Mineral Palace Park | Partial Acquisition | Adverse Effect | Partial Acquisition | Adverse Effect | concur |
| *5PE1776 | Union Pacific Railroad | Indirect Impact to Segment of Linear Resource | | Impact To Segment of Linear Resource | no recommendation at this time | |
| 5PE3938 | Santa Fe Avenue Bridge | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4179 | 1612 E. Abriendo Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4436 | 814 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4437 | 501 W. 29th Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4438 | 331 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4439 | 325 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4440 | 323 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4441 | 321 Beech Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4443 | 2826 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4444 | 2808 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4445 | 2824 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4446 | 2814 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4447 | 2820 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4448 | 2816 N. Greenwood Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4449 | 405 W. 28th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4450 | 2629 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4451 | 411 W. 28th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4452 | 219 E. Ash Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4453 | 411 W. 28th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4454 | 2627 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4455 | 2611 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4456 | 2621 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4457 | 2607 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4458 | 2617 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4459 | 2534 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4460 | 2605 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4461 | 2512 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4462 | 2603 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4463 | 2510 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4464 | 2528 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4466 | 2526 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4467 | 2419 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4468 | 2514 Court Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4469 | 2415-17 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4471 | 2330 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4472 | 2427 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4473 | 2324-26 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4474 | 2405 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4475 | 2314 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4476 | 2401 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4477 | 2310 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4478 | 2322 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4479 | 2306 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4480 | 2318 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4481 | 101 W. 21st Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4482 | 2302 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4484 | 100 W. 23rd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4485 | 2026 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4486 | 2006 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4487 | 2020 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4488 | 2002 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4489 | 2015 N. Albany Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4491 | 2017 N. Albany Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4493 | 2011 N. Albany Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4495 | 115 W. 20th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4498 | 1415 N. Santa Fe Avenue | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4499 | 1405 N. Santa Fe Avenue | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4500 | 106 W. 15th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4502 | 1210 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4503 | 1128 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4504 | 1300 N. Santa Fe Avenue | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4505 | 1012 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4506 | 1028 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4507 | 1102 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4509 | 620 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4510 | 902 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4512 | 524 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4513 | 418 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4514 | 416 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4515 | 410 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4516 | 412 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4518 | 408 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4520 | 402 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE4557 | 219 E. 2nd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4562 | 221 E. 2nd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE4566 | 311 E. 3rd Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4581 | 329 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4582 | 317 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4583 | 313 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4584 | 316 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4585 | 311 E. River Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE4586 | 314 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4587 | 305 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4588 | 312 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4589 | 303 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4590 | 301 E. River Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4591 | 217 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4592 | 218 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4593 | 219 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4594 | 220 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4595 | 221 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4596 | 222 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE4597 | 302 S. Bradford Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE5013 | 224 N. Chester Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5015 | 719 Topeka Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5016 | 706 Hill Place | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5018 | 712 Hill Place | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5022 | 920 Egan Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| *5PE5042 | 1103-07 S. Santa Fe Avenue | Indirect | | Partial Acquisition | | |
| 5PE5043 | 422 Kelly Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5044 | 410 Kelly Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5045 | 412 Kelly Avenue | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5050 | 736 Moffat Avenue | Indirect | No Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5052 | 410 W. 28th Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5054 | 2701 N. Grand Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5056 | 409 W. 27th Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5057 | 403 W. 27th Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5059 | 2224 N. Main Street | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5062 | 413 E. Ash Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5064 | 404 E. Ash Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5067 | 421 Beech Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5068 | 423 Beech Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |
| 5PE5069 | 425 Beech Street | None | No Historic Properties Affected | None | No Historic Properties Affected | concur |

**Effects Recommendations for all National Register of Historic Places-Eligible and –ListedHistoric Properties within the Area of Potential Effects**

| Resource Identification Number | Address | Impact -Existing I-25 Alternative | Effect – Existing I-25 Alternative | Impact -Modified I-25 Alternative | Effect – Modified I-25 Alternative | SHPO Response |
|---|---|---|---|---|---|---|
| 5PE5106 | 950 Haven Place | None | No Historic Properties Affected | Indirect | No Adverse Effect | concur |
| 5PE5139 | Colorado & Wyoming Railroad | Relocation of Segment of Linear Resource | Adverse | Relocation of Segment of Linear Resource | Adverse | concur |
| 5PE5287 | 2621 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5288 | 2617 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5289 | 2615 N. Santa Fe Avenue | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5290 | 2520 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5291 | 2516 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5292 | 2424 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5293 | 106 E. 24th Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5294 | 107 E. 24th Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5295 | 2200 N. Freeway | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5304 | 217 E. 2nd Street | Full Acquisition | Adverse Effect | Full Acquisition | Adverse Effect | concur |
| 5PE5517 | North Side Historic District | Partial Acquisition | No Adverse Effect | Partial Acquisition | No Adverse Effect | do not concur |
| 5PE5518 | Second Ward Historic District | Partial Acquisition | Adverse Effect | Partial Acquisition | Adverse Effect | concur |
| 5PE5519 | The Grove Historic District | Indirect | No Adverse Effect | Indirect | No Adverse Effect | Do not concur with recommendation for Modified I-25 Alt. Concur with Exisiting I-25 Alt. |
| 5PE5520 | Corona Park Historic District | Indirect | No Adverse Effect | Indirect | No Adverse Effect | concur |
| 5PE5523 | Steelworks Suburbs Historic District | Partial Acquisition | Adverse Effect | Partial Acquisition | Adverse Effect | concur |

*ill be discussed in an Addendum*

Colorado Department of Transportation
Richard Zamora, Project Manager
905 Erie St.
Pueblo, CO 81001
May 18, 2010

Dear Sir;

I am writing to protest the widening of I-25 through Pueblo.

First of all, the book was very confusing. There seems to be no rhyme nor reason to the numbering system. The descriptions and maps jump from north to south, back and forth making it very difficult to find particular streets or neighborhoods. The maps do not match the descriptions next to them. Even the lists of properties jump around from one part town to another. Why are the sections not numbered consecutively from north to south? Is it to deliberately confuse the reader? By the way, there are no street names on map labeled exhibit 7-3.

I am stunned by the number of properties, both residential and business, that are to be destroyed. Do these property owners know that CDOT will be taking their property? What about people who rent? Where do they go? Does anyone care?

You are planning to destroy whole historic neighborhoods. Isn't it enough that CDOT destroyed most of these areas in the 1950's? Now you want to take what is left. What is the point in designating a property of historic significance if you are just going to destroy it?
The Bessemer Steel Museum being a case in point, you are planning to destroy some of the historical elements, not the buildings actually housing the museum, but other historical elements that added to the history of the mill. And the highway will be practically at their doorstep. Do you understand what the steel mill means to Pueblo, both historically and now? Are you aware of how many years and how many people, both local and statewide worked to bring that museum to fruition? Not to mention the amount of grant money it has brought to Pueblo.

We do not have the amount of traffic that would warrant such a huge expansion of the highway, nor do I see Pueblo growing to that size in the next 20-40 years. Why don't you just repair the road (it has potholes). Also, I don't understand the need for such a huge interchange at the Abriendo exit. It takes out the whole neighborhood! Surely there is a better way to build this section. And, of course, I have not even mentioned Mineral Palace Park which is a travesty and yes, I have seen the mitigation plan.

I am totally against this project, I see no need for it.

Sincerely,

Donna Alber
705 Polk St
Pueblo, Co 81004

Cc to: Wade Broadhead
Pueblo Regional Planning

F

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

May 27, 2010

Mr. Edward C. Nichols
State Historic Preservation Officer
History Colorado
1560 Broadway, Suite 400
Denver, CO 80202

SUBJECT: Addendum Report/Eligibility and Effects Determinations, Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Nichols:

This letter and enclosed report constitute a request for concurrence on eligibility and effects determinations and for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102). CDOT has been consulting with your office since 2004. Our most recent submittal in April 2010 included effects determinations for 196 properties in the project APE.

**Eligibility and Effect Determinations**

The enclosed addendum includes eligibility and effects determinations for six properties:

- Four linear resources: Three railroads and their associated segments, including the Union Pacific Railroad (5PE1776/5PE1776.15/5PE1776.16), Missouri Pacific (5PE1899/5PE1899.1), Burlington Northern Santa Fe (5PE7261/5PE7261.1) and one stone retaining wall (5PE6937.1).
- Two industrial properties: Ace Enterprises (5PE7298) and Newton Lumber Company (5PE5042).

New site forms were completed for 5PE1776.15, 5PE1776.16, 5PE7261.1, 5PE7298, and 5PE6937.1. Re-evaluation forms were completed for 5PE1899.1 and 5PE5042. Below is a table that summarizes the eligibility of these properties and effects determinations based on the Exiting and Modified Alternatives. Please see the attached report and site forms for more information.

| Resource Number | Property Name | NRHP Eligibility | Resource Type | Existing Alternative | Modified Alternative |
|---|---|---|---|---|---|
| 5PE1776 (segments 1776.15, 1776.16) | Union Pacific Railroad | Entire resource eligible, segments retain integrity | linear | Adverse Effect | No Adverse Effect |
| 5PE1899 (segment 1899.1) | Missouri Pacific Railroad | Entire resource eligible, segments retain integrity | linear | No Adverse Effect | No Adverse Effect |
| 5PE7261 (segment 7261.1) | Burlington Northern Santa Fe Railway | Entire resource Eligible, segments retain integrity | linear | No Adverse Effect | No Adverse Effect |
| 5PE6937 (segment 6937.1) | Colorado Smelting Co. retaining walls | Eligible | linear | Effects deter. pending additional information | Adverse Effect |

| Resource Number | Property Name | NRHP Eligibility | Resource Type | Existing Alternative | Modified Alternative |
|---|---|---|---|---|---|
| 5PE7298 | Ace Enterprises | Not eligible | industrial | No Historic Properties Affected | No Historic Properties Affected |
| 5PE5042 | Newton Lumber | Eligible | industrial | No Adverse Effect | No Adverse Effect |

**Smithsonian Site Number Changes**

The report also includes Smithsonian site number changes for six properties that were addressed in previous consultation. The six properties were originally assigned individual site numbers but actually share the same boundary with other properties. Therefore these properties have been combined under single site numbers, as noted in the table below. The attached re-evaluation forms formalize these revisions.

| Separate Site Numbers/One Boundary | Revised Site Number |
|---|---|
| 5PE4505 & 5PE4508 | 5PE4505 |
| 5PE4522 & 5PE4524 | 5PE4522 |
| 5PE5080 & 5PE5081 | 5PE5080 |

**Boundary Revision**

CDOT proposes a minor boundary revision for the Newton Lumber Company (5PE5042), a property that was evaluated as eligible in consultation with your office in August 2009. The remains of two railroad spurs were recently discovered along the western boundary of the property and were determined to have a historical association with the property. The boundary has been revised to include these spurs and effects determinations were completed for the two alternatives (see table above). Please see the re-evaluation form for more information.

This information has been sent to the City of Pueblo Planning Office, Colorado Preservation Inc., and the Mountains/Plains Office of the National Trust for Historic Preservation for review. We will provide you with copies of consulting party responses. As you know, CPI and the Trust recently requested consulting party status for this project.

We request your concurrence with the determinations of eligibility and effects and your agreement with the boundary revision for 5PE5042. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Addendum Report and Site forms

cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

May 27, 2010

Mr. Wade Broadhead
Planner/HPC Staffer
Department of Planning & Community Development
211 East D. Street
Pueblo, CO 81003

SUBJECT: Addendum Report/Eligibility and Effects Determinations, Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Broadhead:

This letter and enclosed report constitute a request for comments on eligibility and effects determinations and for the Environmental Impact Statement (EIS) referenced above. As you will recall, the EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102). CDOT has been consulting with your office since 2004. Our most recent submittal in April 2010 included effects determinations for 196 properties in the project APE.

**Eligibility and Effect Determinations**

The enclosed addendum includes eligibility and effects determinations for six properties:

- Four linear resources: Three railroads and their associated segments, including the Union Pacific Railroad (5PE1776/5PE1776.15/5PE1776.16), Missouri Pacific (5PE1899/5PE1899.1), Burlington Northern Santa Fe (5PE7261/5PE7261.1) and one stone retaining wall (5PE6937.1).
- Two industrial properties: Ace Enterprises (5PE7298) and Newton Lumber Company (5PE5042).

New site forms were completed for 5PE1776.15, 5PE1776.16, 5PE7261.1, 5PE7298, and 5PE6937.1. Re-evaluation forms were completed for 5PE1899.1 and 5PE5042. Below is a table that summarizes the eligibility of these properties and effects determinations based on the Exiting and Modified Alternatives. Please see the attached report and site forms for more information.

| Resource Number | Property Name | NRHP Eligibility | Resource Type | Existing Alternative | Modified Alternative |
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| 5PE6937 (segment 6937.1) | Colorado Smelting Co. retaining walls | Eligible | linear | Effects deter. pending additional information | Adverse Effect |

| Resource Number | Property Name | NRHP Eligibility | Resource Type | Existing Alternative | Modified Alternative |
|---|---|---|---|---|---|
| 5PE7298 | Ace Enterprises | Not eligible | industrial | No Historic Properties Affected | No Historic Properties Affected |
| 5PE5042 | Newton Lumber | Eligible | industrial | No Adverse Effect | No Adverse Effect |

**Smithsonian Site Number Changes**

The report also includes Smithsonian site number changes for six properties that were addressed in previous consultation. The six properties were originally assigned individual site numbers but actually share the same boundary with other properties. Therefore these properties have been combined under single site numbers, as noted in the table below. The attached re-evaluation forms formalize these revisions.

| Separate Site Numbers/One Boundary | Revised Site Number |
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| 5PE4505 & 5PE4508 | 5PE4505 |
| 5PE4522 & 5PE4524 | 5PE4522 |
| 5PE5080 & 5PE5081 | 5PE5080 |

**Boundary Revision**

CDOT proposes a minor boundary revision for the Newton Lumber Company (5PE5042), a property that was evaluated as eligible in consultation with your office in August 2009. The remains of two railroad spurs were recently discovered along the western boundary of the property and were determined to have a historical association with the property. The boundary has been revised to include these spurs and effects determinations were completed for the two alternatives (see table above). Please see the re-evaluation form for more information.

This information has been sent to the SHPO, Colorado Preservation Inc., and the Mountains/Plains Office of the National Trust for Historic Preservation for review.

As a consulting party, we welcome your comments on these determinations. With past submittals for this project, your office has acted as the main contact and has facilitated reviews with the other consulting parties for this project. We have provided an additional hard copy and CD of the Addendum report to assist in this process. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
Addendum Report and CD (2 copies)

cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

May 27, 2010

Ms. Amy Cole
National Trust for Historic Preservation
Mountains/Plains Office
535 16th Street, Suite 750
Denver, CO 80202

SUBJECT: Eligibility and Effects Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Ms. Cole:

Thank you for your letter dated April 29, 2010 in which you requested participation as a Section 106 consulting party for the project referenced above pursuant to 36 CFR 800.2(c)(5). This letter and enclosed reports constitute a request for your comments on Determinations of Eligibility and Effects, and additional findings associated with the Environmental Impact Statement (EIS) referenced above. The EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

## Previous Section 106 Consultation

Section 106 consultation for this project has been ongoing since 2002. CDOT has consulted with the State Historic Preservation Officer (SHPO) and the City of Pueblo, who represented the additional consulting parties, including the Bessemer Historical Society and the Pueblo County Historical Society. The project Area of Potential Effects (APE) and survey methodology were identified in a series of meetings in 2002 and 2003, and formalized via correspondence in September 2004. CDOT consulted on eligibility determinations in July 2007, October 2008, March 2009, and August 2009. In early April 2010, CDOT submitted the enclosed Determination of Effects report to the SHPO and consulting parties and just recently sent the enclosed Addendum report to these parties. This submittal includes both of those reports for your review.

## Determination of Effects to Historic Properties Report

The Determination of Effects Report includes an analysis of impacts of the No Action Alternative, descriptions of the direct and indirect impacts of the Proposed Build Alternatives, effects determinations of the Build Alternatives on historic properties, and proposed mitigation measures for adverse effects. The report includes effects determinations for 196 properties that were either determined National Register eligible or are being treated as eligible for the purposes of Section 106. This includes five proposed historic districts that have a combined total of 587 contributing properties. Please see the report for more specific information about the effects determinations. The SHPO recently provided comments on the findings in this report. We have enclosed the SHPO response for your information.

Also included for your use is a spreadsheet that lists the properties, summarizes the types of effects by alternative, and includes the effects determination for each Build Alternative. That spreadsheet is included herewith in hard copy, but we will also forward it to your office electronically. Please note that the Newton Lumber Company (5PE5042) and the Union Pacific Railroad (5PE1776) are listed in the enclosed table, but effects determinations for these properties are addressed in the Addendum report.

We have also enclosed a copy of the *New Pueblo Freeway Aesthetics Guidelines*, which provides an overview of proposed aesthetic treatments for the project corridor, including a conceptual drawing of the restoration plan for the historic Mineral Palace Park. The Determination of Effects Report references the Aesthetics Guidelines so we have included it for reference and information purposes only. We are not requesting comments on these guidelines.

## Addendum to the Determination of Effects Report

This report was assembled after the enclosed Determination of Effects Report was finalized and submitted for review to SHPO and the other consulting parties in April 2010. It includes properties that were either not addressed in previous consultation efforts or have been updated and require additional consultation. This report includes eligibility and effects determinations, proposed changes to site numbers, and a property boundary revision.

### *Eligibility and Effect Determinations*

The enclosed addendum includes eligibility and effects determinations for six properties:

- Four linear resources: Three railroads and their associated segments, including the Union Pacific Railroad (5PE1776/5PE1776.15/5PE1776.16), Missouri Pacific (5PE1899/5PE1899.1), Burlington Northern Santa Fe (5PE7261/5PE7261.1) and one stone retaining wall (5PE6937.1).
- Two industrial properties: Ace Enterprises (5PE7298) and Newton Lumber Company (5PE5042).

New site forms were completed for 5PE1776.15, 5PE1776.16, 5PE7261.1, 5PE7298, and 5PE6937.1. Re-evaluation forms were completed for 5PE1899.1 and 5PE5042. Below is a table that summarizes the eligibility of these properties and effects determinations based on the Exiting and Modified Alternatives. Please see the attached report and site forms for more information.

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***Smithsonian Site Number Changes***
The report also includes Smithsonian site number changes for six properties that were addressed in previous consultation. The six properties were originally assigned individual site numbers but actually share the same boundary with other properties. Therefore these properties have been combined under single site numbers, as noted in the table below. The attached re-evaluation forms formalize these revisions.

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CDOT proposes a minor boundary revision for the Newton Lumber Company (5PE5042), a property that was evaluated as eligible in August 2009. The remains of two railroad spurs were recently discovered along the western boundary of the property and were determined to have a historical association with the property. The boundary has been revised to include these spurs and effects determinations were completed for the two alternatives (see table above). Please see the re-evaluation form for more information.

As a Section 106 consulting party, we welcome your comments on these determinations. Given the size of this submittal, we are aware that the standard 30-day review time frame may not be sufficient. Should you require additional time, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258 as soon as possible to discuss a reasonable extension period. If you require additional information, please also contact Ms. Schoch.

Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
- Determination of Effects report
- Determination of Effects CD
- Effects Recommendations Response Table
- New Pueblo Freeway Aesthetics Guidelines
- Addendum Report

cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

May 27, 2010

Mr. Patrick A. Eidman
Colorado Preservation, Inc.
333 W. Colfax Avenue, Suite 300
Denver, CO 80204

SUBJECT: Eligibility and Effects Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Eidman:

Thank you for your letter dated May 5, 2010 in which you requested participation as a Section 106 consulting party for the project referenced above pursuant to 36 CFR 800.2(c)(5). This letter and enclosed reports constitute a request for your comments on Determinations of Eligibility and Effects, and additional findings associated with the Environmental Impact Statement (EIS) referenced above. The EIS will be used to determine potential environmental impacts for proposed capacity improvements along an eight mile segment of I-25 in Pueblo between the interchanges at Pueblo Boulevard (milepost 94) and 29th Street (milepost 102).

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***Smithsonian Site Number Changes***

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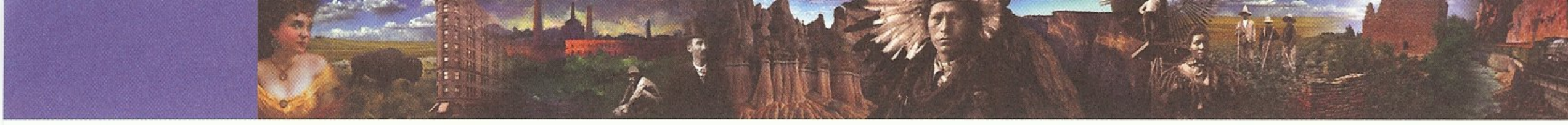
Very truly yours,

for Brad Beckham, Manager
Environmental Programs Branch

Enclosures:
- Determination of Effects report
- Determination of Effects CD
- Effects Recommendations Response Table
- New Pueblo Freeway Aesthetics Guidelines
- Addendum Report

cc: Lisa Streisfeld, CDOT Region 2 (w/o enclosures)
Chris Horn, FHWA (w/o enclosures)



OFFICE *of* ARCHAEOLOGY *and* HISTORIC PRESERVATION

JUN 7 PM 1:27

June 1, 2010

Dan Jepson
Senior Staff Archaeologist and Cultural Resource Program Manager
Environmental Programs Branch
4201 E. Arkansas Ave.
Denver, CO 80222

Re: Determinations of Effects for Archaeological Sites, CDOT Project IM-0251-156, New Pueblo Freeway EIS, Pueblo County (CHS #43967)

Dear Mr. Jepson,

Thank you for your correspondence dated April 16, 2010 (received by our office on April 21, 2010) and the documentation provided regarding the subject project.

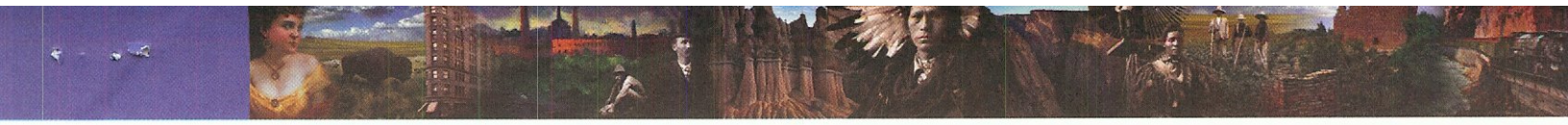
Following our review of the documentation provided, we concur with the following determinations of effect:

1. Should the "Modified" Alternative be selected, sites 5PE5458 and 5PE5483 would be adversely affected, and a finding of **adverse effect** would be appropriate with specific reference to these two sites.
2. Should the "Modified" Alternative be selected, 5PE5408, 5PE5431, and 5PE5467 would not be affected and a finding of **no historic properties affected** would be appropriate with specific reference to these three sites only.
3. Should either the No Action Alternative or "Existing" Alternatives be selected, a finding of **no historic properties affected** would be appropriate with specific reference to the following sites: 5PE5458, 5PE5483, 5PE5408, 5PE5431, and 5PE5467.

Thank you for the opportunity to comment. We look forward to continued consultation on the New Pueblo Freeway Project. If we may be of further assistance please contact Shina duVall, Section 106 Compliance Manager, at (303) 866-4674 or shina.duvall@chs.state.co.us.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer
ECN/SAD



OFFICE *of* ARCHAEOLOGY *and* HISTORIC PRESERVATION

June 14, 2010

Brad Beckham
Manager
Colorado Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, CO 80222

Re: Addendum Report/Eligibility and Effects Determinations, Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement. (CHS #44746)

Dear Mr. Beckman:

Thank you for your correspondence dated May 27, 2010 and received by our office on June 2, 2010 regarding the review of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we concur with the recommended findings of National Register eligibility for the properties listed below.

- 5PE.1776. Including segments 5PE.1776.16 and 5PE.1776.16.
- 5PE.1899. Including segment 5PE.1899.1.
- 5PE.7261. Including segment 5PE.7261.1.
- 5PE.5042. We concur with the historic boundary adjustment.
- 5PE.6937. Including 5PE.6937.1.
- 5PE.7261. Including 5PE.7261.1.
- 5PE.7298

After review of the recommended assessment of adverse effect under Section 106, we concur with the findings of effect for the historic properties listed below.

- 5PE.1899
- 5PE.5042. We concur with the recommended finding of no adverse effect under the Existing I-25 Alternative because the rail spurs lack integrity and does not support the overall eligibility of the entire site.
- 5PE.6937
- 5PE.7261
- 5PE.7298

We are not able to concur with the recommended assessment of adverse effect under Section 106 for the historic properties listed below.

- 5PE.1776. We concur with the finding of adverse effect under the Existing Alternative, but we are not able to concur with the finding of no adverse effect under the Modified Alternative. Part of a segment that supports the overall eligibility of an entire linear resource, 5PE.1776, is being destroyed. According to 36 CFR 800.5(a)(2)(i), the destruction of damage to part of a property is defined as an adverse effect.
- 5PE.5042. We are not able to concur with the recommended finding of no adverse effect at this time. According to the survey report, "the eastern portion of the rails (leading up to the buildings and between the buildings) retains a much greater degree of integrity" than the western edge of the spur. Does CDOT feel that the eastern portion retains integrity and supports the overall eligibility of the property?

If unidentified archaeological resources are discovered during construction, work must be interrupted until the resources have been evaluated in terms of the National Register criteria, 36 CRF 60.4, in consultation with this office.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Manager, at (303) 866-4678.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer

News From

# The Colorado Department of Transportation

www.dot.state.co.us

**June 22, 2010**
**(303) 757-9431**

**Contact: Bob Wilson, CDOT Public Relations,**

## I-25 PAVING THROUGH PUEBLO SET TO START

**PUEBLO** – The Colorado Department of Transportation (CDOT) begins paving Interstate 25 through Pueblo next week. In addition to rotomilling and resurfacing the highway, the project includes new guardrails and signing, earthwork, seeding and striping.

Work begins on Monday night, June 28. Northbound and/or southbound I-25 will be reduced to a single lane at various locations between the south Pueblo city limit (mile 92) and the U.S. 50 interchange (Exit 100), during the following hours:

- **South of Indiana Avenue:** Sunday through Thursday, 6 p.m. to 6:30 a.m.; Monday through Friday, 8:30 a.m. to 4 p.m. (daytime work planned during latter stage of project)
- **North of Indiana Avenue:** Sundays, 10 p.m. to 6:30 a.m.; Monday through Thursday, 9 p.m. to 6:30 a.m.

The speed limit will be reduced to 45 mph and vehicles wider than 12 feet will be prohibited from traveling through the work zone during project hours.

In addition, two full-time (24/7), single lane closures will be required for a couple of weeks on I-25 for inlet and pipe work, and construction of a new concrete median barrier. The round-the-clock closures will accelerate the work schedule, allowing the lanes to reopen sooner.

New expansion joints also will be installed on numerous bridges and overpasses, including Pueblo Boulevard, Indiana, Central, and Abriendo avenues, the Arkansas River, Santa Fe Drive, at Ilex, 1st, 4th, 5th and 13th streets, and U.S. 50.

"Drivers should plan on a little extra travel time since we'll usually only have one lane open to traffic in each direction," says CDOT Project Engineer Rod Abbott. "Delays shouldn't be too extensive

since all the work that impacts traffic is taking place at night. "However, we're urging drivers to please obey the reduced speed limit because lots of activities will be taking place when the visibility is significantly reduced and we need to maintain a safe environment for both the traveling public and our construction crews."

To minimize traffic impacts, there will be no lane closures during the National Little Britches Rodeo Finals, between July 26 and 31, and the State Fair, Aug. 28 to Sept. 7.

The $5.4 million project is scheduled for completion in October 2010. Lafarge West Inc. of Longmont, Colo. is the prime contractor.

Updated information regarding traffic impacts on this or other CDOT projects is available at www.dot.state.co.us/TravelInfo/currentcond/ or by calling 511. To receive project updates via e-mail, visit www.coloradodot.info and click on the cell-phone icon in the upper right-hand corner. The link takes you to a list of items you can subscribe to, including *Southeast Colorado.*

###

***taking care to get you there***

**DEPARTMENT OF TRANSPORTATION**

Region 2
Planning and Environmental Division
1480 Quail Lake Loop
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(719) 227-3248 voice
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DEPARTMENT OF TRANSPORTATION

July 15, 2010

Ms. Donna Alber
705 Polk Street
Pueblo, Colorado 81004

Subject: CDOT Project IM 0251-156, The New Pueblo Freeway Environmental Impact Statement

Dear Ms. Alber:

Thank you for your May 18, 2010 letter, regarding the project referenced above, which involves safety and capacity improvements on I-25 in Pueblo. Your letter references the analysis of the project's impacts to historic properties identified in the *Determination of Effects to Historic Properties: I-25 New Pueblo Freeway Improvement Project* (effects report), which was submitted to the State Historic Preservation Officer (SHPO) and consulting parties as part of the Section 106 review process in April 2010. You had questions about the structure of the report, as well as the numbers of properties that will be affected by the project. You also had concerns about the overall purpose of the project. We have provided responses to your concerns below.

You indicated that the effects report was difficult to navigate. We spent considerable time organizing the content of the report so that it would be easy to review. The report includes a lengthy introduction that explains the report structure and how effects to properties were evaluated. The report is also consistent with how we typically format these types of documents for Section 106 consultation with the SHPO, local governments, and historic preservation groups. Please be assured that our intent that the report format and the detailed graphics would make the review process easier for readers.

You are correct that this project will impact numerous historic properties. CDOT conducted field surveys and prepared a detailed historic context of the City of Pueblo that includes historical information about the steel mill, Mineral Palace Park and the City's neighborhoods, so we are aware of the important resources that will be affected by this project. Over the years, CDOT has met many times with various stakeholders, and property owners at public open house meetings. The team has also met with the City and various community groups. In addition, CDOT has involved the SHPO and the consulting parties, including the City of Pueblo, in the process of identifying historic properties and defining neighborhood districts. The design team carefully prepared alternatives to maximize ways to reduce impacts to historic properties. Through this coordination effort, CDOT has tried to reduce impacts to the City of Pueblo's neighborhoods, the steel mill, Mineral Palace Park, and other important resources along the interstate corridor.

CDOT has been studying the I-25 corridor in Pueblo for a number of years in the format of an Environmental Impact Statement (EIS). The I-25 highway infrastructure is aging and CDOT needs to plan for maintaining and improving the interstate system, which is vital to the City of Pueblo. The interstate provides regional access throughout the state of Colorado to move people and goods. Two build alternatives and one non-build alternative will be described in the draft EIS. These alternatives will accommodate projected traffic volumes for the next 20 years.

Once the draft EIS is published (we anticipate 2011), the public will have an opportunity to review and provide comments. Additionally, we will hold a formal public hearing to solicit comments and questions from the public. So, the team does appreciate your feedback now and will certainly again during the formal public comment period. I

will also have your name and address added to the project mailing list to receive notification about the publication of the EIS.

As you suggest, CDOT will still maintain I-25. Please note that a resurfacing project began on June 28th. Please see the attached news release for additional information. Once again, the project team greatly appreciates your letter. If you have any further questions about the project, please call me at: (719) 227-3248. If you have questions about historic properties and the Section 106 process, please contact Senior Staff Historian Lisa Schoch at 303-512-4258.

Sincerely,

Lisa Streisfeld

Lisa Streisfeld
Environmental and Planning Manager
CDOT Region 2

Cc:

Richard Zamora, CDOT Resident Engineer
Tom Wrona, CDOT Program Engineer
Lisa Schoch, CDOT Senior Historian
Wade Broadhead, City of Pueblo

*Attachment*

NATIONAL TRUST FOR HISTORIC PRESERVATION®

**Mountains/Plains**
OFFICE

July 23, 2010

Ms. Lisa Schoch
CDOT
Environmental Programs Branch
4201 East Arkansas Ave.
Denver, CO 80222

Re: I-25 Pueblo Freeway Section 106 Consultation

Dear Lisa:

Thank you for holding a consulting parties meeting earlier this month. We were pleased to have the opportunity to gain more information about the project, meet members of the project team and share concerns about the effect the project could have on historic properties.

A general comment on the effects determination document: It seems like it would be easier for the reader to understand the narrative if the indirect and direct effects were grouped together instead of being spread into two sections of the document. In addition, in certain places the discussion about some historic properties, such as the Steelworks Suburbs District, addresses both direct and indirect effects but is found only in "Section 5: Directly Impacted Historic Properties." For clarity, Table B-8 could also be revised to show "direct" adverse effects, rather than using the terms "partial or full acquisition."

We ask you to reconsider the No Adverse Effect determination for 5PE41789, the Minnequa Steel Works Office complex. While the complex is a contributing element of the Steelworks Suburbs Historic District (which we agree is adversely effected by both the modified and existing alternatives), it's also an individually listed National Register property. A number of characteristics (such as increased height of the new roadway, visual intrusions, demolition of structures within the mill complex, etc.) are cited as contributing to the adverse effect determination for the Steelworks District. *Determination of Effects at* 5-103-104. However, later in the document these same characteristics are cited as being "minor" and not sufficient to trigger an adverse effect determination for the individually listed Minnequa Steel Works Office Building. *Id.* at 6-16. We disagree and feel that the changes to the character-defining features of the Office Building under either alternative warrant an Adverse Effect determination.

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Based on our in consulting parties discussion, we agree that because the details of the preferred alignment, more complete information about adverse effects (particularly within the CF & I complex), and the impact of implementation of other documents such as the Mineral Palace Park Plan and the design guidelines will not be known for some time into the future, a Programmatic Agreement, rather than an MOA is the preferred way to proceed under Section 106.

Finally, from the dialogue at the recent meeting and from Section 8.2 of the Determination of Effects document, we realize that there are many different ideas being proposed for mitigation of adverse effects. However, we remind you that NHPA requires you to "seek ways to *avoid, minimize or mitigate* any adverse effects on historic properties." 36 C.F.R. 800.1(a). We feel that it's premature to have a discussion about mitigation at this early stage in the project and is yet another reason to support a PA. This discussion is especially critical as it relates to the CF & I complex which is an iconic, defining part of Pueblo's history. If it is possible to avoid or minimize effects to elements of that site, we should work towards that goal first before designing mitigation.

Thank you for considering our comments and please let me know if you have any questions.

Sincerely,

Amy Cole

Amy Cole
Sr. Program Officer &
Regional Attorney

cc: Amy Pallante, CO State Historic Preservation Office
Jim Hare & Patrick Eidman, Colorado Preservation, Inc.
Wade Broadhead, Department of Planning and Community Development, City of Pueblo

PUEBLO
Planning & Community Development
Jerry M. Pacheco, Director

211 East D Street | Pueblo, Colorado 81003 | Tel 719-553-2259 | Fax 719-553-2359 | TTY 719-553-2611 | www.pueblo.us

**August 3, 2010**

To: Dan Jepson
4201 E. Arkansas Street, Shumate Building
Denver, Colorado

From: Wade Broadhead, Planner for the Pueblo Historic Preservation Commission
Planning and Community Development
211 E. D. Street
Pueblo, CO 81003

**RE: Official Response to the Determinations of Effects to Historic Properties: I-25 New Pueblo Freeway Improvement Project**

Dear Mr. Jepson,

The City has completed a review of the report received from CDOT regarding the proposed impacts to historic properties associated with the New Pueblo Freeway project. Planning and Community Development staff met to review the findings and we also engaged Historic Pueblo Inc, Pueblo County Historical Society, and the Bessemer Historic Society. I provided a summary of the principal issues to the Pueblo Historic Preservation Commission at their regularly scheduled meeting on May 15, 2010.

There are some areas of historic significance that the City and consulting parties have highlighted.

**Steelworks Suburb (5PE5523).** First and foremost the City is very concerned with the impact to the historic Colorado Fuel and Iron steel mill complex located near the intersection of Northern Avenue and I-25. This portion of the mill is the last remaining piece of the original operation and one of the few left in the United States. We feel the remaining plant structures in combination with the administration buildings form the core of the Steelworks Suburb Historic District and the proposed loss of the structures and buildings would be degrade that district's eligibility.

In particular, the city agrees that the removal of the remaining blast furnace stoves and stack is a significant adverse effect. Although the furnace is missing, the stack and stoves are the last remaining portion of a seven blast furnace complex that was the most visually representative aspect of the mill operation for the public. Since the switch to a modern ARC furnace, this resource has become an iconic element of Pueblo's proud Steel City history. The removal of this element should be avoided at all costs and if it is not possible mitigation should entail preservation of other mill buildings or creating

something equally iconic that represents Pueblo's proud, steel mill heritage. We **STRONGLY** oppose the demolition of the remaining blast furnace structures.

Second, the removal of the tunnel under I-25 is an adverse impact. Many people would like to see the tunnel stay open in the hopes of one day reconnecting a link with the mill for heritage tourism. It is also a very culturally and socially important point in the project area, as many remember their family members exiting work through the tunnel. The exit located on Steelworks Museum property is probably the most significant aspect of the tunnel history, but people also wanted the tunnel itself preserved. The City understands the difficulty preserving the actual tunnel, but feedback from the community was overwhelmingly against its closure.

Third, the Highline railroad is considered important although it may be difficult to preserve this element due to the rearrangements of the right of way and roadway.

**St. Mary's Genealogical Center, 211 E Mesa Avenue.** This resource is a locally designated historic landmark and located in the Steelworks Suburb adjacent to Benedict Park. With the removal of Benedict Park and relocation of the modified alignment to run alongside the St. Mary's property, we feel this is an adverse impact to this existing local landmark not identified in the report.

**Columbus Hall. (5PE5948).** This building would be demolished for the new Benedict Park under the modified alignment. We believe this building is socially and architecturally significant for the role it played in the development of the Eiler's /East Mesa neighborhood and for the eastern aspect of the Northern Avenue commercial district associated with the early Steelworks suburb. A lacking site form history hides the fact that this building was strongly associated with the Slavic residents of this part of the Steelworks Suburb. We also do not wish to see an important two story commercial building demolished when it appears there might be a way to avoid it. The demolition of this building would be an adverse impact and require mitigation and the HPC can provide and additional resources to determine the buildings eligibility. The City would like to see the building preserved and incorporated into the design of the proposed park.

**The Santa Fe Avenue Steel Truss Bridge (5PE3938).** The HPC and City Staff would like to see CDOT look at creative ways of reusing the bridge for a trail system or reuse within the city. The City has already been in talks with CDOR regarding a possible reuse of the bridge and continues to examine alternative uses of the structure. The removal of the bridge would be an adverse impact. With other steel truss bridges coming down across Pueblo, these are becoming an endangered resource which also demonstrates an earlier era when steel dominated our skyline.

**Mineral Palace Park (5PE586).** Despite some concerns, overall the mitigation plan has widespread public support in the community and the City does understand that some WPA retaining walls will have to be removed for the park enhancements. The loss of the WPA walls is contingent on the proposed park upgrades and future historic mitigation for the walls, and any change in either plan would mean a reevaluation of our position. So

the City would be most interested in discussing mitigation for the loss of the walls. Potential mitigation ideas for Mineral Palace include interpretive signage, stabilization of the remaining walls and buildings, or a play structure or shade structure that incorporates aspects of the old Mineral Palace.

**Second Ward Historic District (5PE5518).** The expansion of the freeway and destruction of additional buildings further degrades the neighborhood that was almost destroyed by the initial Freeway constriction. Loss of integrity is the biggest problem with this district; however, the additional impacts by CDOT are an adverse impact and require mitigation. A context study of this landform/historic districts would be in order to better share and document what was once a rich and thriving neighborhood adjacent to downtown.

**The Grove Historic District (5PE5519).** This is one district that has been completely severed by the initial I-25 through Pueblo to the point it is barely a functioning neighborhood anymore. Under the modified alignment one building is removed and streets are 'cul-de-saced', as well as more elevated roadway causing visual impacts as stated in the report on page 5-90, creating some enhancements and some further isolation for the area. The previous I-25 project and new impacts under the modified alignment would constitute a slight adverse impact to the historic district.

**General Comments**

Pueblo has numerous, active, groups interested in this project and the Pueblo Historic Preservation Commission is eager to be an active participant in the ongoing process, and provide feedback on historic resources, impacts, and mitigation. The PHPC has an active Neighborhood Heritage Enhancement program which is attempting to provide well researched and written historic context to all 'historic' neighborhoods. In neighborhoods that have been heavily impacted by the previous highway and other impacts, context studies may be the most effective means of mitigation. Context studies as well as the creation of park elements that honor the areas history and celebrate a neighborhood's distinct identify are other mitigation avenues the City would like to see CDOT pursue.

After the meeting July 12, 2010 with CDOT, SHPO, National Trust, CPI, and the City of Pueblo, a Programmatic Agreement would be an appropriate method to document the resources and issues important to Puebloans and ensure that consulting parties have further opportunities to provide feedback as the project progresses. For a project with such a long time window, agreeing on important issues, resources, and strategies is very important. We liked the idea of additional chances to comment on the project especially regarding the steel mill as discussion or designs evolve.

Also, early mitigation is also recommended. A formal Bessemer historic context study and/or further research with the *Bessemer Indicator* newspaper records could provide information that would facilitate better decisions with regards to impacts at the CF and I Headquarters, Dispensary, and Steel Mill complex. The ability to document improvements in the mill and their impact on the neighborhood development patterns is a

crucial aspect to understanding significance and integrity and has been a research goal for BHS and PCHS for some time. To assist in the documentation of the historic steelworks complex, a comprehensive HAERS documentation/recordation should be conducted of the northwest corner of the mill by experienced historians with a background in industrial technology, immediately, both to assist planning and as part of the mitigation.

These are by no means an exhaustive list of mitigation measures, and each area will require different strategies.

Sincerely,

Wade Broadhead 6/3/10

Wade Broadhead, Planner, Staff for the Pueblo Historic Preservation Commission
for
Jerry Pacheco, City Manager and Director of Planning and Community Development Department

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

October 7, 2010

Wade Broadhead
Planning and Community Development
211 East D Street
Pueblo, CO 81003

SUBJECT: Additional Information Regarding Effects Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement

Dear Mr. Broadhead:

Thank you for your response dated August 3, 2010 regarding the project referenced above. Responses to your specific comments are included below, organized by property name and number as they appeared in your letter.

**Steelworks Suburb (5PE5523):** We appreciate your comments regarding project effects to the former Colorado Fuel and Iron steel mill complex, including the remaining blast furnaces and stoves, the Highline Railroad, and the tunnel under I-25. As we discussed in our July 12, 2010 meeting with you, SHPO, and the other consulting parties, there may be additional opportunities to avoid these resources during design of this phase of the project but the specific details are unknown at this time. FHWA and CDOT will continue to include you in the consultation process, which will include mitigation for the Steelworks Suburb District.

**St. Mary's Genealogical Center (5PE588):** The St. Mary's property, which is identified as officially eligible for the NRHP in the Office of Archaeology and Historic Preservation Compass database, should have been evaluated individually in our March 2010 effects report but was not. The effects report only considered the property as a contributing property to the Steelworks Suburb. We apologize for this oversight and are providing an effects determination for the St. Mary's property as an individually eligible property at this time.

As noted in Exhibits 5-50 (p. 5-97) and 5-59 (p. 5-109) and Table B-5 (Appendix B, B-14) of the effects report, the Existing Alternative results in no direct impacts to the property, and the Modified Alternative results in the acquisition of land at the northwest corner of the property. The CDOT project team evaluated the Modified Alternative and revised the design to avoid the direct impact to the property's northwest corner (see attached graphic). However, CDOT agrees with your assessment that the removal of Benedict Park and the proximity of the Modified Alternative alignment results in an *adverse effect* to the setting, feeling, and association of St. Mary's. CDOT also assessed the effects of the Existing Alternative on the St. Mary's property and has determined that this alternative results in *no adverse effect*. Although a portion of Benedict Park will be acquired, the Existing Alternative alignment still generally follows the footprint of the existing I-25 in this area and is actually below grade at Mesa Avenue, where the property is located.

**King Taco/Columbus Hall (5PE4948):** In May 2009, we consulted with you and SHPO regarding the NRHP eligibility of this building and determined that it lacks integrity and is not individually eligible, but that it is a *contributing* element of the Steelworks Suburb District (5PE5523). As such, the building was not evaluated individually for effects; rather, it was included in the analysis of effects to the district as a whole. There is an *adverse effect* to the Steelworks Suburb District under both alternatives, and CDOT will work with SHPO and the consulting parties to develop mitigation for the district, which includes King Taco/Columbus Hall (5PE4948). We appreciate your continued concern for this property, and will take into account your suggestions for mitigation involving the building.

**Santa Fe Avenue Bridge (5PE3938):** You provided some mitigation ideas for the bridge, which will be adversely affected by the project. As part of the Section 106 process, we will be evaluating mitigation options for the bridge, including the Adopt-a-Bridge program, in which we advertise the bridge to potential adopters for adaptive re-use in a new location.

**Mineral Palace Park (5PE586):** Thank you for providing possible mitigation concepts for Mineral Palace Park, and specifically for the WPA walls in the park. We will take these into consideration as we develop a mitigation plan for the project corridor.

**Second Ward Historic District (5PE5518):** We appreciate your mitigation suggestions for this district and will consider these as we move forward in the development of a mitigation plan for the project corridor.

**Grove Historic District (5PE5519):** In October 2008, we consulted with SHPO and your office regarding the eligibility of the Grove Historic District. During that consultation, CDOT determined that the Grove neighborhood on the west side of I-25 was significant and retained the integrity to be a potential district. CDOT also determined that the section of the neighborhood east of the interstate and South Santa Fe and south of the Arkansas River is not part of the proposed district because it has been separated by highway construction and the continuity of the neighborhood was lost. We agree that the neighborhood was severed by past highway construction, but disagree with your comment that the district itself was severed, since the district has been limited to the residential and commercial properties on the west side of I-25 and the proposed district was only developed in the past few years—well after the construction of the original highway alignment between 1949 and 1959.

We also disagree that there is an adverse effect to the proposed Grove District based on the Modified Alignment. Under this alternative, the project will involve the acquisition of two contributing features and changes to streets within the district boundary. Unlike individual historic properties, a district "derives its importance from being a unified entity, even though it is composed of a wide variety of resources," and under the Modified Alternative all but two of the district's variety of resources will remain intact, including the district's significant commercial and residential buildings. The two buildings that will be demolished (5PE4680 and 5PE4681) are located on the far southeast edge of the district adjacent to Santa Fe Avenue and their removal will not affect the overall cohesiveness of the Grove District or its ability to convey its unified identity or its significance under NRHP Criteria A and C. We also believe that the plan to cul-de-sac Clark and C Streets, and the changes to Santa Fe Avenue will neither alter the cohesiveness of the district nor its ability to convey its significance. CDOT maintains that the Modified Alternative will result in *no adverse effect* to the proposed Grove historic district.

**Programmatic Agreement**

Based on our July 12, 2010 with SHPO and the consulting parties, FHWA and CDOT are developing a Programmatic Agreement that will outline mitigation for the project corridor as well as how Section 106

will be implemented for future phases of this project. We appreciate all of your suggested mitigation strategies and look forward to working with you and the consulting parties in the development of this agreement.

If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

Enclosures:
St. Mary's (5PE588), Graphic—Modified Alternative

cc: Lisa Streisfeld, CDOT Region 2
Chris Horn, FHWA

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
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DEPARTMENT OF TRANSPORTATION

October 7, 2010

Ms. Amy Cole, Regional Attorney
National Trust for Historic Preservation
Mountains/Plains Office
535 16th Street, Suite 750
Denver, CO 80202

SUBJECT: Additional Information, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Ms. Cole:

Thank you for your response dated July 23, 2010 regarding the project referenced above. Responses to your specific comments are provided below.

**Report Format**
We appreciate your comments regarding the format of the Determination of Effects report. Given the project scope and the numbers of historic properties, we tried to simplify the report by separating properties based on whether they were directly or indirectly affected by the project. However, we recognize that there were some properties where effects were both indirect and direct. With regard to Table B-8, we included the distinction between partial and full acquisitions to provide reviewers more detail regarding whether only part or all of a property would be impacted. We apologize for any confusion this may have caused during your review. There are no plans at this time to revise this report or to develop an addendum.

**Minnequa Steel Works Office Complex (5PE4179)**
We would like to clarify an error in the text regarding the Minnequa Steel works Office Complex. On pages 5-102 and 5-111 of the effects report, CDOT indicated that the individually eligible Minnequa Steel Works Office Complex (5PE4179) was adversely affected by both alternatives. The *no adverse effect* finding of the office complex as provided on pages 6-11 through 6-16 is the correct effects determination for this property.

In your letter, you disagreed with CDOT's determination that there is *no adverse effect* to the Minnequa Steel Works Office Complex based on the Existing and Modified Alternatives, stating that the character-defining features of the property will be altered by some of the same impacts that CDOT determined result in an adverse effect to the overall Steelworks Suburb District (5PE5523) (of which the office complex is a contributing feature). We disagree with your assessment. The property at 5PE4179 is indirectly impacted by the changes to the overall steel mill, including the elevation of the roadway in this area, the change in tunnel access, impacts to structures on the steel mill property, and changes in noise levels, but these effects do not diminish the integrity of the property. The office complex and its immediate setting will remain intact and will still convey significance under both Criteria A and C. Association with the steel mill is part of what makes the individual office complex significant but the

2002 National Register of Historic Places (NRHP) nomination for 5PE4179 highlights the significance of the separate office complex property, noting that

> "although the plant's industrial operations are located nearby, separated from the office complex by Interstate 25, these facilities have undergone substantial changes over the years, prompted by technological advances and the widening of the highway. Therefore the complex of administrative buildings best represents Minnequa Steel Works and its subsequent impact on the city."

The property is also important for featuring the distinctive characteristics of the Mission architectural style, and is, according to the NRHP nomination, considered one of the best examples of that architectural style in the state. Under both the Existing and Modified Alternatives, the property will continue to convey its association with Pueblo's industrial development and steel industry and will also continue to convey its architectural significance as the characteristics of the Mission style will not be affected. CDOT continues to support its initial determination that the Existing and Modified Alternatives result in *no adverse effect* to the Minnequa Steel Works Office Complex.

**Resolution of Adverse Effects/Mitigation**

You noted that it is premature to discuss possible mitigation options for adverse effects and sited 36 CFR 800.1(a) which states that the goal of consultation is to "seek ways to avoid, minimize, or mitigate any adverse effects on historic properties." While we appreciate your perspective, both FHWA and CDOT have spent considerable resources evaluating existing properties, and multiple years studying ways to avoid and minimize impacts to historic properties along this project corridor. In addition, the team has met with community stakeholders to discuss project alternatives. The alternative evaluation process was particularly challenging given the constrained urban environment and the numbers of historic properties on both sides of the highway. This project will be completed in phases and there may be additional opportunities to evaluate measures to avoid or minimize impacts to these resources as the project moves forward. However, we believe it is appropriate to consider mitigation options at this time because given the constrained nature of the corridor, we know there will be effects to historic properties and we hope to develop a mitigation plan in consultation with SHPO and the consulting parties that has a visible and tangible benefit to the City of Pueblo.

**Programmatic Agreement**

Based on our July 12, 2010 with SHPO and the consulting parties, FHWA and CDOT are developing a Programmatic Agreement that will outline mitigation for the project corridor as well as how Section 106 will be implemented for future phases of this project. We look forward to working with you and the other consulting parties in the development of this agreement.

We welcome your comments and your continued participation in the Section 106 process. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

cc: Lisa Streisfeld, CDOT Region 2
Chris Horn, FHWA

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
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DEPARTMENT OF TRANSPORTATION

October 7, 2010

Ms. Corinne Koehler
Bessemer Historical Society
215 Canal Street
Pueblo, CO 81004

SUBJECT: Additional Information Regarding Effects Determinations, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement

Dear Ms. Koehler:

Thank you for your letter dated July 23, 2010 regarding the project referenced above. Responses to your specific comments are provided below.

**Bessemer Neighborhood**
You expressed concerns about impacts to some of the specific properties located in the Bessemer neighborhood, including Gagliano's, Gus' Place, St. Mary's School and Church, neighborhood parks, the steel mill, and the CF&I Administration buildings. As noted in the report (Table B-5, pp. B-16 to B-17), there are no direct impacts to Gagliano's (5PE4813), Gus' Place (5PE4837), or the Minnequa Steel Works Office Complex (5PE4179). There would be direct impacts to Mineral Palace Park and Benedict Park, and to the former steel mill site under both the Existing and Modified Alternatives, as discussed in more detail in the effects report.

**St. Mary's Genealogical Center (5PE588):** Your concern about effects to the St. Mary's Genealogical Center was shared by the City of Pueblo Historic Preservation Commission. The St. Mary's property, which is identified as officially eligible for the National Register of Historic Places in the Office of Archaeology and Historic Preservation Compass database, should have been evaluated individually in our March 2010 effects report but was not. The effects report only considered the property as a contributing feature of the Steelworks Suburb District. We apologize for this oversight and are providing an effects determination for the St. Mary's property as an individually eligible property at this time.

As noted in Exhibits 5-50 (p. 5-97) and 5-59 (p. 5-109), and Table B-5(Appendix B, B-14) of the effects report, the Existing Alternative results in no direct impacts to the property, and the Modified Alternative results in the acquisition of land at the northwest corner of the property. The CDOT project team evaluated the Modified Alternative and revised the design to avoid the direct impact to the open land on the property's northwest corner (see attached graphic). Despite these efforts to avoid direct impacts to the property, CDOT has determined that the removal of Benedict Park and the proximity of the Modified Alternative alignment results in an *adverse effect* to the setting, feeling, and association of St. Mary's. CDOT also assessed the effects of the Existing Alternative on the St. Mary's property and has determined that it results in *no adverse effect*. Although a portion of Benedict Park will be acquired, the Existing Alternative alignment still generally follows the footprint of the existing interstate in this location and is actually below grade at Mesa Avenue, where the property is located.

**Neighborhood Connectivity**
We recognize that construction of the original Pueblo Freeway between 1949 and 1959 severed many of Pueblo's oldest neighborhoods. The original highway alignment was built before there were federal laws in place to evaluate environmental impacts, including effects to historic properties. For this project, CDOT has worked for years to prepare alternatives that reduce impacts to Pueblo's neighborhoods, Mineral Palace Park, the steel mill and other important historic properties along the corridor.

**Steel Mill Resources**
Your letter identified specific concerns with resources associated with the former steel mill site, including the tunnel closure and the demolition of the blast furnace stacks. Similar concerns about these resources were expressed by the other consulting parties, including the City of Pueblo, the National Trust for Historic Preservation, and Colorado Preservation Incorporated. We will take into account your comments regarding these resources as we move forward. The project will be phased over many years, and there will be opportunities to review these resources again and to consider design options that could minimize impacts to these and other historic resources.

**Aesthetics Guidelines**
Thank you for your comments regarding the Aesthetics Guidelines. Please keep in mind that the Guidelines have not been formally adopted; rather, they represent possible aesthetic treatments for the corridor and reflect ideas, concepts, and themes collected from different facets of the community, including artists, local businesses, and interested citizens, as well as the City of Pueblo and Pueblo County. You indicated that you were not involved in the development of this document and that some of the concepts included for the Bessemer neighborhood do not conform to the Bessemer Historical Society Master Plan. We want to point out that Section 2.2 of the Aesthetic Guidelines references the June 2009 site renovation master plan developed by the Bessemer Historical Society, and that the ideas outlined for the Bessemer neighborhood are conceptual only. The Aesthetic Guidelines were included in the Section 106 submittal for information purposes only. Once individual construction projects along the corridor are identified, CDOT will evaluate the effects of any proposed aesthetic treatments on historic properties.

**Programmatic Agreement**
FHWA and CDOT are in the process of developing a Programmatic Agreement (PA) that will outline mitigation for the project corridor as well as how Section 106 will be implemented for future phases of this project. We look forward to working with you and the other consulting parties in the development of this agreement.

**Project Necessity**
Your response also questioned the necessity of the overall project. I-25 through Pueblo is one of the oldest interstate segments in Colorado. Very few improvements have been made to this segment of highway since it was completed in 1959 and there is evidence to suggest that the highway has reached, and in some cases, exceeded its service life. The I-25 infrastructure is aging and CDOT needs to plan for maintaining and improving the interstate system, which is vital to the City of Pueblo. The interstate provides regional access throughout the state to move people and goods. Two build alternatives and one non-build alternative have been identified and will be documented in more detail in the Draft Environmental Impact Statement (DEIS), which is anticipated for publication in early 2011. Once the draft document is published, the public will have an opportunity to review and provide comments. A formal public hearing will also be held to solicit comments and questions. We encourage you to participate in this process.

We welcome your continued participation in the Section 106 process. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

Enclosures: St. Mary's (5PE588), Graphic—Modified Alternative

cc: Lisa Streisfeld, CDOT Region 2
Chris Horn/Stephanie Gibson, FHWA

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

DEPARTMENT OF TRANSPORTATION

October 8, 2010

Mr. Edward C. Nichols
State Historic Preservation Officer
History Colorado/Colorado Historical Society
1560 Broadway, Ste. 400
Denver, CO 80202

SUBJECT: Additional Information, Section 106 Consultation, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Nichols:

Thank you for your responses dated May 17, 2010 and June 14, 2010 regarding the Determination of Effects Report and the Addendum to that report submitted for your review in April and May 2010, respectively. Responses to your specific comments are outlined below, organized by the date of your written response and the associated property site number. This letter also includes findings from additional consultation efforts with the City of Pueblo, the Bessemer Historical Society, and the Mountains/Plains Office of the National Trust for Historic Preservation.

**May 17, 2010 Response—Determination of Effects Report**

*5PE5050*: You indicated there is a discrepancy in the effect determination for this property under the Existing Alternative. On p. 5-51 of the effects report, there is a *no historic properties affected* determination, but the attached spreadsheet indicates a finding of *no adverse effect*. You concur with the *no adverse effect* determination as shown in the spreadsheet. We apologize for the inconsistency in the information. However, given that the property in question is 909 feet from the Interstate improvements and is 202 feet from the proposed Santa Fe Drive Extension, which is already an established transportation facility and will not come any closer to the property or be elevated in this area, we believe that a *no historic properties affected* determination is appropriate, as there will be no direct or indirect effects to the property based on the nearby improvements.

*5PE5517 (North Side Neighborhood District)*: We disagree with your determination that the adverse effect to the Mineral Palace Park (an individually eligible property [5PE586] and a contributing element to the North Side Neighborhood District) results in an adverse effect to the overall district. The North Side district is a sizeable property, consisting of 220 acres that includes an area approximately 5 blocks wide and 7 blocks long. Mineral Palace Park consists of 42.2 acres, or 19 percent of the total acreage of the district. The district is significant under Criterion A for its association with patterns of early urban development, and under Criterion C for its diverse collection of architectural styles that reflect the broad spectrum of housing styles and types developed for more affluent citizens of Pueblo. The residential nature of the neighborhood, as well as its location near the park, is also important. Although the district's period of significance is tied to the development of the park, extending from the early development of the Colorado Mineral Palace in 1890 to the WPA period of the park in 1940, the significance of the district is

not tied solely to the park. There may be some indirect effects to some of the properties along North Main Street as detailed in the March 2010 Effects Report, but the contributing architectural properties, including the five properties within the APE, will not be directly impacted, the layout of the residential neighborhood will be the same, and the relationship of the district's properties to the park will not change. There will be changes to Mineral Palace Park, but it will still be a feature of the neighborhood. Based on these factors, CDOT believes that the cohesiveness of the North Side Neighborhood District will be conveyed despite the changes to the park. We continue to support our initial determination that both build alternatives result in *no adverse effect* to the North Side Neighborhood District.

*5PE5519 (Grove District)*: We disagree with your opinion that the project results in an adverse effect to the Grove District under the Modified Alternative. You indicated that an adverse effect determination is appropriate because two of the district's contributing elements will be demolished. The Grove District is significant under Criterion A for its association with early urban development in Pueblo as well as settlement patterns of ethnic groups in Pueblo. Under Criterion C, the district is significant for its intact examples of residential and commercial buildings dating from the late 19th and early to mid-20th century. According to the National Register Bulletin *How to Apply the National Register Criteria for Evaluation,* "a district derives its importance from being a unified entity, even though it is composed of a wide variety of resources." Under the Modified Alternative, all but two of the district's variety of resources will remain intact, including the significant commercial and residential buildings. The two buildings that will be demolished (5PE4680 and 5PE4681) are located on the far southeast edge of the district adjacent to Santa Fe Avenue and their removal will not affect the overall cohesiveness of the Grove District or its ability to convey its significance under NRHP Criteria A and C. CDOT maintains that the Modified Alternative will result in *no adverse effect* to the proposed Grove district.

**June 14, 2010 Response—Addendum to Determination of Effects Report**

*5PE1776 (Union Pacific Railroad)*: We disagree with your comment that there is an adverse effect to the railroad under the Modified Alternative based on the destruction of a segment of the UPRR spur (5PE1776.16). The overall spur is 2,120 feet long. The piece of this resource that will be removed consists of 325 feet that has compromised integrity compared to the remainder of the segment. As we indicated in our May 27, 2010 submittal, the section of spur that will be impacted no longer has rails or ties and extends into an area of vegetative overgrowth. Had we documented this section of the spur separately from the remainder of the spur, we would have determined that this piece of the spur lacks integrity. However, given that we are working to better represent and evaluate linear resources by documenting contiguous segments vs. smaller separate segments, we often evaluate longer segments where most of the resource retains integrity and a small portion does not. Despite the loss of this 325-foot section of the spur, the majority of the segment that retains integrity will still convey the significance of the spur and the overall railroad. Based on this, we maintain that our initial determination of *no adverse effect* is appropriate. We believe this is an issue of how the property was identified and documented and welcome your suggestions for how to address this type of resource in the future.

*5PE5042 (Newton Lumber):* You asked for additional clarification regarding the integrity of the railroad spur extending into the Newton Lumber property. In our May 2010 Addendum Report, we indicated that the eastern portion of the spur that extends between the Newton Lumber buildings retains a high degree of integrity and the western portion of the spur that was included in the boundary of the property has poor integrity due to lack of materials and abandonment. In our May 2010 consultation, we proposed revising the boundary of the Newton Lumber Company site to include the western portion of the spur that exhibits poor integrity. Under the Existing Alternative, only 46 feet of the overall 660-foot spur will be included in CDOT ROW and likely removed. The entire 600-foot segment of the spur that was initially

documented with the Newton Lumber Company site will remain intact. Under the Modified Alternative, a 122-foot segment of the spur will be impacted, leaving intact 538 feet of the overall spur that extends between the contributing buildings on the Newton Lumber property. The 122-foot portion includes 62-feet of the 600-foot segment that retains integrity. The spur was included in the boundary to document its historic association with the lumber company property and the physical continuity of the remaining resource. However, the western end of the spur—approximately 60 feet—has low integrity compared to the 600-foot segment that was originally identified. Despite the loss of small sections of the spur under the two alternatives, CDOT still maintains that the Existing and the Modified Alternatives result in *no adverse effect* to the overall Newton Lumber Company property. The Newton Lumber Company property can still convey its significance as an example of 20th Century industrial architecture. The remaining portion of the spur will maintain its relationship and association with the lumber company buildings, and the buildings will stay intact.

**Additional Consultation**
Based on comments from the City of Pueblo, the Bessemer Historical Society, and the Mountains/Plans Office of the National Trust, CDOT provides the following responses for your review and concurrence regarding effects to two properties within the project APE: St Mary's Genealogical Center (5PE588) and the Minnequa Works Office Complex (5PE4179).

*St. Mary's Genealogical Center (5PE588):* The St. Mary's property, which is identified as officially eligible in the Office of Archaeology and Historic Preservation Compass database, should have been evaluated individually in our March 2010 effects report but was not. The effects report only considered the property as a contributing element of the Steelworks Suburb. We apologize for this oversight and at this time are providing an effects determination for the St. Mary's property as individually eligible. As noted in Exhibits 5-50 (p. 5-97) and 5-59 (p. 5-109) and Table B-5 (Appendix B, B-14) of the effects report, the Existing Alternative results in no direct impacts to the property, and the Modified Alternative results in the acquisition of a piece of open land on the northwest corner of the property. The CDOT project team evaluated the Modified Alternative and revised the design to avoid the direct impact to the property's northwest corner (see attached graphic). However, CDOT has determined that the removal of Benedict Park and the proximity of the Modified Alternative alignment results in an *adverse effect* to the setting, feeling, and association of St. Mary's. CDOT also assessed the effect of the Existing Alternative on the St. Mary's property and has determined that it results in *no adverse effect*. Although a portion of the adjacent Benedict Park will be acquired, the Existing Alternative alignment still generally follows the footprint of the existing interstate in this location and is actually below grade at Mesa Avenue, where the property is located.

*Minnequa Steel Works Office Complex (5PE4179):* We would like to clarify an error in the text regarding the Minnequa Steel works Office Complex. On pages 5-102 and 5-111 of the effects report, CDOT indicated that the Minnequa Steel Works Office Complex (5PE4179) was adversely affected by both alternatives. The *no adverse effect* finding of the office complex as provided on pages 6-11 through 6-16 is the correct effect determination for this property.

The Mountains/Plains Office of the National Trust disagreed with CDOT's determination that there is *no adverse effect* to the Minnequa Steel Works Office Complex based on the Existing and Modified Alternatives, stating that the character defining features of the property will be altered by some of the same impacts that CDOT determined result in an adverse effect to the overall Steelworks Suburb District (5PE5523) (of which the office complex is a contributing feature). CDOT disagrees with this assessment. The property at 5PE4179 is indirectly impacted by the elevation of the roadway in this area, the change in tunnel access, impacts to structures on the steel mill property, and changes in noise levels, but these

effects do not diminish the integrity of the property. The office complex and its immediate setting will remain intact and will still convey significance under both Criteria A and C. Association with the steel mill is part of what makes the individual office complex significant but the 2002 National Register of Historic Places (NRHP) nomination for 5PE4179 highlights the significance of the separate office complex property, noting that:

> "Although the plant's industrial operations are located nearby, separated from the Office Complex by Interstate 25, these facilities have undergone substantial changes over the years, prompted by technological advances and the widening of the highway. Therefore the complex of administrative buildings best represents Minnequa Steel Works and its subsequent impact on the city."

The property is also important for featuring the distinctive characteristics of the Mission architectural style, and is, according to the NRHP nomination, considered one of the best examples of that architectural style in the state. Under both the Existing and Modified Alternatives, the property will continue to convey its association with Pueblo's industrial development and the steel industry and will also continue to convey its architectural significance as the characteristics of the Mission style will not be affected. CDOT continues to support its initial determination that the Existing and Modified Alternatives result in *no adverse effect* to the Minnequa Steel Works Office Complex.

**Programmatic Agreement**
Based on our July 12, 2010 meeting with your staff and the consulting parties, FHWA and CDOT are developing a Programmatic Agreement that will outline mitigation for the project corridor as well as how Section 106 will be implemented for future phases of the project. We look forward to working with you and the consulting parties in the development of this agreement.

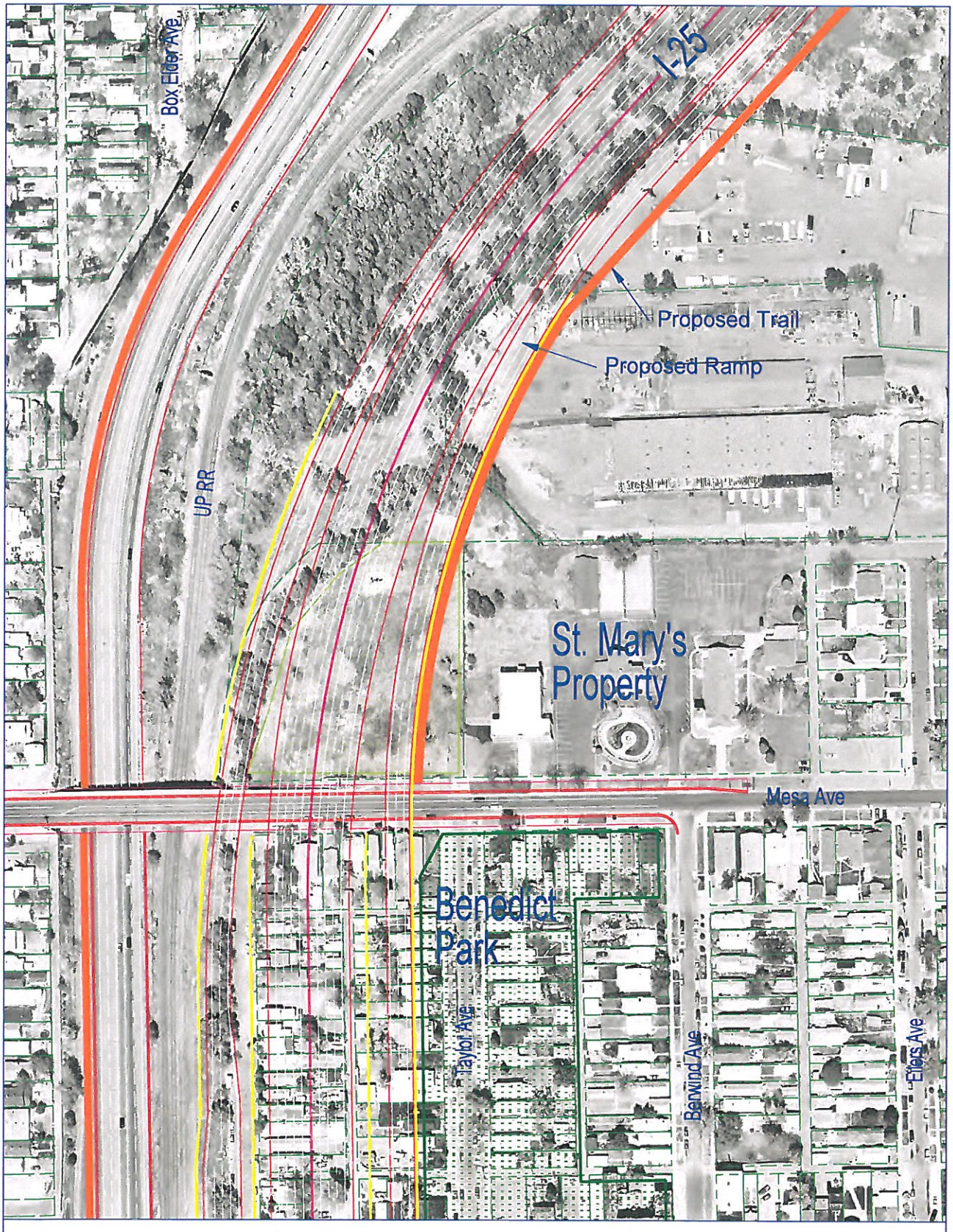
We request your concurrence with these findings. Your response is necessary for the Federal Highway Administration's compliance with Section 106 of the National Historic Preservation Act, and the Advisory Council on Historic Preservation's regulations. If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

Enclosures:
St. Mary's (5PE588), Graphic—Modified Alternative

cc: Lisa Streisfeld, CDOT Region 2
Chris Horn, FHWA




# PROPOSED DESIGN CHANGE TO AVOID SAINT MARY'S PROPERTY

HISTORY Colorado

October 21, 2010

Jane Hann
Manager, Environmental Programs Branch
Colorado Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, CO 80222

Re: Additional Information, Section 106 Consultation, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Ms. Hann,

Thank you for your correspondence dated October 8, 2010 and received by our office on October 12, 2010 regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

**Resource 5PE.5050**

Thank you for the clarification in regards to the finding of effect. We concur with the recommended finding of no historic properties affected [36 CFR 800.4(d)(1)] for this property.

**Resources 5PE.5517 and 5PE.5519**

Thank you for the additional information regarding these resources, however, we still believe that a finding of adverse effect [36 CFR 800.5(a)(1)] would be appropriate for these resources. Contributing elements within these eligible historic districts would be demolished as a result of the project. While the historic districts may still be able to convey significance, the historic integrity would be diminished by the loss of character-defining features. As stipulated in 36 CFR 800.5(a)(1): "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association…" In our opinion, the demolition of contributing elements within eligible historic districts diminishes the integrity of those historic districts and would result in an adverse effect.

**Resource 5PE.1776**

In previous projects, we have evaluated effects to linear resources based on whether or not the segment retains integrity and supports the overall eligibility of the entire linear resource. Often, these projects included intersection improvements, extension of bridges or culverts, or bridge replacements. Typically, the linear resource is being altered, but remains intact. In the case of the surveyed segment 5PE.1776.16, a 325-foot section of the segment will be demolished. The resource most likely still convey its significance, but the historic integrity of location, setting, feeling, and association would be diminished by the actual demolition of a section of an eligible property [see 36 CFR 800.5(a)(1)]. In our opinion, demolishing 325 feet of a historic property is an adverse effect, as stipulated in 36 CFR 800.5(a)(2)(i).

**Resource 5PE.5042**

In previous projects, we have evaluated effects to linear resources based on whether or not the segment retains integrity and supports the overall eligibility of the entire linear resource. Often, these projects included intersection improvements, extension of bridges or culverts, or bridge replacements. Typically, the linear resource is being altered, but remains intact. In the case of the surveyed segments for resource 5PE.5042, various segments would be fully demolished. The resource most likely still convey its significance, but the historic integrity of location, setting, feeling, and association would be diminished by the actual demolition of a section of an eligible property [see 36 CFR 800.5(a)(1)]. In our opinion, demolishing 325 feet of a historic property is an adverse effect, as stipulated in 36 CFR 800.5(a)(2)(i).

**Resource 5PE.588**

We concur with the recommended finding of adverse effect [36 CFR 800.5(a)(1)] for the Modified Alignment and no adverse effect [36 CFR 800.5(b)] for the Existing Alignment. We continue to concur with the overall finding of adverse effect for the Steelworks Suburbs Historic District, in which resource 5PE.588 is located.

**Resource 5PE.4179**

After review of the provided information, we concur with the recommended finding of no adverse effect [36 CFR 800.5(b)] for resource 5PE.4179. We continue to concur with the overall finding of adverse effect for the Steelworks Suburbs Historic District, in which resource 5PE.4179 is located.

We recommend that CDOT and FHWA request comments from the Advisory Council on Historic Preservation under 36 CFR 800.5(c)(2)(i) to resolve the disagreements with the findings of effect.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings.

Please note that our compliance letter does not end the 30-day review period provided to other consulting parties. If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Manager, at (303) 866-4678.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer

# STATE OF COLORADO

**DEPARTMENT OF TRANSPORTATION**

Environmental Programs Branch
4201 East Arkansas Avenue
Shumate Building
Denver, Colorado 80222
(303) 757-9281

December 2, 2010

Mr. Edward C. Nichols
State Historic Preservation Officer
History Colorado/Colorado Historical Society
1560 Broadway, Ste. 400
Denver, CO 80202

SUBJECT: Section 106 Comments and Section 4(f) *De Minimis* Notification, CDOT Project IM 0251-156, New Pueblo Freeway Environmental Impact Statement (CHS #44746)

Dear Mr. Nichols:

Thank you for your response dated October 21, 2010 regarding the additional consultation on effect determinations for select properties associated with the project referenced above. As a result of that consultation, your office recommended that CDOT and FHWA request comments from the Advisory Council on Historic Preservation regarding the disagreement on effect determinations, specifically for the North Side Neighborhood District (5EP5517), and the Grove District (5EP5519). FHWA consulted with the ACHP and has been advised that the removal of contributing features to a historic district would constitute an *adverse effect* as defined in 36 CFR 800.5. Per the ACHP guidance, FHWA and CDOT will not pursue additional consultation efforts regarding this issue, and *adverse effect* determinations will be applied to the Grove District under the Modified Alternative and to the North Side Neighborhood District under both the Existing and Modified Alternatives. CDOT also agrees with your comments regarding the effects determinations for additional properties noted in your October 21, 2010 correspondence: 5PE1776, 5PE5042, 5PE588, and 5PE4179.

This correspondence is also a notification that FHWA may make a *de minimis* finding for the Section 4(f) requirements for property 5PE5080, located at 200 and 210 South Santa Fe in Pueblo. FHWA and CDOT determined that the Existing and Modified Alternatives result in *no adverse effect* to this property, in consultation with your office. You concurred with this determination in correspondence dated May 17, 2010. The effects determination for the property was described on pp. 5-54 to 5-55 of the March 2010 Determination of Effects report. We request your acknowledgement of the Section 4(f) *de minimis* notification.

If you require additional information, please contact CDOT Senior Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,

for Jane Hann, Manager
Environmental Programs Branch

cc: Lisa Streisfeld, CDOT Region 2
Chris Horn, FHWA

# Tribal Consultation

**FEDERAL HIGHWAY ADMINISTRATION/COLORADO DEPARTMENT OF TRANSPORTATION**
**SECTION 106 TRIBAL CONSULTATION INTEREST RESPONSE FORM**

**PROJECT:** I-25/Pueblo Freeway Environmental Impact Statement

The Kiowa Tribe of Oklahoma Tribe [is / is not] (circle one) interested in becoming a consulting party for the Colorado Department of Transportation project referenced above, for the purpose of complying with Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR 800). If your tribe will be a consulting party, please answer the questions below.

Signed: P. K. Hen Beingt Vice-Chair
Name and Title

---

CONSULTING PARTY STATUS [36 CFR §800.2(c)(3)]
Do you know of any specific sites or places to which your tribe attaches religious and cultural significance that may be affected by this project?

Yes No If yes, please explain the general nature of these places and how or why they are significant (use additional pages if necessary). Locational information is not required.

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SCOPE OF IDENTIFICATION EFFORTS [36 CFR §800.4(a)(4)]
Do you have information you can provide us that will assist us in identifying sites or places that may be of religious or cultural significance to your tribe?

Yes No If yes, please explain.

---

CONFIDENTIALITY OF INFORMATION [36 CFR §800.11(c)]
Is there any information you have provided here, or may provide in the future, that you wish to remain confidential?

Yes No If yes, please explain.

**Please complete and return this form via US Mail or fax to:**

Dan Jepson, Section 106 Native American Liaison
Colorado Department of Transportation
Environmental Programs
4201 E. Arkansas Ave.
Denver, CO 80222
FAX: (303)757-9445

# Section 4(f) Correspondence

**Creighton Wright**
***Director of Parks & Recreation***

**Mike Sexton**
***Assistant Director***
***Parks & Recreation***

**800 Goodnight Avenue**
**Pueblo, CO 81005**

**Phone: (719) 553-2790**
**Fax: (719) 553-2791**
**email: parks@pueblo.us**
**www.puebloparks.us**

## Parks & Recreation

July 13, 2010

Rich Zamora,
Colorado Department of Transportation
1019 Erie Ave
Pueblo, CO 81002

SUBJECT: Pueblo I-25 Freeway Letter for EIS

Dear Mr. Zamora,

The new Pueblo I-25 Freeway project will be a major asset for the City of Pueblo and the rest of southern Colorado. It provides badly needed improvements to the vehicular transit system for the City of Pueblo and the region. It also provides for awesome opportunities to develop regional multimodal trail system and recreation amenities via mitigation due to the freeway expansion.

As you may know, I became Parks and Recreation Director for the City of Pueblo in September 2009. This is far after the major planning effort for the new Pueblo I-25 Freeway had ended. I have studied the plans extensively, met with the landscape design team and spoke with some of the staff that were involved in the project. This document identifies concerns/challenges, proposed solutions and my preferences for the ultimate design based on the most advantageous multimodal trail system and recreation amenity development. Other than a preferred alignment, this does not relate to the vehicular transit system.

While I would have pushed for many design changes due to my own past experience had I participated in the design, I will not ask for wholesale changes, but rather will identify less significant challenges that will need to be addressed as the formal design process begins. With this in mind, it is critically important that someone from the Pueblo Parks and Recreation formally participate in the design and construction process to ensure an understanding of the design, allow time to prepare for changes and ensure city standards are followed and accommodated.

ALIGNMENT

1. MODIFIED ALIGNMENT PREFERRED – HIGH IMPORTANCE
   Due largely to the opportunity to create significant trail connectivity and linkages, I prefer the modified alignment. The modified alignment provides significantly more trail opportunities and provides critical north/south connectivity that doesn't currently exist.

TRAIL CONCERNS WITH THE MODIFIED ALIGNMENT

1. While the modified alignment is preferred, it doesn't provide the necessary detail to understand the design intent. The concerns with trails has mostly to do with the connections and the expected crossing method. Oftentimes, trails die because the connectivity isn't considered early

enough in the project. There are several places where the proposed trail crosses the railroad, on/off ramps to the freeway, pedestrian bridge, and Northern Avenue. Finally, it is critical to ensure connectivity to other regional amenities adjacent to the freeway project, i.e. Arkansas River, and Runyon Lake.

FOUNTAIN CREEK GREENWAY PLAN/RUNYON LAKE MASTERPLAN

1. The City will be adding to the scope of the Fountain Creek Greenway Plan and including areas around Runyon Lake, connections to HARP, Runyon Park, and the area between Runyon Park/Lake and I-25. If CDOT plans to purchase existing houses in this area, the City would be interested in taking control of this space and planning for recreation amenity development, turning the area into a regional draw.

MINERAL PALACE PARK

1. MAINTENANCE YARD – HIGH IMPORTANCE
   The Maintenance Yard at Mineral Palace Park represents approximately half the City's park maintenance needs and therefore must not be inoperable for any length of time. It should be one of the first items replaced, and not taken out of commission until after a new yard has been constructed.

   The planned new location of the yard is problematic. It is currently two blocks from the highly intense uses at the park. The yard needs to be more centrally located to the park.

2. POOL – MEDIUM IMPORTANCE
   There has been recent discussion about possibly putting an aquatics complex in downtown and closing the pool at Mineral Palace Park. This project would the time to make that change. Perhaps the money for mitigation could be contributed to this ultimate location.

3. PARKING – MEDIUM IMPORTANCE
   In its current design the park is severely underparked. If the park were redesigned, additional parking needs should be accommodated.

Again, the I-25, New Pueblo Freeway, is badly needed to improve the transit system for Pueblo and all of Southern Colorado. This project will not only develop the transit system but will assist in the development of a multimodal regional trail system and recreation amenities for the City of Pueblo and surrounding area.

Please feel free to contact me with any questions or comments about the abovementioned requests. I am excited about the development of the transportation system and improvements to the trails and recreation system.

Sincerely,

Creighton Wright
Director

# LEDPA Concurrence Coordination

U.S. Department of Transportation
**Federal Highway Administration**

**Colorado Division**

12300 W. Dakota Ave., Suite 180
Lakewood, Colorado 80228
720-963-3000
Fax 720-963-3001

October 6, 2010

Allan Steinle
Chief, Regulatory Division
Department of the Army
Corps of Engineers, Albuquerque District
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109-3435

**Subject:** I-25 New Pueblo Freeway LEDPA concurrence request

Dear Mr. Steinle:

The Federal Highway Administration (FWHA) and Colorado Department of Transportation (CDOT) are preparing a Draft Environmental Impact Statement (DEIS) for I-25 through Pueblo, CO. There are two build alternatives and one no build that are evaluated in the DEIS. We are working towards identifying the Modified I-25 Alternative as the preferred alternative in the DEIS because it: better serves the project's purpose and need, has fewer impacts to properties in the Historic Steelworks Suburbs (69 vs. 86), allows for better mitigation to impacts to Benedict Park, and appears to the be the Section 4(f) least harm alternative. Although this alternative has more impacts to wetlands (1.10 acres vs. 0.22 acres for the existing Alignment Alternative) we consider this to be the Least Environmentally Damaging Practicable Alternative (LEDPA) for the above reasons and as further detailed in the attached "I-25 New Pueblo Freeway: Preferred Alternative Decision Process" document. The enclosed document also describes some of the considerable effort we have taken in refining the alternatives in an effort to reduce impacts to wetlands to the maximum extent possible throughout the project.

At this time we are requesting concurrence from the Corp of Engineers (USACE) that the Modified Alignment for the I-25 New Pueblo Freeway project is the LEDPA. If you have any questions please contact Mr. Chris Horn of my office at (720) 963-3017.

Sincerely Yours,

for John M. Cater
Division Administrator

Enclosure

Cc: Van Truan, USACE,
Lisa Streisfeld, CDOT Region 2

# I-25 New Pueblo Freeway: Preferred Alternative Decision Process

## Executive Summary

The Colorado Department of Transportation (CDOT), in coordination with the Federal Highway Administration (FHWA), is preparing an Environmental Impact Statement (EIS) for the New Pueblo Freeway, which is a 7-mile stretch of I-25 through the City of Pueblo. Interstate 25 (I-25) is a north-south highway that extends from the border of Mexico to Wyoming. The route serves as a strategic international corridor under the North American Free Trade Act and as an economic lifeline for the city of Pueblo (see Exhibit 1).

Through Pueblo, I-25 is among the oldest segments of the interstate system in Colorado. Few improvements have been made to this segment of I-25 since it became operational in 1959. There is evidence that this stretch of highway has now reached, and in some cases exceeded, its service life.

While a number of alternatives were considered during the development of this project, the alternatives screening process (conducted in conjunction with resource agencies, local government representatives, and public input) eliminated all but two action alternatives: the Existing I-25 Alternative and the Modified I-25 Alternative. These two alternatives have been carried through the detailed impact assessment that will be documented in the Draft EIS (DEIS), which is scheduled for publication in late 2010 or early 2011.

While both alternatives are carried through the DEIS and impacts of each are discussed within the document, CDOT and FHWA would like to identify a Preferred Alternative in the DEIS. Identifying a Preferred Alternative in the DEIS is dependent upon complying with sections of two federal laws in particular: Section 404 of the Clean Water Act (CWA) and Section 4(f) of the United States (US) U.S. Department of Transportation (US DOT) Act of 1966.

Based on a careful analysis of the project's impacts and considering the requirements of the regulations implementing Section 404 and Section 4(f), it is recommended the Modified I-25 Alternative be identified as the preferred alternative, because it better serves the project's purpose and need. Although this alternative has more impacts to wetlands, the impacts can be mitigated. Additionally under this alternative, measures to minimize harm were carefully considered; subsequently, the uses to the Section 4(f) recreational properties can also be minimized, mitigated, and/or replaced. This memo documents the rationale behind this recommendation.

## Regulatory Framework: Section 4(f) and Section 404

The regulations implementing Section 4(f) of the US DOT Act of 1966 and the Section 404 of the CWA provide guidance for evaluating potential impacts to the resources they protect. On occasion, the requirements of Section 404 and Section 4(f) may point toward different project alternatives as preferable for avoiding and minimizing impacts to resources. To highlight the goals and processes of these laws, a brief summary follows.

### Section 404 of the Clean Water Act

Waters of the US, including wetlands, are regulated by the US Army Corps of Engineers (USACE) under Section 404 of the CWA. For CDOT projects, Section 404 requires that 1) impacts to wetlands be avoided or minimized to the extent practicable and 2) CDOT obtain a permit from the USACE before discharging fill into waters of the US. Section 404 also requires that unavoidable impacts to wetlands be minimized and mitigated through preservation, restoration, wetland banking, or creation of additional wetland acreage. Additionally, the CWA Section 404 (b)(1) guidelines require that the Preferred Alternative selected be the least environmentally damaging practicable alternative (LEDPA),the practicable alternative that results in a proposed discharge that would have the least adverse effect on the aquatic environment.

In addition to the Section 404 regulations, Presidential Executive Order (EO) 11990 "Protection of Wetlands," requires that federal agencies avoid, to the extent practicable, both long-term and short-term adverse impacts associated with the destruction or modification of wetlands. More specifically, the EO directs federal agencies to avoid construction in wetlands unless there is no reasonable alternative, and states that where wetlands cannot be avoided, the proposed action must include all practicable measures to minimize impacts to wetlands.

### Section 4(f) of the US DOT Act of 1966

Section 4(f) stipulates that FHWA and other Department of Transportation agencies can not approve the use of land from publicly owned parks or recreational areas, wildlife or waterfowl refuges, or public or private historical sites unless the following conditions apply:

- A determination is made that there is no feasible and prudent alternative to the use of land from the property, and the action includes all possible planning to minimize harm to the property resulting from such use, or
- The use of property, including any measures to minimize harm, will have a *de minimis* impact on the property.

Section 4(f) legislation requires the selection of an alternative that avoids the use of Section 4(f) property, if that alternative is deemed feasible and prudent. The Section 4(f) regulation states that, if there is no feasible and prudent alternative that avoids use of Section 4(f) properties, FHWA "may approve only the alternative that causes the least overall harm in light of the statute's preservation purpose." (23 Code of Federal Regulations [CFR] 774)

## Project Purpose and Need

The purpose of the New Pueblo Freeway project is to 1) improve safety by addressing deteriorating roadways and bridges and unsafe road characteristics on I-25, and 2) improve local and regional mobility within and through the City of Pueblo to meet existing and future travel demands.

Construction of I-25 through Pueblo began in 1949 and was completed in 1959. The roadway was constructed before the interstate system and its associated design guidelines had been created. As a result of its age and the design practices of the time at which it was built, this section of I-25 through Pueblo contains structural and operational deficiencies. These

deficiencies are becoming apparent through current transportation problems that can be grouped as follows:

- **Safety problems.** This section of I-25 has high accident rates that exceed state averages; segments with narrow lanes; areas where shoulders are too narrow to safely accommodate a broken-down vehicle; on and off ramps with inadequate lengths to maneuver vehicles; and inadequate spacing of interchanges to safely merge with highway traffic.
- **Mobility problems.** In this section of I-25, there are interchanges that do not connect to appropriate city streets (connect to local neighborhood streets rather than major arterial streets); areas of reduced speed; segments with congestion and a poor level of service; aging bridges with inadequate bridge sufficiency ratings; and conflicts with local and regional travel.

Interstate 25 is an aging facility with short, steep on and off ramps, tight curves, and little or no shoulders for emergency stopping. The highway engineers in the 1950s designed the freeway to serve transportation needs through the year 1975.

The demands of twenty-first century travel manifest in high accident rates along this stretch of I-25. The accident rates are a result of the combination of traffic volumes, increasing speeds, and inadequate geometric features (such as tight curves, inadequate stopping sight distance, narrow shoulders, and close ramp spacing). Furthermore, the on and off ramp deficiencies and high usage intensify the accident rates at and near interchanges.

As exemplified by the need to improve mobility, also of concern to local residents is the fragmentation of neighborhoods and communities that occurred with the original construction of I-25. Reestablishing connectivity between fragmented areas goes hand-in-hand with improving mobility on the local system. In turn, improved mobility on the local system will reduce the need for residents to use I-25 for the purposes of local trips.

# Alternatives Investigated

The Existing I-25 Alternative, the Modified I-25 Alternative, and a No Action Alternative have been identified and are evaluated in the DEIS prepared for the project. These alternatives are described below.

## No Action Alternative

The No Action Alternative includes minor maintenance, repair, and safety improvements throughout the Pueblo region that are currently included in the Pueblo Area Council of Government's (PACOG) *2035 Regional Transportation Plan*. The No Action Alternative fails to address documented safety problems on I-25 (including accident rates that exceed statewide averages). It does not provide the additional capacity on I-25 to accommodate existing and future travel demands and both regional and local trips. It maintains interchanges that do not connect to major arterial streets; maintains inappropriate connections to local neighborhood streets, areas of reduced speed, congested segments, a poor level of service, aging bridges with inadequate bridge sufficiency ratings; and conflicts with local and regional travel. It fails to address poor roadway geometry on I-25, including narrow lanes, narrow shoulders that do not accommodate broken-down vehicles, ramps with inadequate

lengths to maneuver vehicles, and inadequate spacing of interchanges. However, the No Action Alternative would not impact any Section 4(f) properties or jurisdictional wetlands.

## Build Alternatives

Two build alternatives have been identified during the course of the I-25 study, the Existing I-25 Alternative and the Modified I-25 Alternative. Both alternatives would:

- Widen the highway from four lanes to six lanes (three in each direction) between approximately 29th Street and Pueblo Boulevard and would reconstruct five interchanges;
- Extend Dillon Drive on the west side of Fountain Creek from 26th Street to US Highway 50B;
- Reconfigure the downtown interchanges between 13th Street and 1st Street to be a split diamond configuration with one-way frontage roads between the ramps; and
- Improve east-west mobility by providing a split diamond interchange between Abriendo and Northern Avenues and reconnect Abriendo Avenue to Santa Fe Drive/US 50C. Doing this would reestablish the east-west link that was lost when I-25 was constructed in the 1950s.

The differences between the alternatives are discussed in the following paragraphs.

### Existing I-25 Alternative

The Existing I-25 Alternative includes the improvements described above while following the existing alignment. To accommodate the improvements to I-25, the Union Pacific Railroad would be moved to the east between the Arkansas River and Evraz Rocky Mountain Steel Mill (see Exhibit 2).

### Modified I-25 Alternative

The Modified I-25 Alternative includes the improvements described in the bullets above as well as incorporates alignment changes in the central area of the project. Under the Modified I-25 Alternative, I-25 would leave its existing alignment and be relocated to the east, approximately between Ilex Street on the north and just south of the entrance to the Evraz Rocky Mountain Steel Mills. At this southern location, the highway would rejoin the existing alignment through the rest of the project. The roadway that would no longer be I-25 would be reused to provide an extension of the existing Santa Fe Avenue. This means that residents living south and north of the Arkansas River would have direct access to southern or northern Pueblo without having to drive on I-25 (see Exhibit 3).

A new Stanton Avenue would run east from Santa Fe Avenue, go under I-25, and turn south at Runyon Field. The road would continue south over the Arkansas River, intersect with Santa Fe Drive, and connect to the existing Santa Fe Avenue. This new configuration would allow Locust Street to be connected to B Street, west of Santa Fe Avenue. This request came from the East Bessemer neighborhood. Residents were extremely concerned about the neighborhood losing direct access from downtown (see Exhibit 4) as result of this project.

Table 1 below illustrates a comparison of the two Build Alternatives.

TABLE 1
Summary of Impacts to Transportation

| Existing I-25 Alternative | Modified I-25 Alternative |
|---|---|
| Corrects geometric and operational deficiencies. | |
| Replaces 15 bridges that have low sufficiency ratings. | |
| Extends Dillon Drive to increase off-highway mobility for local users. | |
| Reconstructs interchanges at US 50B and between 1st Street and 13th Street to improve ramp length, mobility, and safety by connecting I-25 to more appropriate city streets. | |
| Modifies transit routes by reconfiguring interchange systems. | |
| Improves east-west connectivity through reconstruction of the Abriendo Avenue and Northern Avenue interchange complex. | |
| Reconstruction of the Abriendo Avenue interchange and removal of the Ilex Street interchange improves safety by increasing spacing between interchanges. | Restores off-highway connections that were removed during original I-25 construction. Extension of Santa Fe Avenue and Stanton Avenues to re-establish 23 miles of local grid system and improves safety and mobility. |
| Relocates existing railroad tracks to the east to accommodate for wider highway footprint. | Provides alternative north-south routes for local users. |
| Improves off-highway mobility for local users by construction frontage road system at Northern Avenue. | Reduces demand on I-25 and increases local mobility and east-west access by reconstructing the Northern Avenue interchange and construction of a frontage road system. |

Source: New Pueblo Freeway Project Team, 2010.

# Resource Study Background

A comprehensive investigation of social, natural, and cultural resources was completed as part of the project. These resources and potential impacts to them will be documented in the Draft and Final EISs being prepared for this project. As this memorandum is concerned with the regulatory requirements of Section 404 and Section 4(f), a summary of the wetlands and Section 4(f) resources in the study area is presented below.

## Wetlands and other Waters of the US

A field survey of the project area was conducted in 2003 to verify the presence or absence of potential wetland areas. Wetlands in the project area were identified and boundaries were delineated using the procedures in the USACE *Wetlands Delineation Manual* (USACE, 1987). In addition, CDOT performed a functional assessment for all wetland areas in May 2010. A total of seven wetland areas (WL-1 through WL-4 and WL-5a, 5b, and 5c) and three waters of the US (the Arkansas River, Fountain Creek, and Runyon Lake) were identified during the field survey (see Table 2 below). The wetland areas are primarily concentrated along the Arkansas River and Fountain Creek corridors and total 13.85 acres within the project area.

TABLE 2
Wetlands and Waters of the U.S. within the Project Area

| Location | Cowardin Classification System[1] | Acreage within Project Area |
|---|---|---|
| WL-1 | PEM/PFO | 4.04 |
| WL-2 | PEM/PFO | 1.06 |
| WL-3 | PSS/PFO | 0.39 |
| WL-4 | PEM | 010 |
| WL-5a | PSS/PFO | 1.80 |
| WL-5b | PEM/PFO | 4.35 |
| WL-5c | PEM | 2.11 |
| Arkansas River | Riverine | 9.06 |
| Fountain Creek | Riverine | 25.76 |
| Runyon Lake | Riverine | 2.42 |

[1] The wetland areas were categorized by the Cowardin Classification System as follows:

**Palustrine Emergent (PEM) -** Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. All water regimes are included except subtidal and irregularly exposed.

**Palustrine Scrub Shrub (PSS) -** Includes wetland areas dominated by woody vegetation less than 6 meters (20 feet) tall. The species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions. All water regimes except subtidal are included.

**Palustrine Forested (PFO) -** Similar to the PSS Classification however; the PFO Classification is characterized by woody vegetation that is 6 meters tall or taller.

**Riverine -** Includes all wetlands and deepwater habitats contained within a channel with the exception of wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens; and habitats with water containing ocean-derived salts in excess of 0.5 percent.

The wetlands and the waters of the U.S. are shown in Exhibits 5 through 8.

Wetland 2 (WL-2), the wetland impacted more by the Modified I-25 Alternative than by the Existing I-25 Alternative, was assessed using CDOTs Functional Assessment of Colorado Wetlands (FACWet) as part of this analysis. While this wetland in terms of habitat connectivity and buffer capacity was determined to be functioning impaired it received a composite FCI (Functional Capacity Index) score of 0.82 out of 1.00. This relatively high score was due to the fact that this wetland is still highly functioning in terms of water storage, nutrient/toxicant removal, flood attenuation, and supporting aquatic habitat. Weed species only constituted a minor portion of the wetland vegetation.

Other wetlands within the study area were examined with scores slightly to moderately lower to that of WL-2. WL-1 had a composite FCI score of 0.76, which was the lowest of the assessed wetlands.

## Section 4(f) Resources

The study area for the New Pueblo Freeway project includes the following parks and recreational facilities, from north to south:

- Detention Ponds between 29th Street and 24th Street (Pits Park), adjacent to I-25
- Mineral Palace Park between 15th and 19th Street, adjacent to I-25
- Fountain Creek Park Land and Trail east of I-25, follows Fountain Creek
- Runyon Field Sports Complex at Ilex east of I-25
- Runyon/Fountain Lakes State Wildlife Area along Arkansas River east of I-25
- The Arkansas River Corridor
- Benedict Park at Mesa Avenue east of I-25
- JJ Raigoza Park at Maryland Avenue west of I-25

All of the parks are owned by the City of Pueblo with the exception of the Runyon/Fountain Lakes State Wildlife Area, which is owned by the Pueblo Conservancy District and operated and maintained by the Colorado Division of Wildlife.

A total of 882 historic resources were surveyed for the project. Of the 882 historic resources surveyed (876 individual properties and six neighborhoods) for eligibility, 191 individual properties and five historic neighborhoods were recommended for eligibility. The State Historic Preservation Officer (SHPO) concurred with these findings in April 2009. These resources include such things as private residences and commercial buildings generally constructed between 1900 and 1960, the Santa Fe Avenue Bridge over the Arkansas River, the 4.5-mile Colorado & Wyoming railroad switching line, the late 19th century retaining walls at the Colorado Smelting Company, and the Steelworks Suburbs Historic District. The Steelworks Suburbs Historic District contains several neighborhoods and the steel mill itself. Many of these properties are National Register of Historic Places-eligible based on their association with patterns of early urban development in Pueblo or because they are good examples of historic architectural styles.

# Impacts, Avoidance, Minimization, and Mitigation of Impacts to Wetlands and Section 4(f) Resources

## Wetlands and Waters of the US

Because the Existing I-25 Alternative and Modified I-25 Alternatives follow the same alignment in the northern and southern areas of the project, the central area of the project is the differentiator among impacts. Both alternatives would impact 0.13 acre of WL-5c in the north area of the project and 0.02 acre of WL-1 in the south area.

### Existing I-25 Alternative

The Existing I-25 Alternative would impact a total of 0.22 acre of wetlands in the project area. In the Central area of the project, the Existing I-25 Alternative would impact a total of 0.07 acre of WL-2, which would be fragmented and divided in half. Impacts would occur due to the extension of Abriendo Avenue to connect to Santa Fe Drive east of I-25. The bridge piers currently in place at the Arkansas River crossing would be removed and replaced; however, they would be reconstructed in the same locations as the existing piers with a slightly smaller footprint. As a result, no direct permanent impacts to the Arkansas River would occur.

## Modified I-25 Alternative

The Modified I-25 Alternative would impact 1.10 acres of wetlands. The Modified I-25 Alternative would have a total of 0.95 acre of unavoidable impacts to Central area wetlands, consisting of 0.93 acre of impacts to WL-2 and 0.02 acre of impacts to the Arkansas River. Specifically, the Modified I-25 Alternative would almost entirely remove WL-2 to accommodate the realignment of I-25. Impacts to the Arkansas River would occur due to the placement of bridge piers in the Arkansas River. Table 3 provides a summary of impacts to the wetlands.

TABLE 3
Summary of Impacts to Wetlands

| Existing I-25 Alternative | Modified I-25 Alternative |
|---|---|
| Construction of the Dillon Drive extension near US 50 would impact 0.13 acre of WL-5c. | |
| Construction of the Greenhorn Drive extension would impact 0.02 acre of WL-1. | |
| Extension of Abriendo Avenue would divide the wetlands near Santa Fe Drive east of I-25. Area of impact is 0.07 acres | Shifting I-25 to the east would result in the removal of almost 90 percent of the WL-2 near Santa Fe Avenue. Area of impact is 0.93 acres. |
| | Construction of new bridge piers over the Arkansas River would impact 0.02 acre of wetlands. |
| Total impact of 0.22 acre | Total impact of 1.10 acres |

Source: New Pueblo Freeway Project Team, 2010.

Substantial efforts have been made to avoid and minimize impacts to the wetland. As noted earlier, there is a total of 13.85 acres of wetlands in the study area. Although complete avoidance of wetlands was not possible, an effort was made to avoid as many wetlands and other waters of the US as possible and to minimize impacts to others. As the project is located in a highly urbanized corridor, there is little room available to accommodate shifts in the alignment due to the proximity of residential and commercial structures. In some cases, avoiding wetlands and other waters of the US would cause considerable residential and commercial displacements and was not considered practicable. In other areas, wetlands exist along both sides of the roadway, so shifting one direction to avoid an individual wetland resulted in impacts to another wetland.

Project impacts have been minimized to the extent practicable, staying on the existing alignment where possible. New fill slopes have been steepened to 3:1 and the use of retaining walls will also be incorporated into the design in some locations to prevent new fill slopes from extending into wetland areas. This slope will allow vegetation to become established but will not pose a safety hazard to the motoring public. The alignment was shifted to the extent possible to reduce construction impacts into wetland areas sometimes at the cost of other resources. An example is an earlier alternative that was developed to avoid impacts to Mineral Palace Park,a Section 4(f) resource, included widening I-25 to east that would push the existing Union Pacific Railroad into the Fountain Creek. This alternative was dismissed because it would present unacceptable impacts to the floodplains, Fountain Creek and Wetland WL-5a and WL-5b.

Wetland impacts would be mitigated within the project area. The FACWet analysis performed in May 2010 by CDOT staff will be used to guide the types of functional values that the mitigation would seek to replace. While there are several potential mitigation locations within the study area, CDOT and FHWA intend to work with USACE staff to identify the best mitigation location and concept to replace the values of the impacted wetlands.

## Section 4(f)

As with the wetland impacts, because of the similarity of the alternatives in the northern and southern areas of the project, the impacted 4(f) properties in those areas are the same. Because impacts to 4(f) properties are distinguishable only in the Central area, this discussion focuses on impacts in that area.

As detailed under the following discussion for each alternative, differences in impacts to historic resources occur at two residential properties, the Colorado and Wyoming (C&W) railroad line, and within the Steelworks Suburbs Historic District. The alternatives have common impacts to three residential structures, two commercial structures, and the Santa Fe Avenue Bridge. Both alternatives impact the C&W railroad line, but the Modified I-25 Alternative does not impact the unique High Rail segment of that line. Within the Steelworks Suburbs Historic District, the Modified I-25 Alternative impacts fewer structures and restores connectivity among the neighborhoods adjacent to the Santa Fe Avenue Extension.

Differences in impacts occur at two recreational properties in the Central project area. Benedict Park, located east of I-25 on Mesa Avenue, is a 1.9-acre park that contains informal athletic fields, a playground, basketball court, and picnic tables. The Runyon/ Fountain Lakes State Wildlife Area, located east of I-25 and just north of the Arkansas River, is a 400-acre undeveloped open space. With the exception of the Fountain Creek Trail, there are no other active recreational facilities within the parkland except picnic tables located along the trail.

Both alternatives would impact Mineral Palace Park, which is located on the west side of I-25, south of US 50B interchange in the northern area of the project. Fountain Creek parkland and its associated surface water and floodplain resources are located on the east side of I-25, along with a historic railroad line. The widening of I-25 would result in a loss of approximately 50 linear feet of the park along the eastern edge, approximately 1.4 acres of use. The avoidance and minimization efforts at Mineral Palace Park are notable and are indicative of the efforts made by the study team to balance impacts to resources. An alternative investigated to avoid impacts to Mineral Palace Park included widening I-25 to the east that would push the existing Union Pacific Railroad into the Fountain Creek. This alternative was dismissed because it would present unacceptable impacts to the floodplain, Fountain Creek, Wetland WL-5a and WL-5b.

### Existing I-25 Alternative

#### Benedict Park

Under the Existing I-25 Alternative, I-25 would be widened to the east at this location, which would require that the Union Pacific Railroad rail line also move east into Benedict Park; 0.4 acre of the park's western edge would be used, leaving 1.5 acres of the park in place as a smaller park that could still function as a neighborhood "pocket" park. The informal athletic field would be reduced in size; however, the playgrounds and basketball court could continue to be used. As a result of the Existing I-25 Alternative improvements, 2.6 acres directly to the south of and across Mesa Avenue from Benedict Park would become an extension of the park, making the size of the revised Benedict Park a total of 4.1 acres. The new park plans proposed for the Existing I-25 Alternative address several issues at the existing Benedict Park, including parking, trees, and improved lighting. Improvements include a larger area, more amenities, and improved access.

#### Runyon/Fountain Lakes State Wildlife Area

No impacts will occur to the State Wildlife Area under the Existing I-25 Alternative.

#### Historic Properties

The remaining Section 4(f) properties impacted by the two Build Alternatives in the Central area are historic properties. The Existing I-25 Alternative would impact nine historic resources in the Central area. Three residential properties, two commercial properties, and the Santa Fe Avenue Bridge would be totally acquired and demolished. The historic segments of the Union Pacific Railroad and C&W railroad lines would be removed and relocated, including the C&W High Rail line, a unique feature. Additionally, a number of properties within the Steelworks Suburbs Historic District would be impacted, including the total or partial acquisition of 86 properties. The constrained right-of-way made avoiding individual resources difficult as the avoidance of one historic resource would ultimately result in impacts to one or more other resources.

### Modified I-25 Alternative

#### Benedict Park

The Modified I-25 Alternative would realign the highway to avoid the Union Pacific Railroad freight rail line. This would require the use of the entire park (1.9 acres). The informal athletic fields, two playgrounds, picnic tables, picnic shelter, and a basketball court would all be eliminated.

Under this alternative, 4.3 acres of land south of Mesa Avenue would become a replacement park for the existing Benedict Park. The new park plans proposed address several issues at the existing Benedict Park, including parking, trees, and improved lighting. Improvements include a larger area, more amenities, and improved access. The benefit under the Modified I-25 Alternative is greater as a result of the ability to provide a larger, contiguous park when compared to the Existing I-25 Alternative.

#### Runyon/Fountain Lakes State Wildlife Area

Under the Modified I-25 Alternative, I-25 would leave the existing alignment at Ilex Street and follow a new alignment that would require four bridges to be constructed over the Arkansas River and within the Runyon/Fountain Lakes State Wildlife Area. Most of the I-25 mainline and adjacent ramps would fly over park property; however, bridge abutments on

the south side of the river would use some of the State Wildlife Area. For this alternative, Stanton Avenue (which currently ends at the State Wildlife Area) would be extended south on a bridge over the State Wildlife Area and the Arkansas River. Bridge piers would also be placed in the State Wildlife Area to support this bridge. The pedestrian bridge and trail would need to be removed and relocated.

Although there would be new bridge piers, the piers would be placed so they would not interfere with recreation. Measures to minimize harm to the Runyon State Wildlife Area were developed by the project team with input from Pueblo Conservancy District (the agency with jurisdiction over the property), City of Pueblo planning staff, and the public. As part of the Modified I-25 Alternative, the pedestrian bridge over the Arkansas River would be relocated just east of the proposed Stanton Avenue bridge to allow room for the new bridges that would span the river east of the current I-25 alignment. The trail that leads to the current pedestrian bridge would be relocated over the new pedestrian bridge to allow for crossing the Arkansas River and reconnecting to the Arkansas River trail. After construction, the trails would be fully usable by passing under the I-25 bridges and the Stanton Bridge. The bricks of greenway donors would stay in place, but the park benches and the memorial park bench will be moved to the east, closer to the lake and to a quieter location. After project completion and mitigation, there would be no permanent impacts to the primary recreational components of the State Wildlife Area, including fishing.

### Historic Properties

The Modified I-25 Alternative would impact eleven historic properties in the Central area. Five residential properties, two commercial properties, and the Santa Fe Avenue Bridge would be totally acquired and demolished. All but two of the residential properties are the same as those impacted by the Existing I-25 Alternative. A portion of the C&W railroad line would be removed and relocated, but the High Rail line would not be impacted. The Colorado Smelting retaining walls would be directly impacted, and within the Steelworks Suburbs Historic District, 69 properties would be totally or partially acquired. The constrained right-of-way creates difficulty avoiding individual resources as the avoidance of one historic resource would ultimately result in impacts to one or more other resources.

## Recommendation

Two build alternatives have been analyzed in detail for the I-25 New Pueblo Freeway project, the Existing I-25 Alternative and the Modified I-25 Alternative. Efforts have been made throughout the project study to avoid and minimize impacts to resources, including wetlands, waters of the US, parks and recreational facilities, and historic properties. For the Modified I-25 Alternative these efforts resulted in potential impacts to only 1.10 of 13.85 acres of wetlands in the study area. Of the 199 historic properties in the study area, only nine would potentially be impacted by the project.

The Modified I-25 Alternative should be identified as the preferred alternative in the DEIS. The Modified I-25 Alternative is recommended for the following reasons:

- Although both alternatives address the safety elements of the purpose and need, the Modified I-25 Alternative best meets the mobility elements because:
  - The Modified I-25 Alternative provides connectivity to the north and south with the extension of Stanton Avenue north and west to Santa Fe Avenue and south to Santa Fe Drive. Residents of the Bessemer Neighborhood east of I-25 would be more connected to the rest of the neighborhood, as well as the community resources in the Grove and Downtown Neighborhoods.
  - The Modified I-25 Alternative also improves north-south mobility by converting the existing I-25 south of the Arkansas River to be an extension of Santa-Fe Drive to facilitate local trips more efficiently and maintain regional trips on I-25 (see Exhibit 4 for more detail).
  - The Modified I-25 Alternative also improves east-west mobility over the Existing I-25 Alternative by providing a more direct connection to the interstate at Abriendo Avenue.
  - The extension of Santa Fe Avenue as a result of the Modified I-25 Alternative also provides a benefit to residences on the south end between Minnequa Avenue and Logan Avenue by returning the functionality of their properties. When I-25 was originally constructed homes that had access to Schley Avenue had their access removed and their front doors were adjacent to I-25. The access to these homes was only provided through the back alley. With the extension of Santa Fe Avenue these homes would have the access to the front of the house returned with access to Santa Fe Avenue.
- Both alternatives share the same impacts in the north and south sections of the project. The only difference in impacts occurs in the central section of the project between Ilex Street and the Evraz Rocky Mountain Steel Mills.T
- Although the Modified Alternative impacts 2 additional historic properties compared to the Existing Alternative, the Modified Alternative has fewer impacts to properties within the Steelworks Suburbs Historic District, 69 would be fully or partially acquired, compared to 86 properties with the Existing Alternative.
- Wetland impacts differ by less than 1 acre, with the Modified I-25 Alternative impacting 0.88 acre more wetlands than the Existing I-25 Alternative.
- Impacts to Waters of the U.S. are nearly equal between the alternatives, with the Modified I-25 Alternative impacting just 0.02 acre of the Arkansas River. The impact would be greater due to the increased number of bridge piers required to span the Arkansas River.
- The estimated costs of each alternative were also considered; however, the costs between the two alternatives were too similar to be a differentiating factor.

- Both alternatives will impact Benedict Park, but while the initial impact is greater with the Modified I-25 Alternative, the Modified I-25 Alternative allows for the construction of a new 4.3 acre park to replace the existing Benedict Park. The Existing I-25 Alternative reduces the size of the existing park and creates a new 2.6 acre park across the roadway from the existing Benedict Park, which is less desirable.
- Although the Modified I-25 Alternative impacts more of the State Wildlife Area than the Existing I-25 alternative, the impacts are minor and do not affect the recreational use.
- There is very little difference between the Existing I-25 Alternative and Modified I-25 Alternative in terms of impacts to other resources. Both alternatives would impact minimal amounts of wildlife habitat, including Arkansas darter and plains leopard frog habitat. The Modified I-25 Alternative would impact one additional hazardous material site than the Existing I-25 Alternative, but it would also require less impervious surface area (4 acres less than the Existing I-25 Alternative), which would result in lower pollutant levels than the Existing I-25 Alternative.
- The City of Pueblo Parks and Recreation Department expressed its support for the Modified I-25 Alternative in a letter dated July 13, 2010. Their preference for the Modified I-25 Alternative is based on that alternative's ability to improve trail connections and facilitate north-south movement in the corridor.

The Colorado Department of Transportation (CDOT) and FHWA will work with USACE to identify suitable mitigation for impacts to wetlands and waters of the US. The study area includes several locations that may be suitable for replacing the functional values affected by impacts to wetlands, potentially including locations along the corridors of Fountain Creek and the Arkansas River, or within Lake Pueblo State Park. As discussed during a 2006 field visit with USACE, the mitigation measures may involve placing tree cuttings at the trailhead near the mouth of Fountain Creek and along Fountain Creek at State Highway 47 and planting trees near the Eagle Ridge interchange project.

The alternatives developed for the New Pueblo Freeway project have avoided the majority of wetland, waters of the US, and Section 4(f) resources present within the study area. The wetland resources impacted by both alternatives are unavoidable. The Modified I-25 Alternative represents the least environmentally damaging practicable alternative because, while it does have slightly greater impacts to wetlands, it better serves the purpose and need for the project by better restoring local access that was hindered by the original construction of I-25, allows for a replacement and expansion of Benedict Park, has fewer impacts to the Steelworks Suburbs Historic District, appears to be the Section 4(f) least harm alternative, and is supported by local officials. Further, the wetland impacts of the Modified I-25 Alternative may be mitigated within the study area, potentially providing equal or greater functional values than those impacted.

# Exhibits

EXHIBIT 1
Project Study Area

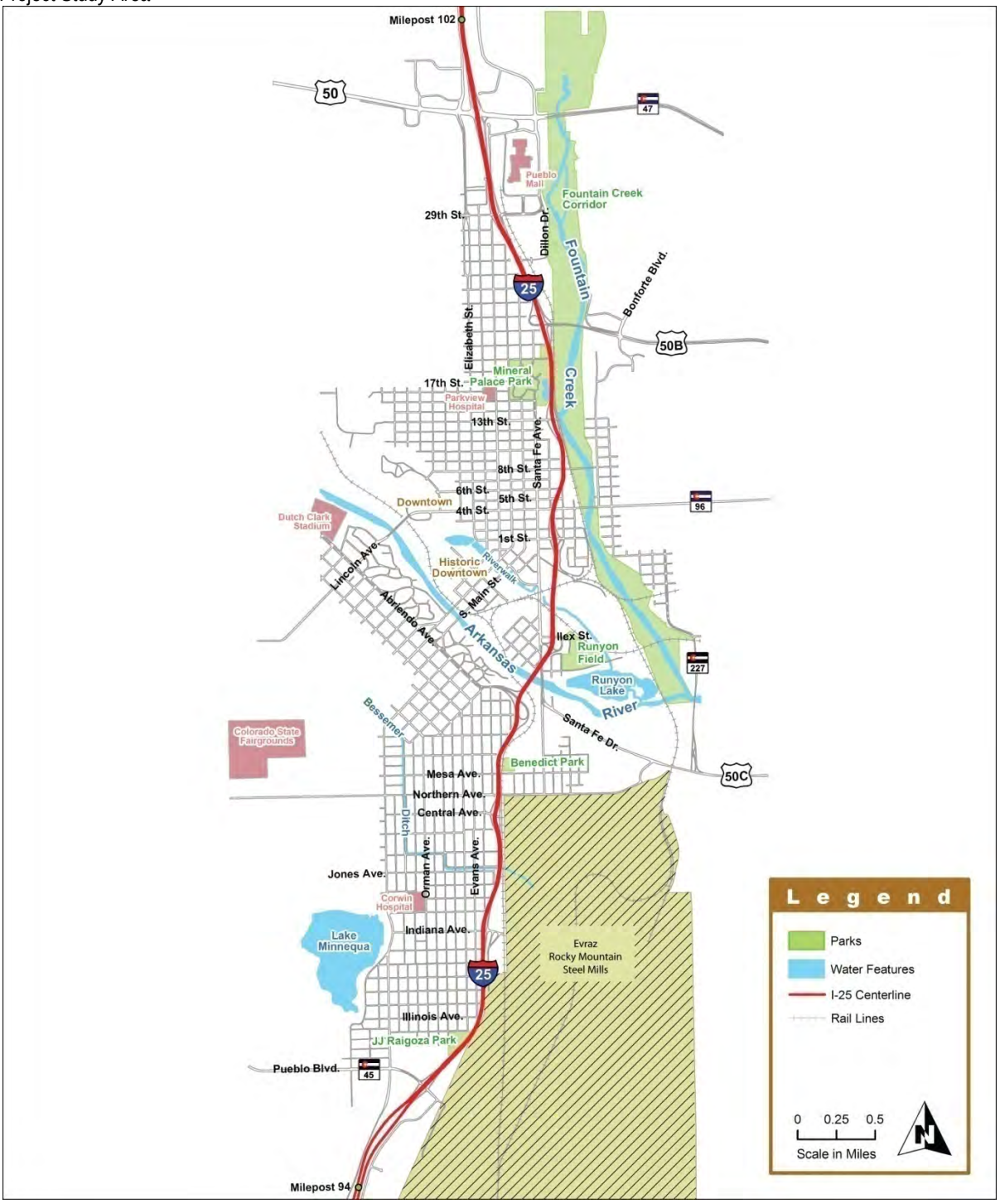

EXHIBIT 2
Existing I-25 Alternative

# Existing I-25 Alternative

## I-25 Roadway Features

Six lanes (three in each direction) just north of 29th Street to Pueblo Boulevard

Standard shoulders and acceleration/deceleration lanes

1. Straighten I-25 through downtown
2. Relocate UPRR

## Interchange Features

3. Diamond interchange at US Hwy 50B with one-way frontage roads to 29th Street
4. Split-diamond interchange between 13th Street and 1st Street with one-way frontage roads between ramps; additional southbound and northbound exit ramps near 6th Street
5. Split-diamond interchange between Abriendo and Northern Avenues with one-way frontage roads connecting the ramps
6. Single-point diamond interchange at Indiana Avenue
7. Partial cloverleaf interchange at Pueblo Boulevard

## Network Features

8. Extend Dillon Drive south from 26th Street to US Hwy 50B
9. Connect Abriendo Avenue and Santa Fe Drive (US Hwy 50C)

## Bicycle and Pedestrian Features

10. Build sidewalks along Dillon Drive extension and US HWY 50B bridge
11. Expand sidewalks on the Mesa Avenue overpass to connect Benedict Park to the west side of I-25
12. Build trail from just north of US Hwy 50B bridge to Mineral Palace Park
13. Construct a bike/pedestrian bridge between Mineral Palace Park and the Fountain Creek trail
14. Build trail between Runyon Field and J.J. Raigoza park

## Other Features

Circulator Bus System

Transportation Systems Management (TSM)

Travel Demand Management (TDM)

Intelligent Transportation Systems (ITS)

*A detailed map of the Existing I-25 Alternative is located in the CD accompanying the report.

EXHIBIT 3
Modified I-25 Alternative

# Modified I-25 Alternative

## I-25 Roadway Features

Six lanes (three in each direction) just north of 29th Street to Pueblo Boulevard

Standard shoulders and acceleration/deceleration lanes

1. Straighten I-25 through downtown
2. Relocate I-25 from Abriendo Avenue to Indiana Avenue to eliminate relocation of the UPRR

## Interchange Features

3. Diamond interchange at US Hwy 50B with one-way frontage roads to 29th Street
4. Split-diamond interchange between 13th Street and 1st Street with one-way frontage roads between ramps; additional southbound and northbound exit ramps near 6th Street
5. Split-diamond interchange between Abriendo and Northern Avenues with one-way frontage roads connecting the ramps
6. Single-point diamond interchange at Indiana Avenue
7. Partial cloverleaf interchange at Pueblo Boulevard

## Network Features

8. Extend Dillon Drive south from 26th Street to US Hwy 50B
9. Connect Abriendo Avenue and Santa Fe Drive (US Hwy 50C)
10. Extend Santa Fe Avenue from Iles Street to Minnequa Avenue
11. Rebuild Stanton Avenue south over the Arkansas River, intersect with Santa Fe Drive and connect to Santa Fe Avenue

## Bicycle and Pedestrian Features

12. Build sidewalks along Dillon Drive extension and US HWY 50B bridge
13. Expand sidewalks on the Mesa Avenue overpass to connect Benedict Park to the west side of I-25
14. Build sidewalks along Stanton Avenue to connect to the HARP trail and Benedict Park
15. Build trail from just north of US Hwy 50B bridge to Mineral Palace Park
16. Construct a bike/pedestrian bridge between Mineral Palace Park and the Fountain Creek trail
17. Build trail between Runyon Field and J.J. Raigoza park

## Other Features

Circulator Bus System

Transportation Systems Management (TSM)

Travel Demand Management (TDM)

Intelligent Transportation Systems (ITS)

*A detailed map of the Modified I-25 Alternative is located in the CD accompanying the report.

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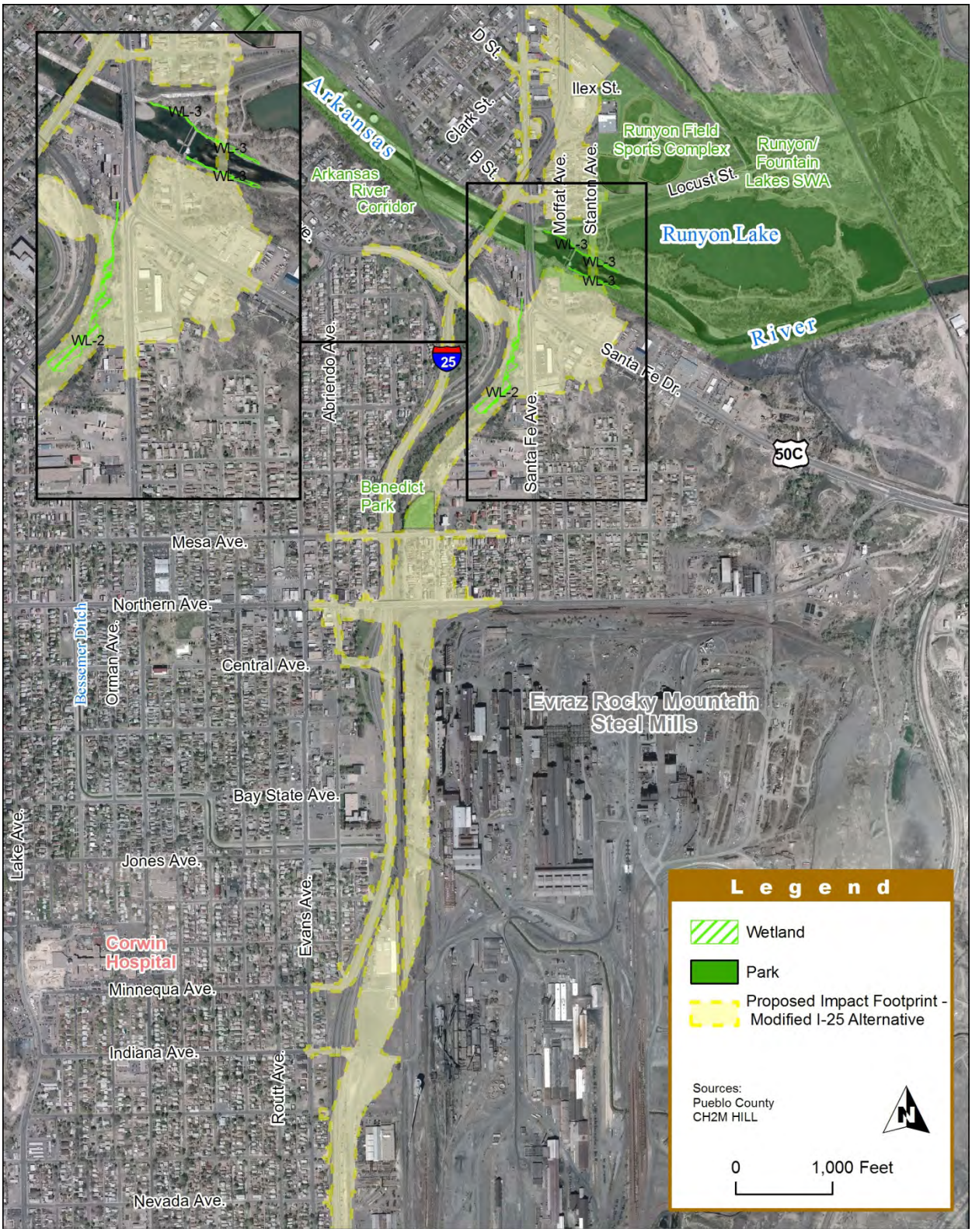
EXHIBIT 4
Modified I-25 Alternative with the New Stanton Avenue

EXHIBIT 5
Wetlands in the North Area

EXHIBIT 6
Wetlands in the South Area

EXHIBIT 7
Wetlands in the Central Area – Existing I-25 Alternative

EXHIBIT 8
Wetlands in the Central Area – Modified I-25 Alternative



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
SOUTHERN COLORADO REGULATORY OFFICE
200 S. SANTA FE, SUITE 301
PUEBLO, COLORADO 81003

REPLY TO
ATTENTION OF:

December 6, 2010

Regulatory Division
Southern Colorado Branch

John Cater
Division Administrator
Federal Highway Administration
12300 W. Dakota Ave, Suite 180
Lakewood, CO 80228

Subject: Preferred Alternative Concurrence, for I-25 Pueblo

Dear Mr. Cater,

This letter responds to Summary of the I-25 Pueblo Freeway: Preferred Alternative, requesting concurrence with the draft alternatives.

Given our previous acceptance of the Purpose and Need statement and evaluation criteria, we concur with the selecting the proposed Modified Alternative as the Least Environmentally Damaging Practicable Alternative (LEDPA) for the detailed evaluation in the draft Environmental Impact Statement.

To be in compliance with 404(b)(1) Guidelines criteria, the selected route should be the LEDPA with regard to impacts to waters of the United States. If a route with greater impacts to waters of the U.S. is proposed, FHWA must demonstrate the alternative with less impacts is not practicable in terms of cost, logistics or technology to satisfy 404(b)(1) requirements. We also note the Guidelines require avoidance and minimization of impacts to waters of the U.S. to the extent practicable.

If you have any questions, I may be reached at (719) 543-6915 or van.a.truan@usace.army.milif you have any questions.

Sincerely,

Van Truan
Chief, Southern Colorado
Regulatory Branch

# Traffic Model Sensitivity Analysis Coordination

**DEPARTMENT OF TRANSPORTATION**

Region 2
Planning and Environmental Division
1480 Quail Lake Loop
Colorado Springs, CO 80906
(719) 227-3248 voice
(719) 227-3298 fax

December 21, 2010

Bill Moore, M.ITE
MPO Administrator
PACOG MPO/TPR
223 N Santa Fe Avenue
Pueblo, CO 81003

Dear Mr. Moore:

We have recently completed an update to the traffic analysis for the Interstate 25 (I-25) New Pueblo Freeway project. The traffic forecasts were updated to reflect 2035 conditions to re-confirm the conclusions in the original analysis.

The *2004 New Pueblo Freeway Traffic Report* (CH2M HILL, 2004) documented the traffic forecasting and analysis completed to support the evaluation of the design and operational alternatives for the New Pueblo Freeway project. The CH2M HILL team has worked closely with the City, PACOG, and CDOT staff in the development of these forecasts. The purpose of this letter is to document and request your concurrence on an update to the modeling process, assumptions, and results for compliance with the 2035 model.

**Original Modeling Process**

Travel demand forecasting for the year 2025 was performed using the Pueblo Area Council of Governments (PACOG) TransCAD travel demand model. The Highway Capacity Software (HCS) and the CORSIM simulation model were used to assess the operational measures of effectiveness (e.g., LOS and delay) for the freeway sections and intersections within the project limit. Throughout the modeling process, interim results were reviewed by a technical group comprised of City of Pueblo and CDOT staff.

**Updated Assumptions for 2035 Analysis**

Since completion of the 2004 traffic report, PACOG has updated their travel demand model to the year 2035. Since the project is on-going, the new horizon year necessitated a traffic sensitivity analysis to determine if the proposed build alternatives can accommodate the expected 2035 traffic volumes. Generally, changes in traffic mirror that of population, employment, and household growth. Therefore, the sensitivity analysis was completed using the updated 2035 socio-economic projections from the travel demand model.

Based on the 2035 socioeconomic data in the travel demand model, the growth in population from 2025 to 2035 was determined to be approximately 33,000 people, or a 15 percent increase, region wide. Employment growth is expected to be 20 percent (20,000 jobs) region wide from 2025 to 2035. Using the more conservative employment growth, the sensitivity analysis for 2035 was conducted assuming a 20 percent increase in traffic from the 2025 to the 2035 traffic forecast. The following presents the results of the 2035 traffic operations analysis.

**Results**

The results of the (original) 2025 traffic analysis, presented in Table 1, indicated that both the Existing Alignment and Modified Alignment alternatives adequately accommodate expected 2025 traffic, with all freeway segments predicted to operate at LOS C or better. Based on this analysis, both build alternatives are expected to provide improved operations compared to the No Action alternative. Between the two build alternatives, operations were expected to be very similar, both on the freeway and surface streets.

**TABLE 1**
*System Data Summary for the Analysis Year 2025*

| System Data | No Action | Exist Align | Mod Align |
|---|---|---|---|
| Total Vehicle-Miles | 65574 | 68814 | 70685 |
| Vehicle Hours of Move Time | 1403 | 1525 | 1599 |
| Vehicle Hours of Delay Time | 1352 | 1133 | 1253 |
| % of Travel Time Delayed | 49% | 43% | 44% |
| Vehicle Hours of Total Time | 2755 | 2658 | 2852 |
| Average Speed (mph) | 24 | 26 | 25 |
| Ratio of Move/Total Time | 0.51 | 0.57 | 0.56 |
| Minute/Mile of Delay Time | 1.24 | 0.99 | 1.06 |
| Number of Intersections w/ E (HCM/CORSIM) | 2/2 | 0/1 | 1/3 |
| Number of Intersections w/ F (HCM/CORSIM) | 2/2 | 0/2 | 0/2 |
| Percentage of Freeway Miles at LOS D | 25% | 0% | 0% |
| Percentage of Freeway Miles at LOS E | 7% | 0% | 0% |
| Percentage of Freeway Miles at LOS F | 10% | 0% | 0% |

Table 2 is a similar summary of the overall system performance projected for 2035. The build alternatives are projected to have speeds that are 40 percent higher and delays that are 50 percent lower, as compared to the No Action alternative. Comparing these results to the 2025 traffic analysis, the percentage of travel time delayed and the ratio of move time to total time in the network increase only slightly even though the volumes increase 20 percent and the vehicle-miles increase approximately 8 percent for the Existing Alignment and approximately 14 percent for the Modified Alignment.

**TABLE 2**
*System Data Summary for the Analysis Year 2035*

| System Data | No Action | Exist Align | Mod Align |
|---|---|---|---|
| Total Vehicle-Miles | 68652 | 74633 | 80491 |
| Vehicle Hours of Move Time | 1470 | 1670 | 1819 |
| Vehicle Hours of Delay Time | 2625 | 1351 | 1476 |
| % of Travel Time Delayed | 64% | 45% | 45% |
| Vehicle Hours of Total Time | 4095 | 3021 | 3296 |
| Average Speed (mph) | 17 | 25 | 24 |
| Ratio of Move/Total Time | 0.36 | 0.55 | 0.55 |
| Minute/Mile of Delay Time | 2.29 | 1.1 | 1.1 |
| Number of Intersections w/ E (HCM/CORSIM) | 2/2 | 0/2 | 1/2 |
| Number of Intersections w/ F (HCM/CORSIM) | 2/4 | 0/1 | 0/1 |
| Percentage of Freeway Miles at LOS D | 22% | 2% | 3% |
| Percentage of Freeway Miles at LOS E | 6% | 0% | 0% |
| Percentage of Freeway Miles at LOS F | 31% | 0% | 0% |

In addition, we have attached the 2025 vs. 2035 Traffic Sensitivity Analysis Addendum for your review.

If you agree with the results provided and that, for purposes of evaluating expected 2035 future traffic conditions for the New Pueblo Freeway project, the consultant team has appropriately utilized the PACOG travel demand model please pleased indicate your concurrence by signing below.

Sincerely,

Richard Zamora, PE
Resident Engineer
CDOT Region 2

PACOG has reviewed the information provided and concurs with the updated assumptions and the appropriate use of the travel demand model. The model results derived on that basis are in compliance with the PACOG 2035 Model..

Bill Moore
Pueblo Area Council of Governments

Attachments

EXI 98
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La J
1/3

APPENDIX C

# Aesthetic Guidelines

January 15, 2010

# NEW PUEBLO FREEWAY

## AESTHETIC GUIDELINES

Colorado Department of Transportation

Prepared for:
Colorado Department of Transportation
City of Pueblo

Prepared by

THK Associates, Inc.

*This document is printed on 30% post consumer fiber by weight*

**SECTION ONE:** Page 5
*Introduction to the Project*

*A. Artist Input*
*B. How To Use This Document*

**SECTION TWO:** Page 9
*Aesthetic Treatments*

**SECTION THREE:** Page 10
*Executive Summary*

**SECTION FOUR :** Page 13
*Fountain Creek Design Segment*
*(29th Street to 13th Street)*

*A. Goals*
*B. Objectives*
*C. Design Guidelines for Aesthetic Treatments*

**SECTION FIVE:** Page 31
*Downtown Design Segment*
*(13th Street to the Arkansas River)*

*A. Goals*
*B. Objectives*
*C. Design Guidelines for Aesthetic Treatments*

**SECTION SIX:** Page 49
*Steel Mill Design Segment*
*(Arkansas River to Pueblo Boulevard)*

*A. Goals*
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*C. Proposed Existing and Modified Alignment Alternatives*
*D. Design Guidelines for Aesthetic Treatments*

**SECTION SEVEN:** Page 67
*Existing Corridor Conditions*

*A. Visual Analysis*
*B. Natural Systems*

**APPENDIX:** Page 73
*Plant Schedules*
*Gateway Plantings*
*Drainage*
*Parks*

NEW PUEBLO FREEWAY
AESTHETIC GUIDELINES

# SECTION ONE: Introduction to the Project

The rise of the steel mill industry around the turn of the century, was cause for the City of Pueblo to experience both a population and land development boom. Businesses thrived and residential growth continued to flourish along the Colorado front range as I-25 developed. Today, I-25 provides an economic lifeline to the City. Following its construction, the community began to realize how I-25 had become a barrier, bisecting various neighborhoods, commercial areas, local streets, schools and churches. Since I-25's completion in 1959, highway design standards have changed. Unsafe road conditions and mobility problems with the current alignment are now understood. In order to formulate new highway improvements for safety, as well as improve local and regional mobility throughout the corridor, a joint planning effort occurred between the Colorado Department of Transportation (CDOT), the City of Pueblo, Pueblo County, interested citizens and highway design consultants.

To date, CDOT has completed its review and investigation of highway improvements for an eight-mile stretch of I-25, also referred to as the New Pueblo Freeway. In an attempt to upgrade one of the states oldest sections of interstate, various enhancements were studied. The outcome of the study has resulted in the future redevelopment of the highway from approximately 29th Street on the north, to Pueblo Boulevard on the south.

Proposed highway improvements include the relocation of a portion of the roadway; additional lanes; safety improvements, such as wider shoulders; an increase to the on and off ramp lengths; enhanced signage; the removal and addition of interchanges; amenities such as bike and pedestrian paths; landscaping; improved access between neighborhoods and a circulator bus system. It is anticipated that these proposed improvements will meet existing and future travel demands.

These Aesthetic Guidelines have been prepared as part of the highway improvement design process and involved a multi-disciplinary approach. It included participation from stakeholders, interested citizens, businesses, local merchant groups, transportation and highway design professionals, elected officials and the City of Pueblo and Pueblo County staff. These Guidelines have been prepared to reflect community values that are sensitive to both environmental and community resources, while achieving the purpose and need for the project.

These guidelines address the aesthetic treatment of the New Pueblo Freeway and various impacted areas of the City, including the I-25 corridor and portions of

New Pueblo Freeway Study Area

the Fountain Creek and the Arkansas River floodplains. They provide direction on the aesthetic treatment of highway improvements such as gateway features; vehicular and pedestrian bridges; noise/retaining walls; interpretive elements; signage; sidewalks; trails; landscaping and irrigation.

## A. Artist Input

It was decided that art and local artist input would be critical to the success of this effort as a foundation for the New Pueblo Freeway Aesthetic Guidelines. These studios, included the Williams, Latkas and Clifts. They participated in an effort to identify key features, forms, textures and colors that uniquely represent or define Pueblo's character. The artists collaborated to develop a three dimensional collage that communicated the key contextual elements of Pueblo.

Water and the confluence of the Arkansas River with Fountain Creek are seen as the fundamental corner stone of Pueblo. Due to the predominance of riparian vegetation along the river and creek, Pueblo is an oasis in the semi arid region of Southeastern Colorado. From the very beginning, it was clear that the artists wanted to integrate the natural features of the Pueblo area into their definition of Pueblo's character. The bluffs above the Arkansas River and the surrounding mesas are also key features of Pueblo's context.

In addition to the natural context of Pueblo, the blend of Southwestern and Victorian architectural styles are a major element of Pueblo's character. This blend of form, texture and color is exemplified in the steel mill area with the surrounding company houses and the architectural styles of downtown Pueblo.

After identifying the elements of Pueblo's character, the artists made suggestions on how to capture these elements for the proposed I-25 improvements. All highway structures will be seen as forms or sculptural elements that contribute to Pueblo's sense of place. This sense of place can be enhanced by:

- Playing up the importance of the bridge structures across the Arkansas River.
- Highlighting the long-range views of the Arkansas River, Steel Mill and downtown.
- Bringing the riparian vegetation from Fountain Creek up to, and across, I-25 in the Mineral Palace Park area.
- Creating usable shade and the perception of shade. By providing places for people under structures and by adding relief to structures so that shadow patterns are an ever apparent element of New Pueblo Freeway.
- Synergizing flowing water forms with Victorian and Southwestern architectural forms on structures.
- Utilizing colors that reflect the native and natural materials of the area.
- Utilizing steel, brick, rock and concrete as materials to reflect Pueblo's character.

During the collaborative effort between the consultant team and the local artists, several stakeholder and community meetings were held to garner input on the Aesthetic Guidelines development process.

This effort gave the consultant team and the Landscape Architects from THK Associates, Inc. the building blocks needed to develop these Aesthetic Guidelines for the New Pueblo Freeway.

**Key contextual elements of Pueblo as seen by the local artists.**

**Key contextual elements of Pueblo as seen by the local artists.**

## B. How to Use This Document

Seven sections compose these Aesthetic Guidelines. The first section introduces the project and provides the reader with an overview of the Aesthetic Guideline development process. Section two provides a discussion of the overall aesthetic treatment areas. The third section is devoted to an executive summary. Sections four, five and six focus on the three specific Aesthetic Design Segments including Fountain Creek, Downtown and the Steel Mill. Section seven, describes the existing conditions of the corridor. The Appendix contains supplemental information including plant schedules for use in different locations within the corridor.

In order to better formulate detailed aesthetic design parameters that capture the character and inherent elements of the various neighborhoods, these Guidelines identify specific corridor Design Segments. The corridor has been broken into three (3) distinct Aesthetic Design Segments (Fountain Creek, Downtown and Steel Mill). Each of the design segments have its own distinct characteristics such as land use, landmarks and development patterns. Therefore, each Design Segment has been given it's own section within these Aesthetic Design Guidelines.

Section Four, Fountain Creek, is the first Aesthetic Design Segment. It occurs between 29th Street on the north, and 13th Street on the south. This includes historic Mineral Palace Park, Fountain Creek and the detention ponds at 29th Street along the I-25 corridor.

Section Five, Downtown, is the second Aesthetic Design Segment. It occurs between 13th Street on the north, and the Arkansas River on the south. This segment is very urban in nature and includes all the access to downtown Pueblo. This portion of the highway is proposed to be elevated 20' on fill above residential and commercial uses.

Section Six, Steel Mill, is the third Aesthetic Design Segment. It occurs between the Arkansas River on the north, and Pueblo Boulevard on the south. The Rocky Mountain Steel Mill Facility, Benedict Park, J.J. Raigoza Park and the Bessemer neighborhood occur along the I-25 corridor.

Each segment's discussion begins with a statement of the aesthetic and functional goals for the Design Segment. Specific Design Segment objectives are also provided. Future designers will understand the goals and objectives before starting to develop the final aesthetic treatments. As inspiration and guidance, each Design Segment section contains sample treatments, concepts and alternatives.

The intent of these Design Guidelines is not to be prescriptive, but provide future designers with the information needed to meet the communities intended goals and objectives within their design efforts. Designers are encouraged to continue the creative process and build on what is presented here.

# SECTION TWO:
# Aesthetic Treatments

The above graphic "Corridor Aesthetic Treatments" is the overriding framework or backbone for these Aesthetic Guidelines, and is part of the Memo of Understanding between the City of Pueblo and CDOT. This graphic and text will serve as the foundation of these Aesthetic Guidelines and is an extension of the Memo of Understanding. Below is a brief narrative that clarifies the improvements as shown in this graphic. Three different types of gateways are envisioned within this 8 mile design corridor. They have been identified as city, downtown and neighborhood gateways.

These gateways will have a relative hierarchy of design associated with them. City gateways will be gateway/bridge structures that are highly visible and will serve as main gateways or entrances into the City of Pueblo. They will incorporate design elements that are easily identified and consistent with the surrounding context.

The degree or complexity of design associated with downtown gateways will be equal to or slightly less than the design associated with city gateways. And finally, neighborhood gateways are bridges/gateways that serve a specific area of the city or a specified use.

***City Gateways*** – The northern gateway at I-25/SH50-47 is already constructed with ornamental landscaping, turf grass, irrigation and architectural treatments. Maintenance responsibilities are shared between the City and CDOT. A southern gateway is being planned at Pueblo Boulevard as part of these Design Guidelines and will be similar to the northern gateway.

***Downtown Gateways*** – Downtown gateways are being planned at both 13th and 1st Streets. 13th Street would have both an architectural and landscape component. Landscaping would relate to Mineral Palace Park and the newly proposed community pool. Irrigation would be provided as an extension from the Mineral Palace Park system and maintenance would fall under City jurisdiction. An architectural component will be placed at 1st Street. Maintenance beyond structural would be minimal and would be the responsibility of CDOT.

***Neighborhood Gateways*** – These gateway treatments would relate and identify each individual neighborhood. Components would be both architectural and landscape. One idea would be in the form of a sign and/or possibly an architectural treatment on a structure. Landscaping could be proposed in conjunction with this concept. Maintenance responsibility would depend on what aesthetic treatment was proposed, but could potentially be the responsibility of a neighborhood association.

***Park*** – The park treatments are an extension of the current park landscapes. Concepts for these areas were developed jointly with the City and community. The City and County would maintain these areas.

***Steel Mill*** – The Steel Mill treatments are intended to support the history of the Steel Mill and historic company town. Maintenance responsibilities would reside with the City, neighborhood associations and the Bessemer Historical Society.

***Architectural*** – Where this type of treatment is identified, primarily non-living materials will be used to create the theme. Retaining walls, bridges and other structures and treatments will be carefully designed to reflect the architectural character of downtown. South of Indiana Avenue, noise walls and other structures would reflect the character of the Steel Mill, the historic company town and surrounding neighborhoods. Minimal maintenance would be required beyond structure maintenance. Maintenance responsibility would be shared between the City and CDOT.

***Dryland Grasses*** – Dryland grasses will be used along all roadway shoulders where stabilization is required and in areas where aesthetic treatments have not been identified. Maintenance would be the responsibility of the property owner.

***Naturalized*** – These areas take advantage of local run-off to allow native vegetation, including trees and shrubs, to establish themselves. Very low maintenance is anticipated. These areas are located where the landscape is currently naturalized along drainage ways. Maintenance by property owner.

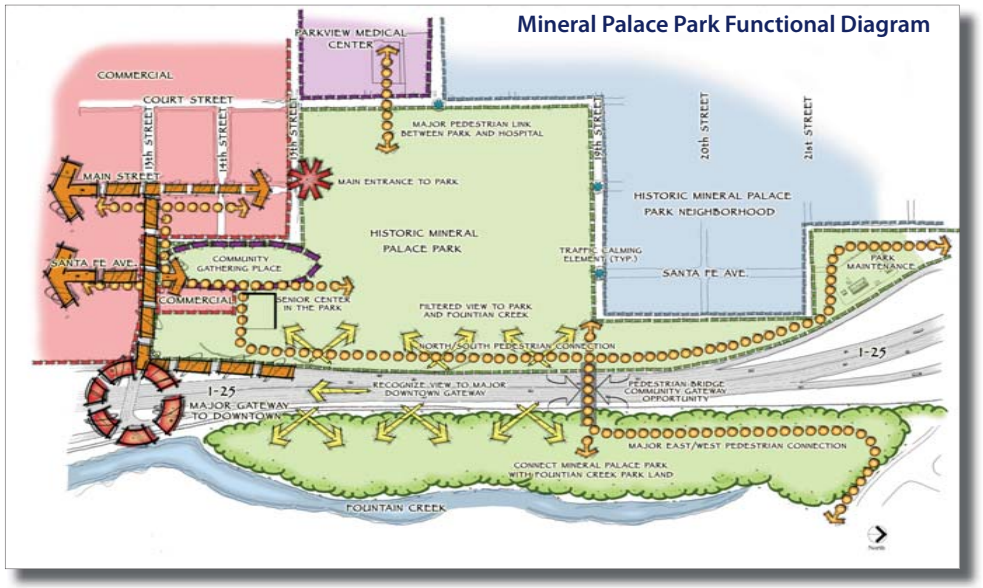
***Proposed and Existing Trails*** – Various trail extensions, as well as trail connections and nodes, have been preliminarily identified along the corridor. Trails are being proposed in conjunction with parks as a means of connectivity between neighborhoods and as part of the interpretive element of the Fountain Creek and Steel Mill areas.

Proposed trails will be constructed by either CDOT or the City of Pueblo. Maintenance would be the responsibility of the City and the County.

# SECTION THREE: Executive Summary

These Design Guidelines have been prepared as guidance for the proposed I-25 improvements. These improvements will bring the interstate up to current design standards. Mobility and safety will be addressed with improved geometry decreasing accident rates. With the addition of various aesthetic treatments, the physical condition and image of the corridor will improve and evolve into identifiable areas including neighborhoods and surrounding development.

Preparation of these Design Guidelines began with an extensive community involvement process whereby the community and consultant team worked openly with each other to formulate thematic ideas. This process included local artist input, open houses, workshops, community working groups, stakeholder input, personal interviews and public presentations. As a result of the public involvement process, Functional Diagrams, intended to graphically portray the community and CDOT's functional desires for I-25, local streets and the adjacent land uses were developed. See Functional Diagram example this page.



Three local artist/sculpture studios were selected from the Pueblo area to participate in the Aesthetic Guideline process. See Artist Input page 6. These artists identified the key forms, textures and colors that represent Pueblo's unique character. These elements help to define the design palette for these Aesthetic Guidelines.

During the public process, it became apparent that there were three distinct design segments that comprise the New Pueblo Freeway. Each design segment has its own unique character and set of highway circumstances that distinguish it from one another. These are:

- **The Fountain Creek Design Segment**
- **The Downtown Design Segment**
- **The Steel Mill Design Segment**

The Fountain Creek Design Segment has a natural, open, undeveloped feel without retail and commercial uses directly abutting the I-25 corridor. An abundance of natural green spaces are created by the presence of Mineral Palace Park and the Fountain Creek Flood Plain.

The character of the Downtown Design Segment is much different than that of Fountain Creek Design Segment. Within this design segment, the urban character of downtown Pueblo is visually dominant. It is a mixture of developed land uses including commercial, industrial, residential and retail. The hard lines of the city buildings and the built environment are the dominant features. Due to an extensive amount of pavement and structures, vegetation and shade are lacking.

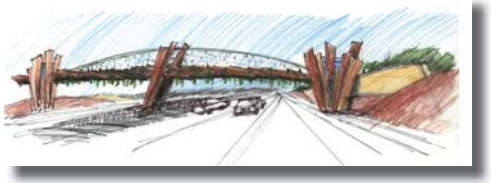
Finally, the Steel Mill Design Segment is a combination of urban, industrial and residential uses. Within this Design Segment are remnants of the Rocky Mountain Steel Mill and associated company town. Smoke stacks, large production buildings and tailing piles still remain and are a reflection of Pueblo's industrial heritage.

Goals and objectives were created for each design segment and they include:

**The Fountain Design Creek Segment**

**Goals**

1. Aesthetic treatments will support the community and CDOT's functional desires for the area.
2. Maintain and enhance the natural, open, undeveloped feel of the design segment.
3. Aesthetic treatments will reflect the historic heritage of Mineral Palace Park and the associated neighborhoods.
4. Create the northern major downtown gateway at 13th Street and I-25.
5. Visually connect Mineral Palace Park with the Fountain Creek Flood Plain Open Space.
6. Aesthetic design will support the energy and excitement of community spaces in Mineral Palace Park.



**Objectives**

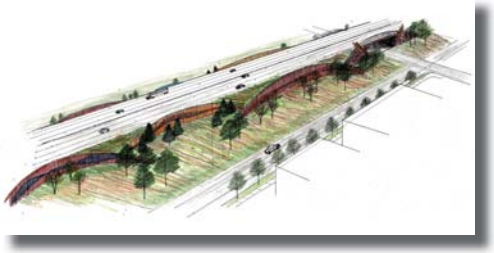
1. Landscape improvements along I-25 will reflect the historical, pastoral character of Mineral Palace Park.
2. Create a visual focal point in Mineral Palace Park that reflects the importance of the park as community space.
3. Develop a major downtown gateway.
4. Restore Mineral Palace Park by redefining the main entrance, reestablishing a community

gathering space and controlling the flow of v e - hicular traffic.
5. Incorporate history, specifically the Victorian flavor of the Mineral Palace Park neighborhood and the WPA architecture of Mineral Palace Park.
6. Maintain views into Mineral Palace Park.
7. Develop a pedestrian connection between the Fountain Creek Flood Plain Open Space and Mineral Palace Park.
8. Bring the riparian vegetation from Fountain Creek into Mineral Palace Park. Make a strong visual connection between the park and creek.
9. Improve connectivity to Fountain Creek Flood Plain Open Space.
10. Maintain views of the creek and surrounding floodplain areas.
11. Visually strengthen and maintain the natural riparian vegetative buffer along Fountain Creek.
12. Whenever possible, use natural, indigenous materials.
13. Utilize materials that reflect the native and natural materials and colors of the area. Brick, rock and concrete are all appropriate.
14. Incorporate flowing water forms into design elements.
15. Use landforms to define space.

**The Downtown Design Segment**

**Goals**

1. Aesthetic treatments shall support the community and CDOT's functional desires for the area.
2. Incorporate the importance of water and the confluence of the Arkansas River with Fountain Creek into New Pueblo Freeway improvements. This is the fundamental corner stone of Pueblo's existence.
3. Establish major north and south gateways to downtown. Aesthetic treatments will support this area as the front door to downtown Pueblo.
4. Aesthetic treatments will reflect the historic, urban character of downtown Pueblo.



**Objectives**

1. Synergize flowing water forms with Victorian and Southwestern architectural forms and structures.
2. Create the character of this Design Segment by emphasizing architectural elements rather than landscapes.
3. Create usable shade and the perception of shade.
4. Shadow and shadow patterns will be ever apparent elements of the New Pueblo Freeway.
5. Highlight views to downtown Pueblo and the bluffs along the Arkansas River.
6. Break up the long linear appearance of the elevated sections of I-25 from downtown Pueblo.
7. Screen views to industrial areas.
8. Create a hierarchy of gateways by the level of emphasis placed on the landscape and aesthetic treatments at each gateway. Gateways include major and neighborhood access.
9. Create neighborhood gateways to reinforce existing community identities and highlight their uniqueness.
10. Use materials from the built environment including concrete, block and brick.
11. Bridges, retaining walls and sound walls will be designed to be seen and blend with the established built environment.
12. Play up the importance of the bridge structures across the Arkansas River.

**The Steel Mill Design Segment**

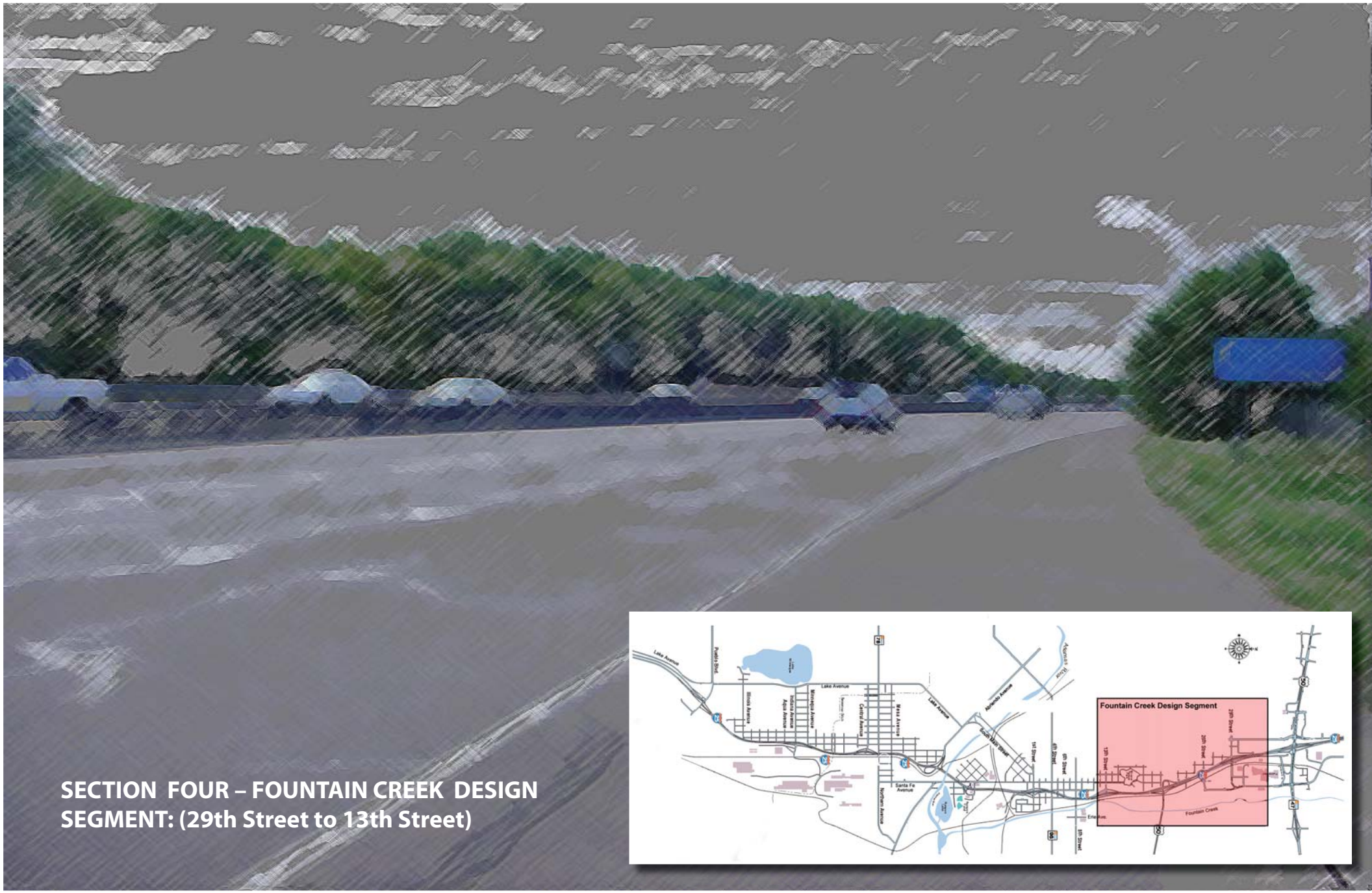
**Goals**

1. Aesthetic treatments shall support the community and CDOT's functional desires for this area.
2. Support the physical re-connection of neighborhoods across I-25.
3. Create a community focal point/neighborhood identity element in Benedict Park, between Mesa and Northern Avenues. It shall be visible traveling both north and south bound on I-25.
4. Aesthetic treatments will reflect the industrial and cultural heritage of this design segment.
5. Establish the southern major community gateway to Pueblo at Pueblo Boulevard.
6. Support historic interpretative opportunities with all aesthetic concepts for this design segment.

**Objectives**

1. Highlight and maintain long-range views to the Steel Mill and Arkansas River.
2. Provide views to a new focal point and neighborhood feature created at Benedict Park between Mesa and Northern Avenues.
3. Aesthetic treatments shall support an enhanced pedestrian plaza or mall type connection between the east and west sides of Mesa Avenue.
4. Create a hierarchy of gateways by the level of emphasis placed on the landscape and architectural elements at each gateway. Gateways include a city gateway and several neighborhood gateways.
5. Provide neighborhood gateways to reinforce existing community identities and highlight their uniqueness.
6. Incorporate the history and growth of the steel industry in Pueblo into all historic themes.
7. Develop aesthetic treatments that support development of an historic interpretive park south of Central Avenue on the west side of I-25 and Santa Fe Drive.
8. Reinforce the east/west connection of neighborhoods, play up the importance of the bridge structures at Mesa Avenue.
9. Utilize materials that reflect the native and natural materials and colors of the area. Steel , brick, rock, wood and concrete are all appropriate materials reflecting the Steel Mill and company town character.
10. Create a city gateway at Pueblo Boulevard that is similar in theme and scale to the major community gateway at S.H. 50/47.
11. Create visual buffers between the neighborhoods and I-25.
12. Provide a landscape streetscape along Santa Fe Drive in the modified alignment.

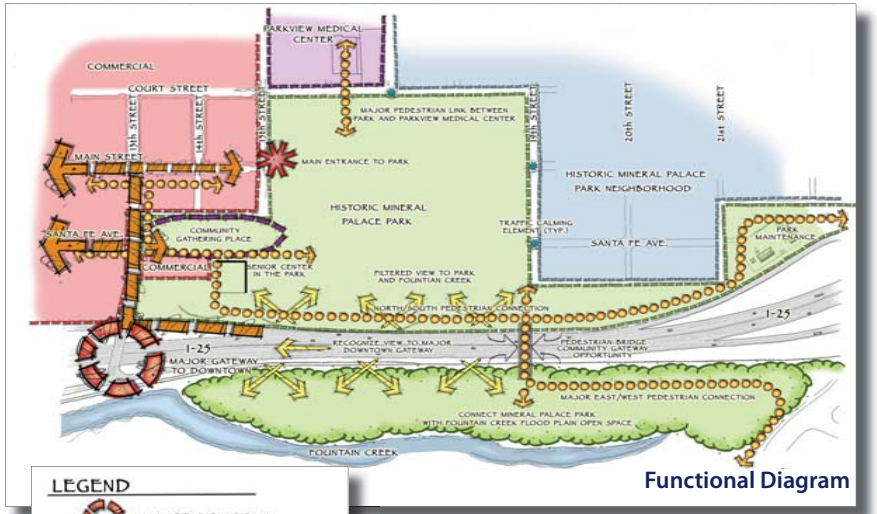
The above listed goals and objectives for each design segment were used to develop aesthetic concepts for the proposed New Pueblo Freeway improvements. These concepts will be used by designers when developing final design and construction documents for future New Pueblo Freeway projects. Aesthetics treatments are an integral part of the New Pueblo Freeway project. They are part of the required actions and represent the communities desires and expectations.



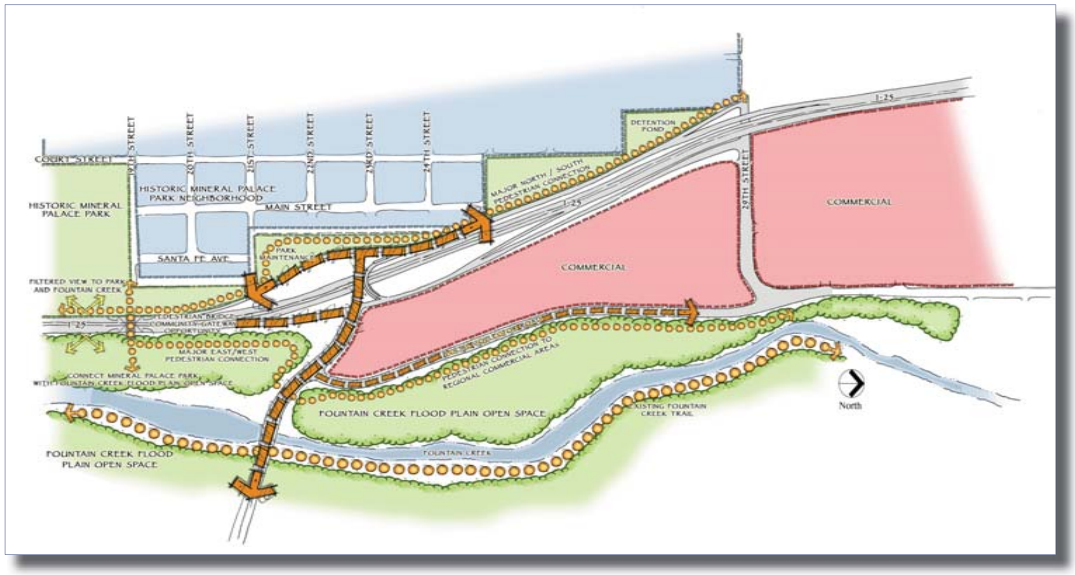



**SECTION FOUR – FOUNTAIN CREEK DESIGN SEGMENT: (29th Street to 13th Street)**

# SECTION FOUR:
# Fountain Creek Design Segment



Functional Diagram




## A. Goals

The Fountain Creek Design Segment has a natural, open, undeveloped feel without retail and commercial uses directly adjacent to I-25. An abundance of natural green spaces are created by the presence of Mineral Palace Park and the Fountain Creek Flood Plain. The northern limit of this Design Segment is 29th Street. The southern limit is 13th Street.

Mineral Palace Park borders I-25 on the west with Fountain Creek running parallel to the interstate on the east. Because of the natural vegetation and openness of the park and flood plain, there is no sense that this area is within the heart of a major Colorado city.

The diagrams above are intended to graphically portray the community and CDOT's functional desires for I-25, local streets and the adjacent land uses within the Fountain Creek Design Segment. This vision for the future was developed through many workshops with the community and elected officials. Based on this vision, the following list of aesthetic goals for the Fountain Creek Design Segment were developed:

1. Aesthetic treatments will support the community and CDOT's functional desires for the area.
2. Maintain and enhance the natural, open, undeveloped feel of the design segment.
3. Aesthetic treatments will reflect the historic heritage of Mineral Palace Park and the associated neighborhoods.
4. Create the northern major downtown gateway at 13th Street and I-25.
5. Visually connect Mineral Palace Park with the Fountain Creek Flood Plain Open Space.
6. Aesthetic design will support the energy and excitement of community spaces in Mineral Palace Park .

In the northern half of Pueblo, Mineral Palace Park is the only regional park for community events and activities. Over the years, the park has been diminished in size and has lost some of its historic context as a community center and gathering place. To accommodate the widening of I-25 and the restoration of Mineral Palace Park, CDOT facilitated the preparation of a Mineral Palace Park Restoration Master Plan. (See the Mineral Palace Park Master Plan page 17). Renovations to the park include restoring its original botanic glory, while incorporating newer amenities to meet present day recreational demands. This includes re-establishing Mineral Palace Park as a community gathering place. In order to accommodate a community center and pool, land will be acquired at the southern end of the Park. Excess R.O.W. at S.H. 50 will be used for the relocation of park maintenance facilities outside of the

historic portion of the park.
Re-establishing the main park entrance at 15th and Main Street will include park identification, monumentation and connections for both pedestrian and vehicular visitors.

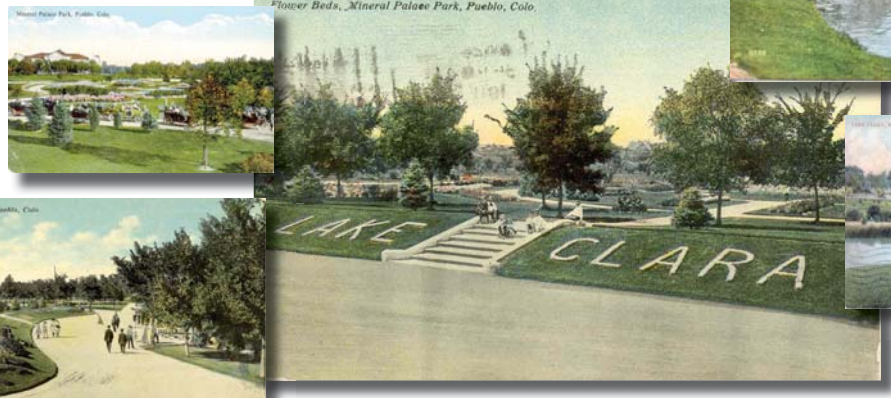
A main trail connection will be developed over I-25 connecting the park to the Fountain Creek Flood Plain Open Space. Pedestrian connections will also be developed to connect the Park to the surrounding neighborhoods of Pueblo.

Noise walls will be developed along I-25 to mitigate noise within the park. A careful balance of sound mitigation and views into the park must be achieved. Design elements along the I-25 corridor and the parks edge will promote the energy and excitement of the activities that define the park as a community gathering and activity center.

The high energy aesthetic treatments on walls and bridges along I-25 become an accent point within the more natural pastoral setting of the Fountain Creek Design Segment. This is intended to announce the festive nature of the community activities within the park. The new pedestrian bridge across I-25, at Mineral Palace Park, is intended to portray this energy. See page 22. It will also draw attention to the downtown gateway into Pueblo, which is the location of the new community center and pool.

Form and line within this segment will be more sinuous and curved to reinforce the natural, open, undeveloped character of the design segment. The predominate colors and textures can be found within the natural rock of Fountain Creek, the bridge and wall structures within Mineral Palace Park and the surrounding historic neighborhood buildings. Earth tones with a concentration of tans and buffs, as well as shades of red, will be incorporated within the aesthetic amenities. Textures shall reflect the brick and stone construction utilized in the area.

## Community Gathering Spaces (Examples)

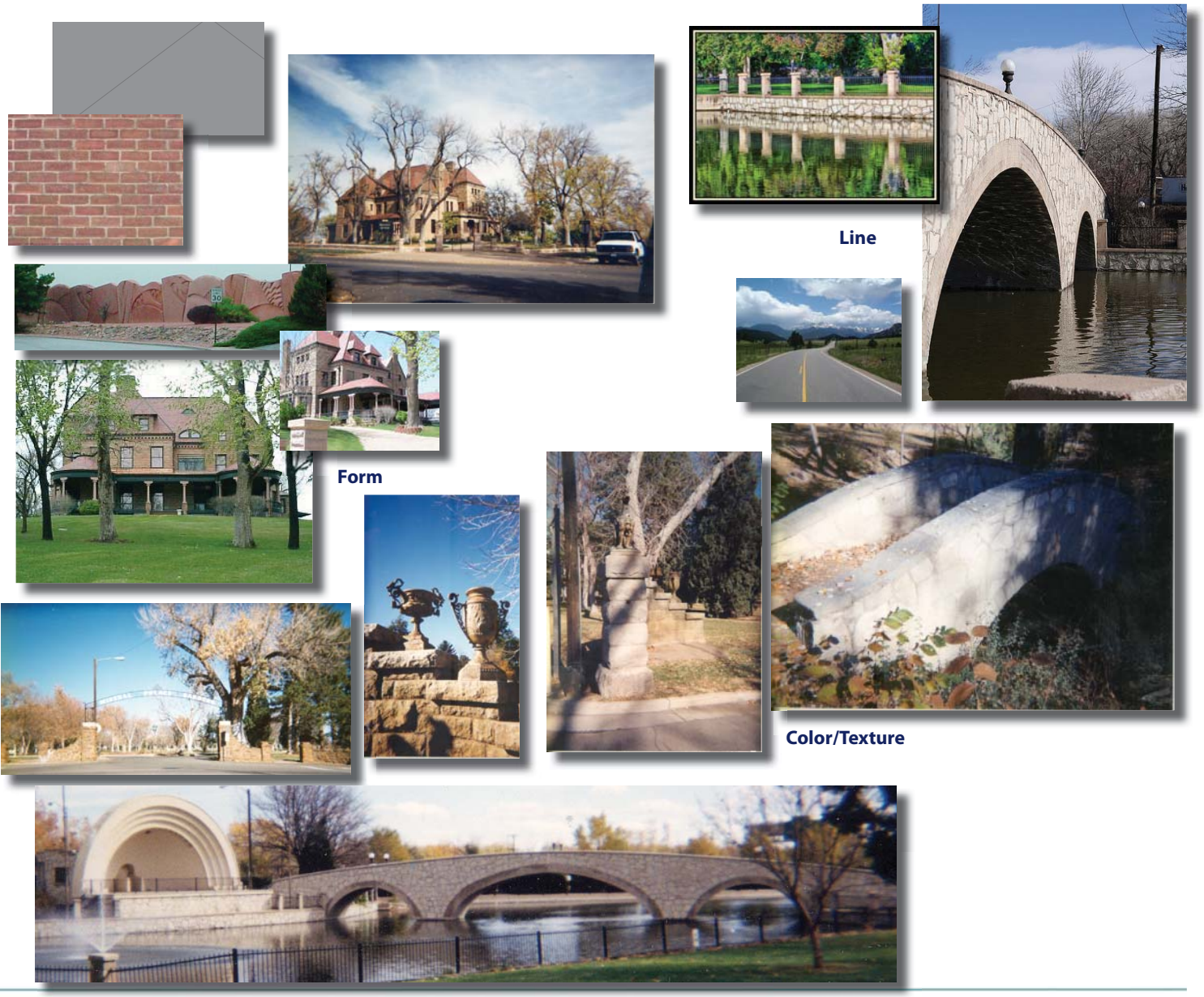


## Historic Character of Mineral Palace Park

**Mineral Palace Park Restoration Master Plan**

## B. Objectives

1. Landscape improvements along I-25 will reflect the historical, pastoral character of Mineral Palace Park.
2. Create a visual focal point in Mineral Palace Park that reflects the importance of the park as community space.
3. Develop a major downtown gateway.
4. Restore Mineral Palace Park by redefining the main entrance, reestablishing a community gathering space and controlling the flow of vehicular traffic.
5. Incorporate history, specifically the Victorian flavor of the Mineral Palace Park neighborhood and the WPA architecture of Mineral Palace Park.
6. Maintain views into Mineral Palace Park.
7. Develop a pedestrian connection between the Fountain Creek Flood Plain Open Space and Mineral Palace Park.
8. Bring the riparian vegetation from Fountain Creek into Mineral Palace Park. Make a strong visual connection between the park and creek.
9. Improve connectivity to Fountain Creek Flood Plain Open Space.
10. Maintain views of the creek and surrounding floodplain areas.
11. Visually strengthen and maintain the natural riparian vegetative buffer along Fountain Creek.
12. Whenever possible, use natural, indigenous materials.
13. Utilize material that reflect the native and natural materials and colors of the area. Brick, rock and concrete are all appropriate.
14. Incorporate flowing water forms into design elements.
15. Use landforms to define space.



# C. Design Guidelines for Aesthetic Treatments

## 1. Gateways

Gateways within the New Pueblo Freeway corridor are often associated with interchange and landscape features. They are identifiable and relate the highway to their surroundings. Gateways are usually associated with highly visible areas that signify a main entrance or arrival sequence to a specific place or neighborhood.

Several different types of gateways have been identified along the entire I-25 corridor from 29th Street to Pueblo Boulevard. They include city, downtown, and neighborhood gateways. One downtown gateway is envisioned within the Fountain Creek Design Segment. These three types of gateways have a hierarchy of design associated with them that is related to the type of gateway and its proposed location.

### 1.1 City Gateways (S.H. 50-47)

City gateways are the most significant gateways and therefore, are primary in the hierarchy. Both ends of the I-25 corridor have been designated as city gateways. From the northern end of the study area or S.H. 50-47, an arrival sequence is created to the City of Pueblo and points south. This gateway has already been constructed. On the south end, a city gateway is proposed at Pueblo Boulevard.

Newly Constructed S.H. 50-47 Bridge

### 1.2 Downtown Gateways (13th Street)

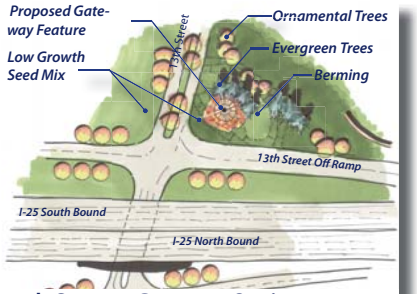
In the hierarchy of gateways, the second level is the downtown gateway. Only one downtown gateway is proposed within this Design Segment, located at 13th Street. This is the northern most point of the 1st to 13th Streets split diamond interchange that provides all vehicular access to Downtown Pueblo. 13th Street serves as the transition between the Fountain Creek and Downtown Design Segments. It provides direct access to the neighborhoods west of I-25 and Mineral Palace Park.

I-25 is elevated, with ramps that descend to 13th Street. Noise walls are planned adjacent to Mineral Palace Park and along the south bound off ramp to 13th Street. Since I-25 is elevated, retaining walls are needed along both sides of I-25 at 13th Street.

The 13th Street bridge is part of the downtown split diamond interchange complex and all bridges will have similar architectural treatments, as discussed in Section Four, the Downtown Design Segment.

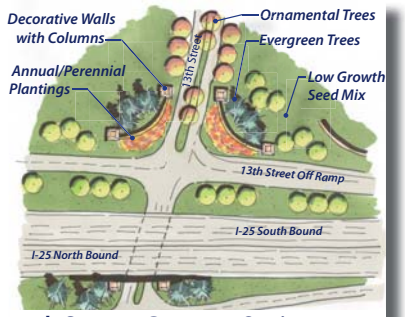
Two aesthetic gateway options are presented for 13th Street. Option 1 focuses on the northwest corner of the interchange and proposes a less formal look with berming, evergreen trees, ornamental trees and groundcover as a backdrop to a proposed gateway feature. To highlight this gateway, this feature could be a sculpture or an architectural element. See examples of public art below.

Examples of Public Art



13th Street - Gateway Option 1

Option 2 is a more formal treatment with low stone curved walls immediately adjacent to the ramps on the western side of this gateway. This feature will announce the arrival to the Mineral Palace Park neighborhood. The walls will terminate with taller stone capped columns. The walls will be a stone to match the historic walls in the Park. See page 28 (Item 7, Colors and Materials) for a discussion of the rock pattern.



13th Street - Gateway Option 2

Landscaping is also proposed along the south bound ramp to 13th Street. Landscaping at this location will coordinate landscape for both the proposed gateway and landscape along the walls. To contrast the rock and extenuate the gateway, landscape treatments will be formally designed. The landscape materials will be a simple combination of low growth seed mix and deciduous trees selected from the Highway R.O.W. Xeric Plant Schedule found in the Appendix.

Due to the very hot and dry conditions that exist in Pueblo, the choice of landscape materials for either gateway option will be water conserving. Plant materials will have year round interest with texture, color and variation in height that will augment the gateway options in either case. Plants selected for this location will come from the Gateway Planting schedule found in the Appendix.

## 2. Bridges

Several vehicular bridges are proposed for construction within this Design Segment. They are not only viewed as a means of vehicular conveyance, but as potential gateways into the surrounding areas adjacent to I-25. They will reflect the historical and Victorian nature of the surrounding area, while making a significant state-

ment about the importance of Fountain Creek. As a family of structures, they will appear to be related, but have individual features that distinguish one bridge from another. Each bridge will have its own features that reflect the I-25 corridor and the surrounding landscape. The idea of having a family of structures shall be incorporated into all vehicular and pedestrian bridges within the Fountain Creek Design Segment.

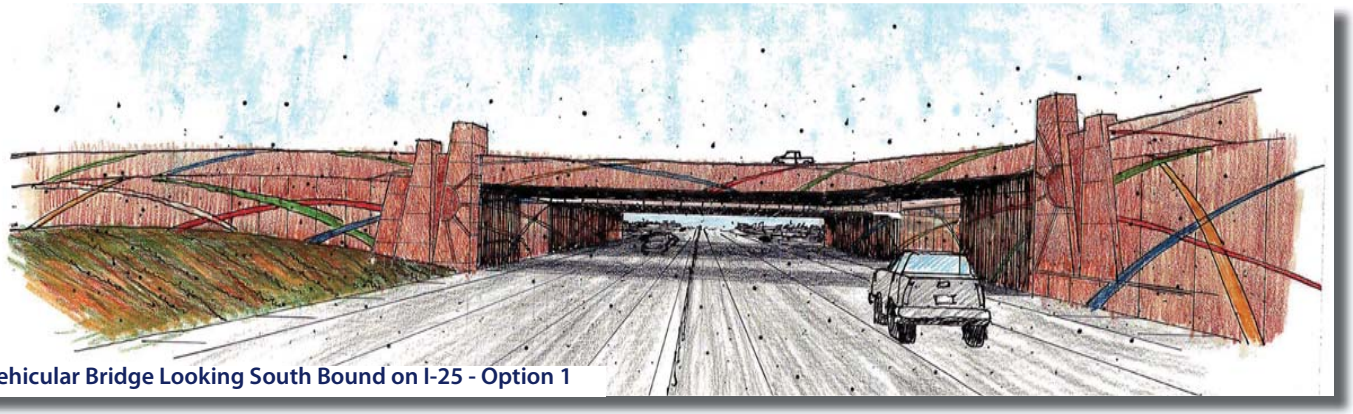
## 2.1 Vehicular Bridges

The proposed interchange planned for US 50B, just north of Mineral Palace Park, includes a number of bridge structures: two crossing I-25 and one spanning the railroad. See page 21- for an aerial perspective of the S.H.50B/I-25 interchange. Because they are part of the arrival sequence to the downtown gateway at 13th Street, these bridges are very significant to southbound travelers on I-25. The sequence includes the S.H.50B bridges, the pedestrian bridge and split diamond interchange at 13th Street.

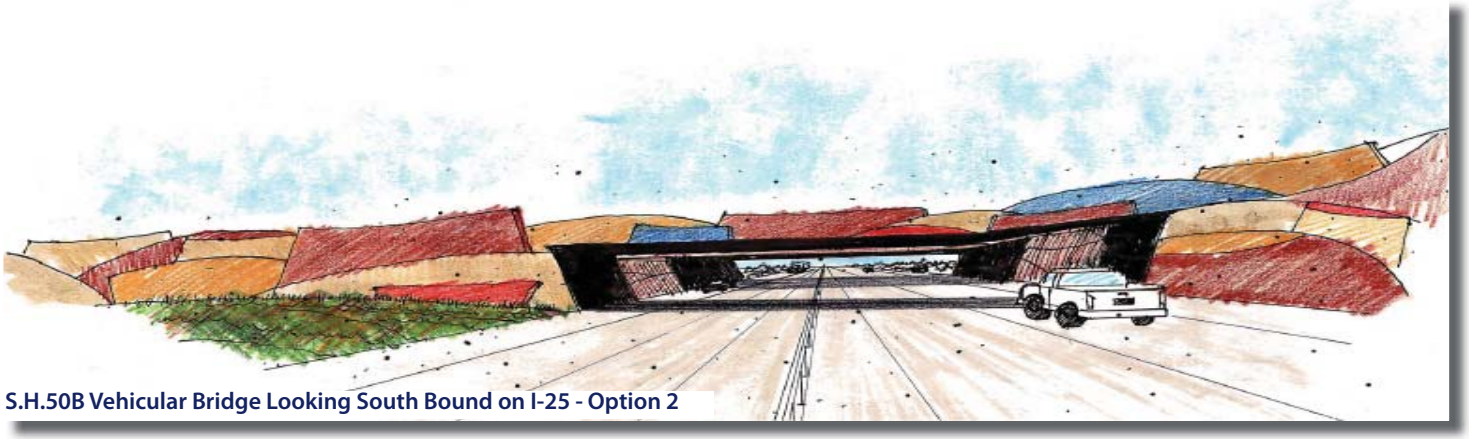
Two architectural options have been presented on this page that depict the potential design of these structures. One option plays off of the city gateway already constructed at S.H. 50/47 and I-25. The second option is more organic and relates to the sound wall design concepts at Mineral Palace Park. Both options incorporate design elements that reflect the City of Pueblo and the Fountain Creek corridor.

Bridge materials may consist of cast-in-place concrete or modular concrete panels. In Option 1, as additional ornamentation, steel colored bands would be attached to the walls. Material colors would reflect the reds, tans and buffs found within the Fountain Creek Design Segment.

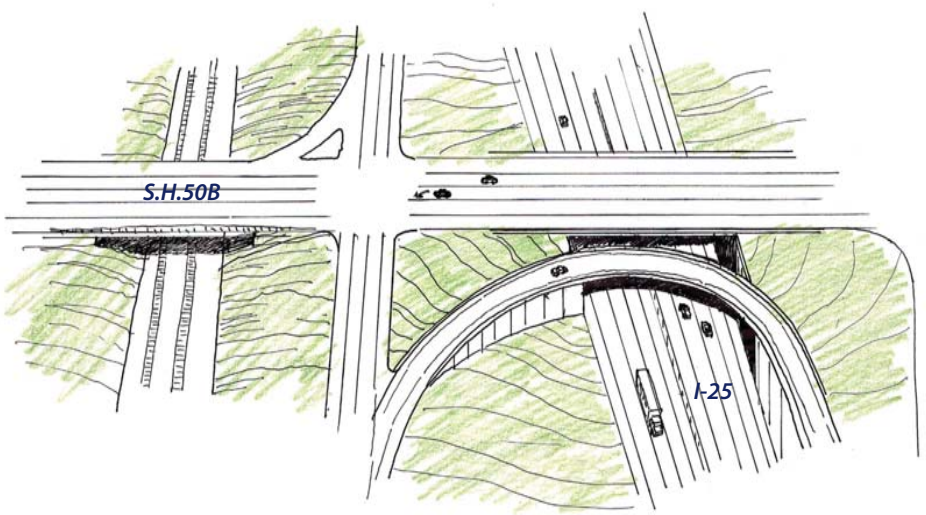
Bridge railings must be carefully incorporated within the bridge design. This will result in using CDOT required safety rail. The safety rail will be on the roadway side. So that it is not visible, an architectural screening



S.H.50B Vehicular Bridge Looking South Bound on I-25 - Option 1



S.H.50B Vehicular Bridge Looking South Bound on I-25 - Option 2




S.H.50B and I-25 Interchange (Looking South)

element will be on the outside face of the structure.

## 2.2 Pedestrian Bridge

A pedestrian bridge is proposed for 19th Street that will span I-25 and link Mineral Palace Park and the Fountain Creek Flood Plain Open Space. This bridge will reflect the energy and excitement associated with community events in Mineral Palace Park. A pedestrian ramp from Mineral Palace Park will be necessary to elevate users up to the bridge structure on the west side of I-25. Due to extensive elevation changes between the park and Fountain Creek, a series of ramps will be necessary to meet grade on the east side adjacent to the existing Fountain Creek Trail.

The aesthetic treatment of this pedestrian bridge will include park design elements that reflect the excitement of the area. These elements include organic, free flowing lines that convey the natural riparian feel of the area. The introduction of "water", representing the Fountain Creek corridor, and the use of natural materials relating both to Mineral Palace Park and Fountain Creek are important.

Two concepts have been created for consideration. These structures are reflective of the man-made and geologic formations of Pueblo. Option 1 is considered a living bridge. By incorporating living plant material within the bridge structure, it would tie the bridge with the organic nature of the park and the natural surroundings of Fountain Creek. The arching steel trellis that spans the highway is meant to reflect the steel production heritage of Pueblo. This trellis will serve to protect pedestrians using the bridge, as well as support vegetation that may grow upon it. Plant materials will need to be planted in planters or planter boxes, behind or incorporated into the sides of the bridge structure. Xeric, climbing/trailing plants are envisioned for this bridge structure (i.e. Virginia Creeper). Irrigation will be required to support the growth of these plants. A low gallon drip system is envisioned that could be tied into the existing Mineral Palace Park irrigation system. Park staff from the City of Pueblo would maintain this system, as well as the plant material on the bridge.

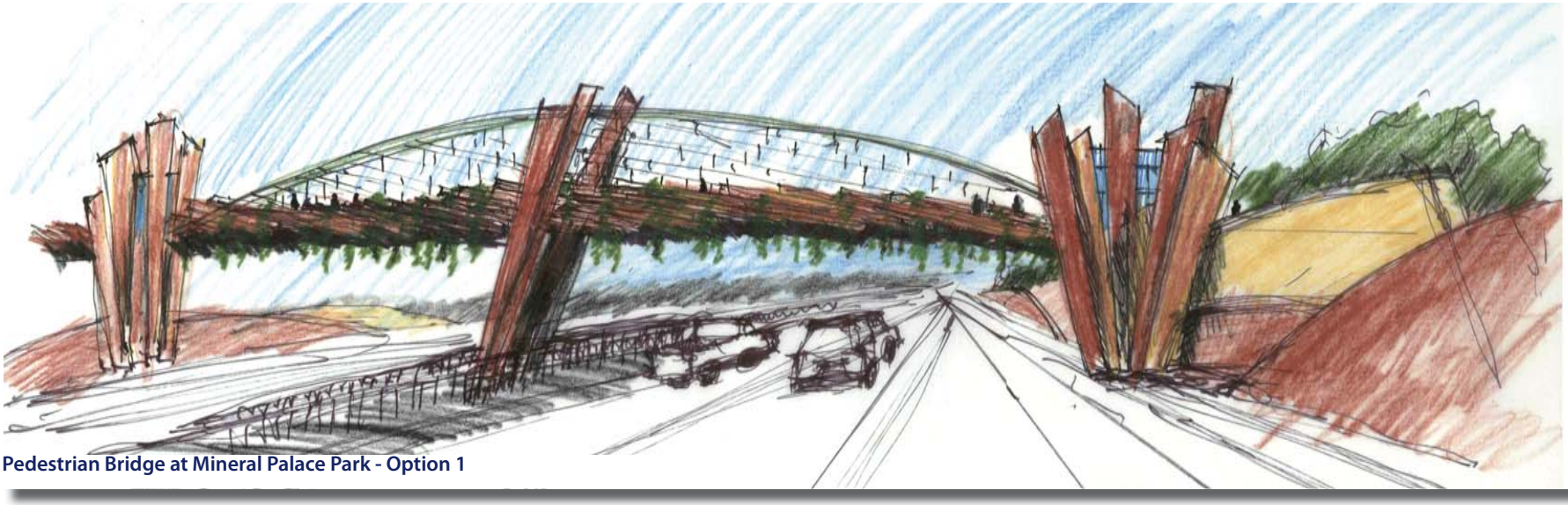
Spire like columns extend above the bridge deck . These vertical elements would be constructed of steel or concrete. They have been arranged to reflect the release of energy in an exuberant fashion.

The sides of the bridge structure are meant to reflect the geologic rock formations associated with the area. The horizontal bands are meant to show striations of the natural rocks formations. They are shown at an angle to represent the upheaval of rock throughout time. This material could be a stone veneer over concrete or concrete panels formed to represent these rock formations.

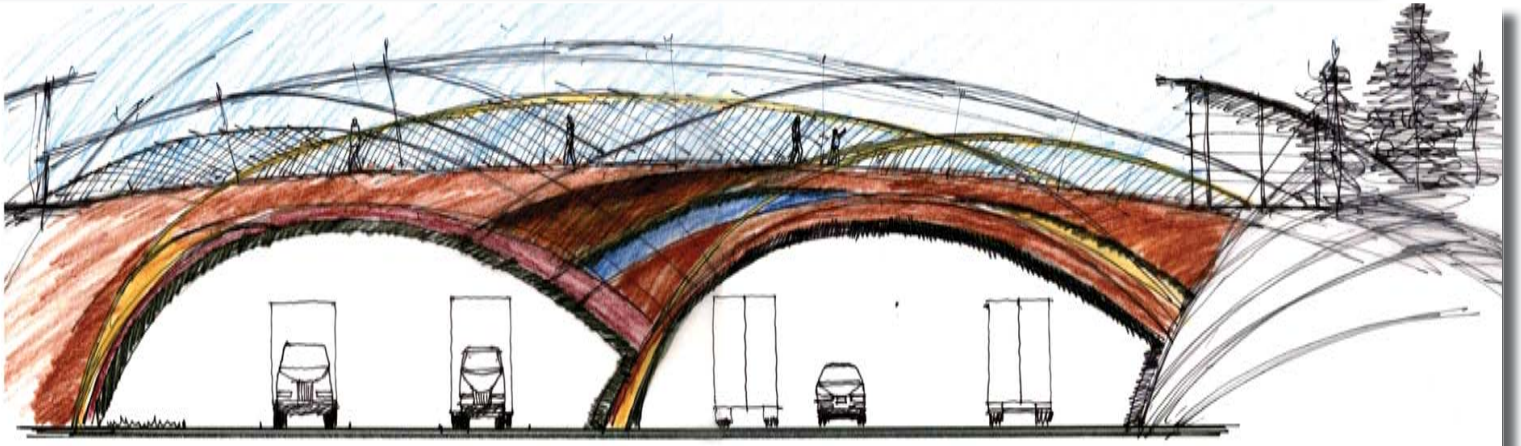
The second pedestrian bridge, Option 2, is intended to convey a similar idea as Option 1. The arches of this bridge and the colors are reflective of the sedimentary geologic formations of the area. The blue panel depicts the importance of water, and the confluence of the Arkansas River and Fountain Creek, the birth place of Pueblo. These panels are envisioned to be either precast panels that are attached to the bridge structure or cast-in-place with integral colors to reflect the sedimentary rock appearance.

The steel arches above the bridge will reflect the steel production heritage of Pueblo. The lower arches will have a wire mesh to protect pedestrian users, whereas the upper arches will not.

Covered pedestrian shade structures are planned at each end to meet the goal of providing shade.



Pedestrian Bridge at Mineral Palace Park - Option 1



Pedestrian Bridge at Mineral Palace Park - Option 2

## 3. Retaining/Sound Walls

A combination of retaining/sound walls are planned for a majority of the west frontage along I-25. This includes Mineral Palace Park and the detention ponds that front directly onto the I-25 right-of-way. These walls will be highly visible from the highway, the park and the adjacent residential areas. Because of their high visibility and dual purpose, it is recommended that these walls reflect the pastoral and rural character of the park and the Fountain Creek corridor, as well as capturing the essence of the natural features and landforms of Pueblo.

To reinforce the design intent of this segment, the walls surrounding the park will be more organic and free flowing in nature. Organic forms and materials will be incorporated to relate with bridge and gateway improvements. They will be constructed of concrete block, poured-in-place concrete or precast concrete. Walls for this portion of the Design Segment can not be blank walls of concrete or simple modular systems with a repetitive pattern or color. They must be textured or rusticated. To develop shadow patterns on the walls, texture must be a minimum of two inches deep.

Walls will be sized and placed to afford the best possible screening of vehicular noise, while achieving the best visual interest for those inside the park and surrounding residential neighborhoods. Walls will be integrated with earthen berms, segmented, undulating and vary in height to create interest.

Use landforms in conjunction with the walls to define space. Examples of ways in which landform can be used to define space are depicted on page 24.

Retaining/Sound Wall at Mineral Palace Park

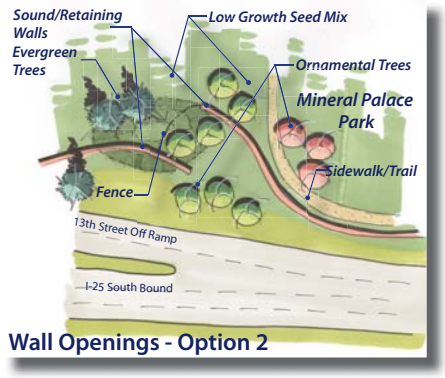
Retaining/Sound Wall Concept at Mineral Palace Park

Retaining/Sound Wall at Mineral Palace Park

## Use Landforms to Define Space (Examples)

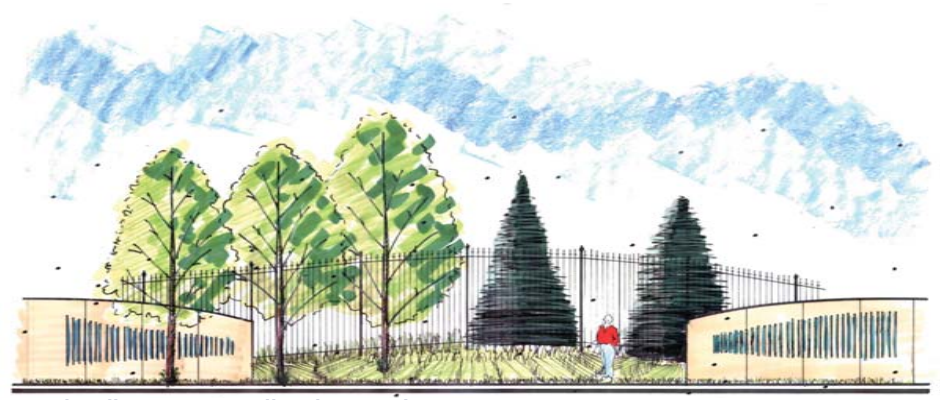
**Wall Opening - Option 1**

With the installation of non contiguous walls adjacent to the I-25 corridor, safety becomes an issue for park users. Several landscape design options have been proposed to address the wall openings. Option 1 includes the installation of a large landscaped berm planted with varying heights of evergreen trees. This bed would be placed between the two wall ends providing a dense planting as a deterrent for those wishing to meander between the walls.




**Wall Openings - Option 2**

Option 2 would be the construction of a steel fence between the ends of the wall. The fence will be designed to reflect the historical icon fence wall in Mineral Palace Park. For year round interest, this would be supplemented with a combination of evergreen and ornamental trees on a berm.



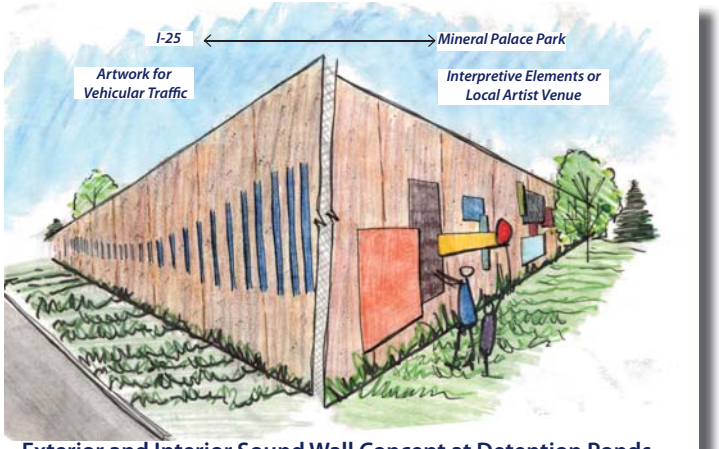
**Sound Wall/Retaining Wall with Wrought Iron Fence - Option 2**

Option 3 does not allow for openings between the walls. The walls would be continuous, with pockets so that landscaping could be provided within the pocket of the wall and create the appearance of wall segments. Plant materials for all three landscape design options would be selected from the Mineral Palace Park plant schedule found in the Appendix.

**Wall Openings - Option 3**

Due to the high visibility of this area, landscaping for the retaining/noise walls internal to the park will be more formal, manicured and maintained. This is true of all the existing and proposed landscape areas within the park. To reflect the botanical heritage of Mineral Palace Park, plant diversity is a must. Landscape plant materials for installation within the park will come from the Mineral Palace Park plant schedule found in the Appendix.

The walls proposed for the detention ponds adjacent to I-25 just south of 29th Street will not be as organic. They will have materials/textures added to them that create visual interest and provide surface variations and shading helping to reduce their scale. Textural elements will be large enough to create shadows that are identifiable at highway speeds, whether it is cast into the wall, attached to the wall or something placed in front of the wall. See pages 25 and 26 for sound wall options at the detention ponds.



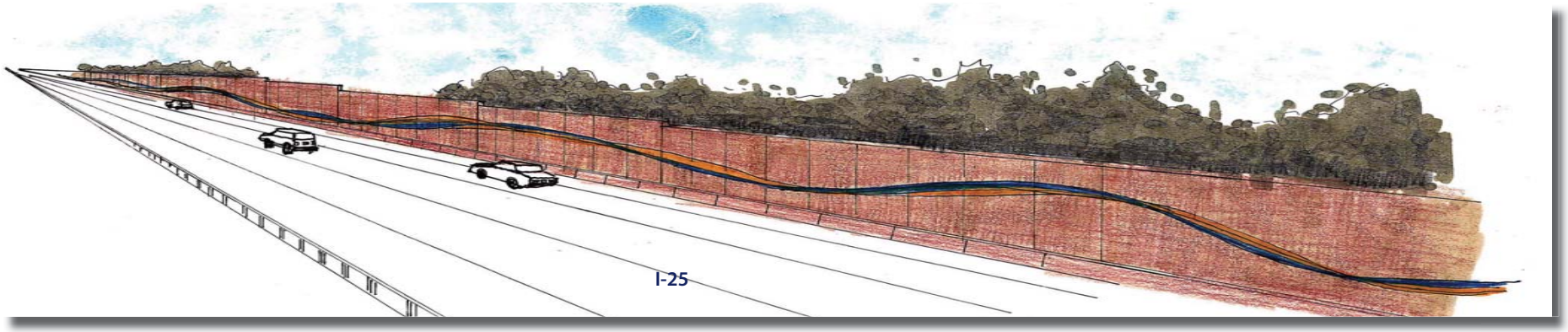

**Exterior and Interior Sound Wall Concept at Detention Ponds**

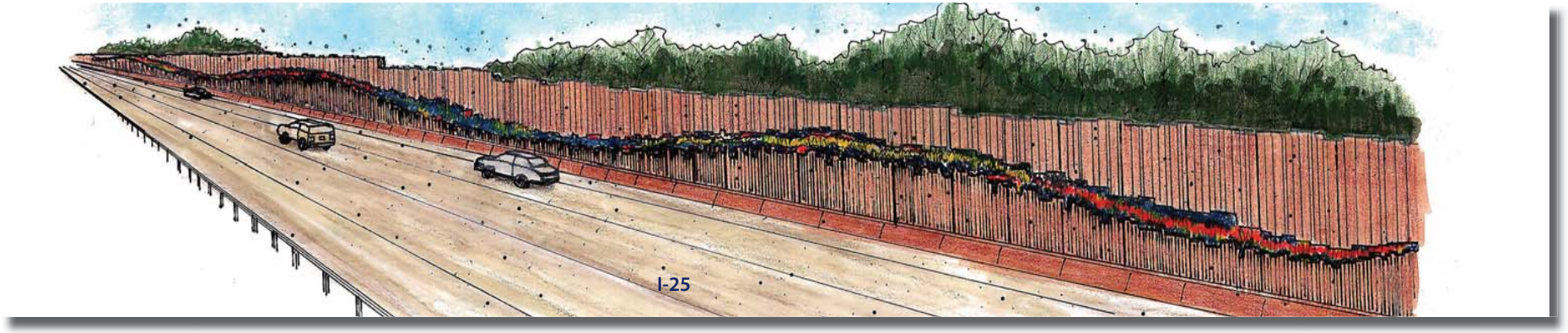
Because of the proximity to Fountain Creek and Mineral Palace Park, the introduction of "water" in the materials and forms is especially important. Colors for all walls within this design segment will reflect the earth tones of Pueblo and shall consist of greens, dark grays, browns, light tans or sandstone.

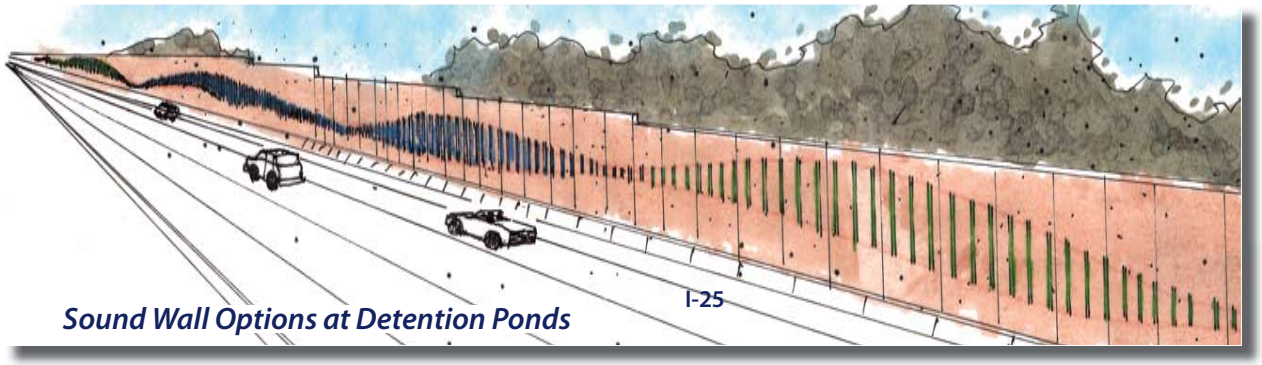
Berms that mitigate highway noise can reinforce the separation between park users and the highway. Berms must be compatible with surface drainage and not conflict or create roadway drainage or safety issues.

The exterior design of the walls facing the highway will be visually apparent to vehicular traffic traveling at 55 mph or greater. In order to appeal to moving vehicles, a singular theme, shape or color repeated at a larger scale, in increments, will run continuous along the wall face. The artistic element may be incremental to the wall, attached to the wall surface or an extruded element.

Around the detention ponds, careful attention will be paid to the back sides of the noise walls as these face the park and neighborhoods. In these instances, walls will be appealing to pedestrians using trails or walks, as well as to the private landowners. Wall design might include interpretive elements related to the history of Pueblo or a venue for local artists to display their art.

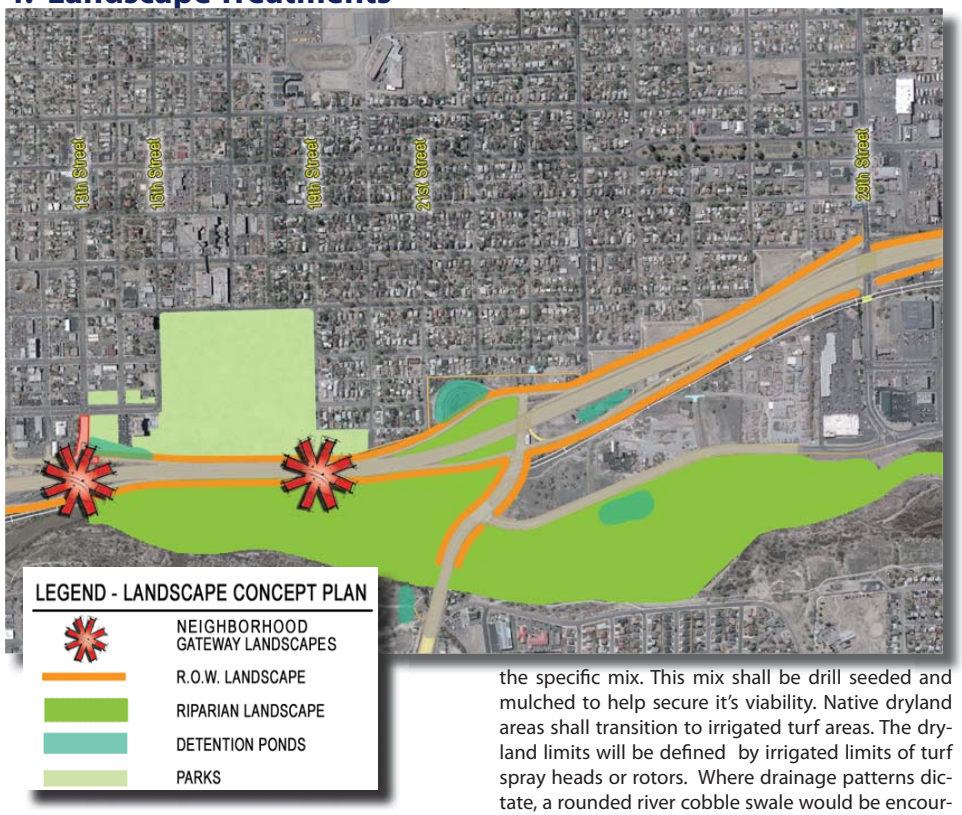



***Sound Wall Options at Detention Ponds***

# 4. Landscape Treatments



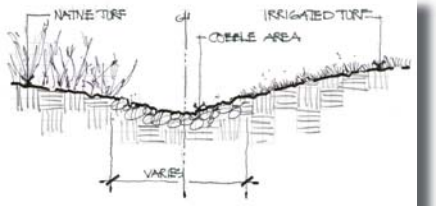

As a part of these Design Guidelines, separate plant schedules have been created. They have been developed in response to the various environmental and aesthetic conditions that exist within the three Design Segments. They are based on the xeric nature of the Pueblo area and the harsh environmental conditions that exist adjacent to I-25.

## 4.1 Right-of-Ways

Dryland Grasses such as a low grow grass mix will be used along all roadway shoulders within the right-of-way where soil stabilization is required and in all areas where aesthetic treatments have not been identified. See Right-of-Way plant schedule in the Appendix for the specific mix. This mix shall be drill seeded and mulched to help secure it's viability. Native dryland areas shall transition to irrigated turf areas. The dryland limits will be defined by irrigated limits of turf spray heads or rotors. Where drainage patterns dictate, a rounded river cobble swale would be encouraged to assist drainage and also provide a separation between irrigated and non-irrigated turf. Also, wherever possible, a trail, road or other physical feature can provide this separation.

## 4.2 Detention Ponds

Within the Fountain Creek Design Segment, several detention pond areas are planned along the I-25 corridor. They will have side slopes that are fairly steep (i.e. 3:1 slopes) and flat bottoms. In some ponds, low flow channels are required to ensure positive drainage. To make these low flow channels appear more natural, cobble swales (grouted or ungrouted) will be constructed in lieu of concrete drain pans.




Cobble Swale Concept

It is assumed that these pond areas will have standing water or moistened soil conditions to support riparian and possibly submerged aquatic plants. These plants shall be placed in the very bottom of the detention pond or along the low flow channel. The steeper slopes of these ponds shall be seeded with a dry land or xeric grass mixes. Submerged aquatic seed can be added to this grass seed mix and can be seeded in the bottom of these ponds. This will allow both seed mixes to germinate where moisture is adequate. See the Detention Pond Landscaping sketch on this page.

Riparian plants, such as willows, may be introduced in areas where moisture is more prevalent and can be supported. Plants will be selected from the Detention Pond Plant schedule located in the Appendix.

Detention Pond Landscaping

## 4.3 Fountain Creek Flood Plain

Any new landscaping proposed within the Fountain Creek Flood Plain Open Space would occur in conjunction with the development of new trails and picnic areas. Disturbed areas will be relandscaped using plants selected from the Riparian plant schedule. As closely as possible, all newly planted areas will reflect the natural landscape. No formal plantings will occur in the Fountain Creek Flood Plain.

Use the Low Grow mix to preserve the natural appearance of the corridor. Maintenance would be the responsibility of the property owner.

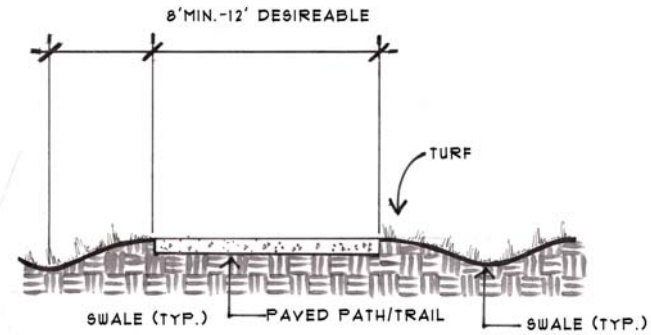
## 5. Irrigation

Except along Mineral Palace Park and the south bound ramp to 15th Street, the installation of an underground irrigation system will not be required for the right-of-way areas. All Park areas shall be irrigated. An irrigation system will be required at 13th Street where supplemental landscaping and a gateway feature is proposed. Irrigation for these areas will be an extension of the existing system within the park. This system will be maintained by the City of Pueblo.

## 6. Trails and Sidewalks

A series of trails and sidewalks are being proposed in connection with the redevelopment of Mineral Palace Park, the Fountain Creek Flood Plain and proposed I-25 improvements. These proposed trails will provide a continuous link from the park to downtown Pueblo, across the highway to Fountain Creek and to points further north. In the City of Pueblo, sidewalks will be developed from the surrounding neighborhoods to Mineral Palace Park.

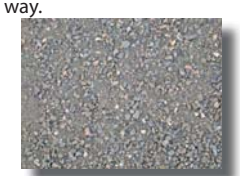
As part of the park restoration effort, there is a hierarchy of trails proposed within Mineral Palace Park. These hierarchies are regional trails and social trails. Detached regional trails will be internal to the park and connect the existing park to the proposed expansion area and further north to 29th Street.




**Regional Trails**

These trails will be paved and 12'-0" wide. To harmonize with the built improvements, the paved trail will be concrete with integral earth tone colors. This type of trail is envisioned for active uses such as bicycling, in-line skating, fast paced walking and for larger groups of recreationalists.

As part of the proposed pedestrian bridge connection from Mineral Palace Park to the parklands associated with Fountain Creek on the east, a regional trail should be provided on either side of the I-25 corridor right-of-way.

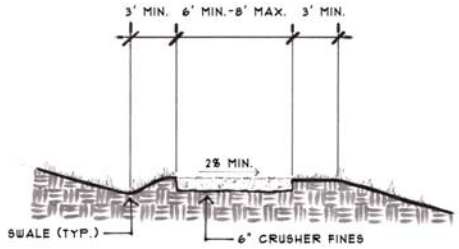


**Grey Breeze**

**Tan Breeze**

This will accommodate a multitude of trail users traversing on the pedestrian bridge overpass in either direction. Due to the large topographical differences between the roadway, bridge and existing parklands, a detailed design study will be necessary to resolve how trail connections will actually be made from the bridge to the adjacent lands. Options for trail connectivity include the construction of switch back trails to make up grade and allow for handicap accessibility or the installation of an elevator on either side of the bridge. Design solutions will be sensitive to the landscape in which the connection is being made and will try not to disturb the existing vegetation.

Social trails are considered secondary trails that will be installed as connectors to the regional trail. They will be 6'-0" to 8' -0" in width, soft surface, composed of either grey or tan breeze. These trails are envisioned for use by more passive recreationalists.




**Social Trails**

New trails are proposed within the Fountain Creek Flood Plain Open Space along the east side of I-25 that will provide access to areas where picnic shelters and passive recreational opportunities can be pursued. All proposed trails within this area shall be 4'-0" to 8'-0" wide grey or tan breeze. Picnic areas and trails will be intertwined within the native vegetation and connect to existing north and south paved trails along the banks of the creek.

Attached sidewalks are planned to connect Mineral Palace Park to downtown Pueblo. At these locations, appropriate crosswalks, signage and traffic signals will be required. Crosswalks will be of a paving material and color that separates itself clearly from the surrounding pavement.

Sidewalks into the city need to be wide enough to accommodate a variety of users. Where possible, sidewalks will be a minimum of 8'-0" feet wide for pedestrian circulation and wider for street furnishings, signage and adjacent land uses (i.e restaurants, cafes etc.). Sidewalk pavement must adhere to city standards although integral color, textures and paving patterns are all encouraged to add to the human scale of the sidewalk.

**Attached Sidewalk Examples**

## 7. Color and Materials

Colors and materials utilized for the Fountain Creek Design Segment will be based upon the materials and colors of the area. Materials will be based in the built environment and include colored concrete, modular block, brick, tile stone and steel. The stone utilized in this section will be stone that is similar to the sedimentary rock of the area (i.e., sandstone).

This rock shall match the existing stone used in Mineral Palace Park. Pink and salmon colored rock shall be avoided. This unifying, natural rock shall be referred to as buff flagstone with iron oxide accents. It shall be cut and arranged like that in Mineral Palace park (See photograph below). Cultured stone products will be acceptable and shall match the color, pattern and naturally occurring "oxide accents" as those of natural rock. Cultured stone shall be grouted with dark grey grout. Joints shall be raked to minimize grout appearance.

Metal finishes will be selected from the Federal Color list below.

Federal Color-30055

Federal Color-30076

Federal Color-30115

Federal Color-30371

Federal Color-34090

Federal Color-35180

# 8. Site Amenities

## 8.1 Picnic Shelters

Park picnic shelters will incorporate the historic Victorian character of Mineral Palace Park and the surrounding neighborhood, as well honoring the "Olmsted-esque" character of the park. Refer to the historic post cards at the beginning of Section 4 depicting the original Victorian character.

Picnic structures can be custom fabricated or ordered from a picnic structure vendor. Since Mineral Palace Park is one of Pueblo's premier parks, all structures and site amenities and improvements must be approved by the City of Pueblo Parks Department.

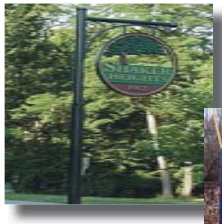
## 8.2 Benches

Benches shall have the same Victorian feel as the shelters. Victorian themed products are more prevalent from site furnishing vendors. Design continuity shall exist between all site amenities. Designers shall select a family of amenities that all have common elements. See the examples below.

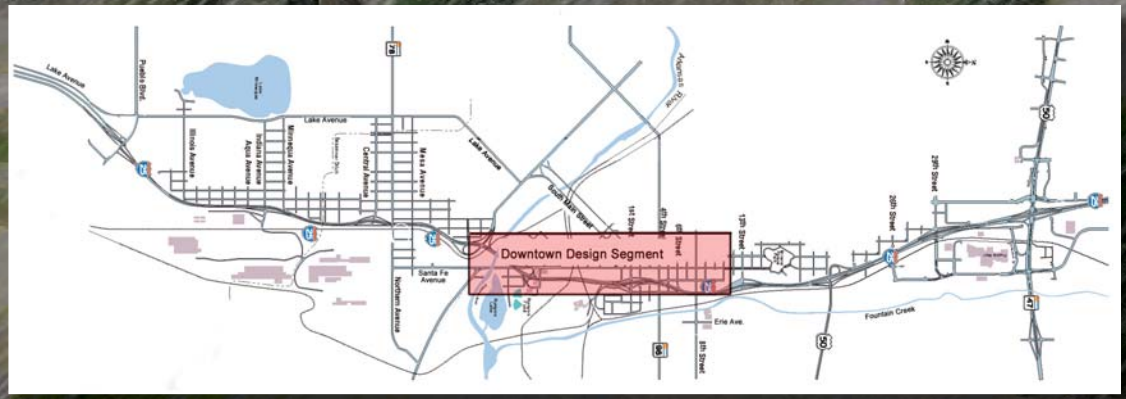
## 8.3 Trash /Recycling Receptacles

## 8.4 Lighting

## 8.5 Signage



# SECTION FIVE – DOWNTOWN DESIGN SEGMENT
# (13th Street to the Arkansas River)



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# SECTION FIVE: Downtown Design Segment

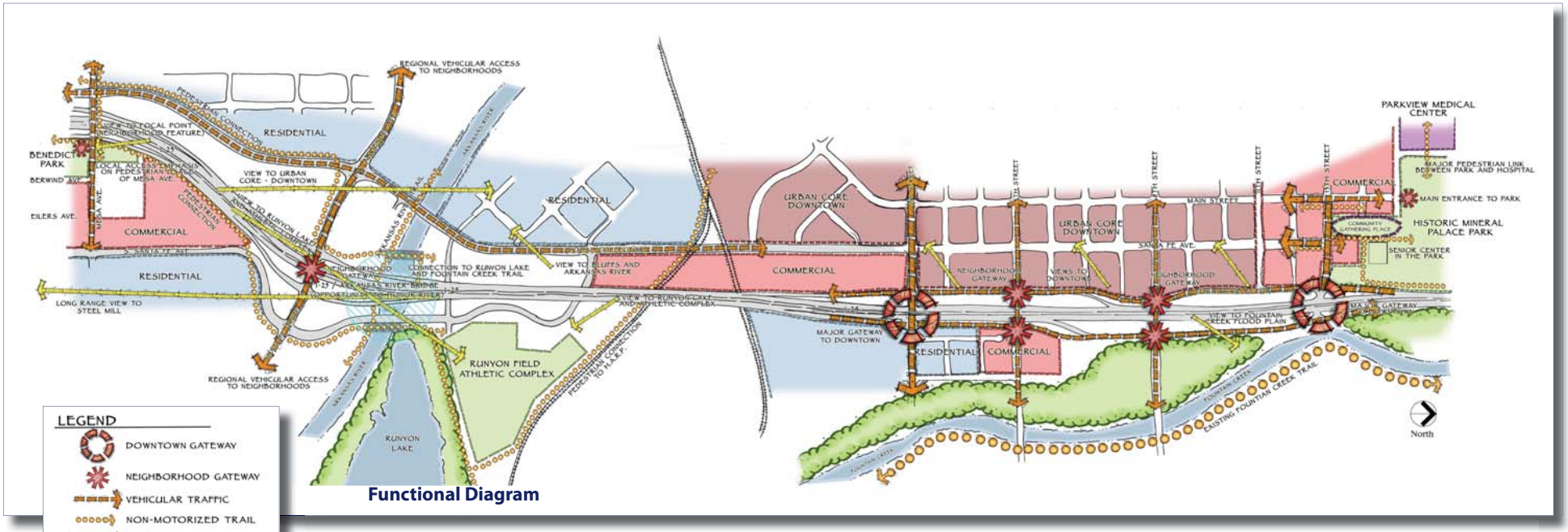
## A. Goals

The Downtown Design Segment has a much different character than the Fountain Creek Design Segment. The northern limit of this Design Segment is 13th Street and the southern limit is the Arkansas River. Within this Design Segment, the hard lines of the city buildings and the built environment are the dominant features. The urban character of downtown Pueblo is a mixture of developed land uses including commercial, industrial, residential and retail. Vegetation and shade are lacking due to an extensive amount of pavement and structures.

The proposed I-25 alignment and ramp improvements in the Downtown Segment are arranged in a split diamond configuration. Because of this, I-25 through downtown Pueblo will be elevated approximately 20 feet above adjacent land uses. It is entirely on fill with large side slopes. Visible from all areas of downtown, are bridge structures with retaining walls at 13th, 8th, 4th, "D" and Locust Streets. There are bridges at Kelly Avenue, the Arkansas River and two locations over railroad lines. The diagram below is intended to graphically portray the community and CDOT's functional desires for I-25, local streets and adjacent land uses within the Downtown Design Segment. This vision for the future was developed through many workshops with the community and elected officials. Based on this vision, the following list of aesthetic goals for the Downtown Design Segment were developed:

1. Aesthetic treatments shall support the community and CDOT's functional desires for the area.
2. Incorporate the importance of water and the confluence of the Arkansas River with Fountain Creek into New Pueblo Freeway improvements. This is the fundamental corner stone of Pueblo's existence.
3. Establish major north and south gateways to downtown. Aesthetic treatments will support this area as the front door to downtown Pueblo.
4. Aesthetic treatments will reflect the historic, urban character of downtown Pueblo.

Mitigation of the highway views from downtown and surrounding neighborhoods is crucial to this design segment. The horizontal line of the highway as it traverses through and above the downtown area must be interrupted and broken up visually to blend with the urban fabric of downtown. As aesthetic treatments are developed for this reach, they will relate to the materials, forms, textures and colors of the Downtown area.




**Functional Diagram**

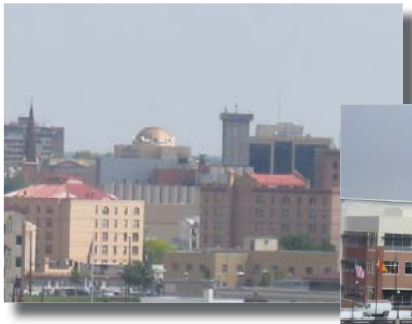
Pueblo's river history should also be considered. Pueblo began at the confluence of the Arkansas River and Fountain Creek. Water and forms associated with the river should be integrated into the design elements as a reminder that water is life for this community.

Gateways into downtown Pueblo and the surrounding neighborhoods are envisioned at 1st and 13th Streets. The split diamond configuration will serve as major access points into downtown Pueblo and local streets. Neighborhood gateways are planned at 4th and 8th Streets and will provide additional access into the downtown neighborhoods and Fountain Creek.

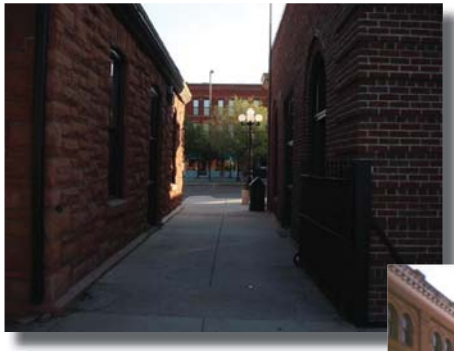
Colors and textures within this design segment shall incorporate existing ones found in downtown Pueblo (i.e., downtown Victorian architecture and the surrounding landforms). Generally these shall be shades of red and buff earth-tone colors. Textures shall reflect brick and stone construction as found in the downtown buildings.

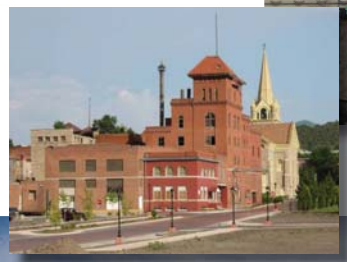
## B. Objectives

1. Synergize flowing water forms with Victorian and Southwestern architectural forms and structures.
2. Create the character of this Design Segment by emphasizing architectural elements rather than landscapes.
3. Create usable shade and the perception of shade.
4. Shadow and shadow patterns will be ever apparent elements of the New Pueblo Freeway.
5. Highlight views to downtown Pueblo and the bluffs along the Arkansas River.
6. Break up the long linear appearance of the elevated sections of I-25 from downtown Pueblo.
7. Screen views to industrial areas.
8. Create a hierarchy of gateways by the level of emphasis placed on the landscape and aesthetic treatments at each gateway. Gateways include major and neighborhood access.
9. Create neighborhood gateways to reinforce existing community identities and highlight their uniqueness.
10. Use materials from the built environment including concrete, block and brick.
11. Bridges, retaining walls and sound walls will be designed to be seen and blend with the established built environment.
12. Play up the importance of the bridge structures across the Arkansas River.



**Form**





**Line**

**Color/Texture**

# C. Design Guidelines for Aesthetic Treatments

## 1. Gateways

Unlike the Fountain Creek Design Segment where the highway is at the same grade as the surrounding landscape, in the Downtown Design Segment, I-25 is elevated above the city providing travelers with views across town. Commercial and neighborhood areas on the east and west sides of I-25 once bisected by the highway, will have cross access at 13th, 4th, 8th, 1st, Kelly Avenue, "D" and Locust Streets.

Due to the elevated nature of the highway, bridge structures, retaining walls and sloped paved areas will be highly visible from the surrounding downtown area and therefore emphasis on aesthetic treatments shall focus on the architectural design of these elements to make them as visually appealing as possible.

Several of these bridge structures have been identified as gateways within the Downtown Design Segment. These are viewed as opportunities to create aesthetic treatments that will help identify neighborhoods, signify important entrance and exit points off of the highway and help to establish an aesthetic look for the downtown highway corridor. Examples of existing bridge structures in North America that make a strong architectural statement are provided on this page.

Both downtown and neighborhood gateways are envisioned within this design segment. The aesthetic treatments for the downtown gateways will be incorporated into the design of the bridge structure, the abutments, railings etc. Aesthetic treatments for neighborhood gateways however, once you exit off I-25, will occur at the street level. Aesthetics treatments will include landscaping, berms, lighting, signage and potentially low retaining walls or sculptures.

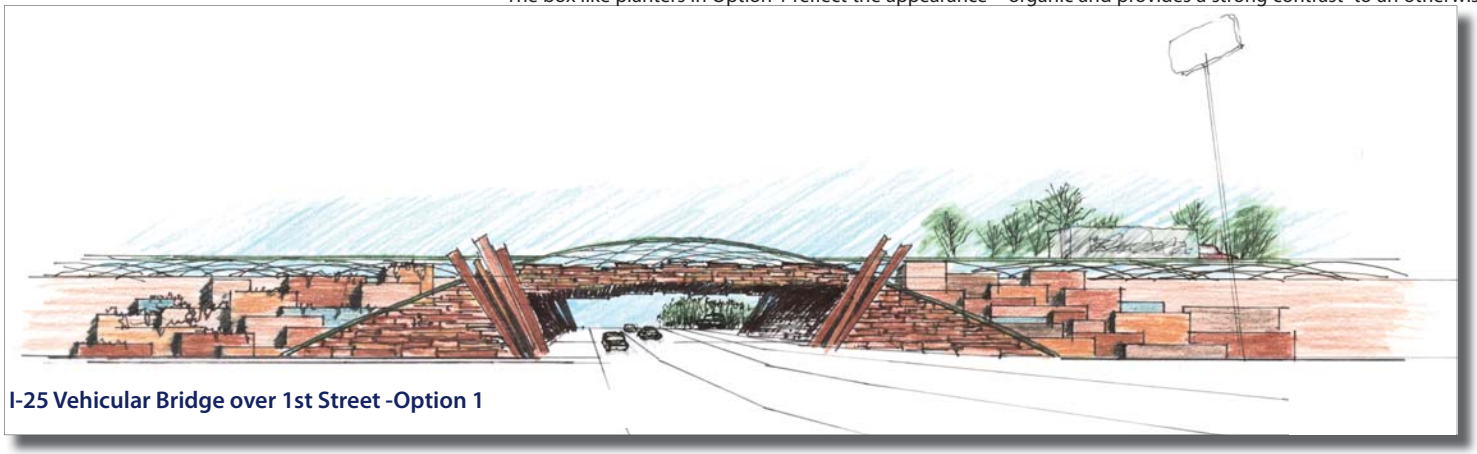
The northern downtown gateway occurs at 13th Street and was discussed in the previous chapter as a part of the Fountain Creek Design Segment. The southern downtown gateway occurs at 1st Street. Neighborhood gateways have been identified at 4th and 8th Streets. The bridges across the Arkansas River are identified as opportunities to create a visual focal point, reflecting the importance of the Arkansas River to the development of Pueblo throughout history.

### Example Gateway Bridges in North America

## 1.1 Downtown Gateways (First Street & Arkansas River Bridges)

### 1.1.1 First Street Bridge

The first southern downtown gateway is at First Street. This gateway will reflect the urban character and forms associated with the city. It will evoke a strong architectural statement blending the old Victorian charm of the city with the southwestern style of the area.



I-25 Vehicular Bridge over 1st Street -Option 1

Stone, steel, concrete and brick are all appropriate construction materials. Colors shall be buffs, tans and reds to reflect the mixture of modern, southwest and Victorian architectural styles. A detailed color palette outlining the appropriate shades of materials for bridge structures can be found on page 48 of Section Five, the Downtown Design Segment. Water will be introduced artistically symbolizing the Arkansas River and Fountain Creek. However, it should be understated since this Design Segment relates more to the urban downtown environment.

Three architectural bridge options have been suggested as gateway treatments at 1st Street. These bridges are important elements that will be seen from above, when travelling along I-25, but more importantly, from below, when traveling the local cross streets.

In all options, graceful arches are envisioned to help break up the strong linearity of the road and to reflect upon the steel production heritage of Pueblo. It is a common aesthetic element found within the Fountain Creek pedestrian bridge structure, at Mineral Palace Park and the gateway bridges downtown. Arches are a unifying element of all the design segments. The arched forms are complimented with retaining walls/planters that add a third dimension to the bridge structure and address the treatment of the slope between the elevated bridge deck and the surrounding landscape.

The box like planters in Option 1 reflect the appearance of the buildings as seen from I-25. A number of the forms must extend up above the bridge deck and roadway elevation. This will break up the long linear line of the elevated interstate as it is viewed from downtown. The curved planters in Option 2 reflect the curvilinear appearance and organic design of bridge option two. Both bridge structures introduce water in the bridge sides via colored concrete panels that tie back to the importance of water in Pueblo.

Vertical steel columns in Option 1 extend above the bridge deck. These vertical elements have been arranged to reflect the release of energy and tie back to the proposed pedestrian bridge structures within the Fountain Creek Design Segment.
In Option 1, the sides of the bridge structure are meant to reflect the geologic rock formations associated with Pueblo and again, tie back to the pedestrian bridge structure in the Fountain Creek Design Segment. The horizontal, sedimentary rock layers reflect the natural rock formations. This material could be a stone veneer over concrete or concrete panels formed to represent these rock formations.

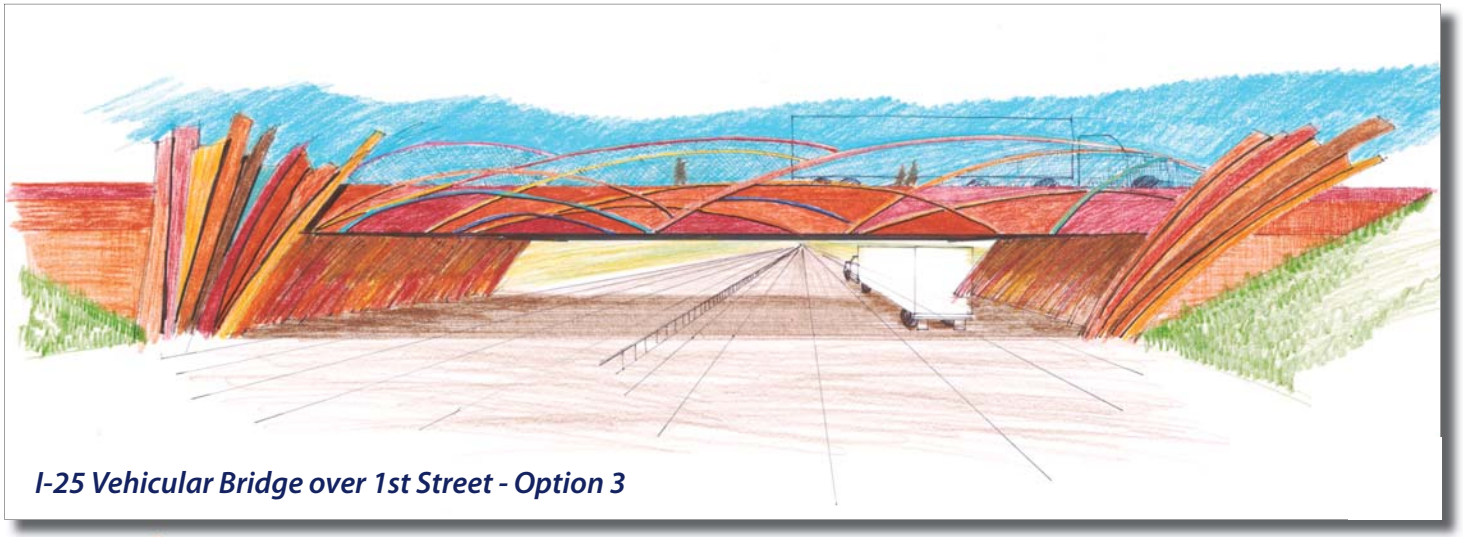
Option 2 includes abstract layers of rock that could be a stone veneer over concrete panels. The arching vehicular opening of the bridge reflects the extensive use of arches in Pueblo's Victorian architecture for both window and door openings. This gateway concept is more organic and provides a strong contrast to an otherwise structured, urban downtown corridor.

Option 3 includes the arching steel of Option 1 and 2 along with the vertical steel columns of Option 1. Steel bands of blue are used to tie this bridge option to Fountain Creek and the Arkansas River. The bridge deck and abutments would be constructed of concrete or concrete panels of reds, buffs and browns.

These gateway bridges as well as all other bridges within the New Pueblo Freeway shall be designed so the bridge and related site walls work as one system. They must flow seamlessly into one another. See the birds eye perspective of the spit diamond interchange on page 45 and 46.

Landscaping for this gateway would be limited to planters incorporated into the sides of the bridge structure. Xeric climbing/trailing plants are envisioned. Irrigation would be required to support the growth of these plants.

*I-25 Vehicular Bridge over 1st Street - Option 2*



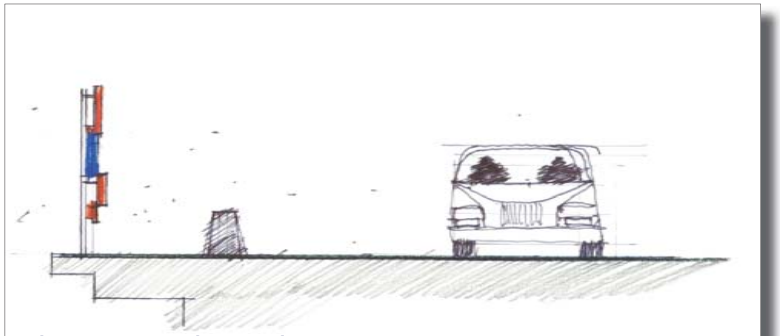
*I-25 Vehicular Bridge over 1st Street - Option 3*

### 1.1.2 Arkansas River Bridge

The Arkansas River Bridge is an opportunity to create a focal point that reflects the importance of the Arkansas River. The view from the travel lanes is important and should accent the river crossing experience.

Screening material will be installed along the bridge guard rails at vehicular eye level to selectively encourage or discourage views as desired. Aesthetic screening treatments shall be designed to be bold and fun for the vehicle passenger and can be appreciated at 65 mph. Undulation, repetition and appropriate scale is required to make these elements successful. Ornamentation of this bridge will concentrate on the screening portion as the sides of the bridge structure are not as visible from the areas below.

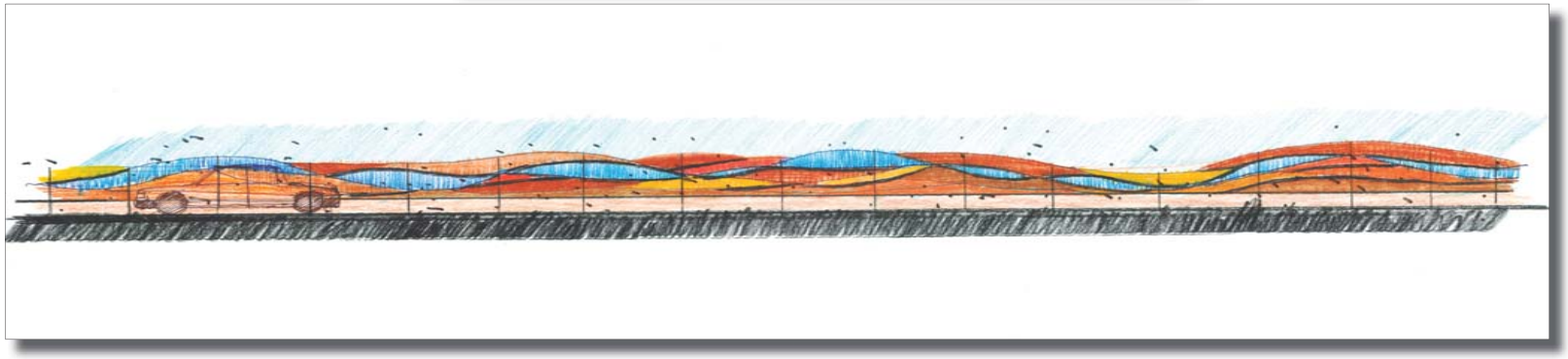
The screening material shall be constructed of different gauges and colors of wire mesh that allow air circulation and views through to the river and Runyon Lakes. Colors shall be the buffs, tans, reds with blue accents to capture the essence of the geology and the Arkansas River.



Arkansas River Bridge Visual Screen

The screen shall appear three dimensional and shall overlap creating more visual interest for the vehicular traveler. Construction of the screen shall be extended out from the edge of the bridge deck by supports that are spaced to allow for snow removal by CDOT.

Extending this screen material below the bridge deck in order to provide visual interest from adjacent neighborhoods and the Arkansas River Trail shall be a part of the final design development effort.



## 1.2 Neighborhood Gateways (4th and 8th Streets)

Neighborhood gateways have been identified for 4th and 8th Streets where I-25 is elevated. These gateways are less visible than the downtown gateways as they are located at street level after exiting I-25. These gateways will serve as markers for local destinations along I-25. Being less visible than city and downtown gateways, they will play off the existing character associated with the individual neighborhoods. Neighborhood gateways include landscaping, irrigation, signage and a piece of sculpture or artwork.

Neighborhood Gateway West Side Option 1

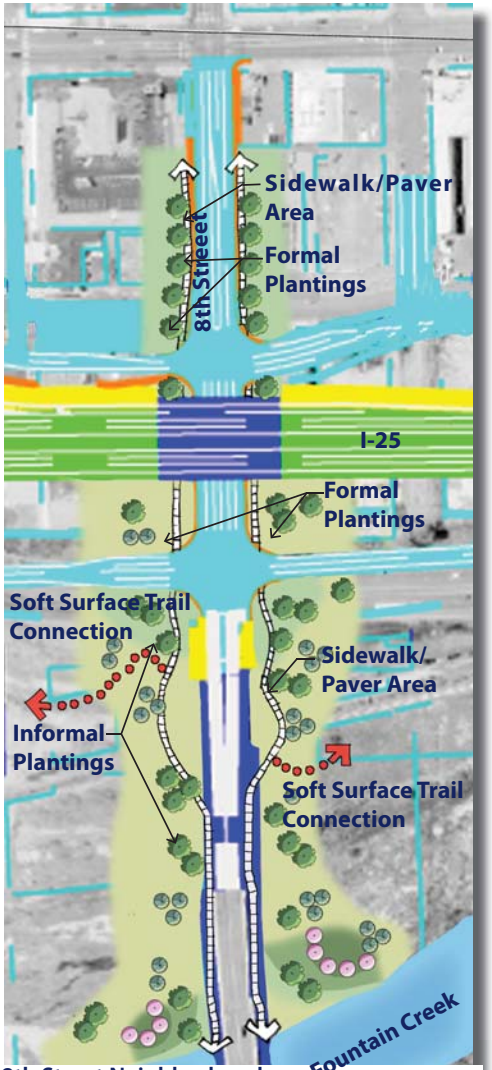
The aesthetic treatments for these two neighborhood gateways should differ slightly from each other due to their relationship to their surroundings. The 4th Street gateway relates more to the urban context of Pueblo and is closer in proximity to the downtown gateway at 1st Street. The 8th Street gateway has a similar relationship to downtown Pueblo, but is closer in proximity to Fountain Creek and the downtown gateway at 13th Street.

Aesthetic treatments should vary slightly from the west and east sides. Urban streetscape elements are appropriate for the west side of I-25. A mixture of urban and riparian elements shall be incorporated on the east side of I-25, as it relates more to Fountain Creek. Pedestrian amenities should include identity signage, street furnishings, pavement treatments, lighting and sculptural/ artistic elements.

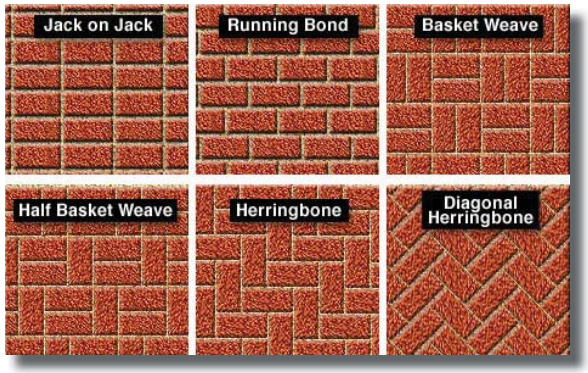
Two different aesthetic options have been developed for these gateways and are indicative of the urban or west side of I-25. Option 1 consists of a formal streetscape that includes an attached sidewalk with street trees in tree grates that alternate with colored flags. The sidewalk would incorporate a unique texture to break up the vast fields of concrete. The introduction of brick, concrete paver or colored/textured concrete will help to promote a more pleasing pedestrian setting. Paving patterns shall reflect Victorian brick paving details. See page 41 for examples of brick pavement design.

Option 2 is similar to Option 1, but includes a landscaped median. This median helps to promote more of a boulevard feel and helps to reduce the overall scale of the street section. The median would be planted with low water demand plants based on Pueblos dry climate. Plants selected for installation at these locations will come from the Gateway Planting Schedule located in the Appendix of this document.

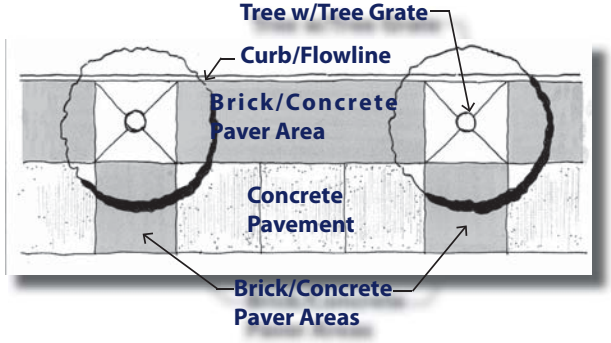
Neighborhood Gateway West Side Option 2




8th Street Neighborhood Gateway Concept



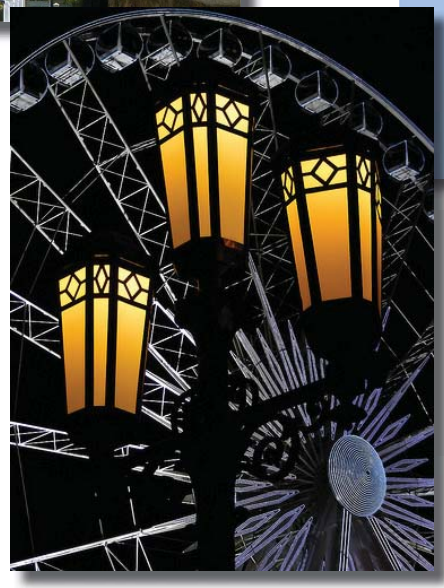

Brick Pavement Design Examples




Sidewalk Pavement Design

## Neighborhood Gateway Signage Examples

## Neighborhood Gateway Lighting Examples



## 2. Bridges

## Vehicular Bridges (Five Bridges Between the Arkansas River and S. Santa Fe Drive)

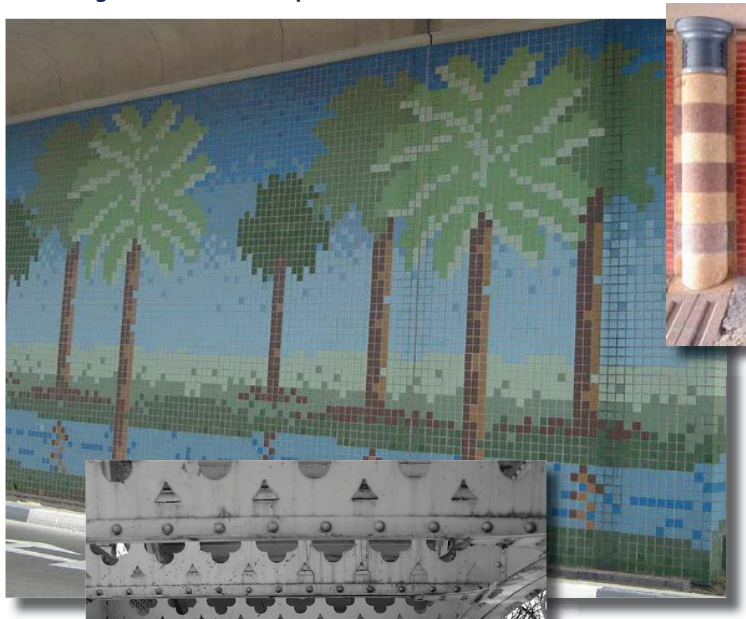
There are five additional bridges proposed between the Arkansas River and S. Santa Fe Drive. These bridges span railroads and local streets. They help move traffic through the Downtown Design Segment, but are not connected directly to I-25. They are not seen as gateways to neighborhoods. Their aesthetic treatment will reflect the character of the other bridges within the Downtown Design Segment, but will be more understated and simple with minimal under bridge treatments. A family of bridges with emphasis on the gateway bridges is the desired outcome.

### 2.1 Under Bridge Treatments

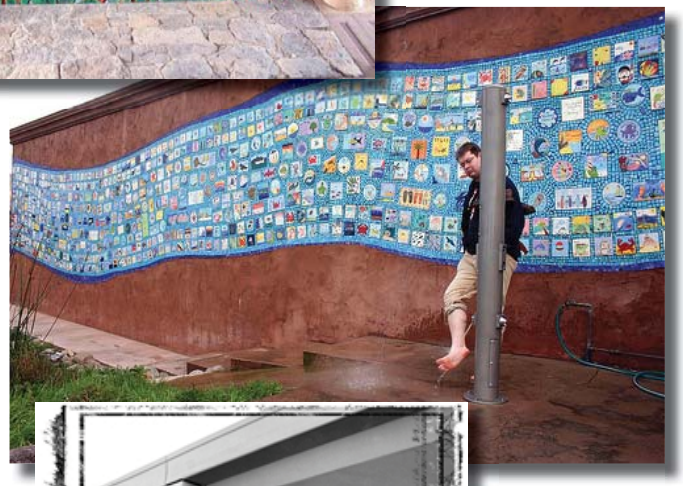
One condition in Pueblo is the intense heat from the sun during the day. Relief in the form of shade is possible under bridge structures providing an oasis from the sun and a unique opportunity as a resting place for pedestrians.

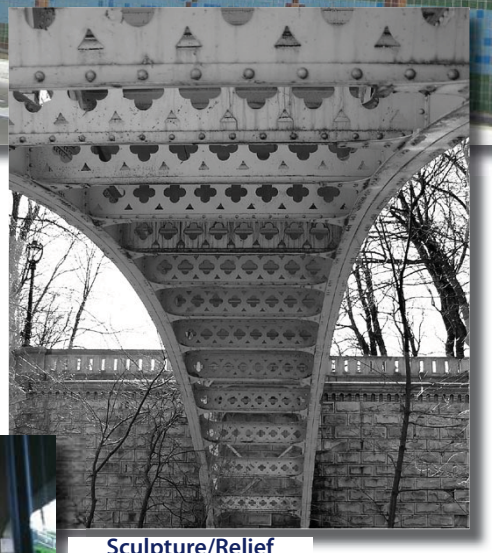
The undersides of the gateway bridge structures proposed at 1st, 4th, 8th, & 13th Streets are likely places to add art, sculptural elements, color and relief to bridge columns, walls or supports. Since these areas will include pedestrian and vehicular traffic at speeds less than the interstate, emphasis should be placed in the detailed design and scale of the proposed aesthetic treatments. See this page for examples of ways to approach the design of the under bridge areas.

**Under Bridge Treatment Examples**



Textures/Patterns





Sculpture/Relief

Art/Painting

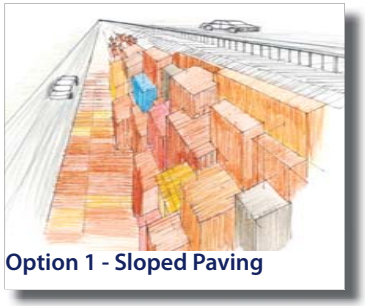
Shadow

## 3.Sloped Areas/Retaining Walls

The realignment of 1-25 through downtown will require the highway be constructed on an elevated embankment with large sloped areas and retaining walls. As a part of the aesthetic treatments for the New Pueblo Freeway, reliance on architectural treatments and the use of landscaping to only accentuate gateways and focal points through the Downtown Design Segment is desired. Low maintenance is also a key objective for the Downtown Design Segment.

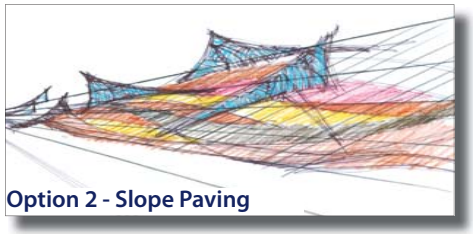
The design and aesthetic treatment of the sloped areas and retaining walls will be critical since they will be highly visible from most areas downtown. They will provide interest to both the pedestrian and vehicular user. Treatments must extend above the roadway edge in places to break up the linear nature of the roadway.

The design of paved areas and retaining walls will have a connection to their context. These elements should reflect the character of the downtown Victorian structures, historic charm and relative southwest setting. Walls and paved areas must be sculptured and textured to create interest, provide shadow patterns and discourage vandalism. There may be banding of colors and the incorporation of "water" through the use of blue tiles or metal that represents the downtown's connection to the Arkansas River. The following pages present conceptual drawings of the sloped areaas and retaining wall concepts.



Option 1 - Sloped Paving

Five sloped aesthetic treatment options have been developed for consideration. Option 1 incorporates stepped walls that provide interest, shadow pattern and color. This concept reflects the downtown buildings of Pueblo and begins to introduce color to I-25. This aesthetic option would be constructed of precast or cast-in-place concrete. The tops of the blocks would be sloped to preclude pedestrian access, but foster drainage.



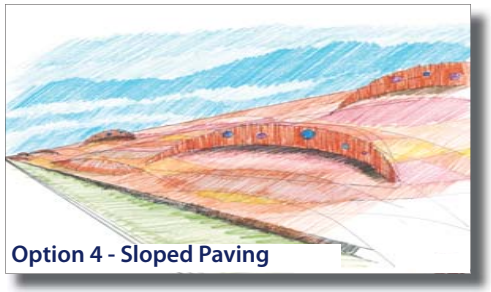
Option 2 - Slope Paving

Option 2 is a more organic concept and includes sloped paved areas of various colors that are reflective of the colors associated with the historical flavor of Pueblo and attached free standing sculptural elements. Sculpture placement could be used to direct storm flows to street side basins. The sloped paved areas would be constructed of concrete and scored with curvilinear lines to create organic shapes.

Option 3 takes advantage of the intense sunlight of the Pueblo area and utilizes solar panels. These panels could be illuminated in the evening utilizing the solar light captured during the day. Tiered retaining walls provide a location for the placement of the panels. Multi-colored panels would be considered for increased visual interest.

Option 3 - Sloped Paving

Option 4 is a combination of paved surface and retaining walls. Glass colored transparent block would be incorporated into the walls to allow light to pass through the walls during the day. The retaining walls would be placed to control the flow of runoff and direct it to street side basins. The sloped concrete pavement would be scored in a curvilinear fashion to help break-up the linear appearance of I-25.



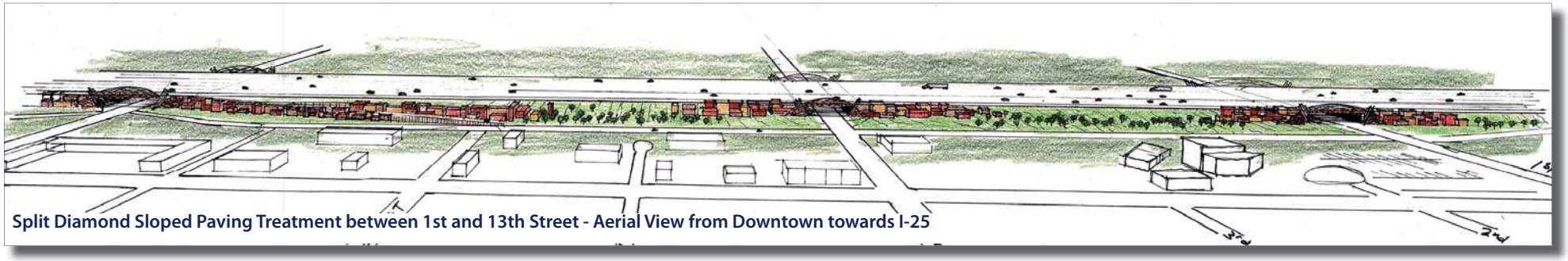
Option 4 - Sloped Paving

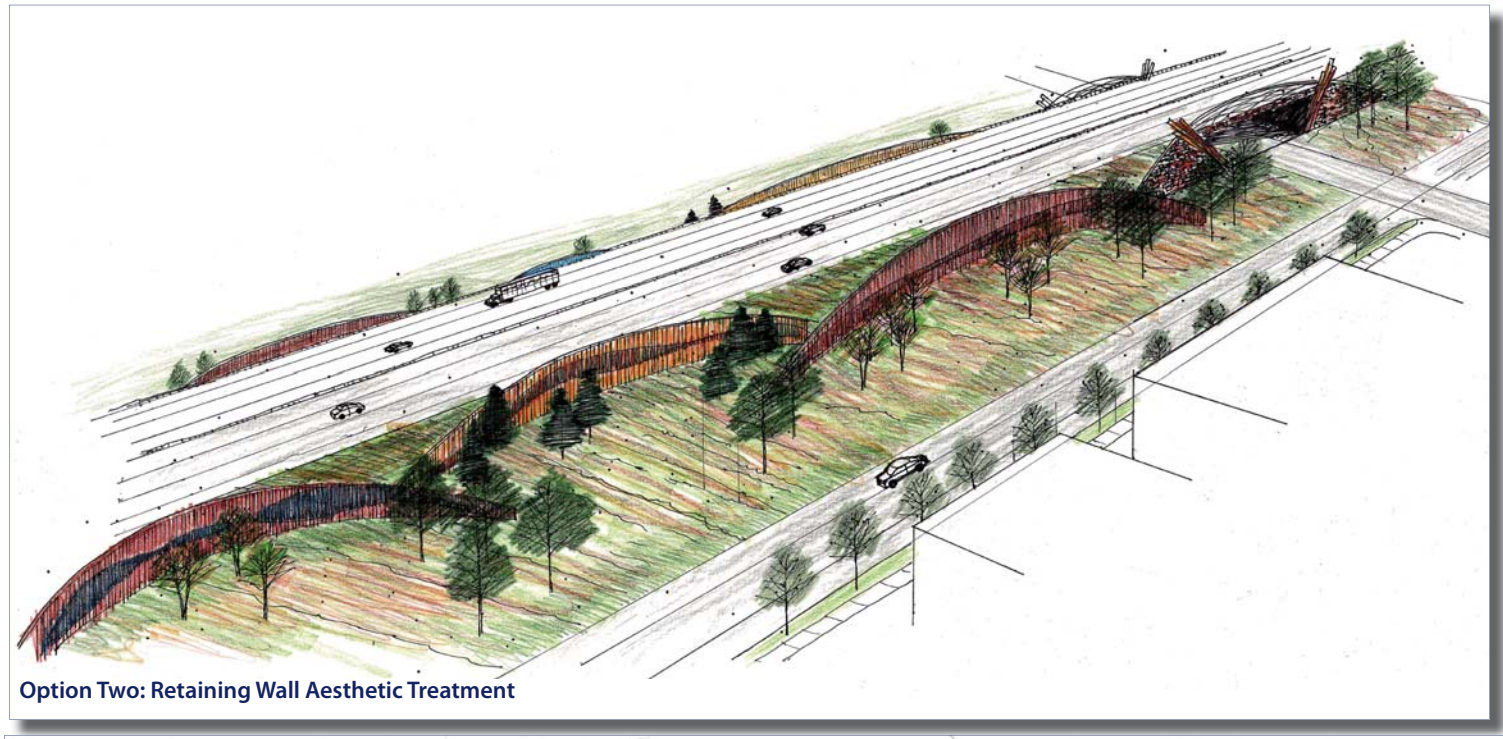
Option 5 is the combination of retaining walls and sculptural elements used in a fashion that allows the slope to be vegetated at a 3.5 to 1 or less. Examples are presented in the sketches on pages 45 and 46. This option would require a higher level of maintenance including moving and drip irrigation.

## 4. 1st to 13th Street Split Diamond Designed as a Single Element

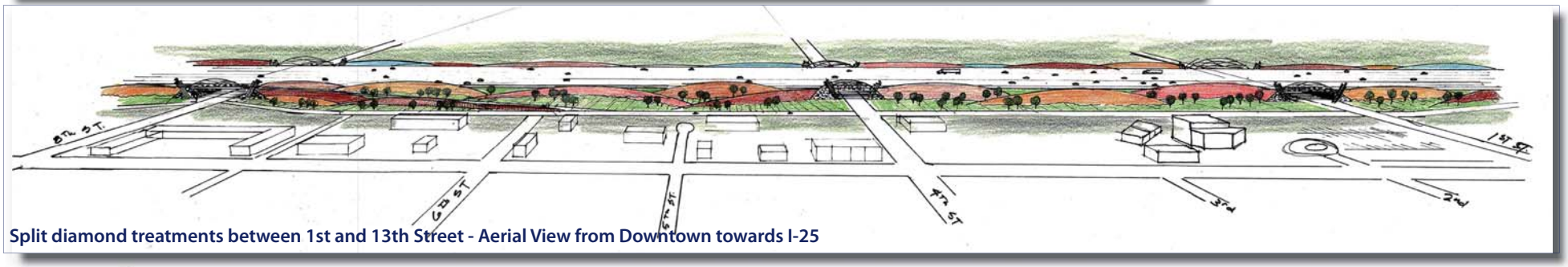
The split diamond interchange that includes 1st Street on the south and 13th Street on the north will be a significant visual element downtown. Most of I-25 between 1st and 13th Streets is elevated 20' above adjacent neighborhoods. This split diamond interchange must be designed as a single element, not a series of individual bridges, walls and slope paved areas. The options provided on pages 45 and 46 demonstrate how the previous described bridge, retaining wall and slope treatments must work together to create an overall treatment for the 1st and 13th Streets split diamond interchange. The perspectives also illustrate how all the bridge structures, while in harmony with retaining walls and slope paving, still stand out like doorways to the neighborhoods.

Option One - Retaining Wall Aesthetic Treatment


Split Diamond Sloped Paving Treatment between 1st and 13th Street - Aerial View from Downtown towards I-25



Option Two: Retaining Wall Aesthetic Treatment




Split diamond treatments between 1st and 13th Street - Aerial View from Downtown towards I-25

# 5. Landscape Treatments

Landscaping is intended to accent gateways and re-vegetate detention ponds proposed as part of I-25 improvements. Re-vegetation will also occur in the riparian areas associated with the Arkansas River, park areas, with Runyon Field and I-25 R.O.W.

The installation of new irrigation system is not envisioned as part of the landscape installation for the detention pond areas or as part of the riparian landscaping. However, irrigation may be extended to areas of Runyon Field disturbed by the highway improvement from the existing system within the park. Gateway landscape will also have to be irrigated. This will require neighborhood and community groups to accept long term maintenance responsibilities of the gateway landscapes.

## 5.1 Arkansas River and Riparian Areas

Disturbance of all riparian areas must be kept to a minimum during the construction of the I-25 improvements, and must be restored to their natural state. Plant material used will replicate the plants that exist in the disturbed areas. Invasive species such as Tamarisk and Russian Olive must be removed and replaced with plant material that has a riparian character. Plant material for use in the riparian areas adjacent to the Arkansas River will be selected from the Naturalized Drainage/Riparian Plant Schedule found in the Appendix of this document.

## 5.2 Detention Pond Areas

Proposed detention pond areas between 8th Street and the Arkansas River shall consist of a natural dry land landscape on the sides of the basin in order to conserve water and to keep maintenance activities at a minimum. A water tolerant seed mix will be incorporated within the bottom of the basin to withstand periodic innundation. This mix must be drill seeded and mulched to help secure its viability. The seed mix for use in these locations shall come from the mix specified in the Appendix of this document.

## 5.3 Runyon Field Park Areas

Any new landscaping proposed for Runyon Field park areas will be installed as mitigation for I-25 improvements. Landscape improvements shall be in keeping with the current design and palatte of plant materials already in use within the park.

## 5.4 Downtown and Neighborhood Gateways

As mentioned previously during the discussion of gateways, landscaping for both the neighborhood and downtown gateways will be used to accentuate focal points, be low maintenance and reflect the arid climate of the Pueblo area. While landscaping of downtown gateways is possible, it will be limited to planters that are created as part of the bridge structure itself. Landscaping of the neighborhood gateways will occur at street level. Maintenance responsibility will fall upon a neighborhood group or homeowners association. Shrubs, ornamental trees and evergreen ground cover should be considered to highlight a piece of sculpture or accentuate signage.

# 6. Sidewalks

The proposed I-25 corridor improvements include the re-connection of neighborhoods once bisected by the original interstate construction. Sidewalks are planned to connect the neighborhoods on the east side of I-25 to those on the west side. This may consist of new walks, additions to existing walks or the rehabilitation of existing walks. Appropriate crosswalks, signage and traffic signals will be required at these locations. These improvements will occur in conjunction with the development of gateways at cross streets beneath I-25. New crosswalks will be of a paving material and color that separates itself clearly from the surrounding pavement.

Sidewalks along city streets will need to be wide enough to accommodate a variety of users. Sidewalks will be a minimum of 8' -0" wide for pedestrian circulation and wider in areas where required to accommodate street furnishings, signage, lighting and adjacent land uses (i.e., restaurants and cafes). Sidewalks must adhere to current city design standards. Integral color, textures and paving patterns are all encouraged to humanize the sidewalk environment.

# 7. Color and Materials

Colors and materials utilized for the Downtown Segment will be based on the materials and colors found in the downtown area (i.e., Victorian architecture and the surrounding landforms). These materials consist of concrete, stone and brick. The stone utilized in this section will be the same stone that is utilized along the entire project. This rock will match the existing stone of the bluffs that surround Pueblo. The rock will be buff to light yellow in color with some variation leaning toward orange. Pink and salmon colored rock must be avoided. This buff colored rock will be Pueblo Buff Sandstone arranged in a random ashlar pattern.

*Rock Bluff at Pueblo Reservoir*

As an alternative, a cultured stone may be used. The cultured stone will be a rough cut ashlar rock pattern with a buff to light yellow color similar to the natural rock mentioned above. Cultured stone will be grouted with black/dark grey grout. Joints shall be raked to minimize grout appearance.

*Random Ashlar Pattern*

## Color Palette

Federal Color-30076

Federal Color-33798

Federal Color-30076

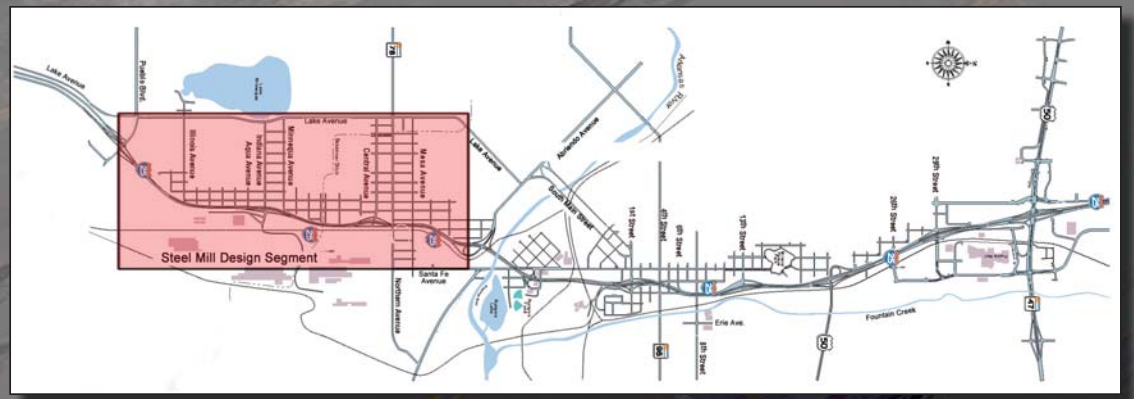
Federal Color-30122

Federal Color-30400

Federal Color-31328

Federal Color-35065

## SECTION SIX– STEEL MILL DESIGN SEGMENT
## (Arkansas River to Pueblo Boulevard)



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# SECTION SIX: Steel Mill Design Segment:

## A. Goals

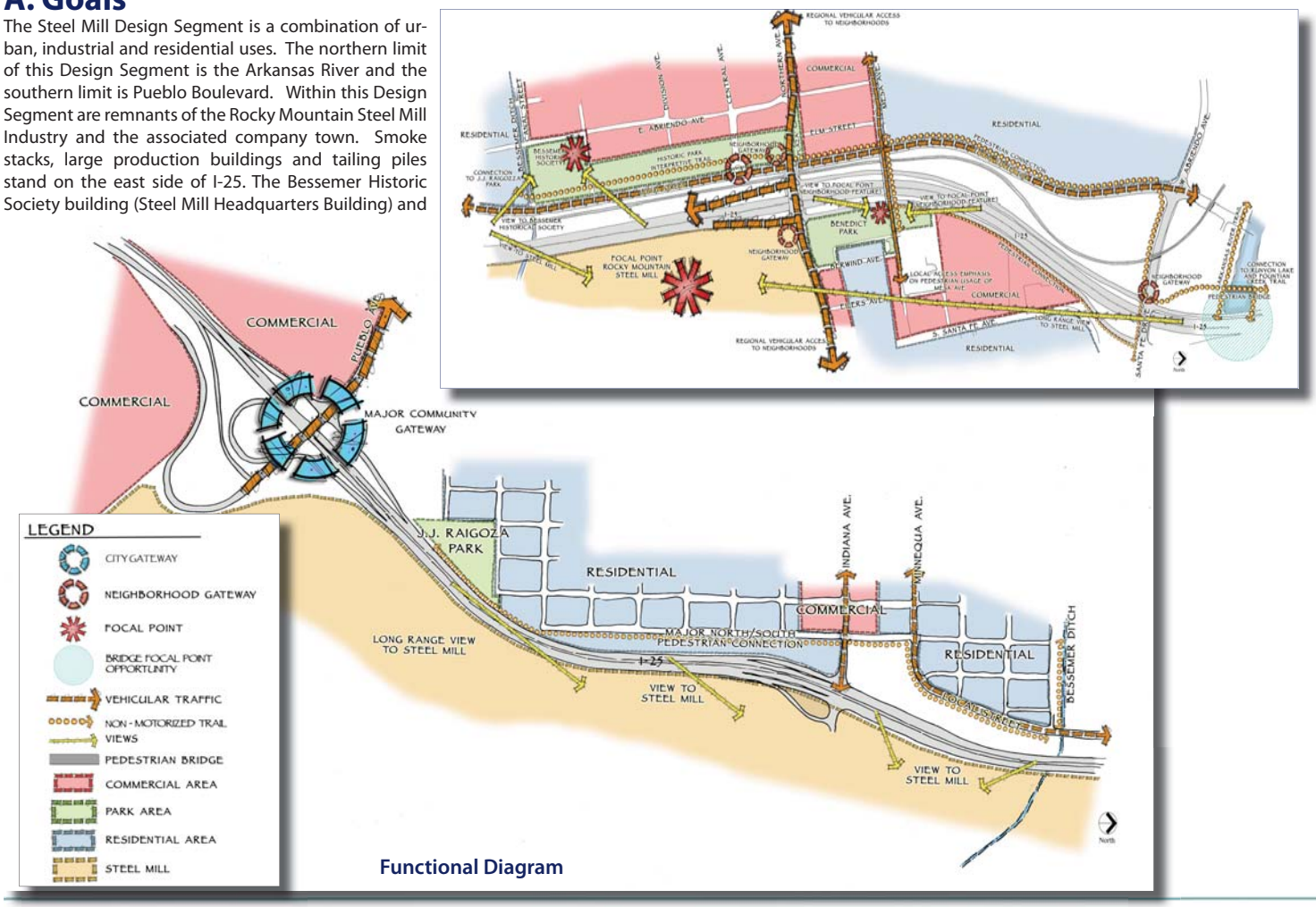
The Steel Mill Design Segment is a combination of urban, industrial and residential uses. The northern limit of this Design Segment is the Arkansas River and the southern limit is Pueblo Boulevard. Within this Design Segment are remnants of the Rocky Mountain Steel Mill Industry and the associated company town. Smoke stacks, large production buildings and tailing piles stand on the east side of I-25. The Bessemer Historic Society building (Steel Mill Headquarters Building) and the company town are located on the west side. This Design Segment is a reflection of Pueblo's industrial heritage.

The reconstruction of I-25 through this design segment includes sound walls and retaining walls as the interstate sits below the surrounding land uses at Mesa and Northern Avenues.

During its initial construction, I-25 became a barrier, bisecting various neighborhoods, local streets, commercial areas, schools and churches; essentially severing the east and west sides of the company town.

The functional diagrams on this page are intended to graphically portray the community and CDOT's functional desires for I-25, local streets and the adjacent land uses within the Steel Mill Design Segment. This vision for the future was developed through many workshops with the community and elected officials. Based on this vision, the following list of aesthetic goals for the Steel Mill Design Segment were developed:

1. Aesthetic treatments shall support the community and CDOT's functional desires for this area.
2. Support the physical re-connection of neighborhoods across I-25.
3. Create a community focal point/neighborhood identity element in Benedict Park, between Mesa and Northern Avenues. It shall be visible traveling both north and south bound on I-25.
4. Aesthetic treatments will reflect the industrial and cultural heritage of this design segment.
5. Establish the southern major community gateway to Pueblo at Pueblo Boulevard.
6. Support historic interpretative opportunities with all aesthetic concepts for this design segment.




Functional Diagram

To help jump start community revitalization, part of the communities intent for this design segment is to reconnect neighborhoods and introduce new commercial development. This is being accomplished in part with the development of a new split diamond interchange including Northern, Mesa and Abriendo Avenues for improved neighborhood access. Non-motorized trails and sidewalks are planned as part of all street and I-25 improvements. Mesa Avenue in particular is seen as a neighborhood connector and pedestrian plaza connecting the east and west over I-25 with no direct connection to I-25 ramps. It will accommodate cars, but overall it is envisioned as part of Benedict Park.

Benedict Park is being redeveloped and relocated in an effort to reconnect neighborhoods, provide a focal point or gateway feature along the I-25 corridor and create an opportunity for a community gathering place.

A new park on the west side of the I-25 corridor is be-

ing created in conjunction with the Bessemer Historic Society. It will serve to interpret the history and growth of the steel mill industry in Pueblo as well as provide a large green belt with non-motorized trails serving as a north/south connection. The major southern Pueblo city gateway is planned for the Pueblo Boulevard/I-25 interchange. It will be similar in theme and scale to the existing northern Pueblo city gateway at the S.H. 50/47/I-25 interchange. Neighborhood gateways are planned at Northern and Abriendo Avenues.

The development of the aesthetic treatments within this Design Segment will come from existing forms, colors and textures found in the Steel Mill and company town. Colors and textures will incorporate the medium reds, buffs and tans that represent a mixture of the Victorian and Southwest architecture. Brick, stucco and stone are reminiscent of the textures utilized in the construction of the area. The industrial age structures that still survive are very dramatic visual elements within this design segment. Designers should carefully incorporate turn-of- the-century design into the aesthetic design of the New Pueblo Freeway improvements. The photo collage provided on pages 52 -54 are intended to provide inspiration for future aesthetic design efforts.

## B. Objectives

1. Highlight and maintain long-range views to the Steel Mill and Arkansas River.
2. Provide views to a new focal point and neighborhood feature created at Benedict Park between Mesa and Northern Avenues.
3. Aesthetic treatments shall support an enhanced pedestrian plaza or mall type connection between the east and west sides of Mesa Avenue.
4. Create a hierarchy of gateways by the level of emphasis placed on the landscape and architectural elements at each gateway. Gateways include a city gateway and several neighborhood gateways.
5. Provide neighborhood gateways to reinforce existing community identities and highlight their uniqueness.
6. Incorporate the history and growth of the steel industry in Pueblo into all historic themes.
7. Develop aesthetic treatments that support development of an historic interpretive park south of Central Avenue on the west side of I-25 and Santa Fe Drive.
8. Reinforce the east/west connection of neighborhoods, play up the importance of the bridge structures at Mesa Avenue.
9. Utilize materials that reflect the native and natural materials and colors of the area. Steel , brick, rock, wood and concrete are all appropriate materials reflecting the Steel Mill and company town character.
10. Create a city gateway at Pueblo Boulevard that is similar in theme and scale to the major community gateway at S.H. 50/47.
11. Create visual buffers between the neighborhoods and I-25.
12. Provide a landscape streetscape along Santa Fe Drive in the modified alignment.

## C. Proposed and Existing Modified Alignment Alternatives within the Steel Mill Design Segment

Within the Steel Mill Design Segment, two interstate alignment alternatives have been identitified. These are known as the Modified and Existing. The Modified alignment relocates I-25 toward the east. This impacts the bridges and roadways at the Arkansas River and along I-25. It also introduces Santa Fe Avenue as a new collector street that parallels I-25.

The Existing alignment does not propose any changes to the location of the interstate. It leaves I-25 in its current location, but modifications do occur with the vertical alignment that include roadway and ramp alterations. The new design will tie into existing grades adjacent to the neighborhoods.

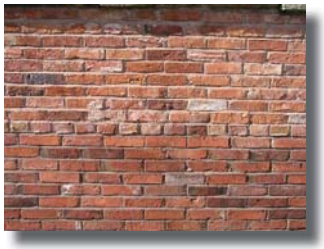
In the following section, the aesthetic treatments for the Modified alignment will be described. Following this description, additional information has been provided if in the existing alignment alternative aesthetic treatments are different than those for the modified alignment alternative.

**Steel Mill**

## Form

## Line

**Color/Texture**



# D. Design Guidelines for Aesthetic Treatments

## 1. Gateways

Gateways may be associated with interstate bridges, landscape features, monuments and park areas. The most predominant gateway feature within the Steel Mill Design Segment will be the bridges spanning I-25. Several have been identified to serve as gateways along this section of interstate.

Two types of gateways are depicted on the Functional Diagram for this Design Segment. See page 51. These are known as city and neighborhood gateways. City gateways are the most important in the hierarchy of gateways along the interstate. The first is identified in the Fountain Creek Design Segment and is already constructed at S.H. 50/47. A second city gateway is proposed at Pueblo Boulevard. This gateway signals the entrance into Pueblo for travelers coming north along I-25.

The second type of gateway is the neighborhood gateway. These have been identified for the Abriendo/Santa Fe Drive interchange and at Northern Avenue after crossing over I-25 on both the east and west sides. In the modified alignment, a third neighborhood gateway has been identified for Central Avenue. Gateway features at these locations will help to unite the neighborhood areas on either side of I-25. These should be recognizable from both the interstate and from the neighborhood streets above.

Although not officially designated as a gateway on the Functional Diagram, but as a bridge focal point opportunity, the Arkansas River bridge functions as the main focal point structure for the New Pueblo Freeway. The importance of the Arkansas River can not be overstated since it is considered the birthplace of Pueblo and should be captured in the hierarchy of bridge structure design second only to the City Gateways and Downtown Gateways.

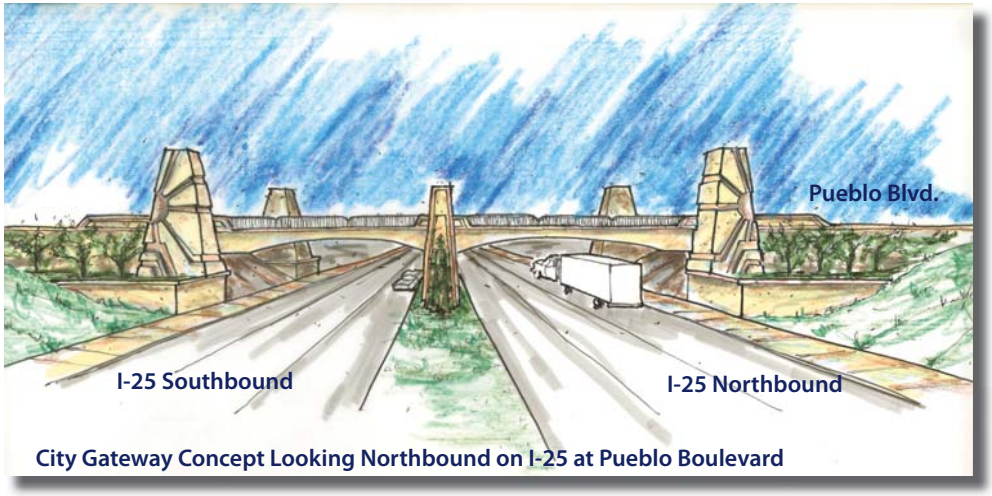
### 1.1. City Gateway (Pueblo Boulevard)

As mentioned in Section Two: Aesthetic Treatments, city gateways are the most significant gateways along I-25 within the hierarchy of gateways designated for the corridor. Both ends of I-25 through Pueblo have been identified as city gateways. The I-25/S.H. 50/47 city gateway to the north of Pueblo has already been constructed.

The aesthetics of the Pueblo Boulevard city gateway should be in keeping with the sister gateway at S.H. 50/47, while retaining some original identity reflective of its own contextual relationship to the surrounding environment (i.e., landforms) and its proximity to the existing Steel Mill property.

I-25/50-47 Bridge

S.H. 50-47 Bridge



City Gateway Concept Looking Northbound on I-25 at Pueblo Boulevard

### 1.2 Neighborhood Gateways (Central, Northern and Abriendo Avenues)

#### 1.2.1 Central Avenue

The Central Avenue neighborhood gateway is the furthest south neighborhood gateway. Access to Central Avenue will occur using the Santa Fe Avenue extension serving as a collector road to the southern Pueblo area. This only occurs in the Modified alignment. Central Avenue also provides access to Lake Minnequa Park. In the modified alignment, a round-about is planned at this location allowing for a more formal landscape treatment and sculpture. See plan below.

Central Ave. Gateway Concept

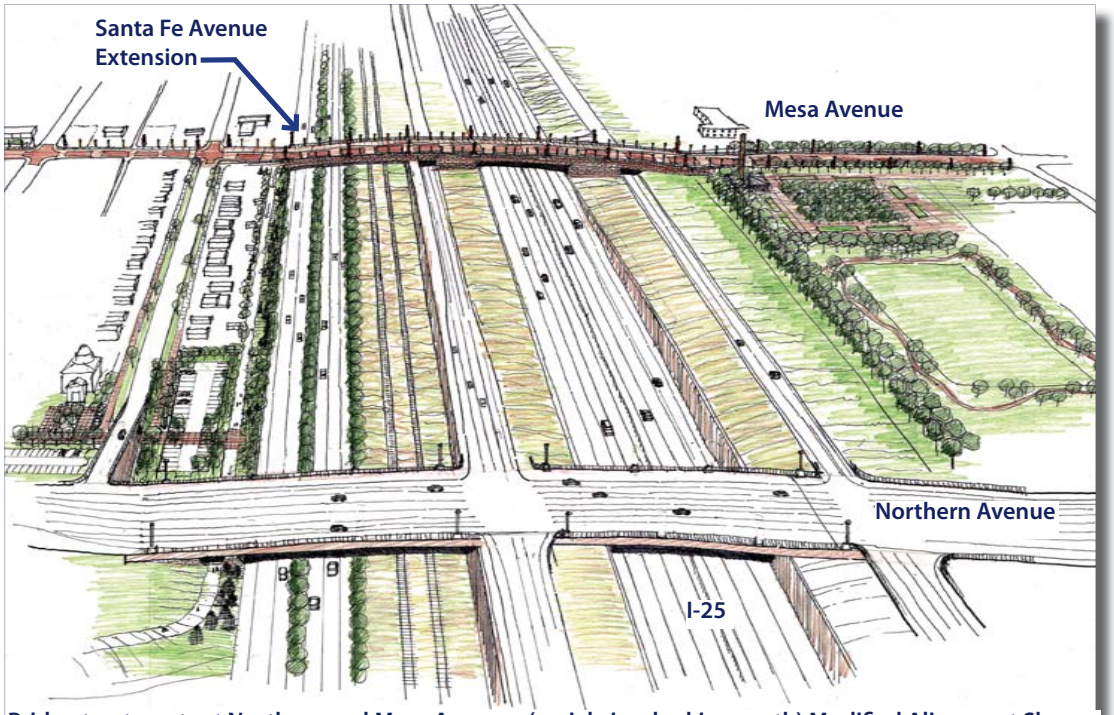
### 1.2.2 Northern Avenue

Northern Avenue is a neighborhood gateway. This gateway serves as a major connector between the east and west neighborhoods and as the primary access to Benedict Park, the Steel Mill and Bessemer Neighborhood. The character of this gateway should incorporate elements from the Steel Mill industry and the historic Bessemer Neighborhood.

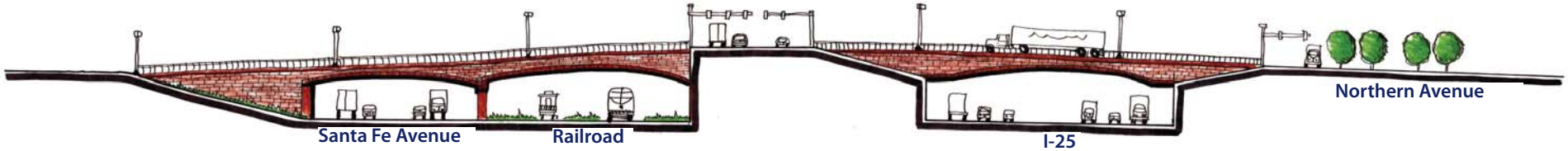
The Northern Avenue bridge structures in both the Modified and Existing alignments should look more understated as shown on this page to place more emphasis on the Mesa Avenue Bridge.

A formal landscape approach is envisioned for both the east and west sides of Northern Avenue. Landscape treatments should mirror one another to tie the east and west sides of I-25 together. Landscaping at these two locations will need to be coordinated with the landscaping within the proposed Bessemer Neighborhood Park and the neighborhood redevelopment occurring on the east side of I-25.

Landscaping in these areas are envisioned to be ornamental and water conserving due to the very hot and dry conditions that exist in Pueblo. Landscape will provide year round interest with texture, colors and variations in height that may augment any retaining walls or sculptures used. Plants selected for the gateways should come from the Gateway Plantings Plant Schedule found in the Appendix of this document. Maintenance would be the responsibility of the property owner.




Bridge treatments at Northern and Mesa Avenues (aerial view looking north) Modified Alignment Shown




Bridge Treatment at Northern Avenue (looking north) Modified Alignment Shown

**Bridge Treatment at Mesa Avenue (looking south) Modified Alignment Shown**

### 1.2.3 Mesa Avenue

The Mesa Avenue bridge serves as the community focal point and neighborhood identity element. It not only connects neighborhoods across I-25, but in conjunction with Benedict Park becomes a community gathering place. This structure is intended to be highly visible from I-25.

As part of the New Pueblo Freeway improvements, Benedict Park will need to be relocated. The Mesa Avenue bridge is immediately adjacent to the proposed relocated Benedict Park. The Mesa Street bridge serves a dual purpose as a vehicular connection over I-25 and a strong pedestrian space that extends the new Benedict Park over I-25. This bridge can be closed to vehicular traffic when large functions are planned (i.e., festivals, farmers markets, civic functions such as street fairs, carnivals, holiday events, etc.). See sketches this page.

Flat arches provide a victorian feel to the bridge structure itself. Plantings on the bridge are envisioned to help soften the appearance of the overall bridge structure from I-25. Brick or faux brick facing on the bridge will also emphasize the victorian feel of the industrial building at the steel mill.

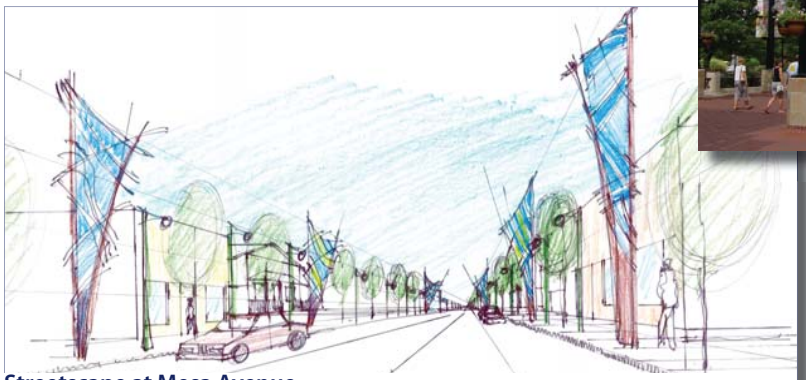
The plantings on the bridge will require raised planters. These planters will be planted with shrubs, annuals/ perennials and vines. They will require irrigation and maintenance by the City of Pueblo.

**Concept for Mesa Avenue Bridge**

A strong vertical element is planned at the eastern edge of this bridge within Benedict Park. This element will serve as a focal point.

The bridge deck will be designed as a vibrant pedestrian space. It allows for cars, street vendors, street furniture and decorative paving, lighting and landscaping. See page 58 for examples of linear pedestrian spaces that can connect neighborhoods across the bridge.

**Examples of Pedestrian and Promenade spaces that can connect neighborhoods along Mesa Avenue over the bridge.**



**Streetscape at Mesa Avenue**

***Vertical elements can be used across the Mesa Street bridge into the neighborhood visually connecting the east and west neighborhoods.***

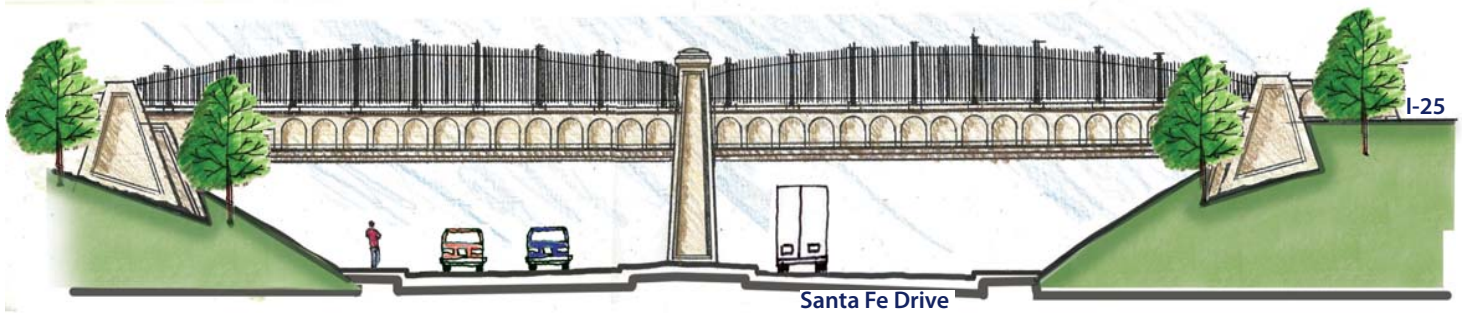
***Repetition of streetscape elements ties the space together.***

***Bridge as a focal point.***

### 1.2.4 Abriendo Avenue
### Existing Alignment

The Abriendo / Santa Fe Drive interchange will serve as a neighborhood gateway to the neighborhoods adjacent to the Arkansas River. I-25 will be constructed over Abriendo and Santa Fe Drive. The I-25 bridge should have an historic highway bridge feel along with the use of metal to reflect the steel mill heritage. See sketch on this page.

Landscaping will be limited to the installation of deciduous trees and seeding within the right-of-way areas. Due to the arid climate of Pueblo, landscaping should not have excessive water usage demands. Plantings at this gateway should be selected from the Gateway Planting Schedule located in the Appendix of this document.




**Neighborhood Gateway Concept at Abriendo Avenue (Looking East) Existing Alignment Shown**

#### 1.2.4.1 Abriendo Avenue
#### Modified Alignment

In the Modified alignment, Abriendo and Santa Fe Drive will be on the bridge structure over I-25. The bridge structures for both alignments will have the same aesthetic treatments. Concrete and steel are appropriate.

The retaining walls for the ramps will tie into the new bridge structures. Walls and railroad bridges will incorporate the same aesthetic treatments. The landscape associated with this gateway will be the same for each alignment alternative.

### 1.2.5 Indiana Avenue

The Indiana Avenue bridge is located in the heart of the Steel Mill Design Segment and provides direct access to the Steel Mill property. I-25 will be a bridge structure that goes over Indiana Avenue. This bridge relates most to the Steel Mill and the adjacent Bessemer neighborhood. The bridge should relate to the other bridge structures at Abriendo and Santa Fe Drive. Concrete and steel are the appropriate materials.

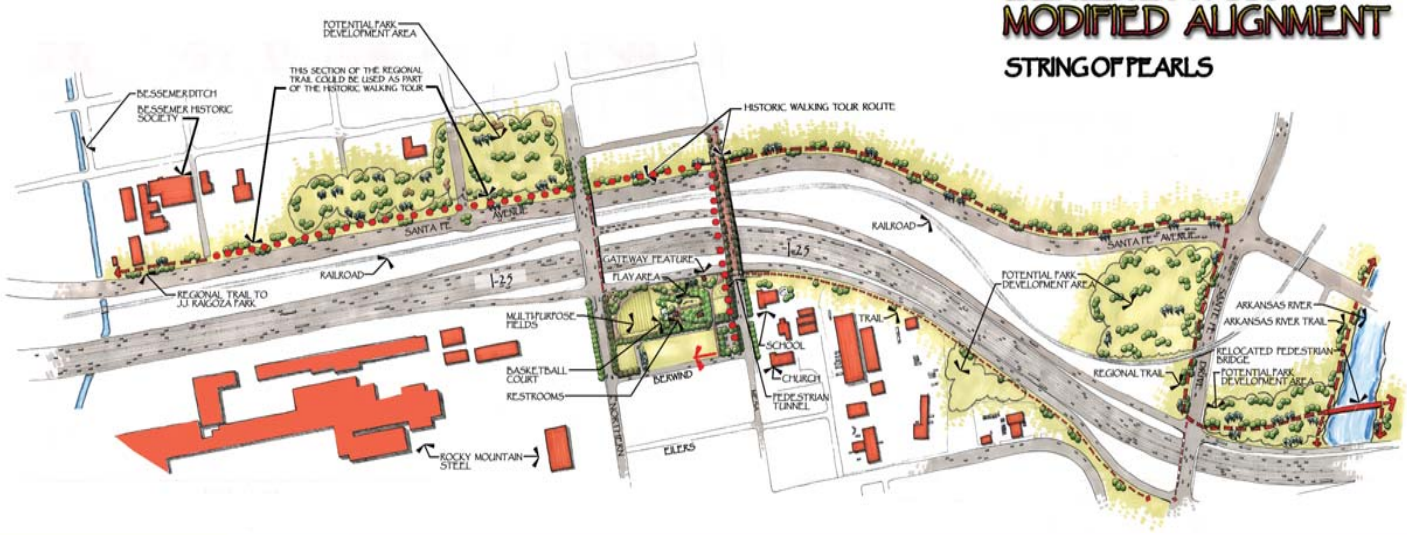
**Bridge Concept at Indiana Avenue (looking East)**

## 2. Parks

### 2.1 Benedict Park

The redevelopment of Benedict Park as part of both the modified and existing alignments between Northern Avenue and Mesa Avenue, will provide an opportunity for the park to become a focal point and community gathering place along the I-25 corridor. Multi-purpose fields, basketball courts, play areas and restrooms are some of the conceptual park amenities envisioned. Themeing for the park will be historical in nature and tie into the proposed Bessemer historic Neighborhood Park envisioned along the west side of I-25. A historic self-guided walking tour from the Bessemer historic society building along I-25 north to Benedict Park could be planned. This route provides great views to the steel mill and great opportunities to interpret company town layout and development.

In order to make Benedict Park more accessible and useful to the community, the park is being relocated between Northern and Mesa Avenues on the eastern side of I-25. In order to tie the park into its urban setting, landscaping for the park will be more formal. Tree lined streets are envisioned for Northern and Mesa Avenues. Expansive green spaces or lawn areas are planned for open recreational activities. In order to provide some screening and noise abatement from the road, an informal planting of evergreen and deciduous trees and shrubs are proposed for the western side of the property. The active recreational core will have picnic shelters, play areas and basketball courts and will be selectively landscaped with evergreen and deciduous trees and shrubs to provide separation and to aesthetically enhance the park users experience. Plants selected for landscaping should come from the Benedict Park Plant Schedule found in the Appendix of this document. Maintenance of the landscaping would be the responsibility of the City. See this page for Benedict Park plans that reflect both the modified and existing alignment.

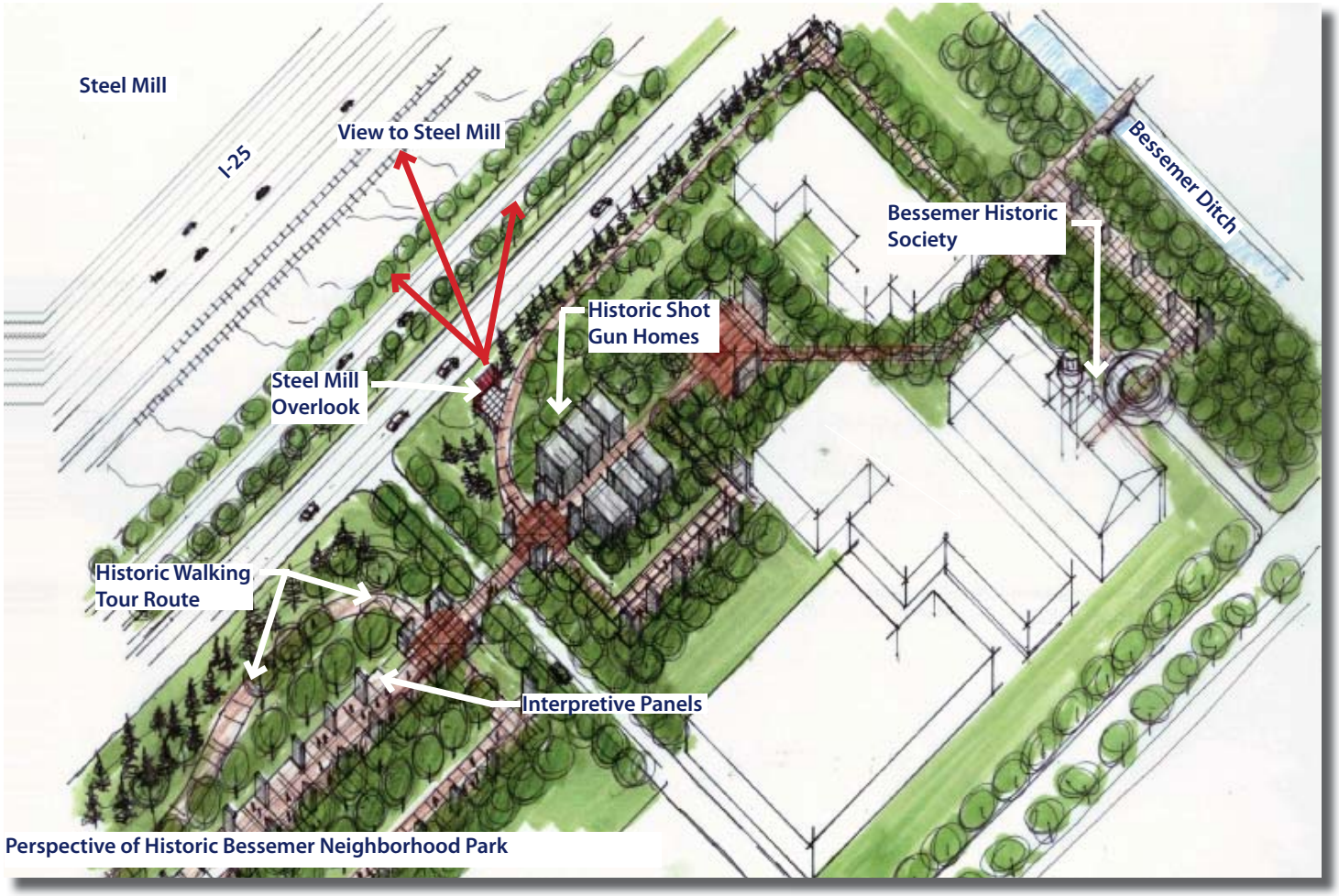


## 2.2 Bessemer Historic Neighborhood Park

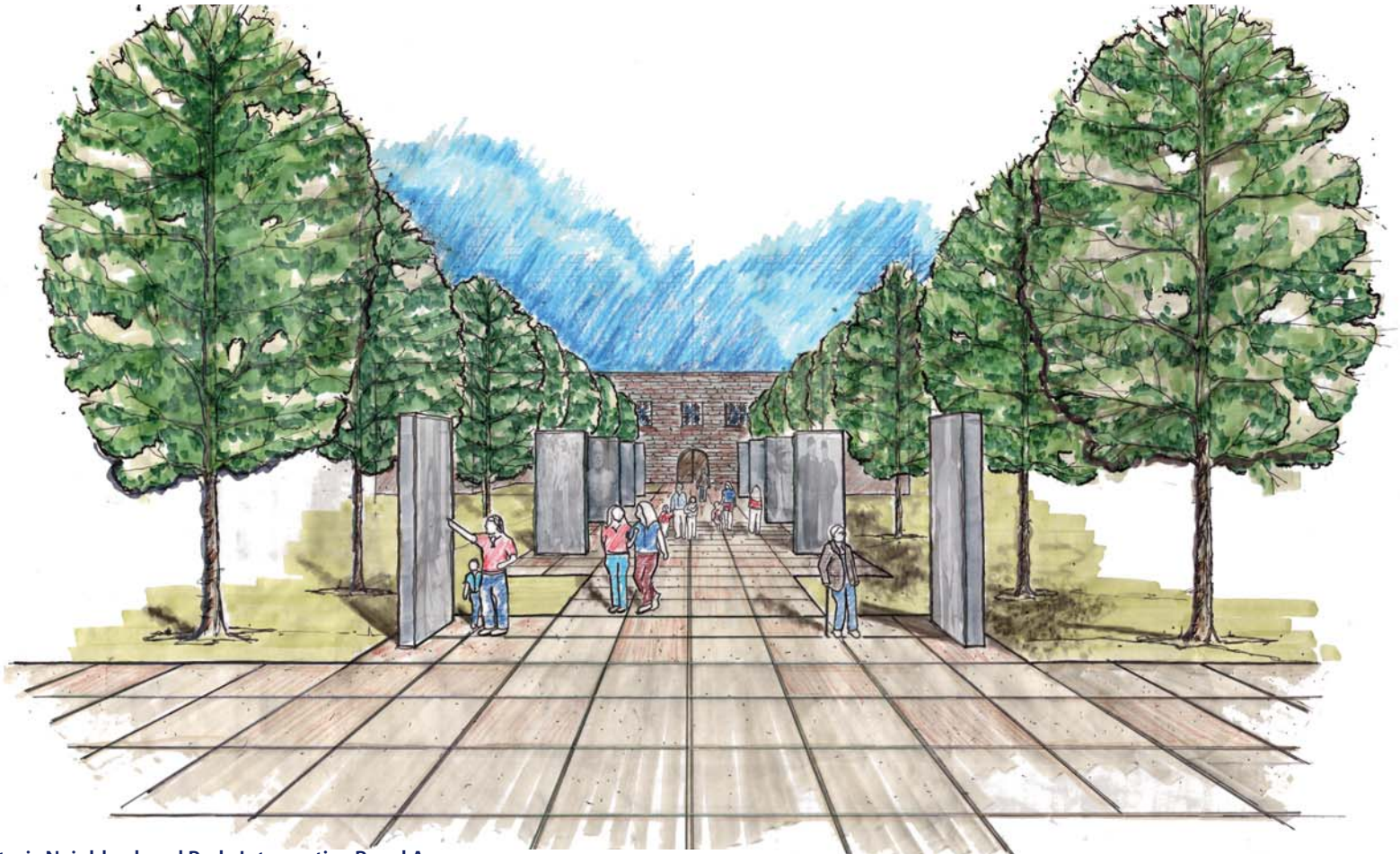
The Bessemer Historic Society has created a site renovation master plan for their facilities at the old CF&I headquarters building. This was completed in June of 2009. With the development of the New Pueblo Freeway, the community and the Bessemer Historic Society will have the opportunity to further improve the facilities. Opportunities for historic interpretation, walking tours and steel mill over looks can be incorporated into the design of the New Pueblo Freeway as historic mitigation. What is included in these aesthetic guidelines is a concept for what these improved facilities could be.

The Bessemer historic neighborhood park could reflect the historical heritage of the once thriving steel mill industry including cultural history of the emigrants that worked at the mill. A historic walking tour is envisioned within the park that will include interpretive panels, views of the former company town houses and a connection to the Bessemer Historic Society Building. The proposed historic walk will also cross over I-25 via Mesa Avenue into the redeveloped Benedict Park to the east.

This park will celebrate and interpret the history of the Steel Mill Industry within the City of Pueblo Plants selected for landscaping shall come from the Benedict Park Plant Schedule found in the Appendix of this document. Maintenance of the landscaping would be the responsibility of the City. See the proposed park sketches on pages 61 and 62.




Perspective of Historic Bessemer Neighborhood Park

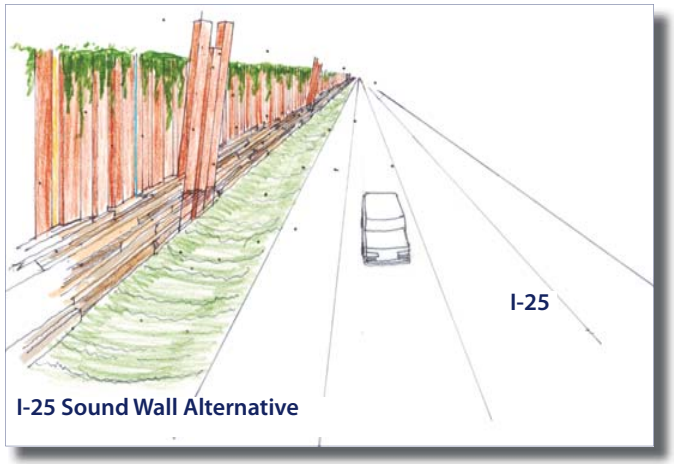


**Bessemer Historic Neighborhood Park: Interpretive Panel Area**

## 3. Retaining/Sound Walls

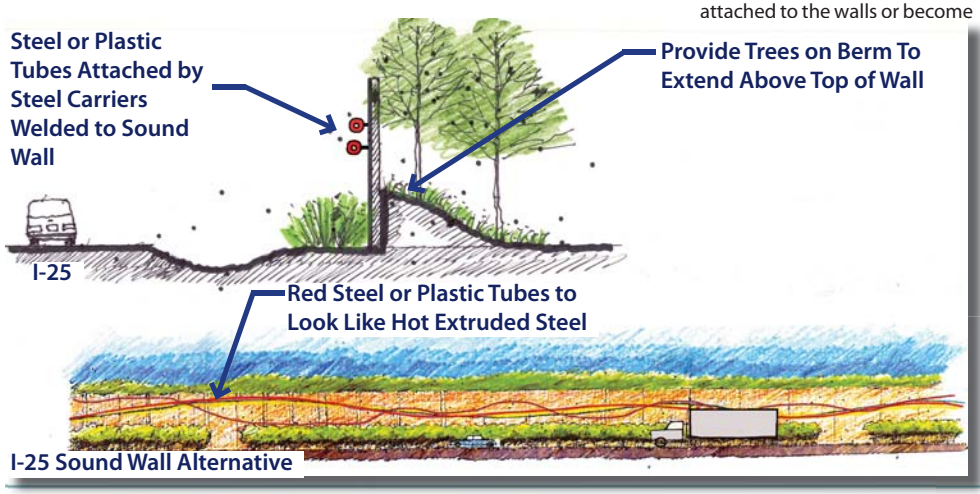
Noise and retaining walls are proposed for portions of this Design Segment where grade changes can not be addressed through normal grading techniques and where existing residential and park areas warrant buffering from vehicular noise. These walls shall reflect the character of the Steel Mill and the historic company town flavor.

Views from the interstate will provide glimpses of the Steel Mill, Benedict Park and the proposed Bessemer historic Neighborhood Park. Where certain views are desirable, consideration should be given to architectural breaks in the face of the walls such as glass block panels or view screens. Due to the height of the walls, especially where they abut residential areas, dark shadows may be cast and natural sunlight would be limited. View screens and/or glass block panels would provide an avenue for natural daylight.



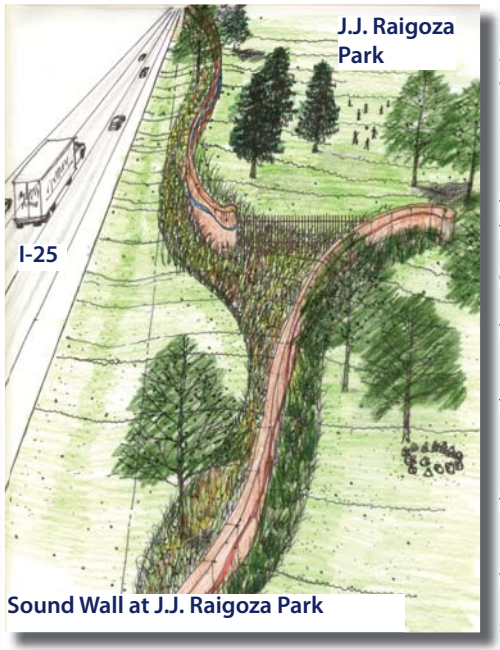
I-25 Sound Wall Alternative

Wall construction might consist of steel, precast concrete etc. to reflect the industrial character of the area. Walls should become an artistic element within this Design Segment. The aesthetic treatment to the exterior (I-25 side) of the walls should be visually apparent to traffic traveling a minimum of 55 mph. Large scale graphics and bolder forms would be necessary in order to appeal to moving vehicles. A singular theme could run continuously along the wall face. Sculptural elements can be incorporated within the design of the wall, artwork may be attached to the walls or become an integral part of the wall. Any variations in the wall height or change in surface would help to reduce the scale of the wall.



I-25 Sound Wall Alternative

Careful consideration should be given to the aesthetic at the neighborhood side of the wall. The side facing the residential and park areas will need to appeal in scale to the pedestrian user. The scale and detail of the proposed neighborhood side might include historical pictures, artwork or interpretive information pertaining to the history of the Steel Mill and Bessemer neighborhood. Where walls are used in conjunction with J.J. Raigoza Park, the interior surface treatment might include playful and colorful shapes, educational plaques or sculptures and/or a tribute to J.J. Raigoza.



Sound Wall at J.J. Raigoza Park

Landscaping for J.J. Raigoza Park will be more informal. The park is developed with mature landscaping. Areas along the eastern edge of the park adjacent to I-25 will be disturbed due to improvements being made to the interstate. Landscaping will be limited to the replacement of existing trees with like material and sod areas.

Supplemental deciduous trees and ornamental grasses may be used along the exterior face of the wall to soften the walls appearance.

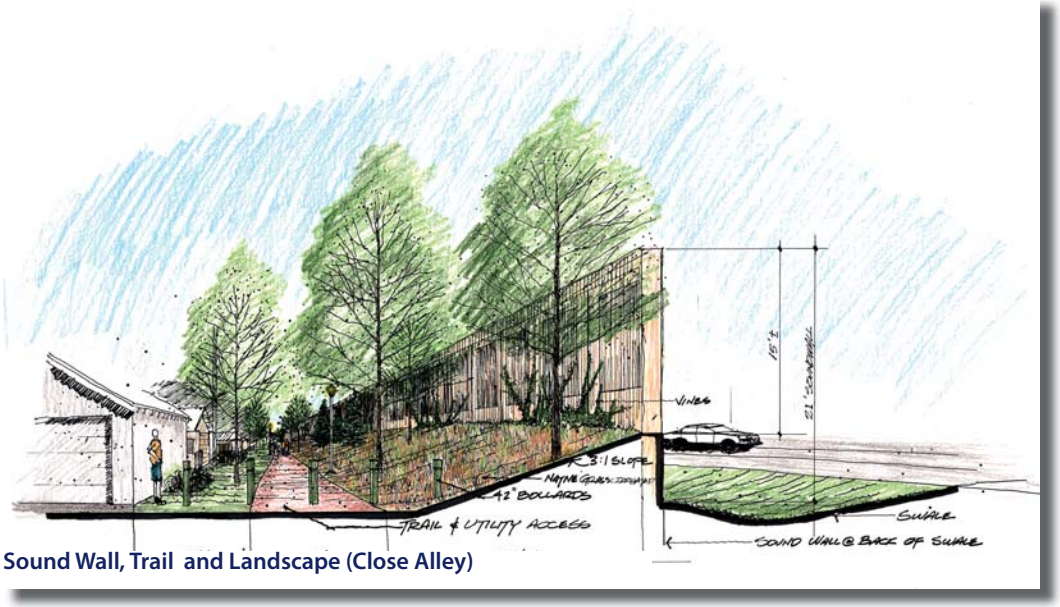
Landscaping installed in conjunction with the construction of the sound and retaining walls adjacent to the existing Bessemer neighborhood and the new Bessemer Neighborhood Park may be limited to the neighborhood side or non-interstate side of the wall. The park and residential areas will benefit from the addition of landscaping helping to blend the walls with the existing character. The landscape within the residential areas will be more manicured or formal. Due to space limitations, treatments may include planters constructed adjacent to the walls or as part of the walls for plant material.

As an alternative, for the Minique neighborhood, alleys along I-25 would be closed as depicted on page 64. A narrow sloped sod or native grass area may be incorporated adjacent to the wall with deciduous trees. An evergreen vine may also be planted and allowed to grow up the wall in an attempt to help soften the wall. A sidewalk/trail will be provided at the base of the sloped area to connect the neighborhoods with J.J. Raigoza Park.

Glass panels or screens will be provided along the face of the wall to allow views to the plantings and also provide daylight to the residential side of the wall.

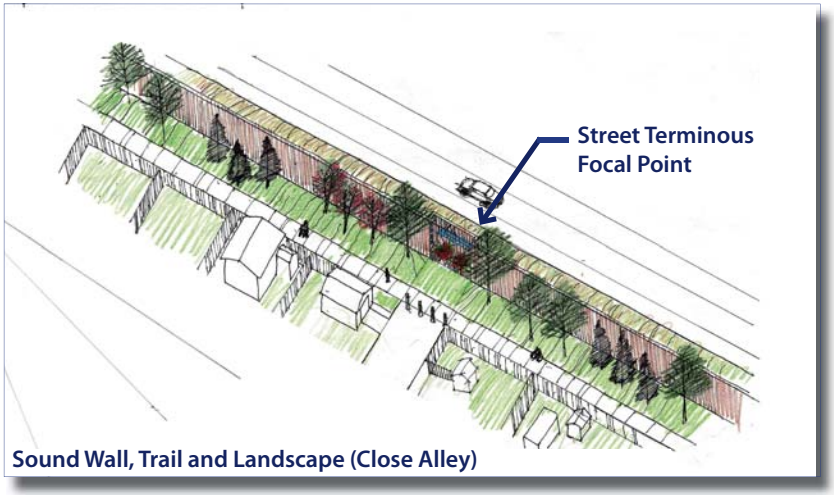
Separate recessed areas would be provided in the wall face on the residential/park side to allow for the placement of individual planted pots. The pots themselves could of various colors and shapes to add interest and break up the linear wall face. These occur at street terminuses or focal points.

Landscaping for the interstate side of the retaining walls will be limited to what is being installed as part of the right-of-way treatment. Maintenance of the landscaping associated with the retaining and/or sound

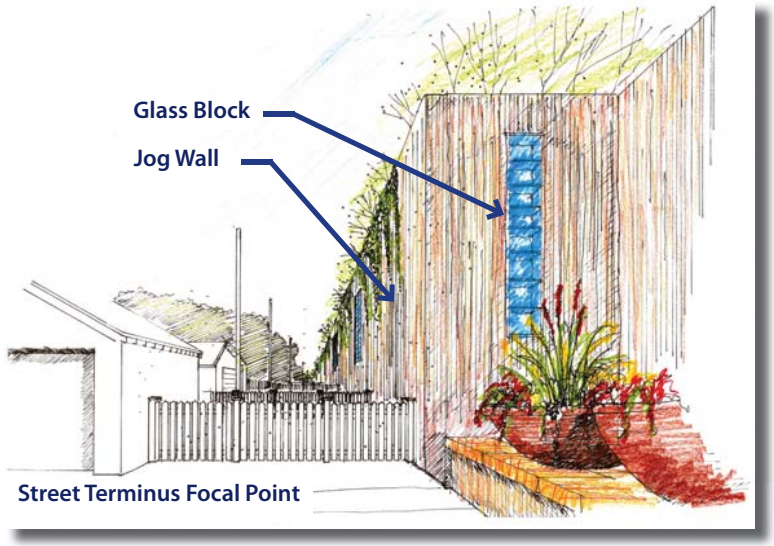



**Sound Wall, Trail and Landscape (Close Alley)**

walls would be the responsibility of the CDOT. Maintenance of the landscaping and trail would be the responsibility of the City or neighborhood association.

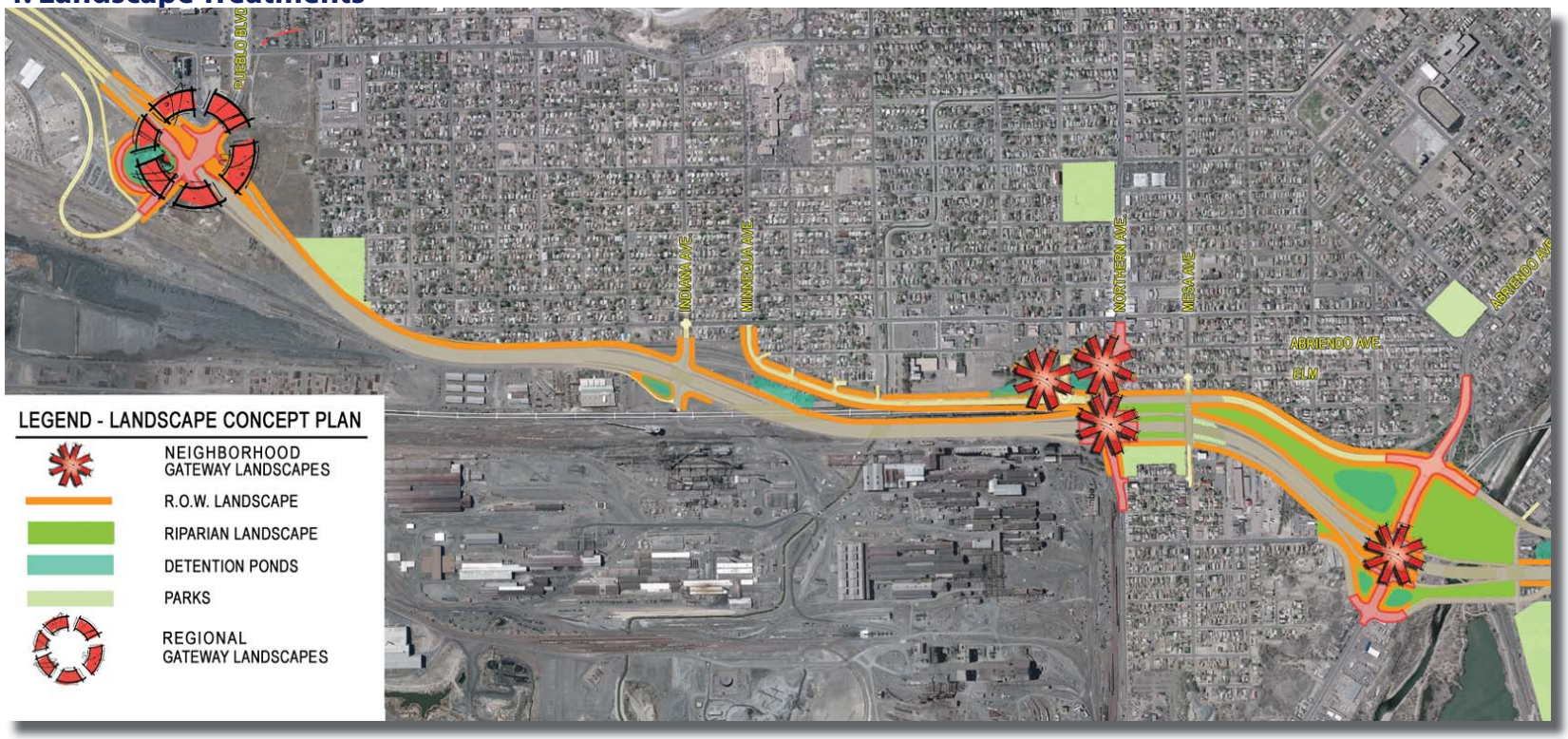



**Sound Wall, Trail and Landscape (Close Alley)**




**Street Terminus Focal Point**

# 4. Landscape Treatments




Formal landscape treatments are envisioned for the neighborhood areas associated with the proposed Bessemer Historic Neighborhood Park, at the proposed gateway features for Pueblo Boulevard and Central Avenue and at Northern Avenue. See the Appendix for associated plant schedule. A less formal landscape approach will be taken with right-of-way areas, internal landscaping within parks and plantings associated with the construction of noise/retaining walls.

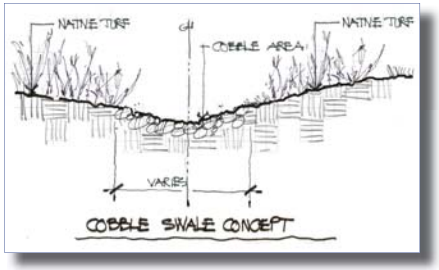
## 4.1 Right of Ways

Dryland grasses such as a Low Growing Grasses (See Appendix) Mix will be used along all roadway shoulders within the right-of-way where soil stabilization is required and in all areas where special aesthetic treatments have not been identified. This mix shall be drill seeded and mulched to help assure its viability.

Where drainage patterns dictate, a rounded river cobble swale would be encouraged to assist with drainage. Maintenance would be of CDOT or the City depending on what the right-of way is.

## 4.2 Detention Ponds

Storm water from I-25 and adjacent land uses drains toward the west and alongside the western edge of the interstate. Detention ponds have been strategically placed in this area to capture and treat storm drainage. They will have fairly steep side slopes (i.e., 3:1 slopes) and flat bottoms. In some ponds, low flow channels are required to ensure positive drainage. To make these low flow channels appear more natural, cobble swales, grouted or un-grouted, will be constructed in lieu of concrete drain pans.




-It is assumed that these pond areas will have standing water or moistened soil conditions that would support riparian and possibly submerged aquatic plants. These plants shall be placed in the very bottom of the detention pond or along the low flow channel. The steeper slopes of these ponds shall be seeded with a dry land or xeric grass types. Submerged aquatic seed can be added to this grass seed mix and can be seeded in the

bottom of these ponds. This will allow the submerged aquatic plants and dry land seed to germinate where there is adequate moisture.

Riparian plants, such as willows, may be introduced in areas where moisture is more prevalent and can support these types of plants. Plants will be selected from the Detention Basin Plant Schedule located in the Appendix of this document.

## 4.3 Arkansas River Floodplain/Riparian

Any new landscaping proposed within the Arkansas River corridor would occur as restoration of distrubed areas. Disturbed areas will be relandscaped using plants selected from the Riparian Plant Schedule located in the Appendix of this document. As closely as possible, all newly planted areas will reflect the natural landscape. No formal plantings will occur in the Arkansas River Flood Plain. Maintenance would be the responsibility of the property owner.

## 5. Irrigation

Areas to be irrigated by an underground irrigation system will be limited to the gateways, landscaping associated with park areas and the residential sides of the retaining/noise walls. Irrigation for the landscaping of the detention ponds and right-of-way areas will rely on natural rainfall.

## 6. Trails and Sidewalks

A series of sidewalks and trails are proposed for construction in connection with the redesign of I-25 through the Steel Mill Design Segment. Once the new configuration for Santa Fe Avenue and Abriendo Avenues are complete, a sidewalk and/or trail will be installed to connect the Arkansas River Trail, Runyon Lake and the Fountain Creek Trail on the west side of I-25 heading north. This sidewalk and/or trail will continue from Abriendo Avenue south along the frontage road past the proposed Bessemer Neighborhood Park and eventually to J.J. Raigoza Park. A separate interpretive trail/walk is proposed within the new Bessemer Neighborhood Park that will highlight the people, events and development of the steel mill industry.

From its intersection with Mesa Avenue, this new walk/trail will allow pedestrians to cross over I-25 via Mesa Avenue to the east side. This pedestrian walk will provide a direct connection to the newly relocated Benedict Park.

Sidewalks installed along city streets, will be wide enough to accommodate a variety of users. They should be a minimum of 8'-0" wide for pedestrian circulation and wider in areas where street furnishings, signage etc. may be installed. Sidewalk design and construction must adhere to city standards. Integral color, textures and paving patterns are all encouraged to add to the human scale.

Where trails are constructed to connect to existing trails within Runyon Lake, along the Arkansas River and into the existing and proposed parks, a consistent material should be chosen to match what has already been installed.

## 7. Public Art and Sculpture

Public art and sculpture will most likely be located within the existing and proposed parks , as part of the pedestrian type mall that is envisioned for Mesa Avenue. The themeing for the art and sculpture should be keeping with the neighborhood historic theme.

## 8. Color and Materials

Colors and materials utilized for the Steel Mill Segment of New Pueblo Freeway will be based on the materials and colors in the built environment and include colored concrete, stone, and steel. The stone utilized in this section will be the same stone that is utilized along the entire project. This rock shall match the existing stone of the bluffs that surround Pueblo. The rock shall be buff to light yellow in color with some variations leaning toward orange. Pink and salmon colored rock will be avoided. This unifying natural accent rock shall be Pueblo Buff Sandstone arranged in a random ashlar pattern.

As an alternative, a cultured stone may be used. The cultured stone will be a rough cut ashlar rock pattern with a buff to light yellow color similar to the natural rock mentioned above. Cultured stone shall be grouted with black/dark grey grout. Joints shall be raked to minimize grout appearance.

*Rock Bluff at Pueblo Reservoir*

*Random Ashlar Pattern*

### Color Palette

- Federal Color-30076
- Federal Color-33798
- Federal Color 37031
- Federal Color-30091
- Federal Color-30115
- Federal Color-30252
- Federal Color-32144
- Federal Color-33697
- Federal Color-35180
- Federal Color-35065

## SECTION SEVEN:
## Existing Corridor Conditions

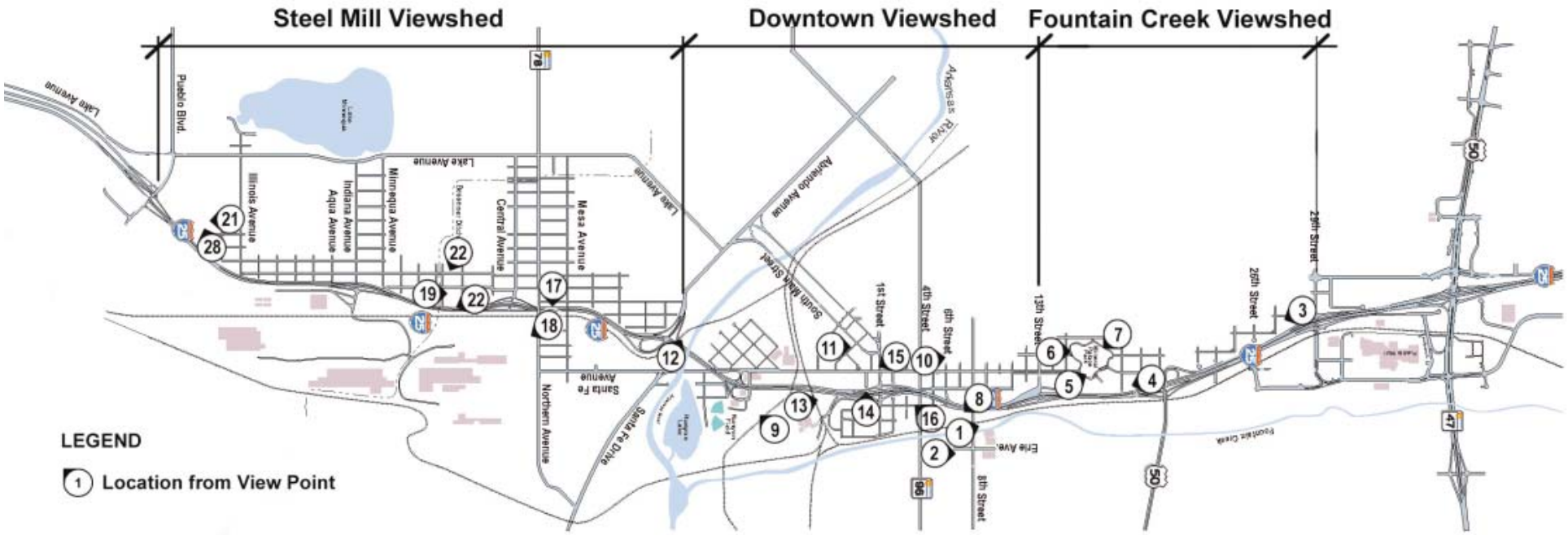
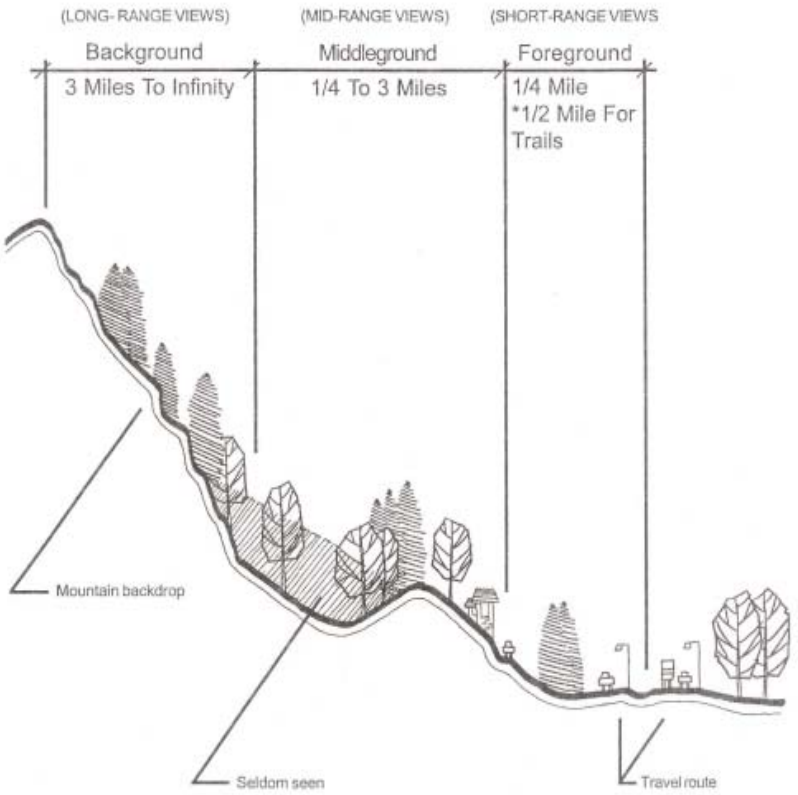



*Photo Site Analysis Map*

*New Pueblo Freeway Corridor Study Area*




***Views/Distance Zone Section***

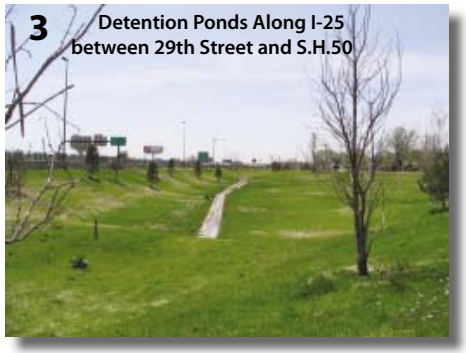
# A. View Shed Analysis

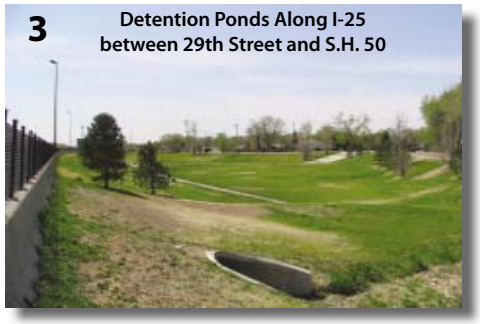
To understand how this highway project could affect the aesthetic quality of the region, urban designers assessed the existing views within the I-25 corridor. This was done by visual analysis identifying view sheds. A view shed is a geographical area that is defined on all sides by significant landforms or man made elements that terminate a view. From whatever point within the view shed a viewer stands, the view is contained or limited to the area of the view shed. The study area has been defined by three different distinct view sheds; the Fountain Creek View Shed, the Downtown View Shed, and the Steel Mill View Shed. Different types of views are described in each view shed. Please see the "Views/ Distances Zone Section" on previous page for a description of the different views based on distance.

## 1. Fountain Creek View Shed

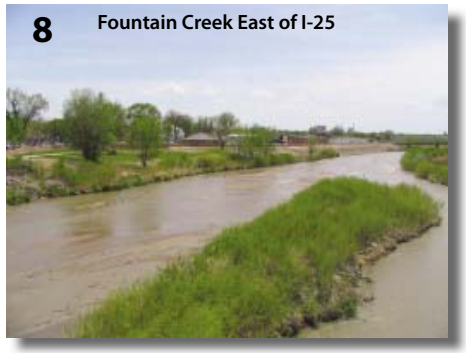
The Fountain Creek view shed extends from the 29th Street interchange on the north to the 13th Street on the south. A strong presence of open space and parks makes this view shed unique within the study area. Fountain Creek and its surrounding floodplain is the dominant visual feature.

Views into the floodplain, Mineral Palace Park and the 29th Avenue detention ponds enhance the natural appearance of the view shed for motorists on I-25 and local residents.




Residential and commercial buildings line the edge of the Fountain Creek Floodplain and define the eastern edge of this view shed.




The residential neighborhoods act as a visual barrier to motorists on I-25 looking to the west. On the south end of the view shed, views to the west open up highlighting the north end of Downtown Pueblo. Notable visual features in the Fountain Creek view shed include Mineral Palace Park, the Pueblo County building between 10th and 11th Streets, Fountain Creek, and the flood wall north of 8th Street along the east side of I-25.

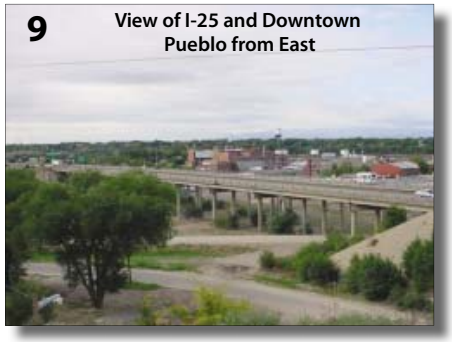
East of I-25 the highway is visible to anyone standing in the Fountain Creek Floodplain. Neighborhoods east of the floodplain and neighborhoods on the west side of I-25 also have a clear view of the highway.

I-25 is highly visible from Mineral Palace Park and Mineral Palace Towers, a senior residential high rise on the west side of the highway.

Within the Mineral Palace Park neighborhoods, glimpses of I-25 can be seen when looking down the neighborhood streets. Views both to and from I-25 are greatly opened up in the winter months when the extensive vegetation is dormant with no leaves.

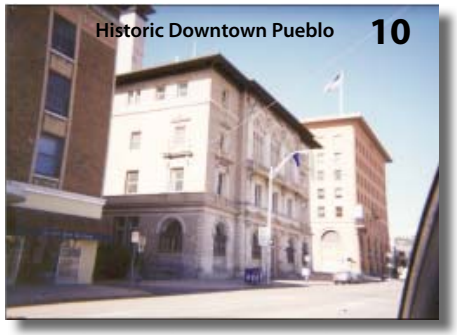
## 2. Downtown View Shed

This view shed extends from 13th Street on the north to the bluffs above the Arkansas River on the south. Primarily urban, this view shed is the largest




within the project area. The Downtown view shed is a blend of the old and new, reflecting the heritage of the City. This area is dominated by brick Victorian structures but also include the Downtown rail yards, views to the CFI Steel Mill, views to the Art Center and views to the Historic Arkansas River Walk Project (HARP). On the east, the Downtown view shed is bounded by the eastern edge of the Fountain Creek floodplain.

To the west, it is bounded by the bluffs just west of Pueblo. This view shed is made up of the two converging floodplains associated with the Arkansas River and Fountain Creek. Along the Arkansas River, natural mature vegetation becomes a soft southern edge to the



view shed. Views from I-25 into Downtown Pueblo and longer-range views to the west exist for the full length of the view shed. The bluffs just east of Runyon Field along with Goat Hill block longer range eastern views.

Notable visual features in the Downtown view shed include Goat Hill, Runyon Field, the bluffs along the Arkansas River, the Downtown rail yards and the CFI Steel Mill.

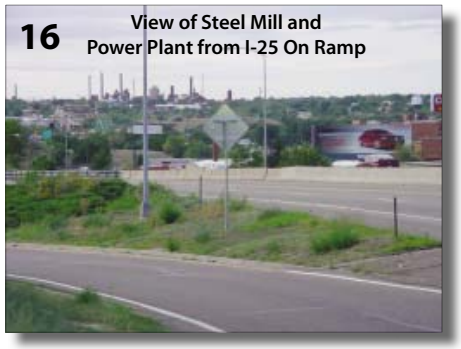
The landscape within this view shed is relatively flat. I-25 is elevated on a series of embankments and viaducts that provide the interstate traveler with a bird's-eye view of Downtown Pueblo. For the interstate traveler, the curves along I-25 allow very dramatic views to both the Steel Mill and Goat Hill.

Since I-25 is elevated, it is a highly visible feature from downtown and the surrounding neighborhoods. Because I-25 sits so high in relationship to everything around it, the interstate is seen as a barrier that divides the community, east from the west.

## 3. Steel Mill View Shed

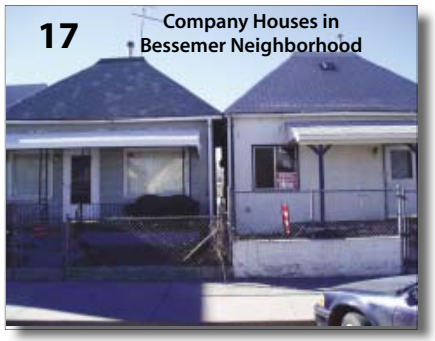
The Steel Mill view shed extends from the Arkansas River on the north to Pueblo Boulevard on the south.

The east edge of the view shed is created by the steep slopes adjacent to I-25, along with the buildings and tailing piles of the Steel Mill. The western edge of the view shed is defined by steep side slopes adjacent to I-25, the noise wall and the rows of houses in the Bessemer Neighborhood. The visually dominant element of this view shed is the Steel Mill and the associated industrial properties along the eastern side of I-25.



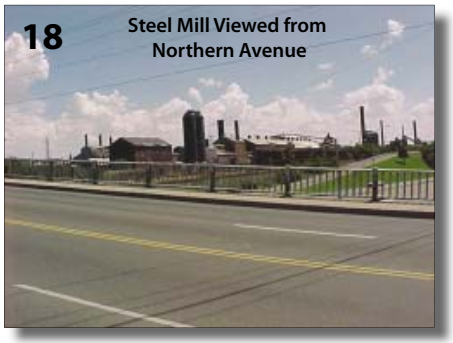

The visual character of the Steel Mill and surrounding property reflects a unique industrial appearance.

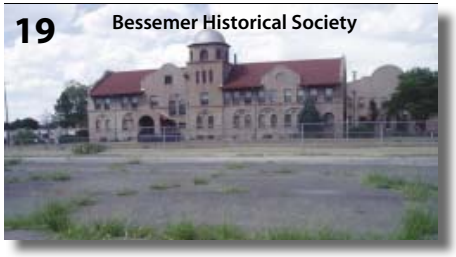
The rich history of the view shed is evident in the many older Victorian and Mission style buildings. These are located on the Steel Mill property and in the old company town that makes up the Bessemer neighborhood.




Mature vegetation is a key element of the view shed, particularly north of the Steel Mill. Most of the vegetation on the north end of the view shed is natural. In the southern portion of the view shed, the mature vegetation in the Bessemer Neighborhoods and J.J. Raigoza Park is predominantly deciduous trees and shrubs used for landscaping.

Within this view shed, long and mid-range views from I-25 are limited so when they occur, they are accentuated. These views include a northbound view to downtown at the Arkansas River and several northbound views towards the Steel Mill at the two gentle curves in I-25 north of Pueblo Boulevard.




Dramatic views of the large Steel Mill buildings also exist from many of the overpasses of I-25 and from the Bessemer Historical Society building. Notable visual features in the view shed include the railroad tracks along I-25, the Steel Mill features such as the stoves, the power house and the high line railroad track, the Bessemer Historical Society Building and the homes on the west side of I-25.

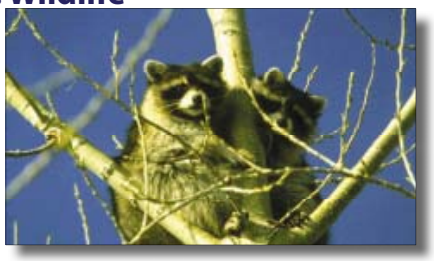
Since I-25 is recessed below adjacent neighborhoods, views to I-25 are somewhat limited in this view shed. Mature vegetation and noise walls also block mid-range and long-range views. The high line railroad track blocks some views from the Steel Mill to I-25. I-25 can be seen from the southern end of the Steel Mill, from J.J. Raigoza Park, and down the east/west streets in the residential neighborhoods. Like the Fountain Creek view shed, mid-range views are opened up when the vegetation is dormant and looses leaves in the minter months.

Because I-25 is visually prominent within each view shed, improvements to I-25 will change the visual character of each.

# B. Natural Systems

The majority of the I-25 corridor through Pueblo is developed and urbanized but still maintains two important ecosystems the Fountain Creek and Arkansas River. Both of these contain vital wetland, floodplain and natural areas that provide a number of important benefits. These areas improve water quality, provide wildlife habitat, help to store floodwaters during storm events, provide recreational opportunities and provide background visual context for Pubelo. As a result, proposed highway improvements have been designed to minimize and reduce any negative impacts to these areas.

## 1. Wildlife



Studies prepared as part of the I-25 Environmental Assessment indicate that no significant wildlife species were discovered, except those in conjunction with the Fountain Creek and Arkansas River. Both of these corridors provide valuable wildlife habitat for feeding, breeding, cover and movement.

Open Water, riparian areas and wooded uplands constitute the habitat areas. Species such as mule and white-tailed deer, striped skunk, raccoon, red fox, common crow, black-billed magpie, blue jay, northern flicker, desert cottontail and fox squirrel were observed during field reconnaissance. Developed areas outside of these riparian corridors consist of commercial, industrial, recreational and residential land uses that have been disturbed, highly maintained and offer limited wildlife habitat. The Arkansas River channel-crossing area and the Fountain Creek riparian area combine to form an important wildlife habitat and travel corridor in a primarily urban setting.

The project corridor area was further evaluated for the potential occurrence of threatened, endangered or rare species. Results of this outside evaluation indicate that only one rare species, the plains leopard frog, is known to exist in the project area. This species is not a federal- or state-listed species and it is not protected under federal or state regulations. In addition, although Arkansas darters are not known to occur in the project area, potentially suitable habitat does exist in the ephemeral pools formed in Fountain Creek wetlands after flooding, as well as in the open water habitat.

Impacts to threatened or endangered species may occur if the proposed project modifies critical habitat, precludes or impedes the development of habitat, has the likelihood of disturbing feeding or breeding activities or results in the taking of an individual. Although minor impacts will occur to potential habitat for both the plains leopard frog and the Arkansas darter, the impacts will not be significant enough to warrant detailed mitigation measures. Temporary construction impacts to the open water, riparian and wetland areas in the project area will be minimized by construction management techniques, including Best Management Practices (BMP), to minimize erosion and sedimentation.

## 2. Threatened or Endangered Species of Vegetation

Mature stands of vegetation within the I-25 corridor are limited to areas found within the Fountain Creek and Arkansas River banks. Cottonwood, Elm and Willow trees line the banks of both watercourses. Due to the disturbed nature of the corridor, most of the undeveloped land within the project area contains a combination of trees and noxious weeds. To determine the locations and densities of noxious weeds, a formal weed inventory was conducted in October of 2003. Weeds were most prevalent on the east side of I-25 on both sides of Fountain Creek. A total of six species of noxious weeds were identified within the project area and include field bindweed, Canada and Russian thistle, tammarisk, Russian olive and kochia. To control and prevent weed infestation and spread, CDOT will implement a weed management plan in accordance with the Colorado Noxious Weed Act and other directives prior to the start of construction activities.

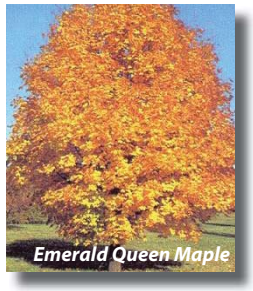
# APPENDIX:
## Plant Schedules-Highway Formal Landscape

### Gateway Plantings

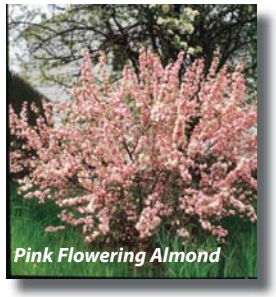
| Deciduous Trees | |
|---|---|
| ***Common Name*** | ***Botanical Name*** |
| Emerald Queen Norway Maple | Acer platanoides 'Emerald Queen' |
| Sunburst Honeylocust | Gleditsia triacanthos inermis 'Imperial' |
| European Hornbeam | Carpinus betulas |
| Allee Elm | Ulmus parvifolia |
| **Evergreen Trees** | |
| ***Common Name*** | ***Botanical Name*** |
| Colorado Spruce | Picea pungens 'Baby Blue Eyes', 'Bakeri', 'Fat Albert' 'Hoopsii' |
| Austrian Pine | Pinus nigra 'Oregon Green' |
| Southwestern White Pine | Pinus strobiformis |
| Pinyon Pine | Pinus edulis |
| Limber Pine | Pinus flexilis 'Cesarini Blue', 'Vanderwolf' |
| Bristlecone Pine | Pinus aristata |
| **Ornamental Trees** | |
| ***Common Name*** | ***Botanical Name*** |
| Chanticleer Pear | Pyrus calleryana cvs. 'Chanticleer', 'Redspire', 'Aristocrat', 'Stonehill', 'Autumn Blaze' |
| Flowering Crabapple | Malus 'Centurion','Indian Magic', 'Prairie Fire', 'Radiant', 'Spring Snow', 'Coralburst', 'Profusion' |
| Columnar European Hornbeam | Carpinus betulus 'Fastigiata' |
| Winter King Hawthorn | Crataegus viridis 'Winter King' |
| Amur Chokecherry | Prunus Maackii |
| **Deciduous Shrubs** | |
| ***Common Name*** | ***Botanical Name*** |
| Crimson Pygmy Barberry | Berberis thunbergii 'Atropurpurea Nana' |
| Butterfly Bush | Buddleia davidii spp. |
| Bluebeard Spirea | Caryopteris x clandoensis 'Bluebeard' |
| Lydia Broom | Genista Lydia |
| Gold Drop Potentilla | Potentilla fruitcosa 'Gold Drop' |
| Coral Beauty Cotoneaster | Cotoneaster dammeri 'Coral Beauty' |
| Meadow Lark Forsythia | Forsythia 'Meadowlark' |
| Lodense Privet | Ligustrum vulgare 'Lodense' |
| Pink Flowering Almond | Prunus glandulosa 'Rosea Plena' |
| Tall Hedge Buckthorn | Rhamnus frangula 'Columnaris' |
| Diabolo Ninebark | Physocarpus opulifolius Diabolo |

### Gateway Plantings

| Deciduous Shrubs Cont. | |
|---|---|
| ***Common Name*** | ***Botanical Name*** |
| Russian Sage | Perovskia artiplicifolia |
| Ninebark | Physocarpus |
| Creeping Western Sand Cherry | Prunus besseyi 'Pawnee Buttes' |
| Grow-Low Sumac | Rhus aromatica 'Grow-Low' |
| Carefree Wonder Shrub | Rosa x "Meipitac' |
| Goldflame Spiraea | Spirea bumalda 'Goldflame' |
| Little Princess Spirea | Spirea japonica 'Little Princess' |
| Neon Flash Spirea | Neon Flash Spirea |
| Dwarf Korean Lilac | Syringa meyeri |
| Viburnum ssp. | |
| **Evergreen Shrubs** | |
| Juniper spp. | |
| Mugo Pine | Pinus Mugo 'Mops' |
| Slowmound Mugo Pine | Pinus Mugo 'Slowmound' |
| Emerald 'n Gold Euonymus | Euonymus fortunei 'Emerald 'n Gold' |
| **Ornamental Grasses** | |
| Dwarf Hardy Fountain | Pennisetum alopecuroides 'Hameln" |
| Dwarf Maiden Grass | Miscanthus sinensis 'Yuka Jima' |
| Feather Reed Grass hybrids | Calamagrostis x acutifolius |
| Buffalo Grass | Buchloe dactyloides |
| **Perennials** | |
| Columbine | Acquilegia hybrids |
| Aster | Aster |
| Coreopsis/Tickseed | Coreopsis grandiflora |
| Coneflower | Echinacea spp |
| Blanket Flower | Gaillardia aristata |
| Baby's Breath | Bypsophilia paniculata |
| Daylily hybrids | Hemerocallis hybrids |
| Iris hybrids | Iris |
| Blue Flax | Linum perenne |
| Black eyed Susan | Rudbeckia hirta pulcherrina |
| Salvia ssp. | Salvia |


Emerald Queen Maple

Blue Spruce


Pink Flowering Almond

Chanticlear Pear

# Plant Schedules -Drainage

| Low Grow Grass Mix | |
|---|---|
| A mixture of perennial, cool season, drought tolerant, grasses sutable for areas where mowing is difficult or not desirable. It grows an average of 8-12 inches a year with normal rainfall in the intermountain region and desert southwest. This mix is a great soil stabilizer. | |
| **Seeding Rate:** | |
| New Seeding: | Over Seeding: |
| Dryland: 20-25lbs/ac. | Dryland: 10-15lbs/ac. |
| Irrigated: 40lbs/ac. | Irrigated: 20lbs/ac. |
| **Mix Contains:** | |
| 30% Ephraim Crested Wheatgrass | |
| 25% Sheep Fescue | |
| 20% Perennial Rye | |
| 15% Chewings Fescue | |
| 10% Kentucky Bluegrass | |

**Detention Basin Mix**

| Seed Mix | |
|---|---|
| ***Common Name*** ***Botanical Name*** | |
| Water Plantain | Alisma subcordatum |
| Swamp Milkweed | Asclepias incarnata |
| Bur Marigold | Bidens cernua |
| Allegheny Monkeyflower | Mimulus ringens |
| Ditch Stonecrop | Penthorum sedoides |
| Cutleaf Coneflower | Rudbeckia laciniata |
| Common Arrowhead | Sagittaria latifolia |
| Blue Vervain | Verbena hastata |
| Awl-Fruited Sedge | Carex stipata |
| Fox Sedge | Carex vulpinoidea |
| Virginia Wildrye | Elymus virginicus |
| Spike Rush | Eleocharis species |
| Fowl Manna Grass | Glyceria striata |
| Soft Rush | Juncus effusus |
| Path Rush | Juncus tenuis |
| Torrey's Rush | Juncus torreyi |
| Rice Cut Grass | Leersia oryzoides |
| Switchgrass | Panicum virginicum |
| Sofstem Bulrush | Scirpus validus |
| Prairie Cordgrass | Spartina pectinata |
| **Willows** | |
| ***Common Name*** ***Botanical Name*** | |
| Coyote/Sandbar Willow | Salix exigua |
| Bluestem Willow | Salix irrorata |
| Whiplash Willow | Salix lasiandra |

Common Arrowhead

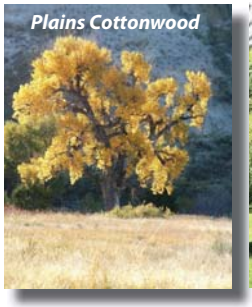
Switch Grass

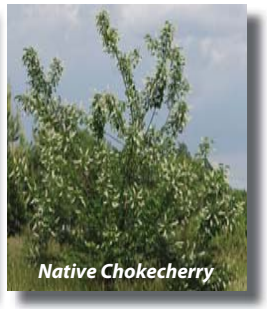
Water Plantain

Torrey's Rush

## Riparian

| Deciduous Trees | |
|---|---|
| ***Common Name*** | ***Botanical Name*** |
| Plains Cottonwood | Populus sargentii |
| Black Cottonwood | Populus trichocarpa |
| Narrowleaf Cottonwood | Populus angustifolia |
| Weeping Willow | Salix alba 'Tristis' |
| Swamp White Oak | Quercus bicolor |
| Quaking Aspen | Populus tremuloides |
| **Evergreen Trees** | |
| ***Common Name*** | ***Botanical Name*** |
| Rocky Mountain Juniper | Juniperus scopulorum |
| Austrian Pine | Pinus nigra |
| **Deciduous Shrubs** | |
| ***Common Name*** | ***Botanical Name*** |
| Native Chokecherry | Prunus virginiana melanocarpa |
| American Plum | Prunus americana |
| Nearly Wild Rose | Rosa x 'Nearly Wild' |
| Coyote Willow | Salix exigua |
| Arctic Dwarf Willow | Salix purpurea nana |
| Mountain Willow | Salix monticola |
| Whiplash Willow | Salix lasraudra |
| Bluestem Willow | Salix irrorata |
| **Herbaceous Species** | |
| ***Common Name*** | ***Botanical Name*** |
| Porcupine Grass | Miscanthus sinensis var. strictus |
| Dwarf Maiden Grass | Miscanthus sinensis 'Morning Light' |
| Small Winged Sedge | Carex microptera |
| Hall's Rush | Juncus hallii |





# Plant Schedules -Parks

## Mineral Palace Park

| Deciduous Trees | |
|---|---|
| ***Common Name*** | ***Botanical Name*** |
| Common Horsechestnut | Aesculus hippocastanum |
| Kentucky Coffeetree | Gymnocladus dioicus |
| Shademaster Honeylocust | Gleditsia triacanthos inermis 'Shademaster' |
| Northern Red Oak | Quercus rubra |
| Greenspire Linden | Tilia cordata 'Greenspire' |
| Allee Elm | Ulmus parvifolia |
| **Evergreen Trees** | |
| ***Common Name*** | ***Botanical Name*** |
| Colorado Spruce | Picea pungens |
| Austrian Pine | Pinus nigra |
| Bristlecone Pine | Pinus aristata |
| Vanderwolf Pine | Pinus flexilis 'Vanderwolf' |
| Ponderosa Pine | Pinus ponderosa |
| **Ornamental Trees** | |
| ***Common Name*** | ***Botanical Name*** |
| Thornless Cockspur Hawthorn | Crataegus crusgalli 'inermis' |
| Radiant Crabapple | Malus sp. 'Radiant' |
| Spring Snow Crabapple | Malus sp. 'Spring Snow' |
| Canada Red Chokecherry | Prunus virginiana 'Canada Red' |
| Chanticleer Pear | Pyrus calleryana 'Cleveland Select' |
| **Deciduous Shrubs** | |
| ***Common Name*** | ***Botanical Name*** |
| Carol Mackie Daphne | Daphne x burkwoodii |
| Royal Purple Smokebush | Cotinus coggygria 'Royal Purple' |
| Bluebeard Spirea | Caryopteris x clandonensis 'Bluebeard' |
| Russian Sage | Perovskia atriplicifolia |
| Pink Flowering Almond | Prunus glandulosa rosea |
| McKay's White Potentilla | Potentilla fruiticosa 'McKay's White |
| Carefree Wonder Shrub Rose | Rosa x 'Meipitac' |
| Anthony Waterer Spirea | Spiraea bumalda 'Anthony Waterer' |
| Common Lilac | Syringa vulgaris |
| Dwarf Snowball Viburnum | Viburnum opulus 'Roseum' |
| Weigela Florida varieties | Weigela florida |
| **Evergreen Shrubs** | |
| ***Common Name*** | ***Botanical Name*** |
| Andorra Juniper | Juniperus horizontalis 'Youngstown' |
| Blue Chip Juniper | Juniperus horizontalis 'Blue Chip' |
| Buffalo Juniper | Juniperus sabina 'Buffalo' |
| Mugo Pine | Pinus mugo 'Mops' |
| Pyracantha Gnome | Pyracantha angustifolia 'Gnome' |

| Ornamental Grasses | |
|---|---|
| ***Common Name*** | ***Botanical Name*** |
| Dwarf Hardy Fountain | Pennisetum alopecuroides 'Hameln" |
| Dwarf Maiden Grass | Miscanthus sinensis 'Yuka Jima' |
| Feather Reed Grass hybrids | Calamagrostis x acutifolius |
| Buffalo Grass | Buchloe dactyloides |
| **Perennials** | |
| ***Common Name*** | ***Botanical Name*** |
| Columbine | Acquilegia hybrids |
| Aster | Aster |
| Coreopsis/Tickseed | Coreopsis grandiflora |
| Coneflower | Echinacea spp |
| Blanket Flower | Gaillardia aristata |
| Baby's Breath | Bypsophilia paniculata |
| Daylily hybrids | Hemerocallis hybrids |
| Iris hybrids | Iris |
| Blue Flax | Linum perenne |
| Black eyed Susan | Rudbeckia hirta pulcherrina |
| Salvia ssp. | Salvia |

Green Spruce

Mugho Pine

Shrub Rose

Horse Chestnut

Dwarf Fountain Grass

**Benedict Park**

| -Deciduous Trees | |
|---|---|
| ***Common Name*** ***Botanical Name*** | |
| Emerald Queen Maple | Acer platanoides ‘Emerald Queen’ |
| Catalpa | Catalpa speciosa |
| Red Oak | Quercus rubra |
| American Linden | Tilia americana |
| **Evergreen Trees** | |
| ***Common Name*** ***Botanical Name*** | |
| Ponderosa Pine | Pinus ponderosa |
| Austrian Pine | Pinus nigra |
| Colorado Spruce | Picea pungens |
| **Ornamental Trees** | |
| ***Common Name*** ***Botanical Name*** | |
| Thornless Cockspur Hawthorn | Crataegus crusgalli ‘inermis’ |
| Newport Plum | Prunus cerasifera ‘Newport’ |
| Spring Snow Crabapple | Malus sp. ‘Spring Snow’ |
| **Deciduous Shrubs** | |
| ***Common Name*** ***Botanical Name*** | |
| Varigated Dogwood | Cornus alba ‘Argentoeomarginata’ |
| Cranberry Cotoneaster | Cotoneaster apiculata |
| Golden Vicary Privet | Ligustrum x vicaryi |
| Russian Sage | Perovskia atriplicifolia |
| Jackman Potentilla | Potentilla fruticosa ‘Jackmanni’ |
| Double Red Shrub Rose | Rosa x ‘Meidliland sevillana’ |
| Butterfly Bush | Buddleia davidii |
| Neon Flash Spirea | Spirea japonica ‘Neon Flash’ |
| Miss Kim Lilac | Syringa patula ‘Miss Kim’ |
| Burning Bush | Euonymus alatus |
| Mohican Viburnum | Viburnum lantana ‘Mohican’ |
| American Compact Cranberry | Viburnum trilobum ‘Compactum’ |
| **Evergreen Shrubs** | |
| ***Common Name*** ***Botanical Name*** | |
| Sea Green Juniper | Juniperus chinensis ‘Sea Green’ |
| Tammy Juniper | Juniperus sabina tamariscifolia |
| Compact Oregon-Grape Holly | Mahonia aquifolium compacta |

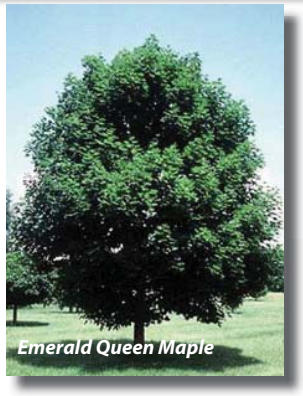
Austrian Pine

Ponderosa Pine-

Newport Plum

Lydia Broom

Miss Kim Lilac


Emerald Queen Maple

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APPENDIX D

# Wetland Finding

# Wetland Finding

PREPARED FOR: Colorado Department of Transportation

PREPARED BY: CH2M HILL

PROJECT: 158128; IM 0251-156; SA 12831

DATE: July 22, 2010

## Introduction

The following is a wetland finding for the New Pueblo Freeway Project (IM-0251-156) and has been written in compliance with Executive Order 11990, *Protection of Wetlands* and is in accordance with 23 Code of Federal Regulations (CFR) 771, 23 CFR 777, and Technical Advisory T6640.8A. These regulations require that impacts to wetlands will be avoided wherever possible and minimized to the extent practicable. The Colorado Department of Transportation (CDOT) requires mitigation for all wetlands including non-jurisdictional wetlands.

CDOT proposes to reconstruct Interstate 25 (I-25) through portions of Pueblo (see Project Description below). The environmental review for this project is being conducted through the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS) process.

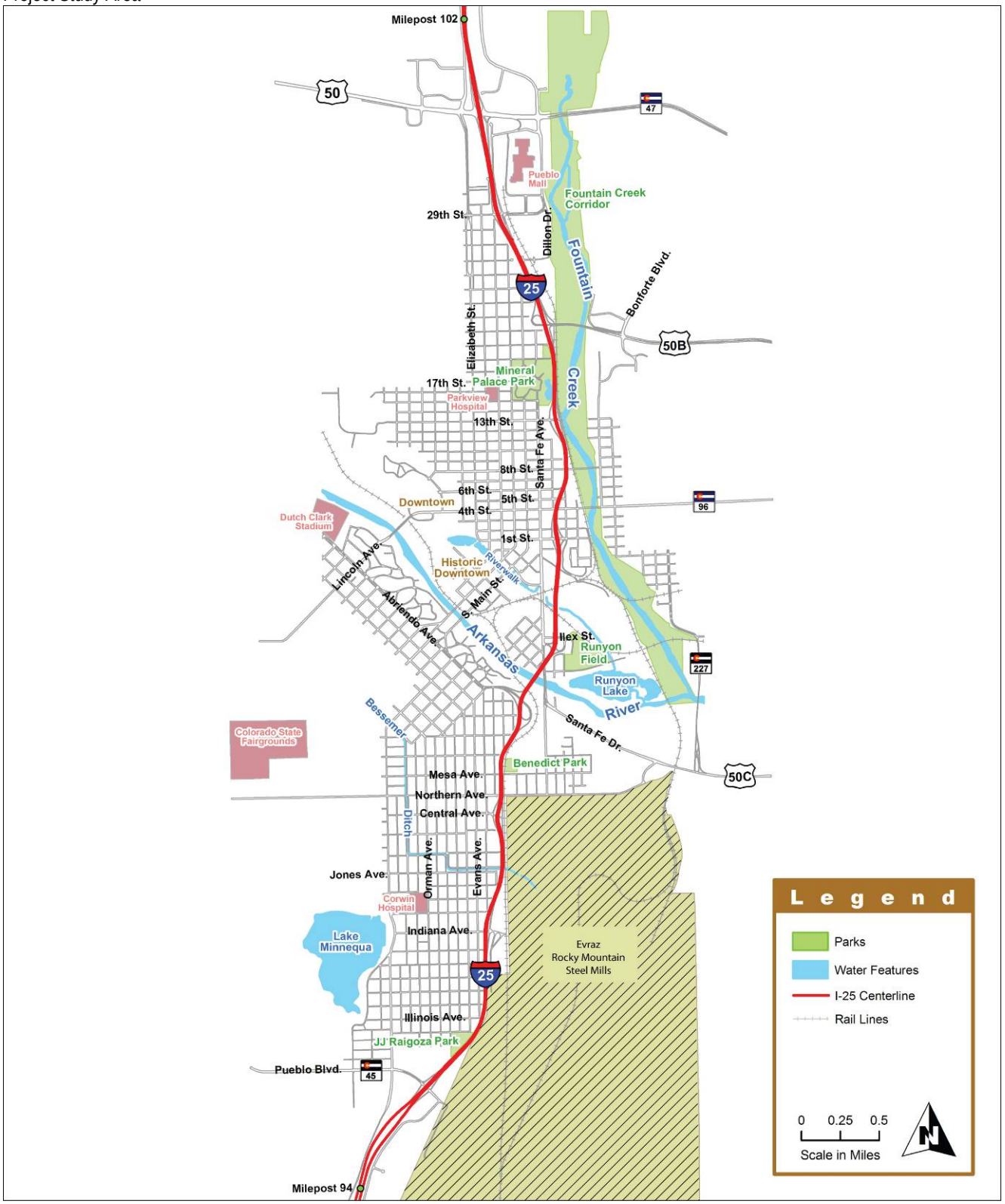
## Project Location

The project area is located in the City of Pueblo, Pueblo County, Colorado. The project area extends along I-25 from just north of the United States Highway 50 (US 50)/State Highway (SH) 47 interchange (approximately milepost 102) to Pueblo Boulevard on the south side of Pueblo (approximately milepost 94). Specifically, the project is located in portions of Sections 24, 25, and 36, Township 20 South, Range 65 West; Sections 1, 12, 13, 23, and 24, Township 21 South, Range 65 West; Sections 19, 30 and 31, Township 20 South, Range 64 West; and Section 6, Township 21 South, Range 64 West on the United States Geological Survey 7.5-minute Northeast Pueblo and Southeast Pueblo quadrangle maps. The project area is illustrated on Exhibit 1

## Project Description

The Federal Highway Administration (FHWA), in cooperation with CDOT, is preparing an EIS for the New Pueblo Freeway project, a proposal to improve a 7-mile segment of I-25 through Pueblo, Colorado. The proposed improvements include adding an additional lane to each direction of travel as well as interchange improvements. The proposed improvements are necessary to address a deteriorating roadway and bridges with inadequate geometrics, safety issues, and to accommodate existing and future traffic demand.

EXHIBIT 1
Project Study Area



Exhibits 2 through 4 show a plan view of the project area with wetland locations indicated.

## Project Alternatives

### Project Need

The purpose of the New Pueblo Freeway project is to improve safety by addressing deteriorating roadways and bridges and unsafe road characteristics on I-25 and improve local and regional mobility within and through the City of Pueblo to meet existing and future travel demands. I-25 within the project area contains high accident rates that exceed state averages, segments with narrow lanes, areas where shoulders are too narrow to safely accommodate a broken down vehicle, on and off ramps with inadequate lengths to maneuver vehicles, and inadequate spacing of interchanges to safely merge into highway traffic. In addition, there are interchanges that do not connect to appropriate city streets, areas of reduced speed, segments with congestion and a poor level of service, aging bridges with inadequate bridge sufficiency ratings, and conflicts with local and regional travel.

### Alternatives

Alternatives under consideration include taking no action (No Action Alternative), reconstruction of the interstate on essentially the existing alignment (Existing I-25 Alignment Alternative), and reconstruction of the interstate on existing and new alignments (Modified I-25 Alignment Alternative). The alternatives are further described as follows:

- **No Action Alternative –** This alternative provides only for minor improvements, repairs, and other maintenance actions. The existing four-lane highway will otherwise remain unchanged.
- **Existing I-25 Alignment Alternative –** This alternative consists of reconstructing I-25 to six lanes on essentially the same location, reconfiguring and eliminating access points to the interstate to improve safety, and providing other improvements to the local street system to enhance system connectivity and traffic movement near the interstate.
- **Modified I-25 Alignment Alternative –** This alternative consists of rebuilding I-25 to six lanes and providing the other improvements included in the Existing Alignment Alternative, except the alignment would be shifted to accommodate different interchange configurations.

### Avoidance and Minimization

Project impacts have been minimized to the extent practicable by locating the majority of the existing and modified alignments within the current alignment, and avoiding wetlands where feasible. New fill slopes have been steepened to 3:1 and the use of retaining walls will also be incorporated into the design in some locations to prevent new fill slopes from extending into wetland areas. This slope will allow vegetation to become established but will not pose a safety hazard to the motoring public. The alignment was shifted to the extent possible to reduce construction impacts into wetland areas.

Complete avoidance of wetlands was not possible. The project area is located in a highly urbanized corridor, with little room available to accommodate shifts in alignment due to the close proximity of residential and commercial structures. In some cases, avoiding wetlands would cause residential and commercial displacements and was not considered practicable. In other areas, wetlands exist along both sides of the roadway.

EXHIBIT 2
Wetlands in the North Area

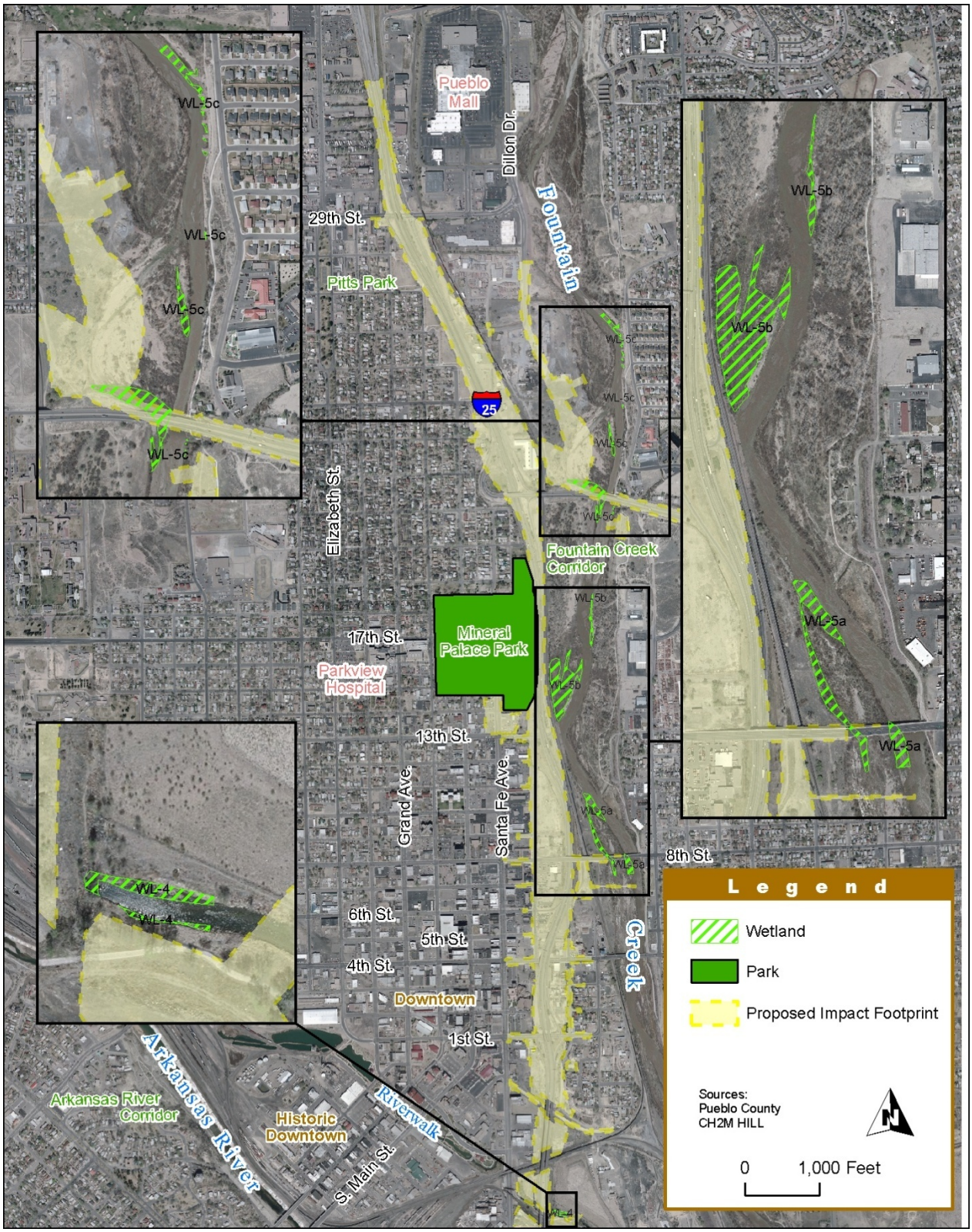


EXHIBIT 3A
Wetlands in the Central Area (Exisiting I-25 Alternative)

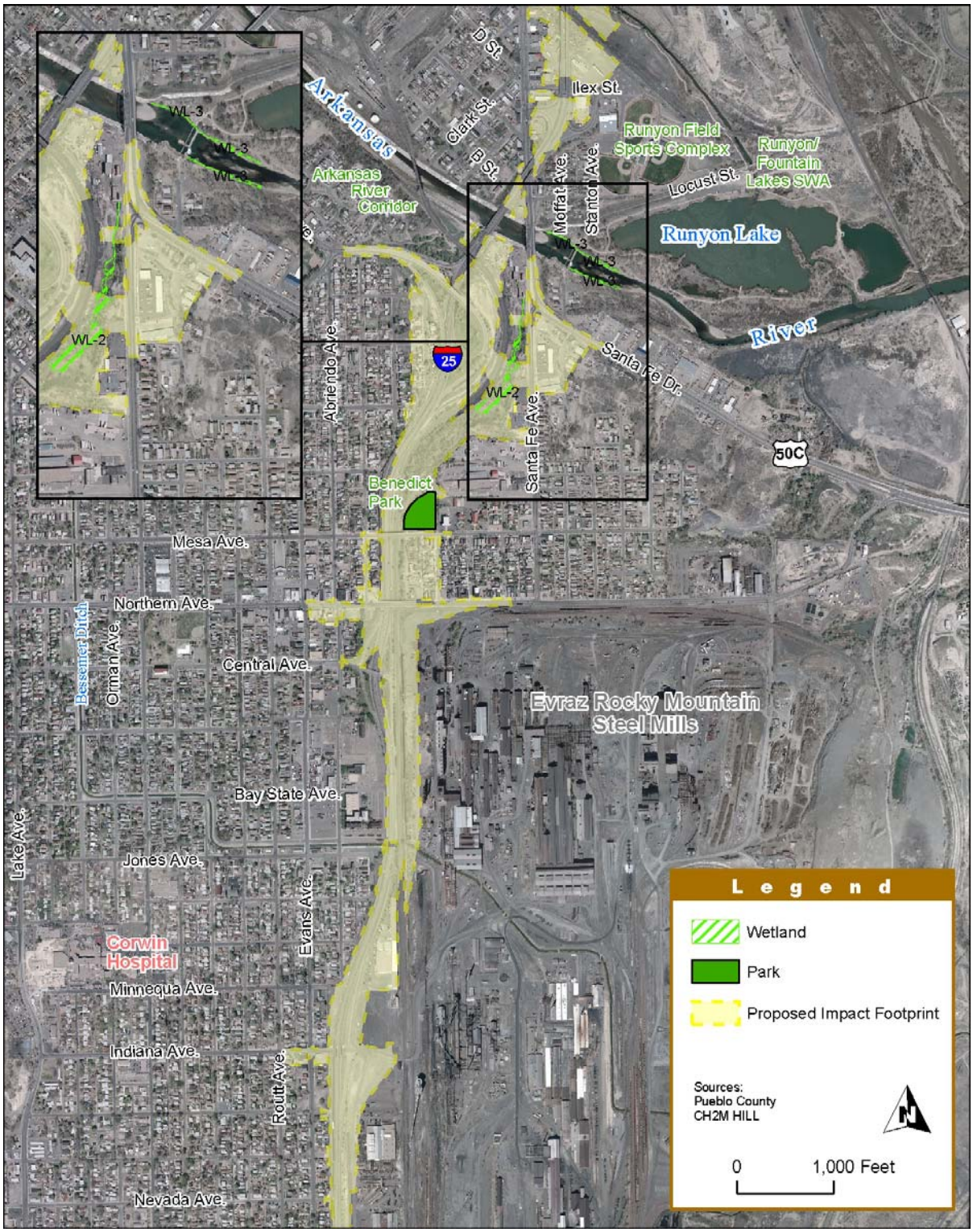


EXHIBIT 3B
Wetlands in the Central Area (Modified I-25 Alternative)

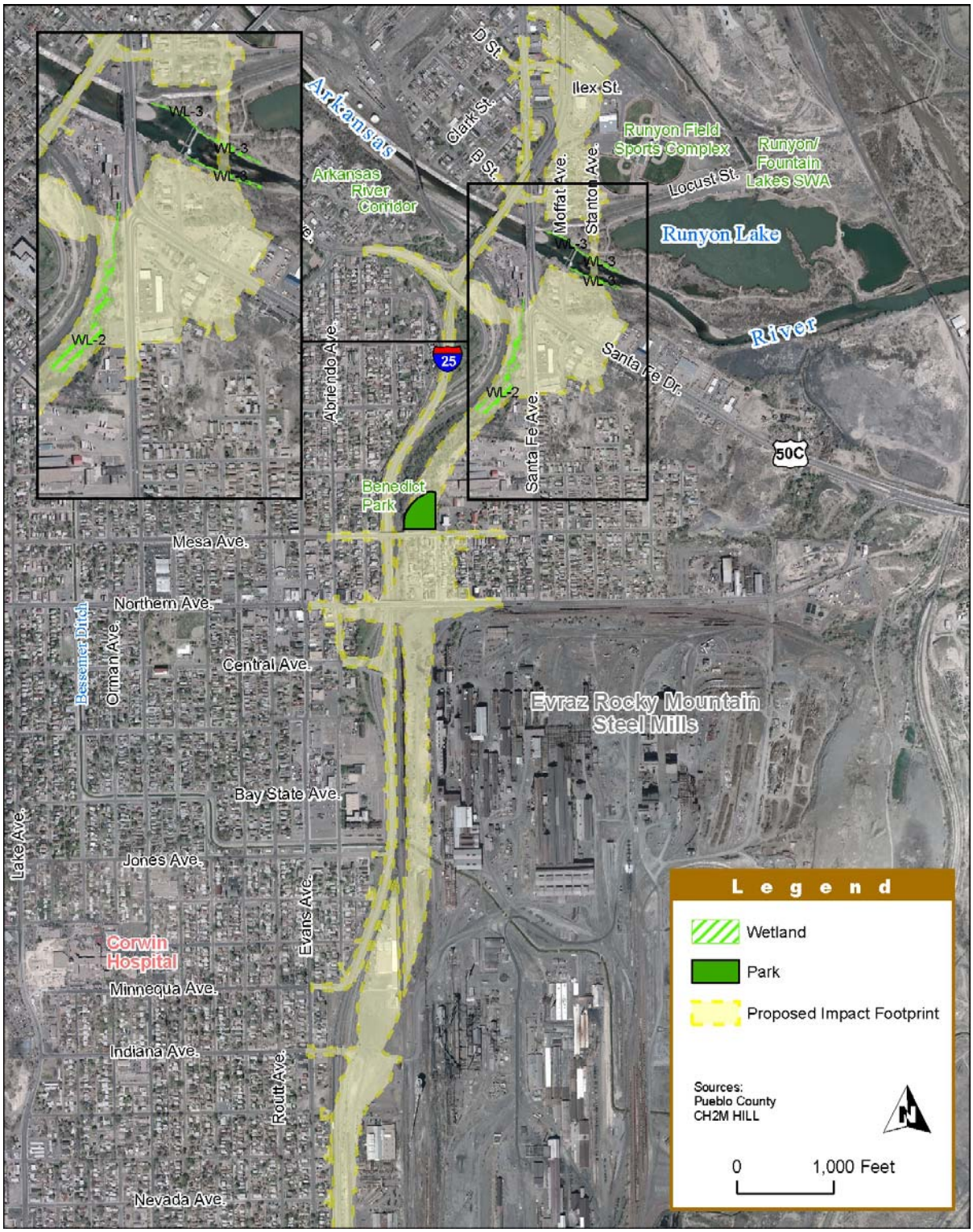


EXHIBIT 4
Wetlands in the South Area

### Temporary and Indirect Impacts

Temporary impacts may occur during construction activities for either build alternative. These impacts may include sedimentation, increased turbidity, and runoff. Best management practices (BMP) will be used to control erosion and sedimentation during construction. In addition to construction BMPs, temporary impacts due to construction activities will be managed and minimized by the following actions:

- Construction impact boundaries will be clearly marked. Wetlands outside the authorized temporary impact areas will be clearly marked and fenced (silt fence) to prevent disturbance during construction.
- Excavated materials will be removed to a stabilized upland site to prevent erosion back into the wetland areas.
- Onsite storage of hazardous construction materials including fuels and oils will be located away from wetland and riparian areas to minimize the potential for spills or leaching into aquatic habitats.
- Compliance inspections during construction are recommended to ensure adherence to BMPs, including erosion and sedimentation controls, and minimization of construction impacts.
- All areas temporarily disturbed by construction activities will be restored and revegetated.
- Removal of all salt cedar and Russian olive within the construction area.

## Wetlands

A field survey of the project area was conducted in September and October 2003 to verify the presence or absence of potential wetlands areas identified during the review of existing data and to identify any additional wetland areas located with the project area. Delineations were performed by Jessie Gourlie and John DuWalt. Wetlands in the study area were identified and boundaries delineated in accordance with the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (USACE, 1987). The wetland areas identified in the project area were classified according to Cowardin. Jurisdictional status and delineation boundaries were confirmed in the field by the USACE. Jurisdictional boundaries were recorded using a Trimble Geo XT GPS, which can record position data to sub-meter accuracy. Data were converted to GIS, and plotted on maps of the project area.

Prior to field surveys, study area boundaries and potential wetland areas were mapped on the United States Geological Survey (USGS) quadrangle maps (Northeast Pueblo 1974; Southeast Pueblo 1974) and recent aerial photographs using Geographic Information System (GIS) technology. National Wetlands Inventory (NWI) maps and the Pueblo County Soil Survey (United States Department of Agriculture, 1979) were also reviewed.

The Arkansas River and Fountain Creek are the prominent water features in the project area and are the primary sources of hydrology for area wetlands. To a lesser extent, groundwater seepage and stormwater runoff also provide a source wetland hydrology. The Arkansas River is channelized and lined in concrete at the I-25 crossing and the remainder of the Arkansas River adjacent to the project area becomes more natural with the adjacent banks

vegetated with grasses, forbs, shrubs, and trees. Fountain Creek flows through a wide, shallow floodplain subject to high flood events, and the main creek channel frequently meanders as the result of high sediment deposition. Wetland soils in the project area consisted primarily of silty clay loam.

A total of seven wetland areas were identified during the field survey. Of the seven identified wetlands, six were determined to be jurisdictional by the USACE. The remaining wetland (WL-1) was determined to be non-jurisdictional. The wetland locations are shown on Exhibits 2 through 4. Three waters of the United States were also identified: the Arkansas River, Fountain Creek, and Runyon Lake. Wetlands and Waters of the United States within the project area are shown in Exhibit 5.

EXHBIT 5
Wetlands and Waters of the US within Project Area

| Wetland Area | Jurisdictional Determination | Cowardin Classification System[1] | Acreage within Project Area |
|---|---|---|---|
| WL-1 | Non-jurisdictional | PEM/PFO | 4.04 |
| WL-2 | Jurisdictional | PEM/PFO | 1.06 |
| WL-3 | Jurisdictional | PSS/PFO | 0.39 |
| WL-4 | Jurisdictional | PEM | 010 |
| WL-5a | Jurisdictional | PSS/PFO | 1.80 |
| WL-5b | Jurisdictional | PEM/PFO | 4.35 |
| WL-5c | Jurisdictional | PEM | 2.11 |
| Arkansas River | Jurisdictional | Riverine | 9.06 |
| Fountain Creek | Jurisdictional | Riverine | 25.76 |
| Runyon Lake | Jurisdictional | PUBHh | 2.42 |

Source: New Pueblo Freeway Project Team, 2010

Notes:

[1] The wetland areas were categorized by the Cowardin Classification System as follows:

**Palustrine Emergent (PEM) -** Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. All water regimes are included except subtidal and irregularly exposed.

**Palustrine Scrub Shrub (PSS) -** Includes wetland areas dominated by woody vegetation less than 6 meters (20 feet) tall. The species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions. All water regimes except subtidal are included.

**Palustrine Forested (PFO) -** Similar to the PSS Classification however; the PFO Classification is characterized by woody vegetation that is 6 meters tall or taller.

**Palustrine Unconsolidated Bottom (PUBHh)** – Shallow and deepwater wetland habitat with less than 30% vegetation cover and a surface with greater than 25% of the particles smaller than stone.

**Riverine -** Includes all wetlands and deepwater habitats contained within a channel with the exception of wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens; and habitats with water containing ocean-derived salts in excess of 0.5 percent.

Within the project area, the wetlands adjacent to Fountain Creek have the greatest importance, specifically relative to the functions of wildlife habitat and potential habitat for

a state listed species. Additional functions include flood attenuation, and sediment and nutrient removal.

The Fountain Creek riparian area and wetlands provide a regionally important wildlife corridor and habitat, providing qualities including breeding, foraging, and cover. Fountain Creek is an important north/south riparian corridor and escape habitat for mammals, and breeding habitat for raptors and small fish. Fountain Creek connects to the Arkansas River linking a number of important habitat areas north, west, and south of Pueblo. The City of Pueblo is a barrier to animal movement between these areas, while the floodplain corridors of the Arkansas River and Fountain Creek provide passage through the city. The riparian areas and wetlands adjacent to the west bank of Fountain Creek north of 13th Street are high quality and relatively unique compared to similar areas in the project area. Disturbance has been minimal, although salt cedar has impacted almost all riparian areas adjacent to Fountain Creek. Within the project area, the majority of wildlife observations occurred in this area.

The wetlands and riparian areas along Fountain Creek provide the important function of high flood attenuation capacity. The creek channel typically fluctuates greatly, and several areas that appeared to be sand bars in previous channels were evident. The vegetation in the wetlands and the riparian areas stabilize the creek banks and attenuates floodwaters. It is evident from field review that previous high water and floods have deposited large quantities of sediment in the wetlands and riparian areas adjacent to Fountain Creek. The high rate of removal and settling of sediment in these areas improves water quality by reducing sediment and associated pollutants including nutrients and metals in the creek.

In May 2010, CDOT staff conducted a FACWet analysis of wetlands in the study area, resulting in a Functional Capacity Index (FCI) score for each wetland. FCI provides a comparison of how an individual wetland performs compared to others of its type. A score of 1 is optimal functional capacity, and a score of 0 is no functional capacity.

WL– 2 received a composite FCI score of 0.82. In terms of habitat connectivity and buffer capacity, it was determined that it was functioning impaired. For water distribution and water outflow it was determined to be highly functioning and functioning, respectively. Vegetation included noxious weeds, exotic or invasive species, and cattails. Other wetlands within the study area were assessed with scores roughly equal to that of WL–2 or lower. All of the wetland areas demonstrated the same concerns with exotic species and noxious weeds.

The wetland data and FACWet forms for each wetland are contained in Appendix A and B of this memo. Appendix C contains coordination with USACE conducted in 2006 to verify the validity of the 2003 delineations.

### Jurisdictional Wetlands and Waters of the United States

There are six jurisdictional wetlands within the project area in addition to three waters of the United States as described below.

### Arkansas River

The Arkansas River is a waters of the United States. Steep, high, concrete-lined banks characterize the Arkansas River under the existing bridge crossings for I-25 and Santa Fe Boulevard in the project area. A large portion of the jurisdictional area for the Arkansas River in the project area is defined by the OHWM where concrete lines the banks of the river. Flows at the time of the site survey were relatively low, resulting in areas of shallow water and exposed sand bars.

### Fountain Creek

Fountain Creek is a waters of the United States. The creek channel is wide and variably heavily flooded, resulting in heavy sediment erosion and deposition, and frequent natural modifications to the main creek channel. Within the project area, the jurisdictional boundary for Fountain Creek is predominantly the OHWM.

### Runyon Lake

Runyon Lake is a waters of the United States located within the project area. The lake is located east of the proposed impact footprint and would not likely be adversely impacted by project activities. The lake is immediately adjacent to the Arkansas River, downstream of the area with steep concrete-lined banks. The lake connects to the Arkansas River via a 30-foot-wide inlet/outlet.

### Wetlands WL-5a, 5b, and 5c

These wetlands consist of narrow fringe wetlands associated with Fountain Creek. The majority of these wetlands are located between the 8th Street Bridge and the US 50 Bridge. Many of the wetlands are located immediately adjacent to the main channel of the creek, but some of the wetlands exist along the margins of secondary channels, in association with tributaries, or within meander scars.

### Wetland WL-4

This wetland is an unnamed drainage located north of the Arkansas River and consists of a channelized discharge from the City's River Walk Park. The drainage, which is a Waters of the United States, currently crosses under I-25 via a large, concrete-lined culvert and eventually discharges to Runyon Lake east of the project area. The wetland exists only on the downstream side of the I-25 culvert. Water flow is swift in the narrow channel, and the banks are lined predominantly with mature elm and cottonwood trees.

### Wetland WL-3

This wetland consists of the fringe wetland area adjacent to the Arkansas River. The river banks east of this pedestrian bridge are narrow wetland fringe areas and maintain a natural condition along the river. These wetlands are generally only flooded during high flow periods. Chinese elm and Russian olive characterize the upland transitional line for these wetland areas and are dominated by coyote willow, reed canary grass, and salt cedar.

### Wetland WL-2

This wetland is an unnamed drainage located south of the Arkansas River. The wetland is located in a narrow ravine and is not indicated on the USGS or NWI maps. The wetland likely originates from seepage or a spring near the south end of the wetland area. Water flowing through the wetland area appears to be connected to the Arkansas River via a stormwater drain that runs under S. Santa Fe Avenue towards the river. The wetland is dominated by cattails, with an overstory of of mature cottonwoods, plums, Russian olives,

and other trees. Some earthwork has been done within the wetland, as indicated by the irregular mounds of disturbed earth near the northern end and placement of a culvert through a small portion of the area.

### Non-jurisdictional Wetlands

#### Wetland WL-1

This wetland is a large, shallow, closed basin storm water pond and ditch receiving drainage from nearby development located near the Pueblo Boulevard interchange. This pond is not indicated on the USGS quad or NWI maps.

## Wetland Impacts

Impacts from the project alternatives were determined using GIS calculations of GPS survey data. Permanent impacts to wetlands will be due mainly to widening of the road shoulder to accommodate the additional traffic lanes and drainage features, as well as placement of bridge abutments and erosion control features.

### No Action Alternative

Under the No Action Alternative, the existing roadway would not be modified, and no impacts would occur to wetlands or waters of the United States.

### Existing I-25 Alternative

Under the Existing I-25 Alternative, a total of 0.22 acres (0.09 hectares) of wetlands would be impacted and includes impacts to WL-1, WL-2, and WL-5c. Waters of the United States would not be impacted under this alternative. As shown below in Exhibit 6, wetland impacts represent a small amount of the total acreage identified for each wetland within the project area.

EXHIBIT 6
Summary of Existing Alignment Alternative Wetland Impacts

| Wetland Area | Acreage within Project Area (acres/hectares) | Impacted Area (acres/hectares) |
|---|---|---|
| WL-1 | 4.04 (1.63) | 0.02 (0.01) |
| WL-2 | 1.06 (0.43) | 0.07 (0.03) |
| WL-5c | 2.11 (0.85) | 0.13 (0.05) |
| **Total Impacted Area** | | **0.22 (0.09)** |

Impacts to WL-1 would be limited to the loss of 0.02 acres (0.01 hectares) at the south end of the wetland channel that extends south out of WL-1. A box culvert will be required at the south end of that channel to accommodate the extension of Greenhorn Drive. Slightly north of that proposed crossing, a box culvert is currently in place where the existing Greenhorn Drive crosses the wetland channel and no impacts will occur to this area. Approximately 0.07 acres (0.03 hectares) of WL-2 would be lost due to construction activities associated with the extension of Abriendo Avenue to connect to Santa Fe Drive east of I-25. The

extension of Dillon Drive near US 50 would result in the loss of 0.13 acres (0.05 hectares) of WL-5c.

### Modified I-25 Alternative

The Modified I-25 Alternative would result in the loss of 1.10 acres (0.45 hectares) of wetlands and waters of the United States as shown below in Exhibit 7. Similar to the Existing I-25 Alternative, impacts would occur to WL-1, WL-2, and WL-5c. The Modified I-25 Alternative would also result in impacts to the Arkansas River.

EXHIBIT 7
Summary of Modified Alignment Alternative Wetland and Open Water Impacts

| Wetland Area | Acreage within Project Area (acres/hectares) | Impacted Area (acres/hectares) |
|---|---|---|
| WL-1 | 4.04 (1.63) | 0.02 (0.01) |
| WL-2 | 1.06 (0.43) | 0.93 (0.38) |
| WL-5c | 2.11 (0.85) | 0.13 (0.05) |
| Arkansas River | 9.06 (3.67) | 0.02 (0.01) |
| **Total Impacted Area** | | 1.10 (0.45) |

Impacts to WL-1 and WL-5c under the Modified I-25 Alternative would be the same as those discussed above under the Existing I-25 Alternative. Impacts to WL-5c and the Arkansas River would be greater due to the realignment of I-25 to the east in this area as well as the increased number of piers required to span the Arkansas River. Under the Modified I-25 Alternative, WL-2 would almost be entirely removed to accommodate the extension of Abriendo Avenue and the realignment of I-25. A total of 88 piers would be required to span the Arkansas River.

## Wetland Mitigation

To the extent practicable, impacts to wetlands were avoided as part of the alternatives development process as described in the Wetland Finding document. However, complete avoidance of the wetlands areas was not possible due to the developed nature of the project area and the limited options for realignment.

CDOT will work with USACE to identify suitable mitigation for impacts to wetlands and waters of the United States. The study area includes several locations that may be suitable for replacing the functional values affected by impacts to wetlands. Additionally, unless otherwise specified, the following mitigations apply to both the Existing I-25 Alternative and the Modified I-25 Alternative.

- Once funding for construction of the project is identified, wetland boundaries will be reevaluated to determine the need for additional delineations to confirm wetland boundaries.
- CDOT will obtain an Individual Section 404 from the USACE under Section 404 of the Clean Water Act prior to construction. The policy of CDOT is to replace non-jurisdictional wetlands on a 1:1 basis. A wetland mitigation plan will be prepared as

part of the Section 404 permitting process to mitigate for unavoidable impacts to area wetlands and Waters of the United States.

- Additional mitigation measures that were identified by the USACE during a 2006 field visit include:
  - Place tree cuttings at the trailhead near the mouth of Fountain Creek.
  - Place tree cuttings along Fountain Creek at SH 47.
  - Tree plantings near the Eagle Ridge interchange project.
- Following final design, CDOT will apply for a SB 40 Wildlife Certification, if the project does not fall within CDOT's Programmatic Agreement with CDOW, including detailed plans and specifications. CDOW will review the plans to make sure that they are technically adequate to protect and preserve fish and wildlife species and provide recommendations or alternative plans if the project would adversely affect riparian areas along the Arkansas River or Fountain Creek.

## Closing Statement

Based on the above considerations, it is determined that there is no practicable alternative to the proposed new construction in wetlands and that the proposed action includes all practicable measures to minimize disturbance to wetlands which may result from such use.

## References

U.S. Army Corps of Engineers (USACE) (1987). *U.S. Army Corps of Engineers Wetland Delineation Manual*. USACE Waterways Experiment Station, Vicksburg, MS.

U.S. Department of Agriculture (1979). *Soil Survey of Pueblo Area, Colorado*. Soil Conservation Service. U.S. Fish and Wildlife Service.

U.S. Department of Agriculture (1988) *National List of Plant Species that Occur in Wetlands: Colorado*. National Wetlands Inventory.

U.S. Fish and Wildlife Service (1979). *Classification of Wetlands and Deepwater Habitats of the United States*.

U.S. Geological Survey (1974). *Northeast and Southeast Pueblo Quadrangle*

**APPENDIX A**

# Wetlands Data Forms

**DATA FORM**
**ROUTINE WETLAND DETERMINATION**
(1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: NPF<br>Applicant/Owner: FHWA/ CDOT<br>Investigator: J GOURLEY / T DUNDALDT | Date: 9/30/03<br>County: PUEBLO<br>State: CO |
| Do Normal Circumstances exist on the site? (Yes) No<br>Is the site significantly disturbed (Atypical Situation)? Yes (No)<br>Is the area a potential Problem Area? Yes (No)<br>(If needed, explain on reverse.) | Community ID: SW Pond<br>Transect ID: ____<br>Plot ID: CH-WL-1 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 1. TYPHA LATIFOLIA | H | OBL |
| 2. PHRAGMITES AUSTRALIS | H | FACW |
| 3. SCHOENOPLECTUS LACUSTRIS | H | OBL |
| 4. ELAEAGNUS ANGUSTIFOLIA | T | FAC |
| 5. TAMARISK RAMOSISSIMA | T | FACU |
| 6. SCHOENOPLECTUS PUNGENS | H | OBL |
| 7. | | |
| 8. | | |

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 9. UPLAND | | |
| 10. AGROPYON SMITHII | H | FACU |
| 11. " CRISTATUM | H | — |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: STORM WATER POND
PEM/FO

## HYDROLOGY

- ✓ Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - ✓ Aerial Photographs
  - ✓ Other
- ___ No Recorded Data Available

Field Observations:

| | |
|---|---|
| Depth of Surface Water: | ~1 (in.) |
| Depth to Free Water in Pit: | 10 (in.) |
| Depth to Saturated Soil: | 6 (in.) |

Wetland Hydrology Indicators:
Primary Indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ✓ Oxidized Root Channels in Upper 12 Inches
- ✓ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: HYDROLOGY MAINLY STORM WATER RUNOFF

## SOILS

Map Unit Name
(Series and Phase): MANZANILLA SILTY CLAY LOAM  Drainage Class: WELL DRAINED

Taxonomy (Subgroup): _____  Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/ Size/Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 12 | A+B | 10YR 3/2 | 7.5YR 5/6 | COMMON, DISTINCT | SILTY, CONCRETIONS |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ✓ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ✓ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:
WET, SILTY SOILS

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:
C#-WL-1

Approved by HQUSACE 3/92

**DATA FORM**
**ROUTINE WETLAND DETERMINATION**
(1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: NPF<br>Applicant/Owner: FHWA / CDOT<br>Investigator: JGAURLICH / J DUWALDT | Date: 10/1/03<br>County: PUEBLO<br>State: CO |
| Do Normal Circumstances exist on the site? (Yes) No<br>Is the site significantly disturbed (Atypical Situation)? Yes (No)<br>Is the area a potential Problem Area? Yes (No)<br>(If needed, explain on reverse.) | Community ID: _____<br>Transect ID: _____<br>Plot ID: CA-WL-2 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 1. TYPHA ANGUSTIFOLIA | H | OBL |
| 2. PHRAGMITES AUSTRALIS | H | OBL |
| 3. MUHLENBERGIA ASPERIFOLIA | H | FACW |
| 4. ELEOCHARIS PALUSTRIS | H | OBL |
| 5. DISTICHLIS SPICATA | H | FAC |
| 6. TAMARIX RAMOSISSIMA | T | FACW |
| 7. JUNCUS BALTICUS | H | OBL |
| 8. POPULUS DELTOIDES | T | — |
| ULMUS PUMILA | T | — |

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 9. UPLAND | | |
| 10. AGROPYRON SMITHII | H | FACU |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks:
WL NOT CONNECTED TO WUS - ISOLATED FROM ARK. R.

## HYDROLOGY

___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
✓ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: 6 (in.)
Depth to Saturated Soil: 4 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
✓ Inundated
✓ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
✓ Sediment Deposits
✓ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
✓ Oxidized Root Channels in Upper 12 Inches
✓ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: HYDROLOGY APPEARS TO BE GROUNDWATER SEEPAGE, NO SURFACE CONNECTION W/ ARKANSAS; DISCHARGE DISSIPATES INTO GROUND

## SOILS

Map Unit Name (Series and Phase): KIM FINE SANDY LOAM

Drainage Class: WELL DRAINED

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/ Size/Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 6 | A | 10YR 2/1 | 7.5YR 4/6 | COMMON, DISTINCT | SILTY, |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ✓ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ✓ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: THIN LAYER OF SOIL OVER DARK ~~HARD~~PAN

## WETLAND DETERMINATION

| | | |
|---|---|---|
| Hydrophytic Vegetation Present? | (Yes) No (Circle) | (Circle) |
| Wetland Hydrology Present? | (Yes) No | |
| Hydric Soils Present? | (Yes) No | Is this Sampling Point Within a Wetland? (Yes) No |

Remarks:

CA-WL-2

Approved by HQUSACE 3/92

**DATA FORM**
**ROUTINE WETLAND DETERMINATION**
(1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: NPF<br>Applicant/Owner: FHWA/CDOT<br>Investigator: J GOARLEY / S DIDRIKSEN DT | Date: 10/2/03<br>County: _____<br>State: _____ |
| Do Normal Circumstances exist on the site? (Yes) No<br>Is the site significantly disturbed (Atypical Situation)? Yes (No)<br>Is the area a potential Problem Area? Yes (No)<br>(If needed, explain on reverse.) | Community ID: ARKANSAS R.<br>Transect ID:<br>Plot ID: CHAN-3 |

VEGETATION

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 1. SALIX EXIGUA | S/T | O |
| 2. FESTUCA PRATENSIS | H | FAC |
| 3. ULMUS PUMILA | T | — |
| 4. SCHOENOPLECTUS PUNGENS | H | O |
| 5. PHALARIDES ARUNDINACEA | H | FACW |
| 6. POPULUS DELTOIDES | T | — |
| 7. TAMARIX RAMOSISSIMA | T | FACW |
| 8. PERSICARIA PENNSYLVANICA | H | FACW |
| EQUISETUM HYMALE | H | FACW |

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 9. UPLAND | | |
| 10. AGROPYRON SMITHII | H | FACU |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 89%

Remarks: FRINGE WETLANDS ON N+S SIDES OF RIVER. CONCRETE ON SOME BANKS
MEADOW FESCUE IN TRANSITIONAL ZONE

HYDROLOGY

- ✓ Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - ✓ Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

| | |
|---|---|
| Depth of Surface Water: | _____ (in.) |
| Depth to Free Water in Pit: | 10 (in.) |
| Depth to Saturated Soil: | 6 (in.) |

Wetland Hydrology Indicators:
Primary Indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 Inches
- ✓ Water Marks
- ✓ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ✓ Oxidized Root Channels in Upper 12 Inches
- ✓ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: RIVER FLOWS RELATIVELY LOW DUE TO DROUGHT CONDITIONS

## SOILS

Map Unit Name (Series and Phase): MANZANOLA SILTY CLAY LOAM / GLENBERG-HANESBO FINE SANDY LOAM  Drainage Class: WELL DRAINED

Field Observations

Taxonomy (Subgroup): _____  Confirm Mapped Type? (Yes) No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/ Size/Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 10 | A+B | 10YR 3/2 | 10YR 4/6 | UNCOMMON, DISTINCT | SILTY |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ✓ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ✓ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: SOIL OVER COBBLES + GRAVEL

## WETLAND DETERMINATION

| | | |
|---|---|---|
| Hydrophytic Vegetation Present? | (Yes) No (Circle) | (Circle) |
| Wetland Hydrology Present? | (Yes) No | |
| Hydric Soils Present? | (Yes) No | Is this Sampling Point Within a Wetland? (Yes) No |

Remarks:

CH-WL-3

Approved by HQUSACE 3/92

**DATA FORM**
**ROUTINE WETLAND DETERMINATION**
(1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: NPF<br>Applicant/Owner: FHWA/CDOT<br>Investigator: JGUPLILE/JDUNNIGT | Date: 10/2/03<br>County: PUEBLO<br>State: CO |
| Do Normal Circumstances exist on the site? (Yes) No<br>Is the site significantly disturbed (Atypical Situation)? Yes (No)<br>Is the area a potential Problem Area? Yes (No)<br>(If needed, explain on reverse.) | Community ID: D. Trib<br>Transect ID:<br>Plot ID: CHWL-4 |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 1. TYPHA LATIFOLIA | H | OBL |
| 2. SCHOENOPLECTUS PUNGENS | H | OBL |
| 3. EQUISETUM HYEMALE | H | FACW |
| 4. ULMUS PUMILA | T | — |
| 5. POPULUS DELTOIDES | T | — |
| 6. CAREX SP | H | FACW |
| 7. | | |
| 8. | | |

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 9. UPLAND | | |
| 10. | | |
| 11. ASPLENIUM CRISTATUM | H | — |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 83 %

Remarks: RIVERWALK DITCH; VERY NARROW FRINGE WL ADJACENT TO FLOWING WATER IN DITCH

## HYDROLOGY

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

## SOILS

Map Unit Name
(Series and Phase): GLENBERG-HANERSON FSL OAM

Drainage Class: WELL DRAINED

Field Observations
Confirm Mapped Type? (Yes) No

Taxonomy (Subgroup): _____

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/ Size/Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

## WETLAND DETERMINATION

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes | No | (Circle) |
| Wetland Hydrology Present? | Yes | No | |
| Hydric Soils Present? | Yes | No | |

(Circle)

Is this Sampling Point Within a Wetland? Yes No

Remarks:

CH-WL-4

Approved by HQUSACE 3/92

**DATA FORM**
**ROUTINE WETLAND DETERMINATION**
(1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: NPE<br>Applicant/Owner: FHWA / CDOT<br>Investigator: J GUPLE / J DUWALDT | Date: 10/27/03<br>County: PUEBLO<br>State: CO |
| Do Normal Circumstances exist on the site? (Yes) No<br>Is the site significantly disturbed (Atypical Situation)? Yes (No)<br>Is the area a potential Problem Area? Yes (No)<br>(If needed, explain on reverse.) | Community ID: FOUNTAIN<br>Transect ID: CREEK<br>Plot ID: CH WK 5 (9)<br>(WETLANDS @ 8th ST BRIDGE) |

## VEGETATION

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 1. SALIX EXIGUA | S/T | OBL |
| 2. SCHOENOPLECTUS PUNGENS | H | OBL |
| 3. TAMARIX RAMOSISSIMA | T | FACW |
| 4. TYPHA LATIFOLIA | H | OBL |
| 5. ELAEAGNUS ANGUSTIFOLIA | T | FAC |
| 6. PHRAGMITES AUSTRALIS | H | FACW |
| 7. JUNCUS BALTICUS | H | OBL |
| 8. ELEOCHARIS PALUSTRIS | H | OBL |
| 9. | | |
| 10. | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks: OHWM ON E+W SIDE OF FOUNTAIN CR. LARGE SAND/COBBLE DEPOSITS INDICATE FREQUENT FLOODING, FEW WL AREAS,

## HYDROLOGY

- ✓ Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - ✓ Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: _____ (in.)
- Depth to Free Water in Pit: 8 (in.)
- Depth to Saturated Soil: 4 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 Inches
- ✓ Water Marks
- ✓ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ✓ Oxidized Root Channels in Upper 12 Inches
- ✓ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: MEANDERING CHANNEL, LOW FLOWS

C-TIME OF SURVEY)

## SOILS

Map Unit Name (Series and Phase): LAC ANNAMMA FS LOAM

Drainage Class: POORLY DRAINED

Field Observations
Confirm Mapped Type? (Yes) No

Taxonomy (Subgroup): _____

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/ Size/Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 10 | A-B | 10YR 3/2 | 10YR 4/5 | UNCOMMON/DISTINCT | SILTY SAND |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ✓ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ✓ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ✓ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WATER-DEPOSITED SAND, GRAVEL & COBBLES

## WETLAND DETERMINATION

| | | |
|---|---|---|
| Hydrophytic Vegetation Present? | (Yes) No (Circle) | (Circle) |
| Wetland Hydrology Present? | (Yes) No | Is this Sampling Point Within a Wetland? (Yes) No |
| Hydric Soils Present? | (Yes) No | |

Remarks:

CH WL 5-a

Approved by HQUSACE 3/92

**DATA FORM**
**ROUTINE WETLAND DETERMINATION**
(1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: NPF<br>Applicant/Owner: FHWA/CDOT<br>Investigator: JSDURLIE/TDUWALDT | Date: 10/27/03<br>County: PUEBLO<br>State: CO |
| Do Normal Circumstances exist on the site? (Yes) No<br>Is the site significantly disturbed (Atypical Situation)? Yes (No)<br>Is the area a potential Problem Area? Yes (No)<br>(If needed, explain on reverse.) | Community ID: FOUNTAIN<br>Transect ID: CREEK<br>Plot ID: CH-WL-5(D) |

(WETLANDS FROM SR 50 TO 8th ST)

## VEGETATION

| Dominant Plant Species | Stratum | Indicator |
|---|---|---|
| 1. SALIX EXIGUA | T | O |
| 2. TAMARIX RAMOSISSIMA | T | FACU |
| 3. TYPHA LATIFOLIA | H | O |
| 4. SCIRPUS PUNGENS MINOR | H | O |
| 5. ELAEAGNUS ANGUSTIFOLIA | T | FAC |
| 6. PHRAGMITES AUSTRALIS | H | FAC(W) |
| 7. ELEOCHARIS PALUSTRIS | H | O |
| 8. JUNCUS BALTICUS | H | O |
| 9. | | |
| 10. | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks:
OHWM ED W CREEK BANKS; SAND/COBBLE DEPOSITS FROM FLOODING
FEW WETLANDS; >> OF TAMARIX

## HYDROLOGY

Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ✓ Aerial Photographs
- ___ Other
- ___ No Recorded Data Available

Field Observations:
- Depth of Surface Water: ___ (in.)
- Depth to Free Water in Pit: 8 (in.)
- Depth to Saturated Soil: 4 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 Inches
- ✓ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ✓ Oxidized Root Channels in Upper 12 Inches
- ✓ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: MEANDERING CHANNEL, LOW FLOWS

BANKARD SAND
LIMON SILTY CLAY LOAM

FREQUENT FLOODING
WELL DRAINED

## SOILS

Map Unit Name (Series and Phase): LASANINAS FS LOAM

Drainage Class: II IV

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

| Depth (inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/ Size/Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 10 | AB | 10YR 3/2 | 10YR 4/5 | UNCOMMON/DISTINCT | SILTY SAND |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ✓ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ✓ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ✓ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

## WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

CH WL-5b

Approved by HQUSACE 3/92

**DATA FORM**
**ROUTINE WETLAND DETERMINATION**
(1987 COE Wetlands Delineation Manual)

| | |
|---|---|
| Project/Site: NPF<br>Applicant/Owner: FHWA/CDOT<br>Investigator: J GOURLEY / J DUWALDT | Date: 10/28/03<br>County: PUEBLO<br>State: CO |
| Do Normal Circumstances exist on the site? (Yes) No<br>Is the site significantly disturbed (Atypical Situation)? Yes (No)<br>Is the area a potential Problem Area? Yes (No)<br>(If needed, explain on reverse.) | Community ID: FOUNTAIN<br>Transect ID: CREEK<br>Plot ID: CH-WL-5C |

(N. OF SR 50)

## VEGETATION

| Dominant Plant Species | Stratum | Indicator | Dominant Plant Species | Stratum | Indicator |
|---|---|---|---|---|---|
| 1. SALIX EXIGUA | T | O | 9. | | |
| 2. TAMARIX RAMOSISSIMA | T | FACW | 10. | | |
| 3. SCHOENOPLECTUS PUNGENS | H | O | 11. | | |
| 4. TYPHA LATIFOLIA | H | O | 12. | | |
| 5. JUNCUS BALTICUS | H | O | 13. | | |
| 6. PHRAGMITES AUSTRALIS | H | O | 14. | | |
| 7. | | | 15. | | |
| 8. | | | 16. | | |

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 150

Remarks: DRAWN ALONG ETHEL CREEK BANKS, LOW AREA ON N SIDE OF BRIDGE ⇒ WL FEW WL

## HYDROLOGY

- ✓ Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - ✓ Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: ___ (in.)
- Depth to Free Water in Pit: 10 (in.)
- Depth to Saturated Soil: 6 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ✓ Inundated
- ✓ Saturated in Upper 12 Inches
- ✓ Water Marks
- ✓ Drift Lines
- ✓ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ✓ Oxidized Root Channels in Upper 12 Inches
- ✓ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: MEANDERING CREEK CHANNEL

## SOILS

Map Unit Name (Series and Phase): BANKARD SAND FREQUENT FLOODING, WELL DRAINED / LAS ANIMAS FS LOAM

Drainage Class: WELL DRAINED

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

| Depth (Inches) | Horizon | Matrix Color (Munsell Moist) | Mottle Colors (Munsell Moist) | Mottle Abundance/ Size/Contrast | Texture, Concretions, Structure, etc. |
|---|---|---|---|---|---|
| 12 | A-B | 10YR 3/2 | 10YR 4/6 | common/prom | SILTY SAND |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ✓ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ✓ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ✓ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

## WETLAND DETERMINATION

| | | |
|---|---|---|
| Hydrophytic Vegetation Present? | (Yes) No | (Circle) |
| Wetland Hydrology Present? | (Yes) No | |
| Hydric Soils Present? | (Yes) No | |
| Is this Sampling Point Within a Wetland? | (Yes) No | (Circle) |

Remarks:

CH UL - 5c

Approved by HQUSACE 3/92

**APPENDIX B**

# FACWet Data Forms

FACWet Version 1.0
April 2009

# ADMINISTRATIVE CHARACTERIZATION

| General Information | | | |
|---|---|---|---|
| | | Date of Evaluation: | 5/25/10 |
| Site Name or ID: | Wetland 1 | Project Name: | Pueblo Freeway |
| 404 or Other Permit Application #: | | Applicant Name: | CDOT |
| Evaluator Name(s): | Becky Pierce<br>Rob Frei | Evaluator's professional position and organization: | Biologists, CDOT HQ & Reg. 2 |

| Location Information: | | | |
|---|---|---|---|
| Site Location (Lat./Long. or UTM): | 38°12'59.47" N<br>104°37'09.19" W | Geographic Datum Used (NAD 83 | |
| USGS Quadrangle Map: | Southeast Pueblo | Map Scale: (Circle one) | 1:24,000 1:100,000<br>Other 1: |
| Sub basin Name (8 digit HUC): | 11020002 | Wetland Ownership: | CDOT |

**Project Information:**

This evaluation is being performed at: (Check applicable box)
- [X] *Project Wetland*
- [ ] *Mitigation Site*

Purpose of Evaluation (check all applicable):
- [X] *Potentially Impacted Wetlands*
- [ ] *Mitigation; Pre-construction*
- [ ] *Mitigation; Post-construction*
- [ ] *Monitoring*
- [ ] *Other (Describe)*

Intent of Project: *(Check all applicable)* ☐ Restortation ☐ Enhancement ☐ Creation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total Size of Wetland Involved: (Record Area, Check and Describe Measurement Method Used) | ac. | ☐ Measured<br>☐ Estimated | | | | | |
| Assessment Area (AA) Size (Record Area, check appropriate box. Additional spaces are used to record acreage when more than one AA is included in a single assessment) | ac. | ☐ Measured | ac. | ac. | ac. | ac. | |
| | | ☐ Estimated | ac. | ac. | ac. | ac. | |
| Characteristics or Method used for AA boundary determination: | | | | | | | |

Notes:
Elevation 4,813'
Salt creek ~ 1,000 meters southeast
Isolated wetland

# ECOLOGICAL DESCRIPTION 1

## Special Concerns

*Check all that apply*

- ☐ Organic soils including Histosols or Histic Epipedons are present in the AA (i.e., AA includes core fen habitat).
- ☐ Project will directly impact organic soil portions of the AA including areas possessing either Histosol soils or histic epipedons.
- ☐ Organic soils are known to occur anywhere within the contiguous wetland of which the AA is part.
- ☐ The wetland is a habitat oasis in an otherwise dry or urbanized landscape?
- ☐ Federally threatened or endangered species are **KNOWN** to occur in the AA? List Below.

_____

_____

- ☐ Federally threatened or endangered species are **SUSPECTED** to occur in the AA?

_____

_____

_____

- ☐ Species of concern according to the Colorado Natural Heritage (CNHP) are known to occur in the AA?
- ☐ The site is located within a potential conservation area or element occurrence buffer area as determined by CNHP?
- ☐ Other special concerns (please describe)

_____

## HYDROGEOMORPHIC SETTING

- ☐ AA wetland maintains its fundamental natural hydrogeomorphic characteristics
- ☐ AA wetland has been subject to change in HGM classes as a result of anthropogenic modification

*If the above is checked, please describe the original wetland type if discernable using the table below.*

- ☒ AA wetland was created from an upland setting.

**Previous wetland typology**

| Historical Conditions | | | | |
|---|---|---|---|---|
| **Water source** | Surface flow | Groundwater | Precipitation | Unknown |
| **Hydrodynamics** | Unidirectional | Vertical | | |
| **Geomorphic Setting** (Narrative Description) | | | | |
| **Previous HGM Class** | Riverine | Slope | Depressional | Lacustrine |

## Current Conditions

*Describe the hydrogeomorphic setting of the wetland by circling all conditions that apply.*

**HGM Setting**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Water source** | (Surface flow) | Groundwater | Precipitation | Unknown | | |
| **Hydrodynamics** | (Unidirectional) | Vertical | | | | |
| **Wetland Gradient** | (0 - 2%) | 2-4% | 4-10% | >10% | | |
| **# Surface Inlets** | Over-bank | 0 | (1) | 2 | 3 | >3 |
| **# Surface Outlets** | | (0) | 1 | 2 | 3 | >3 |
| **Geomorphic Setting** (Narrative Description) | | | | | | |
| **HGM class** | Riverine | Slope | (Depressional) | Lacustrine | | |

Notes (include information on charcteristics used to formulate reference standard):

Stormwater pond / stormwater fed wetland
Human induced

# ECOLOGICAL DESCRIPTION 2

## Vegetation Habitat Description

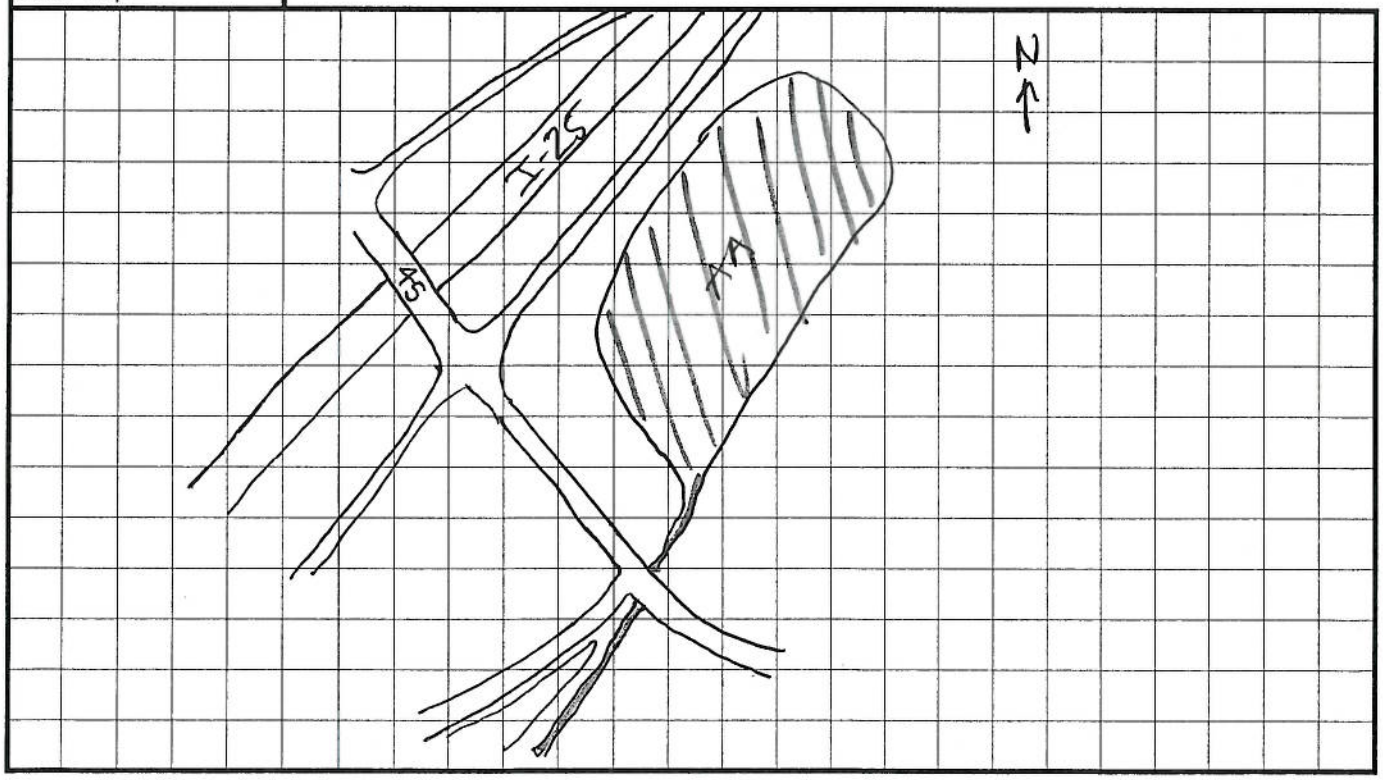
*US FWS habitat classification according as reported in Cowardin et. al (1979) - See also Appendix *** of FACWet User Guide.*

| System | Subsystem | Class | Subclass | Water Regime | Other Modifiers | % AA |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Lacustrine | Littoral; Limnoral | Rock Bot. (RB) Uncon Bottom(UB) Aquatic Bed(AB) Rocky Shore(RS) Uncon Shore(US) Emergent(EM) Shrub-scrub(SS) Forested (FO) | Floating vascular; Rooted vascular; Algal; Persistent; Non-Persistent; Broad-leaved deciduous; Needle-leaved evergreen; Cobble - gravel; Sand; Mud; Organic | **Examples** Temporarily flooded(A); Saturated(B); Seasonally flooded(C); Seas.-flood./sat.(E); Perm. flooded(F); Intermittently Flooded(G); Artificially Flooded(K); Sat./semiperm./Seas. (Y); Int. exposed/permenant(Z) | Hypersaline(7) ; Eusaline(8); Mixosaline(9); Fresh(0); Acid(a); Circumneutral(c); Alkaline/calcareous(i); Organic(g); Mineral(n); Beaver(b); Partially Drained/ditched(d); Farmed(f); Diked/impounded(h); Artificial Substrate(r); Spoil(s); Excavated(x) | |
| Palustrine | Palustrine | | | | | |
| Riverine | Lower perennial; Upper perennial; Intermittent | | | | | |

## Site Map

Scale: 1 sq. =

*Draw a sketch map of the site including relevant portions of the wetland, AA boundary, structures, habitat classes, and other significant features.*



## Variable 1: Habitat Connectivity - Neighboring Wetland Habitat Loss

*This variable is a measure of how isolated from other naturally-occurring wetland or riparian habitat the AA has become as a result of the loss of that habitat. To score this variable, estimate the percent of naturally- occurring wetland/riparian habitat that has been lost (by filling, draining, development, or whatever means) within a 500-meter-wide belt surrounding the AA. This surrounding area is called the Habitat Connectivity Envelope (HCE). Historical photographs and NWI maps can be helpful in scoring this variable. In most cases the evaluator must use best professional judgment in estimating the amount of natural wetland loss. Evaluation of landforms and habitat patterns in the context of perceivable land use change should be used to steer estimates of the amount of wetland loss within the HCE. This variable is not meant to penalize AAs that are naturally isolated, or unique to the landscape. Rather, it should measure the degree to which natural habitat connectivity has been lost.*

**Rules for Scoring:**

1. On the aerial photo outline the area that is within 500 meters of the AA.
2. Identify obvious natural barriers within 500 m of the AA boundary.
   - *Natural barriers include continuous cliff bands, deep open water, etc.*
3. Draw the **Habitat Connectivity Envelope**(HCE) on the aerial image.
   - *The HCE is all the area within 500 meters of the AA that is not separated from it by a natural barrier.*
4. Outline the current extent of naturally occurring wetland and riparian habitat. Then outline areas where the habitats appear to have historically occurred.
   - *Use your knowledge of the history of the area and evident land use change. Additional research could be utilized to increase the accuracy of this estimate including consideratation of floodplain maps, historical aerials, etc.*

| Variable Score | Condition Category | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | *Wetland losses are absent or negligible or there is no evidence to suggest the native landscape within the HCE historically contained other wetland habitats* |
| <0.9 - 0.8 | *Highly Functioning* | *More than 80% of historical wetland habitat area within the HCE is still present (less than 20% historical wetland habitat area lost).* |
| <0.8 - 0.7 | *Functioning* | *80 to 60% of historical wetland habitat area within the HCE is still present (20% to 40% historical wetland habitat area lost).* |
| <0.7 - 0.6 | *Functioning Impaired* | *Less than 60 to 30% of historical wetland habitat area within the HCE is still present (more than 30 to 70% historical wetland habitat area lost).* |
| <0.6 | *Non-functioning* | *Less than 30% of the historical wetland habitat area from within the HCE is now no longer in existence (more than 70% historical wetland habitat area lost).* |

**Variable 1 Score** 0.95

Notes: The landscape in the area has limited Wetlands. No reason to believe HCE is any different. Area is not assumed to have wetland impacts. Down graded a bit b/c not certain

## Variable 2: Habitat Connectivity - Migration/Dispersal Barriers

*This variable is intended to rate the degree to which the AA has become isolated from existing neighboring wetland and riparian habitat by artificial barriers that inhibit migration or dispersal of organisms. On the aerial photograph, identify the man-made barriers within the HCE that intercede between the AA and surrounding wetlands and riparian areas, and identify them by type on the stressor list. Score this variable based on the barriers' impermeability to migration and dispersal and the amount of surrounding wetland/riparian habitat they affect.*

**Rules for Scoring:**

1. On the aerial photo, outline all existing wetland and riparian habitat areas (WHAs) within the HCE.

2. Identify artificial barriers to dispersal and migration of organisms within the HCE that intercede between the AA and surrounding habitats. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

3. Considering the composite effect of all of identified barriers to migration and dispersal (i.e., stressors), assign an overall variable score using the scoring guidelines.

Stressors = artificial barriers

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Major Highway | |
| | Secondary Highway | |
| | Tertiary Roadway | |
| | Railroad | |
| | Bike Path | |
| | Urban Development | |
| | Agricultural Development | |
| | Artificial Water Body | |
| | Fence | |
| | Ditch or Aqueduct | |
| | Aquatic Organism Barriers | |
| | | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable barriers exist between the AA and other wetland and riparian habitats in the HCE; or there are no other wetland and riparian areas in the HCE. |
| <0.9 - 0.8 | *Highly Functioning* | Barriers impeding migration/dispersal between the AA and up to 33% of surrounding WHA highly permeable and easily passed by most organisms. Examples could include gravel roads, minor levees, ditches or barbed-wire fences. More significant barriers (see "functioning category below) could affect migration to up to 10% of surrounding WHA. |
| <0.8 - 0.7 | *Functioning* | Barriers to migration and dispersal retard the ability of many organisms/propagules to pass between the AA and up to 66% of WHA. Passage of organisms and propagules through such barriers is still possible, but it may be constrained to certain times of day, be slow, dangerous or require additional travel. Busy two-lane roads, culverted areas, small to medium artificial water bodies or small earthen dams would commonly rate a score in this range. More significant barriers (see "functioning impaired" category below) could affect migration to up to 10% of surrounding WHA. |
| <0.7 - 0.6 | *Functioning Impaired* | Barriers to migration and dispersal preclude the passage of some types of organisms/propagules between the AA and up to 66% of surrounding WHA. Travel of those animals which can potential negotiate the barrier are strongly restricted and may include a high chance of mortality. Up to 33% of surrounding WHA could be functionally isolated from the AA. |
| <0.6 | *Non-functioning* | AA is essentially isolated from surrounding WHA by impermeable migration and dispersal barriers. An interstate highway or concrete-lined water conveyance canal are examples of barriers which would generally create functional isolation between the AA and a WHA. |

No other wetland/rip. areas in HCE

**Variable 2 Score** 0.95

## Variable 3: Buffer Capacity

*The buffer area is defined as a 250-meter-wide belt surrounding the perimeter of the AA. This variable is a measure of the capacity of that area to function as an effective buffer for the wetland against the deleterious effects of surrounding land use change. To score the variable, assume that the AA is 100% buffered except where land use changes inside the buffer area have diminished this quality. Identify these land use types as specific stressors in the list. For each stressor, rate severity and extent within the buffer area; then use this list to make an overall rating for the buffer's departure from reference conditions. When rating buffer capacity, consider both the intensity of the impact and the proximity of the stressor to the AA.*

### Rules for Scoring:

1. On the aerial photograph, outline the buffer area as the zone within 250 meters of the outer boundary of the AA.
2. Use the stressor list to record land use changes that affect buffering capacity within the buffer area. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.
3. Considering all of the identified stressors, their overall severity, extent and proximity to the AA assign an overall variable score using the scoring guidelines.

| Stressors = Land Use Changes | ✓ | Stressors | Comments/description |
|---|---|---|---|
| | ✓ | Industrial/commercial | setting ponds for industrial materials |
| | ✓ | Urban | department store |
| | | Residential | |
| | | Rural | |
| | | Dryland Farming | |
| | | Intensive Agriculture | |
| | | Orchards or Nurseries | |
| | | Livestock Grazing | |
| | ✓ | Transportation Corridor | Interstate 25 - adjacent on 2 sides |
| | | Urban Parklands | |
| | | Dams/impoundments | |
| | | Artificial Water body | |
| | | Physical Resource Extraction | |
| | | Biological Resource Extraction | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable land use change has been imposed within the TBA and it provides the full buffering capacity. |
| <0.9 - 0.8 | *Highly Functioning* | Some land use change has occurred in the BA, but such changes little impair the area's ability to provide a buffering function, either because land use is not intensive, for example haying, light grazing, or nurseries, or more substantial changes occur in approximately less than 10% of the BA. |
| <0.8 - 0.7 | *Functioning* | BA has been subjected to a marked shift in land use, however, the land retains much of its original buffering capacity. Moderate-intensity land uses such as dry-land farming, urban "green" corridors, or moderate cattle grazing would commonly be placed within this scoring range. |
| <0.7 - 0.6 | *Functioning Impaired* | Land use within the BA has been substantial including the a moderate to high coverage (up to 50%) of impermeable surfaces, bare soil, or other artificial surface; considerable in-flow urban runoff or fertilizer-rich waters common. While, the buffering capacity of the land has been greatly diminished it is not extinguished. Intensively logged areas, low-density urban developments, some urban parklands and some cropping situations would commonly rate a score within this range. |
| <0.6 | *Non-functioning* | The area within the BA provides essentially no buffering capacity. Many Commercial developments or highly urban landscapes would rate a score of less than 0.6. |

Aerial shows herbaceous veg. around AA that adds to buffer.

**Variable 3 score** 0.70

# Variable 4: Water Source

*This variable is concerned with up-gradient hydrologic connectivity. It is a measure of the impacts to the AA's water source, including the ability of source water to perform work such as sediment transport, erosion, soil pore flushing, etc. To score this variable, identify stressors that alter the source of water to the AA, and record their presence on the stressor list. Stressors can impact water source by depletion, augmentation, or alteration of inflow timing or hydrodynamics. For riverine systems, this variable is primarily concerned with the connection of the channel to the floodplain. This variable is designed to assess water quantity, power and timing, not water quality. Water quality will be evaluated in Variable 7.*

## Scoring rules:

1. Use the stressor list and knowledge of the watershed to catalog type-specific impairments of the AA's water source. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

2. Considering the composite effect of stressors on the water source, rate the condition of this variable with the aid of the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches or Drains (tile, etc.) | |
| | Dams | |
| | Diversions | |
| | Groundwater pumping | |
| | Draw-downs | |
| ✓ | Culverts or Constrictions | |
| ✓ | Point Source (urban, ind., ag.) | |
| | Non-point Source | |
| | Increased Drainage Area | |
| ✓ | Storm Drain/Urban Runoff | |
| ✓ | Impermeable Surface Runoff | |
| | Irrigation Return Flows | |
| | Mining/Natural Gas Extraction | |
| | Transbasin Diversion | |
| | Actively Managed Hydrology | |
| | | |
| | | |

| Variable Score | Condition Class | Depletion | Augmentation |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Unnatural drawdown events minor, rare or non-existent, very slight uniform depletion, or trivial alteration of hydrodynamics. | Unnatural high-water events minor, rare or non-existent, slight uniform increase in amount of inflow, or trivial alteration of hydrodynamics. |
| <0.9 - 0.8 | *Highly Functioning* | Unnatural drawdown events occasional, short duration and/or mild; or uniform depletion up to 20%; or mild to moderate reduction of peak flows or natural capacity of water to perform work. | Occasional unnatural high-water events, short in duration and/or mild in intensity; or uniform augmentation up to 20%; or mild to moderate increase of peak flows or natural capacity of water to perform work. |
| <0.8 - 0.7 | *Functioning* | Unnatural drawdown events common and of mild to moderate intensity and/or duration; or uniform depletion up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. | Common occurrence of unnatural high-water events, of a mild to moderate intensity and/or duration; or uniform augmentation up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. |
| <0.7 - 0.6 | *Functioning Impaired* | Unnatural drawdown events occur frequently with a moderate to high intensity and/or duration; or uniform depletion up to 75%; or substantial reduction of peak flows or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** | Common occurrence of unnatural high-water events, some of which may be severe in nature or exist for a substantial portion of the growing season; or uniform augmentation more than 50% or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** |
| <0.6 | *Non-functioning* | Water source diminished enough to threaten jurisdictional classification of the AA. | Frequency, duration or magnitude of unnaturally high-water great enough to change the fundamental characteristics of the wetland. |

**Variable 4 Score** .62

# Variable 5: Water Distribution

*This variable is concerned with hydrologic connectivity within the AA. It is a measure of alteration to the spatial distribution of surface and groundwater within the AA. These alterations are manifested as local changes to the hydrograph and generally* ***result*** *from geomorphic modifications. To score this variable, identify stressors that alter flow patterns and impact the hydrograph within portions of the AA, including localized increases or decreases to the depth or duration of the water table or surface water. In naturally confined rivers (i.e. canyons and gullies) floodplain width is generally very small, so these systems will tend to score high for this variable unless some gross stressor is present.*

**Scoring rules:**

1. Identify impacts to the natural distribution of water throughout the AA and catalog them in the stressor table.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| ✓ | Ponding/Impoundment | |
| ✓ | Culverts | |
| ✓ | Road Grades Si | |
| | Channel Incision/Entrenchment | |
| ✓ | Hardened/Engineered Channel | Inlet ditch |
| | Enlarged Channel | |
| ✓ | Artificial Banks/Shoreline | |
| | Weirs | |
| ✓ | Dikes/Levees/Berms | |
| | Diversions | |
| ✓ | Sediment/Fill Accumulation | |
| | | |
| | | |

| Variable Score | Condition Class | Non-riverine | Riverine |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Little or no alteration has been made to the way in which water is distributed throughout the wetland. | Natural active floodplain areas flood on a normal recurrence interval. No evidence of alteration of flooding and subirrigation duration and intensity. |
| <0.9 - 0.8 | *Highly Functioning* | Less than 10% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in less than a 2 in. (5 cm) change in mean growing season water table elevation. | Channel-adjacent areas have occasional unnatural periods of drying or flooding; or uniform shift in the hydrograph less than typical root depth. |
| <0.8 - 0.7 | *Functioning* | Between 10 and 33% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 4 in. (5 cm) or less change in mean growing season water table elevation. | In channel-adjacent area, periods of drying or flooding are common; or uniform shift in the hydrograph near root depth. |
| <0.7 - 0.6 | *Functioning Impaired* | 33 to 66% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 6 in. (15 cm) or less change in mean growing season water table elevation. Water table behavior must still meet jurisdictional criteria to merit this rating. | Adjacent to the channel, unnatural periods of drying or flooding are the norm; or uniform shift in the hydrograph greater than root depth. |
| <0.6 | *Non-functioning* | More than 66% of the AA is affected by hydrologic alteration which changes the fundamental functioning of the wetland system | Historical active floodplain areas are almost never wetted from overbank flooding, and/or groundwater infiltration is effectively cut off. |

**Variable 5 Score** .60

## Variable 6: Water Outflow

*This variable is concerned with down-gradient hydrologic connectivity and the flow of water (transporting materials and energy) out of the AA. It is a measure of impacts that affect the hydrologic outflow of water including the passage of water through its normal low- and high-flow surface outlets, and infiltration/groundwater recharge. In some cases, alteration of evapotranspiration rates may be significant enough of a factor to consider in scoring. Score this variable by identifying stressors that impact the means by which water is exported from the AA. In Variable 5, the stressors were evaluated in light of their impact on water distribution within the AA. To evaluate this variable focus on how water, energy and associated materials are exported out of the AA.*

**Scoring rules:**

1. Identify impacts to the natural outflow of water from the AA and catalog them in the stressor table.

2.Considering all of the stressors identified, assign an overall variable score using the scoring guidelines. Take in to account the cumulative effect of stressors on the wetland's ability to export water and water-borne materials

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Dikes/Levees | |
| | Road Grades | |
| | Culverts | |
| | Diversions | |
| | Constrictions | |
| | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Artificial Stream Banks | |
| | Weirs | |
| | Confined Bridge Openings | |
| | | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stressors have little to no effect on the magnitude, timing or hydrodynamics of the AA water outflow regime. |
| <0.9 - 0.8 | *Highly Functioning* | High- or low-water outflows are mildly to moderately affected, but at intermediate ("normal") levels flow continues essentially unaltered in quantity or character. |
| <0.8 - 0.7 | *Functioning* | High- or low-water outflows are moderately affected, mild alteration of intermediate level outflow occurs; or hydrodynamics mildly to moderately affected. |
| <0.7 - 0.6 | *Functioning Impaired* | Outflow at all stages is moderately impaired resulting in persistent flooding of portions of the AA or unnatural drainage; or outflow hydrodynamics significantly disrupted. |
| <0.6 | *Non-functioning* | The natural outflow regime is severely disrupted. Down-gradient hydrologic connection severed or nearly so. Alterations may cause widespread unnatural persistent flooding or dewatering of the wetland system. |

Evaporation, Transpiration, Percolation

**Variable 6 Score** .80

# Variable 7: Water and Soil Chemical Environment

*This variable concerns the chemical environment of the soil and water media within the AA, including pollutants and water quality. The origin of pollutants may be in the AA or delivered from up-gradient or surrounding areas. Score this variable by listing indicators of chemical stress in the AA. Consider point source and non-point sources of pollution, as well as mechanical or hydrologic changes that alter the chemical environment. Because water quality frequently cannot be inferred directly, the presence of many stressors is identified via indirect indicators.*

**Scoring rules:**

1. Stressors are grouped into categories which have a similar signature or set of causes.
2. Use the indicator list to identify each stressor impacting the chemical environment of the AA.
3. For each stressor category, determine the sub-variable score using the scoring guideline table provided on the second page of the scoring sheet.
   -If the AA is part of a water body that is recognized as impaired or recommended for TMDL development for one of the factors, then score that sub-variable 0.65 or lower.
4. Transcribe sub-variable scores to the following variable scoring page and compute the sum.
5. Determine the variable score by following the scoring guidelines.

| Stressor Category | Stressor Indicator | ✓ | Comments | Sub-variable Score |
|---|---|---|---|---|
| Nutrient Enrichment/ Eutrophication/ Oxygen (D.O.) | Livestock | | | .95 |
| | Agricultural Runoff | | | |
| | Septic/Sewage | | | |
| | Excessive Algae or Aquatic Veg. | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Sedimentation/ Turbidity | Excessive Erosion | | | .85 |
| | Excessive Deposition | | | |
| | Fine Sediment Plumes | | | |
| | Agricultural Runoff | | | |
| | Excessive Turbidity | | | |
| | Nearby Construction Site | ✓ | Industrial | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Toxic contamination/ pH | Recent Chemical Spills | | | .70 |
| | Nearby Industrial Sites | ✓ | Steel Mill | |
| | Road Drainage/Runoff | ✓ | | |
| | Livestock | | | |
| | Agricultural Runoff | | | |
| | Storm Water Runoff | ✓ | | |
| | Fish/Wildlife Impacts | | | |
| | Vegetation Impacts | | Silt Cedar | |
| | Cumulative Watershed NPS | | | |
| | Acid Mine Drainage | | | |
| | Point Source Discharge | ✓ | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Temperature | Excessive Temperature Regime | | | .95 |
| | Lack of Shading | | | |
| | Reservoir/Power Plant Discharge | | | |
| | Industrial Discharge | ✓ | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Soil chemistry/ Redox potential | Unnatural Saturation/Desaturation | ✓ | Stormwater pond | .82 |
| | Mechanical Soil Disturbance | | | |
| | Dumping/introduced Soil | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |

# Variable 7: Water and Soil Chemical Environment

**Sub-variable Scoring Guidelines**

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stress indicators not present or trivial. |
| <0.9 - 0.8 | *Highly Functioning* | Stress indicators scarcely present and mild, or otherwise not occurring in more than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Stress indicators present at mild to moderate levels, or otherwise not occurring in more than 33% of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | Stress indicators present at moderate to high levels, or otherwise not occurring in more than 66% of the AA |
| <0.6 | *Non-functioning* | Stress indicators strongly evident throughout the AA at levels which apparently alter the fundamental chemical environment of the wetland system |

**Input each factor score from the stressor list and calculate the sum.**

| Nutrient enrichment/ Eutrophication/ Oxygen (D.O.) | | Sedimentation/ Turbidity | | Toxic contamination/ pH | | Temperature | | Soil chemistry/ Redox potential | | Sum of Sub-variable Scores |
|---|---|---|---|---|---|---|---|---|---|---|
| .95 | + | .85 | + | .70 | + | .85 | + | .82 | = | 4.27 |

**Use the table to score the Chemical Environment Variable circling the applicable scoring rules.**

| Variable Score | Condition Class | Scoring Rules | | |
|---|---|---|---|---|
| | | **Single Factor** | | **Composite Score** |
| 1.0 - 0.9 | *Reference Standard* | No single factor scores < 0.9 | or | The factor scores sum > 4.5 |
| <0.9 - 0.8 | *Highly Functioning* | Any single factor scores ≥ 0.8 but < 0.9 | or | The factor scores sum >4.0 but ≤4.5 |
| <0.8 - 0.7 | *Functioning* | Any single factor scores ≥ 7.0 but < 0.8 | or | The factor scores sum >3.5 but ≤ 4.0 |
| <0.7 - 0.6 | *Functioning Impaired* | Any single factor scores ≥ 0.6 but <0.7 | or | The factor scores sum >3.0 but ≤3.5 |
| < 0.6 | *Non-functioning* | Any single factor scores < 0.6 | or | The factor scores sum < 3.0 |

**Variable 7 Score** .82

# Variable 8: Geomorphology

*This variable is a measure of the degree to which the geomorphic setting has been altered within the AA. Changes to the surface configuration and natural topography constitute stressors. Such stressors may be observed in the form of fill, excavation, diking, sedimentation due to absence of flushing floods, etc. In riverine systems geomorphic changes to stream channel should be considered if the channel is within the AA. Alterations may include bed surface changes (embeddedness or morphology changes), stream bank instability, and stream channel reconfiguration. Geomorphic changes are usually ultimately manifested as changes to wetland hydrology and water relations with vegetation. Geomorphic alteration can also directly affect soil properties, such as near-surface texture, and the wetland chemical environment, such as the redox state or nutrient composition in the rooting zone. In rating this variable, do not include these resultant effects of geomorphic change; rather focus on the physical impacts within the footprint of the alteration. The effects of geomorphic change are addressed by other variables. All alterations to the geomorphology should be evaluated including small-scale impacts such as pugging, hoof sheer, and sedimentation which can be significant, but not immediately apparent, impacts.*

**Scoring Rules:**

1. Identify impacts to geomorphological setting and topography within the AA and record them on the stressor checklist.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | | Stressors | Comments |
|---|---|---|---|
| | General | Dredging/Excavation/Mining | |
| | | Fill, including dikes, road grades, etc. | |
| | | Grading | |
| | | Compaction | |
| | | Plowing/Disking | |
| | | Excessive Sedimentation | |
| | | Dumping | |
| | | Hoof Shear/Pugging | |
| | | Aggregate or Mineral Mining | |
| | | Sand Accumulation | |
| | Channels Only | Channel Instability/Over Widening | |
| | | Excessive Bank Erosion | |
| | | Channelization | |
| | | Reconfigured Stream Channels | |
| | | Artificial Banks/Shoreline | |
| | | Beaver Dam Removal | |
| | | Substrate Embeddedness | |
| | | Lack or Excess of Woody Debris | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Topography essentially unaltered from the natural state, or alterations don't appear to have a minimal effect on wetland functioning and condition. Patch or microtopographic complexity may be slightly altered, but native plant communities are still supported. |
| <0.9 - 0.8 | *Highly Functioning* | Alterations to topography result in small but detectable changes to habitat conditions throughout all or most of the AA; or changes causing more significant impacts but affecting less than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Changes to AA topography may be pervasive but generally mild. May include patches of more significant habitat alteration; or more significant alteration affecting less than 20 % of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | At least one important surface type or landform has been eliminated or created; microtopography has been moderately altered throughout most or all of the AA, or more severe alterations affect less than 50% AA. Evidence that widespread diminishment or alteration of native plant community exist due to physical habitat alterations. Most incidentally created wetland habitat such as that created by roadside ditches and the like would score in this range or lower. |
| <0.6 | *Non-functioning* | Geomorphic alterations have rendered the AA essentially unusable by *characteristic* wildlife species, or the physical setting no longer supports native plant communities. |

**Variable 8 Score** .97

# Variable 9: Vegetation Structure and Complexity

*This variable is a measure of the condition of the wetland's vegetation relative to its native state. It is particularly relevant to the wetland's ability to perform higher-order functions such as support of wildlife populations, although it also affects primary functions such as flood-flow attenuation. Score this variable by listing stressors that have affected the diversity, composition and cover of each vegetation cover class that would normally be present for the wetland type being assessed. For this variable, stressor severity is a measure of how much each vegetation stratum differs functionally from its natural condition.*

**Rules for Scoring:**

1. Determine the number and types of vegetation layers present within the AA. Make a judgment as to whether additional layers were historically present using direct evidence such as stumps, root wads or historical photographs. Indirect evidence such as local knowledge and expert opinion can also be used in this determination. Check each present or suspected vegetation layer in the third row of the table.

2. Do not score vegetation layers that would not normally be present in the wetland type being assessed.

3. Estimate the percent coverage of each vegetation layer. Aerial photographs can be helpful for this but are not required.

4. Enter the percent cover values as decimals in the row of the stressor table labeled "Percent Cover of Layer". Note, percentages will often sum to more than 100% (1.0).

5. Determine the severity of stressors acting on each individual canopy layers, indicating their presence with checks in the appropriate boxes of the stressor table.

6. Determine the sub-variable score for each valid vegetation layer using the scoring guidelines on the second page of the scoring sheet. Enter each sub-variable score in the appropriate cell of the row labeled "Veg. Layer Sub-variable Score".

7. Add the "Veg. Layer Sub-variable Scores" and enter the sum in the labled cell to the right of the individual scores. Follow this same process for the "Percent Cover of Layer".

8. Divide the sum of "Veg. Layer Sub-variable Scores" by the total coverage of all layers scored. This product is the Variable 9 score. Enter this number in the labeled box at the bottom of this page.

| | Vegetation Layers | | | | |
|---|---|---|---|---|---|
| **Layers Scored** *(check boxes to right to indicate scored layers)* | / | / | / | | |
| **Stressor** | **Tree** | **Shrub** | **Herb** | **Aquatic** | **Comments** |
| Noxious Weeds | ✓ | ✓ | ✓ | | R-55. mix of Tamarisk & Russian Olive |
| Exotic/Invasive spp. | | | ✓ | | |
| Tree Harvest | | | | | |
| Brush Cutting/Shrub Removal | | | | | |
| Livestock Grazing | | | | | |
| Excessive Herbivory | | | | | |
| Mowing/Haying | | | | | |
| Herbicide | | | | | |
| Loss of Zonation/Homogenization | | | | | |
| Dewatering | | | | | |
| Over Saturation | | | | | |
| | | | | | |
| | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Cover of Layer** | .05 | + | .05 | + | .9 | + | | = | 1.0 |
| | x | | x | | x | | x | | |
| **Veg. Layer Sub-variable Score** | .80 | | .80 | | .65 | | | ÷ | |
| | = | | = | | = | | = | | |
| **Weighted Sub-variable Score** | .04 | + | .04 | + | .59 | + | | = | .67 |

**See sub-variable scoring guidelines on following page**

**Variable 9 Score** .67

# FACWet Score Card

## Scoring Procedure:

1. Transcribe variable scores from each variable data sheet to the corresponding cell in the variable score table.
2. In each Functional Capacity Index (FCI) equation, enter the corresponding variable scores in the equation cells. Do not enter values in the crossed cells lacking labels.
3. Add the variable scores to calculate the total functional points achieved for each function.
4. Divide the total functional points achieved by the functional points possible. The typical number of total points possible is provided, howe if a variable is added or subtracted to FCI equation the total possible points must be adjusted
5. Calculate the Composite FCI, by adding the FCI scores and dividing by the total number of functions scored (usually 7).
6. If scoring is done directly in the Excel spreadsheet, all values will be transferred and calculated automatically.

## VARIABLE SCORE TABLE

| | | | |
|---|---|---|---|
| Buffer & Landscape Context | Variable 1: | Habitat Connectivity - Neighboring Wetland Habitat Loss | .95 |
| | Variable 2: | Habitat Connectivity - Migration/Dispersal Barriers | .95 |
| | Variable 3: | Buffer Capacity | .70 |
| Hydrology | Variable 4: | Water Source | .62 |
| | Variable 5: | Water Distribution | .60 |
| | Variable 6: | Water Outflow | .80 |
| Abiotic and Biotic Habitat | Variable 7: | Chemical Environment | .82 |
| | Variable 8: | Geomorphology | .97 |
| | Variable 9: | Vegetation Structure and Complexity | .67 |

## Functional Capacity Indices

**Function 1 -- Support of Characteristic Wildlife Habitat**

| $V1_{wetloss}$ | + $V2_{barriers}$ | + $V3_{buffer}$ | + $(2 \times V9_{veg})$ | + | + | = Total Functional Points | ÷ 5 = | Functional Capacity Index |
|---|---|---|---|---|---|---|---|---|
| .95 | + .95 | + .7 | + 1.34 | + | + | = 3.94 | ÷ 5 = | .79 |

**Function 2 -- Support of Characteristic Fish/aquatic Habitat**

| $(3 \times V4_{source})$ | + $(2 \times V5_{dist})$ | + $2 \times V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geom}$ | + | = | ÷ 9 = | |
|---|---|---|---|---|---|---|---|---|
| 1.86 | + 1.2 | + 1.6 | + ~~1.6~~ .82 | + .97 | + | = 6.45 | ÷ 9 = | .72 |

**Function 3 -- Flood Attenuation**

| $V3_{buffer}$ | + $2 \times V4_{source}$ | + $(2 \times V5_{dist})$ | + $2 \times V6_{outflow}$ | + $V8_{geom}$ | + $V9_{veg}$ | = | ÷ 9 = | |
|---|---|---|---|---|---|---|---|---|
| .70 | + 1.24 | + 1.20 | + 1.6 | + .97 | + .67 | = ~~5.77~~ 6.38 | ÷ 9 = | .71 |

**Function 4 -- Short- and Long-term Water Storage**

| $V_{source}$ | + $(2 \times V5_{dist})$ | + $2 \times V6_{outflow}$ | $V8_{geom}$ | + | + | = | ÷ 6 = | |
|---|---|---|---|---|---|---|---|---|
| .62 | + 1.20 | + 1.60 | + .97 | + | + | = 4.39 | ÷ 6 = | .73 |

**Function 5 -- Nutrient/Toxicant Removal**

| $(2 \times V5_{dist})$ | + $V7_{chem}$ | + $V8_{geom}$ | + | + | + | = | ÷ 4 = | |
|---|---|---|---|---|---|---|---|---|
| 1.2 | + .82 | + .97 | + | + | + | = 2.99 | ÷ 4 = | .75 |

**Function 6 -- Sediment Retention/Shoreline Stabilization**

| $V3_{buffer}$ | + $(2 \times V8_{geo})$ | + $(2 \times V9_{veg})$ | + | + | + | = | ÷ 5 = | |
|---|---|---|---|---|---|---|---|---|
| .70 | + 1.94 | + 1.34 | + | + | + | = 3.98 | ÷ 5 = | .80 |

**Function 7 -- Production Export/Food Chain Support**

| $V1_{wetloss}$ | + $2 \times V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geo}$ | + $(2 \times V9_{veg})$ | + | = | ÷ 7 = | |
|---|---|---|---|---|---|---|---|---|
| .95 | + 1.60 | + .82 | + .97 | + 1.34 | + | = 5.68 | ÷ 7 = | .81 |

**Sum of Individual FCI Scores** 5.31

Divide by the Number of Functions Scored (usually 7) ÷ 7

**Composite FCI Score** .76

# ADMINISTRATIVE CHARACTERIZATION

| General Information | | | |
|---|---|---|---|
| | | Date of Evaluation: | 5/25/10 |
| Site Name or ID: | Wetland 2 | Project Name: | Pueblo Freeway |
| 404 or Other Permit Application #: | | Applicant Name: | CDOT |
| Evaluator Name(s): | Becky Pierce<br>Rob Frei | Evaluator's professional position and organization: | CDOT HQ & Reg 2. |

| Location Information: | | | |
|---|---|---|---|
| Site Location (Lat./Long. or UTM): | 38°15'02.63"N<br>104°36'26.86"W | Geographic Datum Used (NAD 83 | |
| USGS Quadrangle Map: | Northeast Pueblo | Map Scale: (Circle one) | 1:24,000 1:100,000<br>Other 1: |
| Sub basin Name (8 digit HUC): | 11020002 | Wetland Ownership: | Private |

**Project Information:**

This evaluation is being performed at: *(Check applicable box)*
- [X] *Project Wetland*
- [ ] *Mitigation Site*

Purpose of Evaluation (check all applicable):
- [X] *Potentially Impacted Wetlands*
- [ ] *Mitigation; Pre-construction*
- [ ] *Mitigation; Post-construction*
- [ ] *Monitoring*
- [ ] *Other (Describe)*

Intent of Project: *(Check all applicable)* ☐ Restortation ☐ Enhancement ☐ Creation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total Size of Wetland Involved: (Record Area, Check and Describe Measurement Method Used) | ac. | ☐ | Measured<br>Estimated | | | | |
| Assessment Area (AA) Size (Record Area, check appropriate box. Additional spaces are used to record acreage when more than one AA is included in a single assessment) | ac. | ☐ | Measured | ac. | ac. | ac. | ac. |
| | | ☐ | Estimated | ac. | ac. | ac. | ac. |
| Characteristics or Method used for AA boundary determination: | | | | | | | |

Notes: Township 21 South, Range 65 W

# ECOLOGICAL DESCRIPTION 1

## Special Concerns

*Check all that apply*

- ☐ Organic soils including Histosols or Histic Epipedons are present in the AA (i.e., AA includes core fen habitat).
- ☐ Project will directly impact organic soil portions of the AA including areas possessing either Histosol soils or histic epipedons.
- ☐ Organic soils are known to occur anywhere within the contiguous wetland of which the AA is part.
- ☐ The wetland is a habitat oasis in an otherwise dry or urbanized landscape?
- ☐ Federally threatened or endangered species are **KNOWN** to occur in the AA? List Below.

_____

_____

- ☐ Federally threatened or endangered species are **SUSPECTED** to occur in the AA?

_____

_____

_____

_____

- ☐ Species of concern according to the Colorado Natural Heritage (CNHP) are known to occur in the AA?
- ☐ The site is located within a potential conservation area or element occurrence buffer area as determined by CNHP?
- ☐ Other special concerns (please describe)

_____

## HYDROGEOMORPHIC SETTING

- ☐ AA wetland maintains its fundamental natural hydrogeomorphic characteristics
- ☐ AA wetland has been subject to change in HGM classes as a result of anthropogenic modification

*If the above is checked, please describe the original wetland type if discernable using the table below.*

- ☒ AA wetland was created from an upland setting.

| | | | | | |
|---|---|---|---|---|---|
| Previous wetland typology | **Historical Conditions** | | | | |
| | **Water source** | Surface flow | Groundwater | Precipitation | Unknown |
| | **Hydrodynamics** | Unidirectional | Vertical | | |
| | **Geomorphic Setting** (Narrative Description) | | | | |
| | **Previous HGM Class** | Riverine | Slope | Depressional | Lacustrine |

## Current Conditions

*Describe the hydrogeomorphic setting of the wetland by circling all conditions that apply.*

| | | | | | | |
|---|---|---|---|---|---|---|
| HGM Setting | **Water source** | Surface flow | | Groundwater | Precipitation | Unknown |
| | **Hydrodynamics** | Unidirectional | | Vertical | | |
| | **Wetland Gradient** | 0 - 2% | | 2-4% | 4-10% | >10% |
| | **# Surface Inlets** | Over-bank | 0 | 1 | 2 | 3+ >3 |
| | **# Surface Outlets** | | 0 | 1 | 2 | 3 >3 |
| | **Geomorphic Setting** (Narrative Description) | Seep fed wetland L. Ref more than 1 seep. Artificial valley | | | | |
| | **HGM class** | Riverine | | Slope | Depressional | Lacustrine |

Notes (include information on charcteristics used to formulate reference standard):

# ECOLOGICAL DESCRIPTION 2

## Vegetation Habitat Description

*US FWS habitat classification according as reported in Cowardin et. al (1979) - See also Appendix *** of FACWet User Guide.*

| System | Subsystem | Class | Subclass | Water Regime | Other Modifiers | % AA |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
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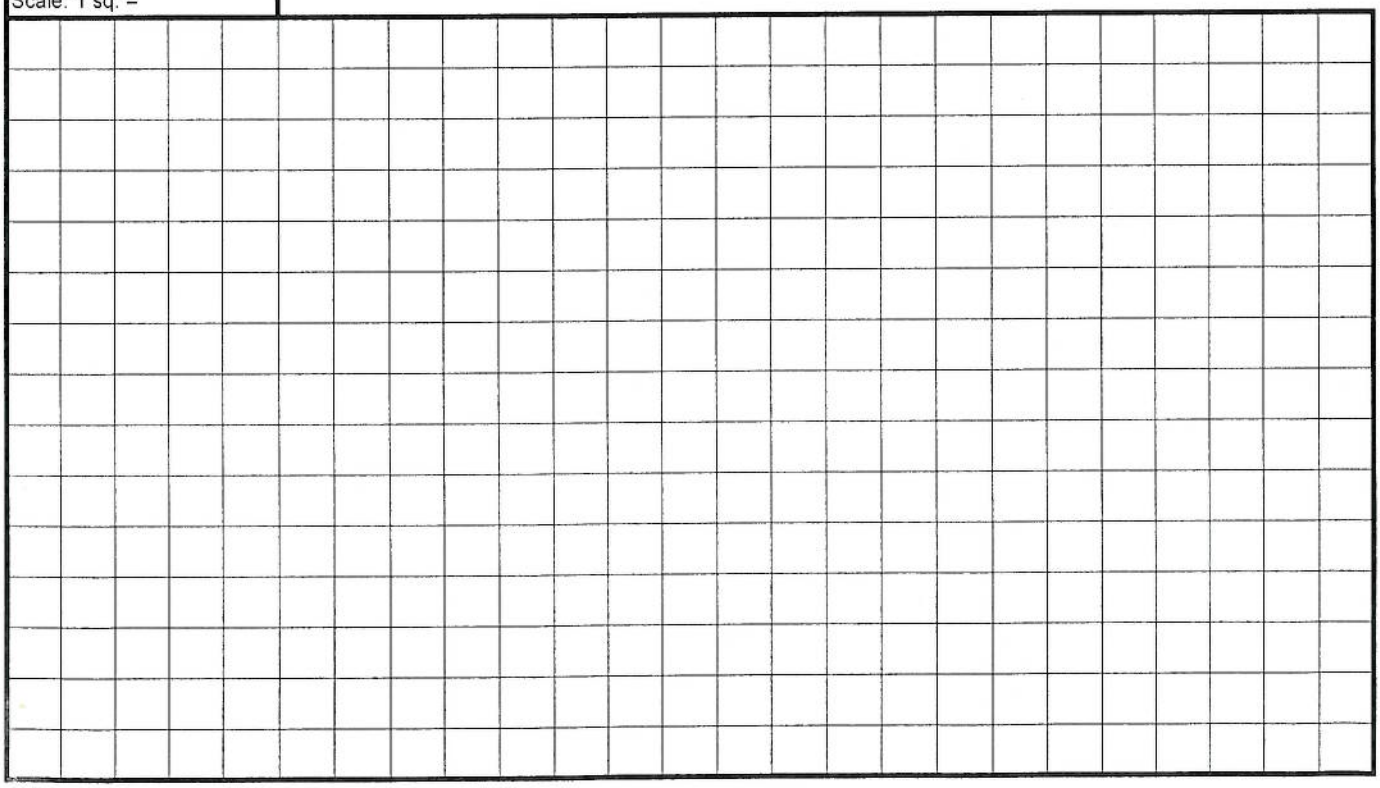
| Lacustrine | Littoral; Limnoral | Rock Bot. (RB) Uncon Bottom(UB) Aquatic Bed(AB) Rocky Shore(RS) Uncon Shore(US) Emergent(EM) Shrub-scrub(SS) Forested (FO) | Floating vascular; Rooted vascular; Algal; Persistent; Non-Persistent; Broad-leaved deciduous; Needle-leaved evergreen; Cobble - gravel; Sand; Mud; Organic | **Examples** Temporarily flooded(A); Saturated(B); Seasonally flooded(C); Seas.-flood./sat.(E); Perm. flooded(F); Intermittently Flooded(G); Artificially Flooded(K); Sat./semiperm./Seas. (Y); Int. exposed/permenant(Z) | Hypersaline(7) ; Eusaline(8); Mixosaline(9); Fresh(0); Acid(a); Circumneutral(c); Alkaline/calcareous(i); Organic(g); Mineral(n); Beaver(b); Partially Drained/ditched(d); Farmed(f); Diked/impounded(h); Artificial Substrate(r); Spoil(s); Excavated(x) | |
| Palustrine | Palustrine | | | | | |
| Riverine | Lower perennial; Upper perennial; Intermittent | | | | | |

## Site Map

Scale: 1 sq. =

*Draw a sketch map of the site including relevant portions of the wetland, AA boundary, structures, habitat classes, and other significant features.*



## Variable 1: Habitat Connectivity - Neighboring Wetland Habitat Loss

*This variable is a measure of how isolated from other naturally-occurring wetland or riparian habitat the AA has become as a result of the loss of that habitat. To score this variable, estimate the percent of naturally- occurring wetland/riparian habitat that has been lost (by filling, draining, development, or whatever means) within a 500-meter-wide belt surrounding the AA. This surrounding area is called the Habitat Connectivity Envelope (HCE). Historical photographs and NWI maps can be helpful in scoring this variable. In most cases the evaluator must use best professional judgment in estimating the amount of natural wetland loss. Evaluation of landforms and habitat patterns in the context of perceivable land use change should be used to steer estimates of the amount of wetland loss within the HCE. This variable is not meant to penalize AAs that are naturally isolated, or unique to the landscape. Rather, it should measure the degree to which natural habitat connectivity has been lost.*

**Rules for Scoring:**

1. On the aerial photo outline the area that is within 500 meters of the AA.
2. Identify obvious natural barriers within 500 m of the AA boundary.
   - *Natural barriers include continuous cliff bands, deep open water, etc.*
3. Draw the **Habitat Connectivity Envelope**(HCE) on the aerial image.
   - *The HCE is all the area within 500 meters of the AA that is not separated from it by a natural barrier.*
4. Outline the current extent of naturally occurring wetland and riparian habitat. Then outline areas where the habitats appear to have historically occurred.
   - *Use your knowledge of the history of the area and evident land use change. Additional research could be utilized to increase the accuracy of this estimate including consideratation of floodplain maps, historical aerials, etc.*

| Variable Score | Condition Category | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | *Wetland losses are absent or negligible or there is no evidence to suggest the native landscape within the HCE historically contained other wetland habitats* |
| <0.9 - 0.8 | *Highly Functioning* | *More than 80% of historical wetland habitat area within the HCE is still present (less than 20% historical wetland habitat area lost).* |
| <0.8 - 0.7 | *Functioning* | *80 to 60% of historical wetland habitat area within the HCE is still present (20% to 40% historical wetland habitat area lost).* |
| <0.7 - 0.6 | *Functioning Impaired* | *Less than 60 to 30% of historical wetland habitat area within the HCE is still present (more than 30 to 70% historical wetland habitat area lost).* |
| <0.6 | *Non-functioning* | *Less than 30% of the historical wetland habitat area from within the HCE is now no longer in existence (more than 70% historical wetland habitat area lost).* |

**Variable 1 Score** 0.65

Notes: Assuming wetland/riparian community along the Arkansas River used to be present.

## Variable 2: Habitat Connectivity - Migration/Dispersal Barriers

*This variable is intended to rate the degree to which the AA has become isolated from existing neighboring wetland and riparian habitat by artificial barriers that inhibit migration or dispersal of organisms. On the aerial photograph, identify the man-made barriers within the HCE that intercede between the AA and surrounding wetlands and riparian areas, and identify them by type on the stressor list. Score this variable based on the barriers' impermeability to migration and dispersal and the amount of surrounding wetland/riparian habitat they affect.*

**Rules for Scoring:**

1. On the aerial photo, outline all existing wetland and riparian habitat areas (WHAs) within the HCE.

2. Identify artificial barriers to dispersal and migration of organisms within the HCE that intercede between the AA and surrounding habitats. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

3. Considering the composite effect of all of identified barriers to migration and dispersal (i.e., stressors), assign an overall variable score using the scoring guidelines.

Stressors = artificial barriers

| ✓ | Stressors | Comments/description |
|---|---|---|
| ✓ | Major Highway | I-25 |
| | Secondary Highway | |
| ✓ | Tertiary Roadway | Santa Fe Drive, /Ave. |
| ✓ | Railroad | Adjacent to AA |
| | Bike Path | |
| ✓ | Urban Development | parking lots |
| | Agricultural Development | |
| | Artificial Water Body | |
| | Fence | |
| ✓ | ~~Ditch or Aqueduct~~ Storm Drains | Local |
| | Aquatic Organism Barriers | |
| ✓ | Residential | Single-family homes |
| ✓ | Commercial | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable barriers exist between the AA and other wetland and riparian habitats in the HCE; or there are no other wetland and riparian areas in the HCE. |
| <0.9 - 0.8 | *Highly Functioning* | Barriers impeding migration/dispersal between the AA and up to 33% of surrounding WHA highly permeable and easily passed by most organisms. Examples could include gravel roads, minor levees, ditches or barbed-wire fences. More significant barriers (see "functioning category below) could affect migration to up to 10% of surrounding WHA. |
| <0.8 - 0.7 | *Functioning* | Barriers to migration and dispersal retard the ability of many organisms/propagules to pass between the AA and up to 66% of WHA. Passage of organisms and propagules through such barriers is still possible, but it may be constrained to certain times of day, be slow, dangerous or require additional travel. Busy two-lane roads, culverted areas, small to medium artificial water bodies or small earthen dams would commonly rate a score in this range. More significant barriers (see "functioning impaired" category below) could affect migration to up to 10% of surrounding WHA. |
| <0.7 - 0.6 | *Functioning Impaired* | Barriers to migration and dispersal preclude the passage of some types of organisms/propagules between the AA and up to 66% of surrounding WHA. Travel of those animals which can potential negotiate the barrier are strongly restricted and may include a high chance of mortality. Up to 33% of surrounding WHA could be functionally isolated from the AA. |
| <0.6 | *Non-functioning* | AA is essentially isolated from surrounding WHA by impermeable migration and dispersal barriers. An interstate highway or concrete-lined water conveyance canal are examples of barriers which would generally create functional isolation between the AA and a WHA. |

Not high amt. of WHA w/in the HCE, but what is there is cut off

**Variable 2 Score** ~~0.68~~ .62

## Variable 3: Buffer Capacity

*The buffer area is defined as a 250-meter-wide belt surrounding the perimeter of the AA. This variable is a measure of the capacity of that area to function as an effective buffer for the wetland against the deleterious effects of surrounding land use change. To score the variable, assume that the AA is 100% buffered except where land use changes inside the buffer area have diminished this quality. Identify these land use types as specific stressors in the list. For each stressor, rate severity and extent within the buffer area; then use this list to make an overall rating for the buffer's departure from reference conditions. When rating buffer capacity, consider both the intensity of the impact and the proximity of the stressor to the AA.*

**Rules for Scoring:**

1. On the aerial photograph, outline the buffer area as the zone within 250 meters of the outer boundary of the AA.
2. Use the stressor list to record land use changes that affect buffering capacity within the buffer area. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.
3. Considering all of the identified stressors, their overall severity, extent and proximity to the AA assign an overall variable score using the scoring guidelines.

| Stressors = Land Use Changes | ✓ | Stressors | Comments/description |
|---|---|---|---|
| | ✓ | Industrial/commercial | parking lots = chemicals |
| | | Urban | |
| | ✓ | Residential | |
| | | Rural | |
| | | Dryland Farming | |
| | | Intensive Agriculture | |
| | | Orchards or Nurseries | |
| | | Livestock Grazing | |
| | ✓ | Transportation Corridor | I-25, railroad, other roads |
| | | Urban Parklands | |
| | | Dams/impoundments | |
| | | Artificial Water body | |
| | | Physical Resource Extraction | |
| | | Biological Resource Extraction | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable land use change has been imposed within the TBA and it provides the full buffering capacity. |
| <0.9 - 0.8 | *Highly Functioning* | Some land use change has occurred in the BA, but such changes little impair the area's ability to provide a buffering function, either because land use is not intensive, for example haying, light grazing, or nurseries, or more substantial changes occur in approximately less than 10% of the BA. |
| <0.8 - 0.7 | *Functioning* | BA has been subjected to a marked shift in land use, however, the land retains much of its original buffering capacity. Moderate-intensity land uses such as dry-land farming, urban "green" corridors, or moderate cattle grazing would commonly be placed within this scoring range. |
| <0.7 - 0.6 | *Functioning Impaired* | Land use within the BA has been substantial including the a moderate to high coverage (up to 50%) of impermeable surfaces, bare soil, or other artificial surface; considerable in-flow urban runoff or fertilizer-rich waters common. While, the buffering capacity of the land has been greatly diminished it is not extinguished. Intensively logged areas, low-density urban developments, some urban parklands and some cropping situations would commonly rate a score within this range. |
| <0.6 | *Non-functioning* | The area within the BA provides essentially no buffering capacity. Many Commercial developments or highly urban landscapes would rate a score of less than 0.6. |

Bad but not terrible buffering capacity

**Variable 3 score** 0.67

# Variable 4: Water Source

*This variable is concerned with up-gradient hydrologic connectivity. It is a measure of the impacts to the AA's water source, including the ability of source water to perform work such as sediment transport, erosion, soil pore flushing, etc. To score this variable, identify stressors that alter the source of water to the AA, and record their presence on the stressor list. Stressors can impact water source by depletion, augmentation, or alteration of inflow timing or hydrodynamics. For riverine systems, this variable is primarily concerned with the connection of the channel to the floodplain.This variable is designed to assess water quantity, power and timing, not water quality. Water quality will be evaluated in Variable 7.*

## Scoring rules:

1. Use the stressor list and knowledge of the watershed to catalog type-specific impairments of the AA's water source. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

2. Considering the composite effect of stressors on the water source, rate the condition of this variable with the aid of the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches or Drains (tile, etc.) | |
| | Dams | |
| | Diversions | |
| | Groundwater pumping | |
| | Draw-downs | |
| | Culverts or Constrictions | |
| | Point Source (urban, ind., ag.) | |
| | Non-point Source | |
| | Increased Drainage Area | |
| | Storm Drain/Urban Runoff | |
| | Impermeable Surface Runoff | |
| | Irrigation Return Flows | |
| | Mining/Natural Gas Extraction | |
| | Transbasin Diversion | |
| | Actively Managed Hydrology | |
| | | |
| | | |

| Variable Score | Condition Class | Depletion | Augmentation |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Unnatural drawdown events minor, rare or non-existent, very slight uniform depletion, or trivial alteration of hydrodynamics. | Unnatural high-water events minor, rare or non-existent, slight uniform increase in amount of inflow, or trivial alteration of hydrodynamics. |
| <0.9 - 0.8 | *Highly Functioning* | Unnatural drawdown events occasional, short duration and/or mild; or uniform depletion up to 20%; or mild to moderate reduction of peak flows or natural capacity of water to perform work. | Occasional unnatural high-water events, short in duration and/or mild in intensity; or uniform augmentation up to 20%; or mild to moderate increase of peak flows or natural capacity of water to perform work. |
| <0.8 - 0.7 | *Functioning* | Unnatural drawdown events common and of mild to moderate intensity and/or duration; or uniform depletion up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. | Common occurrence of unnatural high-water events, of a mild to moderate intensity and/or duration; or uniform augmentation up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. |
| <0.7 - 0.6 | *Functioning Impaired* | Unnatural drawdown events occur frequently with a moderate to high intensity and/or duration; or uniform depletion up to 75%; or substantial reduction of peak flows or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** | Common occurrence of unnatural high-water events, some of which may be severe in nature or exist for a substantial portion of the growing season; or uniform augmentation more than 50% or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** |
| <0.6 | *Non-functioning* | Water source diminished enough to threaten jurisdictional classification of the AA. | Frequency, duration or magnitude of unnaturally high-water great enough to change the fundamental characteristics of the wetland. |

**Variable 4 Score** .95

# Variable 5: Water Distribution

*This variable is concerned with hydrologic connectivity within the AA. It is a measure of alteration to the spatial distribution of surface and groundwater within the AA. These alterations are manifested as local changes to the hydrograph and generally* ***result*** *from geomorphic modifications. To score this variable, identify stressors that alter flow patterns and impact the hydrograph within portions of the AA, including localized increases or decreases to the depth or duration of the water table or surface water. In naturally confined rivers (i.e. canyons and gullies) floodplain width is generally very small, so these systems will tend to score high for this variable unless some gross stressor is present.*

**Scoring rules:**

1. Identify impacts to the natural distribution of water throughout the AA and catalog them in the stressor table.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Ponding/Impoundment | |
| | Culverts | |
| | Road Grades | |
| | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Enlarged Channel | |
| ✓ | Artificial Banks/Shoreline | Moderate influence |
| | Weirs | |
| | Dikes/Levees/Berms | |
| | Diversions | |
| ✓ | Sediment/Fill Accumulation | Minor - Moderate Deg |
| | | |
| | | |

| Variable Score | Condition Class | Non-riverine | Riverine |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Little or no alteration has been made to the way in which water is distributed throughout the wetland. | Natural active floodplain areas flood on a normal recurrence interval. No evidence of alteration of flooding and subirrigation duration and intensity. |
| <0.9 - 0.8 | *Highly Functioning* | Less than 10% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in less than a 2 in. (5 cm) change in mean growing season water table elevation. | Channel-adjacent areas have occasional unnatural periods of drying or flooding; or uniform shift in the hydrograph less than typical root depth. |
| <0.8 - 0.7 | *Functioning* | Between 10 and 33% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 4 in. (5 cm) or less change in mean growing season water table elevation. | In channel-adjacent area, periods of drying or flooding are common; or uniform shift in the hydrograph near root depth. |
| <0.7 - 0.6 | *Functioning Impaired* | 33 to 66% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 6 in. (15 cm) or less change in mean growing season water table elevation. Water table behavior must still meet jurisdictional criteria to merit this rating. | Adjacent to the channel, unnatural periods of drying or flooding are the norm; or uniform shift in the hydrograph greater than root depth. |
| <0.6 | *Non-functioning* | More than 66% of the AA is affected by hydrologic alteration which changes the fundamental functioning of the wetland system | Historical active floodplain areas are almost never wetted from overbank flooding, and/or groundwater infiltration is effectively cut off. |

**Variable 5 Score** .87

# Variable 6: Water Outflow

*This variable is concerned with down-gradient hydrologic connectivity and the flow of water (transporting materials and energy) out of the AA. It is a measure of impacts that affect the hydrologic outflow of water including the passage of water through its normal low- and high-flow surface outlets, and infiltration/groundwater recharge. In some cases, alteration of evapotranspiration rates may be significant enough of a factor to consider in scoring. Score this variable by identifying stressors that impact the means by which water is exported from the AA. In Variable 5, the stressors were evaluated in light of their impact on water distribution within the AA. To evaluate this variable focus on how water, energy and associated materials are exported out of the AA.*

**Scoring rules:**

1. Identify impacts to the natural outflow of water from the AA and catalog them in the stressor table.

2.Considering all of the stressors identified, assign an overall variable score using the scoring guidelines. Take in to account the cumulative effect of stressors on the wetland's ability to export water and water-borne materials

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Dikes/Levees | |
| ✓ | Road Grades | Santa Fe |
| ✓ | Culverts | under Santa Fe |
| | Diversions | |
| ✓ | Constrictions | Artificial Fill |
| | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Artificial Stream Banks | |
| | Weirs | |
| | Confined Bridge Openings | |
| | | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stressors have little to no effect on the magnitude, timing or hydrodynamics of the AA water outflow regime. |
| <0.9 - 0.8 | *Highly Functioning* | High- or low-water outflows are mildly to moderately affected, but at intermediate ("normal") levels flow continues essentially unaltered in quantity or character. |
| <0.8 - 0.7 | *Functioning* | High- or low-water outflows are moderately affected, mild alteration of intermediate level outflow occurs; or hydrodynamics mildly to moderately affected. |
| <0.7 - 0.6 | *Functioning Impaired* | Outflow at all stages is moderately impaired resulting in persistent flooding of portions of the AA or unnatural drainage; or outflow hydrodynamics significantly disrupted. |
| <0.6 | *Non-functioning* | The natural outflow regime is severely disrupted. Down-gradient hydrologic connection severed or nearly so. Alterations may cause widespread unnatural persistent flooding or dewatering of the wetland system. |

**Variable 6 Score** .80

# Variable 7: Water and Soil Chemical Environment

*This variable concerns the chemical environment of the soil and water media within the AA, including pollutants and water quality. The origin of pollutants may be in the AA or delivered from up-gradient or surrounding areas. Score this variable by listing indicators of chemical stress in the AA. Consider point source and non-point sources of pollution, as well as mechanical or hydrologic changes that alter the chemical environment. Because water quality frequently cannot be inferred directly, the presence of many stressors is identified via indirect indicators.*

**Scoring rules:**

1. Stressors are grouped into categories which have a similar signature or set of causes.
2. Use the indicator list to identify each stressor impacting the chemical environment of the AA.
3. For each stressor category, determine the sub-variable score using the scoring guideline table provided on the second page of the scoring sheet.
   -If the AA is part of a water body that is recognized as impaired or recommended for TMDL development for one of the factors, then score that sub-variable 0.65 or lower.
4. Transcribe sub-variable scores to the following variable scoring page and compute the sum.
5. Determine the variable score by following the scoring guidelines.

| Stressor Category | Stressor Indicator | ✓ | Comments | Sub-variable Score |
|---|---|---|---|---|
| Nutrient Enrichment/ Eutrophication/ Oxygen (D.O.) | Livestock | | | .95 |
| | Agricultural Runoff | | | |
| | Septic/Sewage | ✓ | ? Maybe Res-dev/Ind | |
| | Excessive Algae or Aquatic Veg. | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Sedimentation/ Turbidity | Excessive Erosion | | | .90 |
| | Excessive Deposition | | | |
| | Fine Sediment Plumes | | | |
| | Agricultural Runoff | | | |
| | Excessive Turbidity | | | |
| | Nearby Construction Site | ✓ | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | Exposed Banks | ✓ | | |
| Toxic contamination/ pH | Recent Chemical Spills | ? | | .90 |
| | Nearby Industrial Sites | | | |
| | Road Drainage/Runoff | ✓ | Some | |
| | Livestock | | | |
| | Agricultural Runoff | | | |
| | Storm Water Runoff | ✓ | | |
| | Fish/Wildlife Impacts | | | |
| | Vegetation Impacts | | | |
| | Cumulative Watershed NPS | | | |
| | Acid Mine Drainage | | | |
| | Point Source Discharge | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Temperature | Excessive Temperature Regime | | | .98 |
| | Lack of Shading | | | |
| | Reservoir/Power Plant Discharge | | | |
| | Industrial Discharge | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Soil chemistry/ Redox potential | Unnatural Saturation/Desaturation | | | .85 |
| | Mechanical Soil Disturbance | | | |
| | Dumping/introduced Soil | ✓ | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |

# Variable 7: Water and Soil Chemical Environment

**Sub-variable Scoring Guidelines**

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stress indicators not present or trivial. |
| <0.9 - 0.8 | *Highly Functioning* | Stress indicators scarcely present and mild, or otherwise not occurring in more than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Stress indicators present at mild to moderate levels, or otherwise not occurring in more than 33% of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | Stress indicators present at moderate to high levels, or otherwise not occurring in more than 66% of the AA |
| <0.6 | *Non-functioning* | Stress indicators strongly evident throughout the AA at levels which apparently alter the fundamental chemical environment of the wetland system |

**Input each factor score from the stressor list and calculate the sum.**

| Nutrient enrichment/ Eutrophication/ Oxygen (D.O.) | | Sedimentation/ Turbidity | | Toxic contamination/ pH | | Temperature | | Soil chemistry/ Redox potential | | Sum of Sub-variable Scores |
|---|---|---|---|---|---|---|---|---|---|---|
| .95 | + | .90 | + | .90 | + | .98 | + | .85 | = | 4.58 |

**Use the table to score the Chemical Environment Variable circling the applicable scoring rules.**

| Variable Score | Condition Class | Scoring Rules | | |
|---|---|---|---|---|
| | | **Single Factor** | | **Composite Score** |
| 1.0 - 0.9 | *Reference Standard* | No single factor scores < 0.9 | or | The factor scores sum > 4.5 |
| <0.9 - 0.8 | *Highly Functioning* | Any single factor scores ≥ 0.8 but < 0.9 | or | The factor scores sum >4.0 but ≤4.5 |
| <0.8 - 0.7 | *Functioning* | Any single factor scores ≥ 7.0 but < 0.8 | or | The factor scores sum >3.5 but ≤ 4.0 |
| <0.7 - 0.6 | *Functioning Impaired* | Any single factor scores ≥ 0.6 but <0.7 | or | The factor scores sum >3.0 but ≤3.5 |
| < 0.6 | *Non-functioning* | Any single factor scores < 0.6 | or | The factor scores sum < 3.0 |

**Variable 7 Score** .88

# Variable 8: Geomorphology

*This variable is a measure of the degree to which the geomorphic setting has been altered within the AA. Changes to the surface configuration and natural topography constitute stressors. Such stressors may be observed in the form of fill, excavation, diking, sedimentation due to absence of flushing floods, etc. In riverine systems geomorphic changes to stream channel should be considered if the channel is within the AA. Alterations may include bed surface changes (embeddedness or morphology changes), stream bank instability, and stream channel reconfiguration. Geomorphic changes are usually ultimately manifested as changes to wetland hydrology and water relations with vegetation. Geomorphic alteration can also directly affect soil properties, such as near-surface texture, and the wetland chemical environment, such as the redox state or nutrient composition in the rooting zone. In rating this variable, do not include these resultant effects of geomorphic change; rather focus on the physical impacts within the footprint of the alteration. The effects of geomorphic change are addressed by other variables. All alterations to the geomorphology should be evaluated including small-scale impacts such as pugging, hoof sheer, and sedimentation which can be significant, but not immediately apparent, impacts.*

**Scoring Rules:**

1. Identify impacts to geomorphological setting and topography within the AA and record them on the stressor checklist.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | | Stressors | Comments |
|---|---|---|---|
| | General | Dredging/Excavation/Mining | |
| ✓ | General | Fill, including dikes, road grades, etc. | |
| | General | Grading | |
| | General | Compaction | |
| | General | Plowing/Disking | |
| | General | Excessive Sedimentation | |
| ✓ | General | Dumping | |
| | General | Hoof Shear/Pugging | |
| | General | Aggregate or Mineral Mining | |
| | General | Sand Accumulation | |
| | Channels Only | Channel Instability/Over Widening | |
| | Channels Only | Excessive Bank Erosion | |
| | Channels Only | Channelization | |
| | Channels Only | Reconfigured Stream Channels | |
| | Channels Only | Artificial Banks/Shoreline | |
| | Channels Only | Beaver Dam Removal | |
| | Channels Only | Substrate Embeddedness | |
| | Channels Only | Lack or Excess of Woody Debris | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Topography essentially unaltered from the natural state, or alterations don't appear to have a minimal effect on wetland functioning and condition. Patch or microtopographic complexity may be slightly altered, but native plant communities are still supported. |
| <0.9 - 0.8 | *Highly Functioning* | Alterations to topography result in small but detectable changes to habitat conditions throughout all or most of the AA; or changes causing more significant impacts but affecting less than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Changes to AA topography may be pervasive but generally mild. May include patches of more significant habitat alteration; or more significant alteration affecting less than 20 % of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | At least one important surface type or landform has been eliminated or created; microtopography has been moderately altered throughout most or all of the AA, or more severe alterations affect less than 50% AA. Evidence that widespread diminishment or alteration of native plant community exist due to physical habitat alterations. Most incidentally created wetland habitat such as that created by roadside ditches and the like would score in this range or lower. |
| <0.6 | *Non-functioning* | Geomorphic alterations have rendered the AA essentially unusable by *characteristic* wildlife species, or the physical setting no longer supports native plant communities. |

**Variable 8 Score** .88

# Variable 9: Vegetation Structure and Complexity

*This variable is a measure of the condition of the wetland's vegetation relative to its native state. It is particularly relevant to the wetland's ability to perform higher-order functions such as support of wildlife populations, although it also affects primary functions such as flood-flow attenuation. Score this variable by listing stressors that have affected the diversity, composition and cover of each vegetation cover class that would normally be present for the wetland type being assessed. For this variable, stressor severity is a measure of how much each vegetation stratum differs functionally from its natural condition.*

## Rules for Scoring:

1. Determine the number and types of vegetation layers present within the AA. Make a judgment as to whether additional layers were historically present using direct evidence such as stumps, root wads or historical photographs. Indirect evidence such as local knowledge and expert opinion can also be used in this determination. Check each present or suspected vegetation layer in the third row of the table.

2. Do not score vegetation layers that would not normally be present in the wetland type being assessed.

3. Estimate the percent coverage of each vegetation layer. Aerial photographs can be helpful for this but are not required.

4. Enter the percent cover values as decimals in the row of the stressor table labeled "Percent Cover of Layer". Note, percentages will often sum to more than 100% (1.0).

5. Determine the severity of stressors acting on each individual canopy layers, indicating their presence with checks in the appropriate boxes of the stressor table.

6. Determine the sub-variable score for each valid vegetation layer using the scoring guidelines on the second page of the scoring sheet. Enter each sub-variable score in the appropriate cell of the row labeled "Veg. Layer Sub-variable Score".

7. Add the "Veg. Layer Sub-variable Scores" and enter the sum in the labled cell to the right of the individual scores. Follow this same process for the "Percent Cover of Layer".

8. Divide the sum of "Veg. Layer Sub-variable Scores" by the total coverage of all layers scored. This product is the Variable 9 score. Enter this number in the labeled box at the bottom of this page.

| | Vegetation Layers | | | | |
|---|---|---|---|---|---|
| **Layers Scored** *(check boxes to right to indicate scored layers)* | Y | Y | Y | Y | |
| **Stressor** | **Tree** | **Shrub** | **Herb** | **Aquatic** | **Comments** |
| Noxious Weeds | ✓ | ✓ | ✓ | | 2-25-a a Olive, Siberian Elm |
| Exotic/Invasive spp. | ✓ | ✓ | ✓ | | ~~Siberian~~ Elm Tamarisk, Tree of Heaven |
| Tree Harvest | | | | | Salisbury, Cherries |
| Brush Cutting/Shrub Removal | | | | | |
| Livestock Grazing | | | | | |
| Excessive Herbivory | | | | | |
| Mowing/Haying | | | | | |
| Herbicide | | | | | |
| Loss of Zonation/Homogenization | | | ✓ | | Cattails |
| Dewatering | | | | | |
| Over Saturation | | | | | |
| | | | | | |
| | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Cover of Layer** | .20 | + | .15 | + | .95 | + | .01 | = | 1.31 |
| | x | | x | | x | | x | | ÷ |
| **Veg. Layer Sub-variable Score** | .72 | | .60 | | .80 | | .95 | | |
| | = | | = | | = | | = | | |
| **Weighted Sub-variable Score** | .14 | + | .09 | + | .76 | + | .01 | = | 1.0 |

**See sub-variable scoring guidelines on following page**

**Variable 9 Score** .76

# FACWet Score Card

## Scoring Procedure:

1. Transcribe variable scores from each variable data sheet to the corresponding cell in the variable score table.
2. In each Functional Capacity Index (FCI) equation, enter the corresponding variable scores in the equation cells. Do not enter values in the crossed cells lacking labels.
3. Add the variable scores to calculate the total functional points achieved for each function.
4. Divide the total functional points achieved by the functional points possible. The typical number of total points possible is provided, howe if a variable is added or subtracted to FCI equation the total possible points must be adjusted
5. Calculate the Composite FCI, by adding the FCI scores and dividing by the total number of functions scored (usually 7).
6. If scoring is done directly in the Excel spreadsheet, all values will be transferred and calculated automatically.

## VARIABLE SCORE TABLE

| | | | |
|---|---|---|---|
| Buffer & Landscape Context | Variable 1: | Habitat Connectivity - Neighboring Wetland Habitat Loss | .65 |
| | Variable 2: | Habitat Connectivity - Migration/Dispersal Barriers | .62 |
| | Variable 3: | Buffer Capacity | .67 |
| Hydrology | Variable 4: | Water Source | .95 |
| | Variable 5: | Water Distribution | .87 |
| | Variable 6: | Water Outflow | .80 |
| Abiotic and Biotic Habitat | Variable 7: | Chemical Environment | .88 |
| | Variable 8: | Geomorphology | .88 |
| | Variable 9: | Vegetation Structure and Complexity | .76 |

## Functional Capacity Indices

**Function 1 -- Support of Characteristic Wildlife Habitat**

| $V1_{wetloss}$ | + $V2_{barriers}$ | + $V3_{buffer}$ | + (2 x $V9_{veg}$) | | | = Total Functional Points | ÷ 5 = | Functional Capacity Index |
|---|---|---|---|---|---|---|---|---|
| .65 | + .62 | + .67 | + 1.52 | + | + | = 3.46 | ÷ 5 = | .69 |

**Function 2 -- Support of Characteristic Fish/aquatic Habitat**

| (3 x $V4_{source}$) | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geom}$ | | = | ÷ 9 = | |
|---|---|---|---|---|---|---|---|---|
| 2.85 | + 1.74 | + 1.60 | + .88 | + .88 | + | = 7.95 | ÷ 9 = | .88 |

**Function 3 -- Flood Attenuation**

| $V3_{buffer}$ | + 2 x $V4_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V8_{geom}$ | + $V9_{veg}$ | = | ÷ 9 = | |
|---|---|---|---|---|---|---|---|---|
| .67 | + 1.90 | + 1.74 | + 1.60 | + .88 | + .76 | = 7.55 | ÷ 9 = | .84 |

**Function 4 -- Short- and Long-term Water Storage**

| $V_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$) | $V8_{geom}$ | | | = | ÷ 6 = | |
|---|---|---|---|---|---|---|---|---|
| .95 | + 1.74 | + 1.60 | + .88 | + | + | = 5.17 | ÷ 6 = | .86 |

**Function 5 -- Nutrient/Toxicant Removal**

| (2 x $V5_{dist}$) | + $V7_{chem}$ | + $V8_{geom}$ | | | | = | ÷ 4 = | |
|---|---|---|---|---|---|---|---|---|
| 1.74 | + .88 | + .88 | + | + | + | = 3.5 | ÷ 4 = | .88 |

**Function 6 -- Sediment Retention/Shoreline Stabilization**

| $V3_{buffer}$ | + (2 x $V8_{geo}$) | + (2 x $V9_{veg}$) | | | | = | ÷ 5 = | |
|---|---|---|---|---|---|---|---|---|
| .67 | + 1.76 | + 1.52 | + | + | + | = 3.95 | ÷ 5 = | .79 |

**Function 7 -- Production Export/Food Chain Support**

| $V1_{wetloss}$ | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geo}$ | + (2 x $V9_{veg}$) | | = | ÷ 7 = | |
|---|---|---|---|---|---|---|---|---|
| .65 | + 1.60 | + .88 | + .88 | + 1.52 | + | = 5.53 | ÷ 7 = | .79 |

**Sum of Individual FCI Scores** 5.73

Divide by the Number of Functions Scored (usually 7) ÷ 7

**Composite FCI Score** .82

# ADMINISTRATIVE CHARACTERIZATION

| | | | |
|---|---|---|---|
| **General Information** | | Date of Evaluation: | 5/25/10 |
| Site Name or ID: | Wetland 3 | Project Name: | Pueblo Freeway |
| 404 or Other Permit Application #: | | Applicant Name: | CDOT |
| Evaluator Name(s): | Becky Pierce<br>Rob Frei | Evaluator's professional position and organization: | CDOT Reg 2. HQ & |

| | | | |
|---|---|---|---|
| **Location Information:** | | | |
| Site Location (Lat./Long. or UTM): | 38°15'14.39" N<br>104°36'18.44" W | Geographic Datum Used (NAD 83 | |
| USGS Quadrangle Map: | Northeast Pueblo | Map Scale: (Circle one) | 1:24,000 1:100,000<br>Other 1: |
| Sub basin Name (8 digit HUC): | 11020002 | Wetland Ownership: | City of Pueblo |

**Project Information:**

This evaluation is being performed at: (Check applicable box)
- [X] *Project Wetland*
- [ ] *Mitigation Site*

Purpose of Evaluation (check all applicable):
- [X] *Potentially Impacted Wetlands*
- [ ] *Mitigation; Pre-construction*
- [ ] *Mitigation; Post-construction*
- [ ] *Monitoring*
- [ ] *Other (Describe)*

Intent of Project: *(Check all applicable)* ☐ Restortation ☐ Enhancement ☐ Creation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total Size of Wetland Involved: (Record Area, Check and Describe Measurement Method Used) | ac. | ☐ Measured<br>☐ Estimated | | | | | |
| Assessment Area (AA) Size (Record Area, check appropriate box. Additional spaces are used to record acreage when more than one AA is included in a single assessment) | ac. | ☐ Measured<br>☐ Estimated | ac.<br>ac. | ac.<br>ac. | ac.<br>ac. | ac.<br>ac. |
| Characteristics or Method used for AA boundary determination: | | | | | | | |

Notes: Section 6, Township 21 South, Range 64 West

# ECOLOGICAL DESCRIPTION 1

## Special Concerns

*Check all that apply*

- ☐ Organic soils including Histosols or Histic Epipedons are present in the AA (i.e., AA includes core fen habitat).
- ☐ Project will directly impact organic soil portions of the AA including areas possessing either Histosol soils or histic epipedons.
- ☐ Organic soils are known to occur anywhere within the contiguous wetland of which the AA is part.
- ☐ The wetland is a habitat oasis in an otherwise dry or urbanized landscape?
- ☐ Federally threatened or endangered species are **KNOWN** to occur in the AA? List Below.

_____

_____

- ☐ Federally threatened or endangered species are **SUSPECTED** to occur in the AA?

_____

_____

_____

_____

- ☐ Species of concern according to the Colorado Natural Heritage (CNHP) are known to occur in the AA?
- ☐ The site is located within a potential conservation area or element occurrence buffer area as determined by CNHP?
- ☐ Other special concerns (please describe)

_____

## HYDROGEOMORPHIC SETTING

- ☒ AA wetland maintains its fundamental natural hydrogeomorphic characteristics
- ☐ AA wetland has been subject to change in HGM classes as a result of anthropogenic modification

*If the above is checked, please describe the original wetland type if discernable using the table below.*

- ☐ AA wetland was created from an upland setting.

**Previous wetland typology**

| Historical Conditions | | | | |
|---|---|---|---|---|
| **Water source** | Surface flow | Groundwater | Precipitation | Unknown |
| **Hydrodynamics** | Unidirectional | Vertical | | |
| **Geomorphic Setting** (Narrative Description) | | | | |
| **Previous HGM Class** | Riverine | Slope | Depressional | Lacustrine |

## Current Conditions

*Describe the hydrogeomorphic setting of the wetland by circling all conditions that apply.*

**HGM Setting**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Water source** | Surface flow | | Groundwater | | Precipitation | Unknown |
| **Hydrodynamics** | Unidirectional | | Vertical | | | |
| **Wetland Gradient** | 0 - 2% | | 2-4% | 4-10% | >10% | |
| **# Surface Inlets** | Over-bank | 0 | 1 | 2 | 3 | >3 |
| **# Surface Outlets** | | 0 | 1 | 2 | 3 | >3 |
| **Geomorphic Setting** (Narrative Description) | | | | | | |
| **HGM class** | (Riverine) | | Slope | | Depressional | Lacustrine |

Notes (include information on charcteristics used to formulate reference standard):

Wetland on N and S side/bank of Arkansas River.

# ECOLOGICAL DESCRIPTION 2

## Vegetation Habitat Description

*US FWS habitat classification according as reported in Cowardin et. al (1979) - See also Appendix *** of FACWet User Guide.*

| System | Subsystem | Class | Subclass | Water Regime | Other Modifiers | % AA |
|---|---|---|---|---|---|---|
| Riverine | Palustrine | | | | | |
| | | | | | | |
| | | | | | | |
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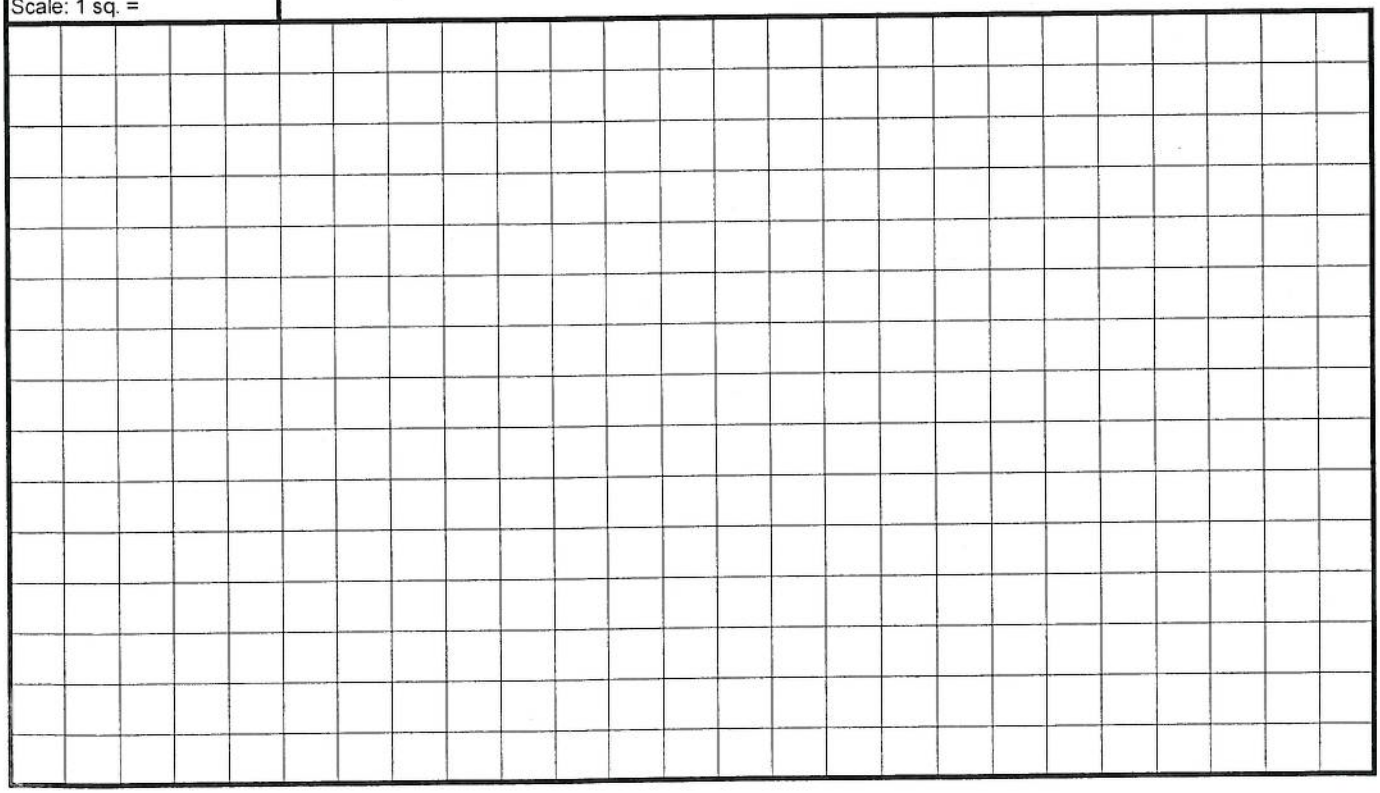
| | | | | | | |
|---|---|---|---|---|---|---|
| Lacustrine | Littoral; Limnoral | Rock Bot. (RB) Uncon Bottom(UB) Aquatic Bed(AB) Rocky Shore(RS) Uncon Shore(US) Emergent(EM) Shrub-scrub(SS) Forested (FO) | Floating vascular; Rooted vascular; Algal; Persistent; Non-Persistent; Broad-leaved deciduous; Needle-leaved evergreen; Cobble - gravel; Sand; Mud; Organic | **Examples** Temporarily flooded(A); Saturated(B); Seasonally flooded(C); Seas.-flood./sat.(E); Perm. flooded(F); Intermittently Flooded(G); Artificially Flooded(K); Sat./semiperm./Seas. (Y); Int. exposed/permenant(Z) | Hypersaline(7) ; Eusaline(8); Mixosaline(9); Fresh(0); Acid(a); Circumneutral(c); Alkaline/calcareous(i); Organic(g); Mineral(n); Beaver(b); Partially Drained/ditched(d); Farmed(f); Diked/impounded(h); Artificial Substrate(r); Spoil(s); Excavated(x) | |
| Palustrine | Palustrine | | | | | |
| Riverine | Lower perennial; Upper perennial; Intermittent | | | | | |

## Site Map

Scale: 1 sq. =

*Draw a sketch map of the site including relevant portions of the wetland, AA boundary, structures, habitat classes, and other significant features.*



## Variable 1: Habitat Connectivity - Neighboring Wetland Habitat Loss

*This variable is a measure of how isolated from other naturally-occurring wetland or riparian habitat the AA has become as a result of the loss of that habitat. To score this variable, estimate the percent of naturally- occurring wetland/riparian habitat that has been lost (by filling, draining, development, or whatever means) within a 500-meter-wide belt surrounding the AA. This surrounding area is called the Habitat Connectivity Envelope (HCE). Historical photographs and NWI maps can be helpful in scoring this variable. In most cases the evaluator must use best professional judgment in estimating the amount of natural wetland loss. Evaluation of landforms and habitat patterns in the context of perceivable land use change should be used to steer estimates of the amount of wetland loss within the HCE. This variable is not meant to penalize AAs that are naturally isolated, or unique to the landscape. Rather, it should measure the degree to which natural habitat connectivity has been lost.*

**Rules for Scoring:**

1. On the aerial photo outline the area that is within 500 meters of the AA.
2. Identify obvious natural barriers within 500 m of the AA boundary.
   - *Natural barriers include continuous cliff bands, deep open water, etc.*
3. Draw the **Habitat Connectivity Envelope**(HCE) on the aerial image.
   - *The HCE is all the area within 500 meters of the AA that is not separated from it by a natural barrier.*
4. Outline the current extent of naturally occurring wetland and riparian habitat. Then outline areas where the habitats appear to have historically occurred.
   - *Use your knowledge of the history of the area and evident land use change. Additional research could be utilized to increase the accuracy of this estimate including consideratation of floodplain maps, historical aerials, etc.*

| Variable Score | Condition Category | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | *Wetland losses are absent or negligible or there is no evidence to suggest the native landscape within the HCE historically contained other wetland habitats* |
| <0.9 - 0.8 | *Highly Functioning* | *More than 80% of historical wetland habitat area within the HCE is still present (less than 20% historical wetland habitat area lost).* |
| <0.8 - 0.7 | *Functioning* | *80 to 60% of historical wetland habitat area within the HCE is still present (20% to 40% historical wetland habitat area lost).* |
| <0.7 - 0.6 | *Functioning Impaired* | *Less than 60 to 30% of historical wetland habitat area within the HCE is still present (more than 30 to 70% historical wetland habitat area lost).* |
| <0.6 | *Non-functioning* | *Less than 30% of the historical wetland habitat area from within the HCE is now no longer in existence (more than 70% historical wetland habitat area lost).* |

**Variable 1 Score** 0.65

Notes: More than 1/2 WHA along the Arkansas River are absent.

## Variable 2: Habitat Connectivity - Migration/Dispersal Barriers

*This variable is intended to rate the degree to which the AA has become isolated from existing neighboring wetland and riparian habitat by artificial barriers that inhibit migration or dispersal of organisms. On the aerial photograph, identify the man-made barriers within the HCE that intercede between the AA and surrounding wetlands and riparian areas, and identify them by type on the stressor list. Score this variable based on the barriers' impermeability to migration and dispersal and the amount of surrounding wetland/riparian habitat they affect.*

**Rules for Scoring:**

1. On the aerial photo, outline all existing wetland and riparian habitat areas (WHAs) within the HCE.

2. Identify artificial barriers to dispersal and migration of organisms within the HCE that intercede between the AA and surrounding habitats. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

3. Considering the composite effect of all of identified barriers to migration and dispersal (i.e., stressors), assign an overall variable score using the scoring guidelines.

Stressors = artificial barriers

| ✔ | Stressors | Comments/description |
|---|---|---|
| ✓ | Major Highway | |
| ✓ | Secondary Highway | |
| | Tertiary Roadway | |
| ✓ | Railroad | |
| | Bike Path | |
| ✓ | Urban Development | ball fields, residential |
| | Agricultural Development | |
| | Artificial Water Body | |
| | Fence | |
| | Ditch or Aqueduct | |
| | Aquatic Organism Barriers | |
| | | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable barriers exist between the AA and other wetland and riparian habitats in the HCE; or there are no other wetland and riparian areas in the HCE. |
| <0.9 - 0.8 | *Highly Functioning* | Barriers impeding migration/dispersal between the AA and up to 33% of surrounding WHA highly permeable and easily passed by most organisms. Examples could include gravel roads, minor levees, ditches or barbed-wire fences. More significant barriers (see "functioning category below) could affect migration to up to 10% of surrounding WHA. |
| <0.8 - 0.7 | *Functioning* | Barriers to migration and dispersal retard the ability of many organisms/propagules to pass between the AA and up to 66% of WHA. Passage of organisms and propagules through such barriers is still possible, but it may be constrained to certain times of day, be slow, dangerous or require additional travel. Busy two-lane roads, culverted areas, small to medium artificial water bodies or small earthen dams would commonly rate a score in this range. More significant barriers (see "functioning impaired" category below) could affect migration to up to 10% of surrounding WHA. |
| <0.7 - 0.6 | *Functioning Impaired* | Barriers to migration and dispersal preclude the passage of some types of organisms/propagules between the AA and up to 66% of surrounding WHA. Travel of those animals which can potential negotiate the barrier are strongly restricted and may include a high chance of mortality. Up to 33% of surrounding WHA could be functionally isolated from the AA. |
| <0.6 | *Non-functioning* | AA is essentially isolated from surrounding WHA by impermeable migration and dispersal barriers. An interstate highway or concrete-lined water conveyance canal are examples of barriers which would generally create functional isolation between the AA and a WHA. |

Most WHA are not blocked by barriers

**Variable 2 Score** 0.80

## Variable 3: Buffer Capacity

*The buffer area is defined as a 250-meter-wide belt surrounding the perimeter of the AA. This variable is a measure of the capacity of that area to function as an effective buffer for the wetland against the deleterious effects of surrounding land use change. To score the variable, assume that the AA is 100% buffered except where land use changes inside the buffer area have diminished this quality. Identify these land use types as specific stressors in the list. For each stressor, rate severity and extent within the buffer area; then use this list to make an overall rating for the buffer's departure from reference conditions. When rating buffer capacity, consider both the intensity of the impact and the proximity of the stressor to the AA.*

**Rules for Scoring:**

1. On the aerial photograph, outline the buffer area as the zone within 250 meters of the outer boundary of the AA.
2. Use the stressor list to record land use changes that affect buffering capacity within the buffer area. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.
3. Considering all of the identified stressors, their overall severity, extent and proximity to the AA assign an overall variable score using the scoring guidelines.

| Stressors = Land Use Changes | ✓ | Stressors | Comments/description |
|---|---|---|---|
| | ✓ | Industrial/commercial | Some industrial on west side of Santa Fe |
| | | Urban | |
| | ✓ | Residential | |
| | | Rural | |
| | | Dryland Farming | |
| | | Intensive Agriculture | |
| | | Orchards or Nurseries | |
| | | Livestock Grazing | |
| | ✓ | Transportation Corridor | |
| | | Urban Parklands | |
| | | Dams/impoundments | |
| | | Artificial Water body | |
| | | Physical Resource Extraction | |
| | | Biological Resource Extraction | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable land use change has been imposed within the TBA and it provides the full buffering capacity. |
| <0.9 - 0.8 | *Highly Functioning* | Some land use change has occurred in the BA, but such changes little impair the area's ability to provide a buffering function, either because land use is not intensive, for example haying, light grazing, or nurseries, or more substantial changes occur in approximately less than 10% of the BA. |
| <0.8 - 0.7 | *Functioning* | BA has been subjected to a marked shift in land use, however, the land retains much of its original buffering capacity. Moderate-intensity land uses such as dry-land farming, urban "green" corridors, or moderate cattle grazing would commonly be placed within this scoring range. |
| <0.7 - 0.6 | *Functioning Impaired* | Land use within the BA has been substantial including the a moderate to high coverage (up to 50%) of impermeable surfaces, bare soil, or other artificial surface; considerable in-flow urban runoff or fertilizer-rich waters common. While, the buffering capacity of the land has been greatly diminished it is not extinguished. Intensively logged areas, low-density urban developments, some urban parklands and some cropping situations would commonly rate a score within this range. |
| <0.6 | *Non-functioning* | The area within the BA provides essentially no buffering capacity. Many Commercial developments or highly urban landscapes would rate a score of less than 0.6. |

**Variable 3 score** 0.78

# Variable 4: Water Source

*This variable is concerned with up-gradient hydrologic connectivity. It is a measure of the impacts to the AA's water source, including the ability of source water to perform work such as sediment transport, erosion, soil pore flushing, etc. To score this variable, identify stressors that alter the source of water to the AA, and record their presence on the stressor list. Stressors can impact water source by depletion, augmentation, or alteration of inflow timing or hydrodynamics. For riverine systems, this variable is primarily concerned with the connection of the channel to the floodplain.This variable is designed to assess water quantity, power and timing, not water quality. Water quality will be evaluated in Variable 7.*

**Scoring rules:**

1. Use the stressor list and knowledge of the watershed to catalog type-specific impairments of the AA's water source. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

2. Considering the composite effect of stressors on the water source, rate the condition of this variable with the aid of the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches or Drains (tile, etc.) | |
| ✓ | Dams | |
| ✓ | Diversions | |
| | Groundwater pumping | |
| | Draw-downs | |
| ✓ | Culverts or Constrictions | Levees |
| ✓ | Point Source (urban, ind., ag.) | |
| ✓ | Non-point Source | |
| | Increased Drainage Area | |
| ✓ | Storm Drain/Urban Runoff | |
| ✓ | Impermeable Surface Runoff | |
| | Irrigation Return Flows | |
| | Mining/Natural Gas Extraction | |
| ✓ | Transbasin Diversion | |
| ✓ | Actively Managed Hydrology | |
| | | |
| | | |

| Variable Score | Condition Class | Depletion | Augmentation |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Unnatural drawdown events minor, rare or non-existent, very slight uniform depletion, or trivial alteration of hydrodynamics. | Unnatural high-water events minor, rare or non-existent, slight uniform increase in amount of inflow, or trivial alteration of hydrodynamics. |
| <0.9 - 0.8 | *Highly Functioning* | Unnatural drawdown events occasional, short duration and/or mild; or uniform depletion up to 20%; or mild to moderate reduction of peak flows or natural capacity of water to perform work. | Occasional unnatural high-water events, short in duration and/or mild in intensity; or uniform augmentation up to 20%; or mild to moderate increase of peak flows or natural capacity of water to perform work. |
| <0.8 - 0.7 | *Functioning* | Unnatural drawdown events common and of mild to moderate intensity and/or duration; or uniform depletion up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. | Common occurrence of unnatural high-water events, of a mild to moderate intensity and/or duration; or uniform augmentation up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. |
| <0.7 - 0.6 | *Functioning Impaired* | Unnatural drawdown events occur frequently with a moderate to high intensity and/or duration; or uniform depletion up to 75%; or substantial reduction of peak flows or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** | Common occurrence of unnatural high-water events, some of which may be severe in nature or exist for a substantial portion of the growing season; or uniform augmentation more than 50% or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** |
| <0.6 | *Non-functioning* | Water source diminished enough to threaten jurisdictional classification of the AA. | Frequency, duration or magnitude of unnaturally high-water great enough to change the fundamental characteristics of the wetland. |

**Variable 4 Score** .75

## Variable 5: Water Distribution

*This variable is concerned with hydrologic connectivity within the AA. It is a measure of alteration to the spatial distribution of surface and groundwater within the AA. These alterations are manifested as local changes to the hydrograph and generally* ***result*** *from geomorphic modifications. To score this variable, identify stressors that alter flow patterns and impact the hydrograph within portions of the AA, including localized increases or decreases to the depth or duration of the water table or surface water. In naturally confined rivers (i.e. canyons and gullies) floodplain width is generally very small, so these systems will tend to score high for this variable unless some gross stressor is present.*

**Scoring rules:**

1. Identify impacts to the natural distribution of water throughout the AA and catalog them in the stressor table.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Ponding/Impoundment | |
| | Culverts | |
| | Road Grades | |
| | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Enlarged Channel | |
| | Artificial Banks/Shoreline | |
| | Weirs | |
| | Dikes/Levees/Berms | |
| | Diversions | |
| | Sediment/Fill Accumulation | |
| ✓ | Drop structure | |
| | | |

| Variable Score | Condition Class | Non-riverine | Riverine |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Little or no alteration has been made to the way in which water is distributed throughout the wetland. | Natural active floodplain areas flood on a normal recurrence interval. No evidence of alteration of flooding and subirrigation duration and intensity. |
| <0.9 - 0.8 | *Highly Functioning* | Less than 10% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in less than a 2 in. (5 cm) change in mean growing season water table elevation. | Channel-adjacent areas have occasional unnatural periods of drying or flooding; or uniform shift in the hydrograph less than typical root depth. |
| <0.8 - 0.7 | *Functioning* | Between 10 and 33% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 4 in. (5 cm) or less change in mean growing season water table elevation. | In channel-adjacent area, periods of drying or flooding are common; or uniform shift in the hydrograph near root depth. |
| <0.7 - 0.6 | *Functioning Impaired* | 33 to 66% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 6 in. (15 cm) or less change in mean growing season water table elevation. Water table behavior must still meet jurisdictional criteria to merit this rating. | Adjacent to the channel, unnatural periods of drying or flooding are the norm; or uniform shift in the hydrograph greater than root depth. |
| <0.6 | *Non-functioning* | More than 66% of the AA is affected by hydrologic alteration which changes the fundamental functioning of the wetland system | Historical active floodplain areas are almost never wetted from overbank flooding, and/or groundwater infiltration is effectively cut off. |

**Variable 5 Score** .85

## Variable 6: Water Outflow

*This variable is concerned with down-gradient hydrologic connectivity and the flow of water (transporting materials and energy) out of the AA. It is a measure of impacts that affect the hydrologic outflow of water including the passage of water through its normal low- and high-flow surface outlets, and infiltration/groundwater recharge. In some cases, alteration of evapotranspiration rates may be significant enough of a factor to consider in scoring. Score this variable by identifying stressors that impact the means by which water is exported from the AA. In Variable 5, the stressors were evaluated in light of their impact on water distribution within the AA. To evaluate this variable focus on how water, energy and associated materials are exported out of the AA.*

**Scoring rules:**

1. Identify impacts to the natural outflow of water from the AA and catalog them in the stressor table.

2.Considering all of the stressors identified, assign an overall variable score using the scoring guidelines. Take in to account the cumulative effect of stressors on the wetland's ability to export water and water-borne materials

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Dikes/Levees | |
| | Road Grades | |
| | Culverts | |
| | Diversions | |
| | Constrictions | |
| | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Artificial Stream Banks | |
| | Weirs | |
| | Confined Bridge Openings | |
| | | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stressors have little to no effect on the magnitude, timing or hydrodynamics of the AA water outflow regime. |
| <0.9 - 0.8 | *Highly Functioning* | High- or low-water outflows are mildly to moderately affected, but at intermediate ("normal") levels flow continues essentially unaltered in quantity or character. |
| <0.8 - 0.7 | *Functioning* | High- or low-water outflows are moderately affected, mild alteration of intermediate level outflow occurs; or hydrodynamics mildly to moderately affected. |
| <0.7 - 0.6 | *Functioning Impaired* | Outflow at all stages is moderately impaired resulting in persistent flooding of portions of the AA or unnatural drainage; or outflow hydrodynamics significantly disrupted. |
| <0.6 | *Non-functioning* | The natural outflow regime is severely disrupted. Down-gradient hydrologic connection severed or nearly so. Alterations may cause widespread unnatural persistent flooding or dewatering of the wetland system. |

**Variable 6 Score** .98

# Variable 7: Water and Soil Chemical Environment

*This variable concerns the chemical environment of the soil and water media within the AA, including pollutants and water quality. The origin of pollutants may be in the AA or delivered from up-gradient or surrounding areas. Score this variable by listing indicators of chemical stress in the AA. Consider point source and non-point sources of pollution, as well as mechanical or hydrologic changes that alter the chemical environment. Because water quality frequently cannot be inferred directly, the presence of many stressors is identified via indirect indicators.*

**Scoring rules:**

1. Stressors are grouped into categories which have a similar signature or set of causes.
2. Use the indicator list to identify each stressor impacting the chemical environment of the AA.
3. For each stressor category, determine the sub-variable score using the scoring guideline table provided on the second page of the scoring sheet.
   -If the AA is part of a water body that is recognized as impaired or recommended for TMDL development for one of the factors, then score that sub-variable 0.65 or lower.
4. Transcribe sub-variable scores to the following variable scoring page and compute the sum.
5. Determine the variable score by following the scoring guidelines.

| Stressor Category | Stressor Indicator | ✓ | Comments | Sub-variable Score |
|---|---|---|---|---|
| Nutrient Enrichment/ Eutrophication/ Oxygen (D.O.) | Livestock | ✓ | Minor | .95 |
| | Agricultural Runoff | | | |
| | Septic/Sewage | | | |
| | Excessive Algae or Aquatic Veg. | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Sedimentation/ Turbidity | Excessive Erosion | | | .90 |
| | Excessive Deposition | | | |
| | Fine Sediment Plumes | | | |
| | Agricultural Runoff | | | |
| | Excessive Turbidity | | | |
| | Nearby Construction Site | ✓ | 4th Street Bridge | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Toxic contamination/ pH | Recent Chemical Spills | | | .80 |
| | Nearby Industrial Sites | ✓ | | |
| | Road Drainage/Runoff | ✓ | | |
| | Livestock | | | |
| | Agricultural Runoff | | | |
| | Storm Water Runoff | ✓ | | |
| | Fish/Wildlife Impacts | ✓ | Fish Hatchery Intake. | |
| | Vegetation Impacts | | | |
| | Cumulative Watershed NPS | | | |
| | Acid Mine Drainage | ✓ | Clear Mine – Headwaters | |
| | Point Source Discharge | ✓ | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Temperature | Excessive Temperature Regime | | | .88 |
| | Lack of Shading | | | |
| | Reservoir/Power Plant Discharge | ✓ | | |
| | Industrial Discharge | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Soil chemistry/ Redox potential | Unnatural Saturation/Desaturation | | | .95 |
| | Mechanical Soil Disturbance | | | |
| | Dumping/introduced Soil | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |

# Variable 7: Water and Soil Chemical Environment

**Sub-variable Scoring Guidelines**

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stress indicators not present or trivial. |
| <0.9 - 0.8 | *Highly Functioning* | Stress indicators scarcely present and mild, or otherwise not occurring in more than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Stress indicators present at mild to moderate levels, or otherwise not occurring in more than 33% of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | Stress indicators present at moderate to high levels, or otherwise not occurring in more than 66% of the AA |
| <0.6 | *Non-functioning* | Stress indicators strongly evident throughout the AA at levels which apparently alter the fundamental chemical environment of the wetland system |

**Input each factor score from the stressor list and calculate the sum.**

| Nutrient enrichment/ Eutrophication/ Oxygen (D.O.) | | Sedimentation/ Turbidity | | Toxic contamination/ pH | | Temperature | | Soil chemistry/ Redox potential | | Sum of Sub-variable Scores |
|---|---|---|---|---|---|---|---|---|---|---|
| .95 | + | .90 | + | .80 | + | .88 | + | .95 | = | 4.48 |

**Use the table to score the Chemical Environment Variable circling the applicable scoring rules.**

| Variable Score | Condition Class | Scoring Rules | | |
|---|---|---|---|---|
| | | Single Factor | | Composite Score |
| 1.0 - 0.9 | *Reference Standard* | No single factor scores < 0.9 | or | The factor scores sum > 4.5 |
| <0.9 - 0.8 | *Highly Functioning* | Any single factor scores ≥ 0.8 but < 0.9 | or | The factor scores sum >4.0 but ≤4.5 |
| <0.8 - 0.7 | *Functioning* | Any single factor scores ≥ 7.0 but < 0.8 | or | The factor scores sum >3.5 but ≤ 4.0 |
| <0.7 - 0.6 | *Functioning Impaired* | Any single factor scores ≥ 0.6 but <0.7 | or | The factor scores sum >3.0 but ≤3.5 |
| < 0.6 | *Non-functioning* | Any single factor scores < 0.6 | or | The factor scores sum < 3.0 |

**Variable 7 Score** .85

# Variable 8: Geomorphology

*This variable is a measure of the degree to which the geomorphic setting has been altered within the AA. Changes to the surface configuration and natural topography constitute stressors. Such stressors may be observed in the form of fill, excavation, diking, sedimentation due to absence of flushing floods, etc. In riverine systems geomorphic changes to stream channel should be considered if the channel is within the AA. Alterations may include bed surface changes (embeddedness or morphology changes), stream bank instability, and stream channel reconfiguration. Geomorphic changes are usually ultimately manifested as changes to wetland hydrology and water relations with vegetation. Geomorphic alteration can also directly affect soil properties, such as near-surface texture, and the wetland chemical environment, such as the redox state or nutrient composition in the rooting zone. In rating this variable, do not include these resultant effects of geomorphic change; rather focus on the physical impacts within the footprint of the alteration. The effects of geomorphic change are addressed by other variables. All alterations to the geomorphology should be evaluated including small-scale impacts such as pugging, hoof sheer, and sedimentation which can be significant, but not immediately apparent, impacts.*

**Scoring Rules:**

1. Identify impacts to geomorphological setting and topography within the AA and record them on the stressor checklist.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | | Stressors | Comments |
|---|---|---|---|
| | General | Dredging/Excavation/Mining | |
| | | Fill, including dikes, road grades, etc. | |
| | | Grading | |
| | | Compaction | |
| | | Plowing/Disking | |
| | | Excessive Sedimentation | |
| | | Dumping | |
| | | Hoof Shear/Pugging | |
| | | Aggregate or Mineral Mining | |
| | | Sand Accumulation | |
| | Channels Only | Channel Instability/Over Widening | |
| | | Excessive Bank Erosion | |
| ✓ | | Channelization | |
| ✓ | | Reconfigured Stream Channels | |
| | | Artificial Banks/Shoreline | |
| | | Beaver Dam Removal | |
| | | Substrate Embeddedness | |
| ✓ | | Lack or Excess of Woody Debris | M.2 0V |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Topography essentially unaltered from the natural state, or alterations don't appear to have a minimal effect on wetland functioning and condition. Patch or microtopographic complexity may be slightly altered, but native plant communities are still supported. |
| <0.9 - 0.8 | *Highly Functioning* | Alterations to topography result in small but detectable changes to habitat conditions throughout all or most of the AA; or changes causing more significant impacts but affecting less than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Changes to AA topography may be pervasive but generally mild. May include patches of more significant habitat alteration; or more significant alteration affecting less than 20 % of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | At least one important surface type or landform has been eliminated or created; microtopography has been moderately altered throughout most or all of the AA, or more severe alterations affect less than 50% AA. Evidence that widespread diminishment or alteration of native plant community exist due to physical habitat alterations. Most incidentally created wetland habitat such as that created by roadside ditches and the like would score in this range or lower. |
| <0.6 | *Non-functioning* | Geomorphic alterations have rendered the AA essentially unusable by *characteristic* wildlife species, or the physical setting no longer supports native plant communities. |

**Variable 8 Score** .65

# Variable 9: Vegetation Structure and Complexity

*This variable is a measure of the condition of the wetland's vegetation relative to its native state. It is particularly relevant to the wetland's ability to perform higher-order functions such as support of wildlife populations, although it also affects primary functions such as flood-flow attenuation. Score this variable by listing stressors that have affected the diversity, composition and cover of each vegetation cover class that would normally be present for the wetland type being assessed. For this variable, stressor severity is a measure of how much each vegetation stratum differs functionally from its natural condition.*

## Rules for Scoring:

1. Determine the number and types of vegetation layers present within the AA. Make a judgment as to whether additional layers were historically present using direct evidence such as stumps, root wads or historical photographs. Indirect evidence such as local knowledge and expert opinion can also be used in this determination. Check each present or suspected vegetation layer in the third row of the table.

2. Do not score vegetation layers that would not normally be present in the wetland type being assessed.

3. Estimate the percent coverage of each vegetation layer. Aerial photographs can be helpful for this but are not required.

4. Enter the percent cover values as decimals in the row of the stressor table labeled "Percent Cover of Layer". Note, percentages will often sum to more than 100% (1.0).

5. Determine the severity of stressors acting on each individual canopy layers, indicating their presence with checks in the appropriate boxes of the stressor table.

6. Determine the sub-variable score for each valid vegetation layer using the scoring guidelines on the second page of the scoring sheet. Enter each sub-variable score in the appropriate cell of the row labeled "Veg. Layer Sub-variable Score".

7. Add the "Veg. Layer Sub-variable Scores" and enter the sum in the labled cell to the right of the individual scores. Follow this same process for the "Percent Cover of Layer".

8. Divide the sum of "Veg. Layer Sub-variable Scores" by the total coverage of all layers scored. This product is the Variable 9 score. Enter this number in the labeled box at the bottom of this page.

| | Vegetation Layers | | | | |
|---|---|---|---|---|---|
| **Layers Scored** *(check boxes to right to indicate scored layers)* | | ✓ | ✓ | | |
| **Stressor** | **Tree** | **Shrub** | **Herb** | **Aquatic** | **Comments** |
| Noxious Weeds | | ✓ | | | Reed canary, Jamaica Siberian Elm |
| Exotic/Invasive spp. | | ✓ | ✓ | | |
| Tree Harvest | | | | | |
| Brush Cutting/Shrub Removal | | | | | |
| Livestock Grazing | | | | | |
| Excessive Herbivory | | | | | |
| Mowing/Haying | | | | | |
| Herbicide | | | | | |
| Loss of Zonation/Homogenization | | | | | |
| Dewatering | | | | | |
| Over Saturation | | | | | |
| | | | | | |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Percent Cover of Layer** | | .40 | .85 | | 1.25 |
| | x | x | x | x | |
| **Veg. Layer Sub-variable Score** | | .60 | .85 | | ÷ |
| | = | = | = | = | |
| **Weighted Sub-variable Score** | | .24 | .72 | | .96 |

See sub-variable scoring guidelines on following page

**Variable 9 Score** .77

# FACWet Score Card

## Scoring Procedure:

1. Transcribe variable scores from each variable data sheet to the corresponding cell in the variable score table.
2. In each Functional Capacity Index (FCI) equation, enter the corresponding variable scores in the equation cells. Do not enter values in the crossed cells lacking labels.
3. Add the variable scores to calculate the total functional points achieved for each function.
4. Divide the total functional points achieved by the functional points possible. The typical number of total points possible is provided, howe if a variable is added or subtracted to FCI equation the total possible points must be adjusted
5. Calculate the Composite FCI, by adding the FCI scores and dividing by the total number of functions scored (usually 7).
6. If scoring is done directly in the Excel spreadsheet, all values will be transferred and calculated automatically.

## VARIABLE SCORE TABLE

| | | | |
|---|---|---|---|
| Buffer & Landscape Context | Variable 1: | Habitat Connectivity - Neighboring Wetland Habitat Loss | .65 |
| | Variable 2: | Habitat Connectivity - Migration/Dispersal Barriers | .80 |
| | Variable 3: | Buffer Capacity | .78 |
| Hydrology | Variable 4: | Water Source | .75 |
| | Variable 5: | Water Distribution | .85 |
| | Variable 6: | Water Outflow | .98 |
| Abiotic and Biotic Habitat | Variable 7: | Chemical Environment | .85 |
| | Variable 8: | Geomorphology | .65 |
| | Variable 9: | Vegetation Structure and Complexity | .77 |

## Functional Capacity Indices

**Function 1 -- Support of Characteristic Wildlife Habitat**

| $V1_{wetloss}$ | + $V2_{barriers}$ | + $V3_{buffer}$ | + (2 x $V9_{veg}$) | + | + | = Total Functional Points | ÷ 5 = Functional Capacity Index |
|---|---|---|---|---|---|---|---|
| .65 | + .80 | + .78 | + 1.54 | + | + | = 3.77 | ÷ 5 = .75 |

**Function 2 -- Support of Characteristic Fish/aquatic Habitat**

| (3 x $V4_{source}$) | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geom}$ | + | = | ÷ 9 = |
|---|---|---|---|---|---|---|---|
| 2.25 | + 1.70 | + 1.96 | + 1.70 | + .65 | + | = 8.26 | ÷ 9 = .92 |

**Function 3 -- Flood Attenuation**

| $V3_{buffer}$ | + 2 x $V4_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V8_{geom}$ | + $V9_{veg}$ | = | ÷ 9 = |
|---|---|---|---|---|---|---|---|
| .78 | + 1.50 | + 1.70 | + 1.96 | + .65 | + .77 | = 7.36 | ÷ 9 = .82 |

**Function 4 -- Short- and Long-term Water Storage**

| $V_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$) | $V8_{geom}$ | + | + | = | ÷ 6 = |
|---|---|---|---|---|---|---|---|
| .75 | + 1.70 | + 1.96 | + .65 | + | + | = 5.06 | ÷ 6 = .84 |

**Function 5 -- Nutrient/Toxicant Removal**

| (2 x $V5_{dist}$) | + $V7_{chem}$ | + $V8_{geom}$ | + | + | + | = | ÷ 4 = |
|---|---|---|---|---|---|---|---|
| 1.70 | + .85 | + .65 | + | + | + | = 3.2 | ÷ 4 = .80 |

**Function 6 -- Sediment Retention/Shoreline Stabilization**

| $V3_{buffer}$ | + (2 x $V8_{geo}$) | + (2 x $V9_{veg}$) | + | + | + | = | ÷ 5 = |
|---|---|---|---|---|---|---|---|
| .78 | + 1.30 | + 1.54 | + | + | + | = 3.62 | ÷ 5 = .72 |

**Function 7 -- Production Export/Food Chain Support**

| $V1_{wetloss}$ | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geo}$ | + (2 x $V9_{veg}$) | + | = | ÷ 7 = |
|---|---|---|---|---|---|---|---|
| .65 | + 1.96 | + .85 | + .65 | + 1.54 | + | = 5.65 | ÷ 7 = .81 |

**Sum of Individual FCI Scores** 5.66

Divide by the Number of Functions Scored (usually 7) ÷ 7

**Composite FCI Score** .81

# ADMINISTRATIVE CHARACTERIZATION

| General Information | | | |
|---|---|---|---|
| | | Date of Evaluation: | 5/25/10 |
| Site Name or ID: | Wetland 4 | Project Name: | Pueblo Freeway |
| 404 or Other Permit Application #: | | Applicant Name: | CDOT |
| Evaluator Name(s): | Becky Pierce<br>Rob Frei | Evaluator's professional position and organization: | CDOT HQ & Reg. 2 |

| Location Information: | | | |
|---|---|---|---|
| Site Location (Lat./Long. or UTM): | 38°15'41.82" N<br>104°36'16.17" W | Geographic Datum Used (NAD 83 | |
| USGS Quadrangle Map: | Northeast Pueblo | Map Scale: (Circle one) | 1:24,000 1:100,000<br>Other 1: |
| Sub basin Name (8 digit HUC): | 11020002 | Wetland Ownership: | City of Pueblo |

**Project Information:**

This evaluation is being performed at: *(Check applicable box)*
- [x] *Project Wetland*
- [ ] *Mitigation Site*

Purpose of Evaluation (check all applicable):
- [x] *Potentially Impacted Wetlands*
- [ ] *Mitigation; Pre-construction*
- [ ] *Mitigation; Post-construction*
- [ ] *Monitoring*
- [ ] *Other (Describe)*

Intent of Project: *(Check all applicable)* ☐ Restortation ☐ Enhancement ☐ Creation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total Size of Wetland Involved: (Record Area, Check and Describe Measurement Method Used) | ac. | ☐ Measured<br>☐ Estimated | | | | | |
| Assessment Area (AA) Size (Record Area, check appropriate box. Additional spaces are used to record acreage when more than one AA is included in a single assessment) | ac. | ☐ Measured<br>☐ Estimated | ac.<br>ac. | ac.<br>ac. | ac.<br>ac. | ac.<br>ac. |
| Characteristics or Method used for AA boundary determination: | | | | | | | |

Notes: Adjacent to Riverwalk Ditch that flows from Runyan Lake (jurisdictional)

# ECOLOGICAL DESCRIPTION 1

## Special Concerns

*Check all that apply*

- ☐ Organic soils including Histosols or Histic Epipedons are present in the AA (i.e., AA includes core fen habitat).
- ☐ Project will directly impact organic soil portions of the AA including areas possessing either Histosol soils or histic epipedons.
- ☐ Organic soils are known to occur anywhere within the contiguous wetland of which the AA is part.
- ☐ The wetland is a habitat oasis in an otherwise dry or urbanized landscape?
- ☐ Federally threatened or endangered species are **KNOWN** to occur in the AA? List Below.

  _____

  _____
- ☐ Federally threatened or endangered species are **SUSPECTED** to occur in the AA?

  _____

  _____

  _____

  _____
- ☐ Species of concern according to the Colorado Natural Heritage (CNHP) are known to occur in the AA?
- ☐ The site is located within a potential conservation area or element occurrence buffer area as determined by CNHP?
- ☐ Other special concerns (please describe)

  _____

## HYDROGEOMORPHIC SETTING

- ☐ AA wetland maintains its fundamental natural hydrogeomorphic characteristics
- ☐ AA wetland has been subject to change in HGM classes as a result of anthropogenic modification
  *If the above is checked, please describe the original wetland type if discernable using the table below.*
- ☐ AA wetland was created from an upland setting.

Previous wetland typology

| Historical Conditions | | | | |
|---|---|---|---|---|
| **Water source** | Surface flow | Groundwater | Precipitation | Unknown |
| **Hydrodynamics** | Unidirectional | Vertical | | |
| **Geomorphic Setting** (Narrative Description) | | | | |
| **Previous HGM Class** | Riverine | Slope | Depressional | Lacustrine |

## Current Conditions

*Describe the hydrogeomorphic setting of the wetland by circling all conditions that apply.*

HGM Setting

| | | | | | | |
|---|---|---|---|---|---|---|
| **Water source** | Surface flow | | Groundwater | Precipitation | | Unknown |
| **Hydrodynamics** | Unidirectional | | Vertical | | | |
| **Wetland Gradient** | 0 - 2% | | 2-4% | 4-10% | >10% | |
| **# Surface Inlets** | Over-bank | 0 | 1 | 2 | 3 | >3 |
| **# Surface Outlets** | | 0 | 1 | 2 | 3 | >3 |
| **Geomorphic Setting** (Narrative Description) | | | | | | |
| **HGM class** | Riverine | | Slope | Depressional | | Lacustrine |

Notes (include information on charcteristics used to formulate reference standard):

# ECOLOGICAL DESCRIPTION 2

## Vegetation Habitat Description

*US FWS habitat classification according as reported in Cowardin et. al (1979) - See also Appendix *** of FACWet User Guide.*

| System | Subsystem | Class | Subclass | Water Regime | Other Modifiers | % AA |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
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| | | | | | | |
|---|---|---|---|---|---|---|
| Lacustrine | Littoral; Limnoral | Rock Bot. (RB) Uncon Bottom(UB) Aquatic Bed(AB) Rocky Shore(RS) Uncon Shore(US) Emergent(EM) Shrub-scrub(SS) Forested (FO) | Floating vascular; Rooted vascular; Algal; Persistent; Non-Persistent; Broad-leaved deciduous; Needle-leaved evergreen; Cobble - gravel; Sand; Mud; Organic | **Examples** Temporarily flooded(A); Saturated(B); Seasonally flooded(C); Seas.-flood./sat.(E); Perm. flooded(F); Intermittently Flooded(G); Artificially Flooded(K); Sat./semiperm./Seas. (Y); Int. exposed/permenant(Z) | Hypersaline(7) ; Eusaline(8); Mixosaline(9); Fresh(0); Acid(a); Circumneutral(c); Alkaline/calcareous(i); Organic(g); Mineral(n); Beaver(b); Partially Drained/ditched(d); Farmed(f); Diked/impounded(h); Artificial Substrate(r); Spoil(s); Excavated(x) | |
| Palustrine | Palustrine | | | | | |
| Riverine | Lower perennial; Upper perennial; Intermittent | | | | | |

## Site Map

Scale: 1 sq. =

*Draw a sketch map of the site including relevant portions of the wetland, AA boundary, structures, habitat classes, and other significant features.*

## Variable 1: Habitat Connectivity - Neighboring Wetland Habitat Loss

*This variable is a measure of how isolated from other naturally-occurring wetland or riparian habitat the AA has become as a result of the loss of that habitat. To score this variable, estimate the percent of naturally- occurring wetland/riparian habitat that has been lost (by filling, draining, development, or whatever means) within a 500-meter-wide belt surrounding the AA. This surrounding area is called the Habitat Connectivity Envelope (HCE). Historical photographs and NWI maps can be helpful in scoring this variable. In most cases the evaluator must use best professional judgment in estimating the amount of natural wetland loss. Evaluation of landforms and habitat patterns in the context of perceivable land use change should be used to steer estimates of the amount of wetland loss within the HCE. This variable is not meant to penalize AAs that are naturally isolated, or unique to the landscape. Rather, it should measure the degree to which natural habitat connectivity has been lost.*

**Rules for Scoring:**

1. On the aerial photo outline the area that is within 500 meters of the AA.
2. Identify obvious natural barriers within 500 m of the AA boundary.
   - *Natural barriers include continuous cliff bands, deep open water, etc.*
3. Draw the **Habitat Connectivity Envelope**(HCE) on the aerial image.
   - *The HCE is all the area within 500 meters of the AA that is not separated from it by a natural barrier.*
4. Outline the current extent of naturally occurring wetland and riparian habitat. Then outline areas where the habitats appear to have historically occurred.
   - *Use your knowledge of the history of the area and evident land use change. Additional research could be utilized to increase the accuracy of this estimate including consideratation of floodplain maps, historical aerials, etc.*

| Variable Score | Condition Category | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | *Wetland losses are absent or negligible or there is no evidence to suggest the native landscape within the HCE historically contained other wetland habitats* |
| <0.9 - 0.8 | *Highly Functioning* | *More than 80% of historical wetland habitat area within the HCE is still present (less than 20% historical wetland habitat area lost).* |
| <0.8 - 0.7 | *Functioning* | *80 to 60% of historical wetland habitat area within the HCE is still present (20% to 40% historical wetland habitat area lost).* |
| <0.7 - 0.6 | *Functioning Impaired* | *Less than 60 to 30% of historical wetland habitat area within the HCE is still present (more than 30 to 70% historical wetland habitat area lost).* |
| <0.6 | *Non-functioning* | *Less than 30% of the historical wetland habitat area from within the HCE is now no longer in existence (more than 70% historical wetland habitat area lost).* |

**Variable 1 Score** 0.90

Notes: Narrow fringe of wetlands along ditch, and nothing else in HCE.

## Variable 2: Habitat Connectivity - Migration/Dispersal Barriers

*This variable is intended to rate the degree to which the AA has become isolated from existing neighboring wetland and riparian habitat by artificial barriers that inhibit migration or dispersal of organisms. On the aerial photograph, identify the man-made barriers within the HCE that intercede between the AA and surrounding wetlands and riparian areas, and identify them by type on the stressor list. Score this variable based on the barriers' impermeability to migration and dispersal and the amount of surrounding wetland/riparian habitat they affect.*

**Rules for Scoring:**

1. On the aerial photo, outline all existing wetland and riparian habitat areas (WHAs) within the HCE.

2. Identify artificial barriers to dispersal and migration of organisms within the HCE that intercede between the AA and surrounding habitats. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

3. Considering the composite effect of all of identified barriers to migration and dispersal (i.e., stressors), assign an overall variable score using the scoring guidelines.

| Stressors = artificial barriers | ✓ | Stressors | Comments/description |
|---|---|---|---|
| | ✓ | Major Highway | I-25 and US 50 |
| | | Secondary Highway | |
| | ✓ | Tertiary Roadway | |
| | ✓ | Railroad | |
| | ✓ | Bike Path | greenway |
| | ✓ | Urban Development | Industrial |
| | | Agricultural Development | |
| | | Artificial Water Body | |
| | ✓ | Fence | |
| | ✓ | Ditch or Aqueduct | AA adjacent to ditch |
| | | Aquatic Organism Barriers | |
| | | | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable barriers exist between the AA and other wetland and riparian habitats in the HCE; or there are no other wetland and riparian areas in the HCE. |
| <0.9 - 0.8 | *Highly Functioning* | Barriers impeding migration/dispersal between the AA and up to 33% of surrounding WHA highly permeable and easily passed by most organisms. Examples could include gravel roads, minor levees, ditches or barbed-wire fences. More significant barriers (see "functioning category below) could affect migration to up to 10% of surrounding WHA. |
| <0.8 - 0.7 | *Functioning* | Barriers to migration and dispersal retard the ability of many organisms/propagules to pass between the AA and up to 66% of WHA. Passage of organisms and propagules through such barriers is still possible, but it may be constrained to certain times of day, be slow, dangerous or require additional travel. Busy two-lane roads, culverted areas, small to medium artificial water bodies or small earthen dams would commonly rate a score in this range. More significant barriers (see "functioning impaired" category below) could affect migration to up to 10% of surrounding WHA. |
| <0.7 - 0.6 | *Functioning Impaired* | Barriers to migration and dispersal preclude the passage of some types of organisms/propagules between the AA and up to 66% of surrounding WHA. Travel of those animals which can potential negotiate the barrier are strongly restricted and may include a high chance of mortality. Up to 33% of surrounding WHA could be functionally isolated from the AA. |
| <0.6 | *Non-functioning* | AA is essentially isolated from surrounding WHA by impermeable migration and dispersal barriers. An interstate highway or concrete-lined water conveyance canal are examples of barriers which would generally create functional isolation between the AA and a WHA. |

Thin fringe along ditch is continuous w/ AA mostly

**Variable 2 Score** 0.90

## Variable 3: Buffer Capacity

*The buffer area is defined as a 250-meter-wide belt surrounding the perimeter of the AA. This variable is a measure of the capacity of that area to function as an effective buffer for the wetland against the deleterious effects of surrounding land use change. To score the variable, assume that the AA is 100% buffered except where land use changes inside the buffer area have diminished this quality. Identify these land use types as specific stressors in the list. For each stressor, rate severity and extent within the buffer area; then use this list to make an overall rating for the buffer's departure from reference conditions. When rating buffer capacity, consider both the intensity of the impact and the proximity of the stressor to the AA.*

**Rules for Scoring:**

1. On the aerial photograph, outline the buffer area as the zone within 250 meters of the outer boundary of the AA.
2. Use the stressor list to record land use changes that affect buffering capacity within the buffer area. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.
3. Considering all of the identified stressors, their overall severity, extent and proximity to the AA assign an overall variable score using the scoring guidelines.

| Stressors = Land Use Changes | ✓ | Stressors | Comments/description |
|---|---|---|---|
| | ✓ | Industrial/commercial | |
| | ✓ | Urban | |
| | ✓ | Residential | |
| | | Rural | |
| | | Dryland Farming | |
| | | Intensive Agriculture | |
| | | Orchards or Nurseries | |
| | | Livestock Grazing | |
| | ✓ | Transportation Corridor | |
| | | Urban Parklands | |
| | | Dams/impoundments | |
| | | Artificial Water body | |
| | | Physical Resource Extraction | |
| | | Biological Resource Extraction | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable land use change has been imposed within the TBA and it provides the full buffering capacity. |
| <0.9 - 0.8 | *Highly Functioning* | Some land use change has occurred in the BA, but such changes little impair the area's ability to provide a buffering function, either because land use is not intensive, for example haying, light grazing, or nurseries, or more substantial changes occur in approximately less than 10% of the BA. |
| <0.8 - 0.7 | *Functioning* | BA has been subjected to a marked shift in land use, however, the land retains much of its original buffering capacity. Moderate-intensity land uses such as dry-land farming, urban "green" corridors, or moderate cattle grazing would commonly be placed within this scoring range. |
| <0.7 - 0.6 | *Functioning Impaired* | Land use within the BA has been substantial including the a moderate to high coverage (up to 50%) of impermeable surfaces, bare soil, or other artificial surface; considerable in-flow urban runoff or fertilizer-rich waters common. While, the buffering capacity of the land has been greatly diminished it is not extinguished. Intensively logged areas, low-density urban developments, some urban parklands and some cropping situations would commonly rate a score within this range. |
| <0.6 | *Non-functioning* | The area within the BA provides essentially no buffering capacity. Many Commercial developments or highly urban landscapes would rate a score of less than 0.6. |

It appears that herbaceous veg. does exist north/northeast of AA that offers some buffering.

**Variable 3 score** 0.70

# Variable 4: Water Source

*This variable is concerned with up-gradient hydrologic connectivity. It is a measure of the impacts to the AA's water source, including the ability of source water to perform work such as sediment transport, erosion, soil pore flushing, etc. To score this variable, identify stressors that alter the source of water to the AA, and record their presence on the stressor list. Stressors can impact water source by depletion, augmentation, or alteration of inflow timing or hydrodynamics. For riverine systems, this variable is primarily concerned with the connection of the channel to the floodplain.This variable is designed to assess water quantity, power and timing, not water quality. Water quality will be evaluated in Variable 7.*

**Scoring rules:**

1. Use the stressor list and knowledge of the watershed to catalog type-specific impairments of the AA's water source. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

2. Considering the composite effect of stressors on the water source, rate the condition of this variable with the aid of the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches or Drains (tile, etc.) | |
| ✓ | Dams | |
| | Diversions | |
| | Groundwater pumping | |
| ✓ | Draw-downs | |
| ✓ | Culverts or Constrictions | |
| | Point Source (urban, ind., ag.) | |
| ✓ | Non-point Source | |
| | Increased Drainage Area | |
| ✓ | Storm Drain/Urban Runoff | |
| ✓ | Impermeable Surface Runoff | |
| | Irrigation Return Flows | |
| | Mining/Natural Gas Extraction | |
| | Transbasin Diversion | |
| ✓ | Actively Managed Hydrology | |
| | | |
| | | |

| Variable Score | Condition Class | Depletion | Augmentation |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Unnatural drawdown events minor, rare or non-existent, very slight uniform depletion, or trivial alteration of hydrodynamics. | Unnatural high-water events minor, rare or non-existent, slight uniform increase in amount of inflow, or trivial alteration of hydrodynamics. |
| <0.9 - 0.8 | *Highly Functioning* | Unnatural drawdown events occasional, short duration and/or mild; or uniform depletion up to 20%; or mild to moderate reduction of peak flows or natural capacity of water to perform work. | Occasional unnatural high-water events, short in duration and/or mild in intensity; or uniform augmentation up to 20%; or mild to moderate increase of peak flows or natural capacity of water to perform work. |
| <0.8 - 0.7 | *Functioning* | Unnatural drawdown events common and of mild to moderate intensity and/or duration; or uniform depletion up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. | Common occurrence of unnatural high-water events, of a mild to moderate intensity and/or duration; or uniform augmentation up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. |
| <0.7 - 0.6 | *Functioning Impaired* | Unnatural drawdown events occur frequently with a moderate to high intensity and/or duration; or uniform depletion up to 75%; or substantial reduction of peak flows or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** | Common occurrence of unnatural high-water events, some of which may be severe in nature or exist for a substantial portion of the growing season; or uniform augmentation more than 50% or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** |
| <0.6 | *Non-functioning* | Water source diminished enough to threaten jurisdictional classification of the AA. | Frequency, duration or magnitude of unnaturally high-water great enough to change the fundamental characteristics of the wetland. |

**Variable 4 Score** .65

# Variable 5: Water Distribution

*This variable is concerned with hydrologic connectivity within the AA. It is a measure of alteration to the spatial distribution of surface and groundwater within the AA. These alterations are manifested as local changes to the hydrograph and generally* ***result*** *from geomorphic modifications. To score this variable, identify stressors that alter flow patterns and impact the hydrograph within portions of the AA, including localized increases or decreases to the depth or duration of the water table or surface water. In naturally confined rivers (i.e. canyons and gullies) floodplain width is generally very small, so these systems will tend to score high for this variable unless some gross stressor is present.*

**Scoring rules:**

1. Identify impacts to the natural distribution of water throughout the AA and catalog them in the stressor table.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Ponding/Impoundment | |
| ✓ | Culverts | |
| | Road Grades | |
| | Channel Incision/Entrenchment | |
| ✓ | Hardened/Engineered Channel | |
| | Enlarged Channel | |
| | Artificial Banks/Shoreline | |
| | Weirs | |
| | Dikes/Levees/Berms | |
| | Diversions | |
| | Sediment/Fill Accumulation | |
| | | |
| | | |

| Variable Score | Condition Class | Non-riverine | Riverine |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Little or no alteration has been made to the way in which water is distributed throughout the wetland. | Natural active floodplain areas flood on a normal recurrence interval. No evidence of alteration of flooding and subirrigation duration and intensity. |
| <0.9 - 0.8 | *Highly Functioning* | Less than 10% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in less than a 2 in. (5 cm) change in mean growing season water table elevation. | Channel-adjacent areas have occasional unnatural periods of drying or flooding; or uniform shift in the hydrograph less than typical root depth. |
| <0.8 - 0.7 | *Functioning* | Between 10 and 33% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 4 in. (5 cm) or less change in mean growing season water table elevation. | In channel-adjacent area, periods of drying or flooding are common; or uniform shift in the hydrograph near root depth. |
| <0.7 - 0.6 | *Functioning Impaired* | 33 to 66% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 6 in. (15 cm) or less change in mean growing season water table elevation. Water table behavior must still meet jurisdictional criteria to merit this rating. | Adjacent to the channel, unnatural periods of drying or flooding are the norm; or uniform shift in the hydrograph greater than root depth. |
| <0.6 | *Non-functioning* | More than 66% of the AA is affected by hydrologic alteration which changes the fundamental functioning of the wetland system | Historical active floodplain areas are almost never wetted from overbank flooding, and/or groundwater infiltration is effectively cut off. |

**Variable 5 Score** .66

## Variable 6: Water Outflow

*This variable is concerned with down-gradient hydrologic connectivity and the flow of water (transporting materials and energy) out of the AA. It is a measure of impacts that affect the hydrologic outflow of water including the passage of water through its normal low- and high-flow surface outlets, and infiltration/groundwater recharge. In some cases, alteration of evapotranspiration rates may be significant enough of a factor to consider in scoring. Score this variable by identifying stressors that impact the means by which water is exported from the AA. In Variable 5, the stressors were evaluated in light of their impact on water distribution within the AA. To evaluate this variable focus on how water, energy and associated materials are exported out of the AA.*

**Scoring rules:**

1. Identify impacts to the natural outflow of water from the AA and catalog them in the stressor table.

2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines. Take in to account the cumulative effect of stressors on the wetland's ability to export water and water-borne materials

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Dikes/Levees | |
| | Road Grades | |
| | Culverts | |
| | Diversions | |
| ✓ | Constrictions | outlet to Ringer Ln 19 |
| ✓ | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Artificial Stream Banks | |
| | Weirs | |
| | Confined Bridge Openings | |
| | | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stressors have little to no effect on the magnitude, timing or hydrodynamics of the AA water outflow regime. |
| <0.9 - 0.8 | *Highly Functioning* | High- or low-water outflows are mildly to moderately affected, but at intermediate ("normal") levels flow continues essentially unaltered in quantity or character. |
| <0.8 - 0.7 | *Functioning* | High- or low-water outflows are moderately affected, mild alteration of intermediate level outflow occurs; or hydrodynamics mildly to moderately affected. |
| <0.7 - 0.6 | *Functioning Impaired* | Outflow at all stages is moderately impaired resulting in persistent flooding of portions of the AA or unnatural drainage; or outflow hydrodynamics significantly disrupted. |
| <0.6 | *Non-functioning* | The natural outflow regime is severely disrupted. Down-gradient hydrologic connection severed or nearly so. Alterations may cause widespread unnatural persistent flooding or dewatering of the wetland system. |

**Variable 6 Score** .68

# Variable 7: Water and Soil Chemical Environment

*This variable concerns the chemical environment of the soil and water media within the AA, including pollutants and water quality. The origin of pollutants may be in the AA or delivered from up-gradient or surrounding areas. Score this variable by listing indicators of chemical stress in the AA. Consider point source and non-point sources of pollution, as well as mechanical or hydrologic changes that alter the chemical environment. Because water quality frequently cannot be inferred directly, the presence of many stressors is identified via indirect indicators.*

**Scoring rules:**

1. Stressors are grouped into categories which have a similar signature or set of causes.
2. Use the indicator list to identify each stressor impacting the chemical environment of the AA.
3. For each stressor category, determine the sub-variable score using the scoring guideline table provided on the second page of the scoring sheet.
   -If the AA is part of a water body that is recognized as impaired or recommended for TMDL development for one of the factors, then score that sub-variable 0.65 or lower.
4. Transcribe sub-variable scores to the following variable scoring page and compute the sum.
5. Determine the variable score by following the scoring guidelines.

| Stressor Category | Stressor Indicator | ✓ | Comments | Sub-variable Score |
|---|---|---|---|---|
| Nutrient Enrichment/ Eutrophication/ Oxygen (D.O.) | Livestock | ✓ | minor | .72 |
| | Agricultural Runoff | ✓ | landscaping | |
| | Septic/Sewage | | | |
| | Excessive Algae or Aquatic Veg. | ✓ | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Sedimentation/ Turbidity | Excessive Erosion | | | .95 |
| | Excessive Deposition | | | |
| | Fine Sediment Plumes | | | |
| | Agricultural Runoff | ✓ | landscaping | |
| | Excessive Turbidity | | | |
| | Nearby Construction Site | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Toxic contamination/ pH | Recent Chemical Spills | | | .70 |
| | Nearby Industrial Sites | ✓ | | |
| | Road Drainage/Runoff | ✓ | | |
| | Livestock | ✓ | minor | |
| | Agricultural Runoff | ✓ | landscaping | |
| | Storm Water Runoff | ✓ | | |
| | Fish/Wildlife Impacts | ✓ | Idaho Ecology | |
| | Vegetation Impacts | | | |
| | Cumulative Watershed NPS | | | |
| | Acid Mine Drainage | ✓ | Climax mine | |
| | Point Source Discharge | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Temperature | Excessive Temperature Regime | | | .82 |
| | Lack of Shading | ✓ | few trees in AA | |
| | Reservoir/Power Plant Discharge | | | |
| | Industrial Discharge | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | Slow moving water | ✓ | | |
| Soil chemistry/ Redox potential | Unnatural Saturation/Desaturation | ✓ | Channel does = 4 | .75 |
| | Mechanical Soil Disturbance | | | |
| | Dumping/introduced Soil | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |

# Variable 7: Water and Soil Chemical Environment

**Sub-variable Scoring Guidelines**

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stress indicators not present or trivial. |
| <0.9 - 0.8 | *Highly Functioning* | Stress indicators scarcely present and mild, or otherwise not occurring in more than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Stress indicators present at mild to moderate levels, or otherwise not occurring in more than 33% of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | Stress indicators present at moderate to high levels, or otherwise not occurring in more than 66% of the AA |
| <0.6 | *Non-functioning* | Stress indicators strongly evident throughout the AA at levels which apparently alter the fundamental chemical environment of the wetland system |

**Input each factor score from the stressor list and calculate the sum.**

| Nutrient enrichment/ Eutrophication/ Oxygen (D.O.) | | Sedimentation/ Turbidity | | Toxic contamination/ pH | | Temperature | | Soil chemistry/ Redox potential | | Sum of Sub-variable Scores |
|---|---|---|---|---|---|---|---|---|---|---|
| .72 | + | .95 | + | .70 | + | .82 | + | .25 | = | 3.94 |

**Use the table to score the Chemical Environment Variable circling the applicable scoring rules.**

| Variable Score | Condition Class | Scoring Rules | | |
|---|---|---|---|---|
| | | Single Factor | | Composite Score |
| 1.0 - 0.9 | *Reference Standard* | No single factor scores < 0.9 | or | The factor scores sum > 4.5 |
| <0.9 - 0.8 | *Highly Functioning* | Any single factor scores ≥ 0.8 but < 0.9 | or | The factor scores sum >4.0 but ≤4.5 |
| <0.8 - 0.7 | *Functioning* | Any single factor scores ≥ 7.0 but < 0.8 | or | The factor scores sum >3.5 but ≤ 4.0 |
| <0.7 - 0.6 | *Functioning Impaired* | Any single factor scores ≥ 0.6 but <0.7 | or | The factor scores sum >3.0 but ≤3.5 |
| < 0.6 | *Non-functioning* | Any single factor scores < 0.6 | or | The factor scores sum < 3.0 |

**Variable 7 Score** .78

## Variable 8: Geomorphology

*This variable is a measure of the degree to which the geomorphic setting has been altered within the AA. Changes to the surface configuration and natural topography constitute stressors. Such stressors may be observed in the form of fill, excavation, diking, sedimentation due to absence of flushing floods, etc. In riverine systems geomorphic changes to stream channel should be considered if the channel is within the AA. Alterations may include bed surface changes (embeddedness or morphology changes), stream bank instability, and stream channel reconfiguration. Geomorphic changes are usually ultimately manifested as changes to wetland hydrology and water relations with vegetation. Geomorphic alteration can also directly affect soil properties, such as near-surface texture, and the wetland chemical environment, such as the redox state or nutrient composition in the rooting zone. In rating this variable, do not include these resultant effects of geomorphic change; rather focus on the physical impacts within the footprint of the alteration. The effects of geomorphic change are addressed by other variables. All alterations to the geomorphology should be evaluated including small-scale impacts such as pugging, hoof sheer, and sedimentation which can be significant, but not immediately apparent, impacts.*

**Scoring Rules:**

1. Identify impacts to geomorphological setting and topography within the AA and record them on the stressor checklist.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | | Stressors | Comments |
|---|---|---|---|
| | General | Dredging/Excavation/Mining | |
| | | Fill, including dikes, road grades, etc. | |
| | | Grading | |
| | | Compaction | |
| | | Plowing/Disking | |
| | | Excessive Sedimentation | |
| | | Dumping | |
| | | Hoof Shear/Pugging | |
| | | Aggregate or Mineral Mining | |
| | | Sand Accumulation | |
| | Channels Only | Channel Instability/Over Widening | |
| | | Excessive Bank Erosion | |
| ✓ | | Channelization | |
| | | Reconfigured Stream Channels | |
| ✓ | | Artificial Banks/Shoreline | |
| | | Beaver Dam Removal | |
| ✓ | | Substrate Embeddedness | |
| ✓ | | Lack or Excess of Woody Debris | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Topography essentially unaltered from the natural state, or alterations don't appear to have a minimal effect on wetland functioning and condition. Patch or microtopographic complexity may be slightly altered, but native plant communities are still supported. |
| <0.9 - 0.8 | *Highly Functioning* | Alterations to topography result in small but detectable changes to habitat conditions throughout all or most of the AA; or changes causing more significant impacts but affecting less than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Changes to AA topography may be pervasive but generally mild. May include patches of more significant habitat alteration; or more significant alteration affecting less than 20 % of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | At least one important surface type or landform has been eliminated or created; microtopography has been moderately altered throughout most or all of the AA, or more severe alterations affect less than 50% AA. Evidence that widespread diminishment or alteration of native plant community exist due to physical habitat alterations. Most incidentally created wetland habitat such as that created by roadside ditches and the like would score in this range or lower. |
| <0.6 | *Non-functioning* | Geomorphic alterations have rendered the AA essentially unusable by *characteristic* wildlife species, or the physical setting no longer supports native plant communities. |

**Variable 8 Score** .62

# Variable 9: Vegetation Structure and Complexity

*This variable is a measure of the condition of the wetland's vegetation relative to its native state. It is particularly relevant to the wetland's ability to perform higher-order functions such as support of wildlife populations, although it also affects primary functions such as flood-flow attenuation. Score this variable by listing stressors that have affected the diversity, composition and cover of each vegetation cover class that would normally be present for the wetland type being assessed. For this variable, stressor severity is a measure of how much each vegetation stratum differs functionally from its natural condition.*

## Rules for Scoring:

1. Determine the number and types of vegetation layers present within the AA. Make a judgment as to whether additional layers were historically present using direct evidence such as stumps, root wads or historical photographs. Indirect evidence such as local knowledge and expert opinion can also be used in this determination. Check each present or suspected vegetation layer in the third row of the table.

2. Do not score vegetation layers that would not normally be present in the wetland type being assessed.

3. Estimate the percent coverage of each vegetation layer. Aerial photographs can be helpful for this but are not required.

4. Enter the percent cover values as decimals in the row of the stressor table labeled "Percent Cover of Layer". Note, percentages will often sum to more than 100% (1.0).

5. Determine the severity of stressors acting on each individual canopy layers, indicating their presence with checks in the appropriate boxes of the stressor table.

6. Determine the sub-variable score for each valid vegetation layer using the scoring guidelines on the second page of the scoring sheet. Enter each sub-variable score in the appropriate cell of the row labeled "Veg. Layer Sub-variable Score".

7. Add the "Veg. Layer Sub-variable Scores" and enter the sum in the labled cell to the right of the individual scores. Follow this same process for the "Percent Cover of Layer".

8. Divide the sum of "Veg. Layer Sub-variable Scores" by the total coverage of all layers scored. This product is the Variable 9 score. Enter this number in the labeled box at the bottom of this page.

| | Vegetation Layers | | | | |
|---|---|---|---|---|---|
| **Layers Scored** *(check boxes to right to indicate scored layers)* | ~~✓~~ | ✓ | ✓ | | |
| **Stressor** | **Tree** | **Shrub** | **Herb** | **Aquatic** | **Comments** |
| Noxious Weeds | | ✓ | ✓ | | tamarisk, S. brass Elm |
| Exotic/Invasive spp. | | | | | cheatgrass, |
| Tree Harvest | | | | | |
| Brush Cutting/Shrub Removal | | | | | |
| Livestock Grazing | | | | | |
| Excessive Herbivory | | | | | |
| Mowing/Haying | | | | | |
| Herbicide | | | | | |
| Loss of Zonation/Homogenization | | ✓ | ✓ | | |
| Dewatering | | ✓ | ✓ | | |
| Over Saturation | | | | | |
| | | | | | |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Percent Cover of Layer** | | + .05 | + .98 | + | = 1.03 |
| | x | x | x | x | |
| **Veg. Layer Sub-variable Score** | | .65 | .80 | | ÷ |
| | = | = | = | = | |
| **Weighted Sub-variable Score** | | + .03 | + .78 | + | = .81 |

See sub-variable scoring guidelines on following page

**Variable 9 Score** .79

# FACWet Score Card

## Scoring Procedure:

1. Transcribe variable scores from each variable data sheet to the corresponding cell in the variable score table.
2. In each Functional Capacity Index (FCI) equation, enter the corresponding variable scores in the equation cells. Do not enter values in the crossed cells lacking labels.
3. Add the variable scores to calculate the total functional points achieved for each function.
4. Divide the total functional points achieved by the functional points possible. The typical number of total points possible is provided, howe if a variable is added or subtracted to FCI equation the total possible points must be adjusted
5. Calculate the Composite FCI, by adding the FCI scores and dividing by the total number of functions scored (usually 7).
6. If scoring is done directly in the Excel spreadsheet, all values will be transferred and calculated automatically.

## VARIABLE SCORE TABLE

| | | | |
|---|---|---|---|
| Buffer & Landscape Context | Variable 1: | Habitat Connectivity - Neighboring Wetland Habitat Loss | .90 |
| | Variable 2: | Habitat Connectivity - Migration/Dispersal Barriers | .90 |
| | Variable 3: | Buffer Capacity | .70 |
| Hydrology | Variable 4: | Water Source | .65 |
| | Variable 5: | Water Distribution | .66 |
| | Variable 6: | Water Outflow | .68 |
| Abiotic and Biotic Habitat | Variable 7: | Chemical Environment | .78 |
| | Variable 8: | Geomorphology | .62 |
| | Variable 9: | Vegetation Structure and Complexity | .79 |

## Functional Capacity Indices

**Function 1 -- Support of Characteristic Wildlife Habitat**

| $V1_{wetloss}$ | + $V2_{barriers}$ | + $V3_{buffer}$ | + (2 x $V9_{veg}$) | | | = Total Functional Points | ÷ 5 = Functional Capacity Index |
|---|---|---|---|---|---|---|---|
| .90 | + .90 | + .70 | + 1.58 | + | + | = 4.08 | ÷ 5 = .82 |

**Function 2 -- Support of Characteristic Fish/aquatic Habitat**

| (3 x $V4_{source}$) | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geom}$ | | | |
|---|---|---|---|---|---|---|---|
| 1.95 | + 1.32 | + 1.36 | + .78 | + .62 | + | = 6.03 | ÷ 9 = .67 |

**Function 3 -- Flood Attenuation**

| $V3_{buffer}$ | + 2 x $V4_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V8_{geom}$ | + $V9_{veg}$ | | |
|---|---|---|---|---|---|---|---|
| .70 | + 1.30 | + 1.32 | + 1.36 | + .62 | + .79 | = 6.04 | ÷ 9 = .67 |

**Function 4 -- Short- and Long-term Water Storage**

| $V_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$) | $V8_{geom}$ | | | | |
|---|---|---|---|---|---|---|---|
| .65 | + 1.32 | + 1.36 | + .62 | + | + | = 3.95 | ÷ 6 = .66 |

**Function 5 -- Nutrient/Toxicant Removal**

| (2 x $V5_{dist}$) | + $V7_{chem}$ | + $V8_{geom}$ | | | | | |
|---|---|---|---|---|---|---|---|
| 1.32 | + .78 | + .62 | + | + | + | = 2.72 | ÷ 4 = .68 |

**Function 6 -- Sediment Retention/Shoreline Stabilization**

| $V3_{buffer}$ | + (2 x $V8_{geo}$) | + (2 x $V9_{veg}$) | | | | | |
|---|---|---|---|---|---|---|---|
| .70 | + 1.24 | + 1.58 | + | + | + | = 3.52 | ÷ 5 = .70 |

**Function 7 -- Production Export/Food Chain Support**

| $V1_{wetloss}$ | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geo}$ | + (2 x $V9_{veg}$) | | | |
|---|---|---|---|---|---|---|---|
| .90 | + 1.36 | + .78 | + .62 | + 1.58 | + | = 5.24 | ÷ 7 = .75 |

**Sum of Individual FCI Scores** 4.95

Divide by the Number of Functions Scored (usually 7) ÷ 7

**Composite FCI Score** .71

FACWet Version 1.0
April 2009

# ADMINISTRATIVE CHARACTERIZATION

| | | | |
|---|---|---|---|
| **General Information** | | Date of Evaluation: | 5/25/10 |
| Site Name or ID: | Wetland 5A, 5B, 5C | Project Name: | Pueblo Freeway |
| 404 or Other Permit Application #: | | Applicant Name: | CDOT |
| Evaluator Name(s): | Becky Pierce<br>Rob Frei | Evaluator's professional position and organization: | CDOT HQ & Reg. 2 |

| | | | |
|---|---|---|---|
| **Location Information:** | | | |
| Site Location (Lat./Long. or UTM): | 38°16'30.04" N<br>104°36'08.89" W | Geographic Datum Used (NAD 83 | |
| USGS Quadrangle Map: | Northeast Pueblo | Map Scale: (Circle one) | 1:24,000 1:100,000<br>Other 1: |
| Sub basin Name (8 digit HUC): | 11020003 | Wetland Ownership: | City of Pueblo |

**Project Information:**

This evaluation is being performed at: *(Check applicable box)*
- [x] *Project Wetland*
- [ ] *Mitigation Site*

Purpose of Evaluation (check all applicable):
- [x] *Potentially Impacted Wetlands*
- [ ] *Mitigation; Pre-construction*
- [ ] *Mitigation; Post-construction*
- [ ] *Monitoring*
- [ ] *Other (Describe)*

Intent of Project: *(Check all applicable)* ☐ Restortation ☐ Enhancement ☐ Creation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total Size of Wetland Involved: (Record Area, Check and Describe Measurement Method Used) | ac. | ☐ Measured<br>☐ Estimated | | | | | |
| Assessment Area (AA) Size (Record Area, check appropriate box. Additional spaces are used to record acreage when more than one AA is included in a single assessment) | ac. | ☐ Measured | ac. | ac. | ac. | ac. |
| | | ☐ Estimated | ac. | ac. | ac. | ac. |
| Characteristics or Method used for AA boundary determination: | | | | | | | |

Notes: Wetlands along Fountain Creek, north and south of 8th Street – 2 distinct polygons

# ECOLOGICAL DESCRIPTION 1

## Special Concerns

*Check all that apply*

- ☐ Organic soils including Histosols or Histic Epipedons are present in the AA (i.e., AA includes core fen habitat).
- ☐ Project will directly impact organic soil portions of the AA including areas possessing either Histosol soils or histic epipedons.
- ☐ Organic soils are known to occur anywhere within the contiguous wetland of which the AA is part.
- ☐ The wetland is a habitat oasis in an otherwise dry or urbanized landscape?
- ☐ Federally threatened or endangered species are **KNOWN** to occur in the AA? List Below.

_____

_____

- ☐ Federally threatened or endangered species are **SUSPECTED** to occur in the AA?

_____

_____

_____

_____

- ☐ Species of concern according to the Colorado Natural Heritage (CNHP) are known to occur in the AA?
- ☐ The site is located within a potential conservation area or element occurrence buffer area as determined by CNHP?
- ☐ Other special concerns (please describe)

_____

## HYDROGEOMORPHIC SETTING

- ☒ AA wetland maintains its fundamental natural hydrogeomorphic characteristics
- ☐ AA wetland has been subject to change in HGM classes as a result of anthropogenic modification

*If the above is checked, please describe the original wetland type if discernable using the table below.*

- ☐ AA wetland was created from an upland setting.

Previous wetland typology

| Historical Conditions | | | | |
|---|---|---|---|---|
| **Water source** | Surface flow | Groundwater | Precipitation | Unknown |
| **Hydrodynamics** | Unidirectional | Vertical | | |
| **Geomorphic Setting** (Narrative Description) | | | | |
| **Previous HGM Class** | Riverine | Slope | Depressional | Lacustrine |

## Current Conditions

*Describe the hydrogeomorphic setting of the wetland by circling all conditions that apply.*

HGM Setting

| | | | | | | |
|---|---|---|---|---|---|---|
| **Water source** | (Surface flow) | | Groundwater | Precipitation | | Unknown |
| **Hydrodynamics** | (Unidirectional) | | Vertical | | | |
| **Wetland Gradient** | 0 - 2% | | 2-4% | 4-10% | >10% | |
| **# Surface Inlets** | Over-bank | 0 | 1 | 2 | 3 | >3 |
| **# Surface Outlets** | | 0 | 1 | 2 | 3 | >3 |
| **Geomorphic Setting** (Narrative Description) | | | | | | |
| **HGM class** | (Riverine) | | Slope | Depressional | | Lacustrine |

Notes (include information on charcteristics used to formulate reference standard):

# ECOLOGICAL DESCRIPTION 2

## Vegetation Habitat Description

*US FWS habitat classification according as reported in Cowardin et. al (1979) - See also Appendix *** of FACWet User Guide.*

| System | Subsystem | Class | Subclass | Water Regime | Other Modifiers | % AA |
|---|---|---|---|---|---|---|
| Riv. | Pal. | | | | | |
| | | | | | | |
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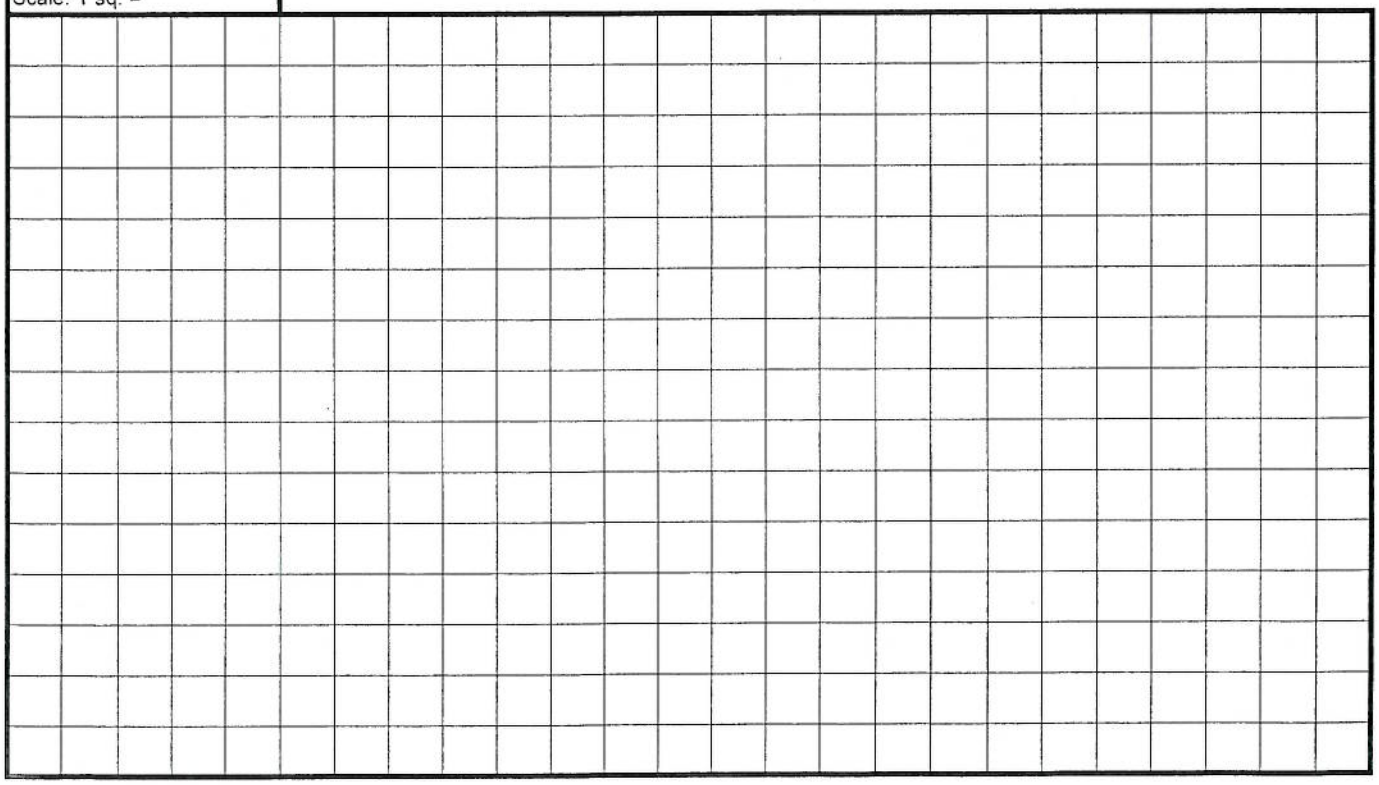
| | | | | | | |
|---|---|---|---|---|---|---|
| Lacustrine | Littoral; Limnoral | Rock Bot. (RB) Uncon Bottom(UB) Aquatic Bed(AB) Rocky Shore(RS) Uncon Shore(US) Emergent(EM) Shrub-scrub(SS) Forested (FO) | Floating vascular; Rooted vascular; Algal; Persistent; Non-Persistent; Broad-leaved deciduous; Needle-leaved evergreen; Cobble - gravel; Sand; Mud; Organic | **Examples** Temporarily flooded(A); Saturated(B); Seasonally flooded(C); Seas.-flood./sat.(E); Perm. flooded(F); Intermittently Flooded(G); Artificially Flooded(K); Sat./semiperm./Seas. (Y); Int. exposed/permenant(Z) | Hypersaline(7) ; Eusaline(8); Mixosaline(9); Fresh(0); Acid(a); Circumneutral(c); Alkaline/calcareous(i); Organic(g); Mineral(n); Beaver(b); Partially Drained/ditched(d); Farmed(f); Diked/impounded(h); Artificial Substrate(r); Spoil(s); Excavated(x) | |
| Palustrine | Palustrine | | | | | |
| Riverine | Lower perennial; Upper perennial; Intermittent | | | | | |

## Site Map

Scale: 1 sq. =

*Draw a sketch map of the site including relevant portions of the wetland, AA boundary, structures, habitat classes, and other significant features.*



## Variable 1: Habitat Connectivity - Neighboring Wetland Habitat Loss

*This variable is a measure of how isolated from other naturally-occurring wetland or riparian habitat the AA has become as a result of the loss of that habitat. To score this variable, estimate the percent of naturally- occurring wetland/riparian habitat that has been lost (by filling, draining, development, or whatever means) within a 500-meter-wide belt surrounding the AA. This surrounding area is called the Habitat Connectivity Envelope (HCE). Historical photographs and NWI maps can be helpful in scoring this variable. In most cases the evaluator must use best professional judgment in estimating the amount of natural wetland loss. Evaluation of landforms and habitat patterns in the context of perceivable land use change should be used to steer estimates of the amount of wetland loss within the HCE. This variable is not meant to penalize AAs that are naturally isolated, or unique to the landscape. Rather, it should measure the degree to which natural habitat connectivity has been lost.*

**Rules for Scoring:**

1. On the aerial photo outline the area that is within 500 meters of the AA.
2. Identify obvious natural barriers within 500 m of the AA boundary.
   - *Natural barriers include continuous cliff bands, deep open water, etc.*
3. Draw the **Habitat Connectivity Envelope**(HCE) on the aerial image.
   - *The HCE is all the area within 500 meters of the AA that is not separated from it by a natural barrier.*
4. Outline the current extent of naturally occurring wetland and riparian habitat. Then outline areas where the habitats appear to have historically occurred.
   - *Use your knowledge of the history of the area and evident land use change. Additional research could be utilized to increase the accuracy of this estimate including consideratation of floodplain maps, historical aerials, etc.*

| Variable Score | Condition Category | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | *Wetland losses are absent or negligible or there is no evidence to suggest the native landscape within the HCE historically contained other wetland habitats* |
| <0.9 - 0.8 | *Highly Functioning* | *More than 80% of historical wetland habitat area within the HCE is still present (less than 20% historical wetland habitat area lost).* |
| <0.8 - 0.7 | *Functioning* | *80 to 60% of historical wetland habitat area within the HCE is still present (20% to 40% historical wetland habitat area lost).* |
| <0.7 - 0.6 | *Functioning Impaired* | *Less than 60 to 30% of historical wetland habitat area within the HCE is still present (more than 30 to 70% historical wetland habitat area lost).* |
| <0.6 | *Non-functioning* | *Less than 30% of the historical wetland habitat area from within the HCE is now no longer in existence (more than 70% historical wetland habitat area lost).* |

middle

**Variable 1 Score** 0.80

Notes: Aerials depict much of ~~Sand~~ Creek floodplain intact. Some of it has been filled in, so rated it functioning. ~80% intact. Fountain

## Variable 2: Habitat Connectivity - Migration/Dispersal Barriers

*This variable is intended to rate the degree to which the AA has become isolated from existing neighboring wetland and riparian habitat by artificial barriers that inhibit migration or dispersal of organisms. On the aerial photograph, identify the man-made barriers within the HCE that intercede between the AA and surrounding wetlands and riparian areas, and identify them by type on the stressor list. Score this variable based on the barriers' impermeability to migration and dispersal and the amount of surrounding wetland/riparian habitat they affect.*

**Rules for Scoring:**

1. On the aerial photo, outline all existing wetland and riparian habitat areas (WHAs) within the HCE.

2. Identify artificial barriers to dispersal and migration of organisms within the HCE that intercede between the AA and surrounding habitats. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

3. Considering the composite effect of all of identified barriers to migration and dispersal (i.e., stressors), assign an overall variable score using the scoring guidelines.

Stressors = artificial barriers

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Major Highway | |
| | Secondary Highway | |
| ✓ | Tertiary Roadway | 8th St. Creates visual barrier |
| | Railroad | |
| | Bike Path | |
| | Urban Development | |
| | Agricultural Development | |
| | Artificial Water Body | |
| | Fence | |
| | Ditch or Aqueduct | |
| | Aquatic Organism Barriers | |
| ✓ | Fountain Creek | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable barriers exist between the AA and other wetland and riparian habitats in the HCE; or there are no other wetland and riparian areas in the HCE. |
| <0.9 - 0.8 | *Highly Functioning* | Barriers impeding migration/dispersal between the AA and up to 33% of surrounding WHA highly permeable and easily passed by most organisms. Examples could include gravel roads, minor levees, ditches or barbed-wire fences. More significant barriers (see "functioning category below) could affect migration to up to 10% of surrounding WHA. |
| <0.8 - 0.7 | *Functioning* | Barriers to migration and dispersal retard the ability of many organisms/propagules to pass between the AA and up to 66% of WHA. Passage of organisms and propagules through such barriers is still possible, but it may be constrained to certain times of day, be slow, dangerous or require additional travel. Busy two-lane roads, culverted areas, small to medium artificial water bodies or small earthen dams would commonly rate a score in this range. More significant barriers (see "functioning impaired" category below) could affect migration to up to 10% of surrounding WHA. |
| <0.7 - 0.6 | *Functioning Impaired* | Barriers to migration and dispersal preclude the passage of some types of organisms/propagules between the AA and up to 66% of surrounding WHA. Travel of those animals which can potential negotiate the barrier are strongly restricted and may include a high chance of mortality. Up to 33% of surrounding WHA could be functionally isolated from the AA. |
| <0.6 | *Non-functioning* | AA is essentially isolated from surrounding WHA by impermeable migration and dispersal barriers. An interstate highway or concrete-lined water conveyance canal are examples of barriers which would generally create functional isolation between the AA and a WHA. |

Largely intact bet. AA & WHA's in the HCE. Creek could be barrier to small mammals & herps to access east side of creek

**Variable 2 Score** 0.95

## Variable 3: Buffer Capacity

*The buffer area is defined as a 250-meter-wide belt surrounding the perimeter of the AA. This variable is a measure of the capacity of that area to function as an effective buffer for the wetland against the deleterious effects of surrounding land use change. To score the variable, assume that the AA is 100% buffered except where land use changes inside the buffer area have diminished this quality. Identify these land use types as specific stressors in the list. For each stressor, rate severity and extent within the buffer area; then use this list to make an overall rating for the buffer's departure from reference conditions. When rating buffer capacity, consider both the intensity of the impact and the proximity of the stressor to the AA.*

**Rules for Scoring:**

1. On the aerial photograph, outline the buffer area as the zone within 250 meters of the outer boundary of the AA.
2. Use the stressor list to record land use changes that affect buffering capacity within the buffer area. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.
3. Considering all of the identified stressors, their overall severity, extent and proximity to the AA assign an overall variable score using the scoring guidelines.

| Stressors = Land Use Changes | ✓ | Stressors | Comments/description |
|---|---|---|---|
| | ✓ | Industrial/commercial | |
| | ✓ | Urban | |
| | ✓ | Residential | |
| | | Rural | |
| | | Dryland Farming | |
| | | Intensive Agriculture | |
| | | Orchards or Nurseries | |
| | | Livestock Grazing | |
| | ✓ | Transportation Corridor | I-25 |
| | | Urban Parklands | |
| | | Dams/impoundments | |
| | | Artificial Water body | |
| | | Physical Resource Extraction | |
| | | Biological Resource Extraction | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | No appreciable land use change has been imposed within the TBA and it provides the full buffering capacity. |
| <0.9 - 0.8 | *Highly Functioning* | Some land use change has occurred in the BA, but such changes little impair the area's ability to provide a buffering function, either because land use is not intensive, for example haying, light grazing, or nurseries, or more substantial changes occur in approximately less than 10% of the BA. |
| <0.8 - 0.7 | *Functioning* | BA has been subjected to a marked shift in land use, however, the land retains much of its original buffering capacity. Moderate-intensity land uses such as dry-land farming, urban "green" corridors, or moderate cattle grazing would commonly be placed within this scoring range. |
| <0.7 - 0.6 | *Functioning Impaired* | Land use within the BA has been substantial including the a moderate to high coverage (up to 50%) of impermeable surfaces, bare soil, or other artificial surface; considerable in-flow urban runoff or fertilizer-rich waters common. While, the buffering capacity of the land has been greatly diminished it is not extinguished. Intensively logged areas, low-density urban developments, some urban parklands and some cropping situations would commonly rate a score within this range. |
| <0.6 | *Non-functioning* | The area within the BA provides essentially no buffering capacity. Many Commercial developments or highly urban landscapes would rate a score of less than 0.6. |

High end of Functioning Impaired **Variable 3 score** 0.70

## Variable 4: Water Source

*This variable is concerned with up-gradient hydrologic connectivity. It is a measure of the impacts to the AA's water source, including the ability of source water to perform work such as sediment transport, erosion, soil pore flushing, etc. To score this variable, identify stressors that alter the source of water to the AA, and record their presence on the stressor list. Stressors can impact water source by depletion, augmentation, or alteration of inflow timing or hydrodynamics. For riverine systems, this variable is primarily concerned with the connection of the channel to the floodplain.This variable is designed to assess water quantity, power and timing, not water quality. Water quality will be evaluated in Variable 7.*

**Scoring rules:**

1. Use the stressor list and knowledge of the watershed to catalog type-specific impairments of the AA's water source. Mark the stressors present with a check in the first column and describe the general nature, severity and extent of each. List additional stressors in empty rows at the bottom of the table and explain.

2. Considering the composite effect of stressors on the water source, rate the condition of this variable with the aid of the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches or Drains (tile, etc.) | |
| | Dams | |
| | Diversions | |
| | Groundwater pumping | |
| | Draw-downs | |
| | Culverts or Constrictions | |
| ✓ | Point Source (urban, ind., ag.) | small impact |
| ✓ | Non-point Source | |
| | Increased Drainage Area | |
| ✓ | Storm Drain/Urban Runoff | low |
| ✓ | Impermeable Surface Runoff | low |
| | Irrigation Return Flows | |
| | Mining/Natural Gas Extraction | |
| | Transbasin Diversion | |
| | Actively Managed Hydrology | |
| | | |
| | | |

| Variable Score | Condition Class | Depletion | Augmentation |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Unnatural drawdown events minor, rare or non-existent, very slight uniform depletion, or trivial alteration of hydrodynamics. | Unnatural high-water events minor, rare or non-existent, slight uniform increase in amount of inflow, or trivial alteration of hydrodynamics. |
| <0.9 - 0.8 | *Highly Functioning* | Unnatural drawdown events occasional, short duration and/or mild; or uniform depletion up to 20%; or mild to moderate reduction of peak flows or natural capacity of water to perform work. | Occasional unnatural high-water events, short in duration and/or mild in intensity; or uniform augmentation up to 20%; or mild to moderate increase of peak flows or natural capacity of water to perform work. |
| <0.8 - 0.7 | *Functioning* | Unnatural drawdown events common and of mild to moderate intensity and/or duration; or uniform depletion up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. | Common occurrence of unnatural high-water events, of a mild to moderate intensity and/or duration; or uniform augmentation up to 50%; or moderate to substantial reduction of peak flows or natural capacity of water to perform work. |
| <0.7 - 0.6 | *Functioning Impaired* | Unnatural drawdown events occur frequently with a moderate to high intensity and/or duration; or uniform depletion up to 75%; or substantial reduction of peak flows or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** | Common occurrence of unnatural high-water events, some of which may be severe in nature or exist for a substantial portion of the growing season; or uniform augmentation more than 50% or natural capacity of water to perform work. **Wetlands with actively managed or wholly artificial hydrology will usually score in this range or lower.** |
| <0.6 | *Non-functioning* | Water source diminished enough to threaten jurisdictional classification of the AA. | Frequency, duration or magnitude of unnaturally high-water great enough to change the fundamental characteristics of the wetland. |

**Variable 4 Score** 0.78

# Variable 5: Water Distribution

*This variable is concerned with hydrologic connectivity within the AA. It is a measure of alteration to the spatial distribution of surface and groundwater within the AA. These alterations are manifested as local changes to the hydrograph and generally* ***result*** *from geomorphic modifications. To score this variable, identify stressors that alter flow patterns and impact the hydrograph within portions of the AA, including localized increases or decreases to the depth or duration of the water table or surface water. In naturally confined rivers (i.e. canyons and gullies) floodplain width is generally very small, so these systems will tend to score high for this variable unless some gross stressor is present.*

**Scoring rules:**

1. Identify impacts to the natural distribution of water throughout the AA and catalog them in the stressor table.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Ponding/Impoundment | |
| | Culverts | |
| | Road Grades | |
| | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Enlarged Channel | |
| | Artificial Banks/Shoreline | |
| | Weirs | |
| | Dikes/Levees/Berms | |
| | Diversions | |
| | Sediment/Fill Accumulation | |
| | | |
| | | |

| Variable Score | Condition Class | Non-riverine | Riverine |
|---|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Little or no alteration has been made to the way in which water is distributed throughout the wetland. | Natural active floodplain areas flood on a normal recurrence interval. No evidence of alteration of flooding and subirrigation duration and intensity. |
| <0.9 - 0.8 | *Highly Functioning* | Less than 10% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in less than a 2 in. (5 cm) change in mean growing season water table elevation. | Channel-adjacent areas have occasional unnatural periods of drying or flooding; or uniform shift in the hydrograph less than typical root depth. |
| <0.8 - 0.7 | *Functioning* | Between 10 and 33% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 4 in. (5 cm) or less change in mean growing season water table elevation. | In channel-adjacent area, periods of drying or flooding are common; or uniform shift in the hydrograph near root depth. |
| <0.7 - 0.6 | *Functioning Impaired* | 33 to 66% of the AA is affected by *in situ* hydrologic alteration; or more widespread impacts result in a 6 in. (15 cm) or less change in mean growing season water table elevation. Water table behavior must still meet jurisdictional criteria to merit this rating. | Adjacent to the channel, unnatural periods of drying or flooding are the norm; or uniform shift in the hydrograph greater than root depth. |
| <0.6 | *Non-functioning* | More than 66% of the AA is affected by hydrologic alteration which changes the fundamental functioning of the wetland system | Historical active floodplain areas are almost never wetted from overbank flooding, and/or groundwater infiltration is effectively cut off. |

**Variable 5 Score** 0.85

# Variable 6: Water Outflow

*This variable is concerned with down-gradient hydrologic connectivity and the flow of water (transporting materials and energy) out of the AA. It is a measure of impacts that affect the hydrologic outflow of water including the passage of water through its normal low- and high-flow surface outlets, and infiltration/groundwater recharge. In some cases, alteration of evapotranspiration rates may be significant enough of a factor to consider in scoring. Score this variable by identifying stressors that impact the means by which water is exported from the AA. In Variable 5, the stressors were evaluated in light of their impact on water distribution within the AA. To evaluate this variable focus on how water, energy and associated materials are exported out of the AA.*

**Scoring rules:**

1. Identify impacts to the natural outflow of water from the AA and catalog them in the stressor table.

2.Considering all of the stressors identified, assign an overall variable score using the scoring guidelines. Take in to account the cumulative effect of stressors on the wetland's ability to export water and water-borne materials

| ✓ | Stressors | Comments/description |
|---|---|---|
| | Ditches | |
| | Dikes/Levees | |
| | Road Grades | |
| | Culverts | |
| | Diversions | |
| | Constrictions | |
| | Channel Incision/Entrenchment | |
| | Hardened/Engineered Channel | |
| | Artificial Stream Banks | |
| | Weirs | |
| | Confined Bridge Openings | |
| | | |
| | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stressors have little to no effect on the magnitude, timing or hydrodynamics of the AA water outflow regime. |
| <0.9 - 0.8 | *Highly Functioning* | High- or low-water outflows are mildly to moderately affected, but at intermediate ("normal") levels flow continues essentially unaltered in quantity or character. |
| <0.8 - 0.7 | *Functioning* | High- or low-water outflows are moderately affected, mild alteration of intermediate level outflow occurs; or hydrodynamics mildly to moderately affected. |
| <0.7 - 0.6 | *Functioning Impaired* | Outflow at all stages is moderately impaired resulting in persistent flooding of portions of the AA or unnatural drainage; or outflow hydrodynamics significantly disrupted. |
| <0.6 | *Non-functioning* | The natural outflow regime is severely disrupted. Down-gradient hydrologic connection severed or nearly so. Alterations may cause widespread unnatural persistent flooding or dewatering of the wetland system. |

**Variable 6 Score** 0.92

# Variable 7: Water and Soil Chemical Environment

*This variable concerns the chemical environment of the soil and water media within the AA, including pollutants and water quality. The origin of pollutants may be in the AA or delivered from up-gradient or surrounding areas. Score this variable by listing indicators of chemical stress in the AA. Consider point source and non-point sources of pollution, as well as mechanical or hydrologic changes that alter the chemical environment. Because water quality frequently cannot be inferred directly, the presence of many stressors is identified via indirect indicators.*

**Scoring rules:**

1. Stressors are grouped into categories which have a similar signature or set of causes.
2. Use the indicator list to identify each stressor impacting the chemical environment of the AA.
3. For each stressor category, determine the sub-variable score using the scoring guideline table provided on the second page of the scoring sheet.
   -If the AA is part of a water body that is recognized as impaired or recommended for TMDL development for one of the factors, then score that sub-variable 0.65 or lower.
4. Transcribe sub-variable scores to the following variable scoring page and compute the sum.
5. Determine the variable score by following the scoring guidelines.

| Stressor Category | Stressor Indicator | ✓ | Comments | Sub-variable Score |
|---|---|---|---|---|
| Nutrient Enrichment/ Eutrophication/ Oxygen (D.O.) | Livestock | ✓ | | 0.65 |
| | Agricultural Runoff | ✓ | | |
| | Septic/Sewage | ✓ | | |
| | Excessive Algae or Aquatic Veg. | | | |
| | Cumulative Watershed NPS | ✓ | | |
| | CDPHE Impairment/TMDL List | ✓ | | |
| | | | | |
| Sedimentation/ Turbidity | Excessive Erosion | | | 0.78 |
| | Excessive Deposition | | | |
| | Fine Sediment Plumes | | | |
| | Agricultural Runoff | | | |
| | Excessive Turbidity | ✓ | but higher than expected | |
| | Nearby Construction Site | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | ✓ | | |
| | | | | |
| Toxic contamination/ pH | Recent Chemical Spills | | | 0.80 |
| | Nearby Industrial Sites | | | |
| | Road Drainage/Runoff | ✓ | | |
| | Livestock | | | |
| | Agricultural Runoff | ✓ | | |
| | Storm Water Runoff | ✓ | | |
| | Fish/Wildlife Impacts | | | |
| | Vegetation Impacts | | | |
| | Cumulative Watershed NPS | | | |
| | Acid Mine Drainage | | | |
| | Point Source Discharge | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |
| Temperature | Excessive Temperature Regime | | | 0.90 |
| | Lack of Shading | | | |
| | Reservoir/Power Plant Discharge | | | |
| | Industrial Discharge | | | |
| | Cumulative Watershed NPS | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | could have more trees | |
| Soil chemistry/ Redox potential | Unnatural Saturation/Desaturation | | | 0.95 |
| | Mechanical Soil Disturbance | ✓ | mitigation work last year | |
| | Dumping/introduced Soil | | | |
| | CDPHE Impairment/TMDL List | | | |
| | | | | |

# Variable 7: Water and Soil Chemical Environment

**Sub-variable Scoring Guidelines**

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Stress indicators not present or trivial. |
| <0.9 - 0.8 | *Highly Functioning* | Stress indicators scarcely present and mild, or otherwise not occurring in more than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Stress indicators present at mild to moderate levels, or otherwise not occurring in more than 33% of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | Stress indicators present at moderate to high levels, or otherwise not occurring in more than 66% of the AA |
| <0.6 | *Non-functioning* | Stress indicators strongly evident throughout the AA at levels which apparently alter the fundamental chemical environment of the wetland system |

**Input each factor score from the stressor list and calculate the sum.**

| Nutrient enrichment/ Eutrophication/ Oxygen (D.O.) | | Sedimentation/ Turbidity | | Toxic contamination/ pH | | Temperature | | Soil chemistry/ Redox potential | | Sum of Sub-variable Scores |
|---|---|---|---|---|---|---|---|---|---|---|
| .65 | + | .78 | + | .80 | + | .90 | + | .95 | = | 4.08 |

**Use the table to score the Chemical Environment Variable circling the applicable scoring rules.**

| Variable Score | Condition Class | Scoring Rules | | |
|---|---|---|---|---|
| | | Single Factor | | Composite Score |
| 1.0 - 0.9 | *Reference Standard* | No single factor scores < 0.9 | or | The factor scores sum > 4.5 |
| <0.9 - 0.8 | *Highly Functioning* | Any single factor scores ≥ 0.8 but < 0.9 | or | The factor scores sum >4.0 but ≤4.5 |
| <0.8 - 0.7 | *Functioning* | Any single factor scores ≥ 7.0 but < 0.8 | or | The factor scores sum >3.5 but ≤ 4.0 |
| <0.7 - 0.6 | *Functioning Impaired* | Any single factor scores ≥ 0.6 but <0.7 | or | The factor scores sum >3.0 but ≤3.5 |
| < 0.6 | *Non-functioning* | Any single factor scores < 0.6 | or | The factor scores sum < 3.0 |

**Variable 7 Score** .70

# Variable 8: Geomorphology

*This variable is a measure of the degree to which the geomorphic setting has been altered within the AA. Changes to the surface configuration and natural topography constitute stressors. Such stressors may be observed in the form of fill, excavation, diking, sedimentation due to absence of flushing floods, etc. In riverine systems geomorphic changes to stream channel should be considered if the channel is within the AA. Alterations may include bed surface changes (embeddedness or morphology changes), stream bank instability, and stream channel reconfiguration. Geomorphic changes are usually ultimately manifested as changes to wetland hydrology and water relations with vegetation. Geomorphic alteration can also directly affect soil properties, such as near-surface texture, and the wetland chemical environment, such as the redox state or nutrient composition in the rooting zone. In rating this variable, do not include these resultant effects of geomorphic change; rather focus on the physical impacts within the footprint of the alteration. The effects of geomorphic change are addressed by other variables. All alterations to the geomorphology should be evaluated including small-scale impacts such as pugging, hoof sheer, and sedimentation which can be significant, but not immediately apparent, impacts.*

**Scoring Rules:**

1. Identify impacts to geomorphological setting and topography within the AA and record them on the stressor checklist.
2. Considering all of the stressors identified, assign an overall variable score using the scoring guidelines.

| ✓ | | Stressors | Comments |
|---|---|---|---|
| ✓ | General | Dredging/Excavation/Mining | Mitigation work previously |
| ✓ | General | Fill, including dikes, road grades, etc. | |
| | General | Grading | |
| | General | Compaction | |
| | General | Plowing/Disking | |
| | General | Excessive Sedimentation | |
| | General | Dumping | |
| | General | Hoof Shear/Pugging | |
| | General | Aggregate or Mineral Mining | |
| | General | Sand Accumulation | |
| ✓ | Channels Only | Channel Instability/Over Widening | minor |
| | Channels Only | Excessive Bank Erosion | |
| | Channels Only | Channelization | |
| | Channels Only | Reconfigured Stream Channels | |
| | Channels Only | Artificial Banks/Shoreline | |
| | Channels Only | Beaver Dam Removal | |
| | Channels Only | Substrate Embeddedness | |
| | Channels Only | Lack or Excess of Woody Debris | |
| | | | |

| Variable Score | Condition Class | Scoring Guidelines |
|---|---|---|
| 1.0 - 0.9 | *Reference Standard* | Topography essentially unaltered from the natural state, or alterations don't appear to have a minimal effect on wetland functioning and condition. Patch or microtopographic complexity may be slightly altered, but native plant communities are still supported. |
| <0.9 - 0.8 | *Highly Functioning* | Alterations to topography result in small but detectable changes to habitat conditions throughout all or most of the AA; or changes causing more significant impacts but affecting less than 10% of the AA. |
| <0.8 - 0.7 | *Functioning* | Changes to AA topography may be pervasive but generally mild. May include patches of more significant habitat alteration; or more significant alteration affecting less than 20 % of the AA. |
| <0.7 - 0.6 | *Functioning Impaired* | At least one important surface type or landform has been eliminated or created; microtopography has been moderately altered throughout most or all of the AA, or more severe alterations affect less than 50% AA. Evidence that widespread diminishment or alteration of native plant community exist due to physical habitat alterations. Most incidentally created wetland habitat such as that created by roadside ditches and the like would score in this range or lower. |
| <0.6 | *Non-functioning* | Geomorphic alterations have rendered the AA essentially unusable by *characteristic* wildlife species, or the physical setting no longer supports native plant communities. |

**Variable 8 Score** 0.87

# Variable 9: Vegetation Structure and Complexity

*This variable is a measure of the condition of the wetland's vegetation relative to its native state. It is particularly relevant to the wetland's ability to perform higher-order functions such as support of wildlife populations, although it also affects primary functions such as flood-flow attenuation. Score this variable by listing stressors that have affected the diversity, composition and cover of each vegetation cover class that would normally be present for the wetland type being assessed. For this variable, stressor severity is a measure of how much each vegetation stratum differs functionally from its natural condition.*

**Rules for Scoring:**

1. Determine the number and types of vegetation layers present within the AA. Make a judgment as to whether additional layers were historically present using direct evidence such as stumps, root wads or historical photographs. Indirect evidence such as local knowledge and expert opinion can also be used in this determination. Check each present or suspected vegetation layer in the third row of the table.

2. Do not score vegetation layers that would not normally be present in the wetland type being assessed.

3. Estimate the percent coverage of each vegetation layer. Aerial photographs can be helpful for this but are not required.

4. Enter the percent cover values as decimals in the row of the stressor table labeled "Percent Cover of Layer". Note, percentages will often sum to more than 100% (1.0).

5. Determine the severity of stressors acting on each individual canopy layers, indicating their presence with checks in the appropriate boxes of the stressor table.

6. Determine the sub-variable score for each valid vegetation layer using the scoring guidelines on the second page of the scoring sheet. Enter each sub-variable score in the appropriate cell of the row labeled "Veg. Layer Sub-variable Score".

7. Add the "Veg. Layer Sub-variable Scores" and enter the sum in the labled cell to the right of the individual scores. Follow this same process for the "Percent Cover of Layer".

8. Divide the sum of "Veg. Layer Sub-variable Scores" by the total coverage of all layers scored. This product is the Variable 9 score. Enter this number in the labeled box at the bottom of this page.

| | Vegetation Layers | | | | |
|---|---|---|---|---|---|
| **Layers Scored** *(check boxes to right to indicate scored layers)* | ✓ | ✓ | ✓ | | |
| **Stressor** | **Tree** | **Shrub** | **Herb** | **Aquatic** | **Comments** |
| Noxious Weeds | | ✓ | ✓ | | salt cedar, chinese elm, kochia, yellow sweetclover, Russian-olive |
| Exotic/Invasive spp. | | | ✓ | | |
| Tree Harvest | | | | | |
| Brush Cutting/Shrub Removal | | | | | |
| Livestock Grazing | | | | | |
| Excessive Herbivory | | | | | |
| Mowing/Haying | | | | | |
| Herbicide | | | | | |
| Loss of Zonation/Homogenization | ✓ | ✓ | | | lack of willows, not ↑ native herbs |
| Dewatering | | | | | |
| Over Saturation | | | | | |
| | | | | | |
| | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Percent Cover of Layer** | 0.15 (.20) | + 0.25 | + 0.90 | + — | = 1.35 | |
| | x | x | x | x | | |
| **Veg. Layer Sub-variable Score** | 0.74 | 0.68 | 0.6 | — | ÷ | See sub-variable scoring guidelines on following page |
| | = | = | = | = | | |
| **Weighted Sub-variable Score** | .15 | + .17 | + .54 | + | = .86 | |

**Variable 9 Score** .63

# FACWet Score Card

## Scoring Procedure:

1. Transcribe variable scores from each variable data sheet to the corresponding cell in the variable score table.
2. In each Functional Capacity Index (FCI) equation, enter the corresponding variable scores in the equation cells. Do not enter values in the crossed cells lacking labels.
3. Add the variable scores to calculate the total functional points achieved for each function.
4. Divide the total functional points achieved by the functional points possible. The typical number of total points possible is provided, howe if a variable is added or subtracted to FCI equation the total possible points must be adjusted
5. Calculate the Composite FCI, by adding the FCI scores and dividing by the total number of functions scored (usually 7).
6. If scoring is done directly in the Excel spreadsheet, all values will be transferred and calculated automatically.

## VARIABLE SCORE TABLE

| | | | |
|---|---|---|---|
| Buffer & Landscape Context | Variable 1: | Habitat Connectivity - Neighboring Wetland Habitat Loss | .80 |
| | Variable 2: | Habitat Connectivity - Migration/Dispersal Barriers | .95 |
| | Variable 3: | Buffer Capacity | .70 |
| Hydrology | Variable 4: | Water Source | .78 |
| | Variable 5: | Water Distribution | .85 |
| | Variable 6: | Water Outflow | .92 |
| Abiotic and Biotic Habitat | Variable 7: | Chemical Environment | .70 |
| | Variable 8: | Geomorphology | .87 |
| | Variable 9: | Vegetation Structure and Complexity | .63 |

## Functional Capacity Indices

### Function 1 -- Support of Characteristic Wildlife Habitat

| $V1_{wetloss}$ | + $V2_{barriers}$ | + $V3_{buffer}$ | + (2 x $V9_{veg}$) | | | = Total Functional Points | ÷ 5 = Functional Capacity Index |
|---|---|---|---|---|---|---|---|
| .80 | + .95 | + .70 | + 1.26 | + | + | = 3.71 | ÷ 5 = .74 |

### Function 2 -- Support of Characteristic Fish/aquatic Habitat

| (3 x $V4_{source}$) | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geom}$ | | | = | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.34 ~~4.56~~ | + 1.70 | + 1.84 | + .70 | + .87 | + | = | 7.45 | ÷ 9 = | .83 |

### Function 3 -- Flood Attenuation

| $V3_{buffer}$ | + 2 x $V4_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$ | + $V8_{geom}$ | + $V9_{veg}$ | | | |
|---|---|---|---|---|---|---|---|---|
| .70 | + 1.56 | + 1.70 | + 1.84 | + .87 | + .63 | = 7.30 | ÷ 9 = | .81 |

### Function 4 -- Short- and Long-term Water Storage

| $V_{source}$ | + (2 x $V5_{dist}$) | + 2 x $V6_{outflow}$) | $V8_{geom}$ | | | | | |
|---|---|---|---|---|---|---|---|---|
| .78 | + 1.70 | + 1.84 | + .87 | + | + | = 5.19 | ÷ 6 = | .86 |

### Function 5 -- Nutrient/Toxicant Removal

| (2 x $V5_{dist}$) | + $V7_{chem}$ | + $V8_{geom}$ | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1.70 | + .70 | + .87 | + | + | + | = 3.27 | ÷ 4 = | .82 |

### Function 6 -- Sediment Retention/Shoreline Stabilization

| $V3_{buffer}$ | + (2 x $V8_{geo}$) | + (2 x $V9_{veg}$) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| .70 | + 1.74 | + 1.26 | + | + | + | = 3.70 | ÷ 5 = | .74 |

### Function 7 -- Production Export/Food Chain Support

| $V1_{wetloss}$ | + 2 x $V6_{outflow}$ | + $V7_{chem}$ | + $V8_{geo}$ | + (2 x $V9_{veg}$) | | | | |
|---|---|---|---|---|---|---|---|---|
| .80 | + 1.84 | + .70 | + .87 | + 1.26 | + | = 5.47 | ÷ 7 = | .78 |

**Sum of Individual FCI Scores** 5.58

Divide by the Number of Functions Scored (usually 7) ÷ 7

**Composite FCI Score** .80

**APPENDIX C**

# Correspondence

**CH2M HILL**
19 South Tejon, Suite 100
Colorado Springs, CO 80903-1505
**Tel 719.633.8805**
**Fax 719.633.2352**

CH2MHILL

May 24, 2006

Anita Culp
Regulatory Project Manager
Southern Colorado Regulatory Office
US Army Corps of Engineers
720 North Main Street, Suite 300
Pueblo, Colorado 81003

Subject: New Pueblo Freeway Project

Dear Ms Culp:

This letter is being sent to request confirmation of the wetland boundaries delineated by CH2M HILL as part of the New Pueblo Freeway project located in the City of Pueblo, Colorado. As you recall, you and I visited the wetland areas on May 16, 2006. CH2M HILL also requests a determination as to the jurisdictional status of each wetland area.

As requested, please find enclosed two sets of graphics depicting the locations and boundaries of the wetland areas located within the project area. Also enclosed are two sets of the completed Data Forms.

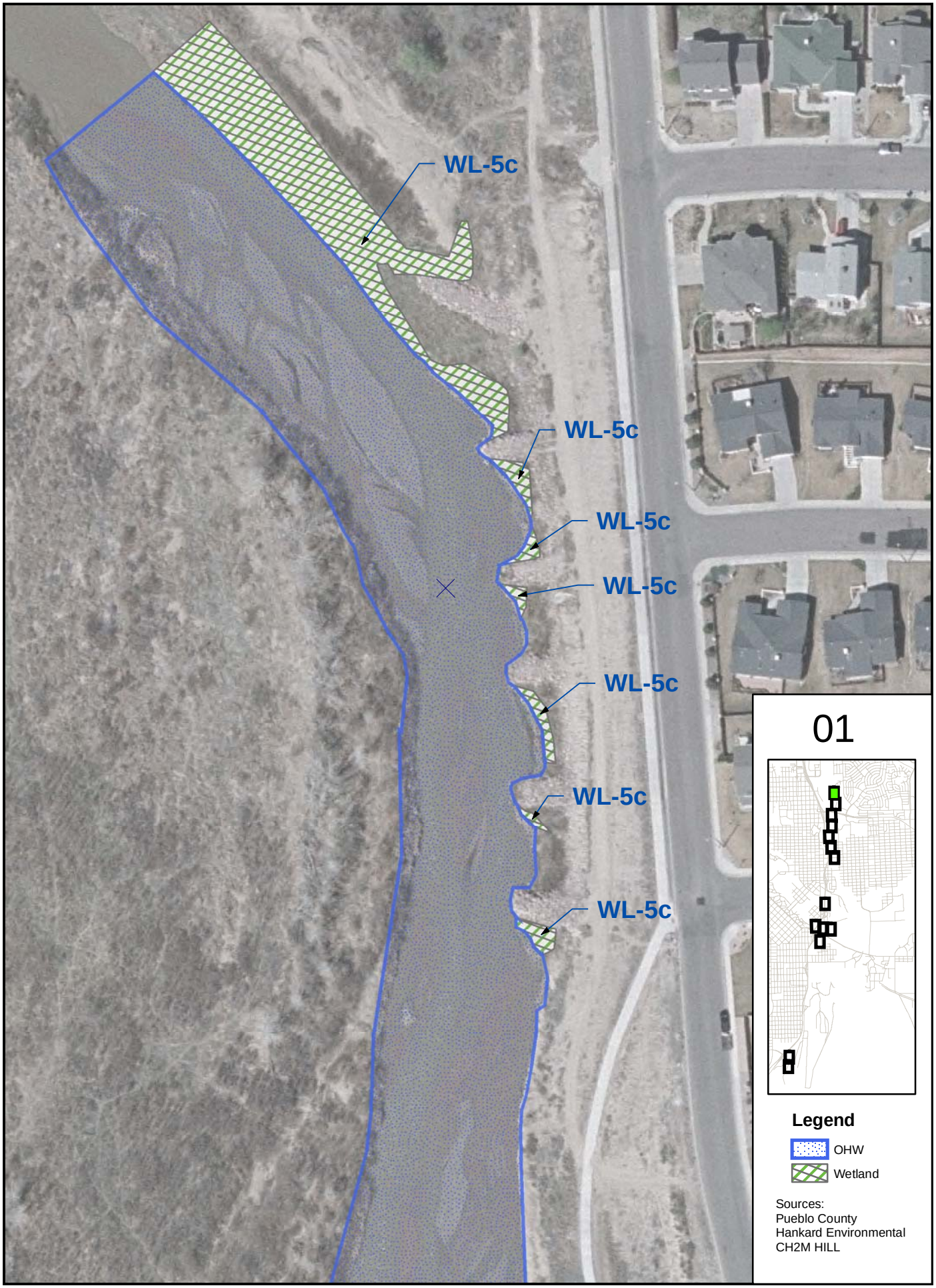
Please do not hesitate to contact me at 719-477-4926 should you have any questions or require any additional information.

Sincerely,

CH2M HILL

Brett Weiland
Environmental Planner

COS/Corps determination.doc
Enclosures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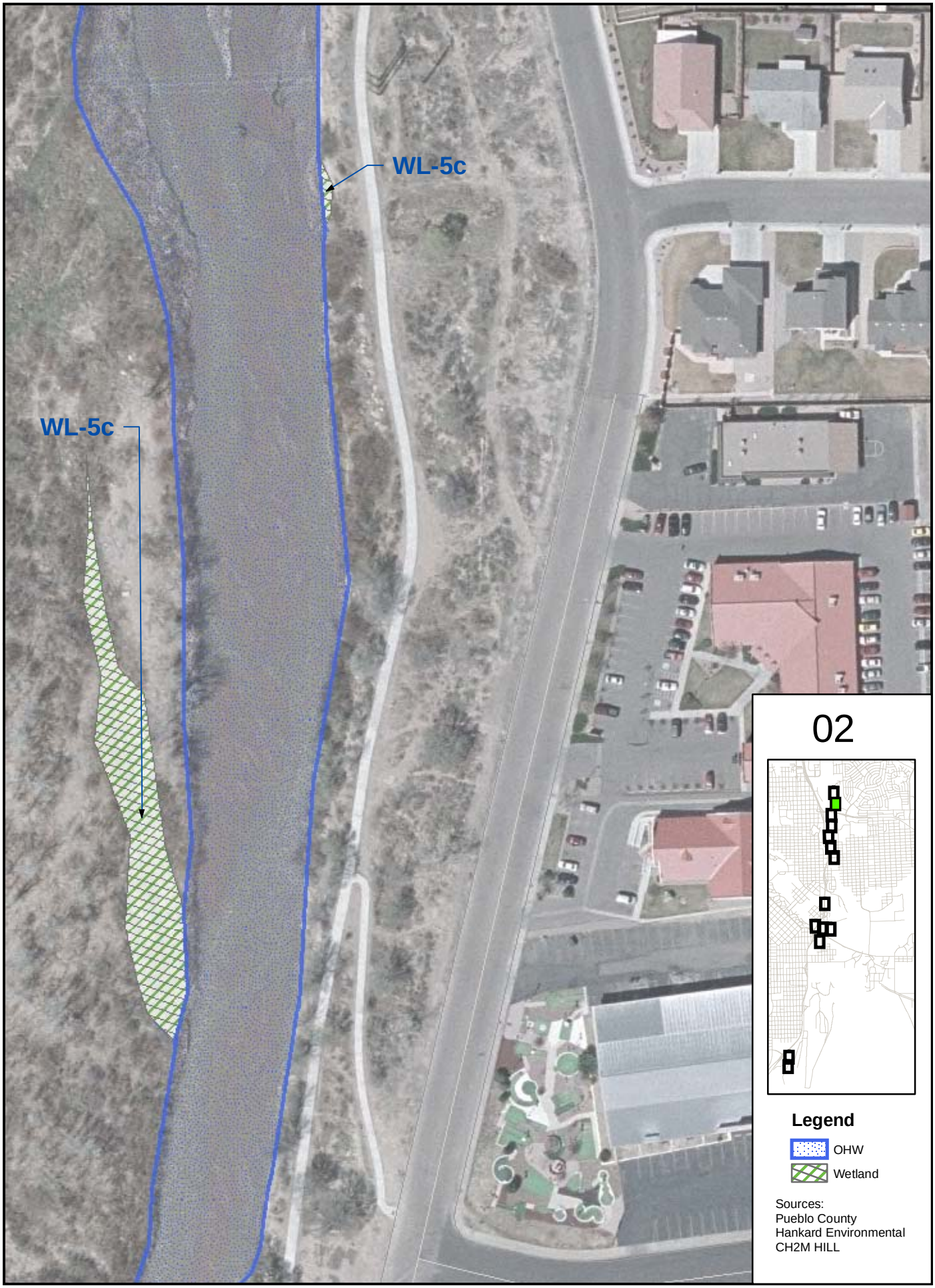
Hankard Environmental
CH2M HILL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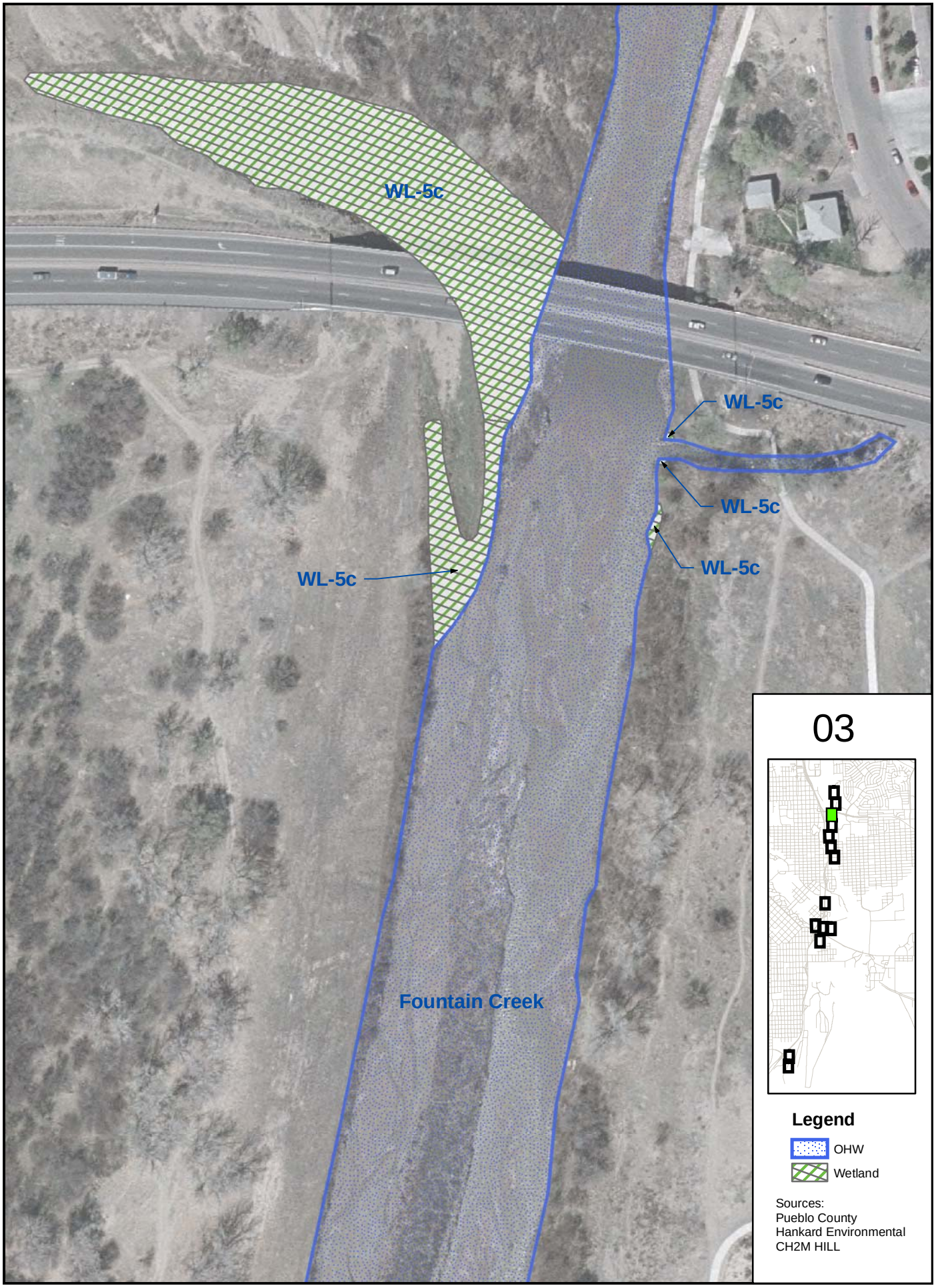
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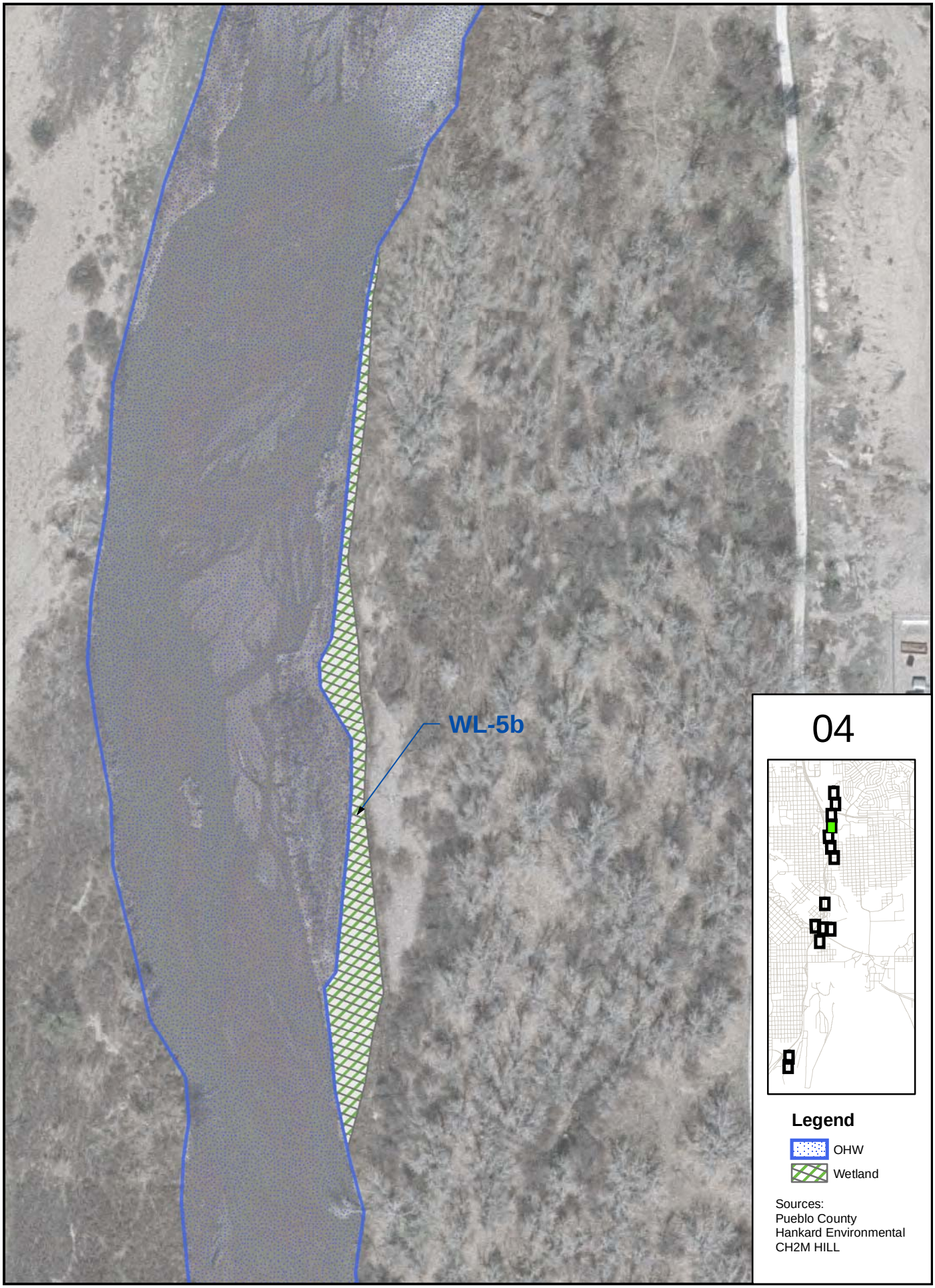
CH2M HILL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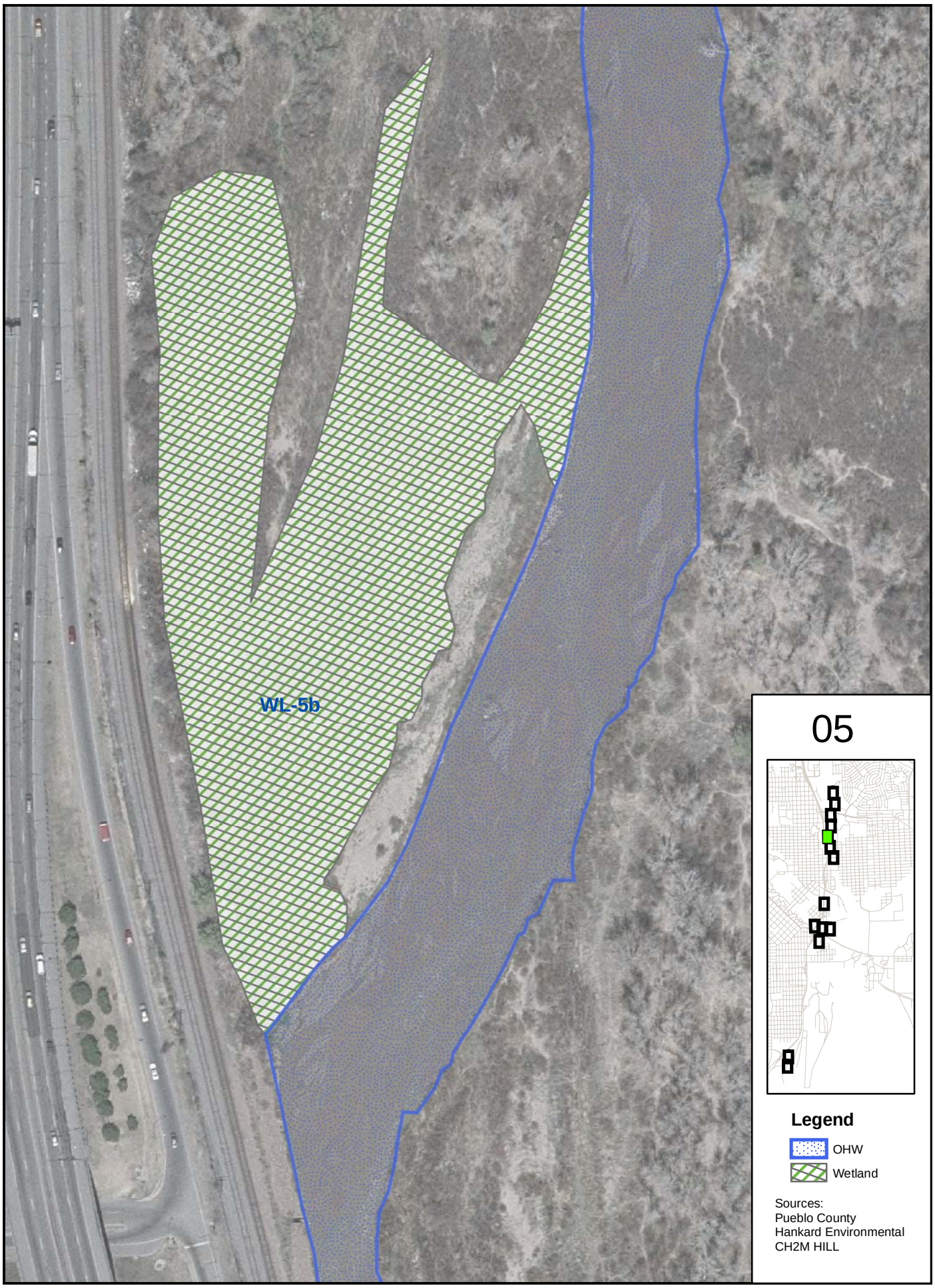
CH2M HILL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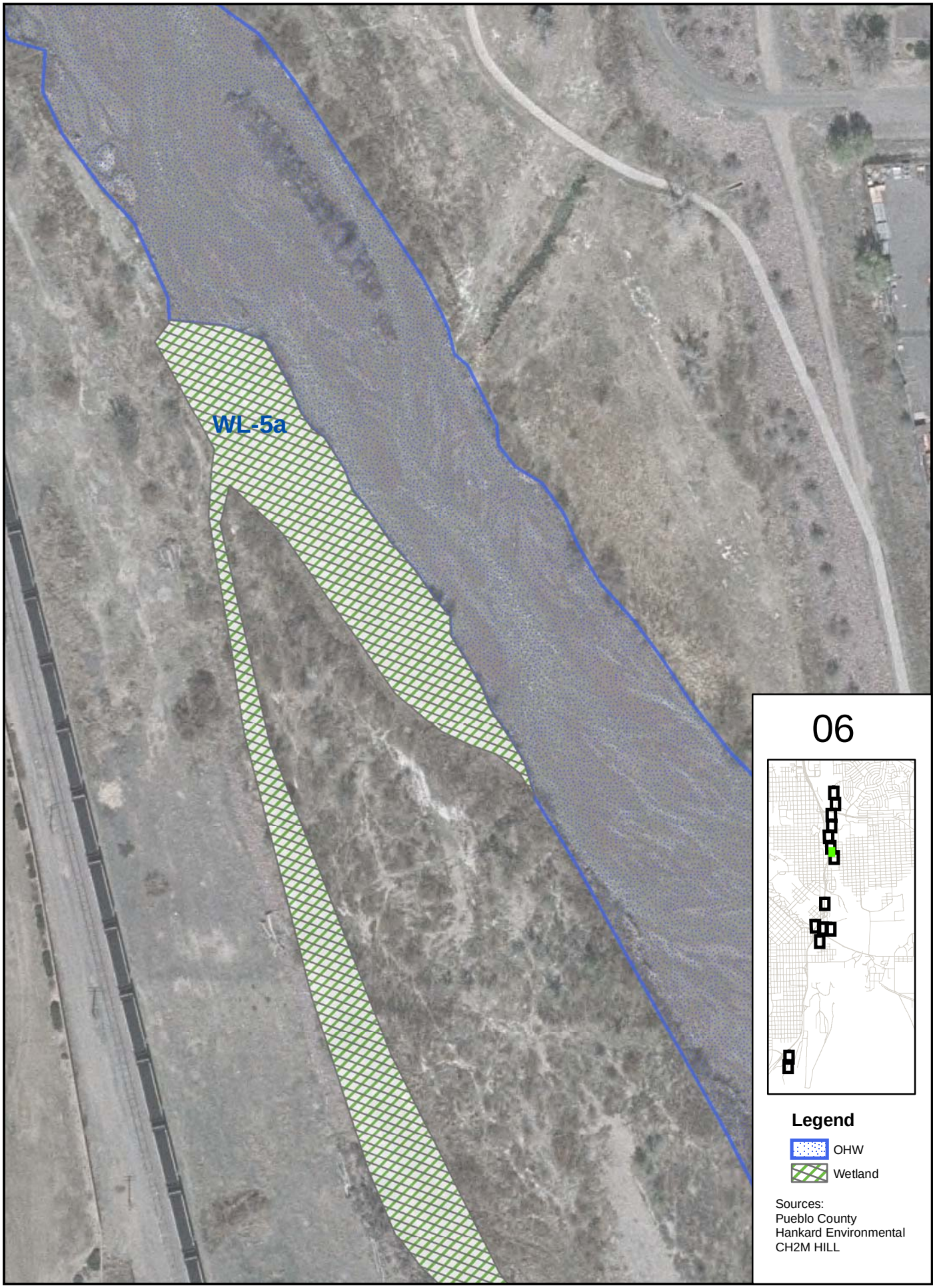
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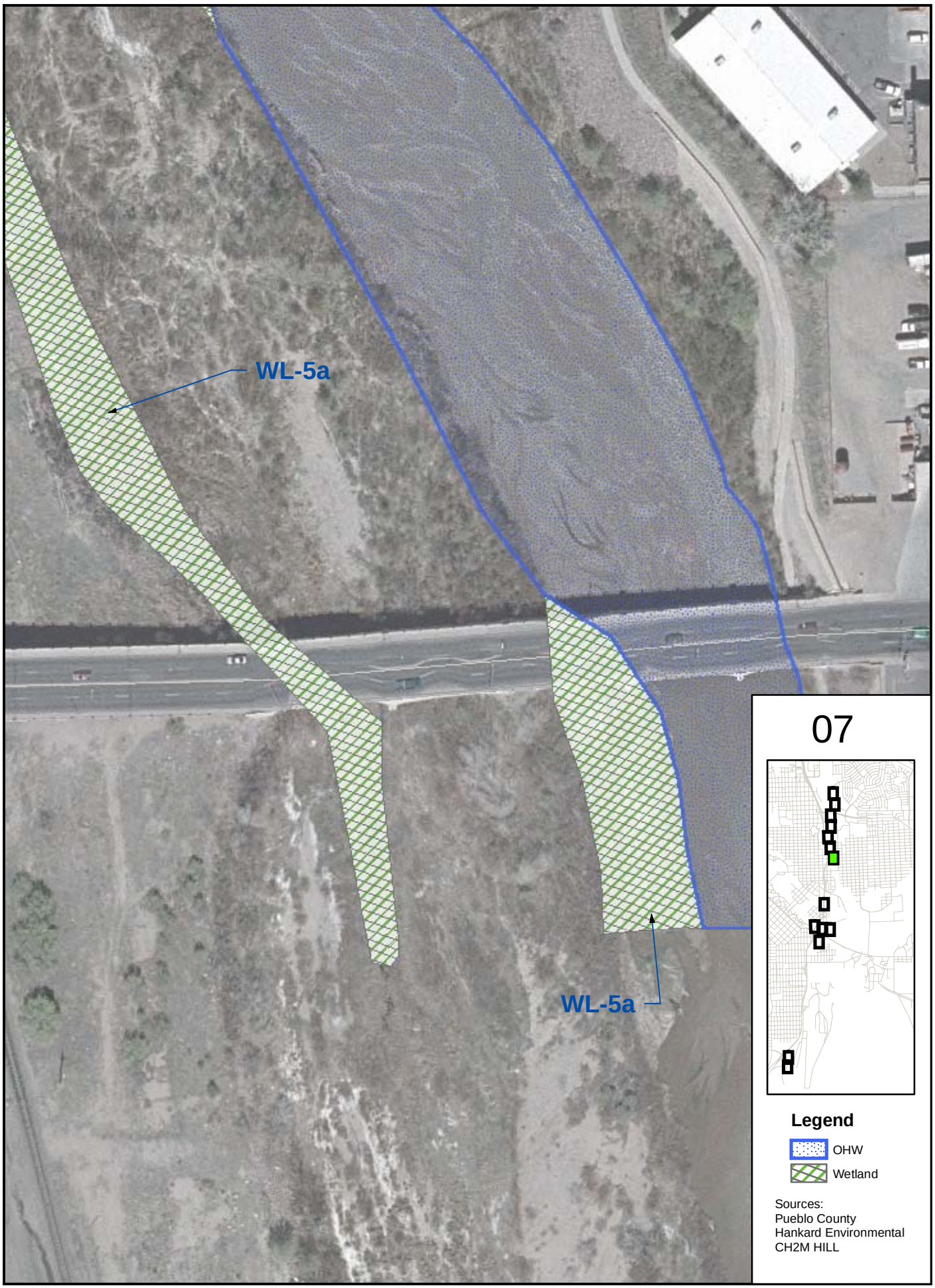
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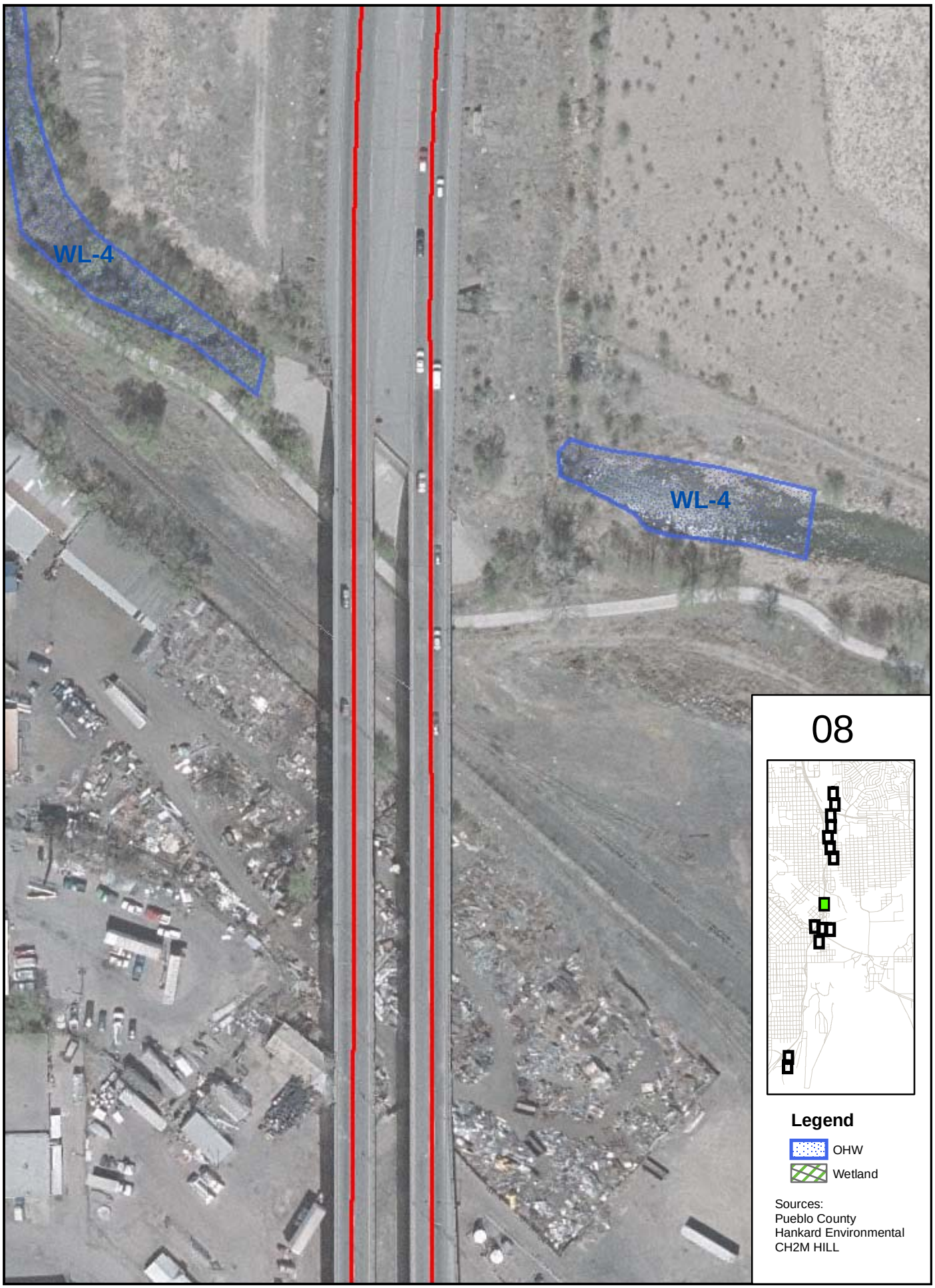
CH2M HILL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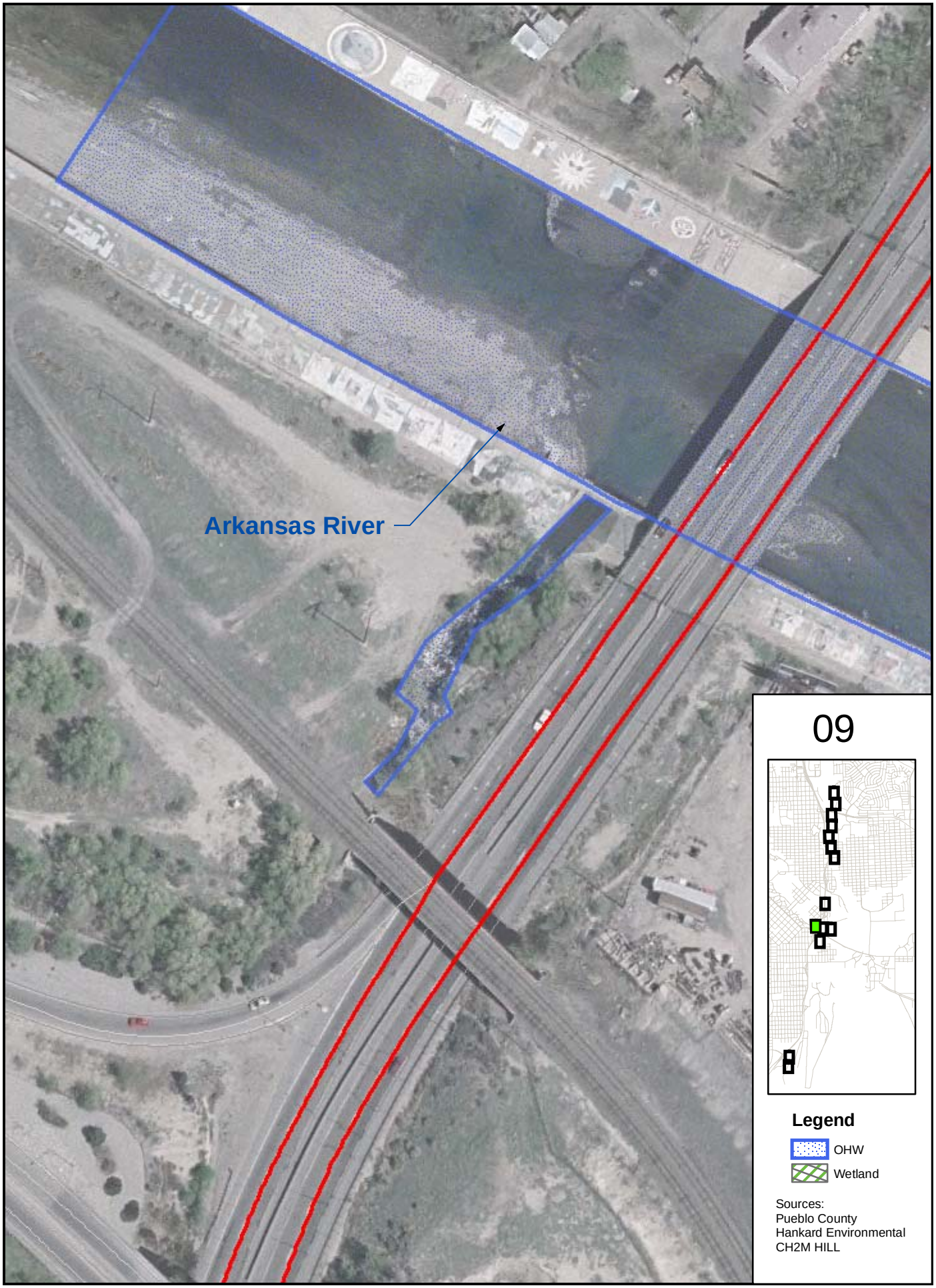
Hankard Environmental
CH2M HILL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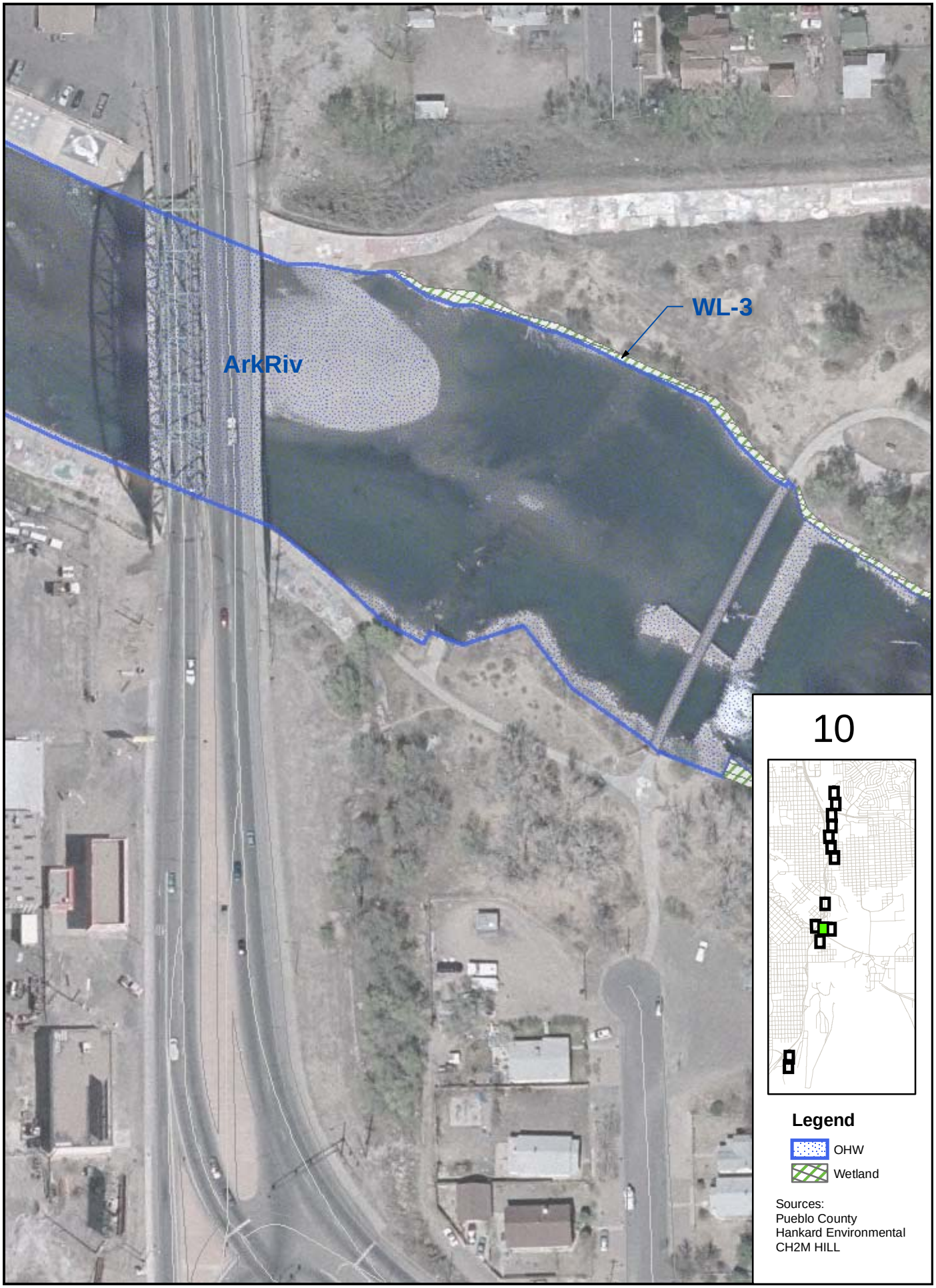
Hankard Environmental
CH2M HILL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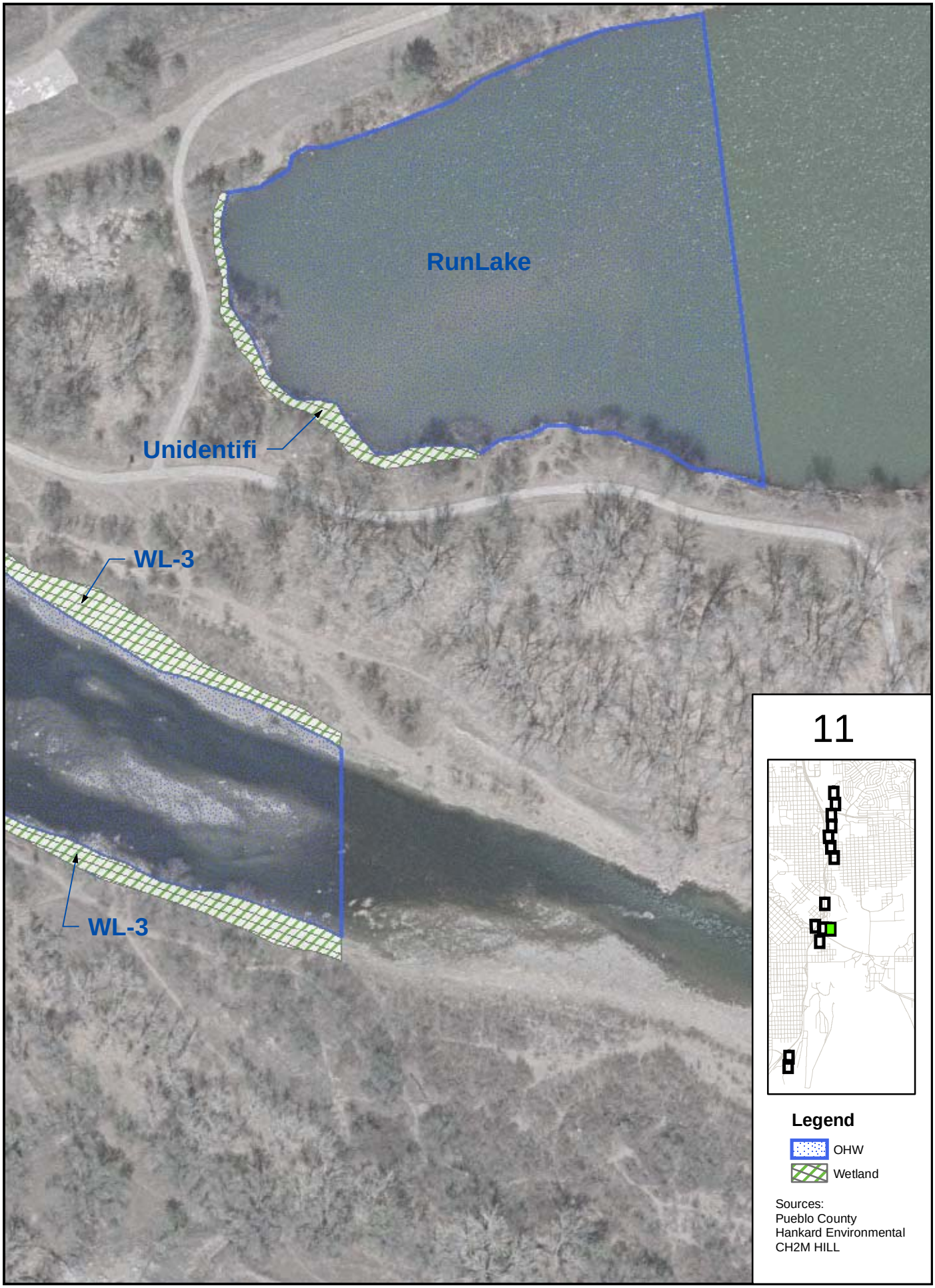
Hankard Environmental
CH2M HILL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Pueblo County
Hankard Environmental
CH2M HILL

WL-2
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OHW
Wetland
Sources:
Pueblo County
Hankard Environmental
CH2M HILL

WL-1
13
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OHW
Wetland
Sources:
Pueblo County
Hankard Environmental
CH2M HILL

WL-1
14
Legend
OHW
Wetland
Sources:
Pueblo County
Hankard Environmental
CH2M HILL

**DEPARTMENT OF THE ARMY**
**ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS**
**SOUTHERN COLORADO REGULATORY OFFICE**
**720 NORTH MAIN STREET SUITE 300**
**PUEBLO CO 81003-3047**

May 26, 2006

Operations Division
Regulatory Branch

Mr. Brett Weiland
CH2M Hill
19 South Tejon, Suite 100
Colorado Springs, CO 80903-1505

Dear Mr. Weiland:

This replies to your May 24, 2006 letter requesting a Section 404 jurisdictional determination for waters of the United States for the proposed I-25 improvements in Pueblo in Fountain Creek, the Arkansas River and unnamed tributaries of the Arkansas River, and wetlands adjacent to these waters in Pueblo, Pueblo County, Colorado. We have assigned Action No. 2002 00267 to this request.

We have evaluated the information you provided and concur with your findings of waters of the United States within the project site. With your letter, you provided wetland data forms and sheets showing the boundaries of wetlands. I visited the site with you on May 16, 2006. The following waters are regulated under provisions of Section 404 of the Clean Water Act.

a. Fountain Creek and adjacent wetlands labeled WL-5c and located at the U.S. Highway 50-East crossing and upstream to about White Dove Court (Sheets 01, 02, and 03),

b. Fountain Creek and adjacent wetlands labeled WL-5b and located from U.S. Highway 50 east crossing downstream to 13th Street (Sheets 04 and 05),

c. Fountain Creek and adjacent wetlands labeled WL-5a and located from 13th Street downstream to and including the 8th Street crossing (Sheets 06 and 07),

d. An unnamed tributary of the Arkansas River, known locally as H.A.R.P. or Phelps Creek, and adjacent wetlands labeled WL-4 and located near "D" Street (Sheet 08),

e. The Arkansas River and adjacent wetlands labeled WL-3 and located at the I-25 crossing (Sheets 09, 10 and 11),

f. Runyon Lake and adjacent wetlands labeled "unidentifi" (Sheet 11), and

g. An unnamed wetland channel which is tributary to the Arkansas River, labeled WL-2 and located at Santa Fe Avenue and Haven Place intersection (Sheet 12).

The wetlands and other waters of U.S. jurisdictional boundaries are as shown on Sheets 01 - 12 with one exception. On Sheet 08 (paragraph "d" above) and mapped as WL-4; wetlands are found adjacent to the stream only downstream of the I-25 culvert. Upstream of the I-25 culvert, the stream has concrete-lined banks and wetlands were not present.

A detention pond and drainage ditch with wetlands labeled WL-1 and located at South Pueblo Boulevard and Greenhorn Drive (Sheets 13 and 14) are not considered to be waters of the U.S. The wetlands are located within a drainage ditch and a pond which were created by excavating dry land and which do not have any tributary connection to another jurisdictional water. The WL-4 wetlands are not regulated under Section 404 of the Clean Water Act and a permit would not be needed for activities in them.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps' regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process and Request for Appeal form. If you request to appeal this determination you must submit a completed Appeal form to the Pacific Division Office at the following address:

Mr. Douglas R. Pomeroy
Division Review Office (ph 415-977-8035, fax 415-977-8047)
South Pacific Division
333 Market Street
San Francisco, CA 94105

In order for an Appeal to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the Appeal form. Should you decide to submit an Appeal form, it must be received at the above address by July 25, 2006.

It is not necessary to submit an Appeal form to the Division office if you do not object to the determination in this letter.

This jurisdictional determination will be valid for 5 years from the date of this letter unless new information warrants revision of the determination before the expiration date. Please note that this Corps of Engineers' wetland delineation concurrence is specifically for Clean Water Act jurisdiction and does not serve the purposes of the Food Security Act or other federal, state, or local requirements.

A Department of the Army permit may be required for the discharge of dredged or fill material into these waters. If you have any questions about this determination or permit requirements, please feel free to contact me at (719) 543-6914 or by email at anita.e.culp@usace.army.mil.

Sincerely,

Anita E. Culp
Senior Project Manager

Enclosure

# NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

| Applicant: Colorado Department of Transportation | File Number: 2002 00267 | Date: 5-26-06 |
|---|---|---|
| Attached is: | | See Section below |
| | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) | A |
| | PROFFERED PERMIT (Standard Permit or Letter of permission) | B |
| | PERMIT DENIAL | C |
| XX | APPROVED JURISDICTIONAL DETERMINATION | D |
| | PRELIMINARY JURISDICTIONAL DETERMINATION | E |

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT ENGINEER for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the DISTRICT ENGINEER within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the DISTRICT ENGINEER will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the DISTRICT ENGINEER will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the DISTRICT ENGINEER for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) ENGINEER (address on reverse). This form must be received by the DIVISION ENGINEER within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) ENGINEER. This form must be received by the DIVISION (not district) ENGINEER within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the DIVISION (not district) ENGINEER (address on reverse). This form must be received by the DIVISION ENGINEER within 60 days of the date of this notice. Exception: JD appeals based on new information must be submitted to the DISTRICT ENGINEER within 60 days of the date of this notice.

EXCEPTION: Appeals of Approved Jurisdictional Determinations based on new information must be submitted to the District engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

## SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

## POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
DISTRICT ENGINEER
Albuquerque District, Corps of Engineers
Attn: CESPA-OD-R, Regulatory Branch
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109-3435
(505) 342-3283

If you only have questions regarding the appeal process you may also contact:
DIVISION ENGINEER
Army Engineer Division, South Pacific, CESPD-CM-O
Attn: Doug Pomeroy, Administrative Appeal Review Officer
333 Market Street, San Francisco, CA 94105 (415-977-8035)
(Use this address for submittals to the DIVISION ENGINEER)

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

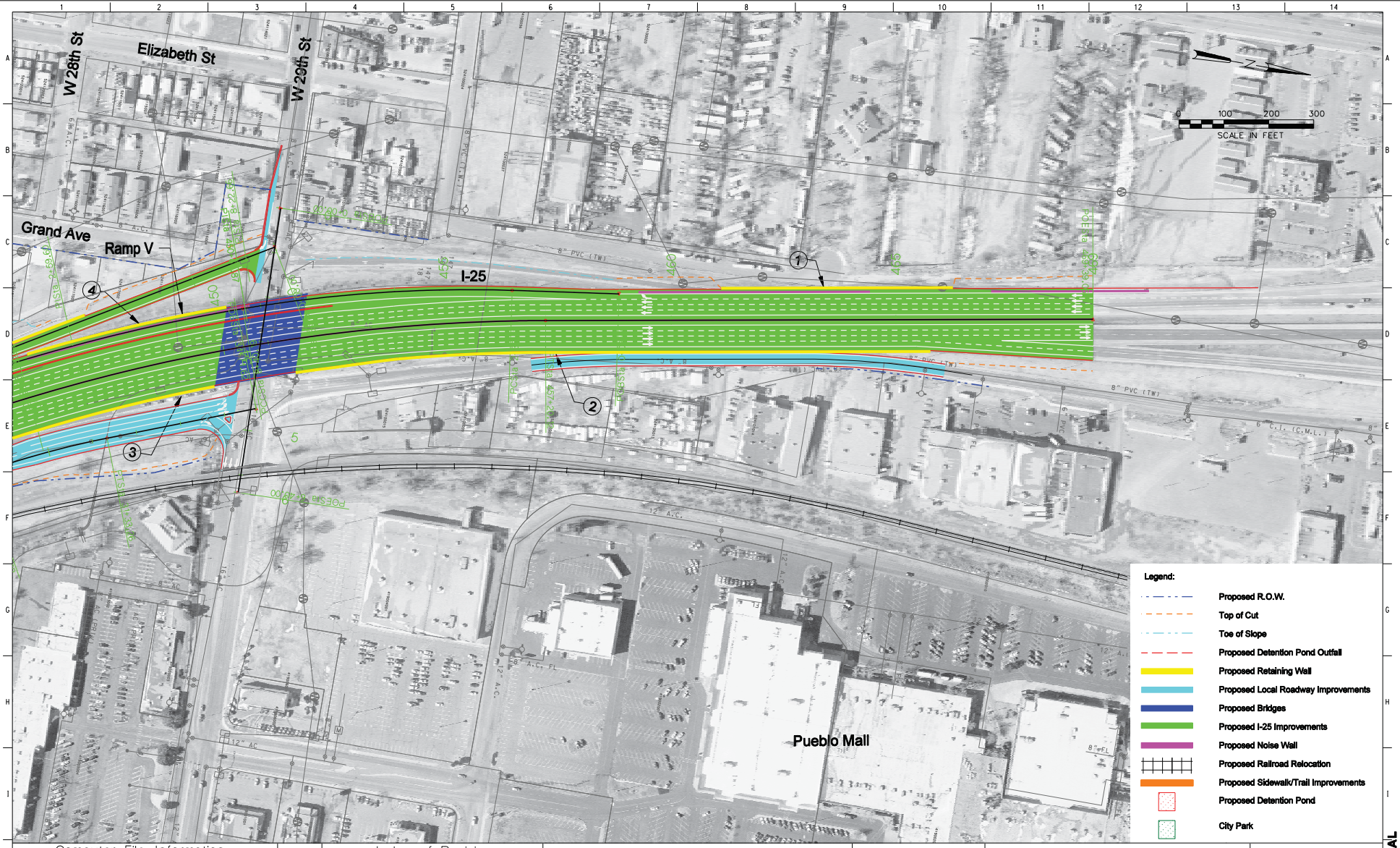
| Date: | Telephone number: |
| --- | --- |
| _____ Signature of appellant or agent. | |

# Appendix E
# Detailed Alternative Maps

APPENDIX E

# Detailed Alternative Maps

# Existing I-25 Alternative

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the New Pueblo Freeway

COLORADO DEPARTMENT OF TRANSPORTATION
REGION 2

| Basic Engineering | |
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# EXISTING ALIGNMENT ALTERNATIVE STA 446+00 TO STA 469+39.06 (POE)

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| Detailer: | R. Swann | | |
| Sheet Subset: | | Subset Sheets: | |

| Project No./Code |
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| IM-0251-156 |
| 12831 |
| Sheet Number |

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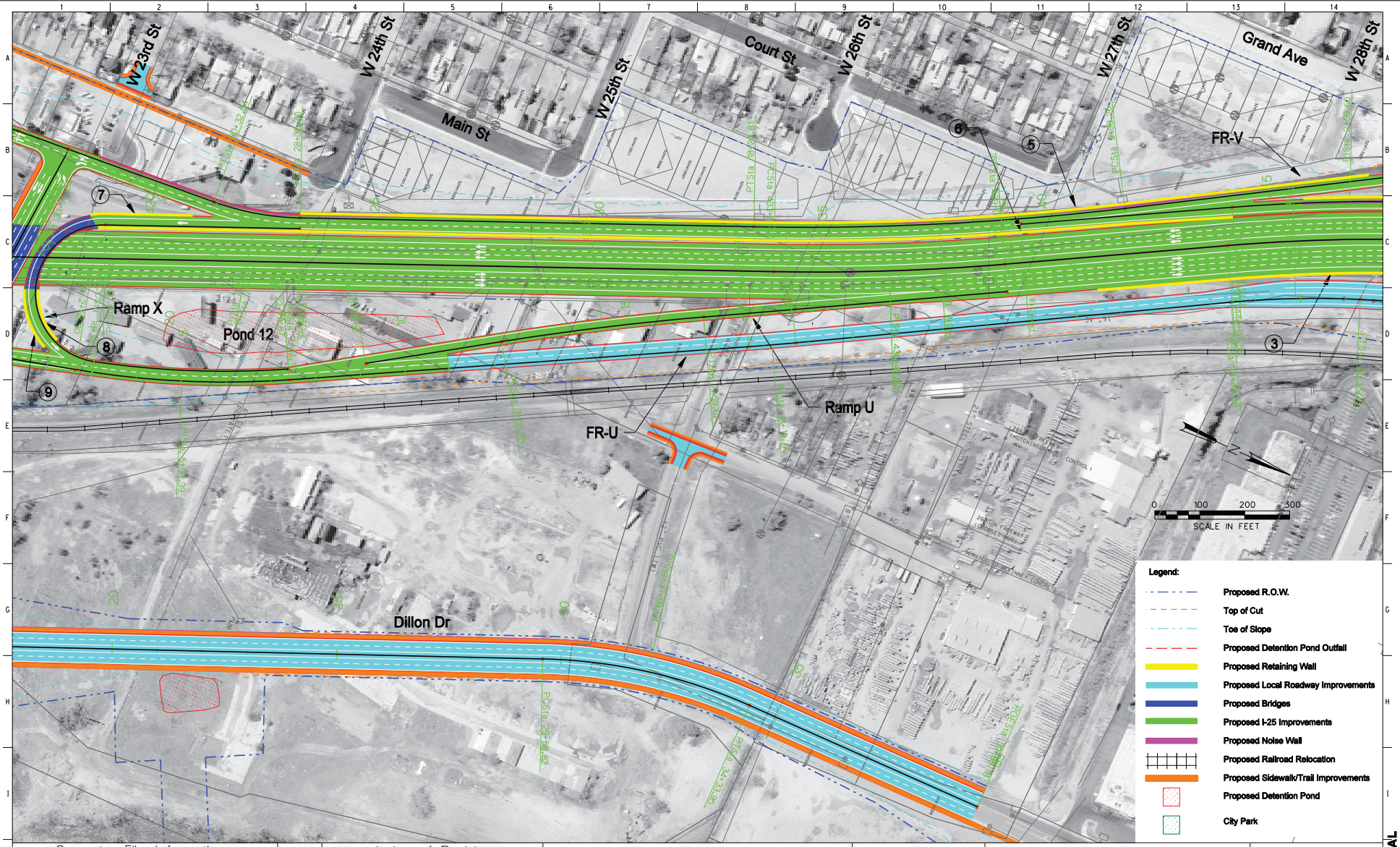


(Preliminary Stage Only)

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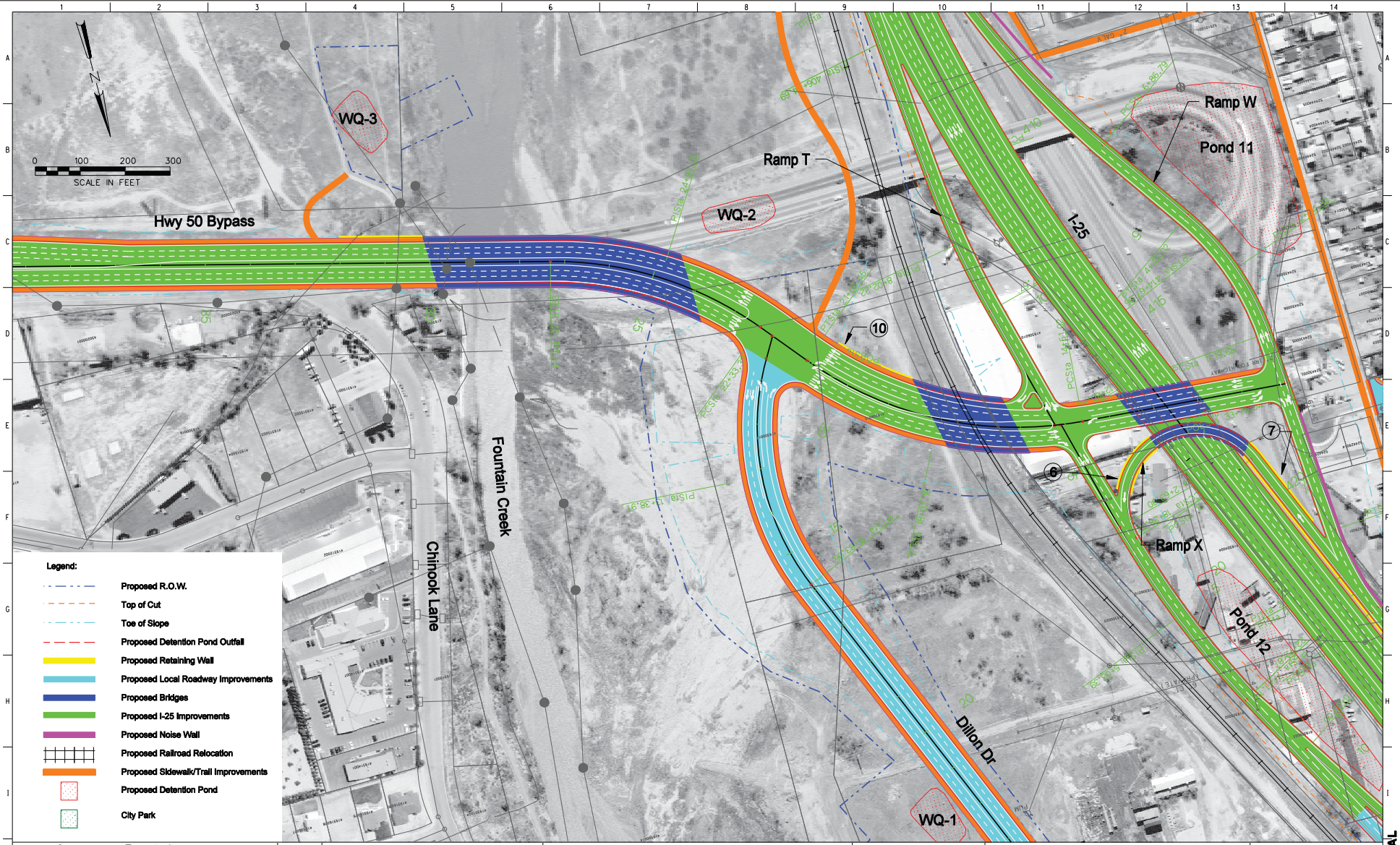


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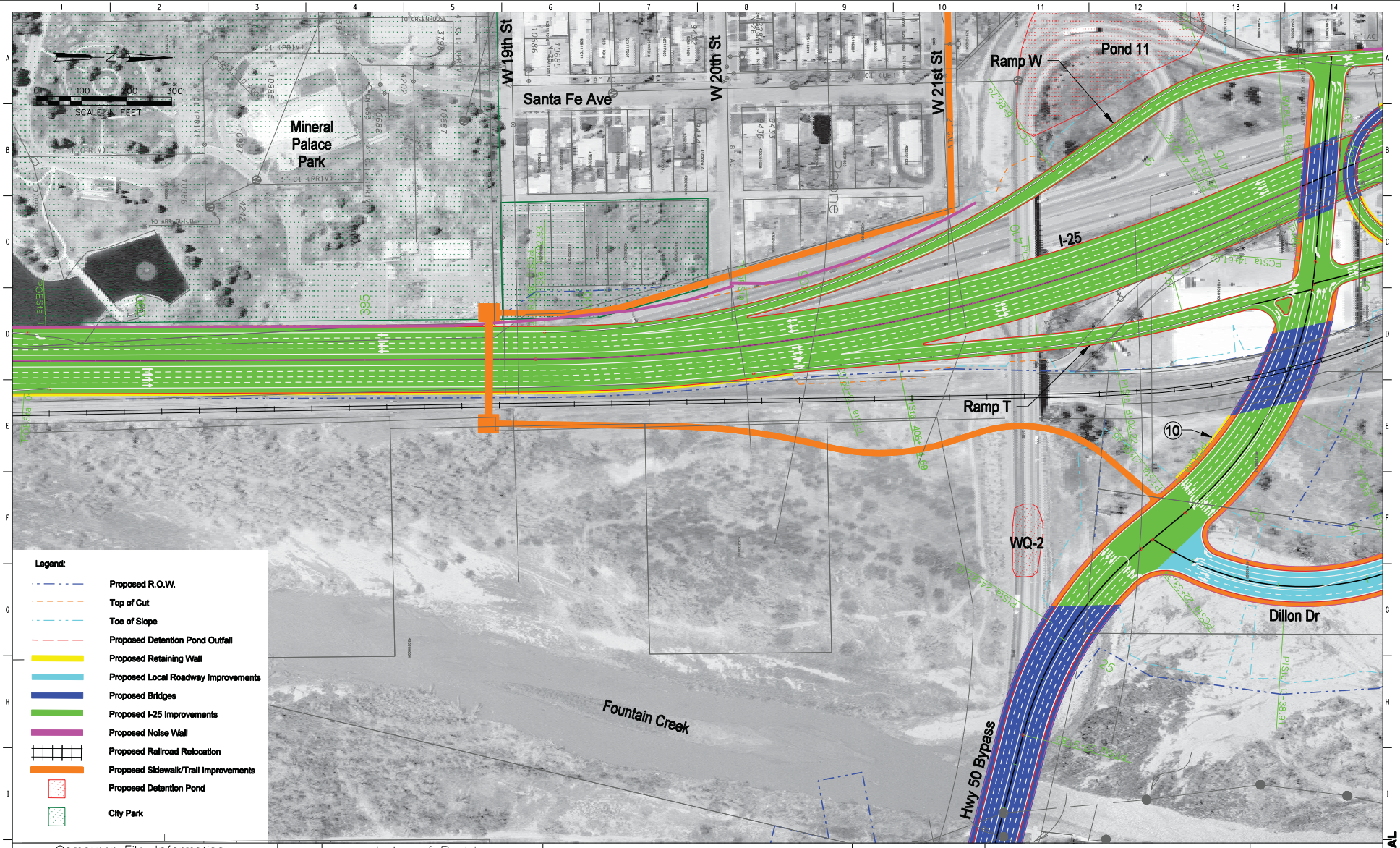


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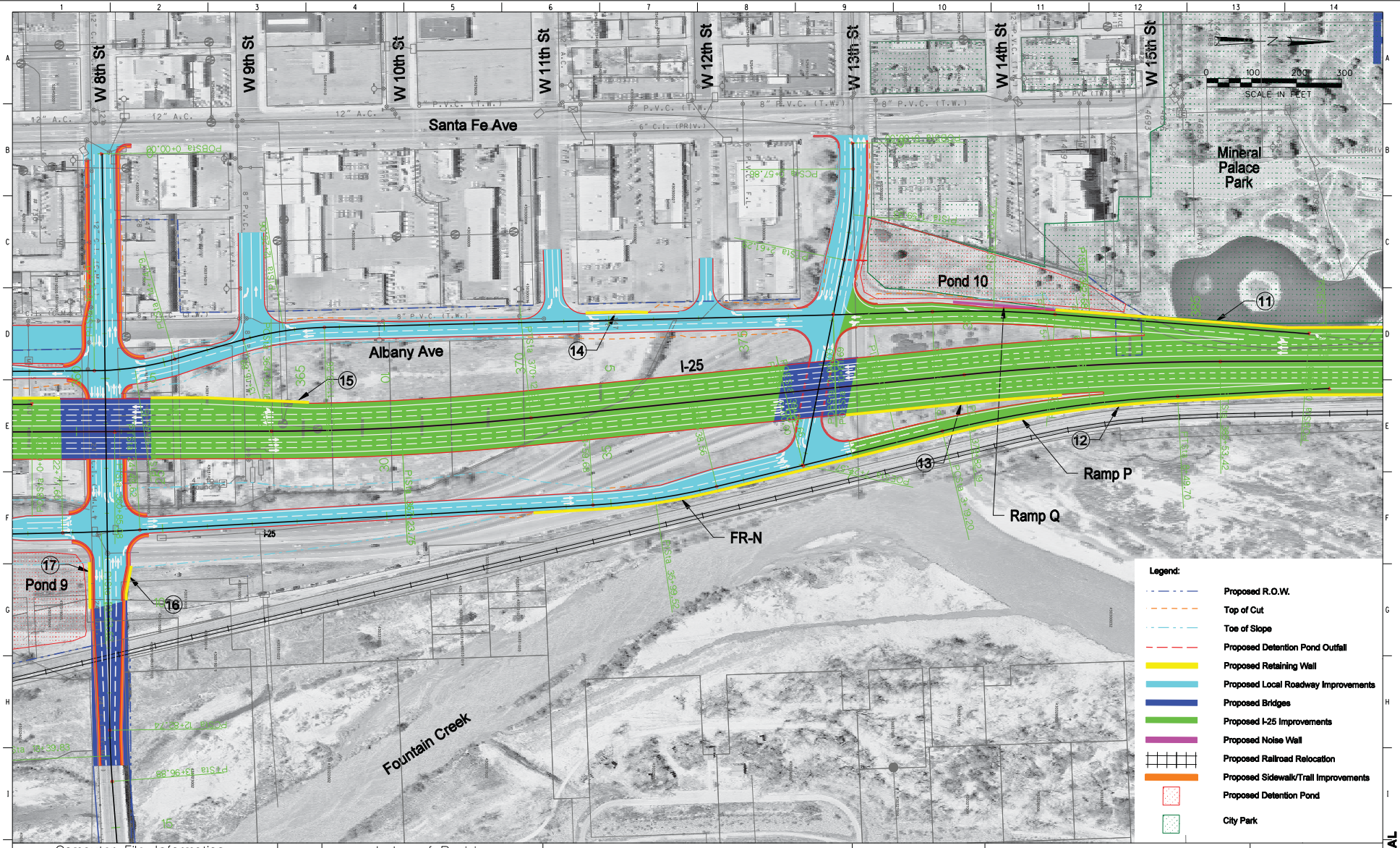


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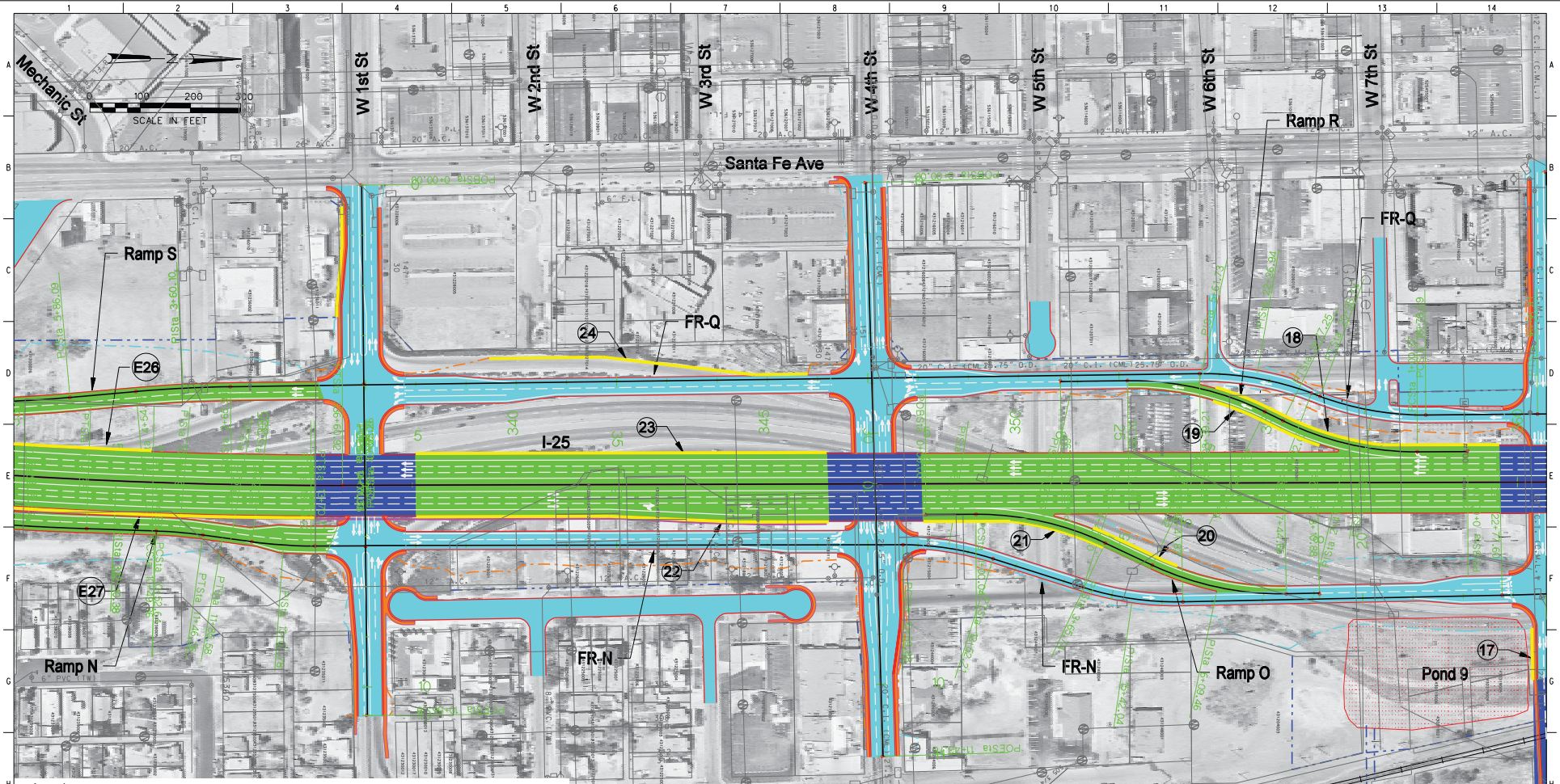


Legend:

- Proposed R.O.W.
- Top of Cut
- Toe of Slope
- Proposed Detention Pond Outfall
- Proposed Retaining Wall
- Proposed Local Roadway Improvements
- Proposed Bridges
- Proposed I-25 Improvements
- Proposed Noise Wall
- Proposed Railroad Relocation
- Proposed Sidewalk/Trail Improvements
- Proposed Detention Pond
- City Park

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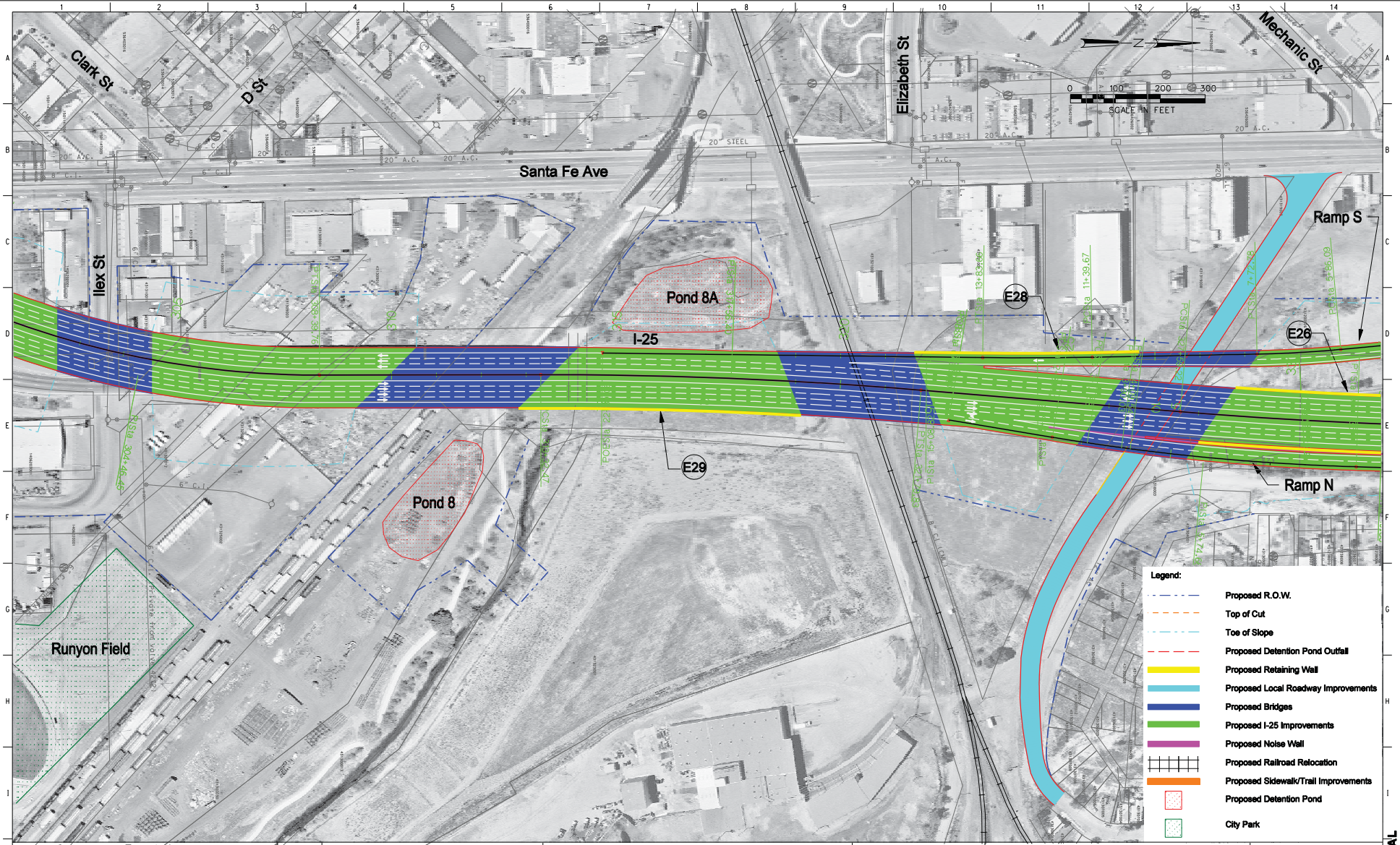


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**EXISTING ALIGNMENT ALTERNATIVE**
**STA 302+00 TO STA 331+00**

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| Detailer: | R. Swann | | |
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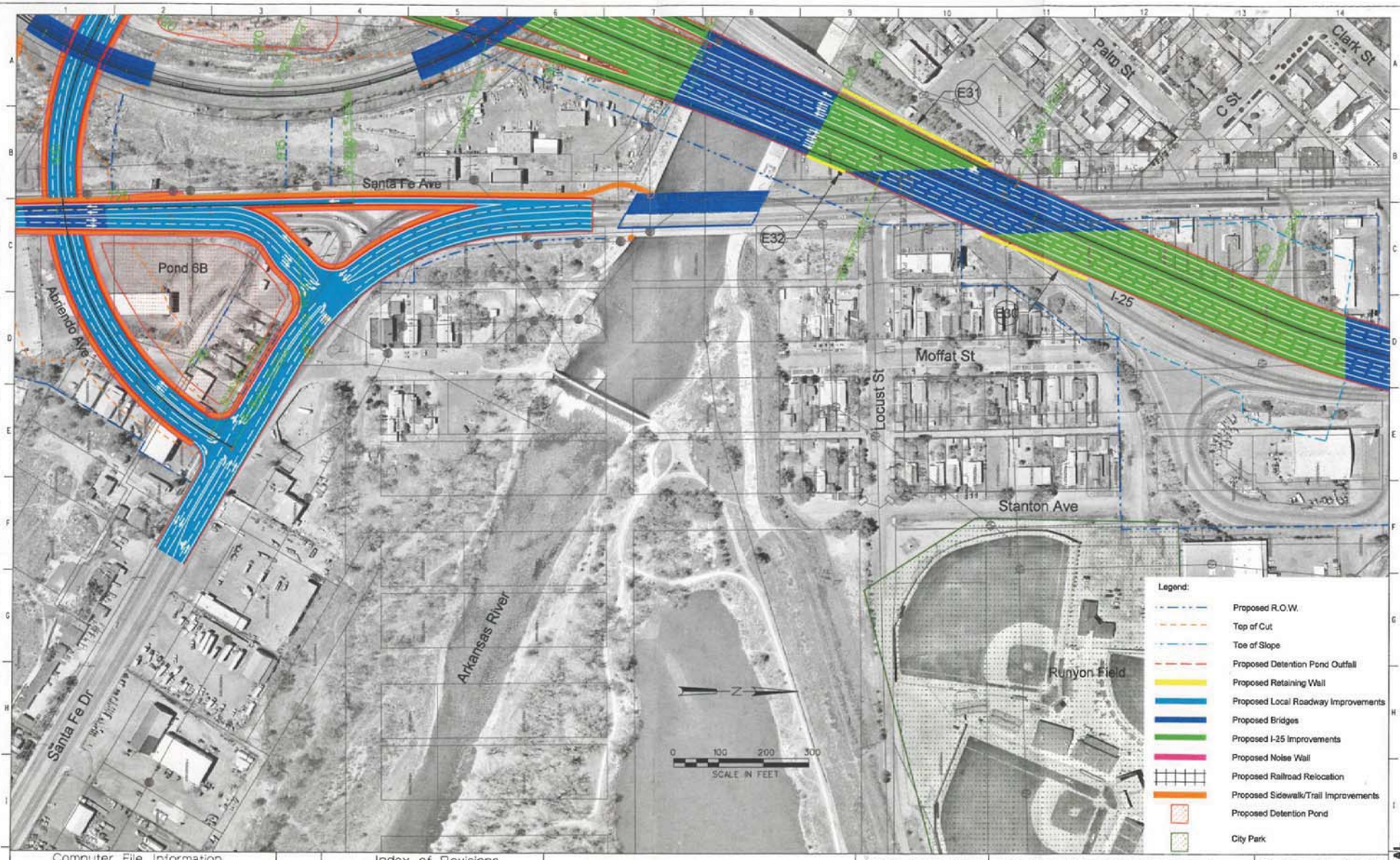


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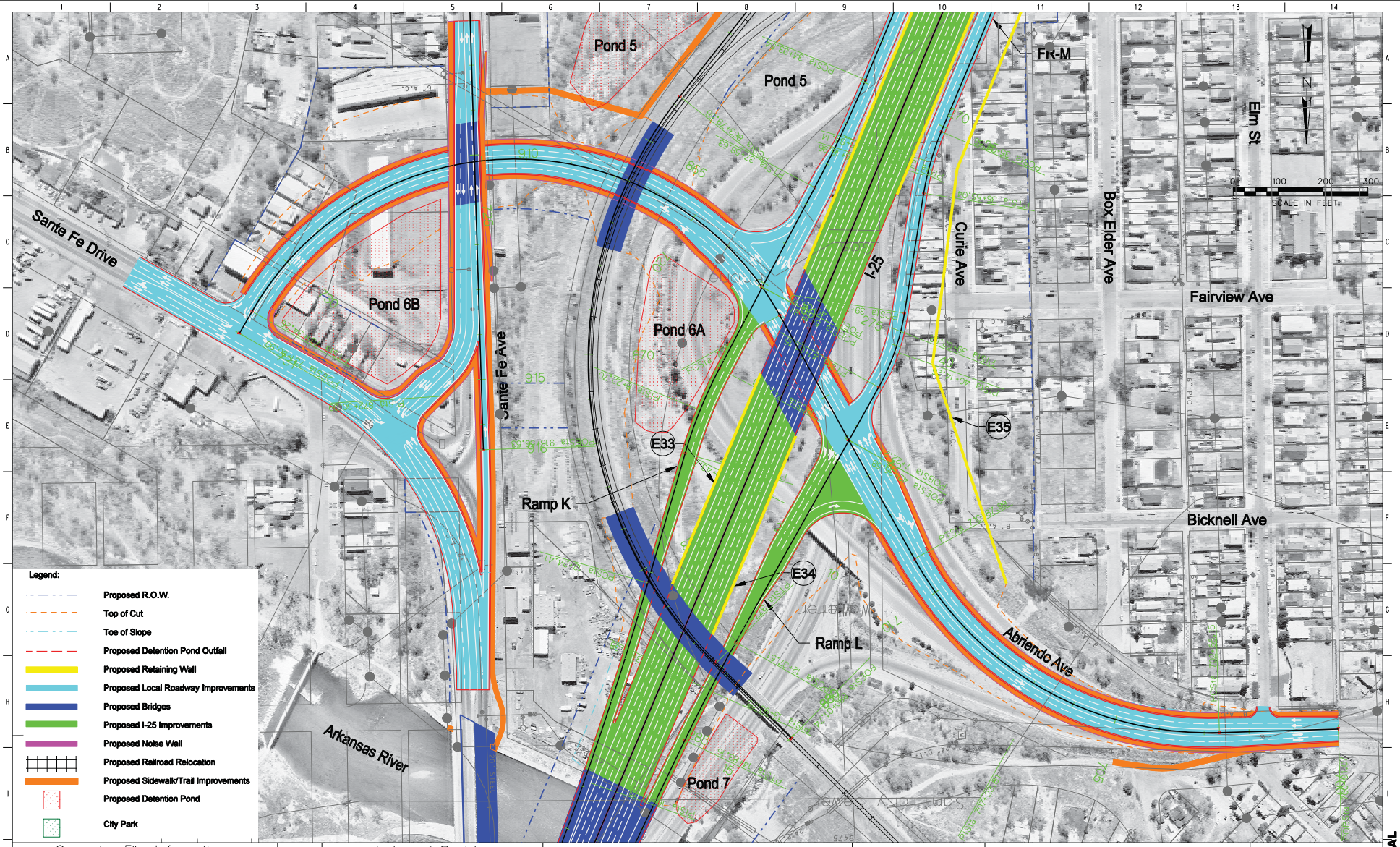


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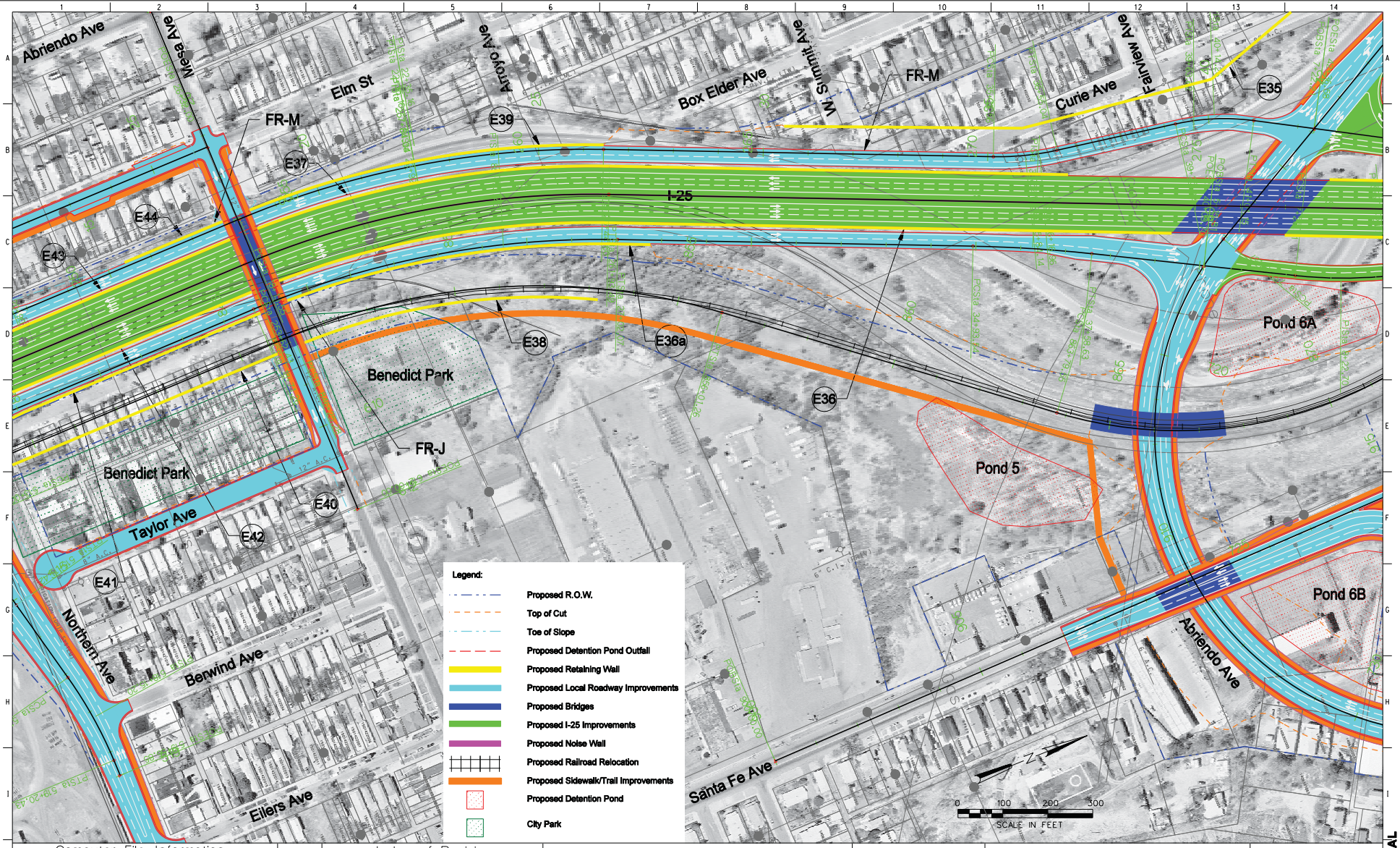


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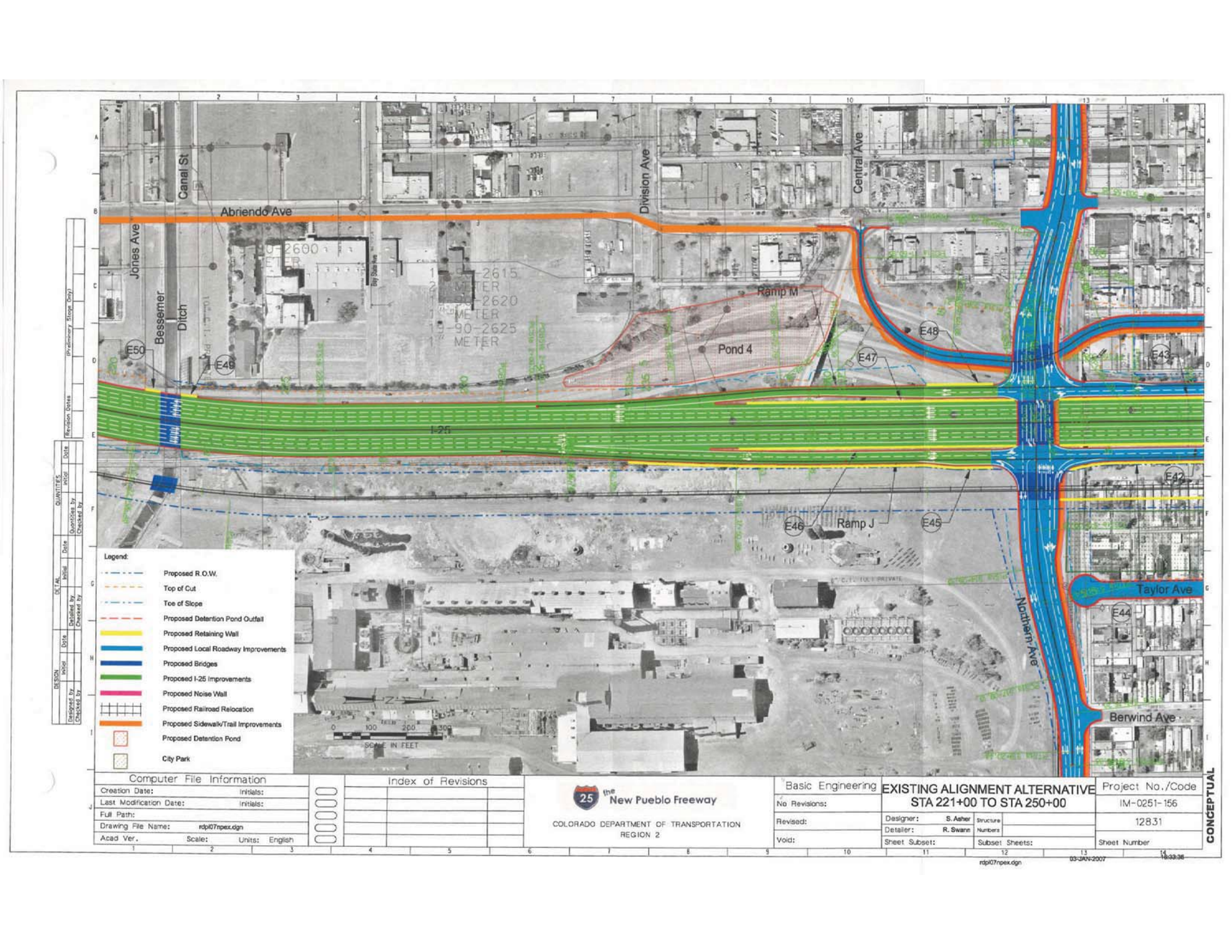
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E46
Ramp J
E45
E42
Taylor Ave
E44
Northern Ave
Berwind Ave
Legend:
Proposed R.O.W.
Top of Cut
Toe of Slope
Proposed Detention Pond Outfall
Proposed Retaining Wall
Proposed Local Roadway Improvements
Proposed Bridges
Proposed I-25 Improvements
Proposed Noise Wall
Proposed Railroad Relocation
Proposed Sidewalk/Trail Improvements
Proposed Detention Pond
City Park
SCALE IN FEET
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(Preliminary Slope Only)
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REGION 2
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Void:
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STA 221+00 TO STA 250+00
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Detailer: R. Swann
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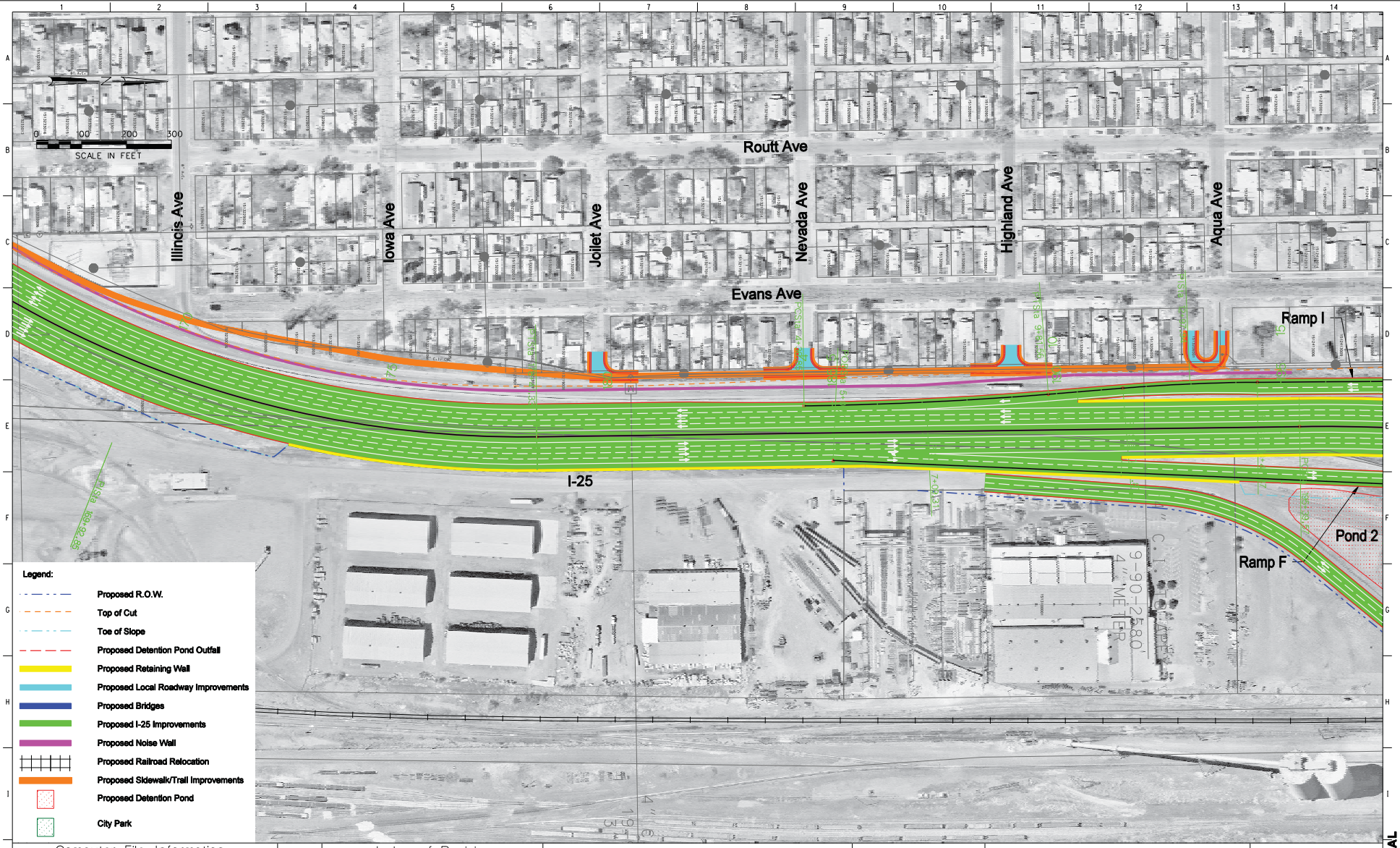


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COLORADO DEPARTMENT OF TRANSPORTATION
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| Basic Engineering | EXISTING ALIGNMENT ALTERNATIVE STA 145+00 TO STA 170+00 | | | Project No./Code |
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| No Revisions: | Designer: S. Asher | Structure Numbers | | IM-0251-156 |
| Revised: | Detailer: R. Swann | | | 12831 |
| Void: | Sheet Subset: | Subset Sheets: | | Sheet Number |

CONCEPTUAL

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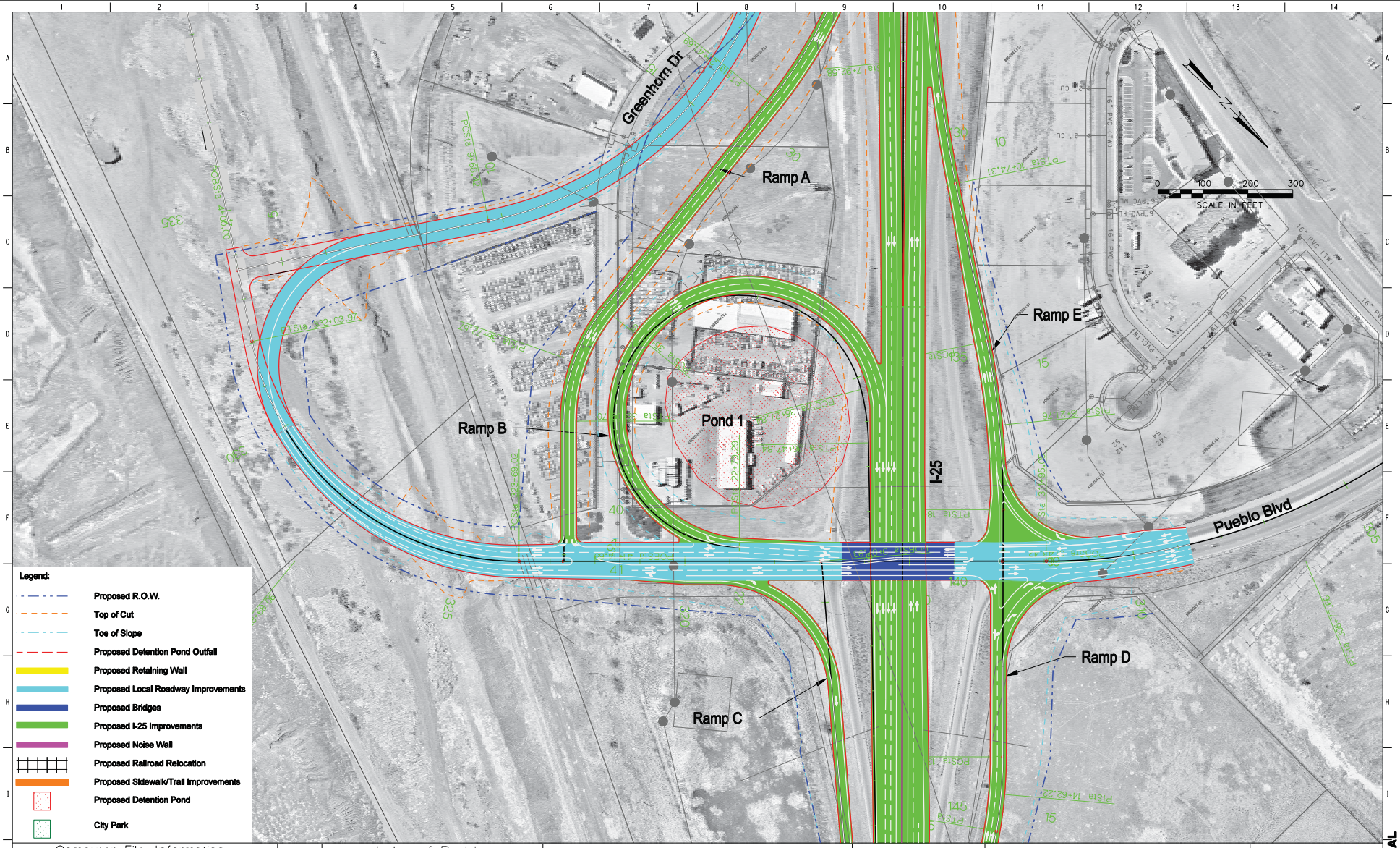


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| Revised: | Detailer: R. Swann | | | 12831 |
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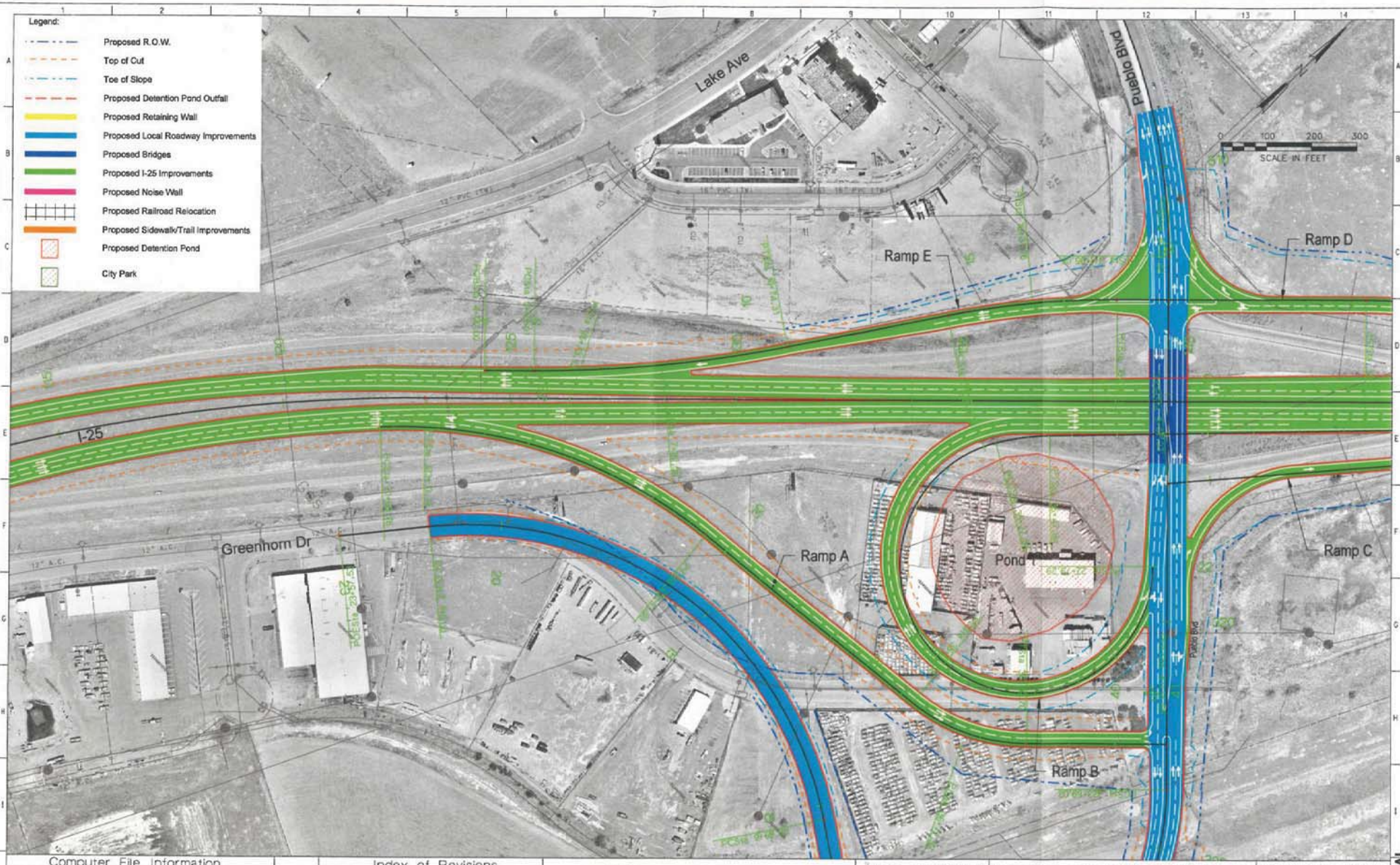


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# EXISTING ALIGNMENT ALTERNATIVE STA 115+00 TO STA 145+00

Designer: S. Asher | Structure Numbers:
Detailer: R. Swann
Sheet Subset: | Subset Sheets:

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IM-0251-156
12831
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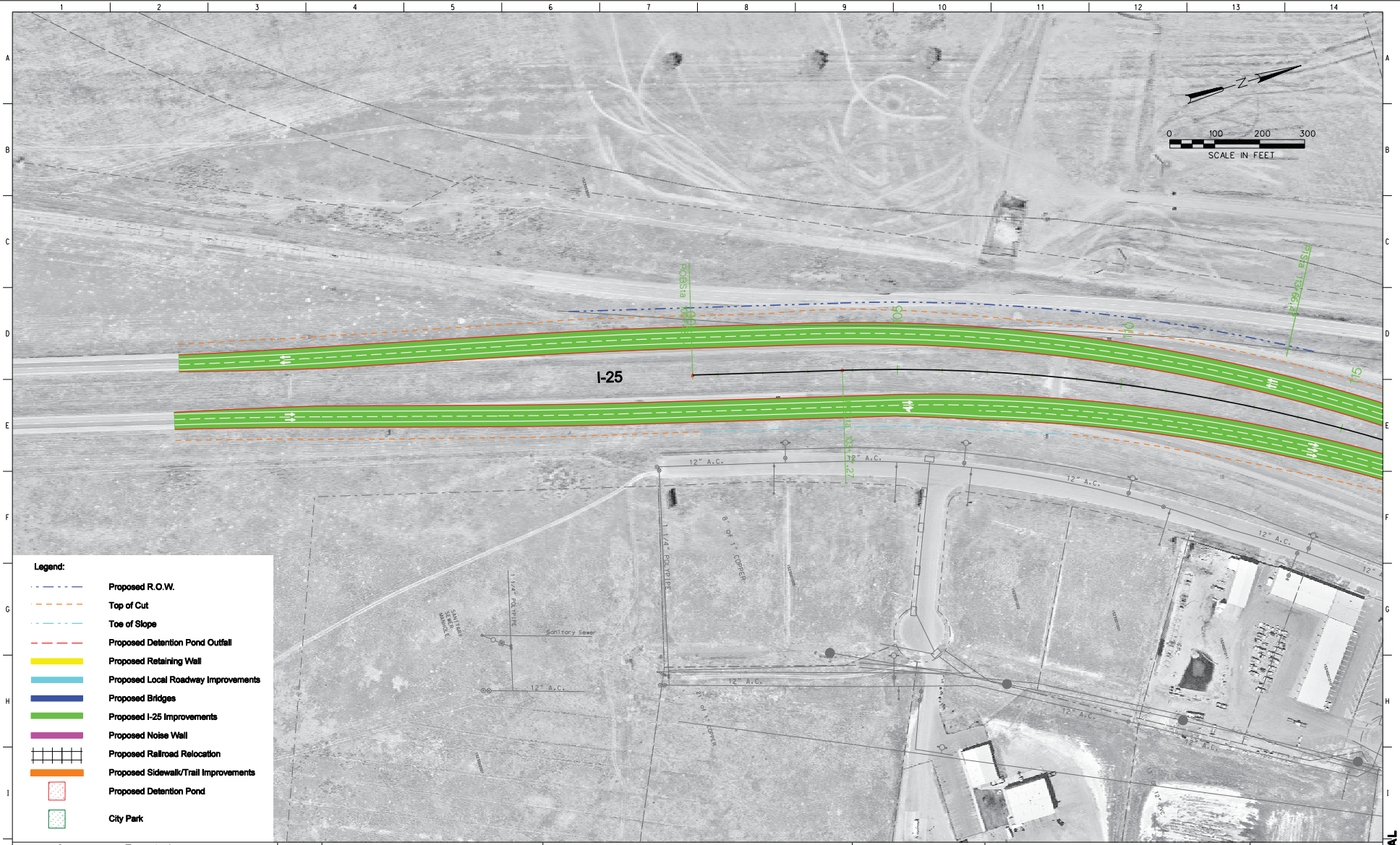


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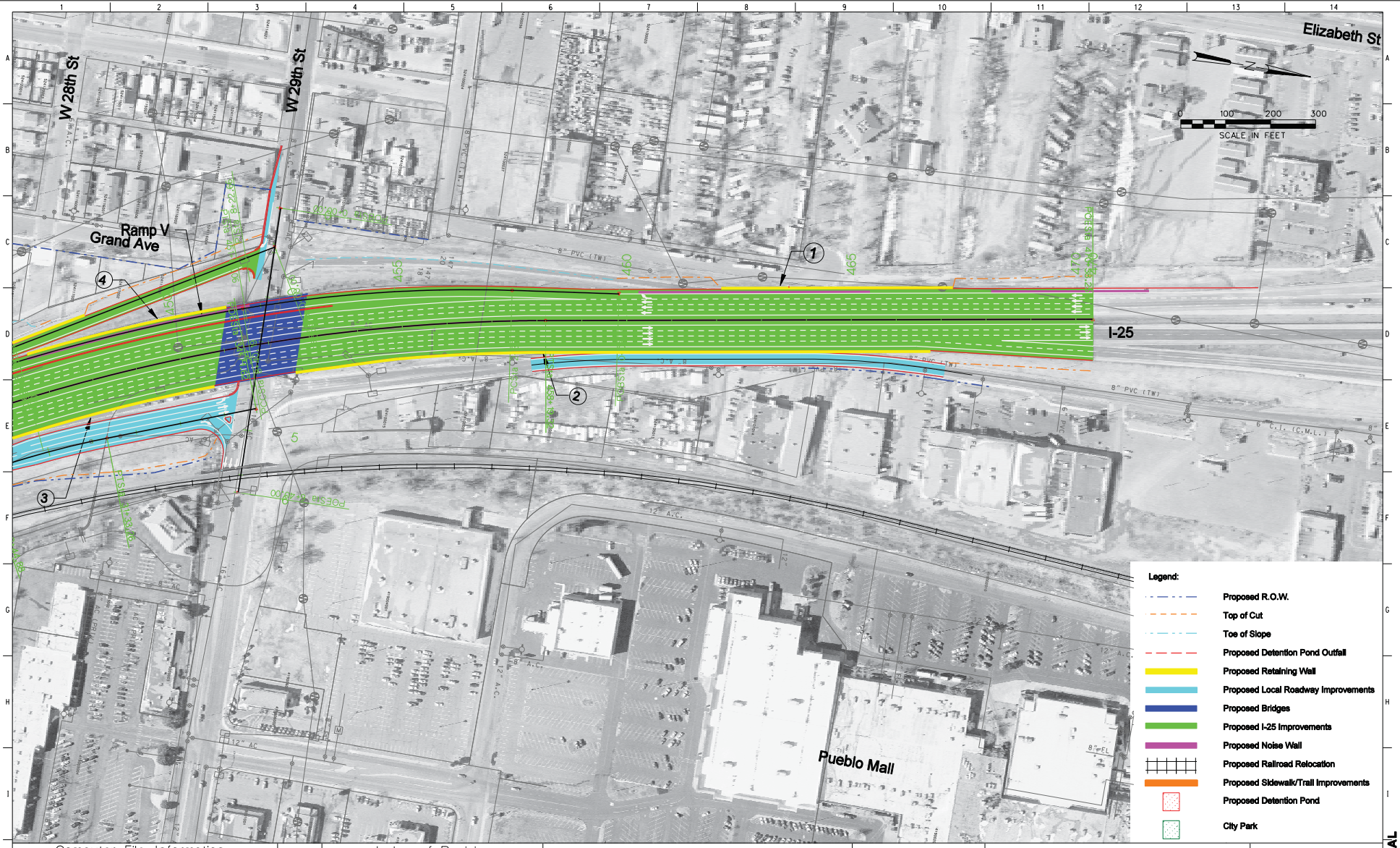


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# MODIFIED ALIGNMENT ALTERNATIVE STA 446+00 TO STA 469+39.06 (POE)

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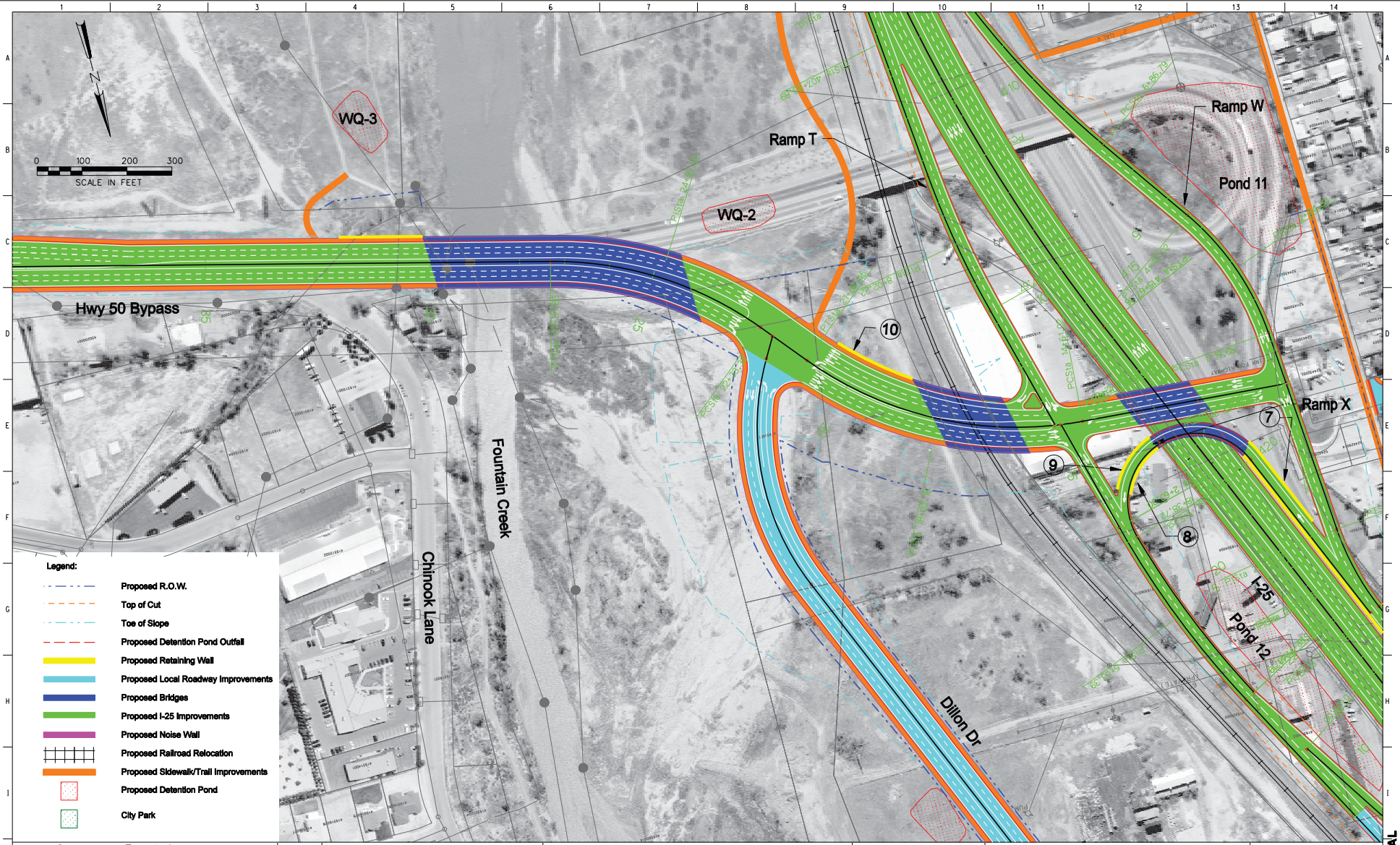


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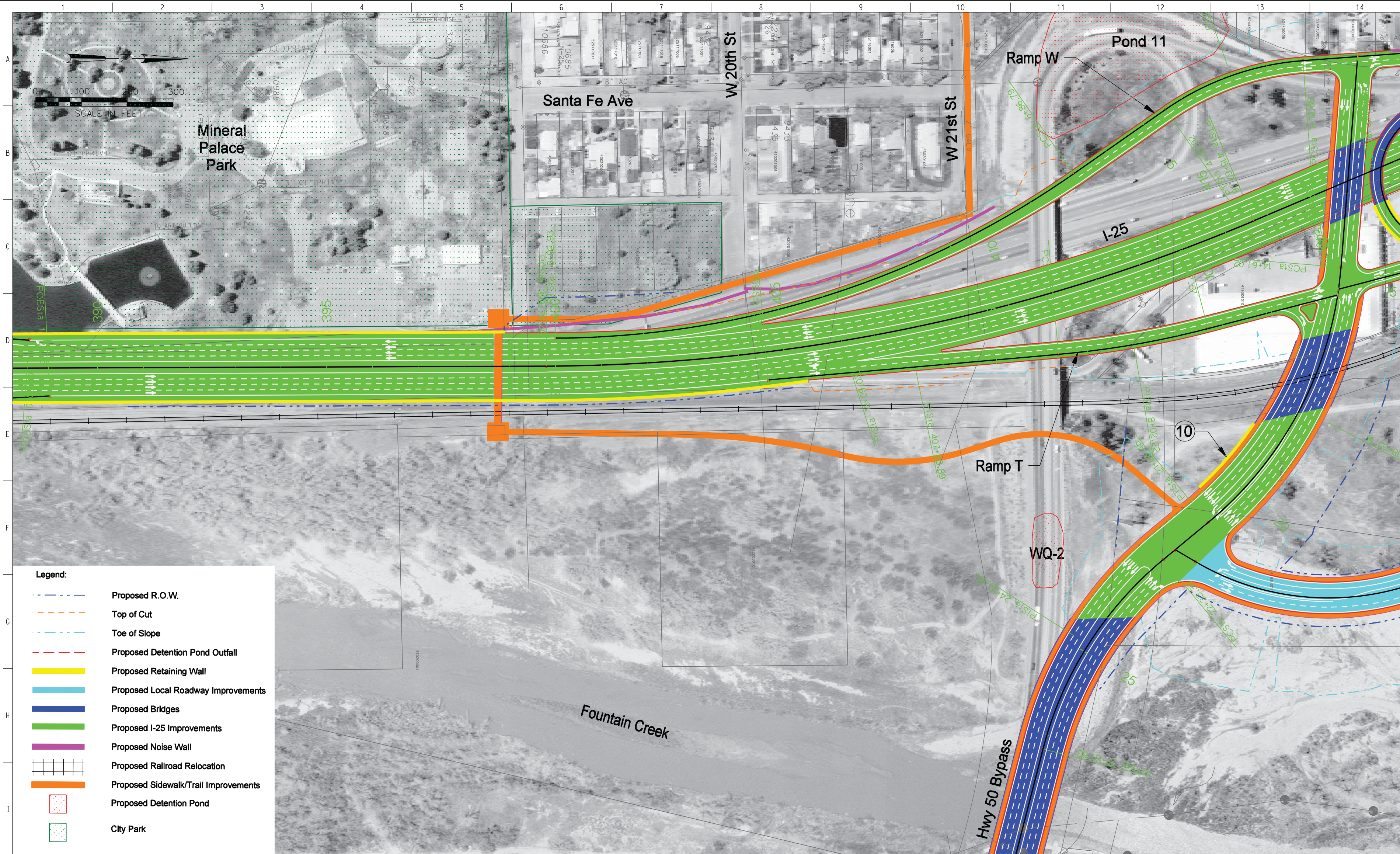


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# MODIFIED ALIGNMENT ALTERNATIVE STA 388+00 TO STA 408+00

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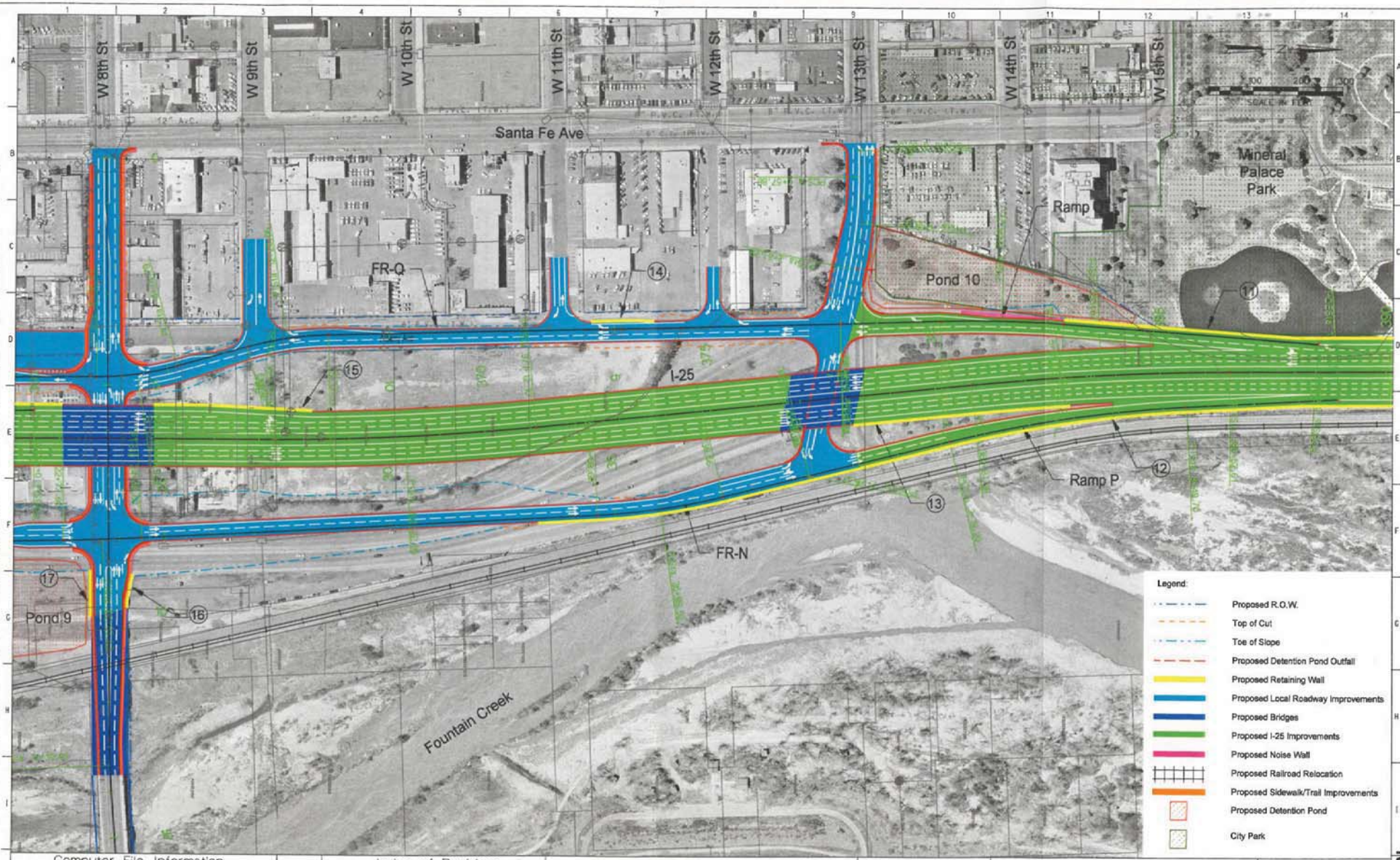


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# MODIFIED ALIGNMENT ALTERNATIVE STA 360+00 TO STA 388+00

Designer: S. Asher — Structure Numbers:

Detailer: R. Swann

Sheet Subset: — Subset Sheets:

Project No./Code: IM-0251-156

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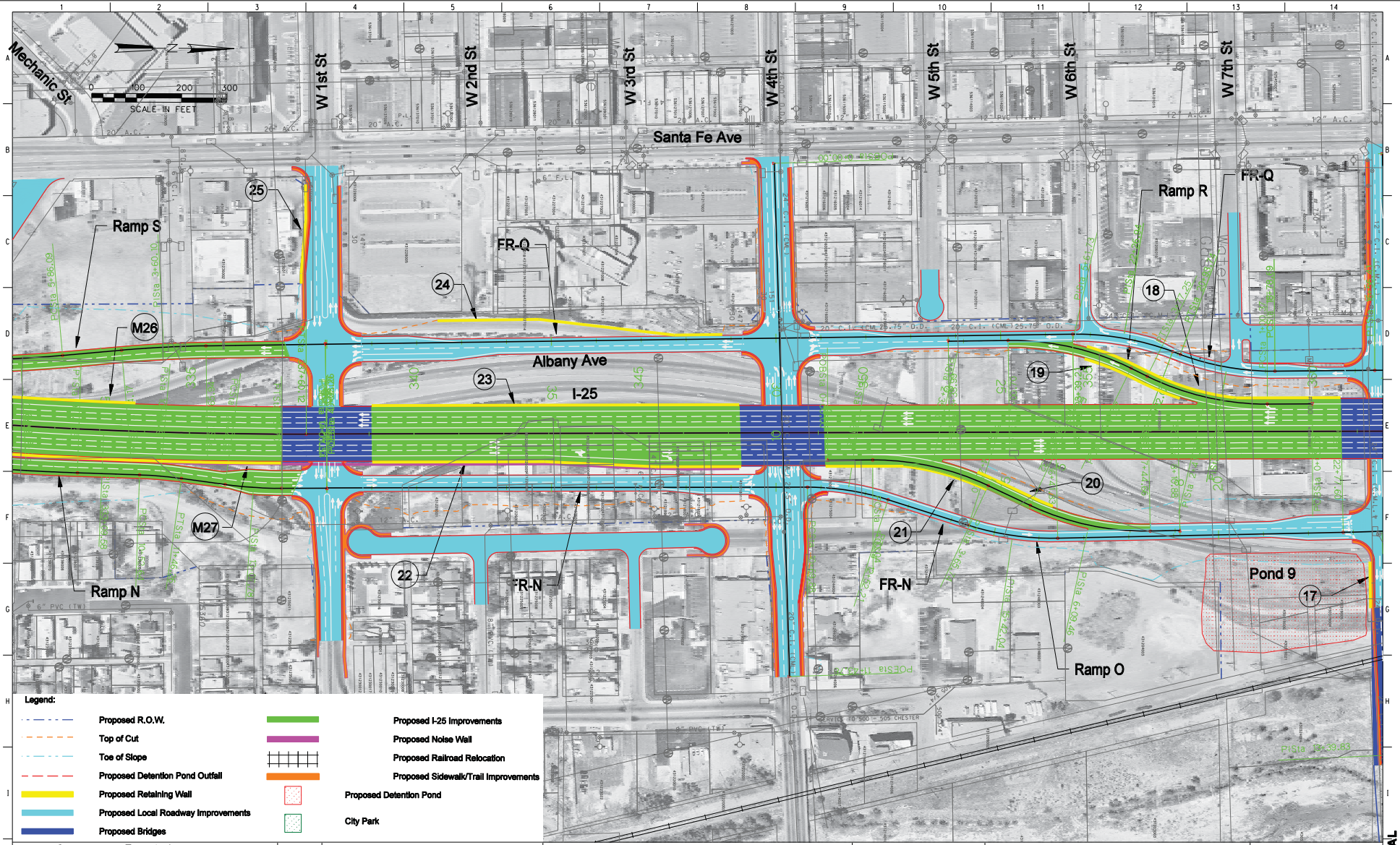


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- Proposed R.O.W.
- Top of Cut
- Toe of Slope
- Proposed Detention Pond Outfall
- Proposed Retaining Wall
- Proposed Local Roadway Improvements
- Proposed Bridges
- Proposed I-25 Improvements
- Proposed Noise Wall
- Proposed Railroad Relocation
- Proposed Sidewalk/Trail Improvements
- Proposed Detention Pond
- City Park

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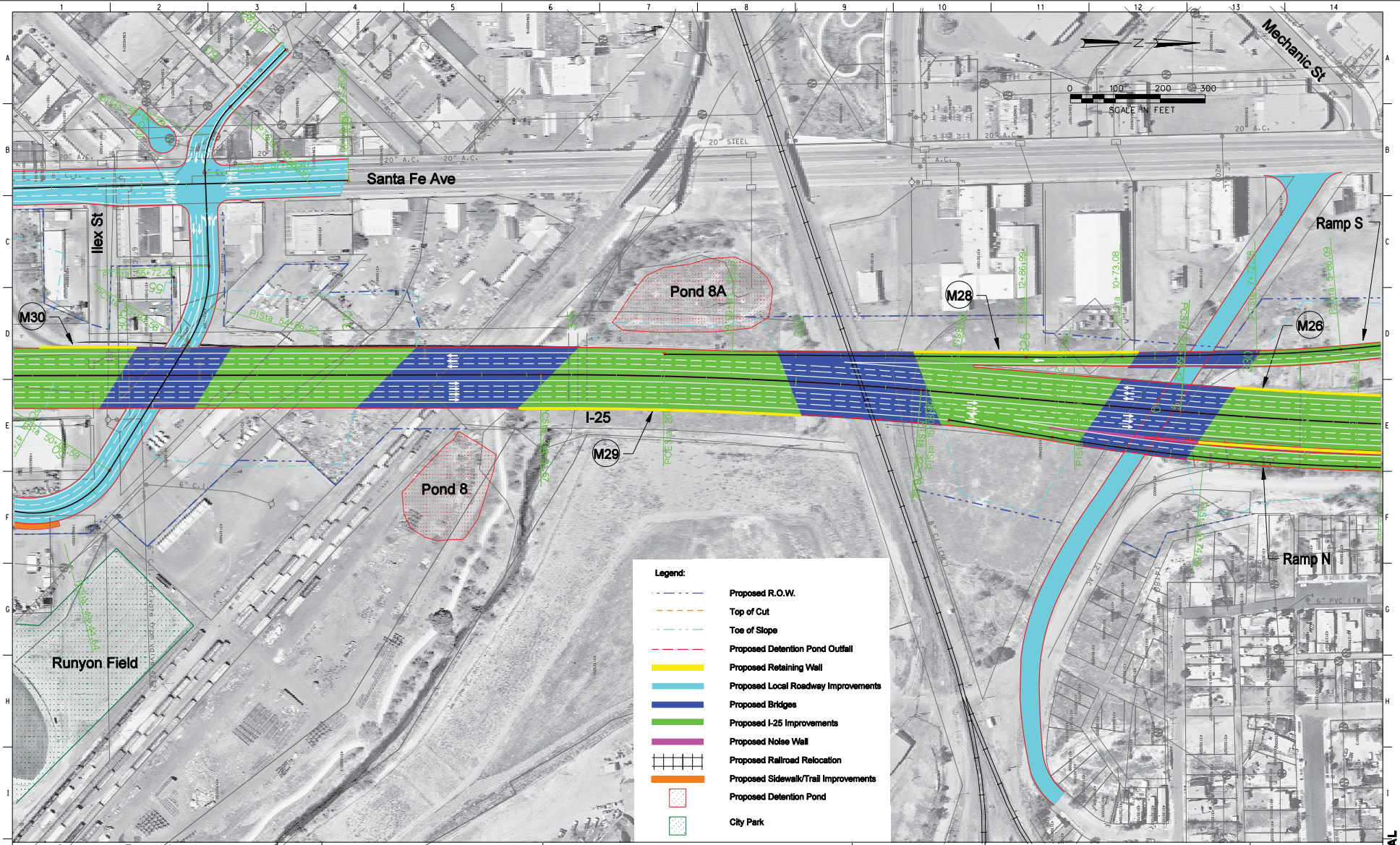


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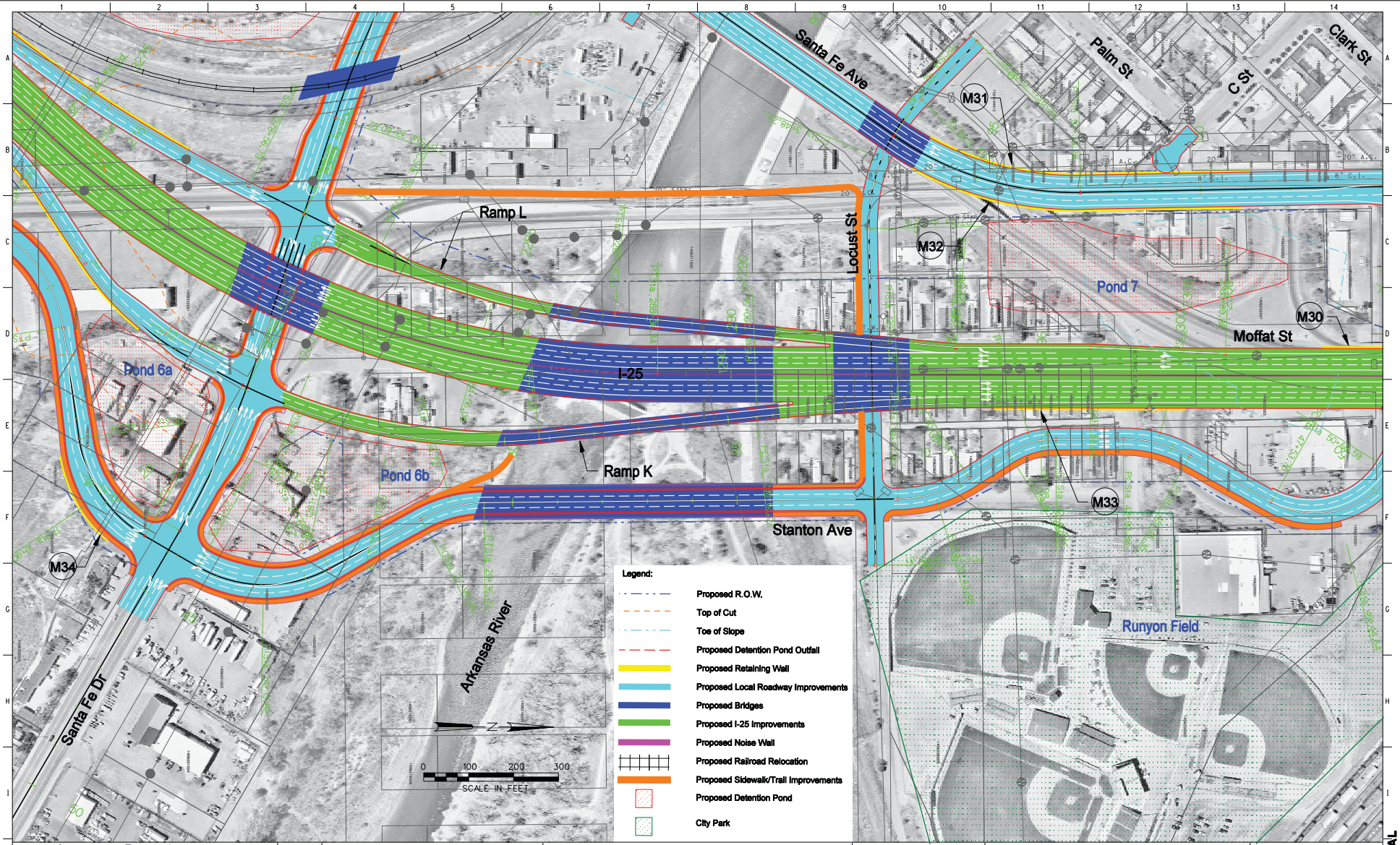


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# MODIFIED ALIGNMENT ALTERNATIVE STA 287+00 TO STA 302+00

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Detailer: R. Swann

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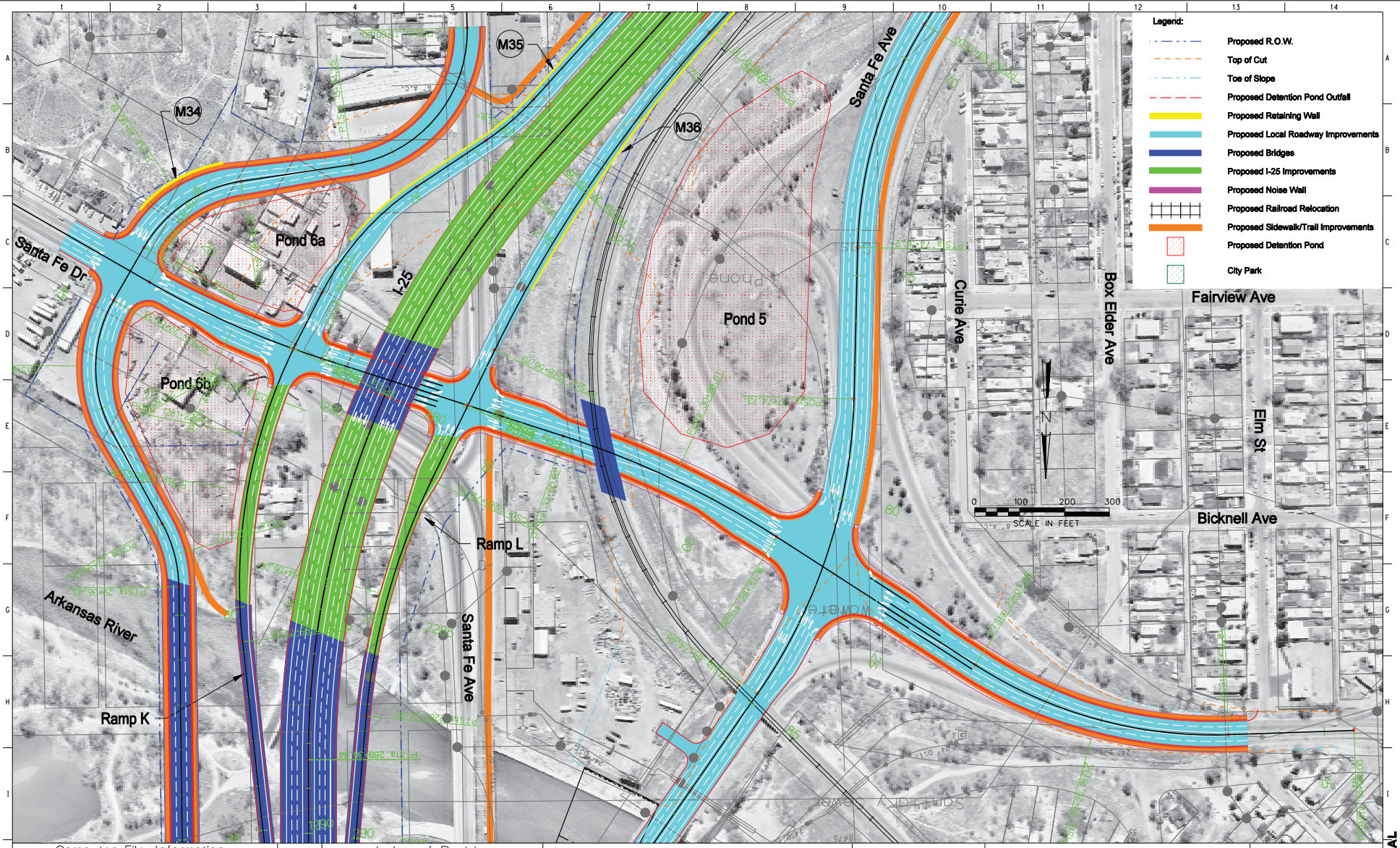


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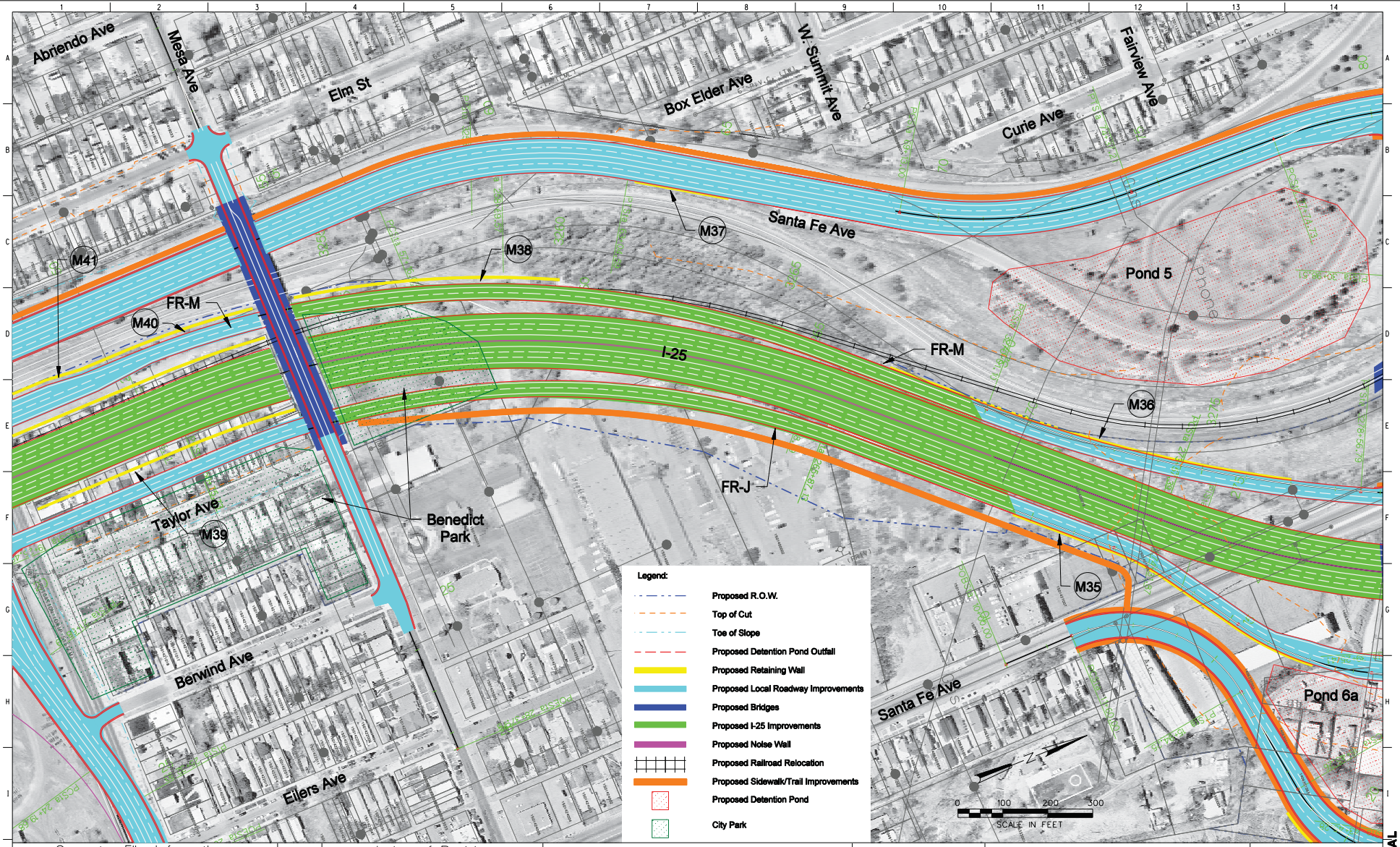


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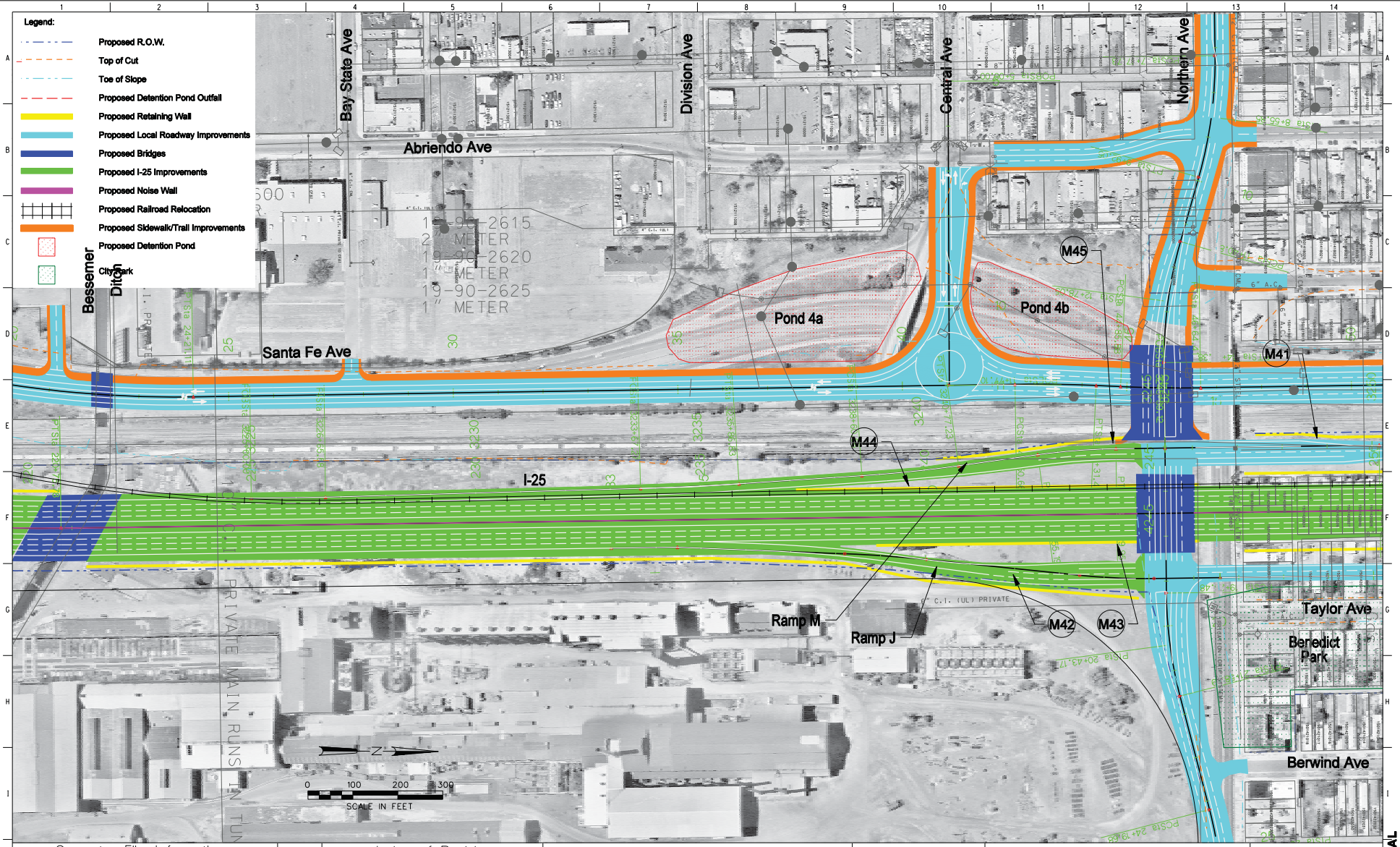


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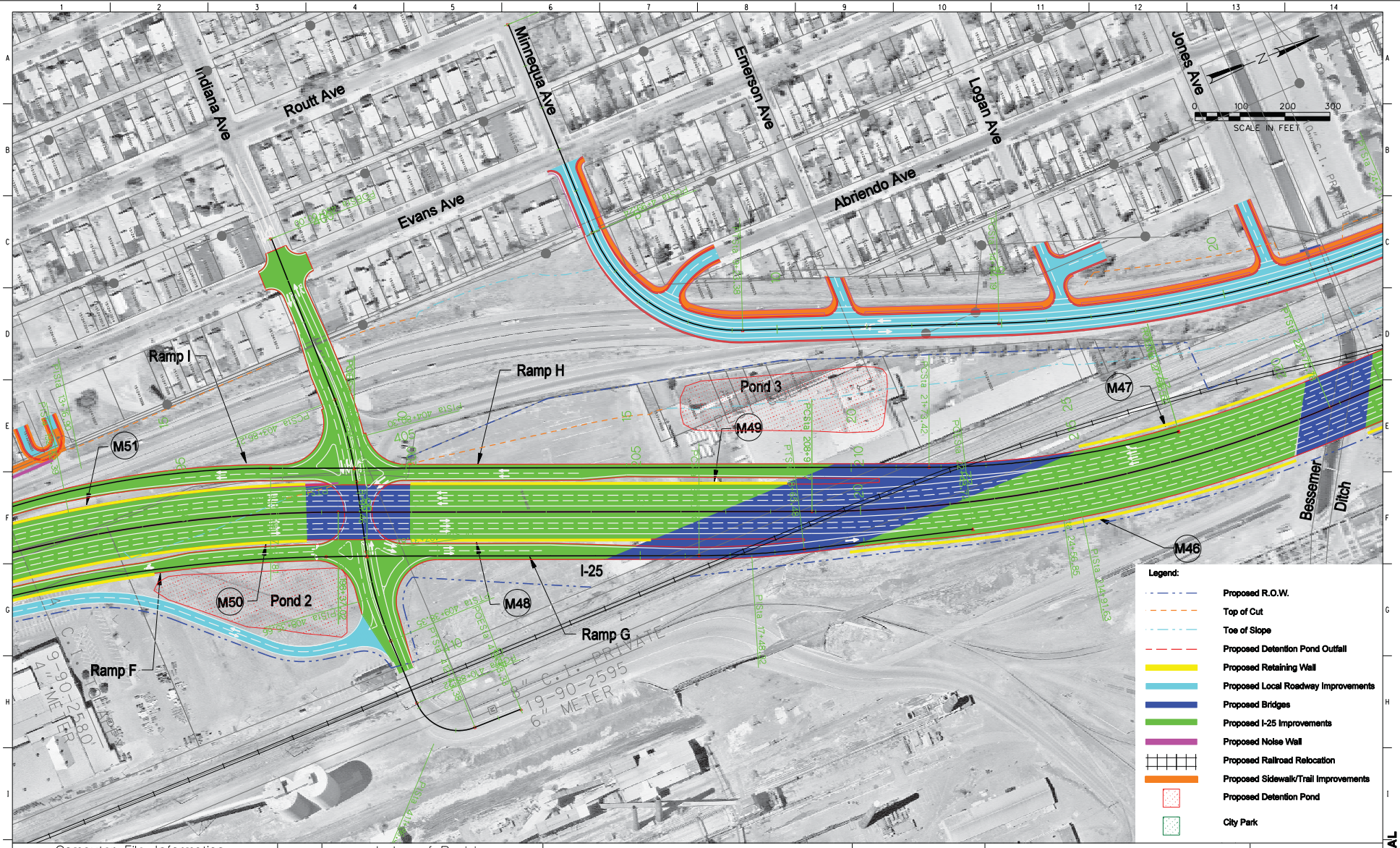


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# MODIFIED ALIGNMENT ALTERNATIVE
## STA 195+00 TO STA 221+00

Designer: S. Asher | Structure Numbers:

Detailer: R. Swann

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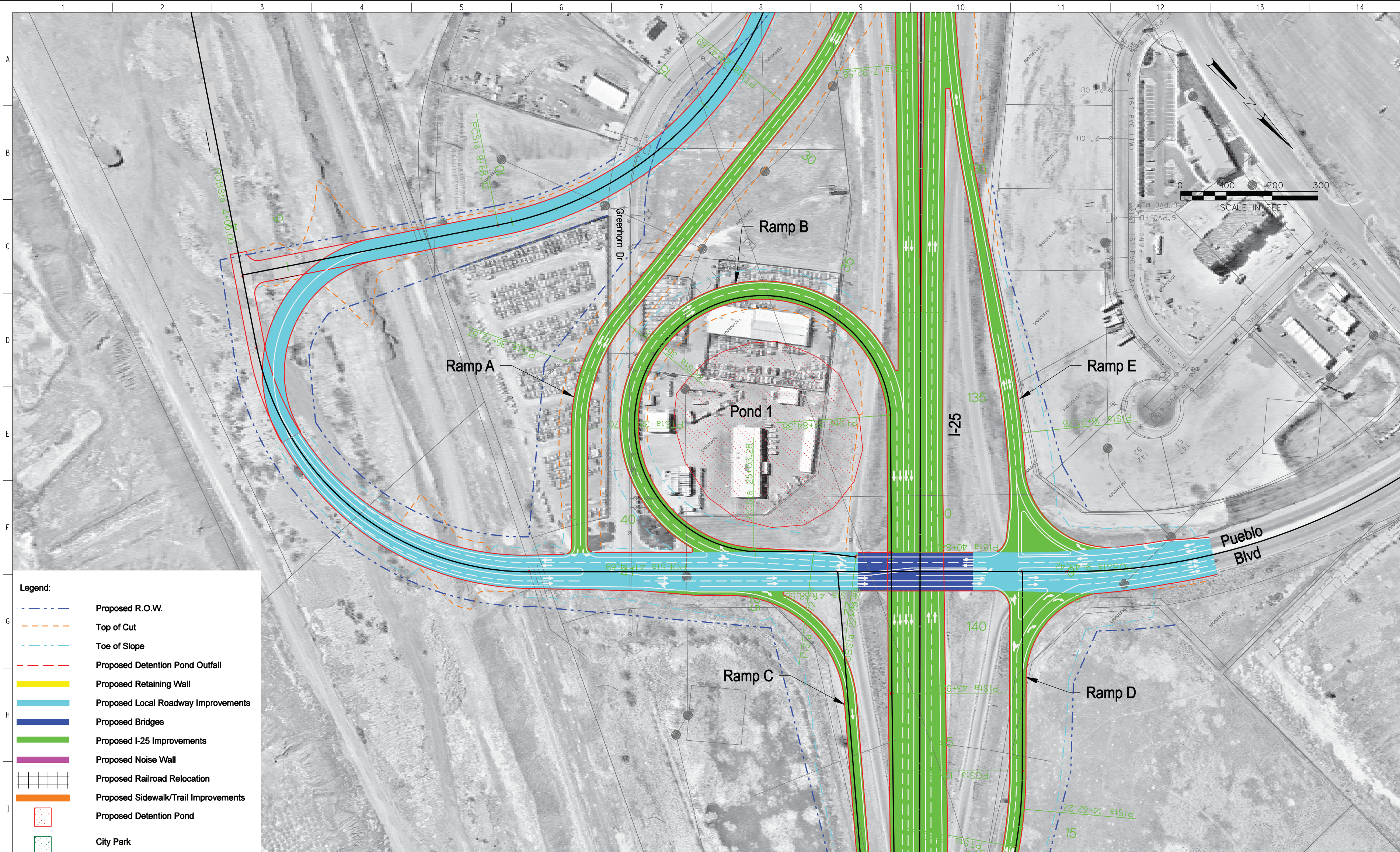


**Legend:**

- Proposed R.O.W.
- Top of Cut
- Toe of Slope
- Proposed Detention Pond Outfall
- Proposed Retaining Wall
- Proposed Local Roadway Improvements
- Proposed Bridges
- Proposed I-25 Improvements
- Proposed Noise Wall
- Proposed Railroad Relocation
- Proposed Sidewalk/Trail Improvements
- Proposed Detention Pond
- City Park

| DESIGN | Initial | Date |
|---|---|---|
| Designed by | | |
| Checked by | | |

| DETAIL | Initial | Date |
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| Detailed by | | |
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Revision Dates (Preliminary Stage Only)

**Computer File Information**

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Last Modification Date: Initials:
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**Index of Revisions**

the New Pueblo Freeway

COLORADO DEPARTMENT OF TRANSPORTATION
REGION 2

Basic Engineering

No Revisions:
Revised:
Void:

# MODIFIED ALIGNMENT ALTERNATIVE
# STA 128+00 TO STA 145+00

Designer: S. Asher
Detailer: R. Swann
Structure Numbers
Sheet Subset: Subset Sheets:

Project No./Code
IM-0251-156
12831
Sheet Number

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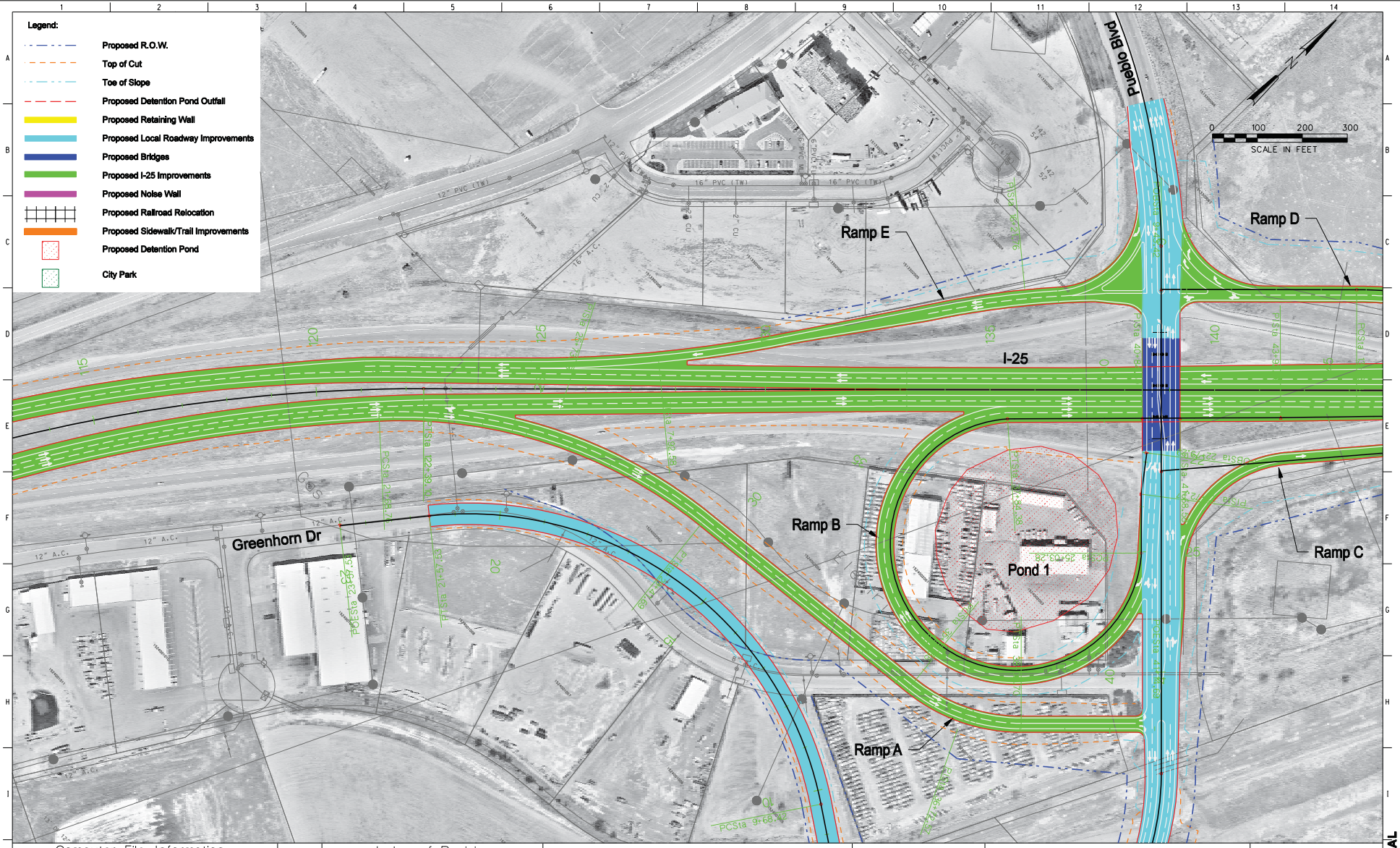


Revision Dates (Preliminary Stage Only)

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the New Pueblo Freeway

COLORADO DEPARTMENT OF TRANSPORTATION
REGION 2

| Basic Engineering | MODIFIED ALIGNMENT ALTERNATIVE STA 115+00 TO STA 145+00 | Project No./Code |
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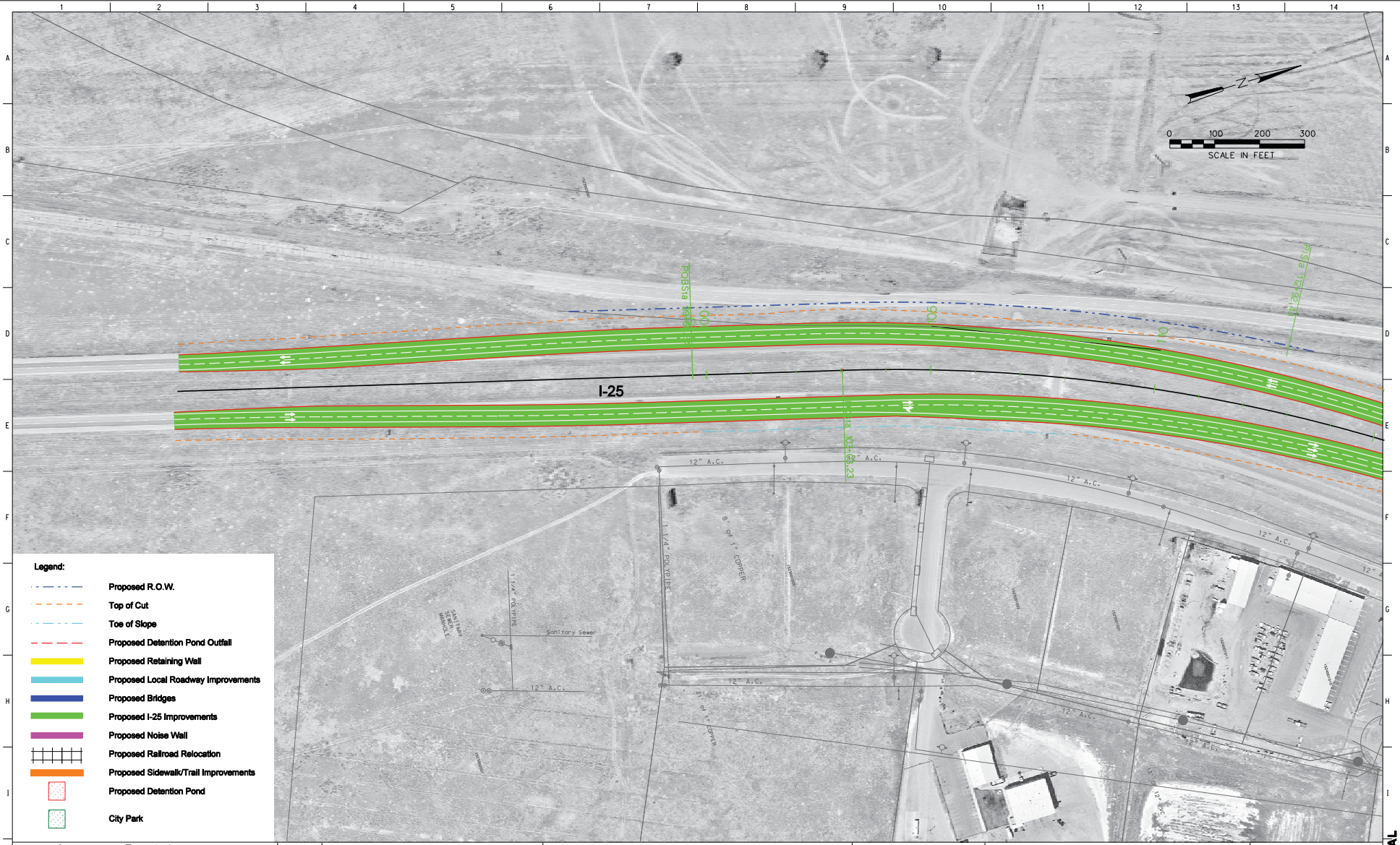


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the New Pueblo Freeway
COLORADO DEPARTMENT OF TRANSPORTATION
REGION 2

| Basic Engineering | MODIFIED ALIGNMENT ALTERNATIVE STA 100+43.68 (POB) TO STA 115+00 | | Project No./Code |
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| Revised: | Detailer: R. Swann | | 12831 |
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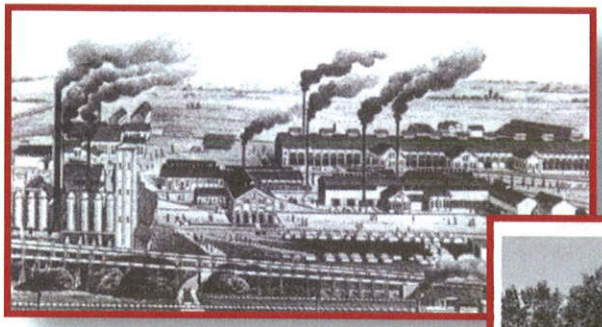
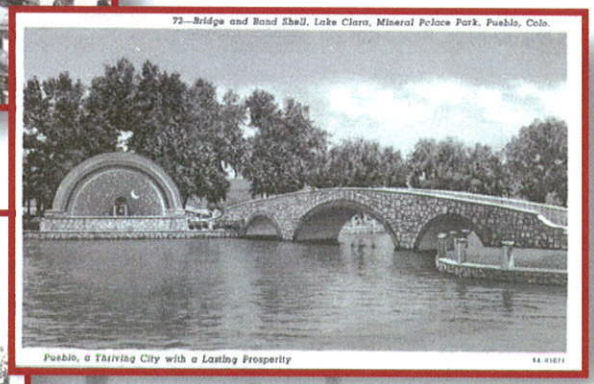
APPENDIX F

# Memorandum of Understanding between the City of Pueblo and Colorado Department of Transportation

# Memorandum of Understanding

## Between the City of Pueblo and Colorado Department of Transportation





DEPARTMENT OF TRANSPORTATION

**Colorado Department of Transportation**

**CDOT Project No.**
**IM 0251-156**

**Project Control No.**
**12831**

25 the New Pueblo Freeway

February 2010

# MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM, made this 24th day of March, 2010, by and between the State of Colorado for the use and benefit of THE COLORADO DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the State or CDOT, and THE CITY OF PUEBLO, a Municipal Corporation, P.O. Box 1427, Pueblo, Colorado, 81003, CDOT Vendor Number 2000036, hereinafter referred to as "the Local Agency" or "the City".

## RECITALS

CDOT is preparing an Environmental Impact Statement to address the need to improve I-25 through Pueblo from 29th Street to Pueblo Boulevard (S.H. 45) in Pueblo, Colorado, hereinafter referred to as the "Project"; and

CDOT and the City acknowledge that the Environmental Impact Statement relies upon understandings between CDOT and the City as to ownership and maintenance responsibilities of anticipated improvements associated with the Project; and

CDOT and the City wish to enter into this Memorandum of Understanding to document their respective understandings of future ownership and maintenance responsibilities for the anticipated improvements associated with the Project in order for the Environmental Impact Statement to be finalized; and

CDOT and the City acknowledge that neither can enter into an Intergovernmental Agreement (IGA) at this time because there is insufficient information regarding the availability and timing of necessary Project design and construction funding; and

CDOT and the City intend to enter into an IGA at such time as there is a commitment to adequate Project funding to satisfy the needs of CDOT and the City. The IGA will only address the final, preferred alternative.

In anticipation of the initiation and completion of the construction of the "Project", CDOT and the City desire to set forth their mutual understanding of the division of ownership

and responsibility for maintenance, as more specifically described in Exhibit A, and Attachment A-1 thru Attachment A-5; and

The City is adequately staffed and suitably equipped to undertake and satisfactorily carry out their responsibilities under this Memorandum; and

This Memorandum is executed by the State under authority of Sections §§43-1-106, 43-1-110, 43-1-201 et seq., 43-2-102 and 43-2-144 C.R.S., as amended; and

This Memorandum is executed by the City under the authority of an appropriate Ordinance duly passed and adopted by the authorized representatives of the City, which also establishes the authority under which the City enters into this Memorandum and is attached hereto as Exhibit B and made a part hereof; and

NOW, THEREFORE, it is hereby agreed that:

## I. PROJECT DESCRIPTION

"The Project" under this Memorandum shall consist of the reconstruction of I-25 through Pueblo from 29th Street to Pueblo Boulevard (S.H. 45) and all amenities and appurtenances as specified in the attached exhibits and addressed in the approved Environmental Impact Statement which is included by reference. The Project has been narrowed to two build alternatives plus the "no build" alternative. One of the build alternatives is referred to as the "Modified I-25 Alignment". The MOU elements and a pictorial representation are described in Attachment A-1 and A-3. The other build alternative is referred to as the "Existing I-25 Alignment". MOU elements and a pictorial representation are described in Attachment A-2 and A-4. It is the intent of this Memorandum of Understanding to be applicable to either alternative ultimately selected as the preferred alternative in the Environmental Impact Statement.

## II. CDOT COMMITMENTS

A. The State will provide liaison with the City through the State's Region Transportation Director, CDOT Region 2, 905 Erie Avenue, Pueblo, Colorado 81001, (719)546-5400. Said Director will also be responsible for coordinating the State's activities under this Memorandum.

III. CITY COMMITMENTS

A. The City will provide liaison with the State through the Bureau of Public Works for the City of Pueblo, 211 E. "D" St., Pueblo, Colorado 81003, (719)553-2295.

IV. GENERAL PROVISIONS

A. This Memorandum of Understanding is subject to such modifications as may be required by changes in Federal or State law, or their implementing regulations. Any such required modification shall automatically be incorporated into and be part of this Memorandum on the effective date of such change as if fully set forth herein provided the State gives notice to the City of the specific changes in Federal or State law or implementing regulations and the modifications required by such change. City reserves the right to contest CDOT's interpretation and required changes. Except as provided above, no modification of this Memorandum shall be effective unless agreed to in writing by both parties in an amendment to this Memorandum that is properly executed and approved in accordance with applicable law.

B. To the extent that this Memorandum may be executed and performance of the parties may be accomplished within the intent of the Memorandum, the terms of this Memorandum are severable, and should any term or provision hereof be declared invalid or become inoperative for any reason, such invalidity or failure shall not affect the validity of any other term or provision hereof. The waiver of any breach of a term hereof shall not be construed as a waiver of any other term, or the same term upon subsequent breach.

C. This Memorandum is intended as the complete integration of all understandings between the parties at this time. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or affect whatsoever, unless embodied herein by writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a written Memorandum or Intergovernmental Agreement executed and approved pursuant to the State Fiscal Rules.

D. Except as herein otherwise provided, this Memorandum shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

E. The term of this Memorandum shall begin the date first above written and shall extend until replaced by an IGA, unless earlier modified or terminated by written agreement of the Parties hereto.

F. It is expressly understood and agreed that the enforcement of the terms and conditions of this Memorandum shall be strictly reserved to the parties hereto, and nothing contained in this Memorandum shall give or allow any claim or right of action by any other or third person on this Memorandum. It is the express intention of the parties that any person or entity other than the parties receiving services or benefits under this Memorandum be deemed to be an incidental beneficiary only.

G. The City assures that it possesses the legal authority to enter into this Memorandum. The City warrants that it has taken all actions required by its procedures, by-laws, and/or applicable law to exercise that authority, and to lawfully authorize its undersigned signatory to execute this Memorandum.

H. Nothing contained herein shall be or be construed to be a waiver by the City or State of any immunities, benefits or conditions of the Colorado Governmental Immunity Act, as amended.

I. Performances of City's obligations under this memorandum are expressly subject to the appropriations of funds therefore by the City Council of the City.

## SIGNATURE PAGE

**THE PARTIES HERETO HAVE EXECUTED THIS Memorandum Of Understanding**

STATE OF COLORADO:
BILL RITTER, JR. GOVERNOR

City of Pueblo
Legal Name of Contracting Entity

By Pamela Hutton
for Executive Director
Department of Transportation

2000036
CDOT Vendor Number

By BK Rasmussen
Office Clerk

Lawrence W. Atencio
Signature of Authorized Officer

Lawrence W. Atencio
President of City Council
Print Name & Title of Authorized Officer

## GENERAL

1) The Environmental Impact Statement for this project contains several mitigation elements that require use of City owned property for implementation. City intends that all city-owned land necessary to construct environmental mitigation proposed in the EIS and identified more specifically later in this Memorandum of Understanding will be made available to CDOT.

2) City intends to accept ownership of various roadways, associated rights-of-ways and other parcels by Resolution of the City Council once all public improvements required herein by the City and associated with said parcels are completed to the satisfaction of the City's Director of Public Works. The Director will provide written notification to City Council accepting the construction of improvements. The Directors written notification shall not be unreasonably withheld. City intends to become responsible for maintenance of the above referenced improvements immediately following issuance of the Director's written notification and City Council's resolution accepting the construction of improvements.

3) The City requires a two year warranty on all street work. CDOT intends to require contractors to provide a one (1) year warranty for any above referenced improvements if the improvements are constructed as part of a design/build contract. Traditional design/bid/build contracts typically don't provide warranties other than those contained in the current Colorado Department of Transportation Standard Specifications for Road and Bridge Construction dated 2005 and those that are 'industry standards'. CDOT will establish a revolving fund in order to have resources available to provide the two year warranty the City desires.

4) Unless otherwise noted in this MOU, all infrastructure being accepted by the City will be constructed to City standards.

5) City will be provided the opportunity to have inspectors on site on all roadways or portions of the project that are anticipated to be accepted by the City for future ownership and maintenance.

6) City acknowledges that the Project may have to make modifications to City streets that intersect improvements brought about by the reconstruction of I-25. City agrees to allow CDOT to make these modifications to City streets in accordance with the City's specifications, review and approval of the construction plans, inspection and formal acceptance as stated above.

7) The City desires to attain ownership of some of the excess right of way generated by the project. The final IGA will address excess rights of way.

## GENERAL (continued)

8) CDOT will install, at project cost, any necessary roadway lighting. CDOT intends to accept responsibility for interstate roadway lighting and the City intends to accept the responsibility for all other roadway lighting. The City anticipates turning all of their project roadway lighting infrastructure over to Black Hills Corporation (or its successor) for their ownership. The non-interstate roadway lighting design shall be constructed to Black Hills Corporation (or its successors) standards and approved by the City. All City-owned lighting fixtures shall be served using un-metered, underground circuits.

9) City will retain ownership and maintenance responsibilities of all currently owned and maintained streets, whether modified or not, outside the interchange ramps/frontage roads except for intersecting state highways (4th Street (SH96), Pueblo Blvd (SH45), US 50 Bypass & US 50C). The portion of roadway between frontage roads or ramp termini shall be maintained by CDOT.

10) The City does not have the ability to transfer dedicated public right-of-way to CDOT. The roadways, will remain as dedicated right-of-way for public use.

11) Unless otherwise noted, City intends to accept ownership and maintenance responsibility for all structures in the table below.

| **Structure Description** | **Alternative Effected** |
|---|---|
| Pedestrian Bridge from Mineral Palace Park over I-25 and UPRR | Modified and Existing Alternatives |
| 8th Street over UPRR | Modified and Existing Alternatives |
| Mesa Avenue over I-25 | Existing Alternative |
| Mesa Avenue over I-25 and Santa Fe Avenue | Modified Alternative |
| Northern Ave over I-25,UPRR and Elm Street | Existing Alternative |
| Northern Ave over I-25, UPRR and Santa Fe Aveune | Modified Alternative |
| Santa Fe Avenue over Bessemer Ditch | Modified Alternative |
| Stanton Avenue over Arkansas River | Modified Alternative |
| Existing Santa Fe Avenue over Arkansas River for Trail system | Modified Alternative |

12) All constructions elements of the project will comply with the applicable State and Federal regulations.

13) Corridor Aesthetics treatments will be incorporated into the project for either alternative. The Corridor Aesthetic Treatments are depicted in Exhibit A-4.

## TRAFFIC SIGNALS

All traffic signals to be either owned by the City or to be maintained by the City shall be constructed to City standards with the exception of the traffic signal poles.

In order to maintain signal progression, the City strongly urges CDOT to allow the City to maintain those traffic signals that fall within an existing system. For example, the downtown signal system, US50 bypass signals, 29th Street and Santa Fe Avenue.

## MS 4 STORMWATER QUALITY PONDS

Neither the City nor CDOT object to intermingling stormwater runoff.

All stormwater facilities to be sized to accept appropriate $V_{historic}$ design flows. Best Management Practices (BMP's) and water quality treatment facilities to be constructed to meet NPDES permit requirements.

CDOT will construct all ponds and appurtenances as required by the MS4 permitting process. CDOT intends to maintain the ponds and appurtenances that are associated with the operation of the project. City, subsequent to design and construction approval, intends to maintain all ponds and appurtenances constructed but not associated with the project. Maintenance of ponds constructed by CDOT that accommodate both CDOT and City Stormwater will be addressed in a separate maintenance agreement between CDOT and the City's Stormwater utility on a case by case basis.

The City intends to allow construction and maintenance of the CDOT ponds and appurtenances on excess City owned property, as necessary, upon review and concurrence of the concept and the subsequent design plans.

## PARKS

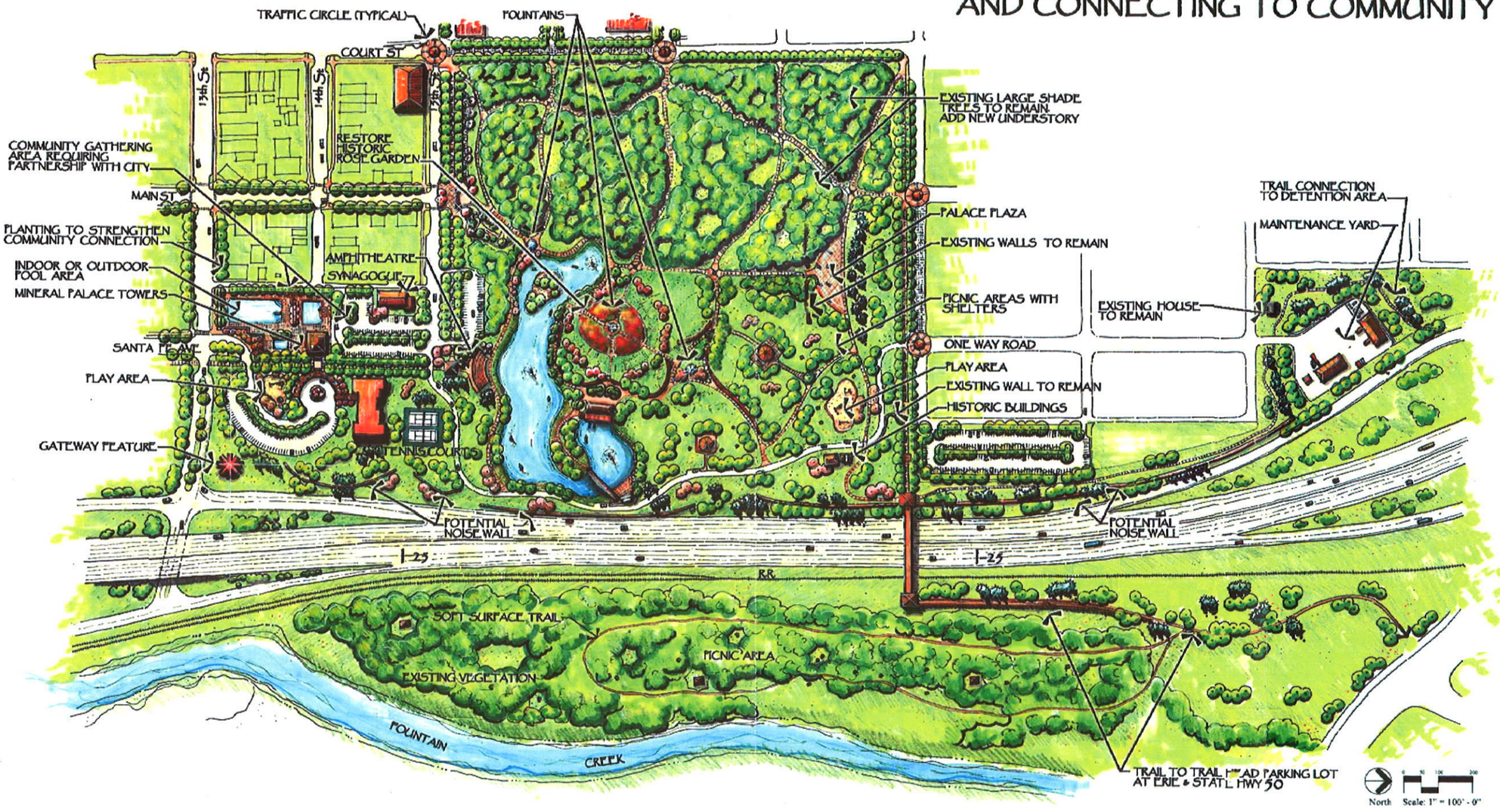
The warranty period for Benedict and each phase of Mineral Palace will start when the City begins maintenance. CDOT will agree to provide a 2 year warranty on materials and workmanship.

MINERAL PALACE PARK

1) CDOT and the City will jointly develop a phasing plan for Mineral Palace Park. The City will begin maintaining each phase once the construction is accepted by the City.
2) In order to acquire additional land necessary for Mineral Palace Park improvements as depicted in the EIS and Exhibit A-1, City intends to consider eminent domain, if necessary. CDOT intends to pay all costs of necessary additional land acquisition and all

# MINERAL PALACE PARK MASTER PLAN

## CELEBRATING THE PAST AND CONNECTING TO COMMUNITY



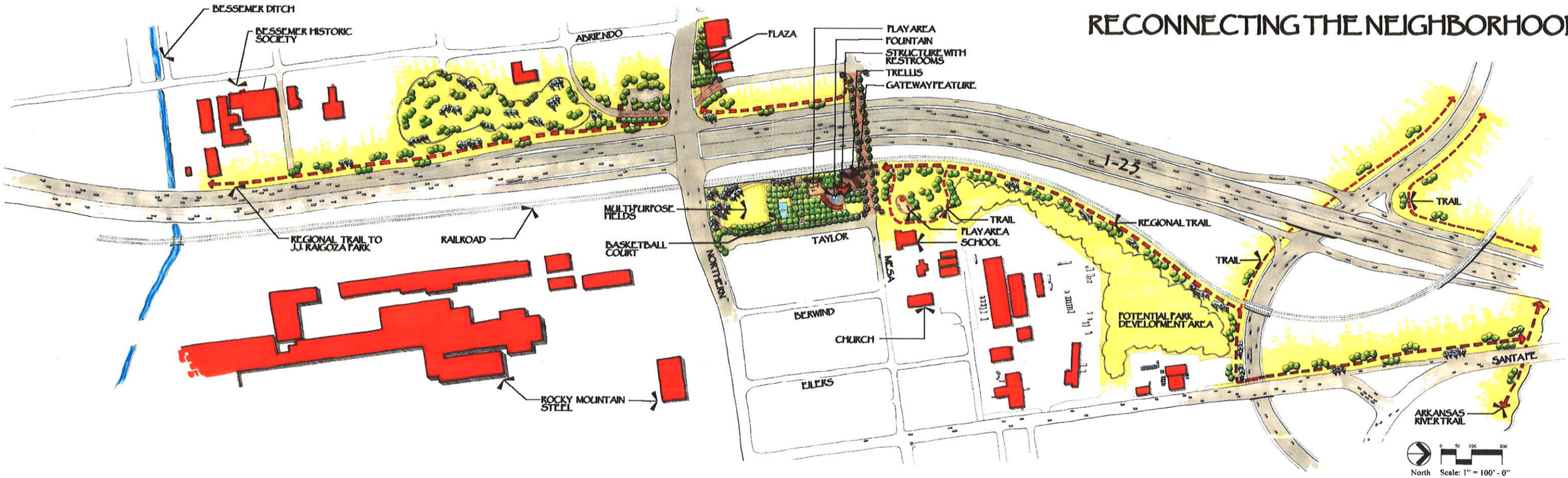

September 7, 2007

25 the New Pueblo Freeway

**Exhibit A-1**

# BENEDICT PARK
# EXISTING ALIGNMENT

## RECONNECTING THE NEIGHBORHOODS



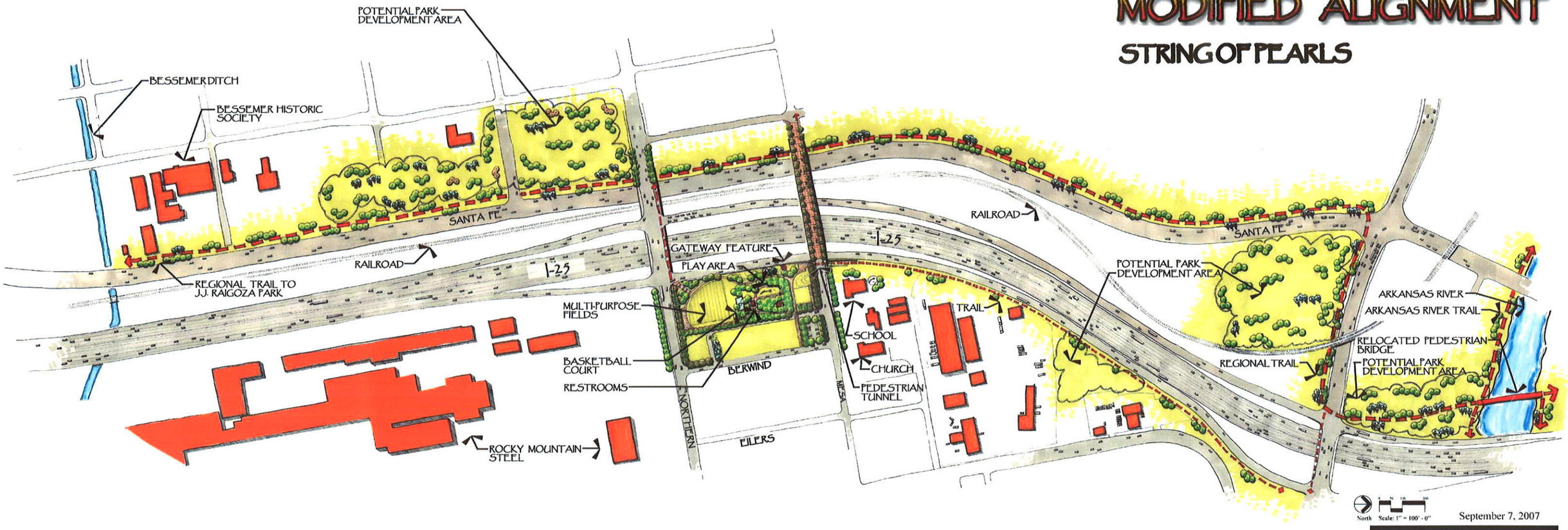

25 the New Pueblo Freeway

September 7, 2007

**Exhibit A-2**

# BENEDICT PARK MODIFIED ALIGNMENT

## STRING OF PEARLS




September 7, 2007

**Exhibit A-3**

25 the New Pueblo Freeway

25 New Pueblo Freeway

# CORRIDOR AESTHETIC TREATMENTS

**City Gateways -** The Northern Gateway at I-25/SH50-47 is already constructed with ornamental landscaping, turf grass, irrigation and architectural treatments. Maintenance responsibilities are shared between the City and CDOT. A Southern Gateway is being considered in conjunction with the development of the aesthetic design guidelines and would be similar to the Northern Gateway.

**Downtown Gateways -** Downtown Gateways are being considered at both 13th and 1st Streets. 13th Street would have both an architectural and landscape component. Landscaping would relate to Mineral Palace Park and the newly proposed community pool. Irrigation would be provided as an extension from the Mineral Palace Park system and maintenance would fall under City jurisdiction. An architectural statement would be made at 1st Street. Maintenance beyond structural would be minimal and would be the responsibility of CDOT.

**Neighborhood Gateways -** These gateway treatments would relate to each individual neighborhood and would identify that particular neighborhood. Treatments could be both architectural and landscape. One idea could be in the form of a sign and/or possibly an architectural treatment on a structure. Landscaping might be proposed in conjunction with this concept. Maintenance responsibility would depend on what aesthetic treatment was proposed, but could potentially be the responsibility of a neighborhood association.

**Park -** The park treatments are an extension of the current park landscapes. Concepts for these areas were developed jointly with the City and community. The City and County would maintain these areas.

**Steel Mill -** To be determined as a part of the upcoming community involvement process to determine mitigation in this area.

**Architectural -** Where this type of treatment is identified, primarily non-living materials would be used to create the theme. Retaining walls, bridges, and other structures and treatments would be carefully designed to reflect the architectural character of downtown. South of Indiana, noise walls and other structures would reflect the character of the steel mill and the historic company town character of the surrounding neighborhoods. Minimal maintenance would be required beyond structure maintenance. Maintenance responsibility would be shared between the City and CDOT.

**Dryland Grasses -** Dryland grasses will be used long all roadway shoulders where stabilization is required and in all areas where other aesthetic treatments have not been identified. Maintenance would be the responsibility of the property owner.

**Naturalized -** These areas take advantage of local run-off to allow native vegetation, including trees and shrubs, to establish themselves. Very low maintenance is anticipated. These areas are located where the landscape is currently naturalized. Maintenance by property owner.

**Proposed and Existing Trails -** Various trail extensions as well as trail connections and nodes have been preliminarily identified along the corridor. Trails are being proposed in conjunction with parks, as a means of connectivity between neighborhoods and as part of the interpretive element of the Steel Mill area. Proposed trails will be constructed by either CDOT or the City of Pueblo. Maintenance would be the responsibility of the City of Pueblo and the County.

Design guidelines are currently being prepared in conjunction with the community and the City to further define the details of the different aesthetic treatments described above.

Exhibit A-4

costs associated with condemnation, including but not limited to appraisal fees, attorney fees and cost of land.

3) CDOT intends to pay the cost of the necessary additional land acquisition.
4) City intends to grant permission to CDOT and it's contractors to enter Mineral Palace Park, after the phasing plan has been approved, to make improvements as outlined in the EIS and shown in Exhibit A-1.
5) City intends to grant to CDOT, use of the right-of-way within the Mineral Palace Park ownership necessary for the improvements to I-25
6) City agrees that CDOT will not have any responsibility for maintaining the Mineral Palace Park improvements constructed as part of the project.
7) CDOT intends that the improvements to Mineral Palace Park will begin prior to or commensurate with I-25 improvements adjacent to the Park. City and CDOT acknowledge that construction of the Mineral Palace Park improvements may entail several construction projects spread out over several years.

BENEDICT PARK

1) City intends to utilize eminent domain authority, as necessary, to acquire additional land for Benedict Park improvements as depicted in the EIS. CDOT intends to pay all costs of necessary additional land acquisition and all costs associated with condemnation , including but not limited to appraisal fees, attorney fees and cost of land.
2) CDOT agrees to reconstruct Benedict Park as depicted in the EIS and Exhibits A-2 and A-3.
3) The reconstruction of Benedict Park will be at no cost to the City.
4) City intends to convey ownership of existing Benedict Park as necessary for the I-25 improvements.
5) City intends to accept ownership and responsibility for the reconstructed Benedict Park upon completion of the park construction.
6) Reconstruction of Benedict Park will begin prior to or commensurate with I-25 construction adjacent to the Park.

## TRAILS

All trails developed by the project will be owned and maintained by the City.

# MODIFIED I-25 ALTERNATIVE

## ROADWAYS

### *Dillon Drive*

City intends to accept ownership and maintenance of Dillon Drive with the following conditions:

- CDOT will construct embankment protection and jetty construction on Fountain Creek to comply with the City's Stormwater Utility requirements for armoring, etc. The bank section is to be constructed as if water were adjacent and perpendicular to the roadway. FEMA requirements are to be met for fill within the flood plain (roadway must meet levee construction standards).

- CDOT will reinforce existing bank south of 29th Street with appropriate embankment and jetty protection.

### *Santa Fe Avenue- south of Abriendo*

The modified alignment would build a new I-25 and allow a portion of the old alignment to be incorporated into the City's street system. The old I-25 would serve as the southerly extension of Santa Fe Avenue. The City intends to accept ownership and maintenance of the south extension of Santa Fe Avenue with the following conditions:

- Central Avenue to Minnequa Avenue shall be significantly modified to change the character of the roadway from a freeway to a collector roadway. City will require a large "parkway" type median for this section of roadway. Access to be provided to all existing roadways in the Bessemer neighborhood and other improvements to include overlay of the surface, landscaping, irrigation, drainage improvements, installation of sidewalks and/or bike paths, etc. Final design to be reviewed and approved by the City.

- The proposed traffic circle at Central Avenue and Santa Fe Avenue shall be constructed and the center island and splitter islands shall be permanently irrigated and landscaped.

- Side slopes shall not exceed 4:1 and shall be permanently irrigated and planted to control erosion and beautify the corridor.

- Roadway shall be overlaid and all traffic control devices replaced.

- City intends to accept maintenance and ownership responsibilities of the pedestrian underpass near Canal Street associated with the Bessemer Historical Society / Rocky Mountain Steel.

***Abriendo Avenue***

CDOT will reconstruct Abriendo Avenue east of Washington Avenue to a parkway standard, including landscaping, irrigation, lighting, signing, etc. City intends to accept ownership and maintenance of the roadway west of Santa Fe Avenue.

***Kelly Avenue***

CDOT will acquire the right-of-way necessary for the construction of Kelly Avenue. In the event the City acquires a portion of this roadway through the use of Urban Renewal Authority (URA) for the project, CDOT will acquire necessary rights of way from the URA. CDOT will be responsible for constructing the roadway, including sidewalk and lighting from Santa Fe Avenue to Beech Street. City intends to accept ownership and maintenance of Kelly Avenue.

***Stanton Avenue***

CDOT will acquire the right-of-way necessary for the construction of Stanton. CDOT will be responsible for constructing the roadway, including sidewalks and lighting. City intends to accept ownership and maintenance of the roadway, including the bridge over the Arkansas River.

***Greenhorn Avenue***

CDOT will acquire the right-of-way necessary for the construction of Greenhorn. CDOT will be responsible for constructing the roadway, including sidewalks and lighting. City agrees to accept ownership and maintenance of the roadway. Greenhorn shall begin at the existing Pueblo Blvd right-of-way east of the northbound off-ramp.

***26th Street***

City intends to accept ownership and maintenance of 26th Street.

***Locust Street***

CDOT will acquire the right-of-way necessary for the construction of Locust. CDOT will be responsible for constructing the roadway, including sidewalks and lighting. City agrees to accept ownership and maintenance of the roadway.

***8th Street***

CDOT will reconstruct a portion of the 8th Street bridge over the railroad and/or Fountain Creek and will reconstruct the roadway under the new I-25. City intends to retain ownership and maintenance of the roadway and the bridge.

***Northern Avenue***

CDOT will acquire the right-of-way necessary for the realignment and reconstruction of Northern Avenue. City intends to retain ownership of the roadway excluding the bridge structure. City intends to retain maintenance responsibilities for all components of the bridge

above the deck membrane, which includes sidewalk, asphalt, striping, railing, signing and lighting. CDOT intends to be responsible for the bridge structure, deck membrane, girders, and deck.

***Mesa Avenue***

CDOT will reconstruct the Mesa Avenue Bridge. City agrees to accept ownership of the roadway excluding the bridge structure. City intends to retain maintenance responsibilities for all components of the bridge above the deck membrane, which includes sidewalk, asphalt, striping, railing, signing and lighting. CDOT intends to be responsible for the bridge structure, deck membrane, girders, and deck.

# Existing I-25 Alternative

## ROADWAYS

### *Dillon Drive*

City intends to accept ownership and maintenance of Dillon Drive with the following conditions:

- CDOT will construct embankment protection and jetty construction on Fountain Creek to comply with the City's Stormwater Utility requirements for armoring, etc. The bank section is to be constructed as if water were adjacent and perpendicular to the roadway. FEMA requirements are to be met for fill within the flood plain (roadway must meet levee construction standards).

- CDOT will reinforce existing bank south of 29th Street with appropriate embankment and jetty protection.

### *26th Street*

City intends to accept ownership and maintenance of 26th Street.

### *8th Street*

CDOT will reconstruct a portion of the 8th Street bridge over the railroad and/or Fountain Creek and will reconstruct the roadway under the new I-25. City intends to retain ownership and maintenance of the roadway and the bridge.

### *Kelly Avenue*

CDOT will acquire the right-of-way necessary for the construction of Kelly Avenue. In the event the City acquires a portion of this roadway through the use of Urban Renewal Authority (URA) for the project, the City will make the right of way available for construction of Kelly Avenue. CDOT will be responsible for constructing the roadway, including sidewalk and lighting from Santa Fe Avenue to Beech Street. City intends to own and maintain Kelly Avenue.

### *Abriendo Avenue*

CDOT will reconstruct Abriendo Avenue east of Washington Avenue to a parkway standard, including landscaping, irrigation, lighting, signing, etc. City intends to accept ownership and maintenance of the roadway west of the I-25 interchange ramps.

### *Northern Avenue*

CDOT will acquire the right-of-way necessary for the realignment and reconstruction of Northern Avenue. City intends to retain ownership of the roadway excluding the bridge structure. City intends to retain maintenance responsibilities for all components of the bridge above the deck membrane, which includes sidewalk, asphalt, striping, railing, signing and

lighting. CDOT intends to be responsible for the bridge elements below and including the deck membrane, structures, girders, and deck.

***Mesa Avenue***

CDOT will reconstruct the Mesa Avenue Bridge. City agrees to accept ownership of the roadway excluding the bridge structure. City intends to retain ownership of the roadway excluding the bridge structure. City intends to retain maintenance responsibilities for all components of the bridge above the deck membrane, which includes sidewalk, asphalt, striping, railing, signing and lighting. CDOT intends to be responsible for the bridge elements below and including the deck membrane, structures, girders, and deck.

***Greenhorn Avenue***

CDOT will acquire the right-of-way necessary for the construction of Greenhorn. CDOT will be responsible for constructing the roadway, including sidewalks and lighting. City agrees to accept ownership and maintenance of the roadway. Greenhorn shall begin at the existing Pueblo Blvd right-of-way east of the northbound off-ramp.