

PUEBLO AREA COUNCIL OF GOVERNMENTS

2035 LONG RANGE TRANSPORTATION PLAN

Chapter 1

Introduction and Plan Overview

DRAFT PLAN

December 2007

NOTE: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.

Table of Contents

1.1	Plan Overview	4
1.2	Purpose and Scope	5
1.3	Consistency with State and Federal Planning Requirements	6
1.3.1	Safety and Security	7
1.3.1.1	Mapping Efforts	8
1.4	Evolution of Current Issues and Strategies from the 2030 LRTP	11
1.4.1	Implementation of these projects	14
1.5	Study Area for the 2035 LRTP	15
1.6	Regional Vision	18
1.6.1	Planning Considerations	18
1.6.2	Goal 1: Mobility	19
1.6.2	Goal 2: Livability	19
1.6.3	Goal 3: Intermodalism	20
1.6.4	Goal 4: Strategic Planning	20
1.8	Public Participation in the 2035 LRTP	21
1.8.1	Public Input Process	21
1.8.2	Public Meetings	22
1.8.3	Public Input Survey Findings	24
1.9	Environmental Justice	26

List of Tables

TABLE 1-1: SAFETEA-LU PLANNING FACTORS	6
TABLE 1-2: STATUS OF 2030 TRANSPORTATION ISSUES	12
TABLE 1-3: 2035 LRTP PUBLIC INPUT MEETINGS	23
TABLE 1.4: TRANSPORTATION IMPROVEMENT PRIORITIES IN 2035 PLAN PUBLIC INPUT SURVEYS	24
TABLE 1.5: RESPONDENT RANKINGS OF TRANSPORTATION GOALS	25

List of Figures

FIGURE 1.1: FIRE DEPARTMENT RAILROAD ACCESS MAP	9
FIGURE 1.2: FIRE DEPARTMENT STATION MAPPING	10
FIGURE 1-3: TRANSPORTATION ISSUES ADDRESSED IN THE 2030 LRTP	11
FIGURE 1-4: LOCATION OF PUEBLO COUNTY IN COLORADO	15
FIGURE 1-5: PACOG MPO AND PUEBLO TPR	16
FIGURE 1-6: 2035 LRTP STUDY AREA	17
FIGURE 1-7: SURROUNDING MPO'S AND TPR'S	18

1.1 Plan Overview

The **Pueblo Area Council of Governments (PACOG)** is the Metropolitan Planning Organization (federal designation) and Transportation Planning Region (state designation) for the Pueblo County region. The policy board of the *Metropolitan Planning Organization (MPO)* is the PACOG Board, charged with carrying out the metropolitan transportation planning process.

The requirement for metropolitan planning is established under the requirements of Title 23 United States Code, Section 134. To carry out the transportation planning process required by this section, a Metropolitan Planning Organization shall be designated for each urbanized area with a population of more than 50,000 individuals by agreement between the Governor and units of general purpose local government that together represent at least 75 percent of the affected population (including the central city or cities as defined by the Bureau of the Census).

Since the 1962 Federal-Aid Highway Act, federal enabling legislation for expenditure of surface transportation funds has required metropolitan area transportation plans and programs to be developed through a *continuing, cooperative, and comprehensive (3-C)* planning process. The PACOG MPO is charged with carrying out a continuing, cooperative, and comprehensive multimodal transportation planning process, including the development of a Metropolitan Transportation Plan and a Transportation Improvement Program (TIP). The plan and the TIP program encourage and promote the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways and bicycle transportation facilities). They also foster economic growth and development, while minimizing transportation-related fuel consumption and air pollution.

The Metropolitan Transportation Plan refers to the official multimodal transportation plan addressing no less than a 20-year planning horizon that is developed, adopted, and updated by the MPO through the metropolitan transportation planning process.

This document serves as the official transportation plan for both the State of Colorado and for the Federal Government.

The Pueblo Area Long Range Transportation Plan (LRTP) is a 25+-year plan for the development of transportation programs and projects within the Pueblo Area. The Plan identifies the *Existing Conditions* for each of the transportation modes and identifies the need for and location of future facilities. The *Preferred Plan* sets out a strategy to meet the transportation goals of the region between 2005 and 2035 while the *Fiscally-Constrained Plan* applies fiscal constraints to that same strategy. The LRTP also includes the *Coordinated Public Transit—Human Services Transportation Plan*, prepared as a locally developed, coordinated public transit-human services transportation plan to assure Pueblo’s eligibility for projects funded through three programs in SAFETEA-LU: the Job Access and Reverse Commute Program (JARC, Section 5316), New Freedom (Section 5317) and the Formula Program for Elderly Individuals and Individuals with Disabilities (Section 5310).

The LRTP has been developed by the Pueblo Area Council of Governments (PACOG) in cooperation with the jurisdictions and agencies responsible for development and maintenance of the transportation system. These jurisdictions and agencies include:

- The City of Pueblo
- Pueblo County
- Pueblo West Metropolitan District
- The Pueblo Memorial Airport
- Colorado Department of Transportation (CDOT), Region 2
- CDOT Division of Transportation Development
- CDOT Office of Finance, Management, and Budget

The study process, scope, initial results and assumptions were developed in collaboration with City and County Staff and were reviewed by the PACOG Transportation Advisory Commission (TAC), which is comprised of the Transportation Technical Committee (TTC) and the Citizens Advisory Committee (CAC).

1.2 Purpose and Scope

The need for the Pueblo Area Long Range Transportation Plan flows from Federal Legislation adopted in 1991 that requires state and local agencies to develop long range transportation plans for any region that receives federal funding for transportation projects. Section 5303

of the 2005 reauthorization of the Federal Highway Act, SAFETEA-LU, requires Metropolitan Planning Organizations to produce long-range plans that are based on the eight SAFETEA-LU Planning Factors summarized below. These factors are meant to establish a comprehensive framework within which individual programs can be funded.

In order to accomplish the objectives stated in section 5303(a) of SAFETEA-LU, each State is required to develop a statewide transportation plan and a statewide transportation improvement program for all areas of the State. Table 1 below summarizes the SAFETEA-LU planning factors considered in this LRTP.

Table 1-1: SAFETEA-LU Planning Factors

Supporting the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency

- 1. Increase the safety of the transportation system for motorized and nonmotorized users;**
- 2. Increase the security of the transportation system for motorized and nonmotorized users;**
3. Increase the accessibility and mobility of people and freight;
- 4. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;**
5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
6. Promote efficient system management and operation; and,
7. Emphasize the preservation of the existing transportation system.

Note: Bold indicates expanded Planning Factors in SAFETEA-LU from the TEA-21 Planning Factors

1.3 Consistency with State and Federal Planning Requirements

All processes and procedures contained in this plan were conducted in accordance with the Colorado Department of Transportation Plan

Development Guidelines and the FHWA / USDOT requirements contained in §5303 of the SAFETEA-LU legislation.

1.3.1 Safety and Security

Two specific Planning Requirements of SAFETEA-LU involve safety and security. These planning requirements are addressed through: 1) Provision of crash location, road conditions and roadway congestion data; 2) delegation of security issues to the Pueblo County Department of Emergency Management; and 3) provision of access mapping information to local emergency management agencies.

Within Chapter 2 of this plan (Existing Conditions), information is presented regarding crash locations, road conditions, and roadways with congestion.

Within Pueblo County, the Pueblo County Department of Emergency Management (DEM) handles most of the focus on the Security element. They are the coordinating agency for the City, County, School Districts, State, Metropolitan Districts, and other communities in the Pueblo region. The MPO has one representative appointed to the DEM Coordinating Committee.

DEM has four principal responsibilities – Emergency Preparedness, Emergency Response Teams, Public Information, and the Pueblo chemical Stockpile Emergency Preparedness. Much of the information used by DEM is homeland security or law enforcement based and is not generally available for publication. Rather than trying to duplicate the efforts of this local agency that has the responsibilities, the PACOG MPO/TPR defers to the Pueblo County Department of Emergency Management and Coordinating Committee.

The Colorado Department of Transportation, in coordination with local agencies also works toward the elimination of hazards and to improve safety of the roadway system in the PACOG MPO/TPR area. These include guard rail installation, divider installation, installation and upgrading of traffic control devices, working with the local police and Sheriff's departments to conduct education and enforcement activities.

1.3.1.1 Emergency Management Mapping Efforts

In developing the 2035 Plan, study staff worked with the City of Pueblo Fire Department to provide improved mapping and information services. Projects included information for the study and recommendation of new and relocated Fire Stations using the socio-economic and demographic information that is maintained by the MPO. Other projects included the creation of specific GIS mapping for the Fire Department of the local roadways, railroad facilities and yards, access points to rail yards and facilities that accommodate Fire Department Vehicles, access to the non-motorized trail system for the two rivers, and information as to the location of schools and employment centers.

Maps were provided at a number of different scales for use in the Fire Station map books that are maintained for each vehicle. Additionally copies of these maps were submitted to the Insurance Service Office Community Rating process.

A map collection packet prepared for Pueblo Fire Station #3 is an example of the MPO services provided to public safety agencies. This map packet utilized the following information used in the preparation of the 2035 LRTP.

- City of Pueblo Corporate Map
- Bike and Trails Map
- Schools, Colleges, Universities
- Employment Centers
- Land Uses – Parks and Recreation Facilities
- Land Uses – Commercial and Business Areas
- Land Uses – Heavy Industrial Zoned Areas
- Railroad Facilities
- Rail access points from Roadways
- Major Roadway network
- State Highway system

Other maps include slopes and terrain as they relate to rural or wild land firefighting.

The following maps (Figures 1.1 and 1.2) are examples from the emergency management planning and security mapping efforts that were provided to the Fire Department.

Figure 1.1: Fire Department Railroad Access Map

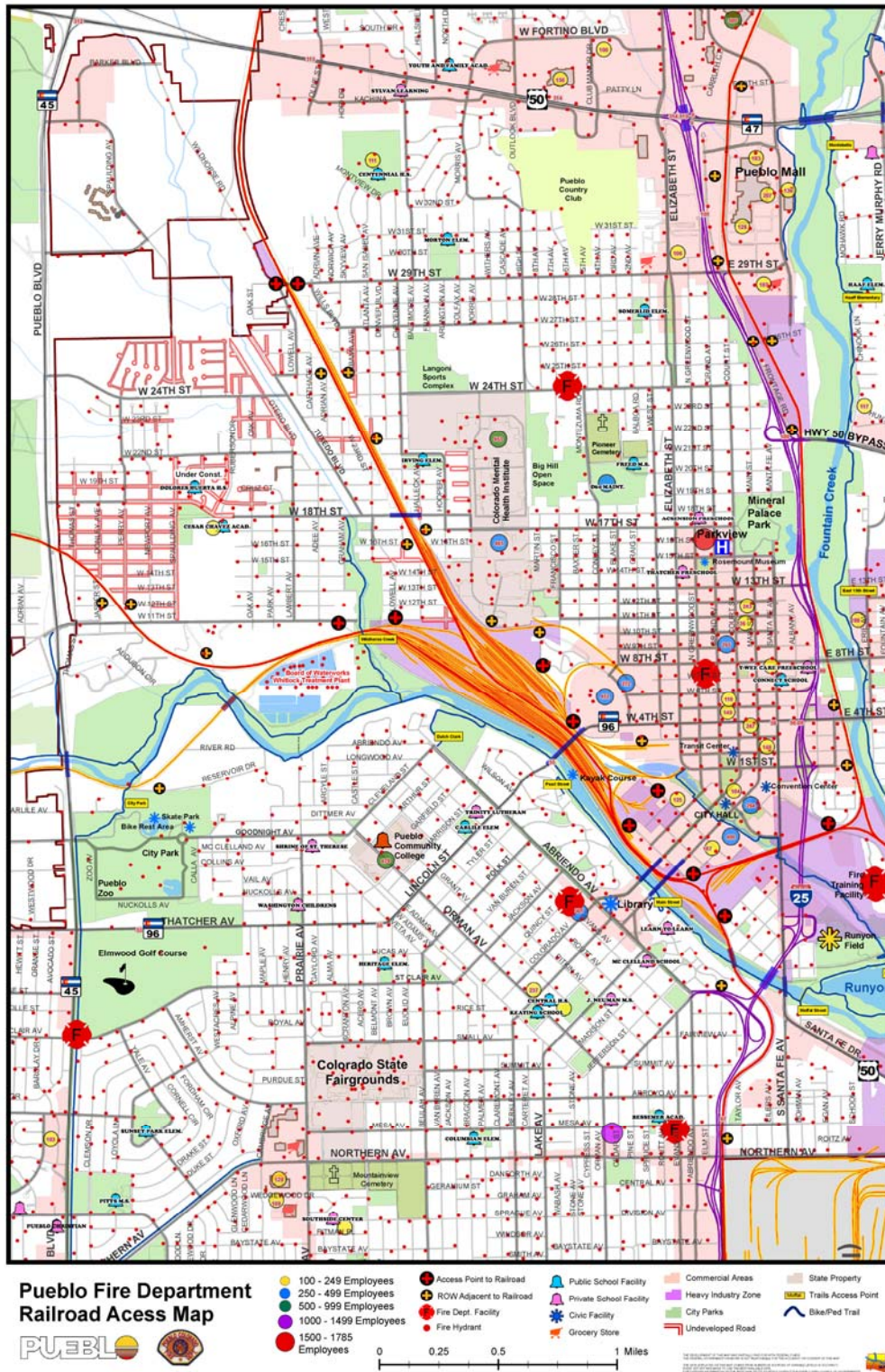
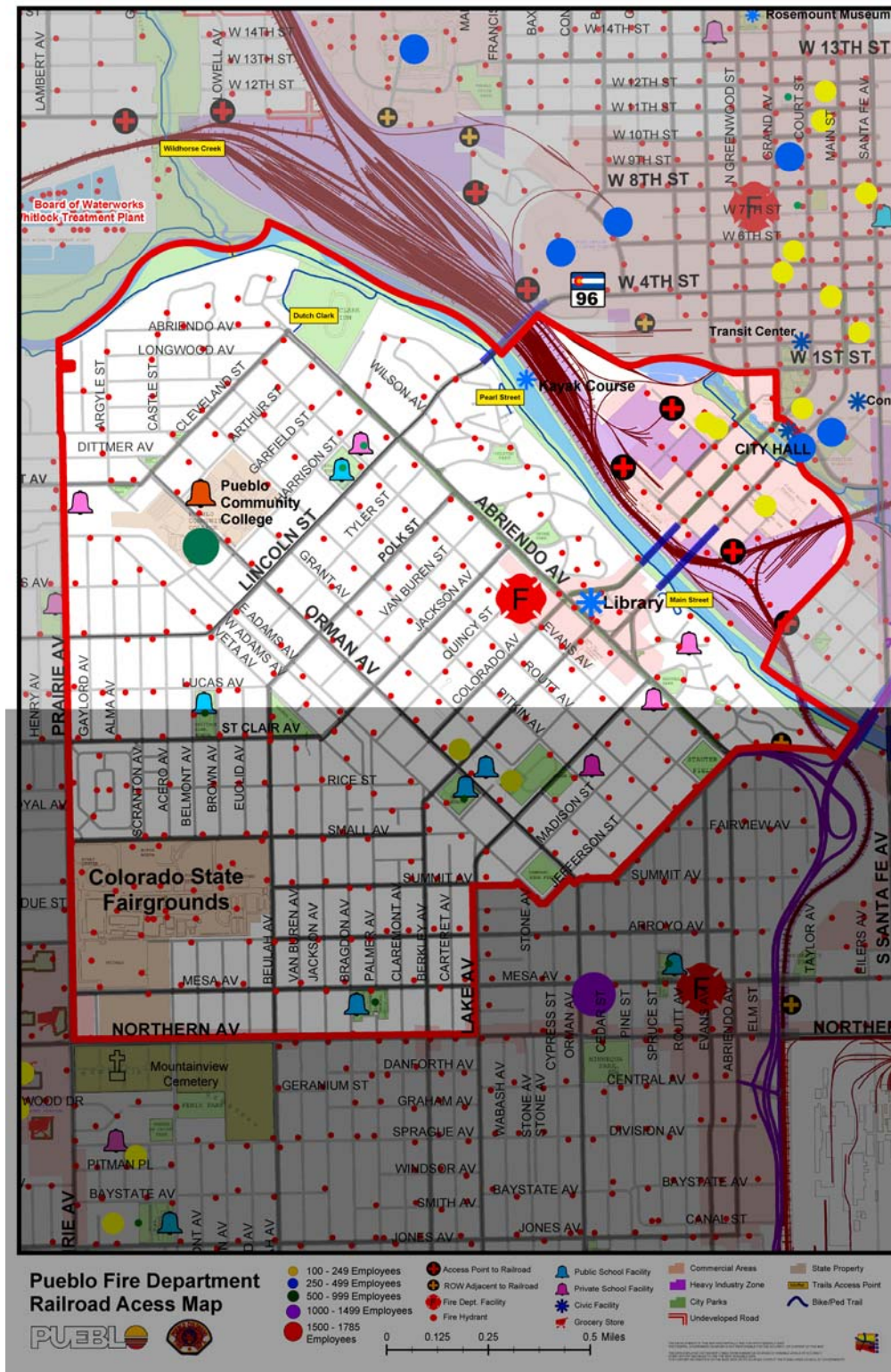


Figure 1.2: Fire Department Station Mapping



1.4 Evolution of Current Issues and Strategies from the 2030 LRTP

The planning effort for the 2030 Long Range Plan identified a series of 17 “Transportation Issues” that the transportation plan should address. These issues were presented at the 2035 Long Range Plan Public Open Houses in 2006-07 and provided guidance for the plan.

Figure 1-1 identifies these 17 issues along with their general location.

Figure 1-3: Transportation Issues Addressed in the 2030 LRTP

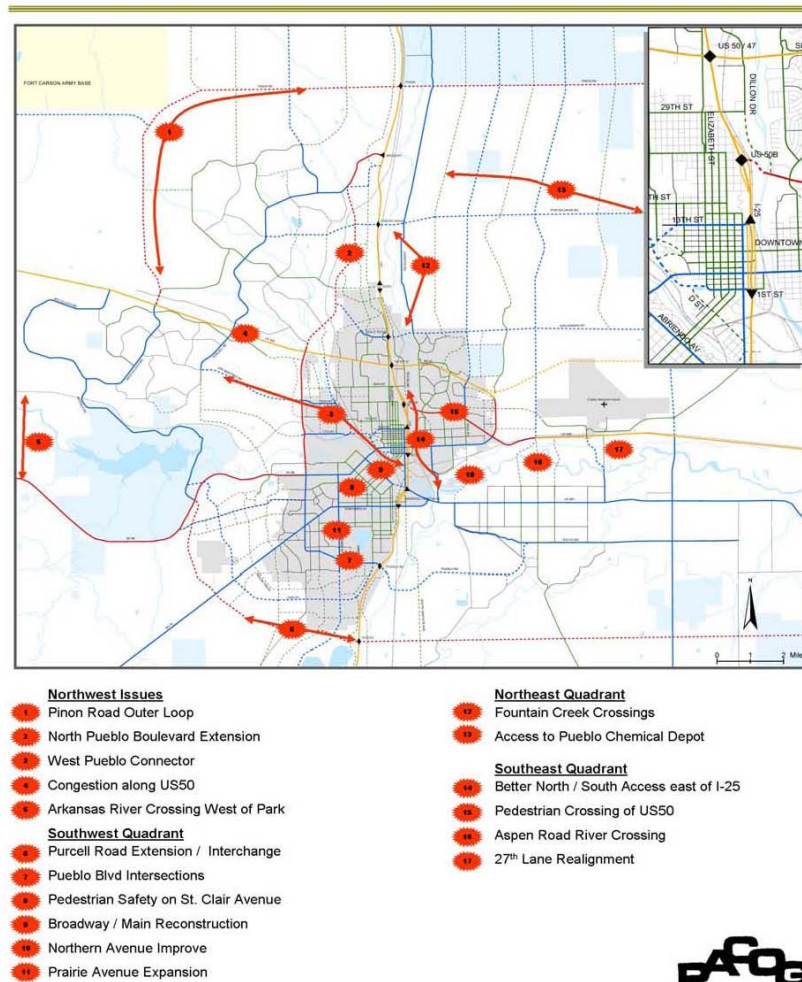




Table 1-2: Status of 2030 Transportation Issues

Project	2007-20012 TIP	2035 LRTP
<p>Pinon Road Outer Loop-West This project is not included in the 2035 LRTP due to the development of an open space buffer around Ft. Carson</p>		NO
<p>West Pueblo Connector Part of this project is included in the Honor Farm Master Plan and the issue will be studied as part of the Highway 50 West corridor study in 2007-2009</p>		YES
<p>North Pueblo Boulevard Extension This project is still desired. The funding for the development of this roadway has not been identified and with the loss of the Pinon Loop, the role of this proposed State Highway is greater in the future transportation network.</p>		YES
<p>Congestion along US50 Corridor As more residential and Commercial development occurs in Pueblo West, the issue will grow. The issue will be studied as part of the Highway 50 West corridor study in 2007-2009.</p>		YES
<p>Arkansas River Crossing - West of Lake Pueblo As previously identified, the crossing of the Arkansas River would improve access to and from western Pueblo County</p>		YES
<p>Purcell Road Extension (South of South Pointe) This future Road is needed to connect I-25 with State Hwy 78 and State Hwy 96</p>		YES
<p>Pueblo Blvd Intersections – South Side As development occurs along the southern section of Pueblo Blvd, many of these intersections will be reconstructed.</p>		YES
<p>Pedestrian Safety at St. Clair Ave. This project is still needed due to the traffic on Pueblo Blvd.</p>		YES
<p>27th Lane Realignment This project is needed to provide better</p>		YES



<p>connectivity between the St. Charles Mesa and the State Highways – 47, 50, and 96 and the Airport Industrial Park. This roadway is shown as extending to Baculite Mesa and providing additional connectivity.</p>		
<p>Aspen Road Crossing of Arkansas River With the rebuilding of Aspen Road north of the Arkansas River, the crossing is desired as part of a parallel to I-25.</p>		YES
<p>Broadway / Main Reconstruction Until such time as I-25 is reconstructed, there is a need for better north-south connectivity between portions of Pueblo south of the Bessemer Ditch and the Downtown/Harp areas. Construction and operational changes have been made at this intersection, but improved functions are needed between Lake Ave and Union Ave along Abriendo Ave.</p>		YES
<p>Northern Avenue Improvements Widening and improvements were made to the lane alignments and parking on East Northern from Bohmen to Taylor, to improve traffic and pedestrian safety at Northern and Santa Fe.</p>		NO
<p>Better Access – North to South, East of I-25 (Erie/Joplin/ SH 227) This is a route east of the Fountain Creek parallel to I-25 which would allow traffic from the St Charles Mesa to have access to downtown at 4th and 8th Streets and north to US 50B without using I-25. From US 50B the same traffic could continue along Dillon Drive to major retail and commercial areas.</p>		YES
<p>Access to Pueblo Chemical Depot This project is under construction as part of the Pueblo Chemical Depot demilitarization project. This connection will also create a second major access to the Airport Industrial Park, Pueblo Chemical Depot, and the Transportation Technology Center.</p>	YES	
<p>Fountain Creek Crossings – North of State Hwy 47 In the 2035 LRTP, an additional crossing of the Fountain Creek is included north of the Eagleridge/47th crossing. It is expected that the construction of this connection will be</p>		YES



funded by development in the area.		
<p>Prairie Avenue Extension South From Farabaugh With the beginning of the construction of commercial property along the southern section of Pueblo Blvd and the creation of the Lake Minnequa Urban Renewal Area, this roadway should be extended as part of the development of the surrounding area.</p>	LOCAL	
<p>Freeway/Expressway Parallel to I-25 to El Paso County As part of the development of the 2035 LRTP, some consideration is given to a major connection between State Hwy 47 in Pueblo County and State Highway 21 (Powers Blvd) or the Banning-Lewis Ranch Parkway in El Paso County. The need for such a facility will depend on the actual future development in the NE Quadrant of Pueblo County.</p>		YES

1.4.1 Implementation of these projects

Funding for the implementation of transportation projects has been and remains the greatest source of uncertainty since the adoption of the 2030 plan. The cost of constructing projects has risen substantially in the last few years and as a result, many have become simply cost prohibitive under current funding sources.

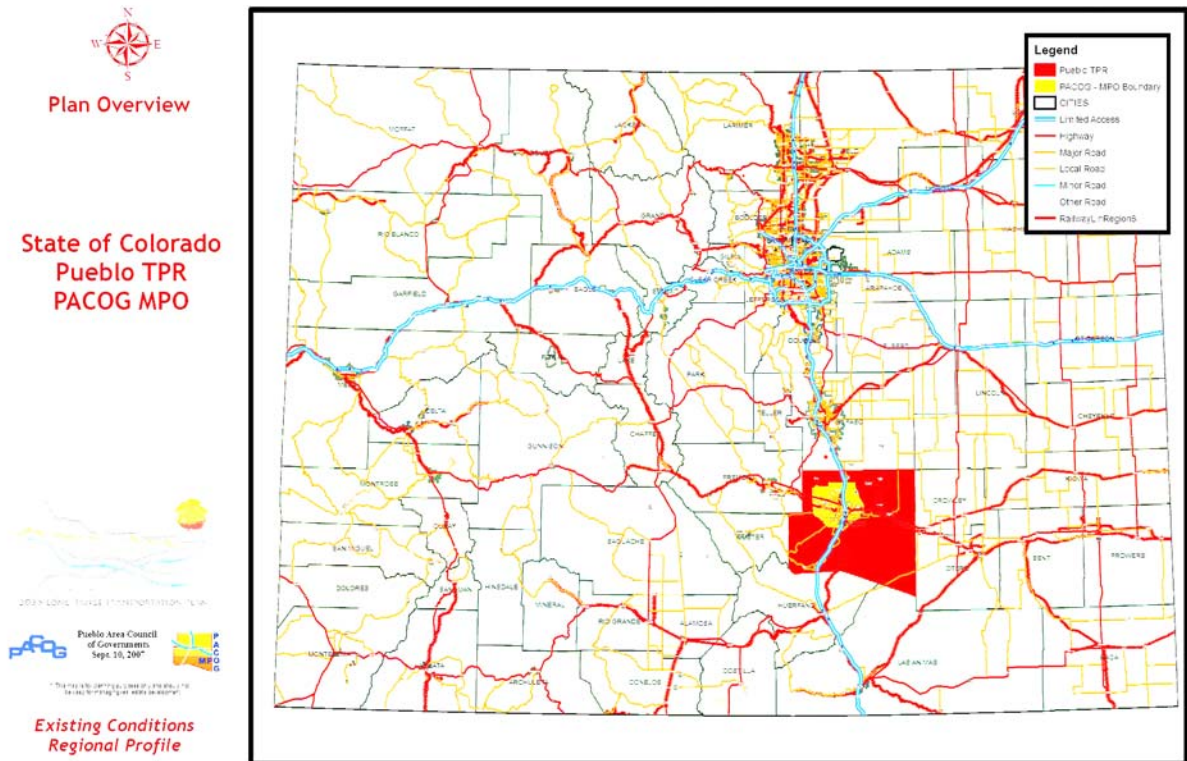
While the development of a Long Range Transportation Plan is an important part of the regional planning and development process, the primary instrument for project selection and timing will be the six-year Transportation Improvement Program which considers the actual availability of transportation revenues in the region.

This issue is addressed in more detail in Chapter 9 – Fiscally Constrained Plan.

1.5 Study Area for the 2035 LRTP

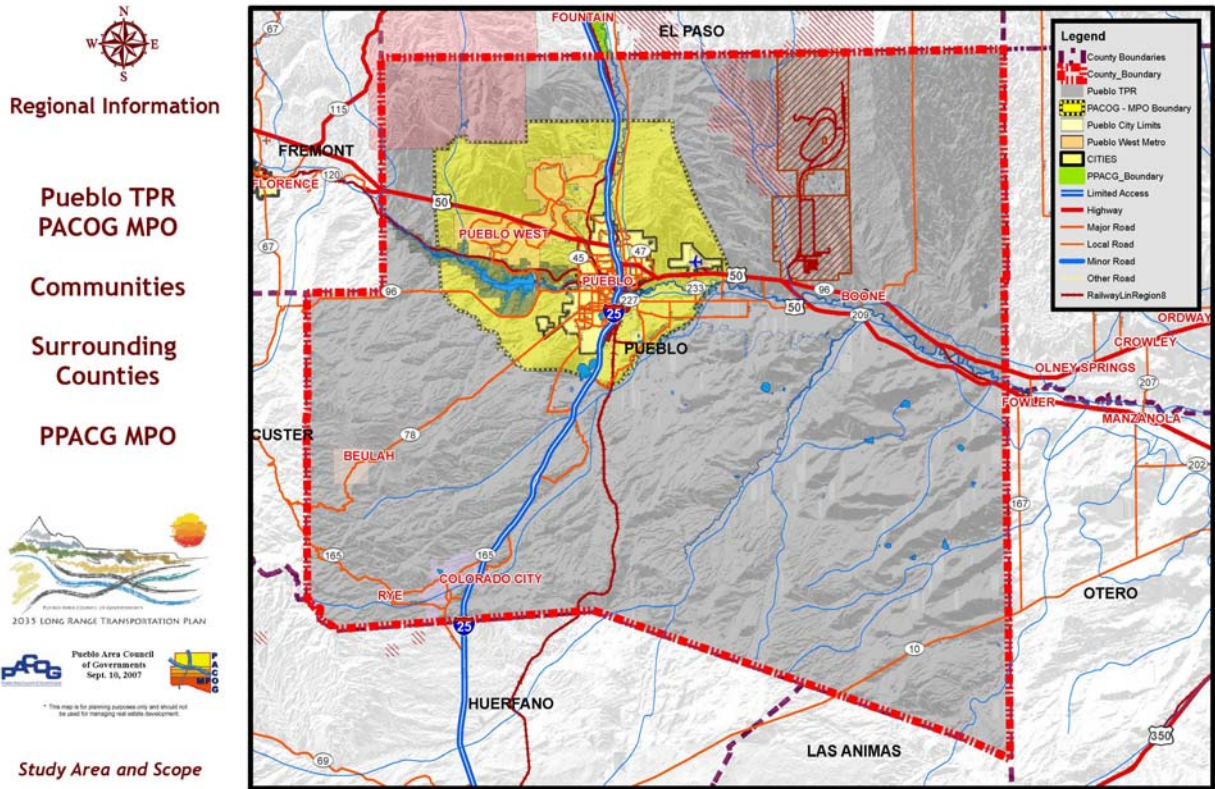
As with the 2030 Plan, the study area for the Long Range Transportation Plan includes the entire Pueblo Transportation Planning Region (Pueblo TPR) with a focus on the area of the MPO. The boundaries for the Pueblo TPR are concurrent with those of Pueblo County. Pueblo County is located in the southern portion of the State of Colorado.

Figure 1-4: Location of Pueblo County in Colorado



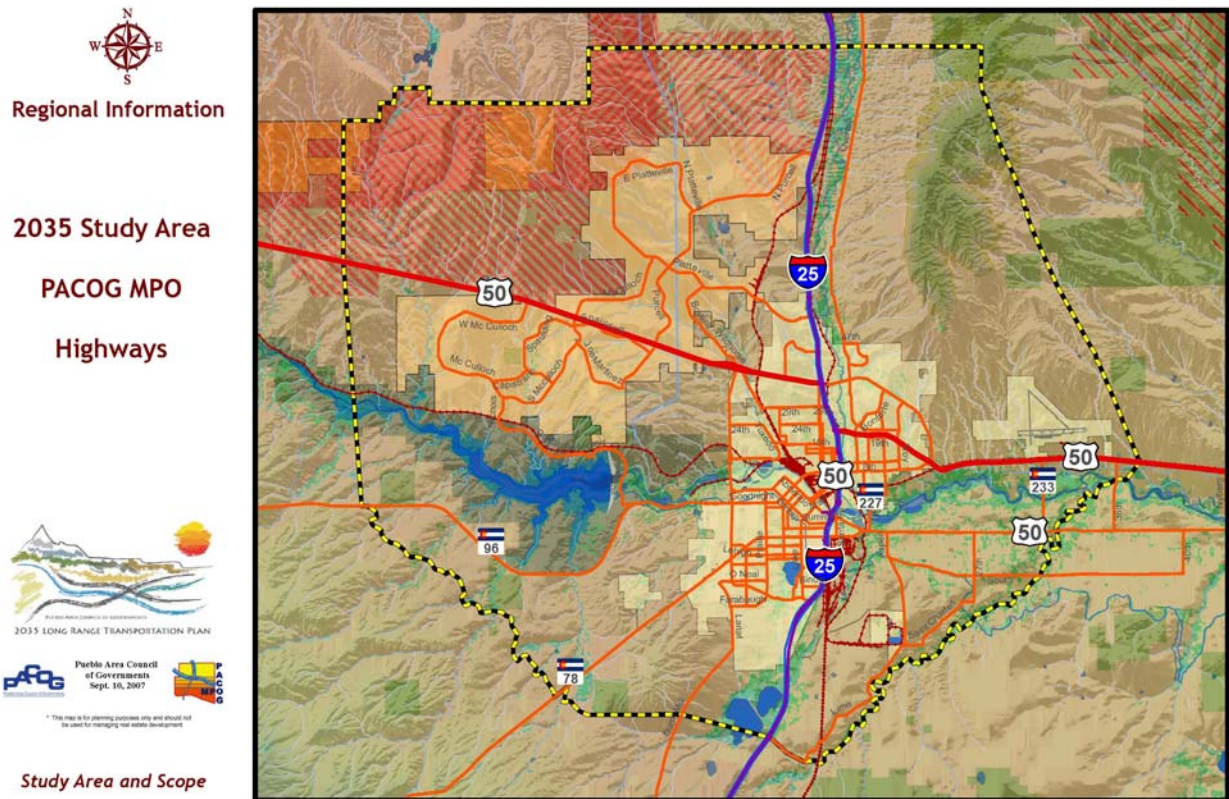
The primary or “3C” study area is the Pueblo Metropolitan Planning Area designated by agreement of the US Census Bureau, FHWA, FTA, CDOT, and the MPO. It is slightly larger than the Pueblo Urbanized Area as designated by the 2000 Census and is illustrated in Figures 1-4 to 1-7. This area was defined for urban transportation planning under the provisions of TEA-21 and was unchanged in SAFETEA-LU. The “3C” process results in plans and programs that consider all transportation modes and support metropolitan community development and social goals.

Figure 1-5: PACOG MPO and Pueblo TPR



Two communities, the City of Pueblo and the Pueblo West Metropolitan District, comprise the bulk of the 3C area’s population and employment. There are several other smaller unincorporated communities within this area, including Salt Creek, Blende, Baxter, and the Saint Charles Mesa. These are well known to Pueblo area residents, but do not have any official governing organization or town charter. The area of Pueblo County surrounding the MPO area contains two incorporated towns, Boone in the northeast and Rye, located in southwest Pueblo County. Several other unincorporated communities, including Avondale, Beulah, and Colorado City are located in this contiguous region. Pueblo County has a varied topography, ranging from mountain peaks in the southwest to the rolling plains in the eastern half of the County. Major roadways include Interstate 25 running north and south and US Highway 50 (A,B, and C in the Pueblo Area) running east and west.

Figure 1-6: 2035 LRTP Study Area

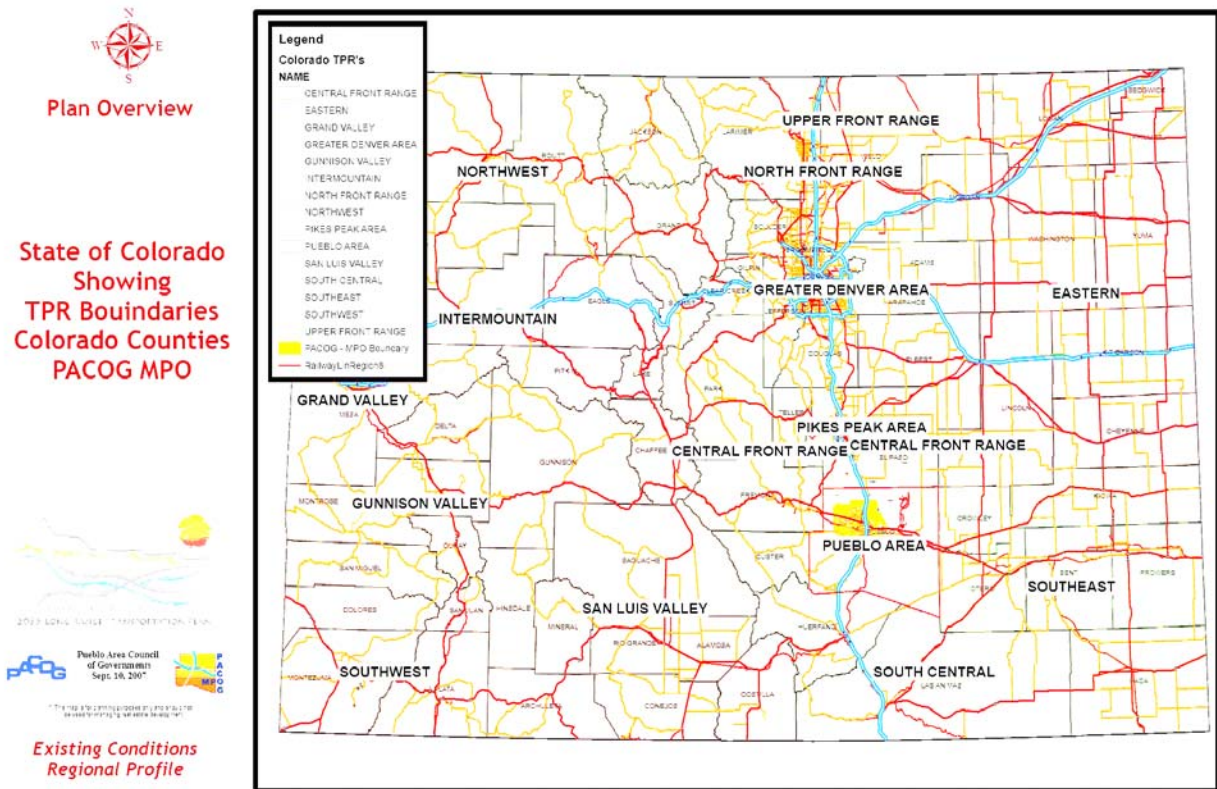


The MPO is about 15% of the area of the county, but accounts for approximately 90% of Pueblo County’s resident and worker population. However, there are two facilities located outside of the MPO Study Area, the Pueblo Chemical Depot and the Transportation Technology Center, which are among the more important employers in Pueblo. Both of these are located in northeastern Pueblo County. Each accounts for several hundred jobs, and both have the potential of experiencing significant job increases over the next several years.

Figure 1-4 shows the study area for this plan and identifies the urbanized planning area, unincorporated urban areas, and incorporated urban areas that are the focus of this plan.

The Pueblo TPR is adjacent to three rural TPR’s – Southeast, South Central, and the Central Front Range. The Pueblo TPR also shares a common boundary with the Pikes Peak Area MPO at the county line between Pueblo and El Paso Counties.

Figure 1-7: Surrounding MPO's and TPR's



1.6 Regional Vision

1.6.1 Planning Considerations

Transportation systems affect most significant aspects of human society including:

- Settlement patterns;
- Land development and land use;
- Economic activity including employment and wages;
- Goods movement and trade;
- Energy and resource allocation;
- Work, education, health care, social life, and commerce;
- General social environment and equity;
- Environmental quality; and
- Overall livability of communities and metropolitan areas.

How and how well a transportation system functions has deep and long-term consequences for the quality of both the built and natural environments and the persons who inhabit them.

The Pueblo Area Regional Transportation Vision provides for a well-integrated multimodal transportation system that serves individual, local, regional, state, and national needs to support the continued development of a quality community with sustainable growth, economic vitality, and adequate mobility options. This Vision is supported by four goals that together form the basis for the proposed projects and programs of the Long Range Plan.

1.6.2 Goal 1: Mobility

Plan, develop, and maintain a safe and efficient transportation system to preserve and enhance the present and future mobility needs of the Pueblo Region.

- 1.1 Maintain, protect and improve safety for the multi-modal transportation system users;
- 1.2 Improve and expand public transportation and transit services to provide access to regional medical facilities, employment centers, social activities, and to other essential life services;
- 1.3 Develop, improve and maintain pedestrian facilities to create a barrier-free walkable community;
- 1.4 Minimize traffic congestion by emphasizing transportation system management and operations techniques with travel demand management strategies to improve passenger carrying capacity of the network;
- 1.5 Develop an alternative roadway connection between Pueblo West and Downtown to reduce congestion on US 50 and I-25;
- 1.6 Develop plans to improve operation and safety of I-25 through the region;
- 1.7 Develop alternate routes to accommodate local trips parallel to I-25 and US 50;
- 1.8 Identify additional crossing locations of the Arkansas River to improve mobility for all transportation modes;

1.6.2 Goal 2: Livability

Balance the mobility needs of the community with the community objective of creating a livable human and natural environment. Plan and develop transportation along with land use planning activities.

- 2.1 Involve community organizations and neighborhood groups in the transportation planning process;
- 2.2 Minimize air, noise and other adverse transportation impacts on residential areas;
- 2.3 Protect, and support the revitalization of existing neighborhoods by minimizing the volume of through traffic generated outside the neighborhood;
- 2.4 Improve pedestrian access and circulation within, and between neighborhoods, and commercial pedestrian oriented business areas such as Downtown;
- 2.5 Consider plans for new employment centers when planning transportation programs and facilities.

1.6.3 Goal 3: Intermodalism

Encourage the use of transportation modes other than the single-occupant automobile. Focus on developing facilities that link modes together.

- 3.1 Improve and expand public transportation and transit services through the urbanized area to provide access between one's home and the workplace;
- 3.2 Ensure connectivity between major activity centers by developing and promoting mode transfer points (e.g., park-and-ride facilities, bike-on-bus, etc.) to enhance the use of alternative modes within the inter-modal transportation system;
- 3.3 Adopt and maintain a Regional Trails Plan that identifies the future alignment of all regionally significant off-street trails and on-street bicycle facilities.
- 3.4 Identify possible locations for future Park and Ride facilities (bus and commuter rail), trailhead locations, and public transportation transfer locations.
- 3.5 Identify locations of existing or future freight transfer points.

1.6.4 Goal 4: Strategic Planning

Implement and maintain the planned transportation system in a coordinated and cost-effective manner.

- 4.1 Adopt and maintain a Corridor Preservation Plan that identifies the future alignment and classification of all regionally significant roadway corridors.
- 4.2 Assist local governments in identifying the need for advance corridor preservation, right-of-way reservation and/or dedication, and potential funding sources – public and private – for the construction of identified transportation facilities;

- 4.3 Prioritize improvements and programs based on the value of community benefits with respect to costs and available funding opportunities.
- 4.4 Develop a transit operations and funding plan that can guide Transit System service area enhancements, service expansion, and service efficiency.

1.8 Public Participation in the 2035 LRTP

The PACOG Long Range Transportation Plan has been developed in accordance with the PACOG Public Involvement Program (PIP) adopted in August 2004. The PIP guidelines include the broad goals of keeping people informed and involved on a continual basis and facilitating cooperation and consensus building. Public participation in accordance with the PIP began with the development of Quadrant Studies prepared for the 2030 Plan and continues through the development of the 2035 Plan.

1.8.1 Public Input Process

The public input process for the Plan included several components:

1. The primary ongoing form of public input to the planning process has been the involvement of the *MPO Transportation Advisory Commission*. The Transportation Advisory Commission (TAC) is made up of the Transportation Technical Committee (TTC) and the Citizens' Advisory Committees (CAC). The TTC includes representatives from all agencies with responsibilities for various transportation modes including but not limited to automobiles, bicycles, airports, pedestrians, transit systems, passenger and freight rail systems, and commercial vehicles.

The CAC has representatives from the Pueblo County Planning Commission, the City of Pueblo Planning and Zoning Commission, the 2010 Commission (volunteer citizen group), the Pueblo Economic Development Corporation (PEDCO) and three representatives of the community-at-large appointed by the PACOG Board. These members of the CAC have an understanding of the overall community, development processes, and the interaction between development and the transportation system. In early 2007, four meetings of the TAC were partially or entirely devoted to input to the 2035 Plan and the TAC continues to review the plan and process.

2. A series of four *independent public meetings* was conducted as part of the planning process. Meetings were held in Colorado City, Pueblo West and two within the City of Pueblo. Four additional public meetings were held in June 2007, primarily focused on *input to the Coordinated Human Services Transit Plan (see Chapter 5)*, but also with input collected to the broader issues of the 2035 Plan. Planning staff collected verbal and written comments on issues expressed by citizens at the meetings.
3. Written surveys were collected, both from participants at the public meetings and from a web-based version of the same survey.
4. A Long Range Planning contact list was established of parties interested in transportation in the PACOG Region. Email notifications and messages have been sent to this contact list on a continuing basis, with relevant transportation information, notices of meetings, special communications and notification of approaching agenda deadlines for the TAC and PACOG Board. In addition, this information is posted to the MPO website www.PACOG.net.
5. Reasonable notice has been provided for all public meetings along with adequate opportunity to comment on issues and draft documents prior to and following the meetings. Public notice has included press releases and public service announcements of regional and statewide transportation planning activities open to the public.
6. Periodic review of the effectiveness of the regional transportation planning public involvement process has been conducted to ensure that the process provides full and open access to all interested parties. Revisions have been made to the process as necessary.

1.8.2 2035 Plan Public Meetings

PACOG hosted 12 meetings for the development and/or amendment of the Long Range Transportation Plan. Meetings included presentations to the Transportation Advisory Commission (TAC), public open houses, and meetings in four quadrants of the community. Table 1-3 below lists the public meetings over the development of the planning process.

All public involvement activities have been held in locations that were ADA accessible to disabled populations and those with limited transportation options.



Meeting Date	Location	Number in Attendance
1-09-2007	Colorado City (County, SW Quadrant)	4
1-23-2007	Pueblo West	29
1-30-2007	Rawlings Library, Pueblo (County, NW Quadrant, City North)	14
1-31-2007	Rawlings Library, Pueblo (City, south)	10
February 1, 2007	Pueblo City Hall	Transportation Advisory Committee Meeting, 12
March 1, 2007	Pueblo City Hall	Transportation Advisory Committee Meeting, 12
April 5, 2007	Pueblo City Hall	Transportation Advisory Committee Meeting, 12
May 3, 2007	Pueblo City Hall	Transportation Advisory Committee Meeting, 12
June 14, 2007	Pueblo Transit Authority	15
June 20, 2007	SRDA	12
June 22, 2007	City/County Dept. of Housing	1
June 28, 2007	AARP	3
Totals	12 meetings	136

1.8.3 Public Input Survey Findings

A total of 26 surveys were received. Fifteen (57.6%) listed Pueblo West (zip 81007) as location of residence. 19% were aged 66 or over; 27% were 56-65; 11% were 46-55; 31% were 36-45; 11% were 26-35; and .04% were under 25. 42% learned of the meetings through newspaper ads, with 38% listing “other sources” as how they learned of the meeting. 73% drove to the meeting, with a mean distance from residence to the meeting of 3.97 miles.

Table 1.4 below summarizes the percentages of survey respondents indicating a given issue was important to improving the effectiveness of the transportation system. The most often reported issues were better maintenance, improved bicycle access and facilities, and more roadway capacity. Better maintenance was the most strongly reported priority by the on-line respondents. The least often chosen priorities were lower speeds, lower travel times, and better transit connections. Several attendees at the meetings wrote in landscaping and commuter trains as important issues.

**Table 1.4: Transportation Improvement
Priorities in 2035 Plan Public Input
Surveys**

Priorities	%
Better maintenance	15.4
Improve Bicycle access and facilities	14.1
More roadway capacity	11.5
Better roadway connections	10.2
Improved sidewalks & pedestrian paths	10.2
Less congestion	8.9
Better traffic control devices	6.4
Improve Public Transportation	5.1
Safety improvements	3.8
Lower speeds	3.8
Lower travel times	2.5
Better Transit connections	2.5
Landscaping along roads	2.5
Commuter Train north	2.5

Respondents were also asked to rank the importance of four broad transportation system goals. Results are summarized in Table 1.5. Implementing and maintaining the planned transportation system in a coordinated and cost-effective manner was ranked significantly higher than other goals. Planning, developing and maintaining a safe and efficient transportation system to preserve and enhance the present and future mobility needs of the Pueblo region was the lowest ranked goal.

Table 1.5: Respondent Rankings of Transportation Goals	
Goal	Mean Ranking (4=highest; 1=lowest)
Coordinated & Cost-Effective Implementation	3.16
Encouraging Multi-Modal Transportation	2.75
Balancing Mobility With Livability	2.3
Safe, Efficient Transportation System	2.1

At the Public Input Meetings staff members heard a wide variety of concerns from those in attendance in addition to those reported on the surveys. The results ranged from operations/maintenance to those speaking about improving multi-modal options throughout the community. In Pueblo West, the majority of the concern was the congestion along the Highway 50 West corridor and the desire to create an additional connection to the City of Pueblo. Related to this is an overall desire to have greater connectivity between various activity centers.

Generally there were comments requesting two or three connections or transportation modes to and from where people live. At each meeting, concern was expressed with the overall conditions of roadways throughout the community. The issues of bicycle and pedestrian improvements were made regarding *all* parts of the community. People understood that they have both a need and desire to get between the places of work and home efficiently, *and a strong*

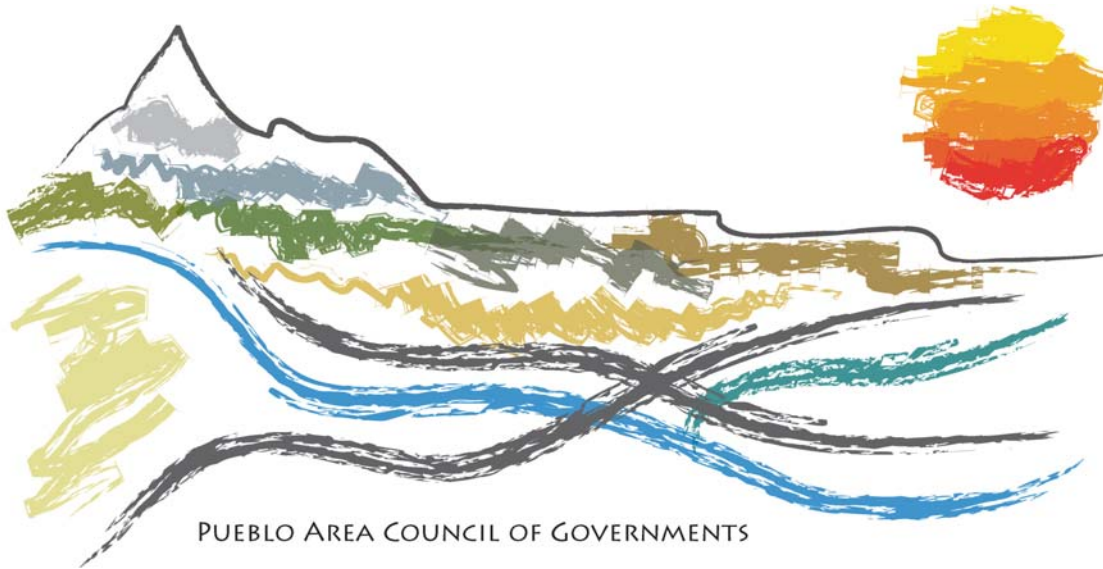
desire to make the local community transportation system friendlier for pedestrians and bikes. These are quality of life issues for those who attended the Public Input Meetings.

1.9 Environmental Justice

In accordance with state and federal requirements and policies, the development of the Long Range Transportation Plan considered the three fundamental principles of environmental justice:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects on minority and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Areas characterized by a predominance of low-moderate income and high minority concentration populations are exhibited and discussed in Chapter 5, the Coordinated Human Services-Public Transit Plan. These areas will need to be further studied in comparison with locations of substantial environmental impact to determine whether disadvantaged populations in Pueblo are disproportionately exposed to environmental hazards. More specific spatial analysis has been initiated by the MPO, combining census data with parcel-level data from the Pueblo County Assessor. This helps to identify portions of the study area that could be affected in the future by transportation related Environmental Justice issues.



PUEBLO AREA COUNCIL OF GOVERNMENTS
2035 LONG RANGE TRANSPORTATION PLAN

Chapter 2

Existing Transportation System

DRAFT

December 2007

NOTE: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.



Table of Contents

2.1 Roadway Element	5
2.1.1 Use of Roadways	5
2.1.2 State Highways	6
2.1.3 Scenic Byways	7
2.1.4 Commercial Vehicle Routes	9
2.1.5 Hazardous Materials Routes	10
2.1.6 Nuclear Materials Route	11
2.1.7 Pavement Condition	12
2.1.8 Interstate 25 Through Pueblo	15
2.1.9 Safety	16
2.1.10 Systems Operations	22
2.1.11 Intelligent Transportation Systems (ITS)	24
2.2 Freight and Rail Systems	25
2.2.1 Introduction	25
Designated Truck Routes	25
Major Rail Routes	25
2.2.2 Existing Conditions: Trucking	26
2.2.2.1 Existing Truck Volumes	27
2.2.3 Existing Conditions: Rail	29
2.2.3.1 Existing Rail Facilities	30
2.2.3.2 Transportation Technology Center	32
2.3 Freight Needs	33
2.3.1 Freight Needs - Truck	33
2.3.2 Freight Needs - Rail	33
2.3.3 Rail Corridor Preservation	34
Abandonment Activity	35
2.4 Commuter Rail / Light Rail / Bus Rapid Transit	36
2.4.1 Introduction	36
2.4.2 Rocky Mountain Rail Authority	36
2.4.3 Light Rail / Trolley	39
2.5 Non-motorized Transportation	40
2.5.1 Introduction	40
2.5.2 Non-Motorized Program Goals and Objectives	40
2.5.2.1 Non-Motorized Transportation Objectives:	41
2.5.3 Design and Safety Goals	41
2.5.4 Recommended Regional Trail Design Guides	42
2.5.5 Existing Conditions: Sidewalks	42
2.5.6 Safe Routes to School	43
2.5.7 Existing Conditions: Bikeways And Trails	44
2.5.7.1 On-Street Bikeways	44
2.5.7.2 Trails	45



Existing Trails Corridors	45
Proposed Trails Corridors	46
Pueblo West Metropolitan District	46
Statewide and National Bikeways and Trails Systems	47
2.5.8 Developments Since the 2030 LRTP	48
2.6 Aviation	52
2.6.1 The Airport Layout Plan	54
2.6.1.1 Airport Location and Access	54
2.6.1.2 Taxiways and Aprons	55
2.6.1.3 Airport Operations	56
2.6.1.4 Air Carrier & Air Taxi Services	58
2.6.1.5 General Aviation	58
2.6.2 Commercial Hangar Development	60
2.6.3 Military Aviation	61
2.6.4 Air Freight	61
2.6.5 Operating Revenue	63
2.6.6 Aviation Needs	63

List of Tables

TABLE 2.1 U.S. CENSUS “JOURNEY TO WORK” DATA (WORKERS 16 AND OVER)	6
TABLE 2.2 STATE HIGHWAY MILES AND CONDITIONS PUEBLO COUNTY	13
TABLE 2.3 HIGH-CRASH INTERSECTION LOCATIONS 2003 – 2006	18
TABLE 2.4 2006 INTERSECTION CRASH-TYPE INFORMATION	19
TABLE 2.5 CDOT ON-SYSTEM BRIDGE RATINGS	20
TABLE 2.6 CITY BRIDGE RATINGS	21
TABLE 2.7 PUEBLO COUNTY BRIDGE REPLACEMENTS 2005-2010	21
TABLE 2.8 CITY OF PUEBLO SIDEWALK INSTALLATION, 2004-2006*	43
TABLE 2.9 CITY OF PUEBLO CURB RAMP INSTALLATION, 1993 - 2007*	44
TABLE 2.10 COLORADO FRONT RANGE TRAIL RECOMMENDED TRAIL DEVELOPMENT STANDARDS	48
TABLE 2.11 PUEBLO MEMORIAL AIRPORT OPERATIONS FOR 2004 AND 2006	56
TABLE 2.12 PUEBLO MEMORIAL AIRPORT OPERATIONS (ADJUSTED FOR DOSS OPERATIONS)	57
TABLE 2.13 PUEBLO BASED AIRCRAFT	59
TABLE 2.14 ANNUAL CARGO (POUNDS)	62
TABLE 2.15 FORECAST ANNUAL CARGO (TOTAL POUNDS)	62
TABLE 2.16 PUEBLO MEMORIAL AIRPORT CAPITAL NEEDS 2007-2025	64
TABLE 2.17 CITY OF PUEBLO AIRPORT CAPITAL IMPROVEMENT PROGRAM	64



List of Figures

FIGURE 2.1 STATE HIGHWAYS IN PUEBLO COUNTY	7
FIGURE 2.2 THE FRONTIER PATHWAYS NATIONAL SCENIC BYWAY IN PUEBLO COUNTY	9
FIGURE 2.3 COMMERCIAL VEHICLE ROUTES IN PUEBLO COUNTY	10
FIGURE 2.4 HAZARDOUS MATERIALS ROUTES IN PUEBLO COUNTY	11
FIGURE 2.5 NUCLEAR MATERIALS ROUTES IN PUEBLO COUNTY	12
FIGURE 2.6 STATE HIGHWAY CONDITIONS IN PUEBLO COUNTY	14
FIGURE 2.7 HIGH-CRASH INTERSECTION LOCATIONS - 2006	17
FIGURE 2.8 PRIMARY FREIGHT ROUTES IN PUEBLO COUNTY	26
FIGURE 2.9 EXISTING TRUCK VOLUMES	27
FIGURE 2.10 NATIONAL TRUCK FREIGHT FLOWS IN COLORADO	28
FIGURE 2.11 RAIL FLOWS IN AND THROUGH COLORADO	30
FIGURE 2.12 ACTIVE RAIL LINES AND LOADING FACILITIES	31
FIGURE 2.13 TTCI RAIL FACILITIES	33
FIGURE 2.14 POSSIBLE ROUTES FOR A FRONT RANGE COMMUTER RAIL	38
FIGURE 2.15 CITY, COUNTY, AND PUEBLO WEST BICYCLE ROUTES & RECREATIONAL TRAILS MAPS	50
FIGURE 2.16 PACOG MPO/TPR NON-MOTORIZED PLAN MAP	51
FIGURE 2.17 AIRPORTS IN THE PUEBLO REGION	52
FIGURE 2.18 PUEBLO MEMORIAL AIRPORT RUNWAYS	55
FIGURE 2.19 AIRPORT OPERATIONS	58
FIGURE 2.20 HISTORICAL AIR PASSENGER SERVICE, 1980 - 2002	60



2.1 Roadway Element

Pueblo's roadway system consists of over 2,400 miles of public roadways, of which approximately 420 miles are classified as "major roadways" – those classified as a Minor Arterial or above. These major roadways serve to transport people and goods to destinations around the region and in the case of the highway system, move goods and people across the region as quickly and safely as possible.

2.1.1 Use of Roadways

Roadways continue to be the dominant transportation system in Pueblo, as they have since the 1940s, when automobiles and motorized buses took over from walking and rail as the dominant form of transportation nationwide. Journey-to-Work data from the US Census confirms the continued use of automobiles as the favored mode of transportation for Pueblo workers. Mode use by workers is an important indicator, since much of the transportation system is designed for peak-hour use, when the work force is on their way to or returning from work.

Table 2.1 shows the modes of transportation reported by Pueblo workers in the 2000 Census. As in 1990, the vast majority of workers (over 79 percent) drove to work alone while approximately 14 percent carpooled and an additional 0.9 percent traveled by motorcycle or public transportation. These modes all require roadway facilities to operate. Approximately 2 percent of workers walked to work while 3.3 percent worked from home.



Table 2.1
U.S. Census “Journey To Work” Data
(Workers 16 And Over)

	1990	2000	2005	
	Percent of Total	Percent of Total	Number	Percent of Total
Drove alone	80.6%	79.4%	48,935	77.3%
Carpooled:	13.2%	13.6%	8,930	14.1%
Public transportation (excluding taxicab)	0.9%	0.7%	366	0.6%
Bicycle	0.3%	0.4%	609	1.0%
Walked	2.6%	1.9%	1,236	2.0%
Taxicab, motorcycle, or other means	0.4%	0.7%	920	1.5%
Worked at home	2.0%	3.3%	2,273	3.6%
TOTAL	100%	100.0%	63,269	100.0%

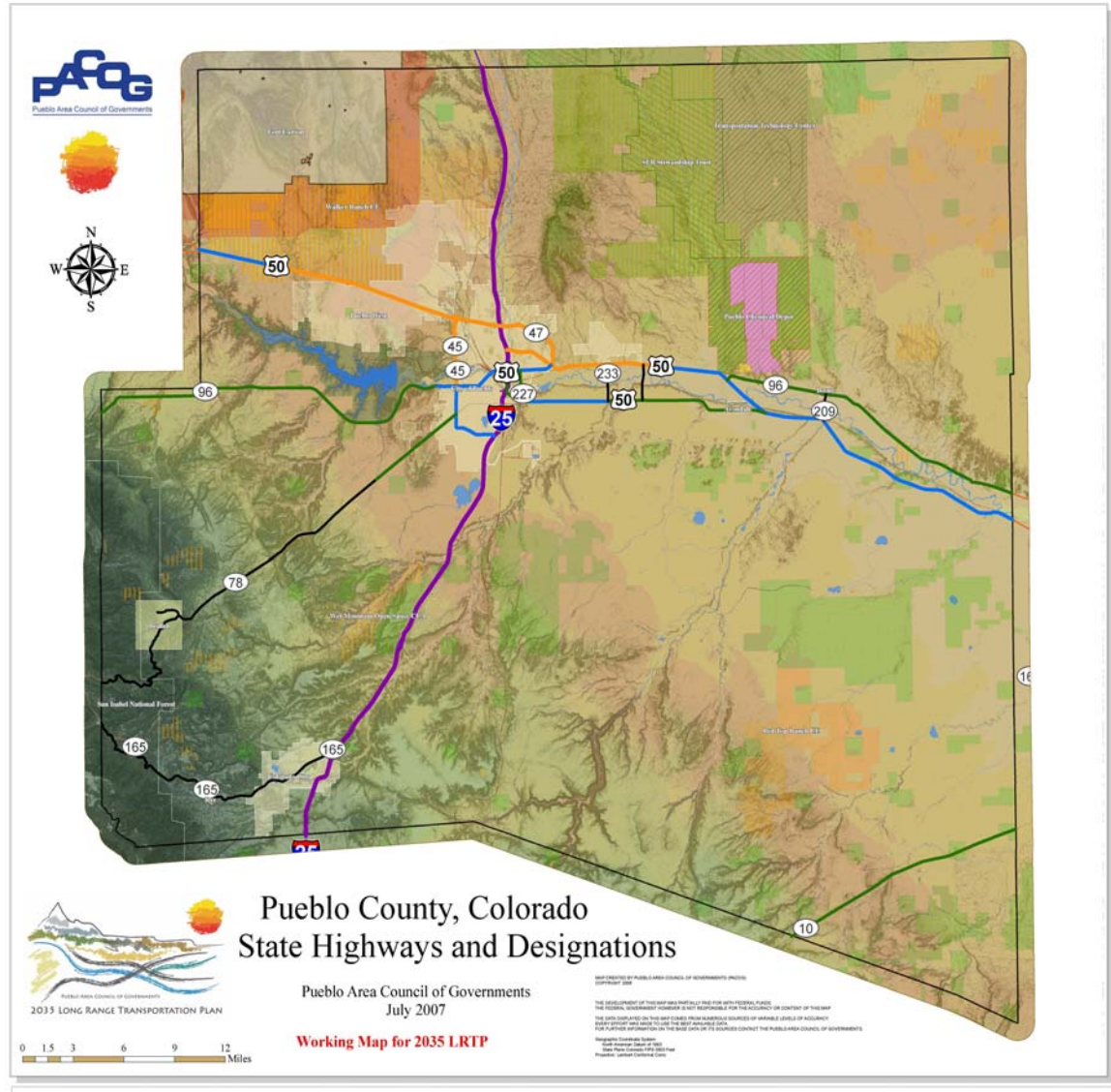
This use of automobiles for work travel is reflected in the large amount of local peak-hour traffic on the state highway system in Pueblo.

2.1.2 State Highways

The two major roadways bisecting Pueblo County, Interstate 25 and US Highway 50, almost exclusively carry the trans-regional traffic through Pueblo. These two roads form the framework of the State Highway network through Pueblo that comprises 250 miles of the 420 miles of major roads. Other significant state highways that traverse the region includes SH96 and SH78. SH45 runs the majority of the way through the urban section of Pueblo, carrying traffic from the south interchange with I-25 to US50A. SH10 also cuts through the southern portion of Pueblo County, but is not generally utilized by Pueblo traffic; rather it is a connection between La Junta and Walsenburg.

Figure 2.1 below shows the State Highway network within Pueblo County along with the existing CDOT highway classifications. CDOT classifications combine the three lowest MPO functional classifications into a single category shown as *Principal Arterials*.

Figure 2.1 State Highways in Pueblo County

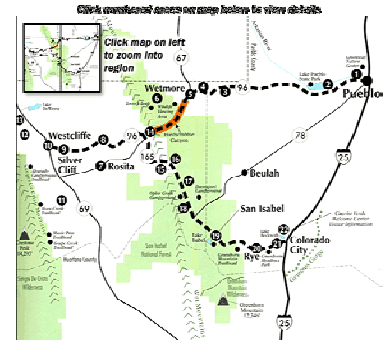


2.1.3 Scenic Byways

Within Pueblo County and the PACOG MPO/TPR boundary there is a single designated Scenic Byway. This is the Frontier Pathways National Scenic & Historic Byway, which has its headquarters and Information Center at the El Pueblo History Museum in downtown Pueblo.

This Byway is significant because it provides access to the San Isabel

National Forest and Lake Isabel. It was in this area that the first auto-based recreation facilities within the U.S. Forest Service were created in 1919-1920 era. It was Arthur Carhart; the first “recreational engineer” in the Forest Service, whose ideas included establishing the first developed campground in the National Forest system at Squirrel Creek.

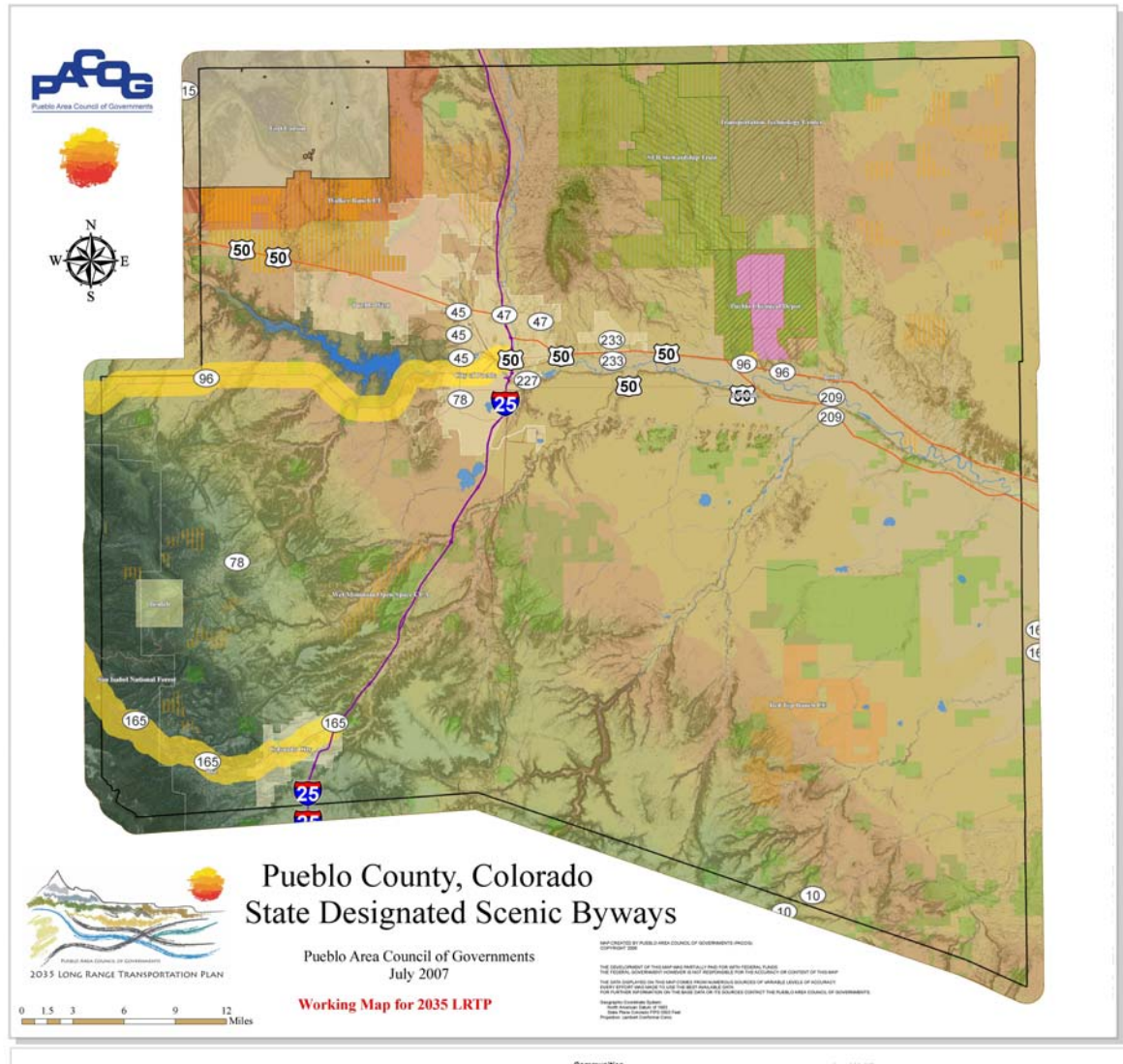


The Frontier Pathways Scenic and Historic Byway emphasizes history, nature, and recreation throughout its span. Stories of 19th Century pioneers are scattered across the region and tell of survival and success. The traveler can learn about several cultures and their relationships with each other at El Pueblo Museum through bright murals, interesting artifacts, and enthralling tales of the colorful history of American Indians, Mexicans, and Americans.

The Byway hosts distinctive exhibits and lands found nowhere else. Bishop’s Castle is one such display. Comprised of over two million acres, the Pike and San Isabel National Forests showcase nature in alluring combinations. The majestic Sangre de Cristo Mountains tower with 22 peaks reaching at least 13,000 feet; they extend for 50 miles, easily seen from a number of points along the byway. Lake Isabel offers adventure year-round; and Lake Pueblo State Park provides over 7,000 acres of outdoor excitement.

Within the Pueblo MPO, the Byway includes an historic Pueblo Loop Tour that visits numerous neighborhoods and historic landmarks within Pueblo.

Figure 2.2 The Frontier Pathways National Scenic ByWay in Pueblo County

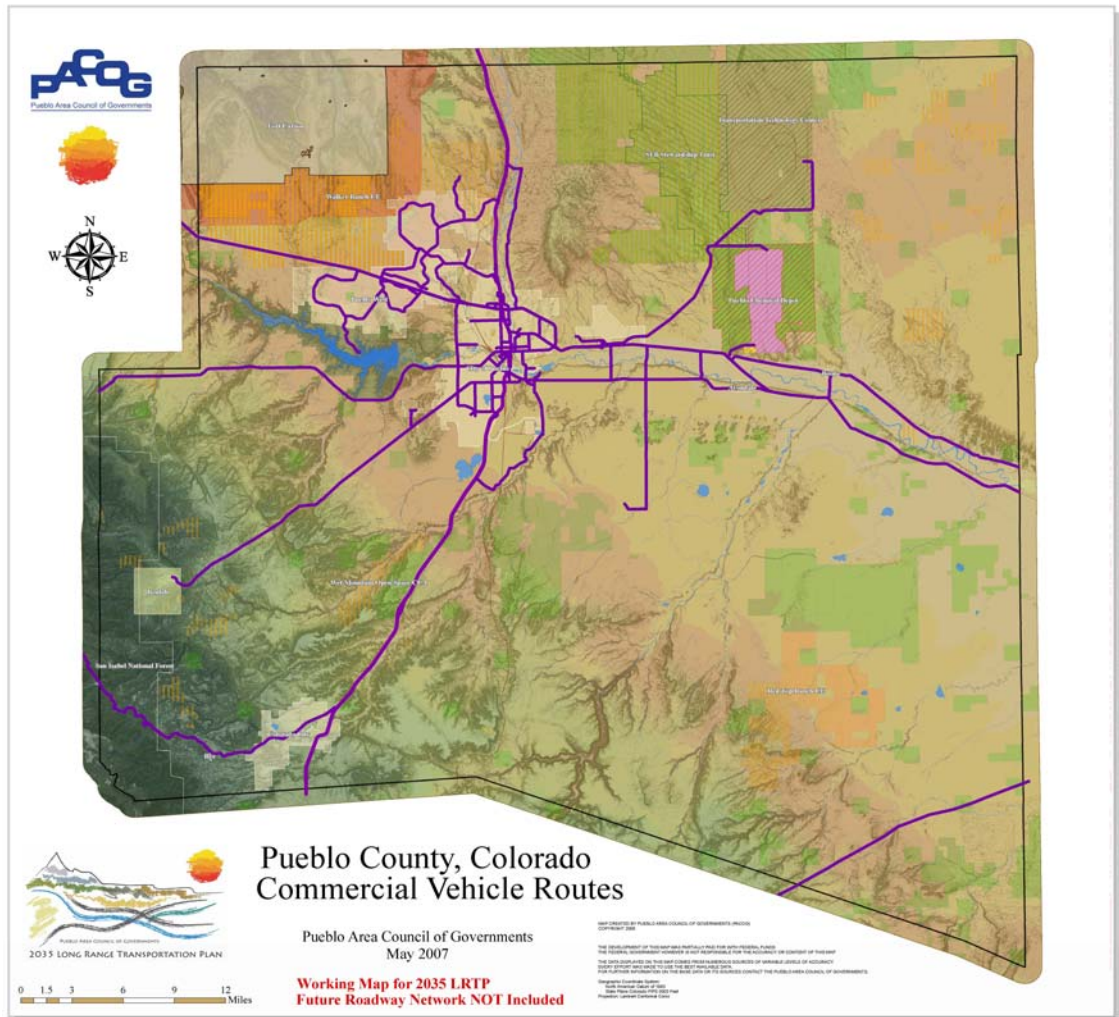


2.1.4 Commercial Vehicle Routes

The City and County of Pueblo do not designate *Truck Routes*, as roadways specifically designed and designated primarily for truck traffic. Commercial vehicles are found primarily on the local, State, and Interstate routes summarized in figure 2.3 below. The commercial vehicle routes are primarily the state highways in and out of the City of Pueblo, coupled with the principal arterials in Pueblo West and those

that encircle the City. In addition, parts of Overton Road, the DOT Road to the Transportation Test Center, and 36th Lane south from U.S. Highway 50C serve as commercial corridors.

Figure 2.3 Commercial Vehicle Routes in Pueblo County



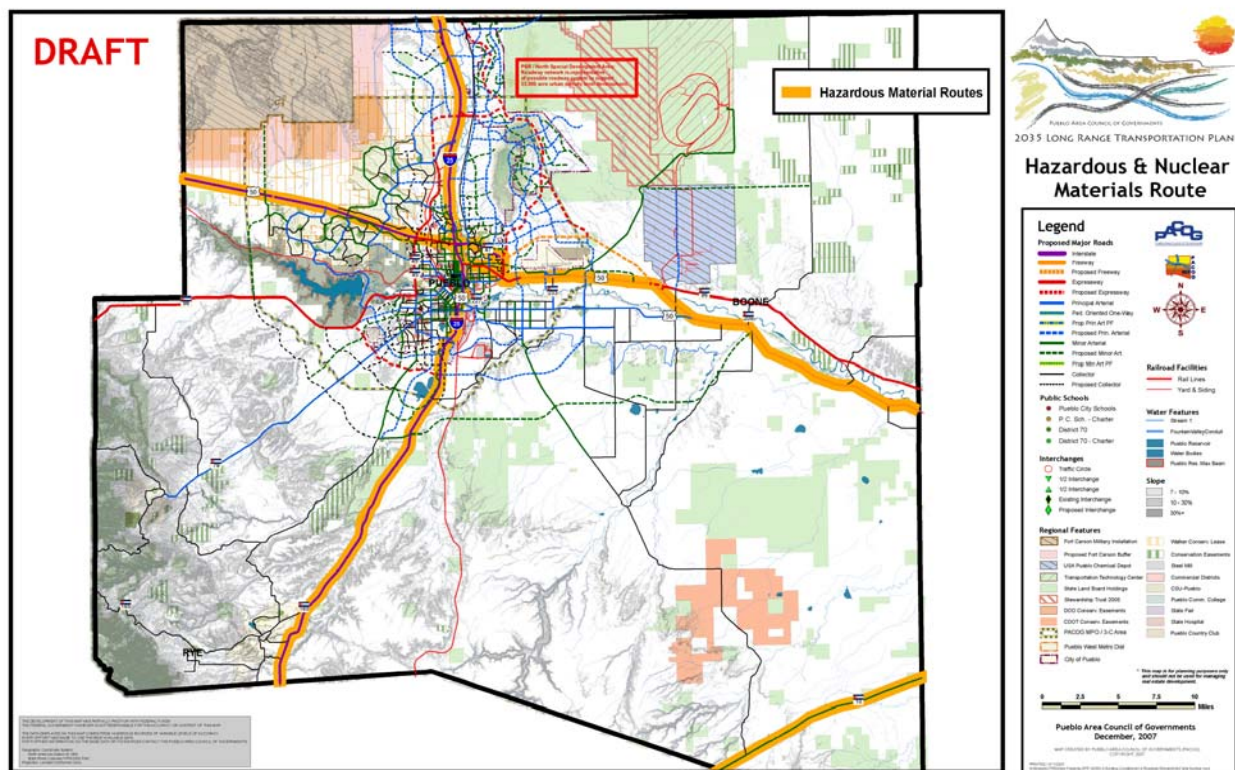
2.1.5 Hazardous Materials Routes

The Chief of the Colorado State Patrol is authorized by the provisions of §42-20-108 (1) and (2) and §§42-20- 403, 504 and 508 C.R.S., to promulgate rules and regulations for the permitting, routing, and safe transportation of hazardous and nuclear materials by motor vehicle within the State of Colorado, both in interstate and intrastate transportation. Pursuant to §42-20-108.5, C.R.S., the Chief is authorized to adopt rules and regulations that exempt agricultural

products from the hazardous materials rules.

Department of Public Safety Division of State Patrol rules and regulations concerning the permitting, routing & transportation of hazardous and nuclear materials and the intrastate transportation of agricultural products in the State of Colorado can be found on the State Patrol website: <http://csp.state.co.us/downloads/hmtrpFINAL.pdf>

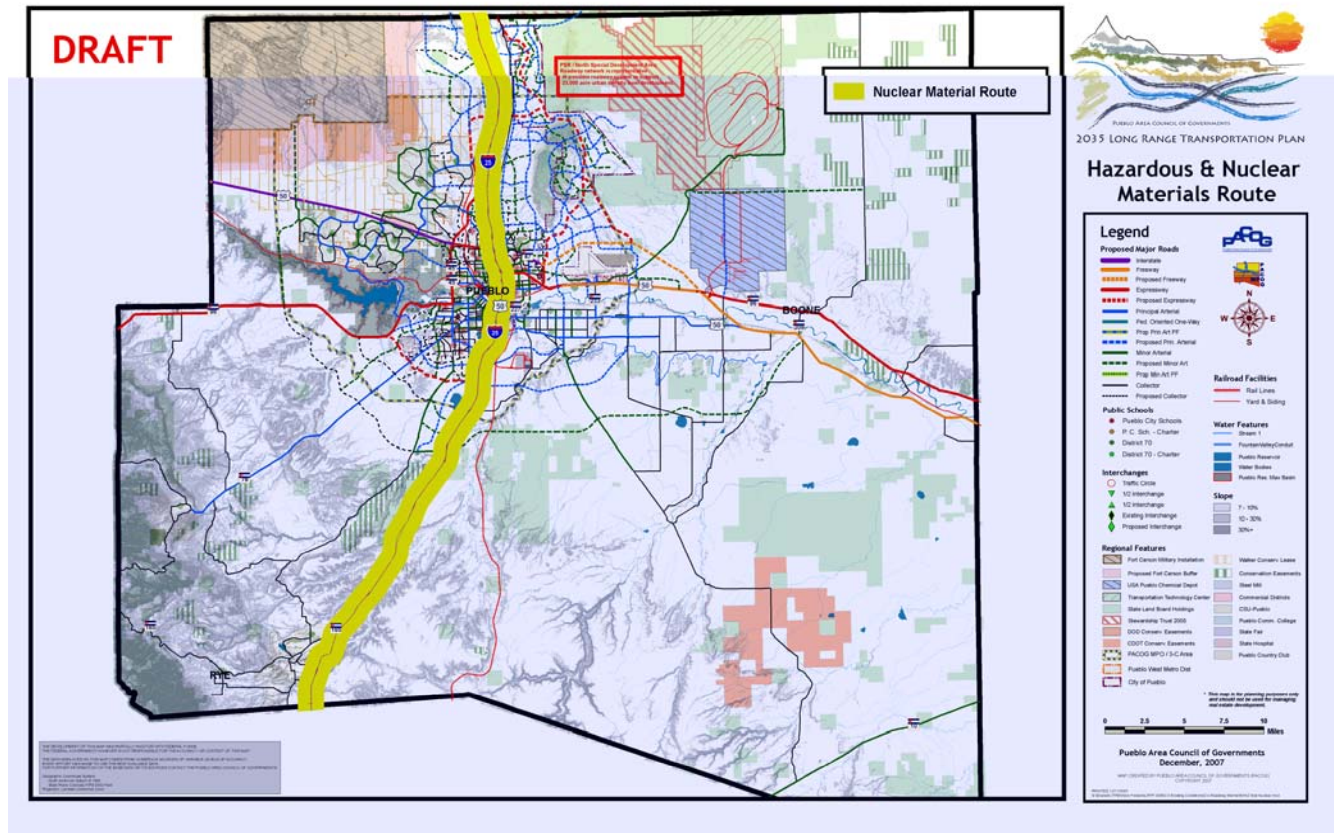
Figure 2.4 Hazardous Materials Routes in Pueblo County



2.1.6 Nuclear Materials Route

The transportation of nuclear materials by motor vehicle must comply with the provisions established by federal law and regulations from 49 CFR 107, 171, 172, 173, 177, 178, 180, 387, and 397. These are also enforced by the State Patrol pursuant to §42-20-108, C.R.S. The State Patrol provided additional information noting that the regulations do not apply to “wastes from mining, milling, smelting, or similar processing of ores and mineral-bearing material”.

Figure 2.5 Nuclear Materials Routes in Pueblo County



2.1.7 Pavement Condition

Table 2.2 and Figure 2.5 summarize the thirteen state highways within the Pueblo MPO/TPR along with their total lane miles of pavement and pavement condition from the CDOT DTD 2035 planning data set. 39.26 percent of the highway lane miles are considered “Good” equaling 99.4 centerline miles. 16.76 percent, or 42.4 centerline miles are rated “Fair”. 111.2 centerline miles or 43.95 percent are rated “Poor” and in need of repaving in the next six years.



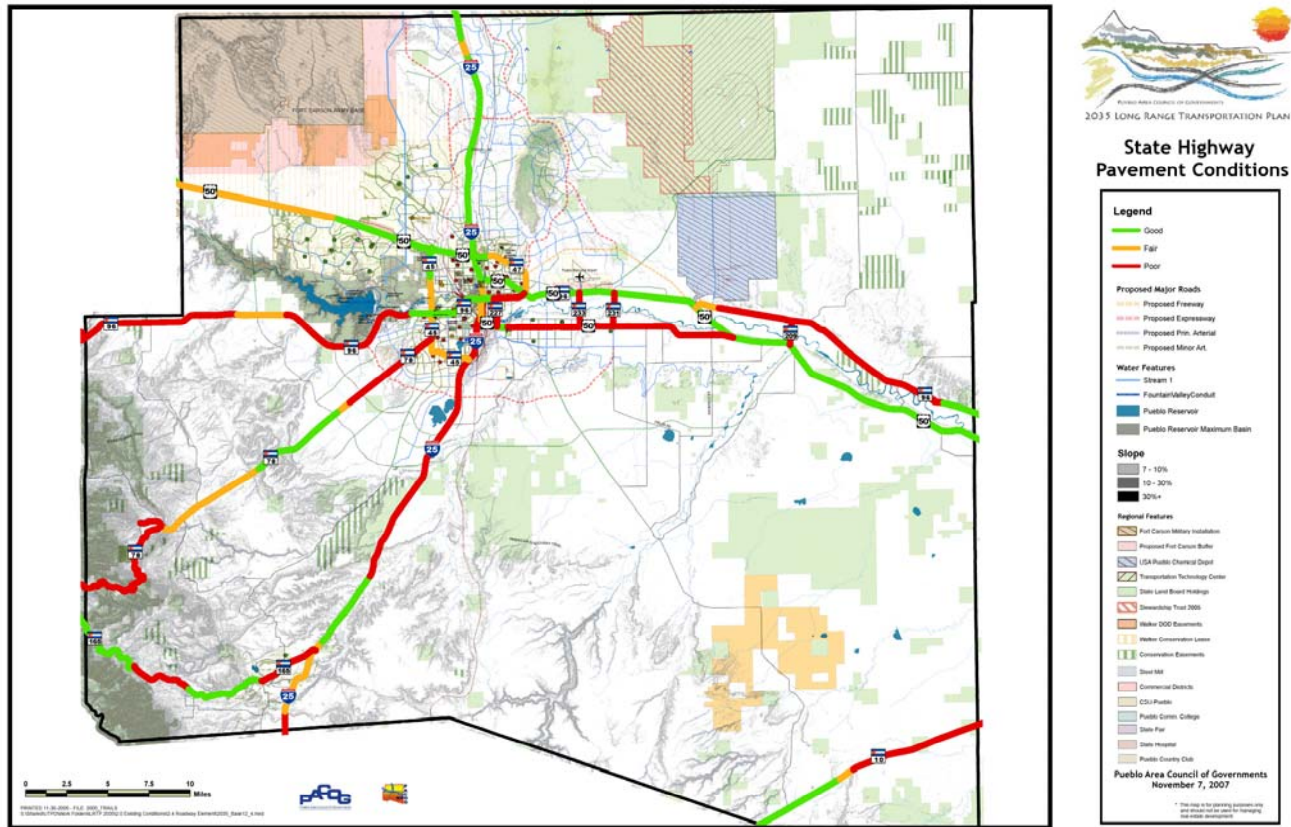
Table 2.2
State Highway Miles And Conditions

Pueblo

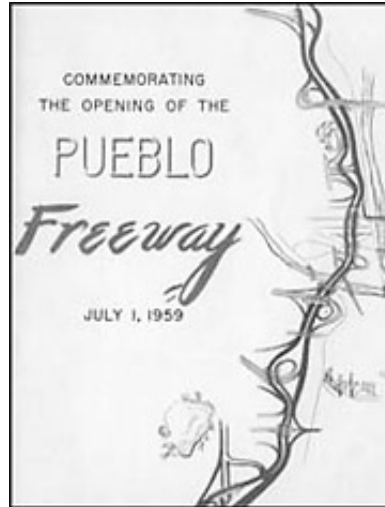
County

Highway	Miles of Centerline	Lane Miles	Condition		
			Good	Fair	Poor
Interstate 25	48	195	22.2	6.4	19.4
SH96	48	110	7.5	4.5	36
US50B	33	94	33		
US50A / SH47	23	93	9.7	13.3	
SH78	37	88	9.6	9.2	18.2
US50C	17	53	1	2	14
SH165	18	36	10.4		7.6
SH45	6	24		6	
SH10	15	29	6	1	8
SH227	2	6			2
SH231	2	4			2
SH233	2	4			2
SH209	2	3			2
Totals	253	748	99.4	42.4	111.2

Figure 2.6 State Highway Pavement Conditions in Pueblo County



2.1.8 Interstate 25 Through Pueblo



The New Pueblo Freeway (I-25) was completed in 1959. The highway was one of the first freeways constructed in Colorado and does not conform to current standards for geometric design and operations. This section of I-25 is currently proceeding through an Environmental Impact Statement that evaluates options for capacity, safety, and geometric improvements.

There are two “build” options being studied for I-25 through Pueblo. The first utilizes the existing alignment, and the second utilizes a modified alignment through the community.

A summary of the assumptions of the EIS include the following:

- I-25 will be six lanes, three in each direction from Eagleridge Blvd. south to Pueblo Blvd. South of Pueblo Blvd. the interstate will be four lanes, two in each direction.
- I-25 will be straightened through Downtown.
- In the Modified Alignment, the highway will be relocated to the east from Abriendo to Indiana and through Downtown. This realignment allows the extension of Santa Fe Ave south to Minnequa Ave. Standard shoulders and acceleration-deceleration lanes are provided along the corridor.
- Interchanges will be reconstructed and include:
 - ❖ A diamond interchange at SH 50B with one-way ramp connections to 29th St.
 - ❖ A split diamond interchange between 13th St and 1st St. Connections will be provided along extended ramps between 13th and 1st. Additional exit ramps will be provided in both directions near 6th St.
 - ❖ A split-diamond interchange between Abriendo Ave and Northern Ave with one-way ramp connections.
 - ❖ A single-point urban interchange at Indiana Ave.
 - ❖ A partial cloverleaf interchange at Pueblo Blvd.
- Local roadway improvements are included on Dillon Dr, Santa Fe Ave, Santa Fe Dr and other locations to enhance mobility and offer local travelers options for north-south travel without driving on I-25.



- Non-motorized features include:
 - ❖ Sidewalks in many neighborhoods and on bridges crossing I-25, with connections to regional trails, parks and other features.
 - ❖ A pedestrian bridge over I-25 connecting Mineral Palace Park and the Fountain Creek Trail.
- Environmental mitigation and improvements include:
 - ❖ Restoring Mineral Palace Park.
 - ❖ Reconstructing Benedict Park.
 - ❖ Enhancing Runyon Field access and parking.
 - ❖ Noise abatement along segments of I-25.

During the Fall of 2007 and consultant team has been working to refine costs and look at options for the phasing of the improvements to I-25 through Pueblo. In both of the build options, there are segments that could be constructed independently. Depending on the evaluation of safety, mobility, and system quality, different segments may have different priorities. The most recent estimated cost of this project are in excess of 800 million (constant 2008) dollars. Details of the project and EIS can be found at www.I25Pueblo.com and in the Appendix to this Chapter.

2.1.9 Safety

The Colorado Department of Transportation, Pueblo County, and the City of Pueblo maintain crash records for roadways throughout the Pueblo Area. The crash numbers are used to identify locations of high crash rates relative to the number of vehicles entering the intersection. Improvements to these intersections should lower the number of crashes and have the greatest benefit for overall system safety.

Table 2.5 lists the intersections with the highest number of crashes for 2005. While none of the accident rates for the Pueblo area are alarmingly high, concentrations of crashes along some corridors, such as US50A and SH45 suggest a need to improve safety at those locations. Figure 2.8 shows the location of each intersection.

Figure 2.7 High-Crash intersection locations - 2006

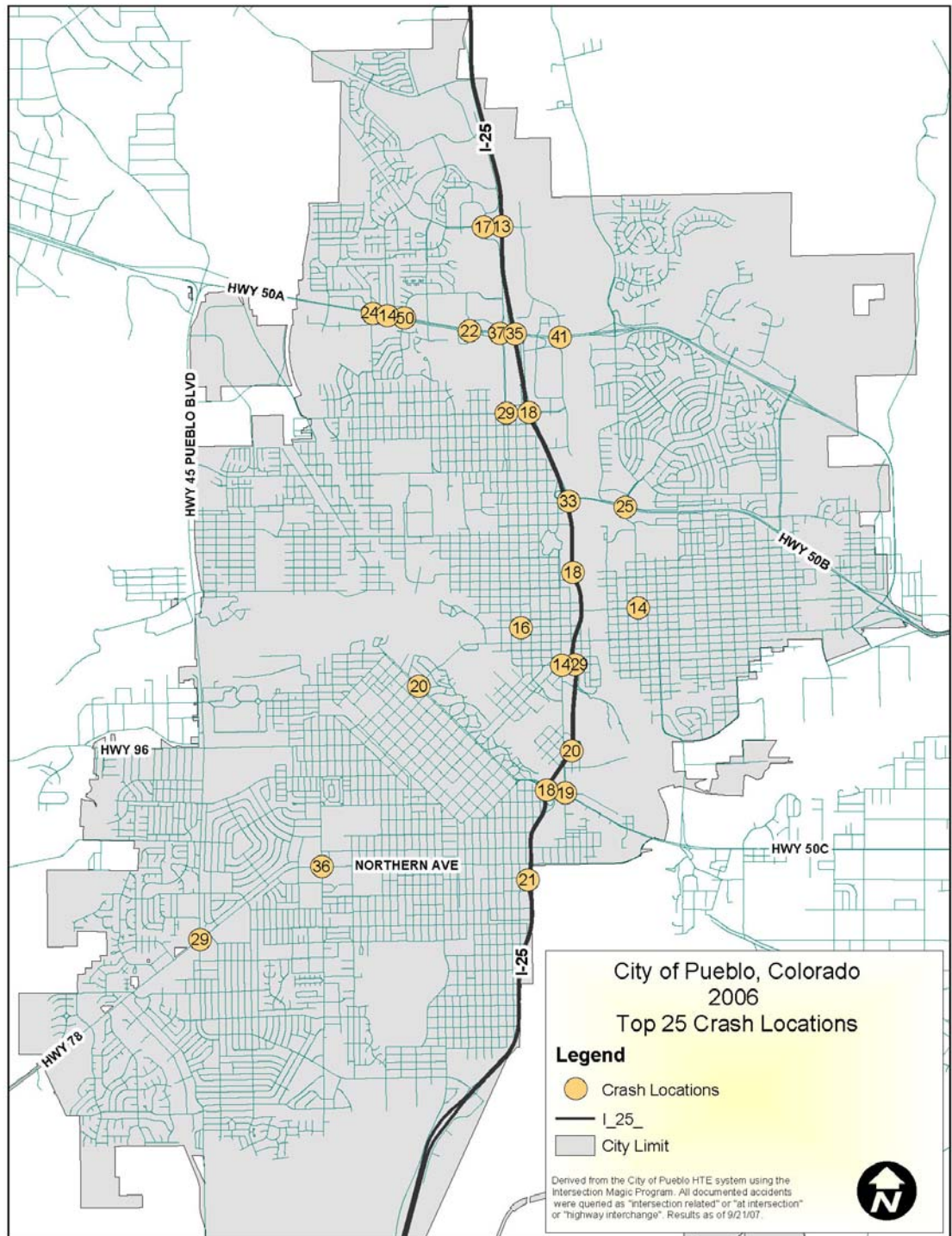




Table 2.3 High-Crash Intersection Locations 2003 - 2006

Annual Crash Location Comparison		2006 Numeric Rank	2006 # of Crashes	Change # Crashes From 2005	2005 Numeric Rank	2005 # of Crashes	Change # Crashes From 2004	2004 Numeric Rank	2004 # of Crashes	Change # Crashes From 2003	2003 Numeric Rank	2003 # of Crashes
US Highway 50	Morris Ave/ Fortino Blvd	1	50	7	2	43	21	6	22	-6	6	28
US Hwy 50 West	Elizabeth St	2	41	8	1	49	-1	1	50	-1	1	51
Colorado Highway 47	Dillon Dr	3	37	5	3	42	18	4	24	-2	7	26
Northern Ave	Prairie Ave	4	36	2	5	34	-4	2	38	-4	2	42
Interstate 25	US Highway 50	5	35	14	10	21	13	-	8	0	-	8
Interstate 25	US Highway 50 Bypass	6	33	33	-	-	-	-	-	-	-	-
29th St	Elizabeth St	7	29	9	12	20	4	15	16	-2	11	18
Interstate 25	1st Street	8	29	21	-	8	-17	3	25	13	-	8
Pueblo Blvd / SH 45	Northern Ave	9	29	9	4	38	18	8	20	-13	3	33
US Hwy 50 Bypass	Bonforte Blvd/Hudson	10	25	3	7	28	14	20	14	6	-	8
US Hwy 50 West	Baltimore Ave	11	24	6	6	30	15	18	15	-16	4	31
US Hwy 50 West	Club Manor Dr	12	22	1	8	23	10	22	13	-5	10	18
Interstate 25	Central Ave	13	21	17	-	4	-14	11	18	-7	8	25
4th Street / Lincoln	Abriendo	14	20	12	-	8	-8	14	16	5	25	9
Interstate 25	Ilex	15	20	12	-	8	5	-	3	-11	13	14
Santa Fe Ave	Santa Fe Dr	16	19	3	17	16	8	-	8	0	-	8
Interstate 25	13th Street	17	18	12	-	6	2	-	4	-21	9	25
Interstate 25	29th St	18	18	3	18	15	-4	9	19	1	12	18
Interstate 25	Abriendo	19	18	10	-	8	-9	13	17	-13	5	30
Elizabeth	Eagleridge Blvd	20	17	17	-	-	-	-	-	-	-	-
6th Street	Greenwood St	21	16	16	-	-	-	-	-	-	-	-
8th Street	Hudson Ave	22	14	2	16	16	7	26	9	1	-	8
Santa Fe Ave	1st Street	23	14	14	-	-	-	-	-	-	-	-
US Hwy 50 West	Ridge Dr	24	14	14	-	-	-	-	-	-	-	-
Interstate 25	Eagleridge Blvd	25	13	2	19	15	9	-	6	-1	-	7
Northern Ave	Evans Ave	26	12	12	-	-	-	-	-	-	-	-
Pueblo Blvd / SH 45	St. Clair	27	12	7	-	5	-12	12	17	14	-	3
4th Street / SH 96	Main Street	28	11	7	-	4	-4	-	8	-2	23	10
4th Street / SH 96	Santa Fe Ave	29	11	7	14	18	3	17	15	4	19	11
Abriendo Ave.	Colorado / Union	30	11	6	-	5	3	-	2	-9	21	11
Northern Ave	Abriendo Ave	31	11	2	21	13	-2	16	15	6	24	9
Northern Ave	Lake Ave	32	11	3	-	8	-5	21	13	5	-	8
Pueblo Blvd / SH 45	Thatcher Ave / SH 96	33	11	11	9	22	2	7	20	7	15	13
4th Street / SH 96	Chester	34	10	2	-	8	-10	10	18	10	-	8
4th Street / SH 96	Midtown Cir	35	10	3	22	13	11	-	2	-3	-	5
Northern Ave	Moore / Cambridge Ave	36	10	4	20	14	8	-	6	-1	-	7
US Hwy 50 Bypass	Norwood Ave	37	10	10	-	-	-	-	-	-	-	-
29th St	Hart Rd	38	9	3	25	12	8	-	4	-4	-	8
Colorado Highway 47	Jerry Murphy Rd	39	9	11	13	20	-2	5	22	12	-	8
Northern Ave	Hollywood / Lehigh	40	9	9	-	-	-	-	-	-	-	-
Pueblo Blvd / SH 45	Red Crk Sprgs / Rutgers	41	9	12	11	21	13	-	8	0	-	8
Thatcher Ave / SH 96	Prairie	42	8	0	-	8	-1	25	9	4	-	5
4th Street Bridge		43	7	1	-	8	-6	19	14	7	-	7
Pueblo Blvd / SH 45	Lehigh	44	7	2	-	5	-3	-	8	-4	17	12
Northern Ave	Orman Ave	45	6	7	23	13	9	-	4	-8	16	12
Prairie Ave.	Lakeview	46	6	2	-	8	0	-	8	-4	18	12
US Hwy 50 West	Wills Blvd	47	6	12	15	18	14	-	4	0	-	4
5th Street	Santa Fe Ave	48	5	0	-	5	1	-	4	-7	20	11
Pueblo Blvd / SH 45	Prairie Ave	49	5	4	-	1	-10	24	11	4	-	7
Abriendo Ave	Lake Ave / Penn St	50	4	8	24	12	8	-	4	-1	-	5
Bonforte	Jerry Murphy	51	0	4	-	4	-1	-	5	-6	22	11
Northern	Lehigh Ave/Hollywood	52	0	7	-	7	-1	-	8	-6	14	14
Norwood	Hwy 50 BYPASS	53	0	8	-	8	-3	23	11	4	-	7

Red- Locations changing by >10 places in annual ranking

Note: Data may or may not include Colorado State Patrol, and Pueblo County Data.
2003 - 2006 crash data from City of Pueblo Department of Transportation..

BLUE - LOCATIONS CHANGING BY 5-9 PLACES IN ANNUAL RANKING



Table 2.4 2006 Intersection Crash-Type Information

Location		2006 CRASHES	BROADSIDE	REAREND	APPROACH	OTHER	PED	FATALITIES
1	HWY 50 & MORRIS/ FORTINO	50	3	24	19	4		1
2	HWY 47 AND DILLON DR	41	4	31	0	6		
3	HWY 50 AND ELIZABETH ST	37	4	27	1	4	1	
4	NORTHERN & PRAIRIE	36	5	18	6	7		
5	I-25 & HWY 50/47	35	2	25	1	7		
6	I-25 & EXIT 100A BELMONT/ HWY 50B	33	0	10	0	22	1	
7	HWY 45 PUEBLO BLVD & NORTHERN	29	5	14	4	6		1
8	29TH ST & ELIZABETH	29	3	14	11	1		
9	I-25 & 1ST STREET	29	0	18	1	9	1	
10	HWY 50 B & BONFORTE / HUDSON	25	1	18	1	5		
11	HWY 50A & BALTIMORE	24	2	16	3	3		
12	HWY 50 & CLUB MANOR	22	3	14	2	3		
13	I-25 & CENTRAL AVE	21	0	11	0	10		
14	I-25 & ILEX	20	0	7	0	13		
15	HWY 96 4TH STREET/LINCOLN & ABRIENDO AVENUE	20	1	14	1	3	1	
16	SANTA FE AVE & SANTA FE DR	19	2	4	3	10		
17	I-25 & 29TH ST	18	1	7	1	9		
18	I-25 & ABRIENDO AVE	18	0	3	0	15		
19	I-25 & 13TH STREET	18	0	12	0	6		
20	ELIZABETH ST & EAGLERIDGE BLVD	17	3	9	1	4		
21	6TH St & GREENWOOD ST	16	16	0	0	0		
22	8TH ST & HUDSON	14	9	1	3	1		
23	SANTA FE AVE & 1ST STREET	14	3	6	2	2	1	1
24	HWY 50A & RIDGE DR	14	3	7	4	0		
25	I-25 & EAGLERIDGE BLVD	13	0	8	0	5		



Table 2.5 CDOT On-System Bridge Ratings

	STR ID	INTSEC/FEAT/LOCATION	USE DESC	ROUTE	BUILT	LANES	ADT	DATE INSP	RATE	INTEGRITY
1	K-18-Z	4 th STREET BR - PUEBLO	SH 96 ML	96	1958	4	32779	12/11/2002	24	SD
2	K-18-B	STEEL HOLLOW	I 25 ML SBND	25	1929	2	10528	4/11/2002	32	SD
3	L-19-C	ST CHARLES RIVER	US 50 BUS. RT WBND	50	1942	2	2829	6/27/2003	32	FO
4	K-18-C	PORTER DRAW	I 25 ML SBND	25	1929	2	13346	4/11/2002	35	SD
5	K-18-CL	NP RR, ILEX ST, BENNET ST	I 25 ML SBND	25	1959	2	23446	8/27/2002	36	FO
6	M-20-A	SAUNDERS ARROYO	SH 10 ML	10	1935	2	301	3/3/2004	41	SD
7	L-18-W	INDIANA AVE	I 25 ML SBND	25	1956	2	15696	4/10/2002	43	FO
8	K-18-CK	NP RR, ILEX ST, BENNET ST	I 25 ML NBND	25	1959	2	23446	8/27/2002	46	FO
9	K-18-R	ARKANSAS RIVER	US 50 BUS EBND	50	1924	2	10413	6/27/2003	46	SD
10	L-19-G	BOB CREEK CANAL	SH 96 ML	96	1929	2	2067	2/27/2002	48	FO
11	M-17-R	DRAW	I 25 ML	25	1926	4	14184	5/22/2002	50	SD
12	K-18-AC	DRY CREEK	US 50 ML	50	1934	2	16843	12/10/2002	51	SD
13	K-19-U	CHICO CREEK	US 50 ML EBND	50	1953	2	3699	6/4/2002	54	SD
14	L-18-M	INDIANA AVE	I 25 ML NBND	25	1956	2	15696	4/9/2002	55	FO
15	L-18-R	ARKANSAS RIVER	SH 227 ML	227	1959	2	3833	6/3/2002	55	NO
16	K-18-BY	DRY CREEK	US 50 ML WBND	50	1958	2	5196	6/5/2002	57	FO
17	L-19-F	DRAW	US 50 BUS. RT	50	1927	2	1159	6/4/2002	59	SD
18	K-18-CH	PORTER DRAW	I 25 ML NBND	25	1958	2	13346	4/11/2002	60	FO
19	K-18-CN	1ST ST	I 25 ML NBND	25	1959	2	22804	4/10/2002	61	FO
20	K-18-CO	1ST ST	I 25 ML SBND	25	1959	2	22804	4/10/2002	61	FO
21	K-18-AX	US 50 ML	I 25 ML NBND	25	1958	2	11002	4/10/2002	62	FO
22	K-18-EB	29TH ST	I 25 ML SBND	25	1960	2	20457	4/10/2002	62	FO
23	L-20-C	FARMERS OXFORD DITCH	US 50 ML	50	1938	2	5772	1/22/2004	62	FO
24	L-18-AQ	I 25 ML	NORTHERN AVE	0	1957	4	11400	4/9/2002	62	FO
25	K-18-AY	US 50 ML	I 25 ML SBND	25	1958	3	11002	4/10/2002	63	FO
26	K-18-CG	STEEL HOLLOW	I 25 ML NBND	25	1958	2	10527	4/11/2002	63	FO
27	K-19-W	BNSF RR AR	US 50 SERVICE RD	50	1953	2	646	8/28/2002	63	NO
28	K-17-F	RUSH CREEK	SH 96 ML	96	1952	2	794	10/31/2002	63	NO
29	K-18-BT	UP RR, FOUNTAIN CRK	SH 96 ML	96	1954	4	21156	12/12/2002	63	FO
30	L-16-C	BRANCH OF RITCHIE GULCH	SH 96 ML	96	1938	2	773	10/30/2002	63	NO
31	L-18-B	BURNT MILL ROAD	I 25 ML SBND	25	1931	2	7056	5/2/2002	64	FO
32	K-18-f MINOR	COUNTY ROAD	I 25 ML	25	1958	4	26692	4/11/2002	65	FO
33	K-18-J	I 25 ML	US 50 ML	50	1958	2	34568	6/5/2002	65	NO
34	K-18-BN	ARKANSAS RIVER	SH 233 ML	233	1963	2	4285	12/10/2002	65	NO
35	K-18-D	DRAW	I 25 ML	25	1928	4	26692	4/11/2002	66	NO
36	K-18-e MINOR	COUNTY ROAD	I 25 ML	25	1958	4	21055	4/12/2002	66	FO
37	L-18-A	MUDDY CREEK	I 25 ML NBND	25	1954	2	7092	5/22/2002	66	FO
38	L-18-d MINOR	COUNTY ROAD	I 25 ML	25	1965	4	14184	5/2/2002	66	FO
39	K-18-L	FOUNTAIN CREEK	US 50 ML	50	1958	4	34568	8/28/2002	66	NO
40	K-18-CT	5TH AVE	I 25 ML	25	1959	4	57894	4/10/2002	67	FO
41	K-18-EA	29TH ST	I 25 ML NBND	25	1960	2	20457	4/10/2002	67	FO
42	L-17-E	RED CREEK	SH 96 ML	96	1933	2	773	10/31/2002	67	NO
43	K-18-CI	SERVICE RD, BNSF RR	I 25 ML NBND	25	1959	2	23446	8/28/2002	68	NO



	STR ID	INTSEC/FEAT/LOCATION	USE DESC	ROUTE	BUILT	LANES	ADT	DATE_INSP	RATE	INTEGRITY
44	K-18-CJ	SERVICE RD, BNSF RR	I 25 ML SBND	25	1959	2	23446	8/28/2002	68	NO
45	K-19-Q	CHICO CREEK	US 50 ML WBND	50	1953	2	3699	6/4/2002	68	NO
46	K-18-BZ	DRY CREEK	US 50 ML EBND	50	1958	2	5196	6/5/2002	68	FO
47	K-18-AE	BESSEMER DITCH	SH 96 ML	96	1936	4	20549	12/11/2002	69	NO
48	K-17-AD	DRAW	US 50 ML	50	1977	4	8736	12/10/2002	70	NO
49	K-17-AE	FRED ROHR GULCH	US 50 ML	50	1977	4	8736	12/10/2002	70	NO
50	K-18-g MINOR	COUNTY ROAD	I 25 ML	25	1958	4	26692	4/11/2002	71	FO

Table 2.6 City Bridge Ratings

Bridge / Status	Sufficiency Rating
1. Union Avenue Bridge: requires replacement	48.4 *
2. 11 th Street Bridge over Wildhorse Creek: requires replacement or realignment. Load Limit – 19 tons	13.4
3. 8 th Street Bridge across Dry Creek: requires refurbishment	68

**Table 2.7 Pueblo County Bridge Replacements
2005-2010**

Structure	Location	Design	Construction
1. 701B	Huckleberry Rd across Oxford Ditch	2007	2010
2. 213B	Crow Cut-off Rd across Muddy Creek	2009	2012
3. 203D	Red Creek Rd across the Minnequa Canal	2009	2012
4. 302A	3 rd Rd across Huerfano Cuchares Ditch	2010	2013
5. 601A	Boone Rd across the Colorado Canal	2010	2013
6. 216A	Apache City Rd across Greenhorn Creek	2011	2014
7. 216B	Apache City Rd across Graneros Creek	2011	2014
8. 407A	Lane 27 across the St. Charles River*	TBD	
9. 407B	South Rd across the St. Charles River*	TBD	
10. 208D	Pennsylvania Ave. across Squirrel Creek*	TBD	
11. 208E	Curtis Rd. across South Creek*	TBD	
12. 208B	Squirrel Creek Rd across Squirrel Creek*	TBD	



2.1.10 Systems Operations

There are currently 184 traffic signals within Pueblo County's urban area, with the majority of the signals (160) in the City of Pueblo. The maintenance and operations of these traffic signals is split among various agencies, including CDOT, City of Pueblo, Pueblo County and the Pueblo West Metro District.

Of the 184 signals 43 intersections are pre-timed (no vehicle-detection system). The intersections are predominantly located within the Central Business District of the City of Pueblo. Traffic volumes at these locations are consistent and heavy enough on each leg of the intersection throughout the day so vehicle detection would not be effective or improve efficiencies. Included in the total count of signalized intersections are 20 pedestrian actuated traffic signals. These signals are located within school zones or at locations where a high number of pedestrian crossing movements occur.

The remaining intersections all use vehicle detection systems to adjust the amount of green time given to the minor street or left turn phases based on the amount of traffic present at that specific time. These intersections also have pedestrian push button to activate the pedestrian crossing times when needed.

The predominant vehicle detection system is video detection. The system works in all weather and visibility conditions and can be installed without closing lanes or cutting the pavement thus avoiding costly failures during construction activities. This technology consists of cameras mounted on the vertical signal pole or horizontal mast arm and a processor that communicates directly to the traffic signal controller. Similar to embedded loops, the video detection system allows for the user to create virtual detection zones in which the changing of pixels alerts the controller that vehicles are present and that the signal timing should be modified accordingly. The video detection systems provide remote access capabilities allowing responsible personnel to monitor traffic flow from a remote location. The location can be viewed in a single frame or continuous frames, and operating personnel can reconfigure detection zones and perform a system diagnostic checks.

Communication between traffic signals is a key component to providing corridor progression and is now generally used to allow the personnel direct access to the signal operations without physically going to the intersection. The signal communication allows for a time



pulse to be sent to all locations keeping clocks and timing plans in synchronized operation. The communications system also allows the intersection to be monitored for failures and provides real time viewing capabilities. Generally the traffic signal communication is through either fiber optics or radios.

Over the past five years the traffic signal indications throughout the urban area have also gone “green” environmentally. Both vehicular and pedestrian signals now use more energy efficient LEDs (Light Emitting Diodes) to save approximately 70% of the total energy costs of the signal operation. These indications also have a safety component, as they are bright throughout the day.

Efforts have been made to increase pedestrian safety at signalized intersections using “countdown” pedestrian signals, upgrading curb ramps, and installing “bump-outs” to reduce the pedestrian crossing width across major streets.

Intersection safety is improved with the operation and efficiencies of protected left turn signals. CDOT was one of the first agencies in the United States to implement a new flashing yellow arrow left-turn signal at the intersection of US HWY50 & Fortino Blvd. A green arrow display provides a protected left turn while the flashing yellow arrow directs left turning traffic to yield to oncoming traffic. The flashing yellow is used only during the off-peak hours or nighttime operation. This operation has been so successful that the City and the State may extend the use to several other intersections where left accidents have steadily been increasing.

Traffic signal timing plans are generated based on both 24-hour and peak hour turn movement counts. It is common to have several different timing plans based on the time of day or year and respective traffic volumes. For example, currently Northern Avenue runs three different plans and US Hwy 50 runs four different plans. The various timing plans are used to increase traffic flow efficiencies and reduce delay for the side street traffic.

On a level-of-service (LOS) scale from A (unimpeded flow) to F (failure and severe congestion), the following intersections in the Pueblo area are now operating at a level of service D or worse during either the AM or PM peak hours:

- Abriendo Avenue & Washington Street
- Abriendo Avenue & State Highway 96



- I-25 & 1st Street (NB)
- I-25 & 29th Street (NB and SB)
- Prairie Avenue & St. Clair Avenue
- Prairie Avenue & State Highway 96
- Pueblo Blvd & Red Creek Springs Road*
- US Hwy 50 & Purcell Blvd
- Morris Ave & Hwy 50 West (EB AM and WB PM)
- Elizabeth Street & Hwy 50 and I-25 & US Hwy 50 (WB PM)
- US Hwy 50 West & SH45 - NB and WB PM

*Capacity improvements for the intersection of Pueblo Blvd and Red Creek Springs Road are in process with construction scheduled for the summer of 2008

2.1.11 Intelligent Transportation Systems (ITS)

Intelligent Transportation Systems (ITS) is a term to describe the collection of advanced transportation technologies and applications of information processing techniques to improve transportation system efficiency, safety, and convenience.

ITS use in the Pueblo area includes:

Variable Message Signs (VMS) at the following four locations: I-25 north of Eagleridge; I-25 at Pueblo Boulevard; I-25 at Colorado City; US50 at Pueblo Boulevard. These messages can be changed to warn motorists of road hazards, crashes along the road, unsafe weather conditions, and to make many other announcements.

Video cameras at locations along I-25 and other roadways to monitor traffic flow and incident detection.



2.2 Freight and Rail Systems

2.2.1 Introduction

The Colorado Department of Transportation defines a major freight route as a roadway with more than 1 million tons of freight per year or a railroad with more than 5 million tons of freight a year.

Major freight routes in the Pueblo area include the entire I-25 corridor within Pueblo County and the US50 Corridor (including SH47 east of I-25). Major freight railroads include the shared Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) line north of the Arkansas River and the BNSF line extending along US50 east.

In 2002, CDOT completed the *Eastern Colorado Mobility Study* which had both freight rail and roadway components; and in 2005, the *Public Benefits and Costs Study* (of freight rail relocation). The Pueblo MPO actively participated as a member of the Advisory committee for both studies. The 2035 LRTP is updated with information from some sections of those reports relating to the Pueblo MPO/TPR. Both studies and their details are available on the CDOT website: www.dot.state.co.us.

Designated Truck Routes

The I-25 Corridor is of special national significance as it is part of the “El Camino” trade route between Canada and Mexico, as identified in the NAFTA agreements. Additionally, the area has access, via US 50, to the “Ports-to-Plains” Corridor (generally US 287) that runs through Eastern Colorado to Denver from Laredo, Texas. These two designated truck routes and truck traffic needs to be accommodated in long-range plans for the entire Southern Colorado community.

Major Rail Routes

The Pueblo area has recognized the importance of rail since early in the development of the area when Pueblo community leaders put up \$50,000 to lure the Denver & Rio Grande to town in 1872. The railroad not only transported cattle, but also delivered ore to local smelters that fashioned these raw materials into rails, spikes, and other forged or manufactured products. D&RG owner William Jackson Palmer founded the first Pueblo steel plant, which later evolved into Colorado Fuel and Iron—by 1900 among the world’s largest steel producer.

Historically Pueblo has been served by numerous railroads: the Denver & Rio Grande Western (D&RGW); the Atchison, Topeka and Santa Fe (ATSF), Colorado & Southern (C&S - part of the Burlington Route), the Missouri Pacific (MP), Chicago Rock Island and Pacific (RI), the Denver & New Orleans (D&NO), and the Colorado & Wyoming (C&W). Major commodities carried by the rails to, through, and from Pueblo include coal, manufactured goods, and commodities. Rail traffic is expected to increase moderately through the Region unless and until the major freight rail corridor is moved farther east, away from the existing I-25 corridor.

2.2.2 Existing Conditions: Trucking

Figure 2.8 below illustrates the state highway routes in and through Pueblo County. The primary north-south freight route is I-25, while the primary east-west route is US Hwy 50.

Figure 2.8 Primary Freight Routes in Pueblo County

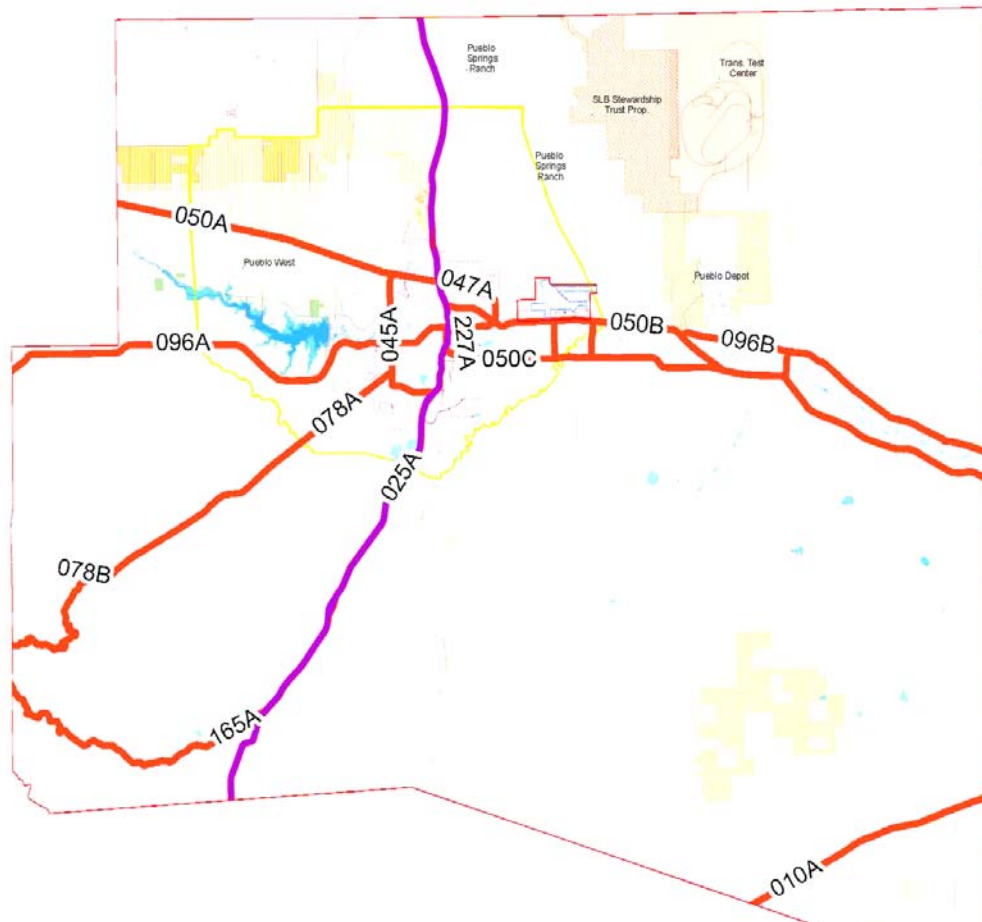
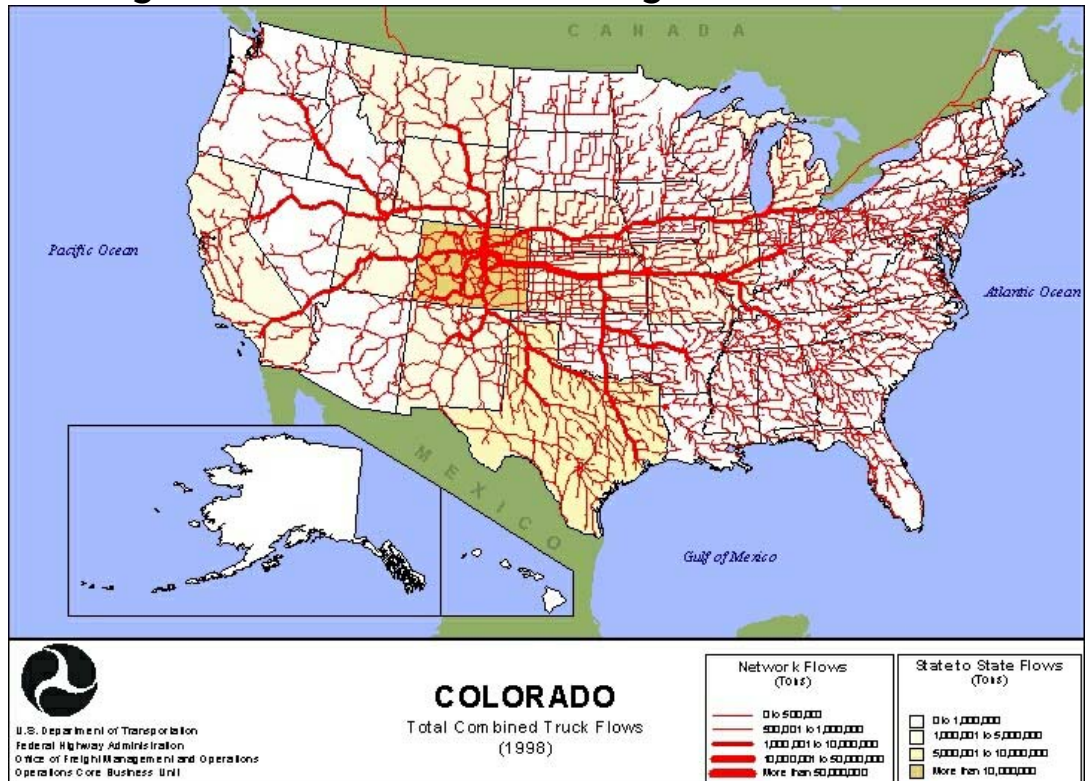


Figure 2.10, below, is derived from the US Bureau of the Census Commodity Flow Survey (CFS) which is updated approximately every five years. The data depicted was the latest available when the *Eastern Colorado Mobility Study* was conducted and shows Colorado in relation to the rest of the US.

Figure 2.10 National Truck Freight Flows In Colorado



Source: CDOT Eastern Colorado Mobility Study



2.2.3 Existing Conditions: Rail

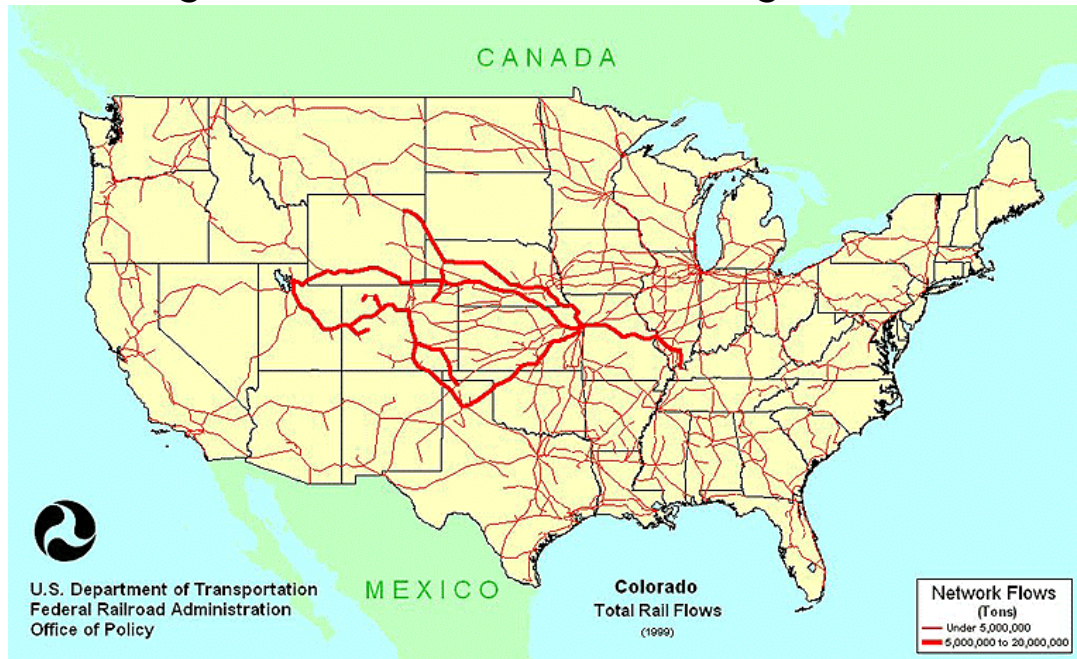
The current rail lines in operation are the Burlington Northern Santa Fe (BNSF), Union Pacific (UP), and the V&S Railway, Inc. In 2002, the BNSF and UP railroads participated in the development of a long-term plan to ease rail traffic congestion and improve freight mobility along the Front Range. The proposed project would consolidate certain freight lines and operations, relocate freight terminals and yards, and construct a freight bypass route in eastern Colorado to remove through-freight trains from the congested Front Range corridor, while still maintaining local freight service. The economic viability of the plan was examined in the *Public Benefits and Costs* study released in 2005. Some of the conclusions in that study led CDOT to initiate the *Rail Relocation Implementation Study* - now ongoing. As in previous Studies, the Pueblo area is represented with membership on the Advisory Committee for that study.

The Pueblo area is the origin of the former North Avondale – Towner Line that was acquired by CDOT in 1998. In 2006, CDOT selected the V&S Railway to purchase the line for \$10.3 million. The purchase agreement requires V&S Railway to operate the line for six years, a “first right to repurchase” for CDOT if V&S Railway becomes unable to continue to operate the line, and an agreement to operate the line with adherence to State and Federal regulations.

In January 2006, the V&S (aka VST) began rehabilitation and improvements of the line that include track repair, track replacement, repair of active crossing equipment, and returning the track to Class II operating standards. The first grain train returning the line to service was dispatched in September 2006. Since then the line has remained operational and provided rail service to eastern Colorado agricultural producers and shippers.

Figure 2.11, below, shows total rail freight flows in and through Colorado compared to the rest of the US.

Figure 2.11 Rail Flows In and Through Colorado

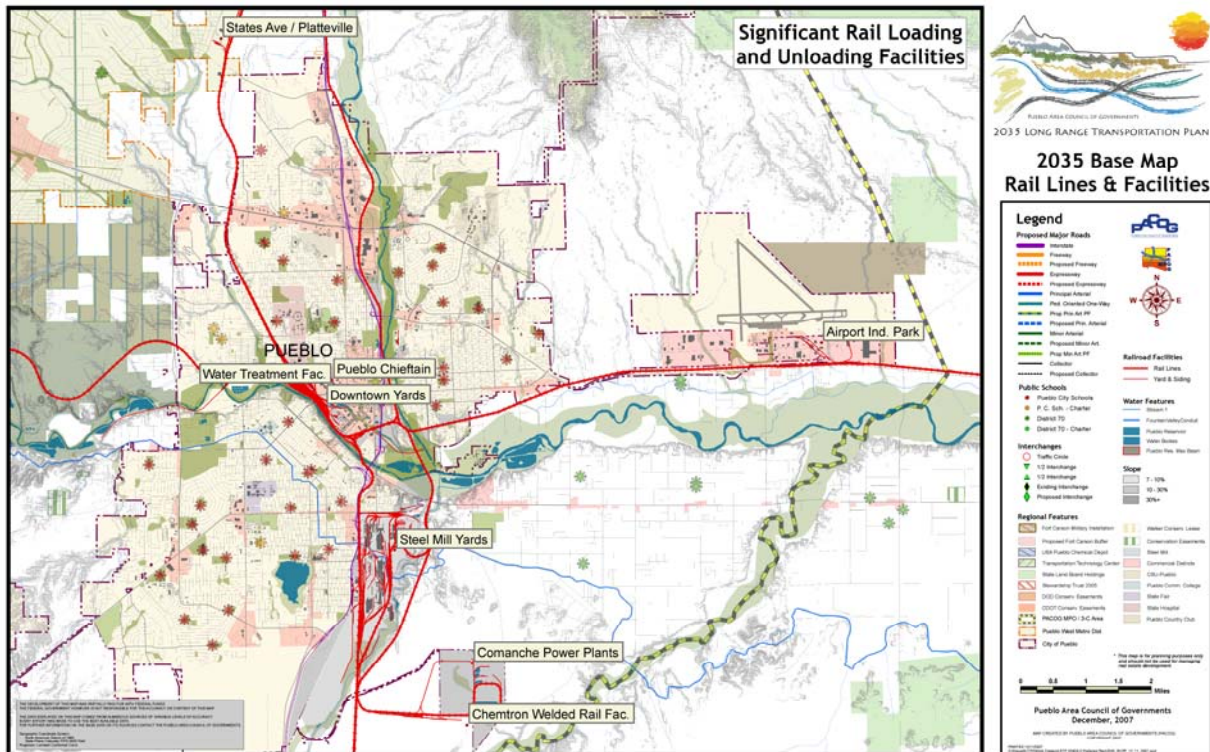
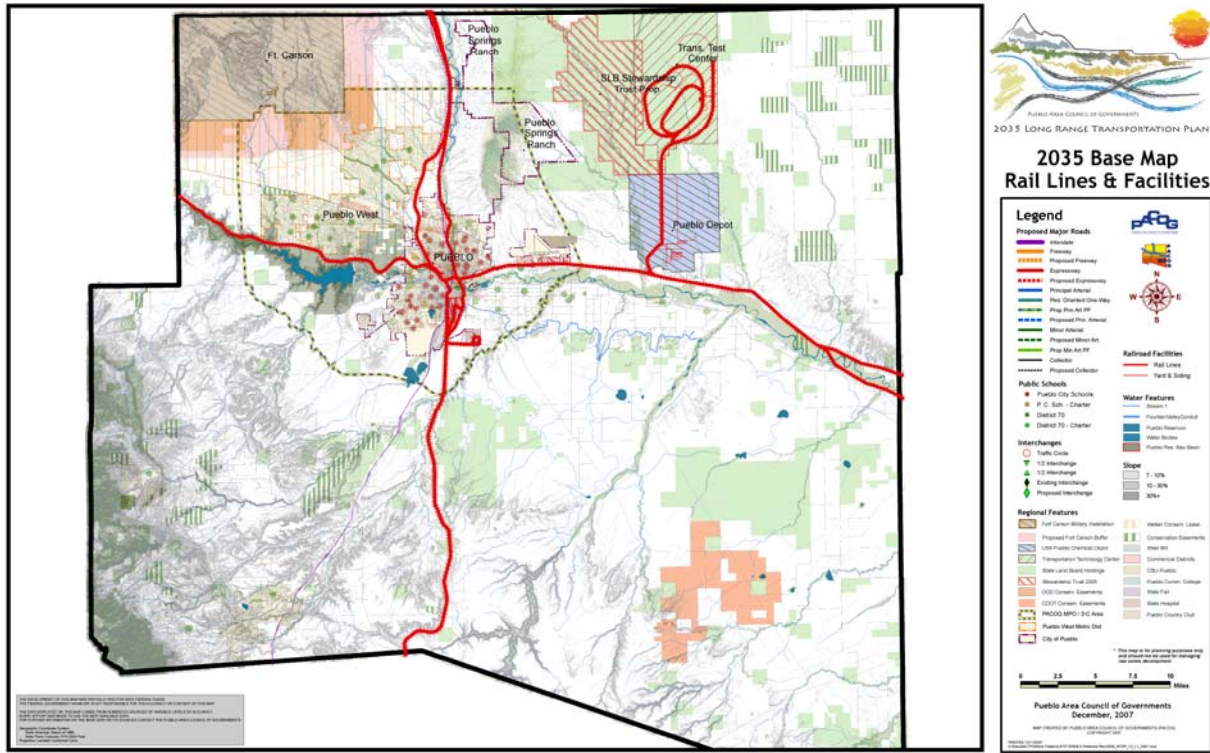


Source: CDOT Eastern Colorado Mobility Study

2.2.3.1 Existing Rail Facilities

At present, there are no intermodal (direct freight transfer) facilities in Pueblo, but there are a number of areas where rail loading and unloading facilities exist and are provided with rail service. Figure 2.12, below, shows the active rail lines in the Pueblo County area and the existing locations of loading and unloading facilities.

Figure 2.12 Active Rail Lines and Loading Facilities





2.2.3.2 Transportation Technology Center

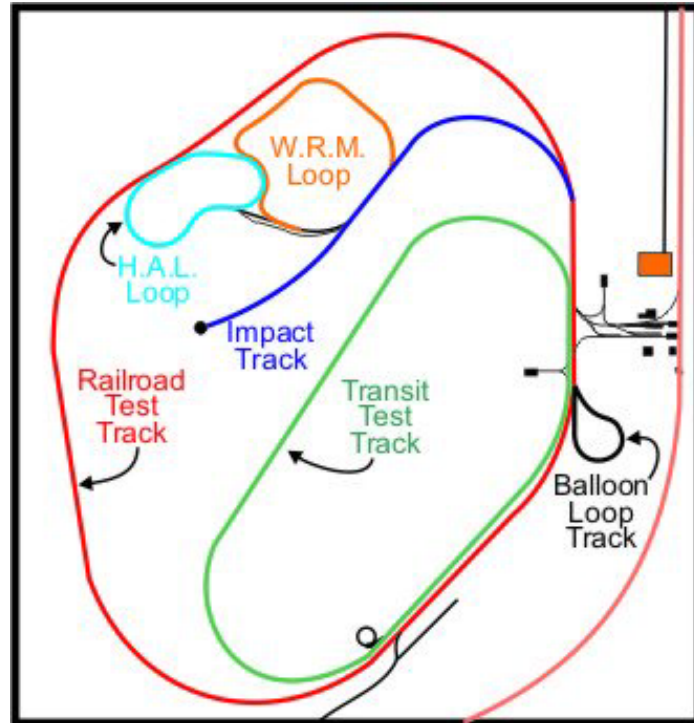
The Transportation Technology Center, Inc. (TTCI) is located in northeast Pueblo County. The Center is an internationally recognized facility offering a wide range of unique capabilities for research, development, testing, consulting, and training for railway-related technologies. The site, 21 miles northeast of Pueblo, Colorado, is owned by the US Department of Transportation, and is operated and maintained by the Transportation Technology Center, Inc., under a care, custody, and control contract with the Federal Railroad Administration and American Railroad Association. A 52 square mile facility, TTCI is isolated and secure with a vast array of specialized testing facilities and tracks for all types of freight and passenger rolling stock, powered vehicles, rails and track components, and rail safety devices.

Forty-eight miles of railroad track are available for testing locomotives, vehicles, track components, and signaling devices. TTCI's specialized tracks are used to evaluate vehicle stability, safety, endurance, reliability, and ride comfort. Using TTCI's tracks eliminates the interferences, delays, and safety issues encountered on an operating rail system.

Key infrastructure and equipment control centers, passenger stations, rail vehicles, track, yards, bridges, and tunnels are being hardened against potential terrorist threats. Methods for analysis, prevention, detection, and response to terrorism in the rail sector are rapidly evolving. TTCI is a leader in railroad technology, and is responding, by offering methods to North American railways for keeping people and cargoes safe and secure.

The TTCI facility is described in more detail in the Appendix to Chapter 2.

Figure 2.13 TTCI Rail Facilities



2.3 Freight Needs

2.3.1 Freight Needs - Truck

Past surveys of shipping companies identify improvements to I-25 as the major freight need within the region. Adequate access to the Central Business District off of I-25 and access to the Airport Industrial Park were identified as well. The second access to the Airport Industrial Park through the western William White Blvd extension will significantly improve the freight access to the Airport Industrial Park. Work on this access began as part of the Defense Access Road project in 2007.

2.3.2 Freight Needs - Rail

No specific needs for the additional railroad freight facilities have been identified. This potential will be examined in the CDOT *Rail*

Relocation Implementation Study. The City of Pueblo recently made improvements at the Airport Industrial Park (AIP) to accommodate rail access to a facility very close to the airport. The improved access to rail at the AIP could prove beneficial since this area has multi-modal access via roads, rail, and aircraft. Some sections of the rail lines in the AIP are weight limited and will need to be upgraded to support business entities that may want to relocate to the AIP.

The Transportation Test Center will continue to emphasize and expand their facility. Planning for improved access to this facility will continue to be included in this and future long run transportation plans.

It is uncertain what the long-term plans are for the Pueblo Chemical Depot with regard to rail service. Possibilities include utilization of the facility for the storage of military equipment as a result of the Ft. Carson and Pinon Canyon expansion proposals. Recent activities also include the expansion of the storage of rail cars on the site.

As part of the potential relocation of the mainline freight rail lines further east of Pueblo County, there may be opportunities for the redevelopment of the existing rail yards. Within Pueblo, and as part of the CDOT Study, consideration must be given to relocating freight rail traffic from the existing UP tracks adjacent to I-25 to joint tracks or operations using the BNSF route in western Pueblo. If rail facilities are relocated and the existing rail yards redeveloped, encouraging a transit-oriented design would improve the viability of a commuter rail service running along the front range of Colorado from Wyoming through the major front range urbanized areas including Pueblo to New Mexico.

2.3.3 Rail Corridor Preservation

In June 2000 the Colorado Transportation Commission approved a **Rail Corridor Preservation Policy** which states:

- Preserving rail corridors for future use may save money, since the cost to preserve a corridor for future transportation purposes is often far less than having to purchase an equivalent corridor in the future.
- Rail transportation may be needed in certain corridors to supplement the highway system and to provide adequate mobility and travel capacity.



- Rail transportation can be a cost-effective and environmentally preferable mode of transportation in certain situations.
- Preserving existing freight rail service by preventing a railroad from being abandoned can reduce the maintenance costs on state highways, since the transportation of displaced rail freight by trucks will increase deterioration of the state highway system.
- Freight rail service can serve as a lifeline to the economic health of a community when there are no other modes that adequately and economically serve the needs of the community.

The Rail Corridor Preservation Policy also identified the following criteria to be used to prioritize corridors for funding:

- Magnitude of negative impacts upon adjacent highways.
- Immediacy of the possible abandonment of the rail line.
- Immediacy of possible encroachment on an existing rail corridor that may jeopardize the implementation of passenger rail service in the corridor.
- Estimated cost to acquire the rail corridor.
- Opportunity for public-private partnerships.

Subsequently, in November 2000, CDOT identified a list of State Significant Rail Corridors, which was adopted by the Transportation Commission as part of the Statewide Transportation Plan. The criteria used to identify these state corridors included existing and potential future demand for passenger and freight services and local/regional support for the preservation of the corridor.

Abandonment Activity

CDOT reports no rail abandonment activities during the past five years. It should be noted, however, that BNSF may be considering the sale of its Albuquerque to La Junta route. The State of New Mexico



has entered into preliminary negotiations for the section from Albuquerque to Trinidad. BNSF indicates that it is reviewing all of its options and “no decision has been made yet on the future of that part of our operations.” This line, which goes through Trinidad on its way to La Junta, carries Amtrak’s Southwest Chief service. BNSF may also include an evaluation of its line from Pueblo to Las Animas. Within the industry there has been speculation that the BNSF may attempt to sell this line sometime in the future. CDOT will continue to monitor these possibilities and may include additional analysis of options as part of the ongoing *Rail Relocation Implementation Study*.

Potential rail line abandonment and acquisition by the State of Colorado are discussed in more detail in the Appendix to Chapter 2.

2.4 Commuter Rail / Light Rail / Bus Rapid Transit

2.4.1 Introduction

Currently there is no passenger rail service in Pueblo County. Amtrak utilizes the TNM&O bus system to shuttle passengers from its trains at Union Station in Denver to its other service through Trinidad. Opportunity for passenger rail service in the Pueblo Area is probably limited until a time when service is provided throughout the front range.

The Denver area is currently expanding the passenger rail service via the FasTrax project. Additionally, with the implementation of the Front Range Express (FREX) bus service between Fountain, Colorado Springs, and Monument north to the Denver Metro area, it appears that an emerging market exists. Informal discussions suggest that some Pueblo citizens might like to see the FREX commuter service expanded into the Pueblo area, but at current FREX operating costs and deficits, it does not appear to be financially feasible.

2.4.2 Rocky Mountain Rail Authority

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 originally called for the designation of 11 high-speed rail corridors, though only 10 corridors have been designated at this time. Thus, there remains one corridor to be designated. Studies are now



underway to determine the feasibility of having the 11th corridor designated from Casper, WY to Albuquerque, NM or El Paso, TX. In 2002 CDOT submitted a letter to the U.S. Department of Transportation expressing an interest in obtaining the designation as the 11th High Speed Rail Corridor.

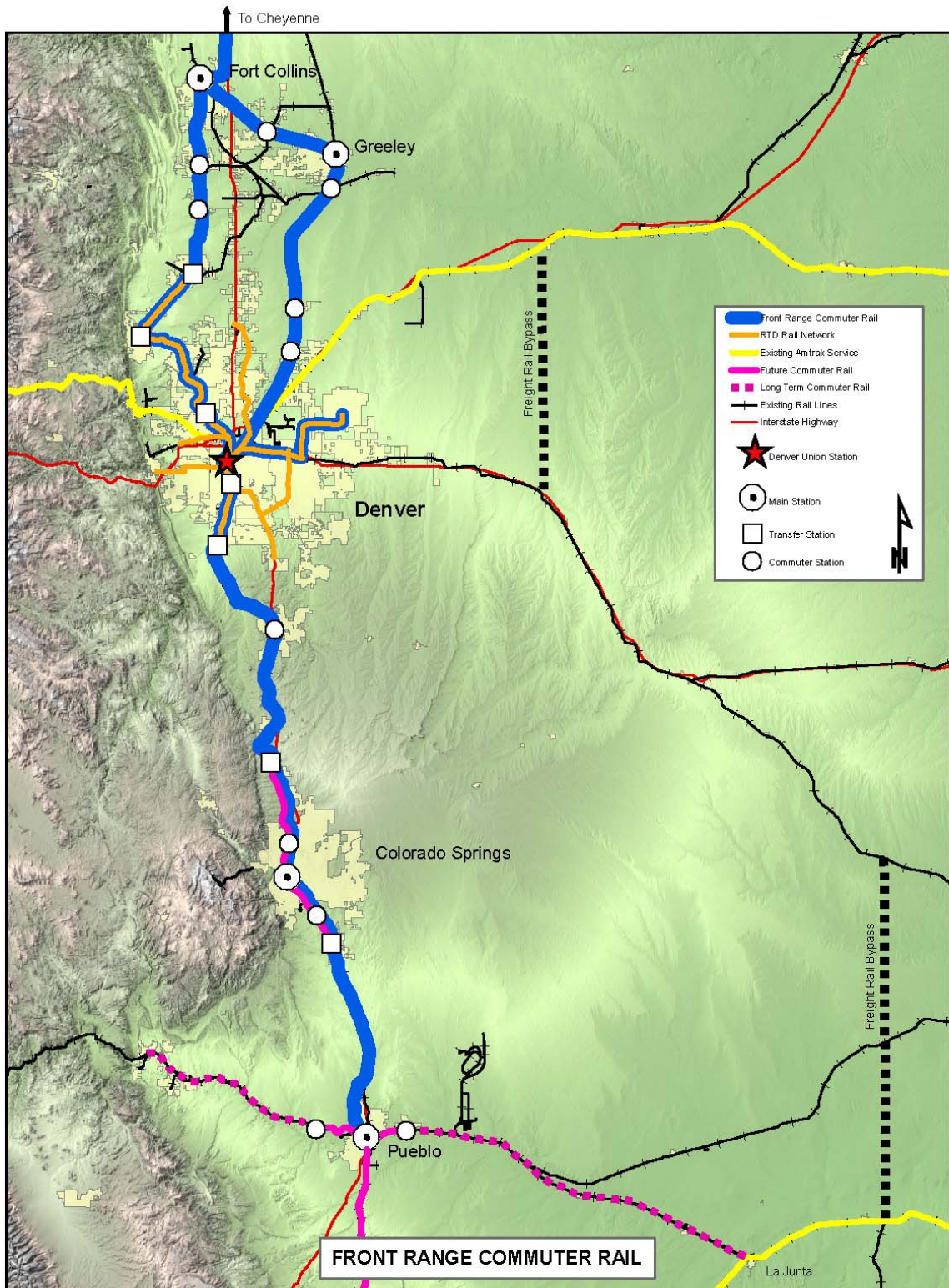
The Rocky Mountain Rail Authority (RMRA) is an organization authorized by new State laws and formed by Inter-Governmental Agreements between Colorado cities, town, counties and transportation districts. Both the City of Pueblo and Pueblo County are members and have seats on the RMRA Board of Directors. RMRA is contracting with CDOT to analyze the High Speed Corridor alternative as part of the Passenger Rail Feasibility study described next.

RMRA was awarded \$1.2 million in strategic transit funds from SB97-001 (usually just SB-1) to conduct a Passenger Rail Feasibility Study in the I-25 and I-70 West corridors from the Wyoming state line to the New Mexico state line, and on the I-70 West corridor from DIA to the Utah border, respectively. The Colorado study is being coordinated with similar studies in the states of New Mexico and Wyoming. Depending on the outcome of the feasibility study, some federal funding for a complete technical evaluation may later be available.

The feasibility study is also being coordinated with the CDOT *Rail Relocation Implementation Study* of moving interstate coal shipments and other through freight trains from the existing tracks in the I-25 Corridor onto new tracks on the Eastern Plains. If implemented, the relocation might permit passenger service to operate on the existing tracks or the use of the right-of-way to construct separate tracks for passenger trains.

CDOT is also conducting a study to identify governance structure options for developing, planning, financing, and operating a regional or statewide passenger rail authority in Colorado and into other states. The study includes a legal review and analysis of existing Colorado law and, for some options, which laws would require amending or development of new legislation. The Pueblo area is represented on the Advisory Committee for the governance study.

Figure 2.14 Possible Routes for a Front Range Commuter Rail



Mapped by Gary Thompson
gary.thompson@thompsonsolutions.com



June 5, 2005



2.4.3 Light Rail / Trolley

Public transit has existed in the City of Pueblo since 1878, with a horse-drawn streetcar system connecting downtown to the Union Depot area. According to the *Colorado Cultural Resource Survey of Pueblo's North Side Neighborhood*, in 1890, Frank Julian Sprague contracted with the Richmond, Virginia, Union Passenger Railway to design and build an electrically powered public transportation system serving the entire city. The result was the first successful electrified streetcar system in the United States. Within a few years, cities across the country installed extensive electric streetcar systems to transport more passengers at higher speeds and with less pollution than horse-drawn or steam-powered conveyances. The trolley system in Pueblo existed until 1947 and much of the City of Pueblo had developed around the trolley lines.

While the Pueblo area today is too small to consider development of a modern light rail system, rising gas prices are stimulating more public discussion of local transit needs in the Pueblo community. Corridor preservation for future transit development will become increasingly important as the Pueblo urbanized area continues to expand. Chapter 5 contains the assessment of transit needs and alternatives which may be needed to meet them.

In the future, some residents may choose to live in communities that are not automobile dependent. Such areas are typically more densely developed to support a more efficient transit system. As both land uses and networks evolve, a transit system may begin as a fixed route bus system then later include regional Bus Rapid Transit lines in reserved Rights-of-Ways, and eventually to the development of light rail or trolley systems in the most heavily traveled corridors. Early planning for such an evolution will result in substantially more efficient transitions at different stages of future system development.



2.5 Non-motorized Transportation

2.5.1 Introduction

The Pueblo area has a relatively mild climate and gentle topography that make travel by non-motorized modes an enjoyable experience for participants. During the past twenty years, the City of Pueblo, Pueblo County, and other local and state agencies have continued to construct and improve sidewalk and trail facilities to enhance non-motorized travel throughout the region. Further enhancements to the non-motorized transportation system will play an ever-increasing role in accommodating the non-motorized travel needs of Pueblo residents and visitors to the area.

The Transportation Enhancement Program, funded as part of the Surface Transportation Program by FHWA and administered by CDOT, continues to be a valuable source of revenue to support the construction of new non-motorized facilities including sidewalks and off-street trail systems. The program provides up to 80% of the project costs with the remaining 20% as the local matching share.

2.5.2 Non-Motorized Program Goals and Objectives

The Goals for the Non-Motorized Element focus on five aspects of the trail network. These are:

- **User Mix** – Design trails facilities to accommodate a broad mix of users including, commuters, cyclists, pedestrians, and equestrians.
- **Trail, Pedestrian, and Bicycle Standards** – Establish and follow appropriate and consistent standards and guidelines for non-motorized facilities.
- **Subdivision Review** – Include compliance with the non-motorized facility plan in the Subdivision process.
- **System Connectivity** – Increase the effectiveness of the system by achieving connectivity between facilities and with adjacent regions. Improve trail crossings of railroads, rivers and streams, and major roadways.
- **Maintenance** – Address maintenance needs of the Trail Network.



2.5.2.1 Non-Motorized Transportation Objectives:

1. As part of the long-range transportation planning process, continue to develop a “Trails Master Plan” that includes the identification and prioritization of new facilities, addresses the “5-E”s (Engineering, Enforcement, Education, Evaluation, and Encouragement), and develops improved access, including adequate parking, at trailheads.
2. Maintain and preserve the existing trail system.
3. Maintain and preserve existing and new sidewalks and walking paths.
4. Encourage and support bicycling and walking as viable modes of transportation.
5. Construct and maintain the non-motorized system according to ADA standards.
6. Develop bicycle connectivity within each transportation mode.
7. Ensure non-motorized connectivity between Transportation Planning Regions.
8. Add the appropriate bicycle and pedestrian elements for consideration in the development review process.
9. Encourage and support schools applying for “Safe Routes to School” Grant Programs that desire them.

2.5.3 Design and Safety Goals

Design and safety considerations also affect non-motorized route selection. These include the following:

1. Pueblo’s River Trail System is designed to provide for safe bicycle/pedestrian experiences that avoid road and driveway intersections. Where possible, especially on main trails, provide or use existing grade crossings at major roadways.
2. Where possible, trails and on-street routes should be located to link schools, parks, public facilities, and retail centers.
3. Trails should comply with the CDOT or locally approved design standards that specify surfacing, trail width, drainage, cross-slope and curve standards.

4. Trail alignments should be spaced far enough from roads and highways to substantially reduce vehicular hazards.
5. Dense vegetation that interferes with safe usage should be removed to create ample sight distance (approx. 50') and to reduce potentially dangerous hiding areas.
6. Alignments should provide access points for emergency response and maintenance vehicles.

2.5.4 Recommended Regional Trail Design Guides

- Main spine trails should be constructed with a 10-foot wide concrete pavement and should maintain a 10-foot height clearance at all grade separations.
- Spur trails should be constructed with materials that provide a firm and stable surface.
- Trails that parallel roadways should have a minimum clearance separation of 8-feet from adjacent vehicle lanes.

2.5.5 Existing Conditions: Sidewalks

Within urban areas, sidewalks are the most common form of non-motorized transportation networks that residents use. Additionally, sidewalks are increasingly important around schools and commercial areas throughout the rural portions of the county.

The presence of sidewalk facilities in the Pueblo area depends largely on the time of construction and jurisdiction within which the area was developed. Generally, most of the neighborhoods that developed within the City of Pueblo before 1950 had a significant investment in sidewalks. Many areas that developed later without sidewalks have required much effort to retrofit. Estimates from the 2030 Plan indicate approximately 80 percent of roadways in the City of Pueblo include sidewalk facilities. The City of Pueblo has an effective ongoing program to install sidewalks in areas that do not currently have them.

As shown in Table 2.10, the City-required sidewalks are installed in both new commercial and new residential subdivisions to promote walkability and improve connectivity. Additionally, where there is development of new buildings or structures, there is a requirement to build sidewalks in compliance with current standards. The minimum sidewalk width varies from 5-feet in residential areas to a minimum 6-feet in commercial areas. Large developments are required to provide



facilities for internal pedestrian access and circulation as well.

Table 2.8 City of Pueblo Sidewalk Installation, 2004-2006*

Year	Sidewalks in New Development	New Sidewalks in Existing Areas
2004	37,738 linear feet	25,061 linear feet
2005	31,590 linear feet	4,520 linear feet
2006	43,194 linear feet	35,867 linear feet

*Electronic Communication, City of Pueblo Public Works Dept., October 2007

The City also improves and maintains pedestrian facilities to achieve full compliance with the Americans with Disabilities Act (ADA). Sidewalks are being upgraded in many low/moderate income neighborhoods, and replacement of curb and gutter is ongoing. The City's curb-ramp installation program installs about 70 curb ramps a year to address the needs of the disabled community. At present, the Public Works Dept reports that there is a back-log of requests for curb ramps by disabled citizens. Funding for the program has come largely from Community Development Block Grant (CDBG) funds and requests for curb ramps are included in neighborhood requests for annual selection of CDBG projects. Table 2.11 shows the number of ramps installed since 1993

2.5.6 Safe Routes to School

SAFETEA-LU included a new, national Safe Routes to School program, which enables and encourages primary and secondary school children to walk and bicycle to school. Both infrastructure-related and behavioral projects are funded. They are geared toward providing a safe, appealing environment for walking and biking that will improve the quality of children's lives and support national health objectives by reducing traffic, fuel consumption, and air pollution in the vicinity of schools.

The legislation makes available \$612 million in Federal funds over five fiscal years. Each state receives a portion of the funds based on its percentage of the national total of school-aged children in grades K – 8, but not less than \$1 million each year.

The initial funding cycle in Colorado was 2006. The City of Pueblo was awarded grants in 2006 and 2007. Both grants were infrastructure grants, for on-street bicycle lanes, bike route signage,



pedestrian crosswalk markings, some sidewalk, and curb bump-outs at busy pedestrian crossings near a school. Construction on these projects had not begun at the time of this writing. This funding provides an additional source of pedestrian facility development specifically targeted to schoolchildren and specifically addressing the objectives described above.

Table 2.9 City of Pueblo Curb Ramp Installation, 1993 - 2007*

<u>Year</u>	<u># Ramps Installed</u>	<u>Total Cost</u>
1993	37	\$46,663
1994	37	\$74,615
1995	22	\$42,838
1996	26	\$51,221
1997	27	\$49,564
1998	47	\$72,000
1999	62	\$108,000
2000	54	\$138,105
2001	50	\$199,867
2002	110	\$194,487
2003	49	\$165,000
2004	57	N/A
2005	122**	\$118,460***
2006	272**	\$381,883***
2007	75 +	\$400,000***

*Source: City of Pueblo, Public Works, 10/07

** Total count of curb ramps includes CDBG projects + City-wide replacement program

*** Budgeted Amount not including CDBG projects

2.5.7 Existing Conditions: Bikeways And Trails

2.5.7.1 On-Street Bikeways

The Pueblo Region completed its first *Bikeway Systems Plan* in 1979. The plan was updated in 1990 and again in 1999 when supplemental efforts for the St. Charles Mesa, Pueblo West, and Pueblo County were incorporated. The *1999 Bicycle Plan* identified 125 miles of on-



street bicycle routes.

Bikeway planning was incorporated directly into the 2030 LRTP and this 2035 LRTP, where the following distances of existing and proposed on-street bike routes are included. Many of the experienced-rider routes are along state highways or other major roadways and extend to the County Lines along these roads.

	Existing	Proposed
All Riders	199 Miles	110 Miles
Experienced Riders	288 Miles*	109 Miles

*Includes State Highway and Rural Routes

On-street bicycle routes are depicted in figure 2-13 below.

2.5.7.2 Trails

In addition to the on-street bicycle routes, the Pueblo Area has a network of multi-use trails that carry bicyclists, pedestrians, and equestrians along open space areas, major rivers, and stream corridors. It is estimated that over 250,000 persons use this system annually. Expanding the trail network and creating connections between areas will increase usage and allow access to a greater portion of Pueblo residents and visitors.

As discussed in more detail later in this Chapter, the Pueblo West Municipal District (PWMD) has developed a separate plan to continue its trail system expansion.

	Existing	Proposed
PWMD Master Plan	6.71 Miles *	53 Miles
Non-PWMD Plans	36.90 Miles	440 Miles

* Includes Funded McCulloch Trail Phase II

Other trails within the Pueblo region include separate unconnected recreational facilities within the San Isabel National Forest, Pueblo Mountain Park in Beulah, and the Rye Mountain Park.

Existing Trails Corridors

- **Arkansas River Trail:** A 20-mile trail connecting Downtown Pueblo with Lake Pueblo State Park. Destinations along the trail include the Historic Arkansas Riverwalk of Pueblo; the Pueblo Greenway and Nature Center, Runyon Sports Complex and Runyon Lake.



- **Fountain Creek Trail:** This 6.5-mile trail connects Runyon Lake with Colorado State University (Pueblo) and is eventually planned to extend 15 miles north into El Paso County as part of the Colorado Front Range Trail, and 5.5 miles south to St. Charles Creek to provide a critical link in the American Discovery Trail.
- **Wild Horse Creek Trail:** Extending north from the Arkansas River Trail, Wildhorse Creek provides access to the trail system for the fast-growing community around Hyde Park and for the residential areas along Tuxedo Boulevard. Approximately 1 mile of this trail is complete with an additional 5 miles planned to extend north across US 50 to the multi-use path along Pueblo Boulevard.

Proposed Trails Corridors

- **St Charles Mesa Trail:** A proposed 10-mile trail running along St Charles Creek from 36th Lane to Lime Road. A proposed 18-mile extension to the town of Rye and a 2-mile link to the Aspen Road Trailhead will complete this regional trail
- **Arkansas River Trail:** A planned expansion of the trail from Runyon Lake 9 miles east to 36th Lane will provide a continuous off-street east-west spine trail through the region.

Pueblo West Metropolitan District

The Pueblo West Metro district applied for and received a 2006 CDOT Transportation Enhancement Grant for an additional portion of the following project.

- **The McCulloch Trail:** A 9-mile long trail in Pueblo West to connect with the State Park trail network and the Colorado Front Range Trail. A 6.7 mile segment of trail is currently complete or under construction. Completion of an additional 2-mile connection from McCulloch Blvd will link the trail to the Lake Pueblo State Park.

In November 2005, the Pueblo West Metropolitan District adopted a Parks and Recreation Master Plan for the district. Within the plan, recommended trail classifications and standards for PWMD are defined. These classifications are:

- **Primary Multi-Purpose, Off-Street Trails** – Paved multi-



purpose, off-street trails will form the two major spines through the District: one running north-south and one running east-west. They should accommodate a variety of trail users, including walkers, joggers, recreational and commuter cyclists within the same trail corridor.

- **Secondary Multi-Purpose, Off-Street Trails** – Secondary trail links will be provided through development areas to the primary trail system, as well as to parks and open space areas that are not on the primary system. These multi-purpose, off-street trails would ideally be paved where practicable and may be provided by project developers as well as being an integral part of the circulation and open space system.

Statewide and National Bikeways and Trails Systems

The Pueblo area is the junction of two of the largest planned trail systems in the Country: the Colorado Front Range Trail and the American Discovery Trail.

The American Discovery Trail (ADT) is the nation's first coast-to-coast, non-motorized trail stretching 6,800 miles from Delaware to California. The ADT connects five national scenic trails, 10 national historic trails, and 23 national recreational trails. It passes through urban centers like Cincinnati and San Francisco, leads to 14 national parks and 16 national forests, and visits 10,000 sites of historic, cultural, and natural significance.

Several trails in the Pueblo region are part of the ADT including sections of the Arkansas River Trail, the St. Charles Creek Trail, and the McCulloch Boulevard Trail.

The Colorado Front Range Trail (CFRT) is a planned trail alignment that will create a continuous trail from New Mexico to Wyoming. Colorado State Parks hopes to complete Phase 1 of the Trail, from Trinidad to Fort Collins, by 2009, including two routes through the Pueblo Region.

The Foothills Loop runs along SH96 through Lake Pueblo State Park to the Arkansas River Trail, then north along the Fountain Creek Trail and Overton Road up to El Paso County. The Plains Loop runs north from Colorado City up along CR778 (Burnt Mill Road) and the Goodnight Arroyo Trail to the Arkansas River Trail.



The Pueblo region considers access to these national trail designations when planning and prioritizing trail projects. For the CFRT designated trails, the standards are in Table 2.12 and the State Parks Department recommends that local jurisdictions follow four steps to trail development, at the end of which the trail can be “branded” with the CFRT designation. These are:

- Signage
- Trailhead maps
- Directional signs
- Distance signs

Table 2.10 Colorado Front Range Trail Recommended Trail Development Standards

	Urban	Sub-Urban	Rural*
Width	10-12 feet	8 feet	6 feet
Maximum Grade	5 %	5 %	8 %
Maximum Cross-Slope	2 %	8 %	8 %
Maximum Tread Obstacles	2 inch	3 inch	N/A

Source: Colorado Front Range Trails Guidelines, 4/03
* Rural standards do not meet ADA accessibility standards

2.5.8 Developments Since the 2030 LRTP

Major accomplishments for non-motorized transportation since the release of the 2030 LRTP include the following:

- Adoption of the Honor Farm Master Plan, including proposed trail locations within the Open Space;
- Development of the CSU-Pueblo Trail Link;
- Further development of the trail network as part of the Arkansas River Legacy Project; including new trailheads and paving in the Main St./Union Ave. bridge area;
- Development of the McCulloch Trail phases 1 & 2 in Pueblo West;
- Significant progress in the installation of curb ramps and



sidewalks in existing neighborhoods of the City of Pueblo;

- Updating of the Bicycle & Pedestrian Trail map, currently awaiting printing for distribution;
 - Receipt by the City of Pueblo of two Safe Routes to School grants, for pedestrian facilities in the vicinity of Heaton Middle School and Hellbeck Elementary School; and
 - Steps in the planning and acquisition of Minnequa Lake, including a park master plan with a designed trail system surrounding the lake.
-

Figure 2.15 City, County, and Pueblo West Bicycle Routes & Recreational Trails Maps

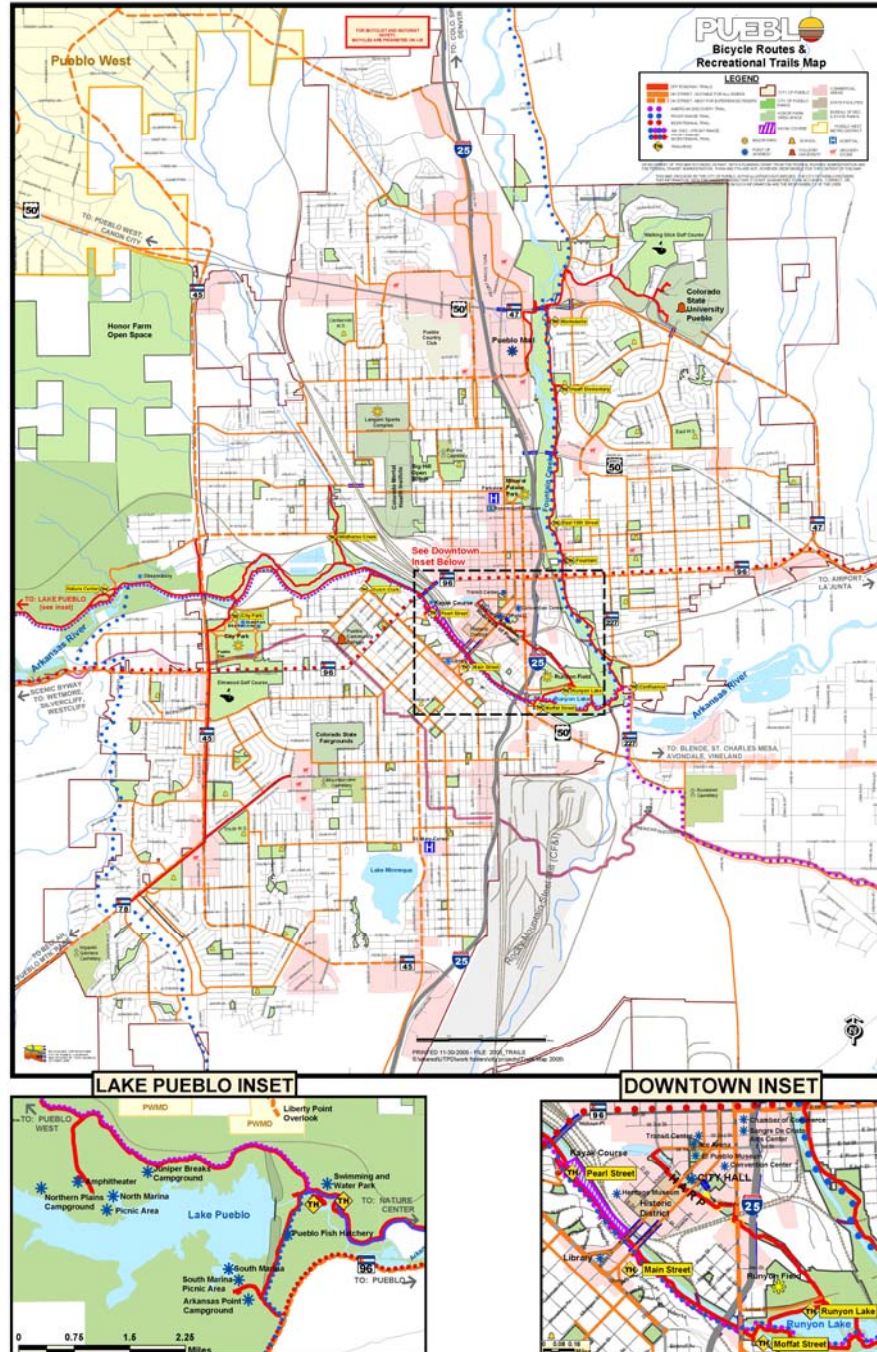
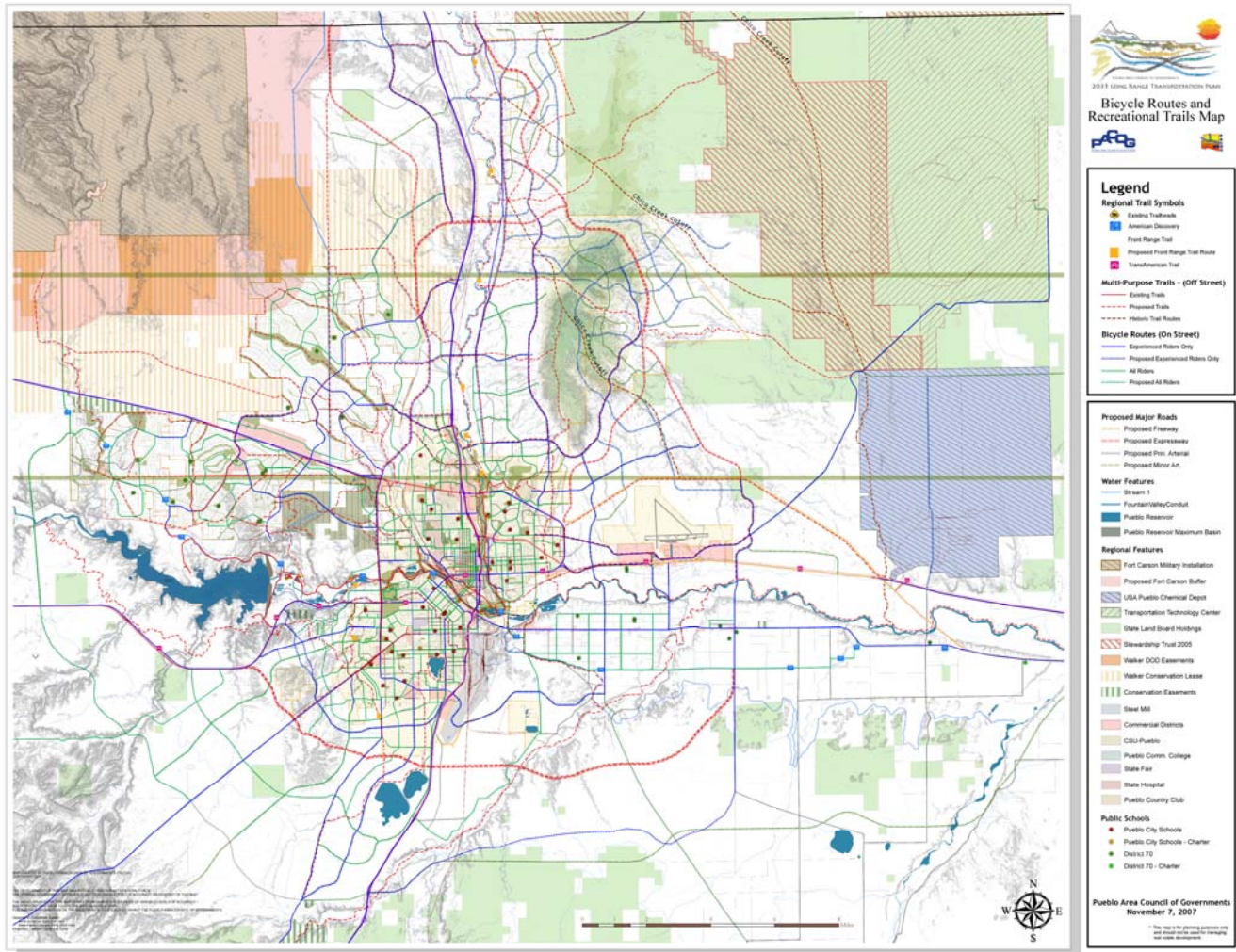


Figure 2.16 PACOG MPO/TPR Non-Motorized Plan Map

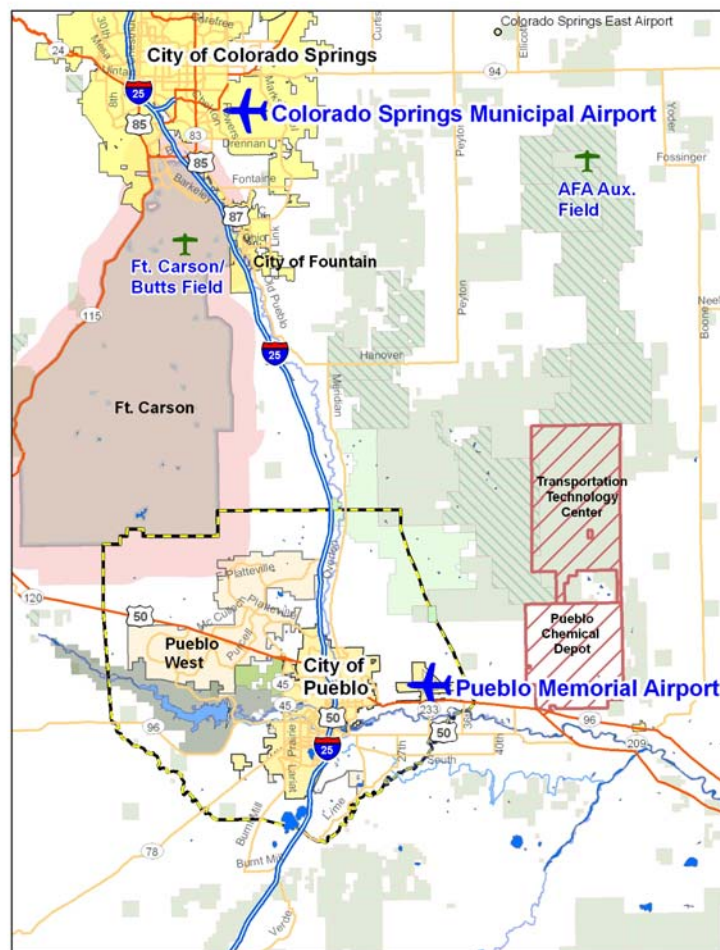


Details of the Non-Motorized Plan can be found on additional maps of each Quadrant of the region in the Appendix to Chapter 2.

2.6 Aviation

Two airports classified by the CDOT Division of Aeronautics as Commercial Service serve the Pueblo region: Pueblo Memorial and Colorado Springs Municipal (see Figure 2-17 below). The Division also classifies General Aviation airports (non-Commercial Service) as either intermediate or minor. In areas near Pueblo, Fremont County, La Junta Municipal, and Meadow Lake are classified as intermediate. Airports with the classification of minor are: Calhan, Colorado Springs East, and Las Animas City & County airports. There are also three military airfields in the area: Air Force Academy Field, AFA Auxiliary Field (Bullseye), and Fort Carson Butts Field.

Figure 2.17 Airports in the Pueblo Region





The Pueblo Memorial Airport (Airport Code PUB) is one of 17 Commercial Service airports in Colorado and is the only airport in Pueblo County. The airport handles over 90,000 take-offs and landings a year and serves air carriers, air taxis, general aviation and military aircraft. The Pueblo airport occupies 2,308 acres of land for aeronautical purposes.

The airport is owned and operated by the City of Pueblo and offers aviation services through private companies who lease space from the airport. Some of these aviation services are commercial flights, hangar facilities, flight training, aircraft repair, fueling facilities and a restaurant.

In addition to the airport property, the adjacent Airport Industrial Park consists of approximately 1,476 acres divided into 75 parcels. The City originally held the land for the park and sells or leases parcels to prospective businesses. The industrial park is actively marketed by the Pueblo Economic Development Corporation (PEDCO), with current tenants including the following companies and government agencies:

- Adams Aircraft
- Air Products & Chemicals
- Atlas Pacific Engineering
- Benschaw, Inc.
- BF Goodrich Aerospace
- Chemical Marketing Concepts
- Deneen & Company
- Doane Products
- Flexible Foam Products
- Glenn Company
- Haddonstone
- Hartung Agalite Glass
- Innotrac
- Jones Tones
- Kurt Manufacturing
- Loaf N' Jug
- National Weather Service
- OK Tooling Company
- Trinity Packaging
- Pueblo County Department of Public Works
- Refractories West
- Southeastern Water Conservancy District
- Stonecraft Industries
- Steel, Inc. (McCallin Diversified/Timberline Steel)
- Takeshiba Technologies



- Target Distribution
- TR Toppers
- TRANE
- Triple G Construction
- US Government Printing Office, and
- U.S. Immigration and Customs Enforcement (ICE).

Pueblo Memorial Airport plays an important role in the community, both as a transportation hub and as a center of economic activity. A study by the CDOT Aeronautics Division in 2003 assessed the local economic impact of airports to their communities. According to the study, the airport was directly responsible for 727 jobs with total wages of \$19,103,000. The total annual economic activity attributed to the airport, which includes direct, indirect, and induced impacts, totaled \$45,683,000.

CDOT estimates that the airport brings 1,682 visitors and \$486,704 in visitor spending annually to the Pueblo area.

Generally, there are two planning documents utilized by airports. The first is an Airport Master Plan (AMP), which is normally updated every ten years. The second planning document is the Airport Layout Plan (ALP), updated five years after the AMP. The City of Pueblo prepared the *Pueblo Memorial Airport Master Plan* in 1992 to identify long range planning for the airport. ALPs were completed and adopted in 2000 and 2007. The 2007 ALP serves as a basis for this element of the 2035 Plan.

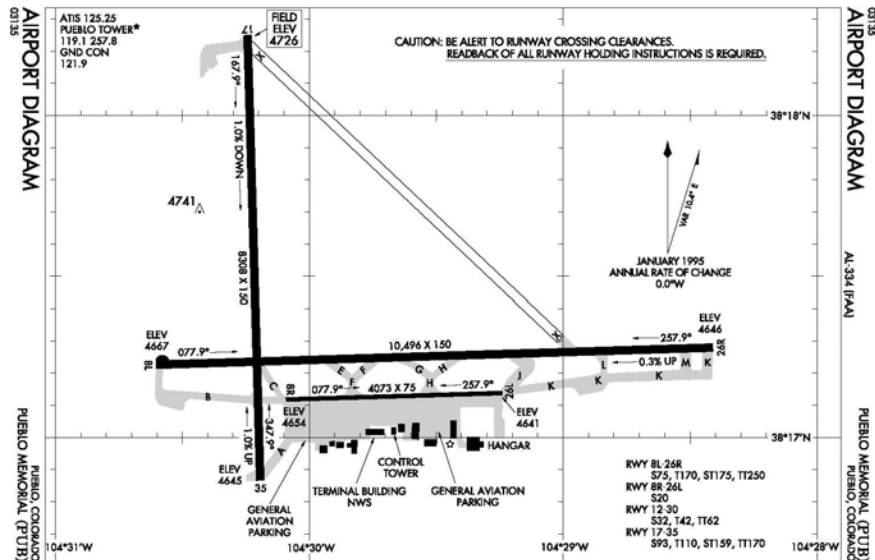
2.6.1 The Airport Layout Plan

2.6.1.1 Airport Location and Access

The Airport is located on the north side of US 50, approximately 7 miles east of I-25. Access to the airport is currently limited to the Paul Harvey Boulevard Interchange with US 50. This access also connects to United Avenue and the USDOT Road that leads to the Army Chemical Depot and USDOT transportation test facility. A second access will become available when the Defense Access Road project is completed along William White Blvd west to SH 47. In the future, Constitution Street may be extended east to create a single full movement intersection with the new access road at SH 47.

The BNSF railroad runs just south of the airport with a spur line serving the industrial park. In 2007, the City spent \$115,000 for rail improvements in the Airport Industrial Park. These improvements bring rail service very close to the Airport and specifically to the new Commercial Hanger Development area.

Figure 2.18 Pueblo Memorial Airport Runways



The airport has a tower, terminal building, and three runways. The two main runways run east-west and include a 4,073 foot runway for general aviation aircraft and a longer 10,500 foot runway that can accommodate up to a 747 aircraft. A third runway runs north-south and serves as a crosswind facility. The airport is home to an ASR radar site and has precision approach capabilities on its main east-west runway. Technical details for the runways can be found in the Appendix to this Chapter.

2.6.1.2 Taxiways and Aprons

By using the mid-field apron as a taxiway, the airport has a full-length taxiway for the primary east-west runway (8L/26R) and the secondary (8R/26L). The taxiway is offset from the primary runway by 500 feet at the closest point to 925 feet on the apron taxiway. This separation of 500 feet meets design standards for approach categories C&D group V aircraft. There are ten exit connector taxiways from the primary runway. The north-south runway (17/35) has a taxiway to its south end, but aircraft departing to the south or landing to the north must “back-taxi” on the runway and turn-around at the north end at the Runway 17 threshold where there is a taxiway “stub” to allow aircraft to remain clear of the runway after performing their back-taxi operation. There are also taxi lanes for access the individual hangars located in the hangar areas.



The current apron area consists of the commercial apron in front of the terminal building, a tie-down area west of the terminal primarily used by Flower Aviation for transient aircraft and an apron east of the terminal area near Silver State Aviation that is used by based aircraft, as well as transient aircraft, which includes the U.S. Forest Service, Colorado Department of Corrections and the U.S. Marshal Service.

2.6.1.3 Airport Operations

Pueblo Memorial Airport handles over 90,000 take-offs and landings a year. However, once the new US Air Force Initial Flight Screening school reaches full-scale operations, the overall operations are expected to triple. These operations consist primarily of general aviation and military operations, but include some limited air carrier and air taxi service as well. Current operations are summarized below in Table 2-18 and 2-19 and depicted in Figure 2.18.

Table 2.11 Pueblo Memorial Airport Operations for 2004 and 2006

Annual Aircraft Operations	# Operations*	% of Operations**
Transient General Aviation	32197	34%
Local General Aviation	26755	28%
Air Taxi	5617	6%
Commercial	230	<1%
Military	29376	32%
Average Per Day (all):	258	243
TOTAL Annual Operations:	94,175	

*2004 Operations **2006 Daily Percentages



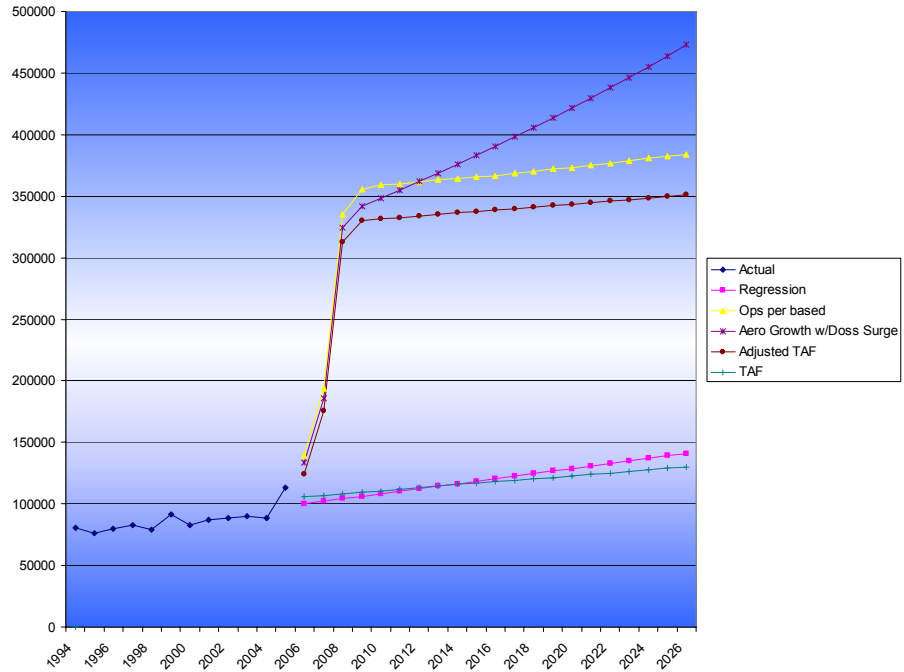
**Table 2.12 Pueblo Memorial Airport Operations
(Adjusted for Doss Operations)**

Yellow Highlights Are Estimates and Forecasts

Source: Pueblo Memorial Airport Layout Plan, 2007

Year	Air Carrier	Air Taxi	GA (Itin.)	Mil (Itin.)	GA (local)	Mil (local)	Total
1990	3,521	5,343	29,754	5,681	20,571	14,976	79,846
1991	2,822	8,395	28,682	4,866	18,949	14,095	77,809
1992	762	9,808	24,843	5,737	23,367	19,586	84,103
1993	258	10,675	22,108	5,300	24,377	19,668	82,386
1994	143	9,013	23,639	4,847	25,105	17,806	80,553
1995	248	6,247	23,045	5,045	23,052	18,906	76,543
1996	429	5,895	24,507	5,010	24,229	19,694	79,764
1997	261	6,066	25,683	5,230	26,300	19,349	82,889
1998	302	4,798	29,618	6,248	21,922	16,208	79,096
1999	226	6,278	31,605	5,147	30,150	17,764	91,170
2000	216	4,919	31,698	5,560	25,362	14,856	82,611
2001	354	5,011	31,512	6,563	25,570	18,421	87,431
2002	358	4,955	33,541	7,252	25,830	16,704	88,640
2003	209	4,977	31,365	8,903	23,856	21,021	90,331
2004	299	5,669	29,808	8,081	24,870	19,988	88,715
2005	239	5,194	30,719	7,689	52,137	17,079	113,057
2006	245	5,334	31,333	7,743	71,800	17,199	133,654
2007	252	5,478	31,960	7,797	122,643	17,319	185,450
2008	259	5,626	32,599	7,852	260,328	17,440	324,104
2009	266	5,778	33,251	7,907	277,215	17,562	341,979
2010	273	5,934	33,916	7,962	282,759	17,685	348,530
2011	280	6,094	34,595	8,018	288,414	17,809	355,210
2012	288	6,259	35,286	8,074	294,183	17,934	362,023
2013	296	6,428	35,992	8,130	300,066	18,059	368,971
2014	304	6,601	36,712	8,187	306,068	18,186	376,058
2015	312	6,780	37,446	8,245	312,189	18,313	383,284
2016	320	6,963	38,195	8,302	318,433	18,441	390,654
2017	329	7,151	38,959	8,360	324,801	18,570	398,171
2018	338	7,344	39,738	8,419	331,297	18,700	405,836
2019	347	7,542	40,533	8,478	337,923	18,831	413,654
2020	356	7,746	41,344	8,537	344,682	18,963	421,628
2021	366	7,955	42,171	8,597	351,575	19,096	429,759
2022	376	8,170	43,014	8,657	358,607	19,229	438,053
2023	386	8,390	43,874	8,718	365,779	19,364	446,511
2024	396	8,617	44,752	8,779	373,095	19,499	455,138
2025	407	8,849	45,647	8,840	380,556	19,636	463,936
2026	418	9,088	46,560	8,902	388,168	19,773	472,909
Growth Rates '08 - '26	2.70%	2.70%	2.00%	0.70%	2.00%	0.70%	2.12%

Figure 2.19 Airport Operations
(1994 - 2005 Actual, 2006 -2026 Forecast)



2.6.1.4 Air Carrier & Air Taxi Services

Pueblo lost the majority of its air carrier service in 1991, precipitating a general decline in passenger service that has held steady at less than 10 percent of 1990 levels. In 2007, a single-carrier offers two scheduled flights a day to Denver. This service is maintained by federal Essential Air Service (EAS) funds that are awarded to airlines to sustain passenger service into small urban communities. There have been recent changes to schedules for travel for normal business hours and increased advertising programs to encourage people in the Pueblo region to utilize the commercial air service from the Pueblo Memorial Airport. The airport maintains air taxi/charter services that fly once or twice a month, primarily to out-of-state vacation destinations, and a charter service offers flights to gaming destinations. Additional information is shown in the Appendix to this Chapter

2.6.1.5 General Aviation

The majority of operations at the airport are General Aviation aircraft. Commercial operations available at the airport include charter services, air ambulance services, helicopter flight training, parking, vehicle rentals, and a



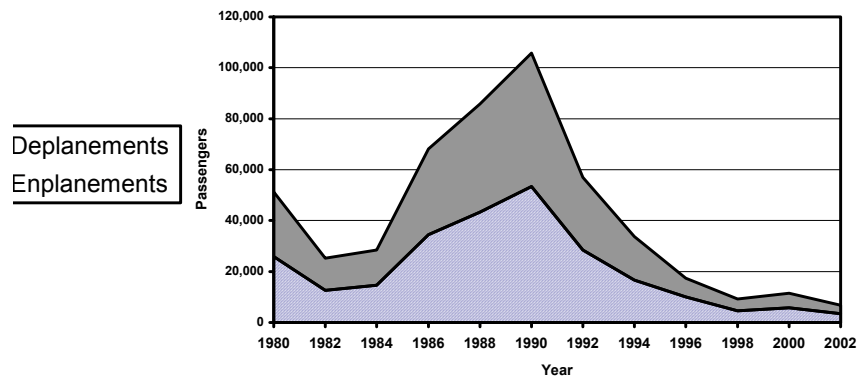
full service restaurant. The City of Pueblo Fire Department has a facility at the airport for fire operations.

At present, as shown in Table 2.20, the Pueblo airport is home to nearly 100 aircraft housed in both commercial and private hangars. Fixed-base aviation services such as hangar services, maintenance and repair facilities, fueling stations, aircraft rental, and flight instruction are run by six private companies which lease land or space from the airport and pay user fees for the leases. The user fees are typically assessed at 1% of total revenue received from services rendered.

Table 2.13 Pueblo Based Aircraft

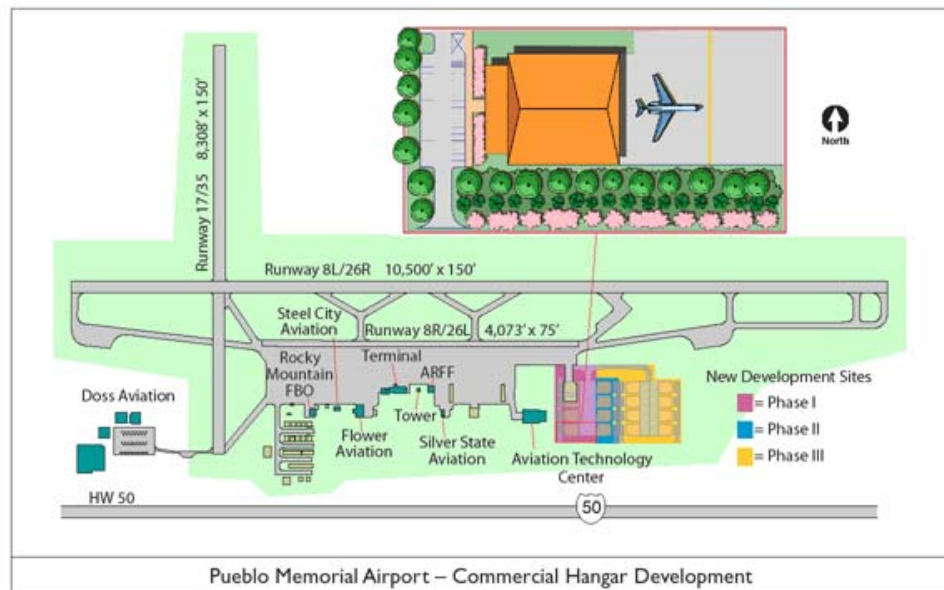
Year	Single Engine	Multi Engine	Jet	Helicopters	Gliders	Military	Ultra Light	Total
1995	50	11	0	0	0	0	0	61
1996	44	7	1	0	0	0	0	52
1997	44	8	1	0	0	0	0	53
1998	42	8	3	1	1	0	0	55
1999	44	7	3	1	1	0	0	56
2000	42	8	3	1	1	0	0	55
2001	47	8	4	0	1	0	0	60
2002	47	8	4	0	1	0	0	60
2003	51	8	2	0	1	0	0	62
2004	54	9	6	4	1	0	0	74
2005	57	10	6	5	1	0	0	79
2006*	71	13	6	6	1	0	0	97

Figure 2.20 Historical Air Passenger Service, 1980 - 2002



2.6.2 Commercial Hangar Development

Pueblo Memorial Airport has completed development of a new commercial hangar and 16 custom sites to be built out in three phases. Phase I development includes new ramp space and taxi-lanes as well as all utilities for the first 150 X 150 foot hangar with almost 4000 sq ft of office space. This shell hangar is ready for immediate occupancy. With 40 acres available for this development and ample expansion opportunities beyond, Pueblo Airport is able to offer tenants custom design for their commercial facilities. The general layout of these new and proposed facilities is shown below.





2.6.3 Military Aviation

The US Air Force and the Colorado Air National Guard use Pueblo Memorial for touch-and-go practice operations, night landing training, and other training purposes. These operations have minimal disruption to airport operations, but do cause wear on the runway surfaces. The military does not currently pay landing fees or user fees for the use of the airport, but consideration has been given to some support for fire operations at the facility.

In 2007, the US Air Force opened an Initial Flight Screening Program to prepare potential flyers for military aviation. This concession is operated by DOSS Aviation out of a 200,000 square foot facility adjacent to the Airport. Eventually, the facility will train up to 1,700 potential military fliers annually during the 40-day program, which includes 25 hours of flight time in basic aviation trainer aircraft. Once in full operation, the facility will provide the sole source of flight screening for all Reserve Officer Training Corps and Officer Training School aviation candidates.

If Pueblo Memorial Airport were utilized by military transport activities, additional security would be provided by the U.S. Army Arrival/Departure Airfield Control Group.

2.6.4 Air Freight

Air-based freight service out of Pueblo has declined along with the reduction in scheduled passenger service. The only present all-cargo operation at Pueblo Memorial is UPS (Key Lime Air) with five operations per week on SA-226 and SA-227 aircraft. Approximately 95% of total cargo volume is express documents/parcels and 5% is belly cargo or mail. Table 2.21 below presents historical air cargo activity volume at the airport, in pounds. (The following tables and text from the 2006 Airport Layout Plan Narrative Report.)



Table 2.14 Annual Cargo (Pounds)

Year	Inbound Pounds	Outbound Pounds	Total Pounds	Comments
1999	905	5,387	6,292	Passenger Flights Only
2000	626	3,702	4,328	Passenger Flights Only
2001	15,356	11,999	27,355	Passenger and UPS Service
2002	85,953	41,385	127,338	Passenger and UPS Service
2003	424,516	192,655	617,171	Passenger and UPS Service
2004	384,293	384,330	768,623	Passenger and UPS Service
2005	237,734	224,227	461,963	UPS Service Only

Source: Airport Records

Due to inconsistencies in the type of cargo carrier, it is difficult to project future cargo levels from the historical data. According to Air Cargo World magazine, independent forecasts show that intra-North America air cargo is forecasted to increase at an average of 2.1 percent per year between 2004 and 2009. Since this forecast is for all air cargo activity, including cargo carried between major cities, it is assumed that the cargo growth at Pueblo Memorial will be more conservative and will more likely follow the population growth projections which represents a 1.3% annual growth. The corresponding total cargo volume is shown below in Table 2.22.

Table 2.15 Forecast Annual Cargo (Total Pounds)

2005	461,963
2006	467,969
2007	474,052
2008	480,215
2009	486,458
2010	492,782
2011	499,188
2012	505,677
2013	512,251
2014	518,910
2015	525,656
2016	532,490
2017	539,412
2018	546,424
2019	553,528
2020	560,724
2021	568,013
2022	575,397
2023	582,877
2024	590,455
2025	598,131
2026	605,906

Due to the location of the airport on major highways and rail



networks, it would be an ideal location for an intermodal cargo facility. (Emphasis added for this 2035 Plan.) If a cargo carrier could see the benefits of opening a sorting operation at Pueblo Memorial Airport, the amount of cargo traveling through the airport would change dramatically. This type of operation has not been considered in the forecasts, but if in the future the airport is able to attract this type of operation, the air cargo forecasts should be modified to account for the new activity.

2.6.5 Operating Revenue

Revenue for airport operations is obtained through three sources. User-fees comprise approximately 56 percent of revenue and consist of per-passenger fees for air carriers, ground lease fees for hangar facilities, commissions on commercial aviation activities, and fuel flowage fees. Local funding includes approximately \$800,000 annually out of the City's general fund and \$150,000 in Federal operating funds.

2.6.6 Aviation Needs

Table 2.23 below shows projected capital improvement and airport planning needs for the Pueblo Memorial Airport over a 20-year time frame. Each project includes projected timeframe and cost estimates. Total capital needs for the 20-year planning horizon are \$59,473,463.

The Capital Improvement Plan for the Airport was adopted in June 2006 and identifies projects over a 6-year time frame. The plan focuses primarily on pavement rehabilitation and scheduled replacement. Additional projects listed under the National Plan of Integrated Airport Systems (2007-2011) bring a total development cost of \$13,435,585.



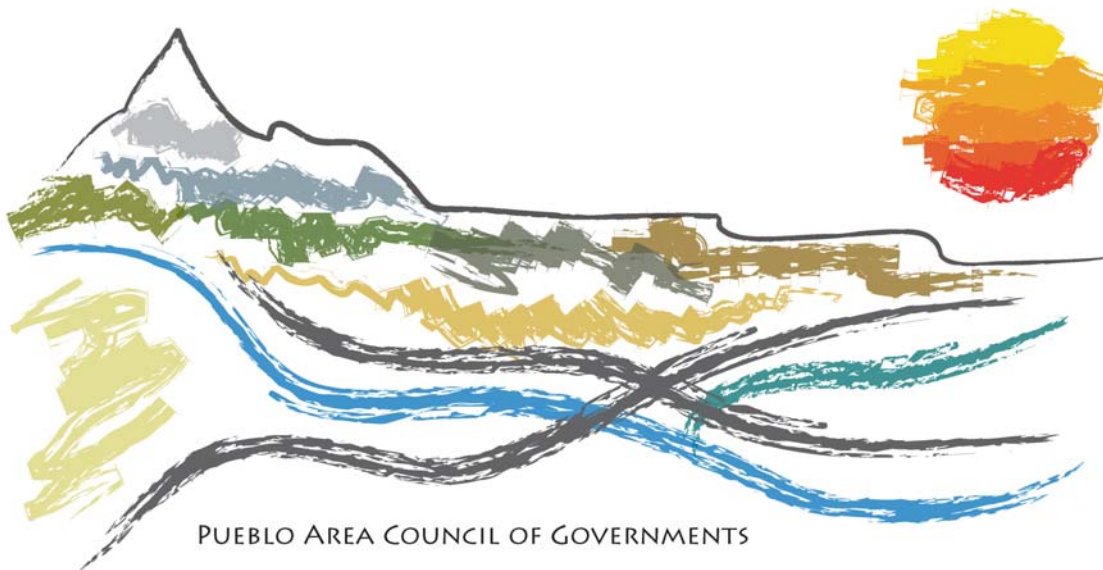
Table 2.16 Pueblo Memorial Airport Capital Needs 2007-2025

Prominent Projects (Not all)	Year	FAA/CDOT/ Local Funding
R/W 17/35 Parallel Taxiway-Phase 1 & Helicopter Training A	2007	\$3,259,515
Runway 8L/26R Rehabilitation	2008	8,978,948
Training Runway; R/W 17/35 Parallel Taxiway – Phase 2	2009	8,340,000
Ramp Edge T/W Realignment/Reconstruction; Taxiway J Realignment	2010	7,280,000
R/W 17/35 Parallel Taxiway – Phase 3; Airport Master Plan	2011	5,200,000
Runway 17/35 Rehabilitation; Terminal Development	2012	5,710,000
Ramp Rehabilitation – Phase 3	2013	4,625,000
Perimeter Fence	2014	2,250,000
GA & Commercial Hangar Area Seal Coat	2015	80,000
Update Airport Master Plan	2016	200,000
Runway 26 MASLR/Runway 17/35 & Taxiway Seal Coat	2017	900,000
Runway 8L/26R & Taxiway Seal Coat	2018	450,000
Ramp Seal Coat	2019	275,000
Commercial Hangar Development – Phase 3	2020	2,325,000
Airport Master Plan	2021	300,000
Runway 17/35 & Taxiway Seal Coat	2022	400,000
Runway 8L26R & Taxiway Rehabilitation; Ramp Seal Coat	2023	5,575,000
	2024	0
Runway 17/35 & Taxiway Rehabilitation; GA & Commercial Hangar Area Seal Coat	2025	3,525,000
Total Funding Need		\$59,473,463

* Airport Layout Plan Narrative Report, *Pueblo Memorial Airport* SEH No. A-Pueblo 0503.00. February, 2007.
source: CDOT Aeronautics Division

Table 2.17 City of Pueblo Airport Capital Improvement Program

Year	Project	Total Cost
2007	T/way and R/way safety areas	157,894.00
	Pavement maintenance	Cost estimates pending
2008	Rehab R/way 26R	368,420.00
	Ramp Rehab - Phase 1	67,106.00
2009	GA Taxilane	18,750.00
2010	Ramp rehab	90,000.00



2035 LONG RANGE TRANSPORTATION PLAN

Chapter 8: Preferred Plan & Corridor Vision Plan with Project Priorities

DRAFT PLAN

	<p><i>Sections with yellow highlighting are incomplete waiting for additional information or for clarification</i></p> <p><i>Text in Red represents information to verify.</i></p>
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JANUARY 2008

NOTE: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.



Table of Contents

8.1	<i>Methodology for the Preferred Plan</i>	4
8.2	<i>Summary of Future Needs – Interchanges</i>	7
8.2.1	<i>Interchanges</i>	7
8.2.2	<i>Bridges over Arkansas River</i>	9
Location		9
8.2.3	<i>Bridges over Fountain Creek</i>	10
8.3	<i>Downtown Projects</i>	11
8.4	<i>Northwest Quadrant Projects</i>	13
8.5	<i>Northeast Quadrant Projects</i>	18
8.6	<i>Southeast Quadrant Projects</i>	24
8.7	<i>Southwest Quadrant Projects</i>	27
8.8	<i>Corridor Visions and Prioritized Projects</i>	31
8.9	<i>Transit Needs</i>	36
8.10	<i>Future Bikeways and Trails Network</i>	38
8.10.1	<i>Priorities from the Trails Master Plan</i>	38
8.10.1.1	<i>Proposed Trails Improvements</i>	40

List of Tables

<i>Table 8.1: Unit Costs For New Roadways By Classification*</i>	5
<i>Table 8.2 Interchanges by Corridor</i>	7
<i>Table 8.3 Bridges over Arkansas River</i>	9
<i>Table 8.4 Bridges Over Fountain Creek</i>	10
<i>Table 8.5 Roadway Costs Downtown Area</i>	12
<i>Table 8.6 Roadway Costs in Northwest Quadrant</i>	14
<i>Table 8.7 Roadway Costs in Northeast Quadrant</i>	19
<i>Table 8.8 Roadway Costs in Southeast Quadrant</i>	25
<i>Table 8.9 Roadway Costs in Southwest Quadrant</i>	28
<i>Table 8.10 Prioritized On-System Corridor Vision Costs</i>	31
<i>Table 8.11 Prioritized Off-System Corridor Vision Costs</i>	33
<i>Table 8.12 Proposed Transit Improvements</i>	37
<i>Table 8.13 Non-Motorized Facility Plan</i>	39



List of Figures

<i>Figure 8.1: PACOG Right of Way Corridor Preservation Plans</i>	6
<i>Figure 8.2: Bicycle Routes and Recreational Trails Map</i>	39

8.1 Methodology for the Preferred Plan

The Preferred Plan for the Pueblo MPO/TPR consists of needed improvements for each of the three major corridors – I-25, US50/47, and SH96A; additional off-system improvements; and transit needs that meet the following criteria:

- They are consistent with the regional transportation vision and goals developed and adopted by the PACOG Board;
- They are consistent with the long-term corridor vision, goals, and objectives developed in Chapter 7 (Corridor Visions) and provide a viable contribution to a system that meets regional transportation needs in the PACOG MPO/TPR area;
- They are compatible with the human and natural environment, and the physical constraints of the corridor (Chapter 4);
- They address justifiable needs as identified in Chapter 5 (Transit Element) and/or Chapter 6 (Mobility Demand and Alternatives Analysis).

Table 8.1: Unit Costs For New Roadways By Classification*

Roadway Type	Cost per Mile 2008 \$	Cost per Linear Foot 2008 \$
Freeway/Expressway	\$ 10,810,000	\$ 2,723
Principal Arterial	9,400,000	2,368
Minor Arterial	7,220,000	1,819
Collector	6,020,000	1,516

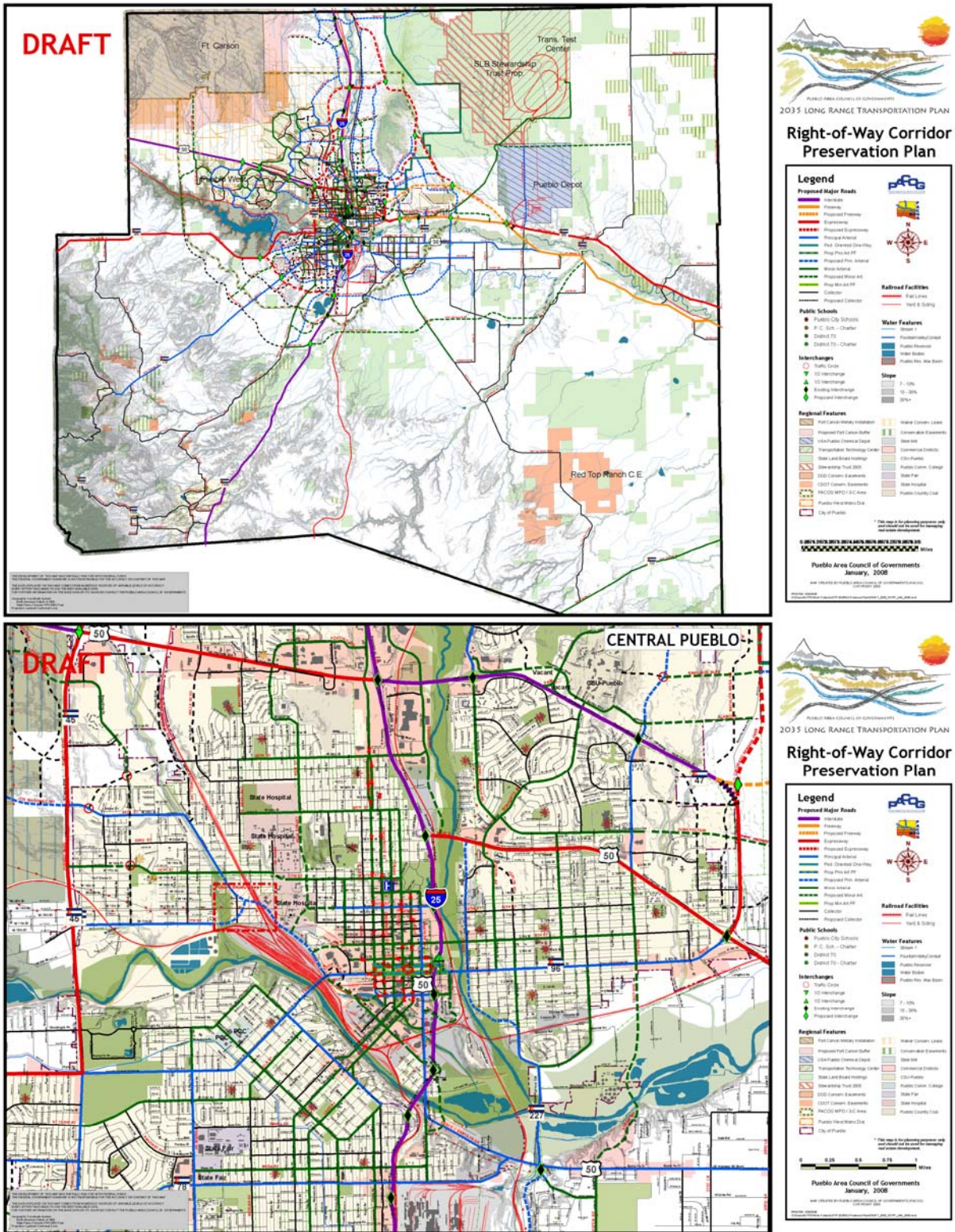
* Adapted from extensive research by DRCOG (2006) and converted from 2005 to 2008 dollars. These average costs are also used for significant reconstruction and upgrading of facilities in existing corridors.

For completeness and future planning updates, an extensive database of every roadway segment or unit identified in the Roadway Corridor Preservation Plan (See Figure 8.1) as a Collector or higher classification was created. The database contains about 600 entries and includes an estimated cost calculation for each entry based on the construction costs shown in Table 8.1.

The I-25 New Pueblo Freeway Project, now nearing completion of an EIS, is **not** included in the database. Instead, CDOT provided the most recent corridor cost estimate for this urban freeway reconstruction as a total of approximately \$846 million. That figure is used throughout this Plan.

If every identified project were built today, the estimated total cost would exceed \$5.6 billion. The prioritized projects limited to only the attainment of on-system and off-system major corridor visions appears in Section 8.8 with an estimated total cost of \$2.1 billion on-system and \$874 million off-system. The Corridor Vision Plan total cost of approximately \$3.0 billion is some 46% less than the cost of the Preferred Plan.

Figure 8.1: PACOG Right of Way Corridor Preservation Plans



8.2 Summary of Future Needs - Interchanges

8.2.1 Interchanges

One of the most significant investments in the future transportation system will be grade separated interchanges that will be required in the near and long term future. Some of the Interchanges listed are in need of rebuilding; many are located at major intersections; and others will be needed to accommodate future traffic generated by growth and development.

Table 8.2 Interchanges by Corridor

Future Interchanges	2008 \$ Cost
Interstate 25 (Rural Only)	
Bohart (County Line) Road Interchange	23,000,000
Independence Camp (Young Hollow) Interchange	23,000,000
Pinon / Pace Interchange	23,000,000
Bragdon / Purcell Interchange	23,000,000
Porter Draw Interchange	23,000,000
Platteville / Dillon Interchange	50,000,000
South Pueblo EX Interchange	40,000,000
Burnt Mill / Fort Reynolds Interchange	23,000,000
TOTAL (Rural Only)	228,000,000



State Hwy 50	
West McCulloch Interchange	23,000,000
McCulloch Interchange	23,000,000
Purcell Interchange	23,000,000
Pueblo Blvd Interchange	50,000,000
Hwy 50 Bypass / SH47 Interchange	23,000,000
27th Lane Interchange	23,000,000
36th Lane / SH 96 Interchange	23,000,000
36th Lane / Relocated SH50 Interchange	23,000,000
Relocated Hwy 50 / Hwy 96 Interchange	23,000,000
	234,000,000
State Hwy 47	
Hwy 47 / East of Troy Ave	23,000,000
	23,000,000
State Hwy 96	
South Pueblo Expressway Interchange	23,000,000
	23,000,000
State Hwy 78	
South Pueblo Expressway Interchange	23,000,000
	23,000,000
Total Interchanges	\$531,000,000

I-25 - Major Reconstruction	CDOT Total Cost Estimate 2008 \$
New Pueblo Freeway (Urban)	\$846,000,000

8.2.2 Bridges over Arkansas River

The Arkansas River is a significant obstacle to creating a roadway network, with numerous existing options for crossing. Currently vehicles can cross the Arkansas river at the following locations: Lake Pueblo Road (fee through Park), Pueblo Blvd, 4th Street, Union Ave, Main Street, Santa Fe Ave, I-25, Baxter Road, 36th Lane, Nyberg Road, and Avondale Road. The preferred Plan recommends many of the existing facilities be expanded by reconstruction.

A unit cost estimate of \$125 per square foot of bridge deck is based on recent costs of the 4th Street Bridge in Pueblo and the I-25 structures in Trinidad. For an 80-foot wide bridge deck (consistent with Arterial crossings) the estimated cost is \$10,000 per linear foot.

Table 8.3 Bridges over Arkansas River

Location	*Estimated Length in Ft	Cost 2008 \$
Swallows (west of nature preserve)	1000	10,000,000
Portland/Joplin – SH 227	100	1,000,000
Aspen Road/Troy Ave	300	3,000,000
27th Lane	100	1,000,000
SH 233 - Baxter Road	100	1,000,000
SH 231 - 36th Lane	100	1,000,000
Highway 50 East	200	2,000,000
TOTAL		\$19,000,000

*Planning Estimate Only. Not based on engineering studies of geology, topography, etc.

8.2.3 Bridges over Fountain Creek

With much of the potential for development in Pueblo County shifting to the northeast quadrant, additional crossings of the Fountain Creek may be required to provide access from interchanges along I-25. Currently, the crossings are: Pinon/Pace, State Highway 47, US Highway 50 Bypass, Eighth Street, and Fourth Streets. The Preferred Plan has a number of new crossings that may be needed during the planning horizon of the 2035 LRTP. Many of the existing crossings have been in place for more than 30 years and may require replacement as traffic volumes increase.

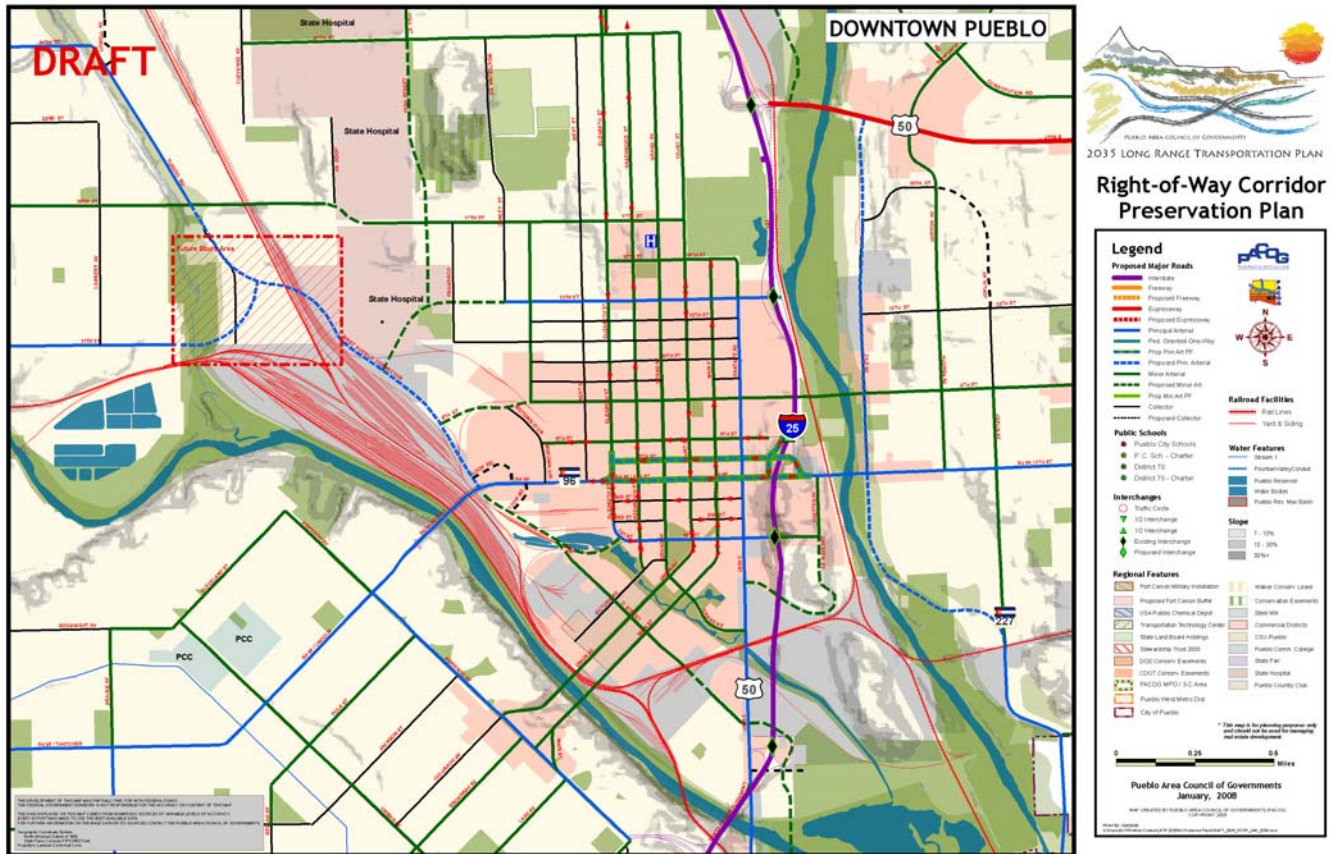
A unit cost estimate of \$125 per square foot of bridge deck is based on recent costs of the 4th Street Bridge in Pueblo and the I-25 structures in Trinidad. For an 80-foot wide bridge deck (consistent with Arterial crossings) the estimated cost is \$10,000 per linear foot.

Table 8.4 Bridges Over Fountain Creek

Location	*Estimated Length in Ft	Cost 2008 \$
Bohart Road/County Line Road	300	3,000,000
Independence Camp Road	300	3,000,000
Pinon / Pace	300	3,000,000
Porter Draw	300	3,000,000
Box T Ranch Road	300	3,000,000
Eagleridge/47th Street	300	3,000,000
TOTAL		\$18,000,000

*Not based on engineering studies of geology, topography, etc.

8.3 Downtown Projects



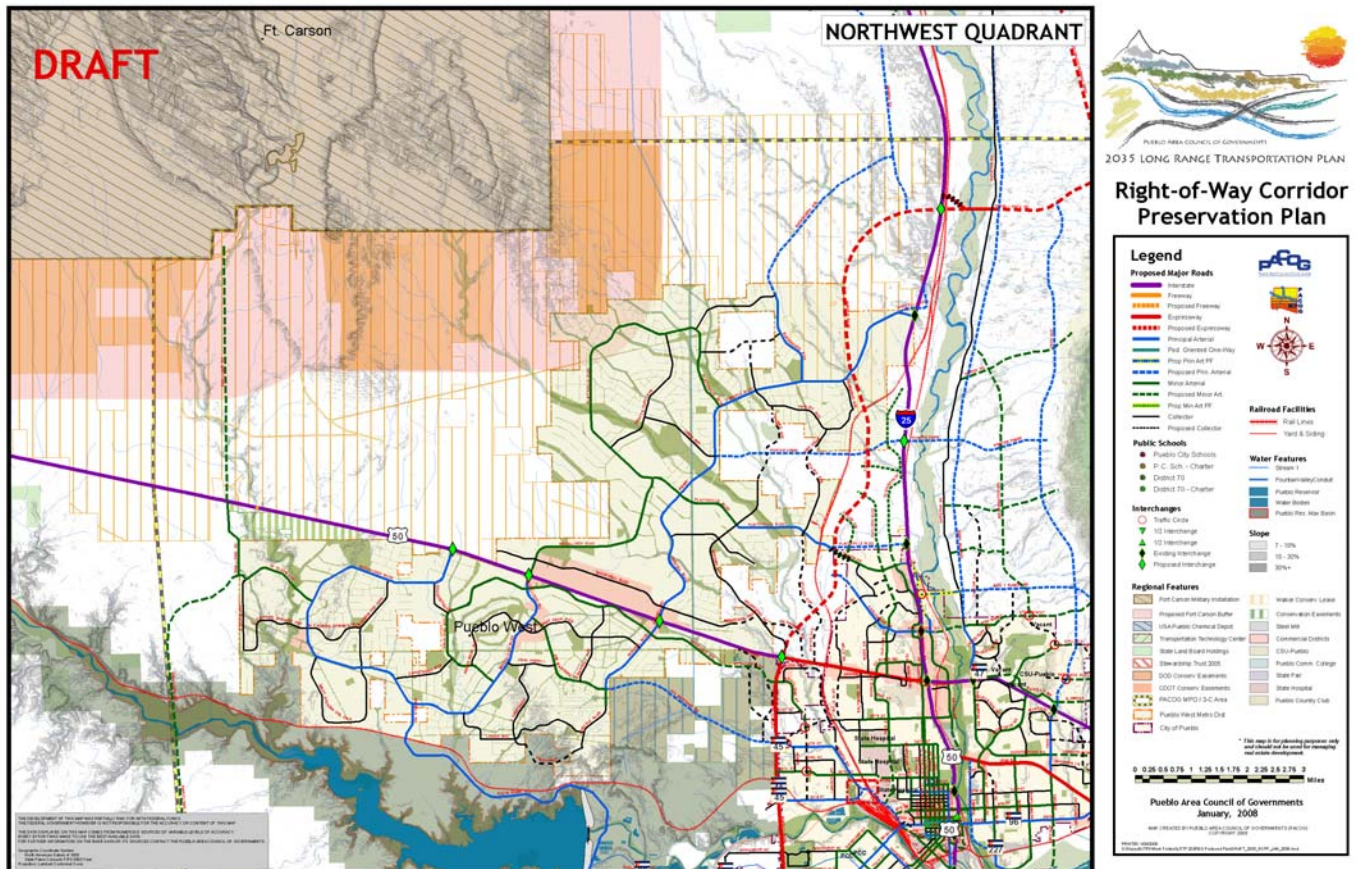
The Downtown area has seen revitalization in the last few years with new developments along the Historic Arkansas River Project and as a result of new job creation activity in the Downtown area. As a result, there are a number of improvements that need to be made to improve the connectivity between Downtown and the suburban developments of Pueblo West, St. Charles Mesa. The most significant connection, as in the 2030 Plan, would be the development of the radial West Pueblo Connector between Pueblo West, Western Pueblo along Pueblo Blvd, and Downtown Pueblo.



Table 8.5 Roadway Costs Downtown Area

Downtown	From	To	Class	Length in Ft	2008 \$ Cost
4th / 5th One Way Pair	I-25	Midtown Circle	PA	9,600	2,500,000
4th Street Bridge over Arkansas - Under Const. (currently funded 2008-2011)	Midtown Circle	Elmhurst	PA	2@1147	36,000,000
D Street Extension	Lamkin	4th Street	MA	2,600	4,700,000
	Union	Railroad tracks	MA	1,000	1,800,000
	Railroad tracks	Santa Fe Ave	MA	1,500	2,700,000
	Santa Fe Ave	Interstate 25	MA	500	900,000
	Interstate 25	Moffat	MA	500	900,000
Huge Railroad Crossing					15,000,000
13th Street	Francisco	West Pueblo Conn.	MA	1,800	3,300,000
Moffat	Ilex / D Street	Arkansas River	MA	1,300	2,400,000
Bridge over Arkansas River	Listed with Bridges		MA		
TOTAL					78,200,000

8.4 Northwest Quadrant Projects



This quadrant has had some significant changes due to the development of the conservation buffer around Ft. Carson Army Base. This resulted in the removal of the Pinon Loop that had been included in the 2030 LRTP. The most significant transportation issue in the quadrant is the congestion along US 50 between I-25 and McCulloch Blvd in Pueblo West. Several off-system priorities are corridors that would provide parallel alternative routes to US 50 to minimize the congestion and disperse traffic volumes to those alternative routes.

A second significant change is the recommendation that the northern leg of Pueblo Blvd (SH 45) be extended approximately two miles to cross I-25 at Pinon rather than terminating at I-25 and Purcell Blvd.



Table 8.6 Roadway Costs in Northwest Quadrant

	From	To	Class	Length in Ft	2008 \$ Cost
Swallows Road	Arkansas River	Hwy 50 West	MA	25,500	46,400,000
1/2 Bridge over Arkansas River	Listed with Bridges		MA		
Joe Martinez	Purcell	Pueblo Blvd	PA	17,800	42,100,000
Multiple Stream & Creek Structures					
Spaulding	11th	18th	CO	2,800	4,200,000
	22nd	24th	CO	1,300	2,000,000
	24th	29th	CO	1,900	2,900,000
	29th	31st	MA	1,900	3,500,000
	Pueblo Blvd	Existing End - PWMD	MA	6,300	11,500,000
Widen & Improve	Existing End - PWMD	Pavement End	MA	5,000	9,100,000
Widen & Improve	Pavement End	Purcell Blvd	MA	2,000	3,600,000
Multiple Stream & Creek Structures					
West Pueblo Connector	4th Street	8th Street	PA	1,300	3,100,000
	8th Street	13th Street	PA	1,400	3,300,000
	13th	Railroad Crossing	PA	2,000	4,700,000
	Railroad Crossing	Atlanta	PA	1,200	2,800,000
	Atlanta	18th	PA	1,300	3,100,000
VERY Large Railroad Crossing					15,000,000
8th Street	Blake Street	West Pueblo Connector	MA	1,600	2,900,000
At-Grade Railroad Crossing ?					1,500,000
At-Grade Railroad Crossing ?					1,500,000
High Street	24th Street	17th Street	MA	3,200	5,800,000
	17th Street	13th Street	MA	1,400	2,500,000



**PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN –**

29th Street	Wills Blvd	Railroad Crossing	CO	600	900,000
	Railroad Crossing	Wildhorse Creek	CO	1,400	2,100,000
	Wildhorse Creek	Pest House Creek	CO	1,000	1,500,000
	Pest House Creek	Spaulding Blvd	CO	600	900,000
	Spaulding Blvd	24th Street	CO	2,500	3,800,000
	Railroad Crossing		CO		3,000,000
	Bridge over Pest House Creek		CO		2,000,000
	Bridge over Wildhorse Creek		CO		2,000,000
Wills Blvd	29th	Kachina	CO	3,900	5,900,000
	Meadowlark	Sunrise	CO	1,400	2,100,000
	Sunrise	Eagleridge	CO	3,100	4,700,000
	Mesa View	Outlook	CO	1,600	2,400,000
	Outlook	Pueblo Crossing	CO	800	1,200,000
Pueblo Blvd	Hwy 50 West	Wildhorse Road	EX	2,300	6,300,000
	Wildhorse Road	States Ave	EX	2,600	7,100,000
	States Ave	Railroad Crossing	EX	1,200	3,300,000
	Railroad Crossing	Eagleridge Blvd	EX	2,900	7,900,000
	Eagleridge Blvd	Platteville Blvd	EX	2,700	7,400,000
	Platteville Blvd	Dillon Drive	EX	3,100	8,400,000
	Dillon Drive	Porter Draw	EX	7,100	19,300,000
	Porter Draw	Railroad Crossing	EX	4,100	11,200,000
	Railroad Crossing	Purcell Blvd	EX	3,900	10,600,000
	Purcell Blvd	Pinon / Pace Road	EX	10,400	28,300,000
	Pinon / Pace Road	Independence Camp	EX	21,100	57,500,000
	Independence Camp	El Paso Cnty	EX	24,200	65,900,000
	Railroad Crossing		EX		3,000,000
	Railroad Crossing		EX		3,000,000
	Multiple Stream & Creek Structures		EX		
Platteville	States Ave	Railroad Crossing	PA	2,000	4,700,000
	Railroad Crossing	Pueblo Blvd	PA	1,500	3,600,000
	Pueblo Blvd	Dillon Drive	PA	1,400	3,300,000
	Dillon Drive	Outlook Blvd	PA	2,800	6,600,000
	Outlook Blvd	Elizabeth	PA	1,200	2,800,000
	Elizabeth	I-25	PA	1,600	3,800,000
	Railroad Crossing		PA		3,000,000



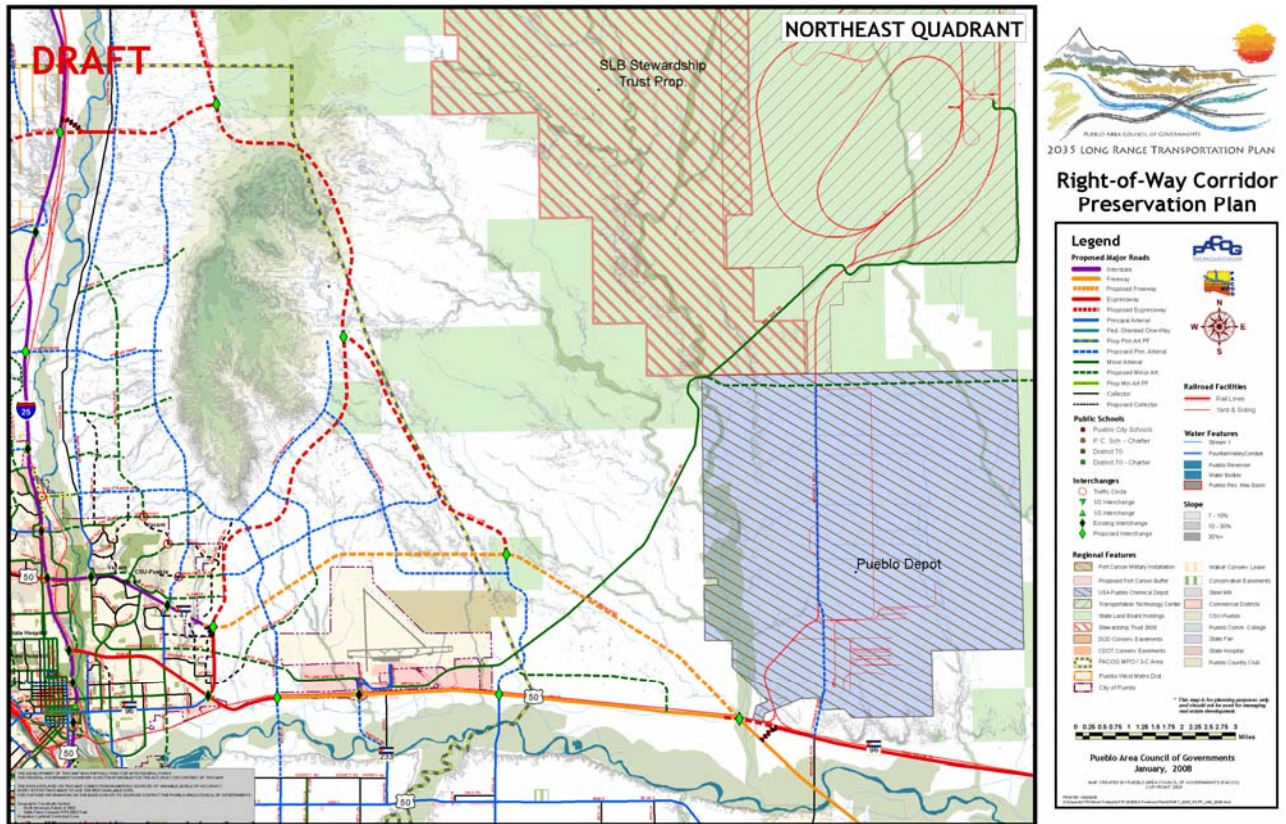
**PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN –**

Elizabeth Street	Dillon Drive	Platteville Blvd	MA	2,000	3,600,000
	Platteville Blvd	Porter Draw	MA	10,800	19,600,000
	Porter Draw	End	MA	5,500	10,000,000
Outlook	Ridge Drive	Wills Blvd	MA	1,400	2,500,000
	Wills Blvd	Dillon Drive	MA	1,900	3,500,000
	Dillon Drive	Platteville Blvd	MA	2,400	4,400,000
	Platteville Blvd	Pueblo Blvd	MA	5,500	10,000,000
Porter Draw	Pueblo West	States Ave	PA	8,900	21,100,000
	States Ave	Railroad Tracks	PA	3,900	9,200,000
	Railroad Tracks	Pueblo Blvd	PA	1,800	4,300,000
	Pueblo Blvd	Elizabeth	PA	2,000	4,700,000
	Elizabeth	Interstate - 25	PA	1,600	3,800,000
Multiple Stream & Creek Structures			PA		
Railroad Crossing			PA		3,000,000
Midway Road	Pinon / Pace	Independence Camp	PA	18,300	43,300,000
	Independence Camp	Antelope	PA	4,800	11,400,000
	Antelope	Bohart Road	PA	10,800	25,600,000
	Bohart Road	El Paso County Line	PA	4,100	9,700,000
Multiple Stream & Creek Structures					
Buckboard Ave	Purcell Blvd	Pueblo West Boundary	PA	10,300	24,400,000
	Pueblo West Boundary	Pueblo Blvd	PA	11,600	27,500,000
	Pueblo Blvd	Midway Road	PA	6,000	14,200,000
Multiple Stream & Creek Structures					
Independence Camp Road					
	Midway Road	Interstate - 25	PA	4,800	11,400,000
Multiple Stream & Creek Structures			PA		
Bohart Road	Midway Road	Interstate - 25	PA	7,800	18,500,000
Multiple Stream & Creek Structures			PA		
Antelope Road	Midway Road	Interstate - 25	CO	11,400	17,300,000
Multiple Stream & Creek Structures			CO		



The total cost of major facilities in the NW Quadrant is estimated to be \$775,000,000.

8.5 Northeast Quadrant Projects



As noted previously in this plan, the northeast quadrant may become the source of much development in the future. The transportation network shown is conceptual and represents only the major facilities likely to be common among many special areas. If or when fully developed to urban standards, the arterial network required to serve the area could account for as much as 250 miles of additional major roadways. Crossings over the Fountain Creek and improvements to I-25 interchanges will be largely based on development of special area plans for significant areas of the quadrant.

The most significant corridor is the potential for development of an inter-regional freeway linking the east side of Pueblo at SH 47 and US 50 to proposed freeways on the east side of Colorado Springs at Powers Blvd (now SH 21) and in the Banning-Lewis Ranch development. This facility will relieve traffic on I-25 and should be a candidate for inclusion in any expansion of the state highway system.



Table 8.7 Roadway Costs in Northeast Quadrant

	From	To	Class	Length in Ft	2008 \$ Cost
Hwy 50 Relocation	SH 47	Pueblo Chemical Depot	FR	61000	166,100,000
Multiple Stream & Creek Structures					0
Erie Ave	Joplin	4th Street	PA	4,400	10,400,000
	4th Street	Hwy 50 Bypass	PA	6,100	14,400,000
SH 227 S to Salt Creek/Santa Fe Ave (US 50C)	Portland	Santa Fe Ave (US 50C)	PA	6,200	14,700,000
Troy Ave	Arkansas River	4th Street	MA	6,700	12,200,000
	4th Street	Hwy 50 Bypass	MA	4,300	7,800,000
	Alamosa	47th Street	PA	9,200	21,800,000
	47th Street	Porter Draw	PA	17,100	40,500,000
	Porter Draw	Pinon / Pace Road	PA	23,100	54,700,000
	Pinon / Pace Road	Trappers Trail	PA	5,600	13,300,000
	Trappers Trail	de Anza Drive	PA	6,700	15,900,000
	de Anza Drive	Jerry Murphy	PA	2,000	4,700,000
Multiple Stream & Creek Structures			PA		
Railroad Crossing			PA		3,000,000
Bridge over Arkansas River	Listed with Bridges		PA		
27th Lane	Arkansas River	US Hwy 50 East	PA	3,200	7,600,000
	US Hwy 50 East	Pete Jimenez	PA	4,000	9,500,000
	Pete Jimenez	Relocated Hwy 50	PA	6,000	14,200,000
	Relocated HWY 50	Rawlings Blvd	PA	4,500	10,700,000
	Rawlings Blvd	Pueblo-CS Fwy	PA	3,600	8,500,000
Multiple Stream & Creek Structures			PA		
Railroad Crossing			PA		3,000,000
Bridge over Arkansas River	Listed with Bridges		PA		
Baxter Road	Arkansas River	SH 50 / 96	PA	7,300	17,300,000
Bridge over Arkansas River	Listed with Bridges				



36th Lane	Arkansas River	US Hwy 50 East	PA	3,100	7,300,000
	Us Hwy 50 East	DOT Road	PA	6,000	14,200,000
	DOT Road	Reloc. Hwy 50	PA	10,400	24,600,000
	Relocated Hwy 50	Pueblo-CS E Fwy	EX	29,000	79,000,000
Railroad Crossing					3,000,000
Bridge over Arkansas River	Listed with Bridges				
Pete Jimenez Pkwy	Hwy 47	Airport Ind. Park	MA	8,000	14,500,000
					0
Constitution	Troy	Hwy 47	MA	4,400	8,000,000
					0
Dillon Drive	SH 50 Bypass	29th Street	MA	2,700	4,900,000
	Eagleridge/ 47th Street	Box T Ranch Road	MA	2,700	4,900,000
	Box T Ranch Road	Interstate - 25	MA	4,600	8,400,000
Railroad Crossing	W/ Dillon-Eden Intchg				
I-25 Fly-over	W/ Dillon-Eden Intchg				
Drew Dix	Troy	City Limits	CO	2,200	3,300,000
	City Limit	Constitution	CO	2,800	4,200,000
Multiple Stream & Creek Structures					
Beaumont	17th	Constitution	CO	1,400	2,100,000
Alamosa Extension	Troy	City Limits	MA	5,400	9,800,000
Rawlings	University	Troy Ave	PA	2,000	4,700,000
	Troy Ave	Baculite Mesa	PA	3,200	7,600,000
	Baculite Mesa	Pueblo-CS Fwy	PA	1,300	3,100,000
		36th Lane	PA	24,000	56,800,000
Multiple Stream & Creek Structures					



Jerry Murphy/Overton Road	Eagleridge/ 47th Street	Box T Ranch Road	PA	2,200	5,200,000
	Box T Ranch Road	Porter Draw	PA	14,700	34,800,000
	Porter Draw	Pinon / Pace Road	PA	22,400	53,000,000
	Pinon / Pace Road	Troy Ave	PA	10,400	24,600,000
	Troy Ave	Independence Camp	PA	10,400	24,600,000
	Independence Camp	Pueblo-CS E Fwy	PA	5,300	12,500,000
	Pueblo-CS E Fwy	Bohart Road	PA	5,300	12,500,000
Multiple Stream & Creek Structures					
Eagleridge/47th Street	Dillon Drive	Railroad Tracks	MA	1,300	2,400,000
	Railroad Tracks	Fountain Creek	MA	600	1,100,000
	Fountain Creek	Jerry Murphy	MA	1,600	2,900,000
	University Hills	Walking Stick	MA	3,200	5,800,000
	Walking Stick	Troy Ave	MA	4,500	8,200,000
	Troy Ave	Box T Ranch	MA	1,800	3,300,000
Railroad Crossing					3,000,000
Bridge over Fountain Creek	Listed with				
Walking Stick Blvd	Golfcourse	College Trail	MA	2,100	3,800,000
	College Trail	City Limit	CO	4,200	6,400,000
	City limit	Box T Ranch	MA	2,600	4,700,000
	Box T Ranch	Porter Draw	MA	14,500	26,400,000
	Porter Draw	Bragdon	MA	10,800	19,600,000
Multiple Stream & Creek Structures					
College Trail	Walking Stick	Troy Ave	MA	2,000	3,600,000
	Troy Ave	Baculite Mesa	MA	2,800	5,100,000
	Baculite Mesa	Box T Ranch Rd	MA	1,700	3,100,000



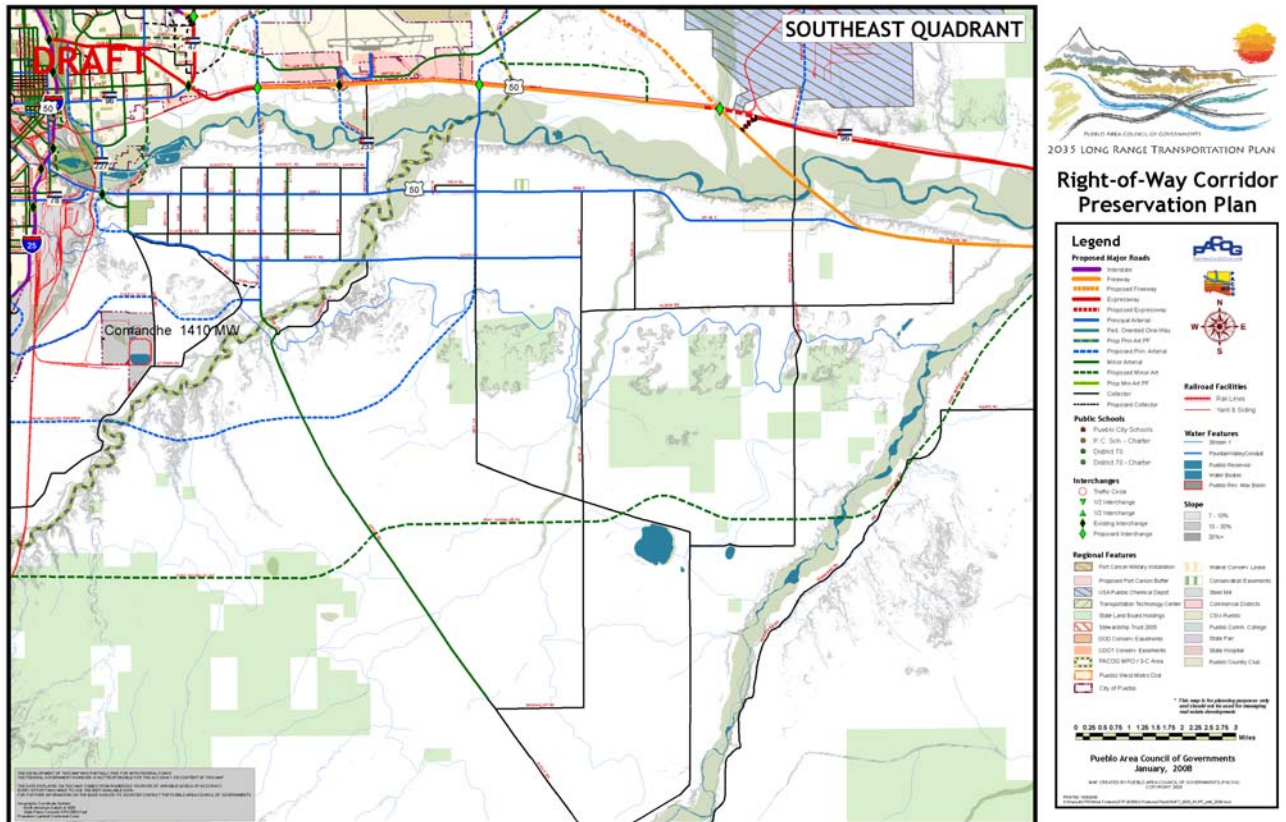
Pueblo – Colorado Springs Freeway	Hwy 47	El Paso Cty Line	EX	109,900	299,300,000
Multiple Stream & Creek Structures					
Box T Ranch Road	Dillon Drive	Railroad Crossing	PA	500	1,200,000
	Railroad Crossing	Fountain Creek	PA	600	1,400,000
	Fountain Creek	Jerry Murphy	PA	3,000	7,100,000
	Jerry Murphy	Walking Stick Blvd	PA	6,000	14,200,000
	Walking Stick Blvd	Troy Ave	PA	4,700	11,100,000
	Troy Ave	27th Lane	PA	6,700	15,900,000
	27th Lane	Pueblo-CS E Fwy	PA	10,100	3,600,000
Multiple Stream & Creek Structures					
Railroad Crossing					3,000,000
Bridge over Fountain Creek	Listed with Bridges				
Porter Draw	Interstate - 25	Railroad Tracks	PA	650	1,500,000
	Railroad Tracks	Fountain Creek	PA	1,200	2,800,000
	Fountain Creek	Jerry Murphy	PA	2,500	5,900,000
	Jerry Murphy	Troy Ave	PA	9,000	21,300,000
Multiple Stream & Creek Structures					
Railroad Crossing					3,000,000
Bridge over Fountain Creek	Listed with				
Pinon/Pace Road	Interstate - 25	Railroad Tracks	EX	500	1,400,000
	Railroad Tracks	Fountain Creek	EX	2,400	6,500,000
	Fountain Creek	Jerry Murphy	EX	2,600	7,100,000
	Jerry Murphy	Troy	EX	5,600	15,200,000
	Troy	PSR Parkway	EX	5,300	14,400,000
Multiple Stream & Creek Structures					
Railroad Crossing -2					6,000,000
Bridge over Fountain Creek	Listed Above				
Avondale Road	Hwy 96	PCD	PA	4,700	11,100,000
	PCD	DOT Road	PA	30,700	72,700,000
Railroad Crossing			PA		3,000,000



DOT Road	DOT Road	Boone Road	MA	57,600	104,800,000
					0
			Feet	518,950	
			Miles	98.3	

The total cost of major facilities in the NE Quadrant is estimated to be \$1,610,800,000 (i.e. more than \$1.6 Billion).

8.6 Southeast Quadrant Projects



In the development of the 2035 LRTP, there have been some changes made to the future roadway network. A significant change is the downgrading of the South Pueblo Expressway to a Principal Arterial, the addition of what is called the Fort Reynolds Blvd between I-25 and Highway 50 East of Pueblo. Fort Reynolds would create a bypass to the south and east of the St. Charles Mesa area. Some of the projects are associated with the I-25 project through Pueblo and are believed to stand as valid projects to improve the roadway network with or without changes to the existing I-25 corridor. Recommendations in the draft I-25 EIS that would augment the effectiveness of those proposed here would include the connection of Abriendo Ave. with Santa Fe Drive, and the crossing of the Arkansas near the existing Moffat St. to provide additional connections to Downtown from the St Charles Mesa.



Table 8.8 Roadway Costs in Southeast Quadrant

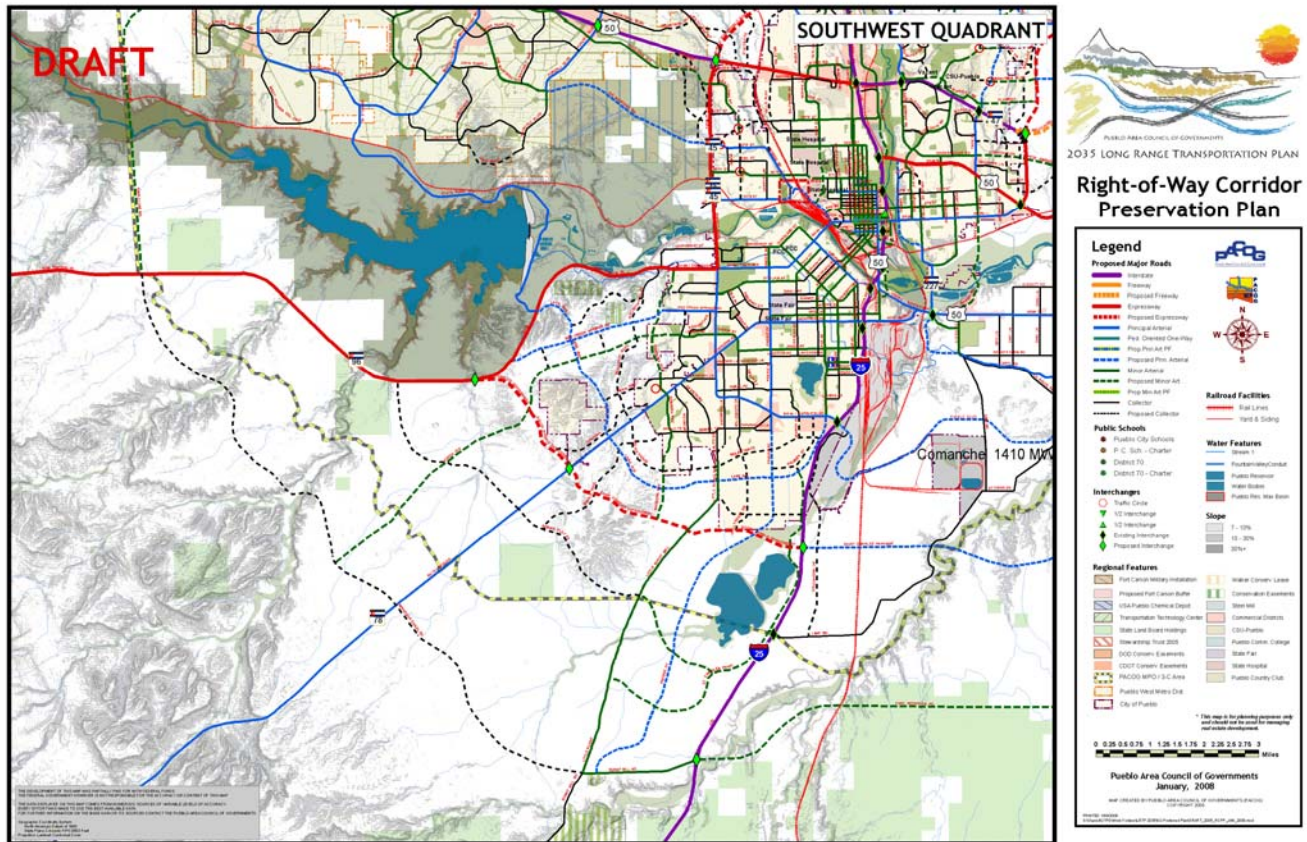
	From	To	Class	Length in Ft	2008 \$
Moffat street	Part of I-25 Project		MA	900	0
	Part of I-25 Project		MA	1,100	0
Bridge over Arkansas River	Listed with Bridges		MA		
Salt Creek Bypass	Roselawn Road	La Salle Road	PA	7,300	17,300,000
Aspen Road	Arkansas River	Aspen Circle	MA	1,000	1,800,000
	Aspen Circle	Santa Fe Drive	MA	3,300	6,000,000
Bridge over Arkansas River	Listed with Bridges		MA		
27th Lane	Arkansas River	Everett Road	PA	5,300	12,500,000
Bridge over Arkansas River	Listed with Bridges		PA		
Baxter Road - Widen	Arkansas River	HWY 50 C	PA	5,100	12,100,000
					0
36th Lane - Widen	Arkansas River	Hwy 50 C	PA	7,800	18,500,000
	Hwy 50 C	South Road	PA	6,600	15,600,000
Bridge over Arkansas River	Listed with Bridges		PA		
Pueblo Blvd	Interstate - 25	Railroad Tracks	PA	9,100	21,500,000
	Railroad Tracks	Lime Road	PA	13,600	32,200,000
	Lime Road	St. Charles Road	PA	10,200	24,200,000
	St. Charles Road	Bessemer Ditch	PA	150	400,000
	Bessemer Ditch	27th Lane	PA	1,800	4,300,000
Bridge over Bessemer Ditch			PA		1,000,000
Railroad Crossing			PA		3,000,000
South Pueblo Expressway	Interstate - 25	Greenhorn Drive	PA	1,500	3,600,000
	Greenhorn Drive	Railroad Tracks	PA	4,300	10,200,000



South Pueblo Expressway (cont.)	Railroad Tracks	Lime Road	PA	7,100	16,800,000
	Lime Road	St. Charles River	PA	500	1,200,000
	St. Charles River	Doyle Road	PA	20,200	47,800,000
	Doyle Road	36th Lane	PA	26,100	61,800,000
Railroad Crossing			PA		3,000,000
Bridge over St. Charles River			PA		3,000,000
Bridge over Bessemer Ditch			PA		6,000,000
Fort Reynolds Road	Interstate - 25	St. Charles River	MA	1,600	2,900,000
	St. Charles River	Railroad Tracks	MA	14,000	25,500,000
	Railroad Tracks	Thompkins Arroyo	MA	22,200	40,400,000
	Thompkins Arroyo	Doyle Road	MA	15,300	27,800,000
	Doyle Road	40th Lane	MA	21,100	38,400,000
	40th Lane	Avondale Blvd	MA	22,100	40,200,000
	Avondale Blvd	Huerfano River	MA	4,800	8,700,000
	Huerfano River	Huerfano Road	MA	5,800	10,500,000
	Huerfano Road	US Hwy 50	MA	27,900	50,700,000
Railroad Crossing			MA		3,000,000
Bridge over St Charles River			MA		2,000,000
Bridge over Greenhorn Creek			MA		2,000,000
Bridge over Huerfano River			MA		3,000,000
Multiple Stream & Creek Structures			MA		
			Feet	265,750	
			Miles	50.3	

The total cost of major facilities in the SE Quadrant is estimated to be \$578,900,000.

8.7 Southwest Quadrant Projects



Development in the Southwest Quadrant has steadily progressed since the adoption of the 2030 LRTP. The character of the development differs from that anticipated in the 2030 Plan, with the proliferation of 35+ acre tracts in this quadrant. The low-density development creates many challenges for the establishment of an adequate roadway system. Since these developments are approved outside of the typical subdivision process, there is no way of ensuring that adequate rights-of-way are being created to accommodate possible future traffic. As a result, the future roadway system in this quadrant has been reconfigured to reflect the possible development of remaining large tracts of land near the City of Pueblo, creating a network of ring roads such as the South Pueblo Expressway. The preservation of ROW in this quadrant for future roads may be an important concern if mobility and connectivity remain high priority goals.



Table 8.9 Roadway Costs in Southwest Quadrant

	From	To	Class	Length in Ft	2008 \$
Bandera Parkway	Thatcher Ave	St. Clair Ave	MA	2,500	4,500,000
	St. Clair Ave	Goodnight Creek	MA	350	600,000
	Goodnight Creek	Red Creek Springs Road	MA	2,400	4,400,000
	Red Creek Springs Road	Lehigh Ave	MA	2,400	4,400,000
	Lehigh Ave	Siena Drive	MA	4,400	8,000,000
	Siena Drive	SH 78	MA	1,700	3,100,000
	SH 78	Pastora Ranch	MA	5,300	9,600,000
	Pastora Ranch	Nolan Trace	MA	2,400	4,400,000
	Nolan Trace	Lake Ave	MA	1,800	3,300,000
	Lake Ave	South Pueblo EX	MA	3,100	5,600,000
Bridge over Goodnight Arroyo			MA		2,000,000
Multiple Stream & Creek Structures			MA		
Red Creek Springs	Suncrest	Goodnight Creek	PA	600	1,400,000
	Goodnight Creek	Bandera Pkwy	PA	1,200	2,800,000
	Bandera Pkwy	McCarthy Blvd	PA	2,700	6,400,000
	McCarthy Blvd	Lake Ave	PA	6,300	14,900,000
	Lake Ave	SH 96	PA	6,200	14,700,000
Multiple Stream & Creek Structures					
Bridge over Goodnight Arroyo			PA		2,000,000
Lake Ave	SH 96	Top of Mesa	PA	3,800	9,000,000
	Top of Mesa	Red Creek Springs Road	PA	2,500	5,900,000
	Red Creek Springs Road	Lehigh Ave	PA	1,900	4,500,000
	Lehigh Ave	Siena Drive	PA	5,100	12,100,000
	Siena Drive	SH 78	PA	3,800	9,000,000
	SH 78	Bridle Trail	PA	1,700	4,000,000
	Bridle Trail	Bandera Pkwy	PA	6,000	14,200,000
	Bandera Pkwy	Little Burnt Mill Road	PA	5,500	13,000,000
	Little Burnt Mill Road	Hollywood Drive	PA	2,800	6,600,000
	Hollywood Drive	Prairie Ave	PA	2,500	5,900,000
	Prairie Ave	St Charles Pkwy	PA	2,700	6,400,000
	St Charles Pkwy	South Gate	PA	4,900	11,600,000
	South Gate	Pueblo Blvd	PA	1,300	3,100,000
Bridge over Ark Valley Conduit					2,000,000
Bridge over Bessemer Ditch					1,000,000



**PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN –**

Lehigh	Lynn Meadows Drive	Goodnight Creek	MA	600	1,100,000
	Goodnight Creek	Bandera Pkwy	MA	1,900	3,500,000
	Bandera Pkwy	McCarthy Blvd	MA	1,600	2,900,000
	McCarthy Blvd	Lake Ave	MA	6,200	11,300,000
	Lake Ave	South Pueblo EX	MA	7,900	14,400,000
	South Pueblo EX	Boggs Creek	MA	11,800	21,500,000
	Boggs Creek	Minnequa Canal Road	MA	12,800	23,300,000
Multiple Stream & Creek Structures					
Bridge over Goodnight Arroyo			MA		2,000,000
Bridge over Boggs Creek			MA		1,000,000
Bridge over Minnequa Canal			MA		1,000,000
McCarthy Blvd	Stonemoor Hills	Red Creek Springs	MA	2,900	5,300,000
	Red Creek Springs	Lehigh Ave	CO	1,600	2,400,000
	Lehigh Ave	Goodnight Creek	CO	3,000	4,500,000
	Goodnight Creek	Siena Drive	CO	3,300	5,000,000
	Siena Drive	SH 78	CO	2,900	4,400,000
Bridge over Goodnight Arroyo			CO		2,000,000
Bridge over Goodnight Arroyo			CO		2,000,000
Nolan Trace	SH 78	Bridle Trail	CO	2,200	3,300,000
	Bridle Trail	Bandera Pkwy	CO	4,500	6,800,000
	Bandera Pkwy	Encino Drive	CO	2,800	4,200,000
	Encino Drive	Little Burnt Mill Road	CO	2,600	3,900,000
	Little Burnt Mill Road	Hollywood Drive	CO	2,600	3,900,000
	Hollywood Drive	Prairie Ave	CO	3,000	4,500,000
	Prairie Ave	Palmer Ave	CO	4,300	6,500,000
	Palmer Ave	Lake Ave	CO	650	1,000,000
Bridge over Ark Valley Conduit					1,000,000
Ventana	Ventana Circle	McCarthy Blvd	CO	2700	4,900,000
	McCarthy Blvd	Lake Ave	CO	3,000	0
	Lake Ave	South Pueblo EX	CO	5,700	2,900,000
Multiple Stream & Creek Structures					
Bridge over Goodnight Arroyo					2,000,000



Bridle Trail	City Limit	Nolan Trace	CO	3,200	7,600,000
	Nolan Trace	Lake Ave	CO	1,900	4,900,000
	Lake Ave	South Pueblo EX	CO	5,000	2,900,000
	South Pueblo EX	Boggs Flat Road		6,600	7,600,000
Hollywood Drive	Raccoon Lane	Nolan Trace	CO	1,000	1,500,000
	Nolan Trace	Lake Ave	CO	2,400	3,600,000
	Lake Ave	South Pueblo EX	CO	5,500	8,300,000



8.8 Corridor Visions and Prioritized Projects

The cost of the Preferred Plan as detailed in the four quadrants, plus the cost of individual projects shown in Sections 8.2 and 8.3, is in excess of **\$5.6 Billion**. It is unlikely that the entire system could be built and that the future assumptions underlying it will actually be realized. Thus, the following tables show the costs of attaining the Visions for specific Corridors and a priority listing for projects on the State Highway System and a separate priority listing for Off-System projects.

Table 8.10 Prioritized On-System Corridor Vision Costs

MAJOR ON-SYSTEM CORRIDOR COSTS	From	To	Cost in 2008 \$
I-25 - The New Pueblo Freeway Cost	Eagleridge	Pueblo Blvd S (SH 45)	846,000,000
I-25 Interchanges outside of Pueblo			
Bohart/County Line Road	INTERCHANGE		23,000,000
Independence Camp	INTERCHANGE		23,000,000
Pinon / Pace	INTERCHANGE		23,000,000
Bragdon / Purcell	INTERCHANGE		23,000,000
Porter Draw	INTERCHANGE		23,000,000
Platteville / Dillon	INTERCHANGE		50,000,000
South Pueblo EX	INTERCHANGE		40,000,000
Burnt Mill / Fort Reynolds	INTERCHANGE		23,000,000
I-25 Interchange Cost outside of Pueblo			228,000,000
I-25 TOTAL CORRIDOR COST	N County Line	S county Line	1,074,000,000
US 50 (includes SH 47)	West County Line	East County Line	
West McCulloch	INTERCHANGE		23,000,000
McCulloch	INTERCHANGE		23,000,000
Purcell	INTERCHANGE		23,000,000
Pueblo Blvd	INTERCHANGE		50,000,000
Hwy 50 Bypass / SH47	INTERCHANGE		23,000,000
27th Lane	INTERCHANGE		23,000,000
36th Lane / SH 96	INTERCHANGE		23,000,000
36th Lane / Relocated SH50	INTERCHANGE		23,000,000
Relocated Hwy 50/Hwy 96	INTERCHANGE		23,000,000
Hwy 47 / East of Troy Ave	INTERCHANGE		23,000,000
Pueblo Chemical Depot Defense Access Road	FINAL PHASE		6,000,000
Hwy 50 Relocation	SH 47	Pueblo Chem Depot	166,100,000
Highway 50 East	BRIDGE		4,000,000
US50/SH47 Corridor Cost			433,100,000
SH 45 Corridor			



**PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN –**

Pueblo Blvd N Extension	Hwy 50 West	Wildhorse Road	6,300,000
	Wildhorse Road	States Ave	7,100,000
	States Ave	Railroad Crossing	3,300,000
	Railroad Crossing	Eagleridge Blvd	7,900,000
	Eagleridge Blvd	Platteville Blvd	7,400,000
	Platteville Blvd	Dillon Drive	8,400,000
	Dillon Drive	Porter Draw	19,300,000
	Porter Draw	Railroad Crossing	11,200,000
	Railroad Crossing	Purcell Blvd	10,600,000
	Purcell Blvd	Pinon / Pace Road	28,300,000
	Pinon / Pace Road	Independence Camp	57,500,000
	Independence Camp	El Paso Cnty	65,900,000
	Railroad Crossing		0
	Multiple Stream & Creek Structures		0
Pueblo Blvd East Extension	Interstate - 25	Railroad Tracks	21,500,000
	Railroad Tracks	Lime Road	32,200,000
	Lime Road	St. Charles Road	24,200,000
	St. Charles Road	Bessemer Ditch	400,000
	Bessemer Ditch	27th Lane	4,300,000
	Bridge at Bessemer Ditch		1,000,000
	Railroad Crossing		3,000,000
SH 45 (Pueblo Blvd) Corridor Cost			319,800,000
SH 227 (Joplin-Erie) Corridor			
Erie Ave (possible reloc or extension of SH 227)	Joplin/Portland	4th Street	10,400,000
	4th Street	US 50B	14,400,000
SH 227 S to Santa Fe Ave (US 50C)	Portland	Santa Fe Ave (US 50C)	14,700,000
SH 227 (Joplin-Erie) Corridor Cost			39,500,000
SH 96 Corridor	S Pueblo Expwy	Wilson	
South Pueblo EX	INTERCHANGE		23,000,000
4th Street Bridge	Mid-Town Circle	Wilson	36,000,000
Upgrade to Expressway	S Pueblo Expwy	Pueblo Blvd (SH 45)	71,900,000
SH 96 Corridor Cost			130,900,000
SH 78 Corridor			
South Pueblo EX	INTERCHANGE		23,000,000
Pueblo Blvd to South Pueblo EX	Principal		43,800,000
SH 78 Corridor Cost			66,800,000
SH 231 (36th Lane) Corridor			
36th Lane - Reconstruct	Arkansas River	Hwy 50 C	18,500,000
	Arkansas River	US Hwy 50 East	7,300,000
Bridge - Arkansas River - SH 231 - 36th Lane	Cost assumes 80' width and \$125 per sq ft = \$10,000 per linear foot		2,000,000



SH 231 (36th Lane) Corridor Cost			27,800,000
SH 233 (Baxter Road) Corridor			
Baxter Road - Reconstruct	Arkansas River	HWY 50 C	12,100,000
Baxter Road	Arkansas River	SH 50 / 96	17,300,000
Bridge - Arkansas River - SH 233 - Baxter Road	Cost assumes 80' width and \$125 per sq ft = \$10,000 per linear foot		2,000,000
SH 233 (Baxter Road) Corridor Cost			31,400,000
State Hwy System Corridor Vision Cost			2,123,300,000

Table 8.11 Prioritized Off-System Corridor Vision Costs

OFF SYSTEM CORRIDOR COSTS	From	To	2008 \$ Cost
West Pueblo Connector	4th Street	8th Street	3,100,000
	8th Street	13th Street	3,300,000
	13th	Railroad	4,700,000
	Railroad Crossing	Crossing Atlanta	2,800,000
	Atlanta	18th	3,100,000
VERY Large Railroad Crossing	Structure = 1,500 l.f. at \$10,000 per l.f.		15,000,000
Joe Martinez	Purcell	Pueblo Blvd	42,100,000
West Pueblo Connector Cost			74,100,000
Eagleridge/47th Street Connection	Dillon Drive	Railroad Tracks	2,400,000
	Railroad Tracks	Fountain Creek	1,100,000
	Fountain Creek	Jerry Murphy	2,900,000
	University Hills	Walking Stick	5,800,000
	Walking Stick	Troy Ave	8,200,000
	Troy Ave	Box T Ranch Road	3,300,000
Railroad Crossing	DRAFT – January 2008		Preferred Plan Page 8,000
Bridge over Fountain Creek	Cost assumes 80' width and \$125 per	sq ft = \$10,000 per linear foot	3,000,000



**PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN –**

	4th Street	Hwy 50 Bypass (US 50B)	14,400,000
Erie Ave (possible ext or reloc of SH 227) Cost			24,800,000
Bandera Parkway	Thatcher Ave	St. Clair Ave	4,500,000
	St. Clair Ave	Goodnight Creek	600,000
	Goodnight Creek	Red Creek Springs Road	4,400,000
	Red Creek Springs Road	Lehigh Ave	4,400,000
	Lehigh Ave	Siena Drive	8,000,000
Bandera Parkway (cont.)	Siena Drive	SH 78	3,100,000
	SH 78	Pastora Ranch	9,600,000
	Pastora Ranch	Nolan Trace	4,400,000
	Nolan Trace	Lake Ave	3,300,000
	Lake Ave	South Pueblo EX	5,600,000
Bridge over Goodnight Arroyo			2,000,000
Bandera Parkway Cost			49,900,000
Platteville Rd Extension and Improvement	States Ave	Railroad Crossing	4,700,000
	Railroad Crossing	Pueblo Blvd	3,600,000
	Pueblo Blvd	Dillon Drive	3,300,000
	Dillon Drive	Outlook Blvd	6,600,000
	Outlook Blvd	Elizabeth	2,800,000
	Elizabeth	I-25	3,800,000
Railroad Crossing			3,000,000
Platteville / Dillon Interchange	INTERCHANGE		50,000,000
Platteville Road Cost			77,800,000
Prairie Ave	Thatcher Ave	Farabaugh Lane	37,400,000
	Farabaugh Lane	Nolan Trace	4,500,000
	Nolan Trace	Lake Ave	6,400,000
	Lake Ave	South Pueblo EX	14,400,000
	South Pueblo EX	Boggs Flat Road	35,800,000
	Boggs Flat Road	St Charles Pkwy	13,000,000
	St Charles Pkwy	Burnt Mill Road	24,600,000
Bridge over Salt Creek			1,000,000
Prairie Ave Cost			137,100,000



Pueblo - Co Sprgs Freeway	Hwy 47 (W Leg)	El Paso Cty Ln - Meridian	299,300,000
36th Lane - E leg of Fwy	Reloc Hwy 50 - E	Pueblo-E CS Fwy	79,000,000
Railroad Crossing			3,000,000
36th Lane Interchange	INTERCHANGE		23,000,000
Pinon / Pace Interchange	INTERCHANGE		23,000,000
Pinon/Pace Road	Interstate - 25	Railroad Tracks	1,400,000
	Railroad Tracks	Fountain Creek	6,500,000
	Fountain Creek	Jerry Murphy	7,100,000
	Jerry Murphy	Troy	15,200,000
	Troy	Pueblo-CS Fwy	14,400,000
Railroad Crossings - 2			6,000,000
Bridge over Fountain Creek			3,000,000
Pueblo - Colorado Springs Freeway Cost			480,900,000
Off-System Corridor Vision Cost			874,300,000

8.9 Transit Needs

Transit Needs are discussed and summarized in Chapter 5, the Coordinated Human Services – Public Transit Plan. Based on discussions and recommendations from the TAC and the Transit Sub-Committee as well as review by Pueblo Transit staff, the three alternatives approved for the Long Range Transit Element include:

- **Alternative A – No Build:** Continue to serve existing riders with existing system. Replace vehicles as needed. Route productivity would likely remain the same or decline as continued inefficiencies prevent or discourage use.
- **Alternative B - Expand System:** Expand system to new areas including Pueblo West, Airport Industrial Park and St. Charles Mesa. Would require substantial additional funding for vehicles, increased operations and infrastructure. Would require expansion of Citi-Lift program for all locations within $\frac{3}{4}$ mile of routes. Funding agreement would need to be secured from areas being served.
- **Alternative C - Modified System:** Reconfigure fixed routes to improve service and increase route productivity. Convert existing “radial pulse” system to a series of three circulators linked to the Downtown transit center by existing routes.

Alternatives A and C are included in the Six Year Plan. Alternative B is recommended as part of the Long Range Transit Plan.



Table 8.12 Proposed Transit Improvements

Continued Operations: Pueblo’s fixed route transit system and demand response operate from a mix of local revenue, user fees, and federal operating grants. Funds are required for operations and for fleet replacement.	\$ 131.5 M*
Expanded Service to Sundays and Peak Hour : Expanding the service hours for the Transit system would improve ridership and increase the benefits of the transit system. Based on 2030 costs, adjusted to 2008 and converted into year-of-expenditure dollars.	\$ 5.8 M
Expanded Service Area: Provide service to the major activity centers outside of the City of Pueblo. Funds are required for both operations and for fleet expansion. Based on 2030 costs, adjusted to 2008 and converted into year-of-expenditure dollars. Adds funding from Sections 5309, 5316, and 5317.	\$ 44.1 M

*Total year-of-expenditure dollars 2008 – 2035, including local share in Sec 5307.

8.10 Future Bikeways and Trails Network

8.10.1 Priorities from the Trails Master Plan

The PACOG Trails Master Plan is described in Chapter 2, Existing Transportation System, and can be used to identify both existing facilities and future planned facilities. For the Trails Master Plan Map, bikeway alignments were selected based on the 2030 LRTP – Regional Trails Plan, the 2006 Bicycle Route Plan, the future roadway plan, facility spacing, and connectivity considerations. The City’s current Trails Master Plan, County Trail Plans for the St Charles Mesa and current trails plan for Pueblo West were incorporated into the plan as well.

Table 8.12 contains a summary of the Non-Motorized Facility Plan. Route designations include four types of facilities. A description of each is listed below.

- **Off-Street Multi-Use Trails** include existing and future trail alignments from the City’s Trails Plan, as well as from roadway alignments that could warrant adjacent off-street paths. For major trails, constructed as concrete 10 feet wide, the approximate cost per mile is \$500,000.
- **Experienced-Rider Bicycle Routes** include CDOT highways that are designated as having adequate shoulders for bicycle travel (4 foot or greater), along with major roadways through the urbanized and rural areas of Pueblo County.
- **All-Riders On-Street Bicycle Routes** include roadways that have low traffic volumes and offer bicycle access to important destinations or neighborhoods. These also include lower volume County roads that accommodate bicycles on-street.

The Plan also includes important non-motorized destinations. High priority destinations for pedestrians and bicyclists include recreational trailheads, major employers, government offices, commercial centers, and schools.

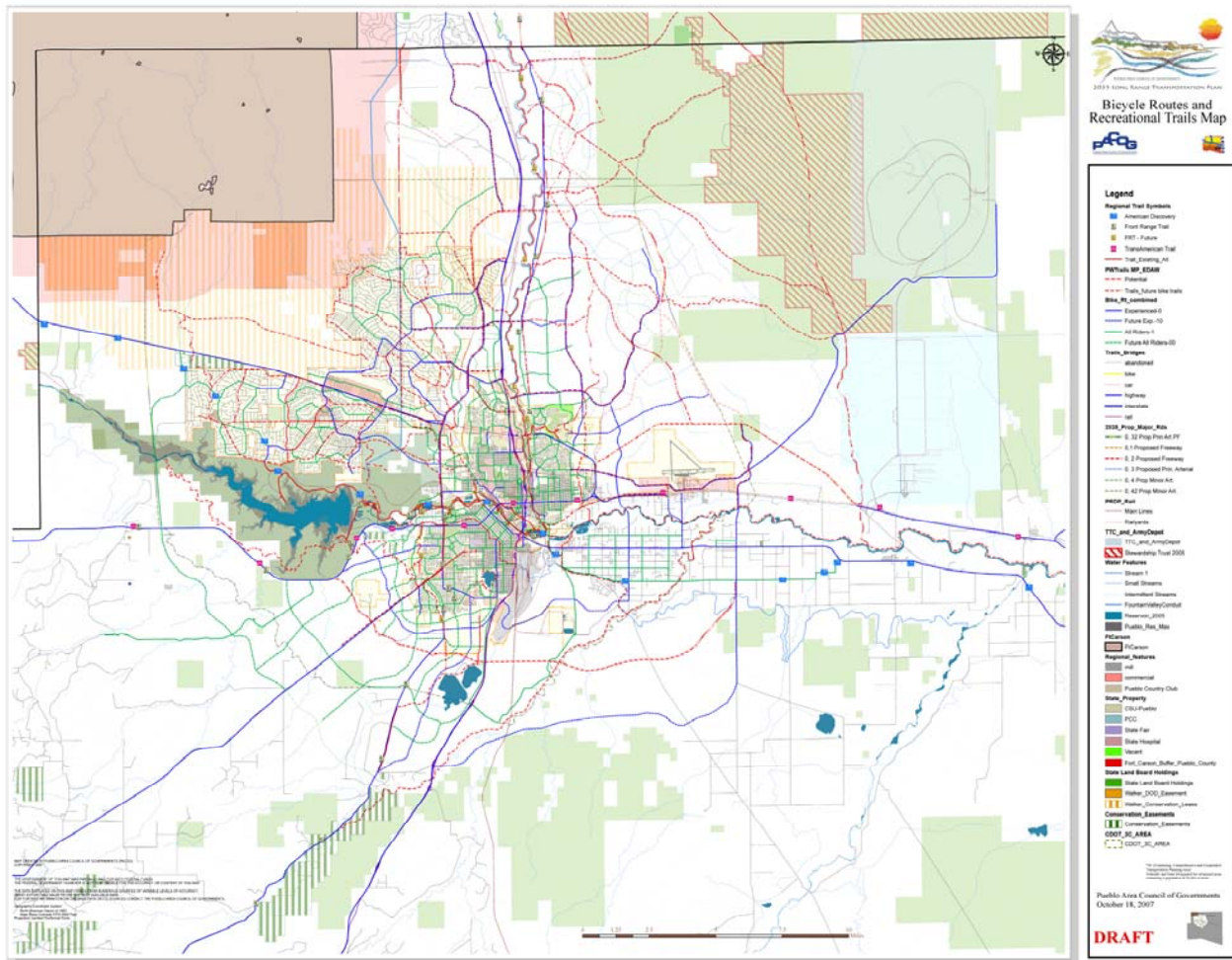
Table 8.13 Non-Motorized Facility Plan

	Existing	Planned	Total
Multi-Use Paths (off-street)	44 miles	493 miles*	537 miles
Experienced Riders Bike Routes	288 miles	109 Miles	397 miles
All Riders On-street Bicycle Routes	199 miles	110 miles	309 miles
Total	531 miles	712 miles	1243 miles

Calculated from Bike and Trails Map for Entire County

* Constructed as 10' concrete, the 2008 dollar cost would be \$246.5 million.

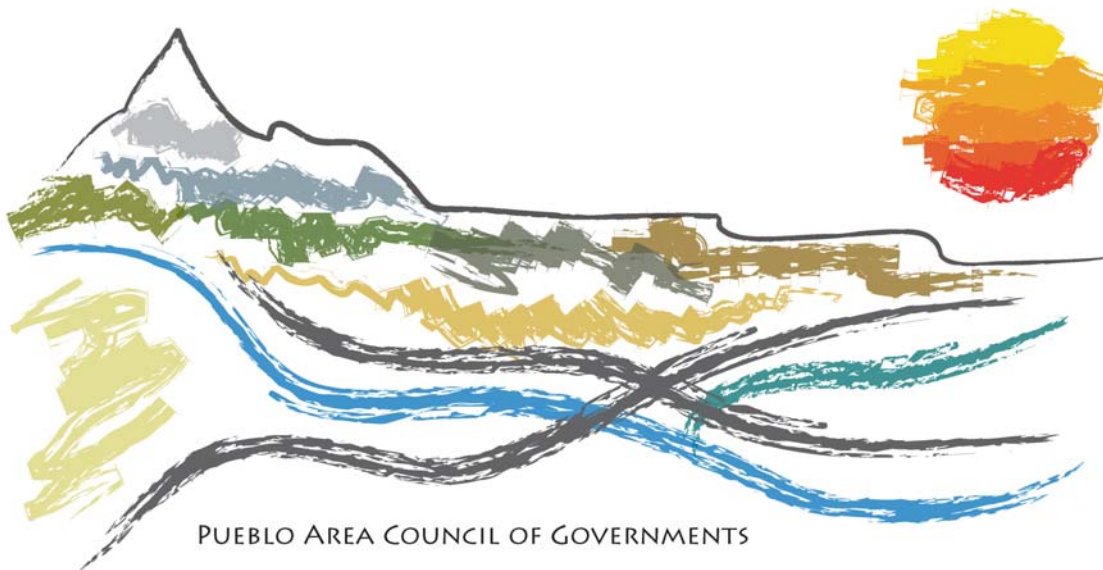
Figure 8.2: Bicycle Routes and Recreational Trails Map



8.10.1.1 Proposed Trails Improvements

Funding for Trail improvement projects using state/federal Transportation Enhancement funds should be based on the following priorities:

- **Wildhorse Creek Trail:** Complete the Wildhorse Trail from its existing northern terminus at 17th and Tuxedo north to Highway 50, about three miles, in conjunction with the development of the YMCA Complex. The approximate cost for constructing a 10' wide concrete trail is \$1,500,000 in 2008 dollars.
- **Dry Creek Trail:** This ten-mile trail extends north from the Arkansas River on the east side of Pueblo. When completed, the Dry Creek Trail will form a loop with the Fountain Creek Trail around the east side neighborhood and will link the CSU Pueblo campus with the residential areas to the south. The approximate cost for constructing a 10' wide concrete trail is \$5,000,000 in 2008 dollars.
- **Goodnight Arroyo:** The Goodnight Arroyo extends south from the Arkansas River. The 6-mile trail will provide a link between the Arkansas River and the large reservoirs to the south. The approximate cost for constructing a 10' wide concrete trail is \$3,000,000 in 2008 dollars.



2035 LONG RANGE TRANSPORTATION PLAN

Chapter 7: Corridor Visions

(see also Appendix 7 for Details)

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	<p><i>Sections with yellow highlighting are incomplete waiting for additional information or for clarification</i> <i>Text in Red represents information to verify.</i></p>
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December 2007

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Table of Contents

Pueblo MPO / TPR Corridors	4
Introduction	4
Corridors with Investment Categories	4
I-25 – New Mexico State Line to Stem Beach	4
I-25 - Stem Beach to Purcell Blvd (Exit 108) *	4
I-25 - Purcell to Future S Powers Blvd (Exit 123)	4
US 050A – Canon City to McCulloch Blvd West	5
US 050A - McCulloch Blvd West to I-25 *	5
US 050B - I-25 to Kansas State Line *	5
US 050C - I-25 (Ilex) to US 50B	5
SH 010 – I-25 to US 50	5
SH 045 - Pueblo Boulevard – I-25 S to US 50 to I-25 North	5
SH 047 - I-25 to US 50B *	6
SH 078 – Beulah (incl Spur) to SH 45 (Pueblo Blvd.)	6
SH 078 - SH 165 to Beulah	6
SH 096 - SH 45 (Pueblo Blvd) to SH 231 (36th Lane)	6
SH 096 - SH 231 (36th Lane) to Crowley County Line	6
SH 096 - Westcliffe to SH 45 (Pueblo Blvd.)	7
SH 165 - SH 96 to I-25 (Colorado City)	7
SH 209 - Boone Cutoff (US 50 to SH 96)	7
SH 227 - US 50C (Santa Fe) to SH 96 (4th Street)	7
SH 231 (36th Lane)	7
SH 233 (Baxter Rd.) - US 50B to US 50C	8

7.1 Pueblo MPO / TPR Corridors

7.1.1 Introduction

The Pueblo area is blessed with a relatively mild climate and gentle topography that makes travel by non-motorized modes an enjoyable experience. Over the past twenty years, the City of Pueblo, Pueblo County, and other local and state agencies have continued to improve sidewalk and trail facilities to enhance non-motorized travel throughout the region. Further enhancements to the non-motorized transportation system could play an ever-increasing role in accommodating the travel needs of the Pueblo residents and visitors.

7.1.2 Corridors with Investment Categories

I-25 – New Mexico State Line to Stem Beach

Rural Freeway Corridor serving principally interstate and inter-regional transportation.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SYSTEM QUALITY (3) SAFETY

I-25 - Stem Beach to Purcell Blvd (Exit 108) *

Urban Freeway through Pueblo including downtown business district, shopping center, and civic attractions.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

I-25 - Purcell to Future S Powers Blvd (Exit 123)

Rural/suburban freeway connecting Pueblo urban area to Colorado Springs urban area

INVESTMENT CATEGORIES: (1) MOBILITY (2) SYSTEM QUALITY (3) SAFETY

US 050A – Canon City to McCulloch Blvd West

Rural expressway connecting employment centers in Canon City and Florence to Pueblo Urban Area.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

US 050A - McCulloch Blvd West to I-25 *

Urban Expressway with substantial retail and commercial development at intersections and interchanges.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

US 050B - I-25 to Kansas State Line *

Urban and Rural Expressway with substantial adjacent retail, commercial, industrial, and residential development.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

US 050C - I-25 (Ilex) to US 50B

Urban-Suburban Arterial serving moderate commercial and retail with low density residential and agriculture.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

SH 010 – I-25 to US 50

Rural highway cuts across county between La Junta and Walsenburg.

INVESTMENT CATEGORIES: (1) SYSTEM QUALITY (2) SAFETY (3) MOBILITY

SH 045 - Pueblo Boulevard – I-25 S to US 50 to I-25 North

Expressway and major arterial loop connecting US 50 to I-25 on west side of Pueblo. Residential, Retail, and Commercial development. Future connection North of US 50 back to I-25

at Purcell blvd (Exit 108).

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

SH 047 - I-25 to US 50B *

Urban Expressway providing a continuous route for east and westbound traffic on US 50 and some local access.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

SH 078 – Beulah (incl Spur) to SH 45 (Pueblo Blvd.)

Rural highway serving adjacent low density residential, transitioning to urban arterial with adjacent moderate density residential, commercial, and retail land uses.

INVESTMENT CATEGORIES: (1) SYSTEM QUALITY (2) MOBILITY (3) SAFETY

SH 078 - SH 165 to Beulah

Unpaved mountain pass through undeveloped portions of the San Isabel National Forest.

INVESTMENT CATEGORIES: (1) SAFETY (2) SYSTEM QUALITY (3) MOBILITY

SH 096 - SH 45 (Pueblo Blvd) to SH 231 (36th Lane)

Urban Arterial with substantial adjacent retail, commercial, industrial, and residential development.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

SH 096 - SH 231 (36th Lane) to Crowley County Line

Rural highway serving adjacent low density residential, transitioning from urban arterial with adjacent moderate

density residential, commercial, and retail land uses.

INVESTMENT CATEGORIES: (1) SAFETY (2) SYSTEM QUALITY (3) MOBILITY

SH 096 - Westcliffe to SH 45 (Pueblo Blvd.)

Rural highway serving adjacent low density residential, transitioning to urban arterial with adjacent moderate density residential, commercial, and retail land uses.

INVESTMENT CATEGORIES: (1) SYSTEM QUALITY (2) MOBILITY (3) SAFETY

SH 165 - SH 96 to I-25 (Colorado City)

Rural highway serving adjacent low density residential, transitioning from recreational and tourist functions in the San Isabel National Forest.

INVESTMENT CATEGORIES: (1) SYSTEM QUALITY (2) SAFETY (3) MOBILITY

SH 209 - Boone Cutoff (US 50 to SH 96)

Connector from US 50 to Boone. Rural highway with adjacent low-density residential and agriculture.

INVESTMENT CATEGORIES: (1) SYSTEM QUALITY (2) SAFETY (3) MOBILITY

SH 227 - US 50C (Santa Fe) to SH 96 (4th Street)

Urban arterial connecting St. Charles Mesa, Salt Creek, and Northern Avenue areas to east side areas of Pueblo with Arkansas River crossing.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

SH 231 (36th Lane)

Rural connector between US 50B and US 50C with an Arkansas River crossing and some low density residential.

INVESTMENT CATEGORIES: (1) MOBILITY (2)

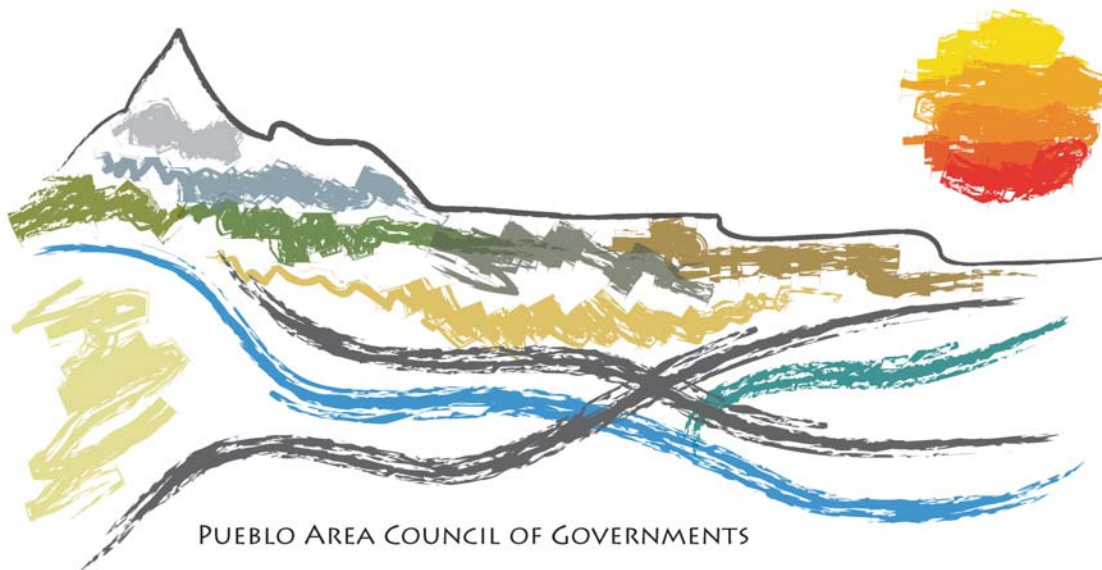
SAFETY (3) SYSTEM QUALITY

SH 233 (Baxter Rd.) - US 50B to US 50C

Semi-urban connector between US 50B and US 50C with an Arkansas River crossing and adjacent residential.

INVESTMENT CATEGORIES: (1) MOBILITY (2) SAFETY (3) SYSTEM QUALITY

*Corridors should be considered for inclusion in major statewide improvements efforts such as the current “7th Pot” projects, although not currently included in the Strategic Corridors identification.



PUEBLO AREA COUNCIL OF GOVERNMENTS

2035 LONG RANGE TRANSPORTATION PLAN

CHAPTER 6: MOBILITY DEMAND & ALTERNATIVES ANALYSIS

DRAFT

December 2007

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Table of Contents

6.0	<i>Mobility Demand Analysis</i>	5
6.1	<i>Forecasting Methodologies</i>	5
6.2	<i>Problem Identification</i>	7
6.2.1	<i>Roadway Capacity</i>	8
6.3	<i>Existing Traffic Volumes</i>	10
	State Highway System	10
6.4	<i>Current Volume & Classification Issues</i>	12
	4 th Street (SH 96)	12
	Pueblo Blvd (SH 45)	12
	Highway 50 West	12
	Combined Graphic	12
6.5	<i>Forecast of Future Traffic Volume</i>	13
	US Hwy 50 West	14
	4 th Street (SH 96)	14
	Pueblo Blvd (SH45)	14
	Interstate 25	15
6.6	<i>Future Volume & Classification Issues</i>	15
	Interstate 25	16
	Highway 50 Bypass	16
	4 th Street (SH 96)	16
	Pueblo Blvd (SH45)	16
	Highway 50 West	17
	Santa Fe Drive	17
6.7	<i>Existing and Forecast Congestion</i>	18
	Existing Congestion	18
	Future Congestion	19
6.8	<i>Addressing Congestion</i>	22
6.9	<i>Alternatives Analysis</i>	23
6.9.1	<i>Corridor Approach</i>	24
	Regional Corridors & Inter-Regional Connectors	24
	Interstate 25 Corridor	25
	US Highway 50 / SH47 Corridor	25
	SH96 Corridor	25
	SH78 Corridor	25
	Community Connectors	25



6.10	<i>Roadway Alternatives</i>	26
6.10.1	Urban Alternatives for I-25	27
6.10.2	Rural Alternatives for I-25	28
6.10.3	US Highway 50 West Alternatives	29
6.10.4	US Highway 50 East Alternatives	30
6.10.5	State Highway 45	30
6.10.6	SH96 Alternatives	30
6.10.7	SH47 Alternatives & Potential Connections	31
6.11	<i>Demand for Transit Service and Non-motorized Facilities</i>	32
6.11.1	Transit Alternatives	33
6.20	<i>Prioritization Process</i>	34

List of Tables

<i>Table 6-1 – Growth by Quadrant 2030 LRTP to 2035 LRTP</i>	7
<i>Table 6-2: Roadway Capacities and Associated “Evaluation Thresholds”</i>	9
<i>Table 5-3: Future Priorities—Regionally Significant Corridors</i>	34

List of Figures

<i>Figure 6-1: Areas with Significant Change in Population, 2005-2035</i>	7
<i>Figure 6-2: 2006 CDOT State Highway Traffic Volumes (AADT)</i>	11
<i>Figure 6-3: 2006 Volumes to Future Roadway Classification</i>	13
<i>Figure 6-4: CDOT 2035 State Highway Traffic Volumes (AADT)</i>	14
<i>Figure 6-5: 2035 Volumes to Future Classification</i>	15
<i>Figure 6-6: Current Congestion</i>	19
<i>Figure 6-7: 2035 Forecasted Congestion (On Existing System)</i>	22
<i>Figure 6-8: General Area of US Highway 50 West Study Area</i>	24
<i>Figure 6-9: Pueblo Transportation Corridors and Connectors</i>	26
<i>Figure 6-10: I-25 Daily Traffic, 2005</i>	29
<i>Figure 6-11: Pueblo Transit Service Area and Areas of High Growth Forecasts</i>	33

6.0 Mobility Demand Analysis

Mobility demand analysis is a way to identify future needs for transportation facilities and/or services. By identifying locations where future demand for transportation services is expected to approach or exceed the capacity of the existing transportation networks, transportation plans can prioritize future improvements to that area. Future demand analysis for the 2035 LRTP is especially uncertain at the time of this writing because of several large land development proposals that have emerged during the past year. If these proposed developments actually materialize, they would result in population and employment estimates that are far beyond those forecasted for Pueblo County by the State Demographers Office (required for use in this Plan).

As a result of the uncertainty, this analysis will concentrate on only the State Highway system and utilize data from the Colorado Department of Transportation. This methodology, continued from the 2030 LRTP, shows off-system transportation demand growth consistent with the on-system growth.

6.1 Forecasting Methodologies

Demand for transportation is forecasted in one of two ways. The first is to examine past growth in traffic volumes along individual corridors and apply similar “growth factors” to traffic along the corridor. This “growth factor” methodology has been used by CDOT to calculate future traffic volumes along the state highways.

The second methodology is to estimate the additional travel demand based on amount and location of future growth in residential population and employment for each area within the region. This “travel demand forecasting” methodology can estimate traffic on more complex networks such as local roadway networks.

PACOG is continuing to develop a Travel Demand Forecasting Model that can be used to identify the impacts of land use and roadway improvements on regional traffic flow. This preliminary model has been released to consultants who may modify and tailor it to analyze impacts from large developments, particularly in the northeast quadrant of the MPO/TPR area.



Until the final model is validated and calibrated based on additional critical information, interim estimates of future travel demand are used to identify future traffic on the Pueblo area roadway network.

In the 2030 LRTP, a comparison of the CDOT estimates of future travel demand with those modeled in the I-25 Corridor study revealed similar results. This plan continues to use the CDOT traffic counts and forecasts provided by CDOT for consistency across the 15 Regional Transportation Plans in CDOT's Statewide Transportation Plan. The primary concern of this section is to analyze the Regionally Significant Corridors of the state highway system and the system's ability to accommodate current and forecast future traffic volumes.

As shown in the Socio-economic Profile and Trends chapter, the State Demographers Office population forecast for Pueblo county is expected to reach over 250,000 people by 2035. Figure 6-1 shows the future growth projections between the 2030 LRTP and the 2035 LRTP. Overall the total forecast is approximately 10% higher for the 2035 Plan.

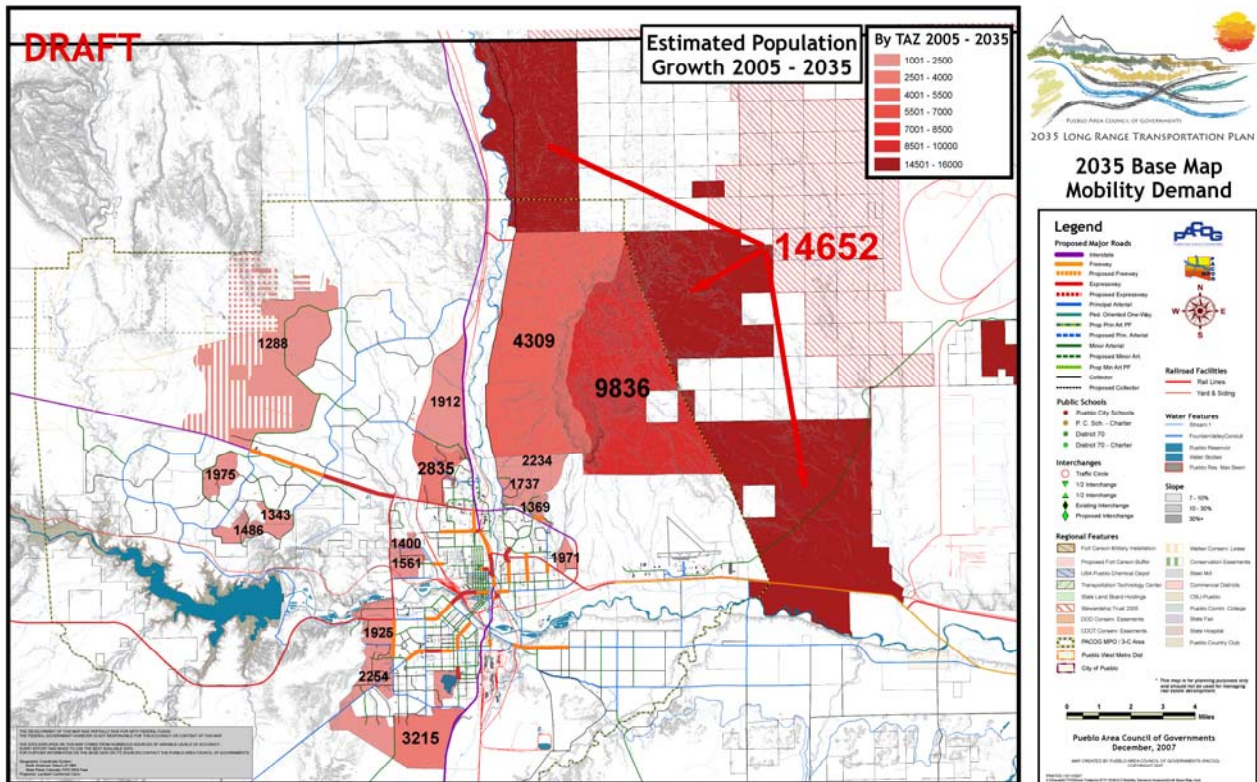
The population forecasts in the Socio-economic Profile and Trends chapter show lower growth rates in the southeast, southwest, and northwest quadrants. These trends imply that increased growth rates can be expected for the northeast quadrant of Pueblo County. As discussed elsewhere in this plan, recent changes to the Pueblo Comprehensive Plan and the potential for several large developments in the quadrant increase the attraction of growth to this area.

The type and location of this growth in population and the associated employment is expected to generate the need for additional transportation facilities and services. The existing forecast of 2035 State Highway traffic volumes could not anticipate the possible impacts to the roadway system that would be created by potential large developments. Historically there has been little development in the northeast quadrant of Pueblo County, thus the State Highway system has limited connectivity to this area. As a result, the large uncertainties reflected in this Plan may be clarified as additional data becomes available in the future.

Table 6-1 - Growth by Quadrant 2030 LRTP to 2035 LRTP

Quadrant	2030 LRTP	2035 LRTP	Change	% Change
Northwest	78,009	78,218	209	0.27%
Northeast	49,360	71,621	22,261	45.10%
Southeast	22,665	19,885	-2,780	-12.26%
Southwest	76,278	80,753	4,475	5.87%
Total	226,311	250,477	24,166	10.68%

Figure 6-1: Areas with Significant Change in Population, 2005-2035



6.2 Problem Identification

Roadway capacity is of critical importance when looking at the growth of a community. As traffic volumes continue to increase, roadway congestion also increases, and vehicle flow deteriorates. When traffic volumes approach and exceed the available capacity, the

road begins to fail. For this reason it is important to look at the size and configuration of the current roadways and determine if these roads need to be expanded to accommodate the existing or future traffic needs.

The capacity of a road is a function of a number of factors including the number of lanes, interchange functionality, adjacent land use, access and intersection spacing, road alignment and grade, operating speeds, turning movements, vehicle fleet mix, adequate shoulders, street network management, and effective maintenance and operations. In practice, the number of lanes is the primary factor in evaluating road capacity since any lane configuration has an upper volume limit regardless of how carefully it has been designed.

For the purpose of examining the major roadway system in the Pueblo area, the CDOT 2035 Planning Dataset information is used for the analysis of current congestion, comparison of future roadway classifications, and future traffic volumes on the system roadways.

6.2.1 Roadway Capacity

Table 6-2 shows the assumed capacity for four types of roadways and an “evaluation threshold” representing the point at which congestion begins to occur and auxiliary lanes or additional widening may be needed to maintain good operations. This information was included in the 2030 LRTP, and this plan therefore utilizes these same values. The reiterate what each of these classifications means to the average driver, these descriptions are included.

- **Freeways:** Freeways are high-capacity roadways that accommodate high speed, long-distance travel through the metro area. Access is strictly controlled, and limited to Major Arterials connected by grade-separated interchanges at a minimum spacing set by the Colorado Department of Transportation and by the Federal Highway Administration.
- **Expressways:** Expressways accommodate high speed, long distance travel to and through the surrounding area. Access to adjacent land uses is limited. Intersections are at-grade signalized and/or grade-separated interchanges.
- **Principal Arterials:** Principal Arterials provide a high level of mobility and favor mobility over access to adjacent land uses. They provide access between lower classification streets (minor arterials and collectors) and higher classification streets (expressways and freeways).
- **Minor Arterials:** Minor arterial streets balance mobility of through traffic with access to adjacent land uses. Travel speeds and capacity are lower than for Principal Arterials. Separate

turn lanes, especially continuous left turn lanes, may be used to permit access to land uses on both sides of the street.

- **Collectors:** Collectors collect traffic from nearby local streets. *Neighborhood collectors* remain in the neighborhood and are residential in character. *Mixed-use collectors* form the edge of neighborhoods and have a wider ROW to allow for future turn lanes or additional width in the future. Residential homes are typically not allowed to face mixed-use collectors. *Business collectors* serve commercial development and may be in industrial areas, mixed use neighborhoods, or regional commercial shopping areas. Access is provided to many businesses, and speeds are lower than on arterial roadways.

As a matter of practice, evaluation of existing and future demand for transportation is based on the ratio of existing traffic volumes with the capacity of the roadway segment. As traffic volumes along a roadway segment approach the capacity of the roadway, unacceptable levels of congestion can occur. For the purposes of this plan, the CDOT standard of a volume-to-capacity ratio of .85 or higher is considered “congested”. Roadway links with v/c ratios over .65 are considered to have “some congestion” and users may experience some delay.

Table 6-2: Roadway Capacities and Associated “Evaluation Thresholds”

Street Type	Roadway Capacity	Evaluation Threshold*
Freeway – 4 lane	66,000 vpd	56,000 vpd
Expressway – 5 lane	42,000 vpd	36,000 vpd
Principal Arterial Roadway – 5 lane	35,000 vpd	30,000 vpd
Principal Arterial Roadway – 4 lane	30,000 vpd	26,000 vpd
Minor Arterial Roadway – 2 or 3 lane	15,000 vpd	12,000 vpd
Collector Roadway	12,000 vpd	10,000 vpd

Volume-to-Capacity Ratio is 85%
Source: PACOG 2030 LRTP - SEH

6.3 Existing Traffic Volumes



Two important factors to consider along with higher volumes are peak hour demand and access control. The volumes shown in TABLE 6-2 are 24-hour averages; however, traffic is not evenly distributed during the day. The major street network has significant peak demands usually during the morning and evening “rush” hours when many people travel to and from work or school. These limited times create the greatest stress on the transportation system when short-term capacity is exceeded and users experience congestion.

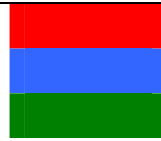
To reduce or spread the AM and PM peak volumes, urban areas may use Travel Demand Management (TDM) measures, public transit enhancements, or improved pedestrian and bicycle programs. Such smoothing or spreading of the peaks extends the adequate service life of a given roadway configuration. Because of the severe financial constraints discussed in Chapter 9, this Plan strongly encourages the continuation and expansion of these approaches as a lower-cost means of meeting a portion of expected transportation demand.

State Highway System

State Highways define the Regionally Significant roadway system in the Pueblo area and handles a significant amount of the total traffic volume each day. There are many factors that cause traffic to utilize the State Highway system instead of local roadways. One of the most significant is the number of physical barriers such as rivers, creeks, and railroads that exist in the Pueblo area. These barriers often prevent local connectivity because of the significant costs associated with providing crossings. As a result, most of the routes that cross these barriers are on the State Highway system, or were part of the system in the past. There are few local roads that cross these major features, resulting in a funneling of traffic to the highway system crossings. Because of this funnel effect, the long-term result is that many of these roadway segments will continue to become more congested within the 28-year time horizon of this plan.

The color-coded table shown below depicts the future roadway classifications and the roadway capacities listed as evaluation threshold volumes in Table 6-2. To the maximum extent possible, this same color scheme has been used consistently in this Plan.

Color	Traffic Volumes	Up to
	Interstate – 4 lane	> 56,000 vpd *
	Freeway – 4 lane	36,000 *



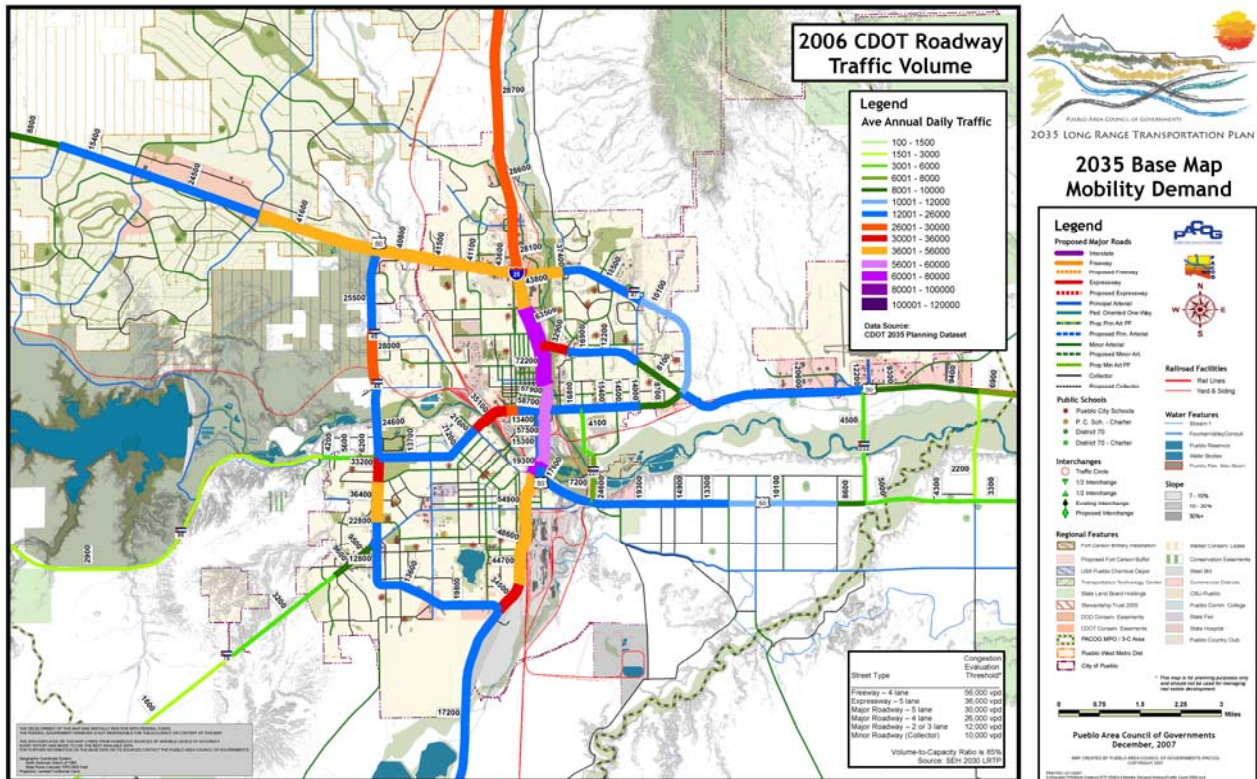
Expressway – 5 lane	30,000
Principal Arterial	26,000
Minor Arterial	10,000

* These classifications utilize grade separated interchanges with other roadways

The purple color range is associated with the Interstate and the daily traffic capacity associated with Interstate functional classifications. The yellow color range represents capacities associated with Freeways. The red color range represents those volumes associated with Expressways. The blue color range represents those volumes associated with Principal Arterials. And finally, the green color range represents those volumes associated with Minor Arterials.

The following graphic Figure 6-2 shows the traffic volumes on the State Highway system in the Pueblo area utilizing the coding scheme described above.

Figure 6-2: 2006 CDOT State Highway Traffic Volumes (AADT)



6.4 Current Volume & Classification Issues

The following is a review of current volumes that are above the Evaluation Threshold values from table 6-2 for the future classification of the roadway. This means the volume on the road today is potentially approaching the capacity, current and planned, of the roadway, resulting in significant or persistent congestion. These sections are those where improvements could provide additional capacity. If enough additional capacity cannot be provided on the existing facility, these corridors may require options to divert traffic and construct alternate routes. At present, there are significant financial and policy barriers to the use of state highway funds for the development of off-system routes to relieve congestion on the State Highway system.

4th Street (SH 96)

4th Street between Abriendo and Elizabeth is now carrying a volume above the evaluation threshold value for a Principal Arterial. Replacement of the 4th Street Bridge (2008-2011) will provide some additional capacity, but the section between Midtown Circle and Elizabeth will continue to experience congestion.

Pueblo Blvd (SH 45)

Traffic volume on Pueblo Blvd between Thatcher (SH 96) and Lehigh Ave is currently above the evaluation threshold value for a Principal Arterial.

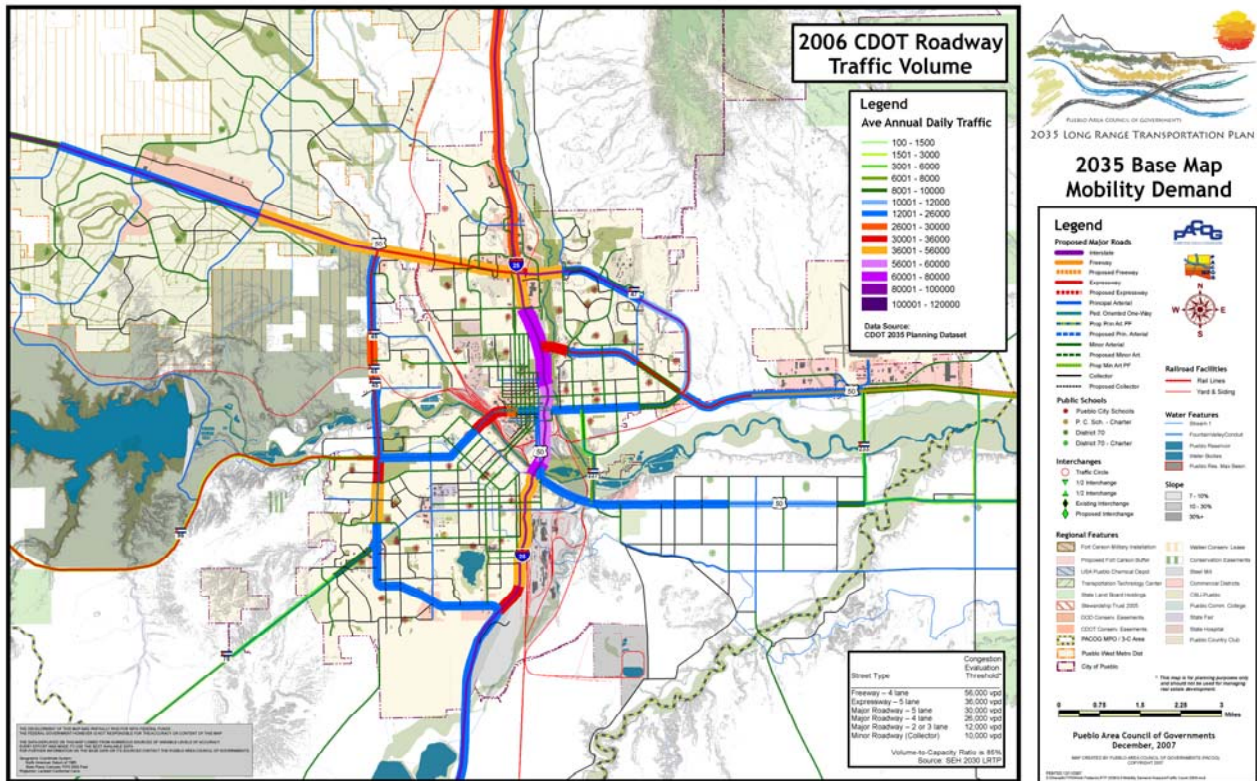
Highway 50 West

Hwy 50 West from I-25 and Pueblo Blvd (SH 45) currently has a traffic volume above the evaluation threshold for an Expressway.

Combined Graphic

The following graphic overlays the 2035 Functional Classification with current traffic volumes for comparison and analysis. This analysis necessarily assumes that the current roadways can be improved from their current status to that of the future classification. The following graphic shows that there are several sections of existing roadways currently carrying traffic volumes that would require additional improvements to increase their capacity to reflect the standards associated with their future classification..

Figure 6-3: 2006 Volumes to Future Roadway Classification

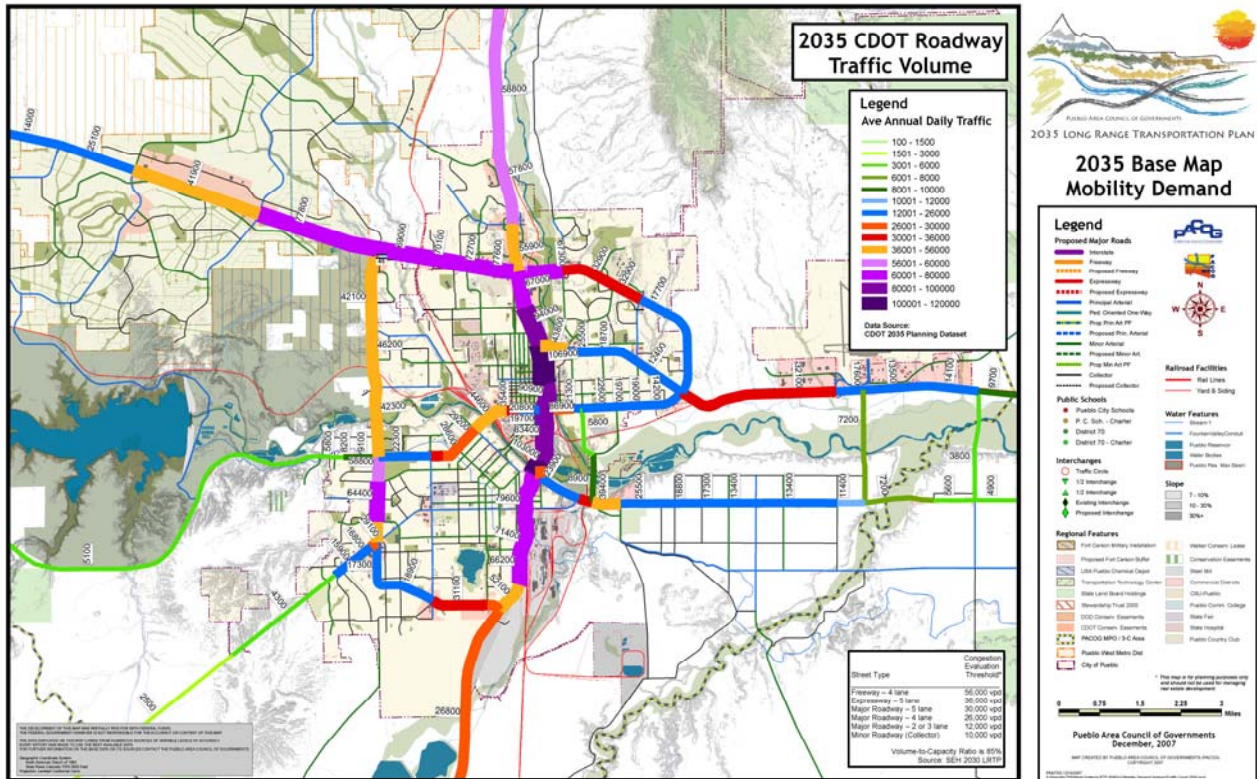


6.5 Forecast of Future Traffic Volume

The following is a review of future traffic volume on the State Highway system (as calculated by CDOT) that are above the evaluation threshold values from Table 6-2 for the future roadway classification. The projected volume on the road will exceed the proposed capacity of the roadway, resulting in significant and persistent congestion. The volumes may exceed the *Future Capacity* of the roadway even with improvements consistent with that classification.

If more additions to capacity cannot be provided through adding lanes or grade separations, these routes will need specific corridor studies to determine if options may be available for traffic diversion and/or the creation of alternate routes. The data in Table 6-2 does not cover all possible cross-sections or the development of alternate routes for the different classifications because of the considerable uncertainty about potential future development patterns.

Figure 6-4: CDOT 2035 State Highway Traffic Volumes (AADT)



US Hwy 50 West

The traffic volume projected for the US Highway 50 corridor is comparable to, or greater than the highest area traffic volume on Interstate 25 in 2006. Such volumes exceed the capacity of the future roadway classification of that facility.

4th Street (SH 96)

Parts of the 4th Street corridor are projected experience the traffic volumes associated with Freeways and Expressways although it is classified only as a Principal Arterial. This is particularly the case for the section from Prairie Ave to Elizabeth Street.

Pueblo Blvd (SH45)

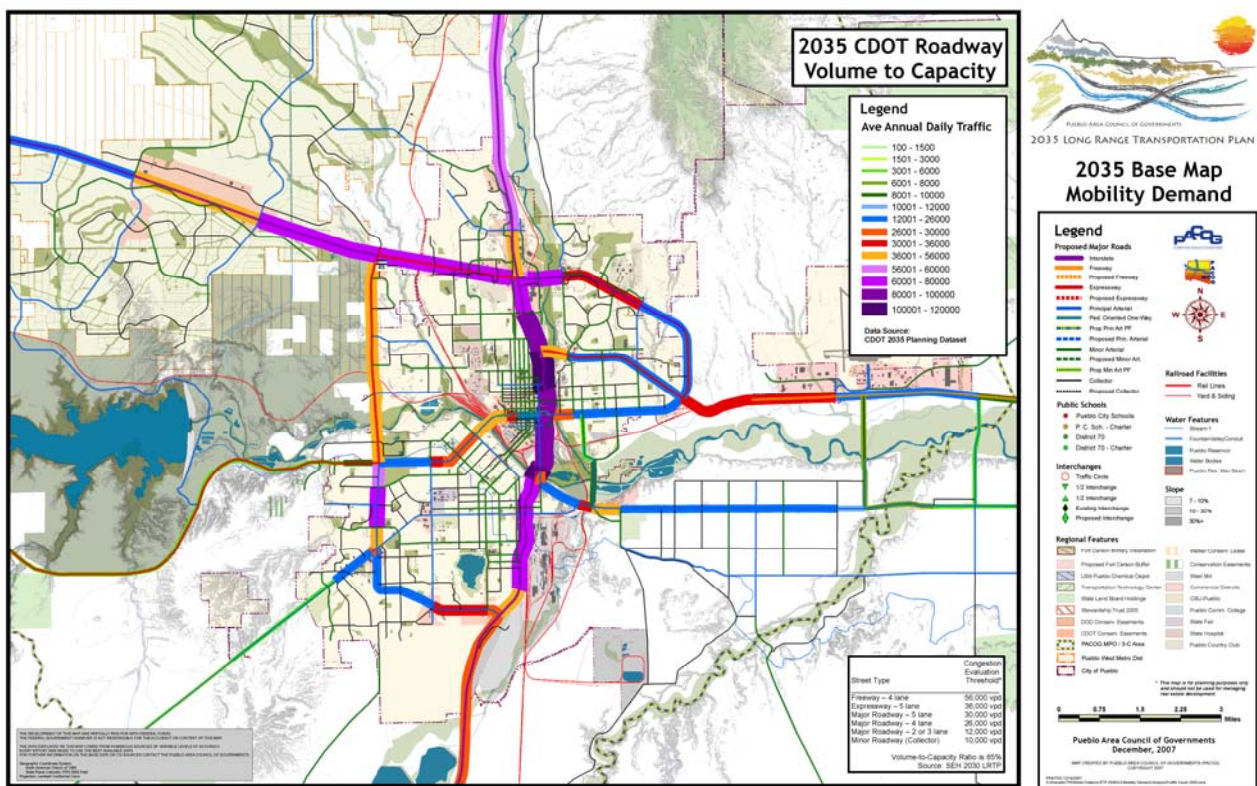
Pueblo Blvd between I-25 and Prairie Ave is projected to have a significant increase in traffic volume as adjacent commercial areas continue to develop. By 2035, the projected volumes exceed the Principal Arterial classification and move well into the Expressway range. Between Thatcher to Lehigh Ave, the volume forecast for

2035 is the same as the 2006 volume on Interstate 25 near US 50/47.

Interstate 25

I-25 continues to experience growth in current traffic volumes and that growth is projected to continue unabated in the future. While capacity improvements are proposed in the New Pueblo Freeway Project no funding source has been identified for the \$846 million estimated cost. Outside that project, any interchange reconstruction or addition is financed privately through the CDOT 1601 process.

Figure 6-5: 2035 Volumes to Future Classification



6.6 Future Volume & Classification Issues

In this analysis, the future roadway classifications and their related capacity are compared to the future traffic volume projections on the State Highway system. This comparison identifies future capacity deficiencies indicating either the need to change the future roadway classification (or design standard) or the need for alternative solutions in the same corridor. Changes in classification may or may not be possible given the physical and human environment of the roadway.

Development and funding of alternative routes or solutions may be problematical because of existing Transportation Commission policies. Specifically, the “no new centerline miles on-system” policy and the policy denying the use of Federal and State funds on “off-system” improvements combine to create severe impediments for any significant alternatives to widening existing highways. Within the Pueblo area, development of only the existing system to accommodate future traffic volumes may be difficult or impossible. Individual corridor studies will be needed to address higher future congestion levels.

Note: All volumes and the following evaluation do not include the impact of proposed developments within the Northeast Quadrant of the Pueblo Area. Since these developments are regional in size, the evaluation of the entire State Highway system in Pueblo County will need to be completed once details of these developments are released.

Interstate 25

Outside the New Pueblo Freeway limits from 29th Street to Pueblo Blvd, the projected volumes for I-25 in rural Pueblo County do not exceed the capacity of the roadway. I-25 through Pueblo, where severe congestion is forecast, is addressed in the EIS for the New Pueblo Freeway Project. Three options are under analysis – do nothing, rebuild to current standards in the existing alignment, or construct a modified alignment through central Pueblo. Details of the projections used to develop these options are available via the project website – <http://www.i25pueblo.com/index.htm>.

Highway 50 Bypass

Between I-25 and Bonforte/Hudson projected volumes exceed the capacity of the future roadway classification. This area is included in the New Pueblo Freeway Project.

4th Street (SH 96)

The 4th Street corridor has projected traffic volumes associated with Freeways and Expressways, particularly the section from Prairie Ave to Elizabeth Street. In the short term, the ongoing replacement of the 4th Street Bridge will lessen congestion in this section. The bridge has been designed for a maximum future cross section of 6 lanes; however significant acquisition of rights-of-way and removal of houses and businesses would be required to widen 4th Street along the remainder of its length.

Pueblo Blvd (SH45)

Pueblo Blvd between I-25 and Prairie Ave is expected to have a significant increase in traffic volumes beyond the proposed classification of a Principal Arterial. Access limitations or roadway



expansion will be required to accommodate the future volume.

Between Lehigh Ave and Thatcher projected volumes are similar to existing volume on Interstate 25 north of the Highway 50 Bypass interchange. This section has limited access from the east side of the roadway, but some access exists for establishments located along the west side. Improvements will be required to increase future capacity of the roadway for projected increases in traffic volumes. North of Thatcher (SH 96) projected volumes exceed the standards for the proposed classification of Expressway.

Highway 50 West

Hwy 50 West between Purcell in Pueblo West and I-25 and east of I-25 to Jerry Murphy is projected to carry more traffic than the roadway capacity of a freeway classification. The projected daily traffic volume of 78,000 between Purcell and Pueblo Blvd (SH 45) exceeds the highest existing volume on I-25 in Pueblo.

Santa Fe Drive

Santa Fe Drive (US 50C) just east of Northern Ave and SH 227, the future traffic volumes are expected to exceed the capacity of the roadway.

6.7 Existing and Forecast Congestion

Comparing existing and projected traffic volumes with the existing capacity of roadway identifies present and future levels of traffic congestion.

Existing Congestion

Figure 6-5 shows the existing congestion for the Pueblo Urban Area based on the criteria discussed earlier in this Chapter.

The sections of the State Highway system with **some congestion** are:

- Hwy 50 West between McCulloch and Purcell Blvd.
- Hwy 50 West between Club Manor Drive and Jerry Murphy Blvd.
- Highway 50 Bypass between I-25 and Bonforte/Hudson
- I-25 between 13th Street and Indiana Street
- Santa Fe Drive between Northern Ave and 21st Lane on the St. Charles Mesa
- 4th Street (SH96) between Midtown Circle and Elizabeth Street

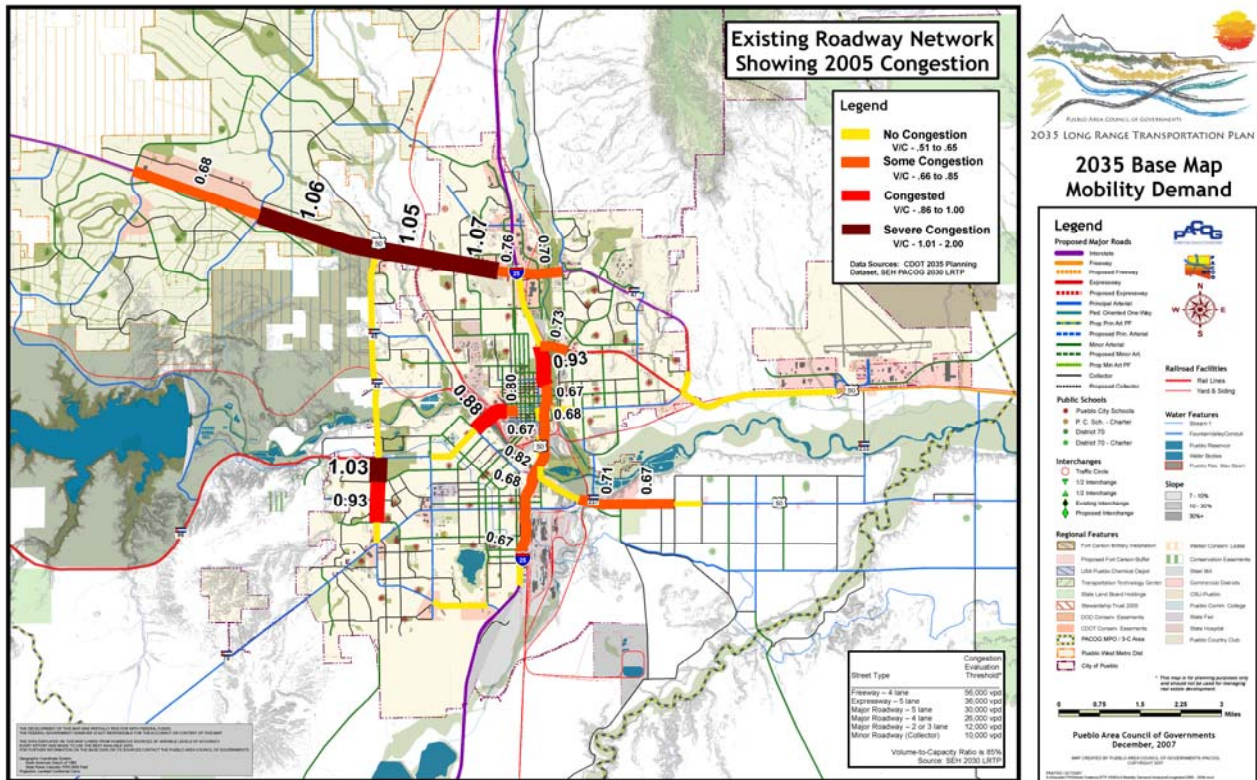
The sections of the State Highway system that are **congested** are:

- I-25 Between Highway 50 Bypass and 13th Street
- 4th Street (SH96) between Abriendo and Midtown Circle
- Pueblo Blvd (SH45) between Lehigh Ave. and St. Clair Ave.

The sections of the State Highway system that have **severe congestion** are:

- US Highway 50 west between Purcell Blvd and Pueblo Blvd. - this section is currently at 106% of capacity.
- US Highway 50 west between Pueblo Blvd. and Baltimore Street - this section is currently at 105% of capacity.
- US Highway 50 west between Baltimore Street and Club Manor Drive - this section is currently at 107% of capacity.
- Pueblo Blvd (SH45) between St. Clair Ave. and Thatcher Ave. - this section is currently at 103% of capacity.

Figure 6-6: Current Congestion



Future Congestion

Figure 6-6 shows forecasted congestion in 2035 if no transportation improvements are made to the system. The most congested sections of US50 and Pueblo Blvd are projected to have volumes in excess of 180% of capacity. Of particular concern is expected congestion where the two intersect. I-25 between 1st Street and the 29th Street Interchange is likely to have volumes that will not only increase congestion, but also are likely to impact the safety of the corridor.

Increased traffic along SH96 increases congestion through downtown and east of the Interstate as motorists try to avoid congestion on I-25.

As growth occurs surrounding the existing City of Pueblo, congestion will increase on sections of the entire State Highway system, but also on nearly all Principal Arterials and many of the Minor Arterials in the older neighborhoods. The few major off-system roadways in Pueblo West and the St. Charles Mesa are also expected to have



significant congestion as spillover from the congested highways.

The sections of the State Highway system forecast to have **some congestion** in 2035 are:

- Hwy 50 West between West McCulloch and McCulloch Blvd.
- Hwy 50 East between SH 47 and Paul Harvey (AIP)
- Pueblo Blvd between South Prairie Ave. and I-25
- Hwy 47 West between Troy Ave and east 13th street
- Highway 50 Bypass between I-25 and Bonforte/Hudson
- State Highway 78 between La Vista and Pueblo Blvd.
- I-25 north of Eagleridge Blvd.
- I-25 between 29th Street and Hwy 50 Bypass
- I-25 between Indiana Street and Pueblo Blvd.
- Santa Fe Drive between Santa Fe Ave and Northern Ave.
- Thatcher/Lincoln (SH 96) between Prairie Ave. and Abriendo
- 4th Street (SH96) between Elizabeth Street and Hudson street

The sections of the State Highway system that are forecast to be **congested** in 2035 are:

- I-25 between Eagleridge Blvd and 29th Street
- I-25 between Highway 50 bypass and Indiana Street
- Pueblo Blvd (SH45) between US Highway 50 West and West 11th Street
- Pueblo Blvd (SH45) between Lehigh and state Highway 78/Northern Ave.
- Highway 50 Bypass between I-25 and Bonforte/Hudson
- Santa Fe Drive between Northern Ave and State Highway 227/Roselawn
- Santa Fe Drive between Aspen Lane and 21st Lane

The sections of the State Highway system that are forecast to have **severe congestion** in 2035 are:



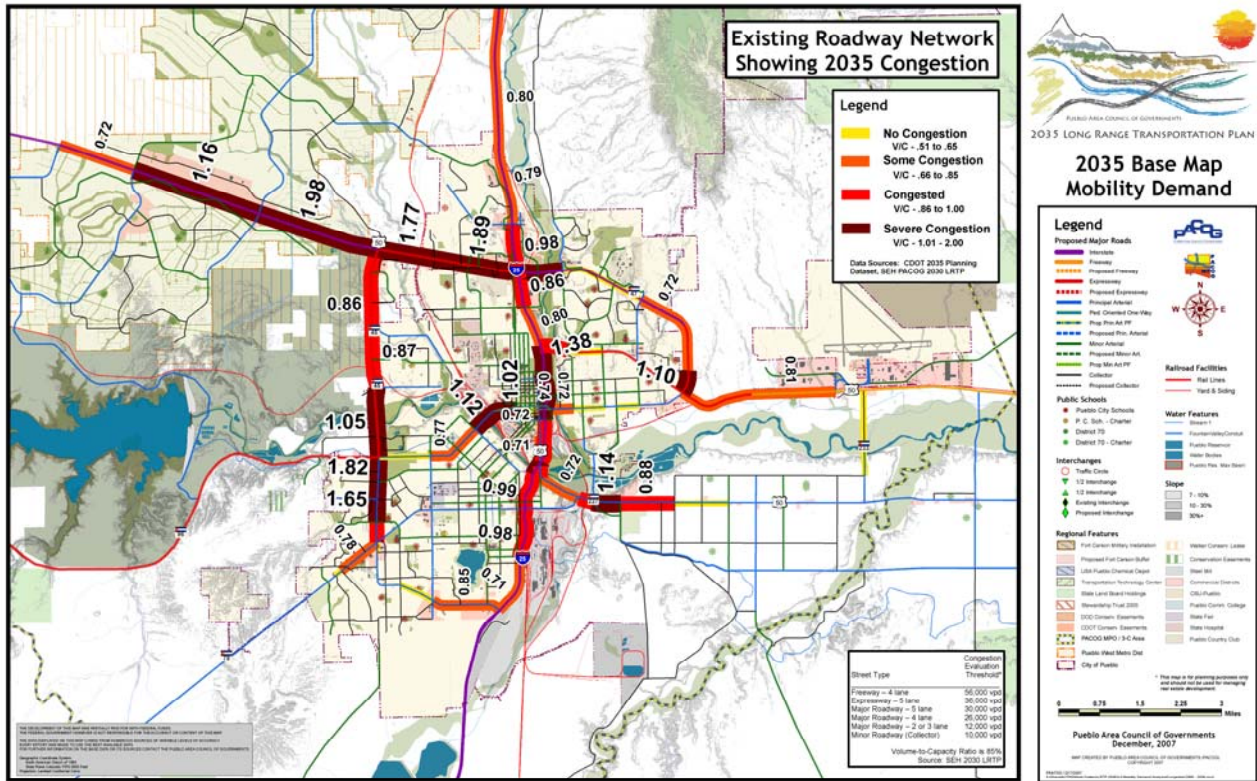
- US Highway 50 West between McCulloch and Purcell Blvd - this section is calculated at 116% of capacity.
- US Highway 50 West between Purcell Blvd and Pueblo Blvd. - this section is calculated at 198% of capacity.
- US Highway 50 West between Pueblo Blvd. and Baltimore Street - this section is calculated at 177% of capacity.
- US Highway 50 West between Baltimore Street and Club Manor Drive - this section is calculated at 189% of capacity.
- US Highway 50 West between Club Manor Drive and I-25 - this section is calculated at 135% of capacity.
- State Highway 47 between I-25 and Jerry Murphy - this section is calculated at 126% of capacity.
- Interstate 25 between Highway 50 Bypass and 13th Street - this section is calculated at 138% of capacity.
- Interstate 25 between 13th Street and 1st street- this section is calculated at 103% of capacity.
- Interstate 25 between Ilex Street and Abriendo - this section is calculated at 125% of capacity.
- 4th Street (SH96) between Abriendo and Midtown Circle - this section is calculated at 112% of capacity.
- Pueblo Blvd (SH45) between West 11th Street and Thatcher Ave. - this section is calculated at 105% of capacity.
- Pueblo Blvd (SH45) between St. Clair Ave. and Thatcher Ave. - this section is calculated at 182% of capacity.
- Pueblo Blvd (SH45) between St. Clair Ave. and Lehigh - this section is calculated at 165% of capacity.
- Santa Fe Drive between state Highway 227 and Aspen Lane - this section is calculated at 114% of capacity.

Notes:

Neighborhoods where there is a grid network are not expected to suffer the same levels of congestion as are those with single or very few points of connectivity to the major roadways.

Volumes and evaluations do not include the impact of the proposed large-scale developments within the Northeast Quadrant of Pueblo County. the evaluation of the entire State Highway system in Pueblo County will need to be completed once details of these development become available.

Figure 6-7: 2035 Forecasted Congestion (On Existing System)



6.8 Addressing Congestion

Reducing or minimizing future congestion is one of the most significant factors to consider in planning the transportation system. Based on the review of current and future forecasts of congestion, one feature is significant. Areas with limited connectivity have greater levels of congestion than do areas with multiple access points. This will be a significant factor in planning for the future development of the northeast quadrant. Not only is planning needed, but also the implementation/construction of these routes will be critical

Traditionally additional increasing the capacity of existing facilities, or the development of alternate or parallel facilities could address or reduce areas of congestion. Local agencies can also implement measures to reduce the demand for transportation services. These “TDM” strategies include developing incentives for using alternate modes of travel such as carpooling, public transportation, traveling



off-peak, or telecommuting.

The next section of the transportation plan presents some alternatives for addressing congestion in the Pueblo Region.

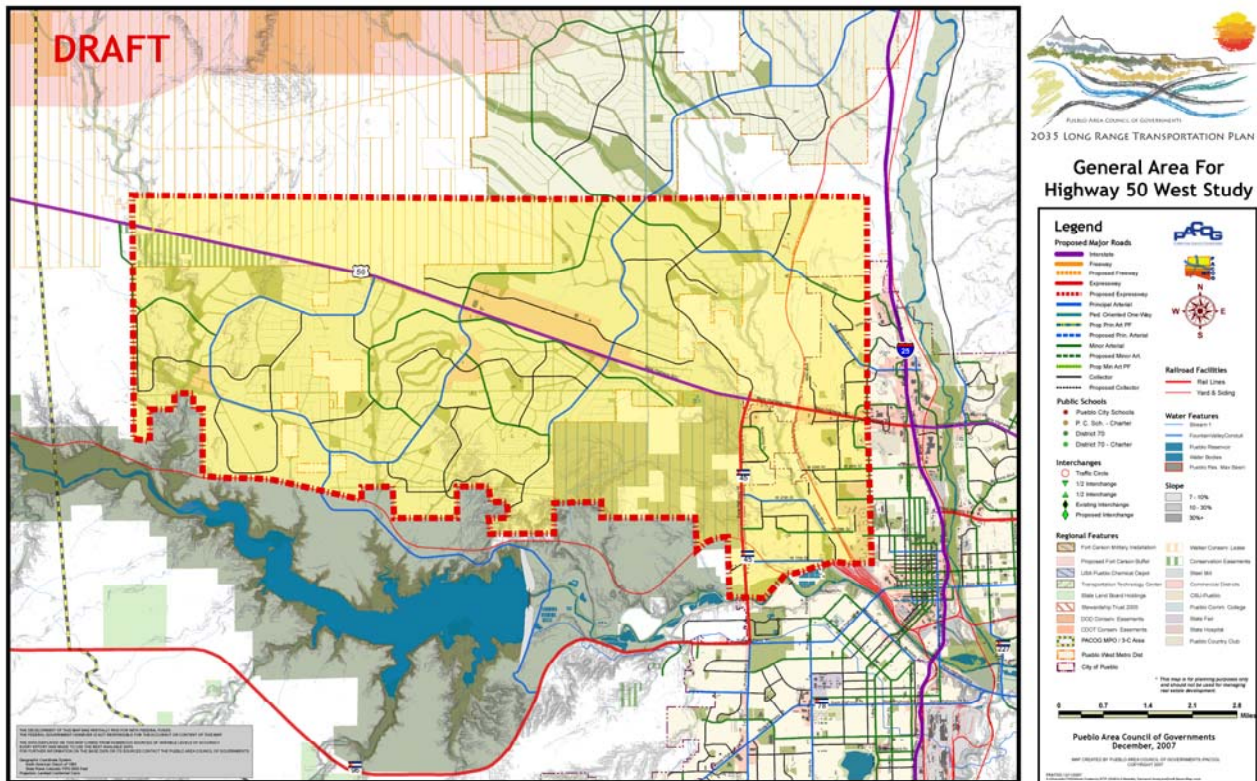
6.9 Alternatives Analysis

Addressing existing and future congestion in the Pueblo Area will require a careful assessment of facility needs with available revenue (see Chapter 9). Current plans for improvements to address roadway safety and capacity include the reconstruction of I-25 from Pueblo Boulevard to 29th Street, currently under an EIS review and the tiered EIS study of US50 from Pueblo east to the Kansas state line. A current project to improve SH96 is the reconstruction of the 4th Street Bridge across the Arkansas River.

No improvements are currently planned for US50 West of Pueblo, although the corridor is already experiencing significant congestion. A study of the US Highway 50 West corridor is scheduled to begin in 2008. The broadest definition of this corridor has boundaries encompassing Baltimore on the east, Platteville Blvd on the north, Pueblo West Metropolitan District boundary on the west, and the Lake Pueblo State Park boundary on the south (see figure 6-7).

Development of the Long Range Transportation Plan included an examination of alternatives along each of the major corridors through Pueblo for addressing the mobility, safety and system quality concerns. Alternatives for the delivery of transit services were also developed and evaluated. This section provides the results of that analysis.

Figure 6-8: General Area of US Highway 50 West Study Area



6.9.1 Corridor Approach

In the development of the 2030 LRTP, the Colorado Department of Transportation began evaluating statewide transportation needs through the development of Corridor Visions. This corridor-based approach allows for flexibility in addressing regional transportation needs and a “broad-brushed” examination of statewide transportation needs. At the MPO/TPR level, this corridor approach must be tempered with a regional, landscape-scale analysis of environmental concerns, as outlined and examined above in Chapter 3.

Regional Corridors & Inter-Regional Connectors

As discussed more detail in Chapter 7, the Pueblo MPO/TPR, in addition to many regionally significant corridors, contains four significant statewide transportation corridors, each of which contain a wide variety of modes and facilities to move goods and people to destinations within and through the SE Colorado region. Figure 6-8 shows these major corridors. They include:



Interstate 25 Corridor

Primary North-South Corridor through the Pueblo region. Includes Interstate-25, a 48-mile interstate highway running through Pueblo County; SH227 paralleling the Interstate; and the Fountain Creek Trail and associated planned trail networks south of the Arkansas River. The corridor also includes SH45 (Pueblo Boulevard) that is planned to form a parallel route west of I-25.

US Highway 50 / SH47 Corridor

Primary East-West Corridor through the Pueblo region. Includes US50A, SH47, US50B, US50C, and SH96, in addition to parallel local facilities. Major trail network includes the Arkansas River Trail that encompasses sections of both the American Discovery Trail and the Colorado Front Range Trail.

The US Highway 50 Corridor connects the region's major residential areas (Pueblo and Pueblo West) with the region's major employment centers (the Pueblo Mall, Colorado State University, and Airport Industrial Park).

SH96 Corridor

East-West Corridor that passes through Downtown Pueblo. Includes rural highway, urban arterial sections, downtown commercial land use, and suburban commercial roadways. Corridor includes the 4th Street Bridge, a critical crossing over the Arkansas River; and one of only four roadway crossings of the Fountain Creek.

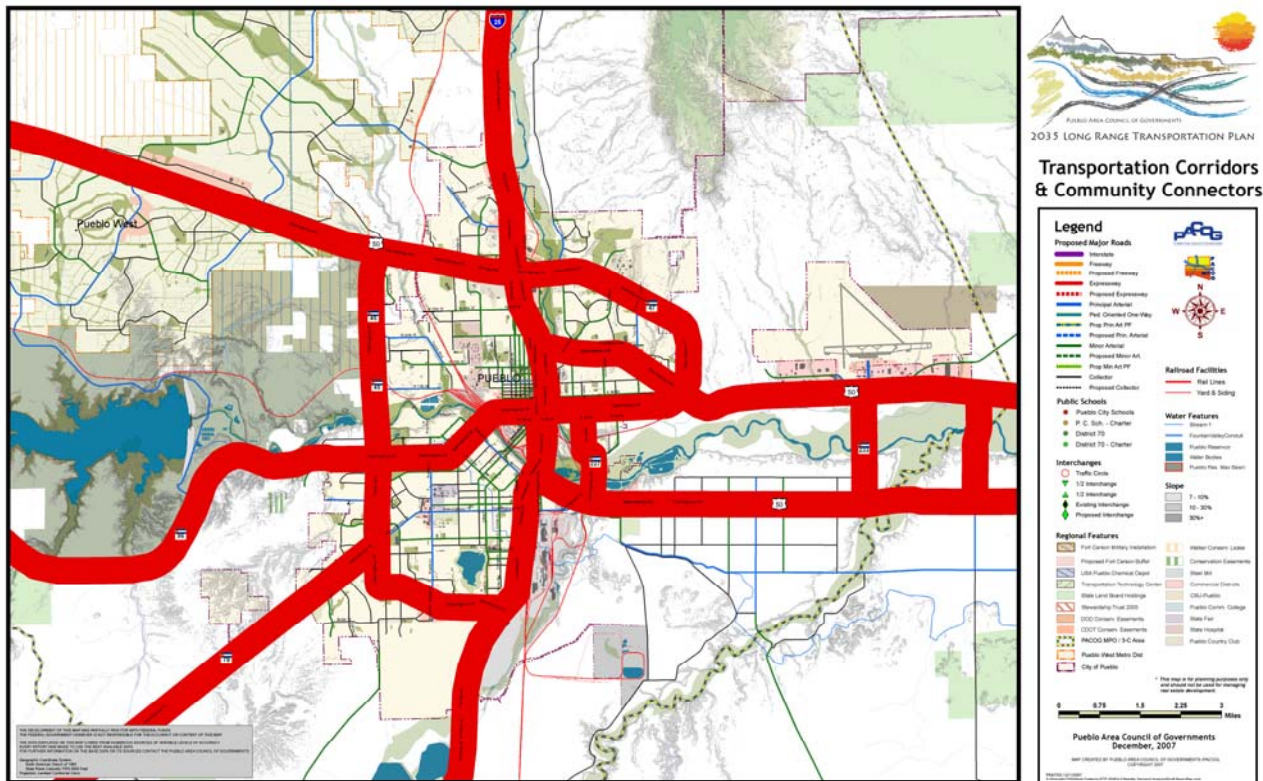
SH78 Corridor

Main Corridor connecting Beulah with the City of Pueblo. Corridor includes State Highway 78 that turns from a rural highway to a major commercial arterial. Construction of intersections along the rural / urban interface is guided by the SH78 Access Management Plan.

Community Connectors

As described earlier, many of the State Highways not only serve as regional corridors, but they also perform a critical role as the main connectors between portions of the Pueblo area. They are the primary routes that cross the physical barriers that divide portions of the Pueblo Area. They cross the five main railroad lines that are found within the Pueblo area and the three primary water features that join in Pueblo: Fountain Creek; Arkansas River above Fountain Creek; and Arkansas River below the confluence with Fountain Creek.

Figure 6-9: Pueblo Transportation Corridors and Connectors



6.10 Roadway Alternatives

At the development of the PACOG 2035 LRTP, funding for projects to improve mobility (reducing congestion), improve safety, and improve system quality within the PACOG MPO/TPR is quite uncertain and problematical. This will be discussed further in Chapter 9 (Fiscally Constrained Plan).

Addressing congestion issues and roadway safety concerns along I-25 will eventually require a major reconstruction of I-25. Part of this project also needs to address the connection between south and western portions of the Pueblo urban area north to El Paso County and Fort Carson. An extension of SH45 north of US50 to a new connection with I-25 has been proposed as an extension of the 1999 Pueblo Blvd Extension study that determined a preferred centerline alignment of a future extension of State Highway 45. At present this has not been added to the Highway System, so public funding for the development of the extension of State Highway 45 is uncertain.

From the review of the current and future congestion, the US Highway 50 corridor will need significant improvements to accommodate the forecast traffic volumes. Based on the future classification of this roadway, it still does not appear that capacity improvements could accommodate the future traffic volumes without further upgrades. The shift of some development to the northeast quadrant does not impact the forecast growth of population and traffic within Pueblo West and along the US Highway 50 West corridor.

The cost and complexity of these projects, however, suggest a need for interim solutions that could forestall the need for these projects by improving connectivity between population and employment centers along parallel facilities. The goal of providing these lower-cost alternatives would be to remove local traffic off of the state highways and onto more direct routes to major destinations.

6.10.1 Urban Alternatives for I-25

The purpose of the New Pueblo Freeway project is to improve safety for north-south travel and to improve local and regional mobility within and through the City of Pueblo to meet existing and future travel demands.

Much of I-25 through Pueblo was actually built between 1949 and 1959 as US 85/87 before the creation of the Interstate Highway System in 1956. As a result of its age and outdated design standards, this segment of I-25 contains structural and operational deficiencies. Today, these deficiencies are evident through high accident rates, areas of reduced speed, traffic congestion, and poor traffic operations.

Two “build” alternatives were developed through an extensive community-wide public process that exemplifies Context Sensitive Design. The Alternatives were developed from the Community Vision for the project, input from numerous stakeholders, and thorough qualitative and quantitative evaluation of how well it meets the Vision, goals and criteria for the New Pueblo Freeway.

The two alternatives—the Existing Alignment Alternative and the Modified Alignment Alternative—differ only in the middle one-third of the corridor, where the Modified Alignment shifts the interstate east to enable improvements to the local street network - especially along a relocated Santa Fe Drive.

For I-25, alternatives to a reconstruction of the entire facility would be a series of phased improvements to select sections of the interstate

as well as connectivity improvements to parallel facilities. By addressing select areas of the interstate where an influx of local traffic onto the system is creating “spikes” in traffic volumes, these phased improvements could extend the functional lifespan of I-25 through Pueblo.

Alternative phases in the I-25 Corridor could include:

- Reconstruct the US50B / 29th Street Interchange along I-25;
- Reconstruct the Ilex interchange section to remove significant safety concerns;
- Improve connectivity between SH47 and US50C by completing the Dillon Drive Extension south to US50B;
- Rebuild the Abriendo Interchange to create a direct connection between the St. Charles Mesa and the Mesa Junction area of the City of Pueblo;
- Realign part of SH227 west to connect to Erie Avenue and extend Erie Avenue to a new intersection with US50B to provide direct access to the Dillon Drive extension.

EIS Schedule

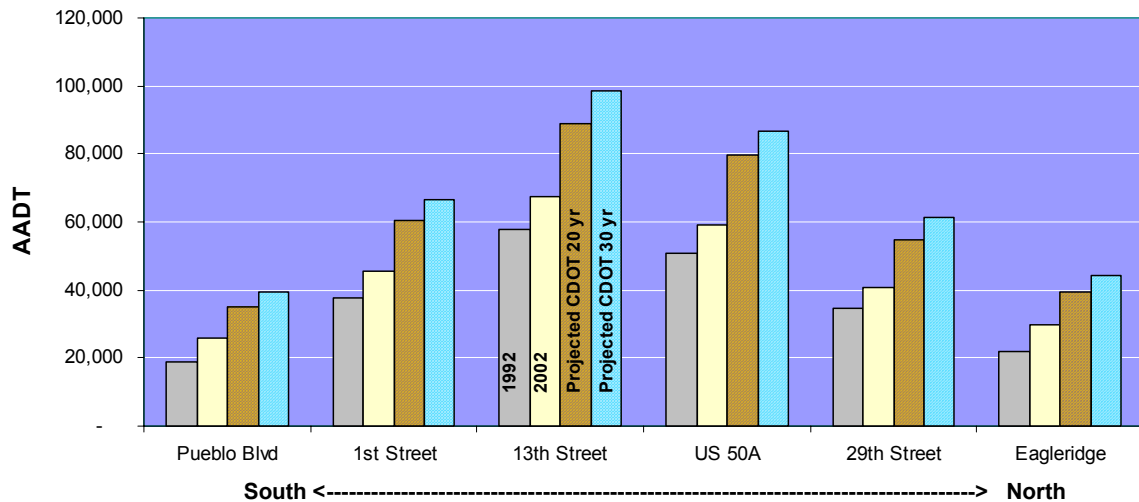
The Draft EIS is scheduled to be published for public review in Fall 2008.

6.10.2 Rural Alternatives for I-25

With the potential for significant development of the northeast quadrant, portions of I-25 north of Eagleridge may experience the need for significant improvements at interchanges. This includes the potential for a new split diamond interchange at Dillon-Eden-Platteville (mile marker 104), a new interchange at Porter Draw (mm 106), and the rebuilding to current standards of 4 existing interchanges – Purcell (mm108), Pinon (mm 110), Steel Hollow (mm114) and County Line (mm116) to provide access to and from the Interstate in the northeast quadrant. At some point in the future, expanding I-25 from Pueblo to Colorado Springs may need to be considered, or parallel high-capacity regional connections.



Figure 6-10: I-25 Daily Traffic, 2005



Source : Colorado Department of Transportation, 2/04

6.10.3 US Highway 50 West Alternatives

US50 is the only existing route between I-25 and the major business and population centers west of the Interstate. Increased traffic along this corridor may require additional capacity plus the extension of SH45 north to I-25. While these could improve traffic flow in the Northwest quadrant and two major corridors, there is also a substantial demand for travel between Pueblo West and Downtown Pueblo, especially for work trips.

The cost and complexity of these projects, however, suggest a need for interim solutions that could forestall the need for these projects by improving connectivity between population and employment centers along parallel facilities.

The City of Pueblo Honor Farm Master Plan provides for an arterial parkway connection between Joe Martinez Blvd in Pueblo West and Pueblo Blvd at 24th Street. This parallel to US Highway 50 West would reduce US 50 traffic by providing a second connection between the southern parts Pueblo West and the city of Pueblo. This connection does not, however, address congestion within the City of Pueblo which needs a more direct western connection to Pueblo Blvd.

The proposed West Pueblo Connector provides a continuous corridor between Downtown and Pueblo Blvd. Similar western connections have appeared as part of many earlier plans – first as part of “Possible Radials to Downtown” in 1962, then as part of the “Pueblo

Tomorrow...” in 1968, in the 1992 “*Pueblo Blvd. (SH45) Access Study*”. The current corridor alignment was identified in special studies of the Northwest Quadrant and Downtown Pueblo Access in 2002 and adopted in the 2030 LRTP as the highest off-system priority.

6.10.4 US Highway 50 East Alternatives

At the request of many residents and towns, a long-term project is underway to improve US Highway 50 to a four lane cross section from Pueblo east to the Kansas State Line. This corridor is being studied as part of a Tiered EIS. In the 2030 LRTP, an alternative corridor was proposed for US Highway 50 north of Pueblo Memorial Airport. This would also provide a direct connection to the current route of SH 47 to US Highway 50 at I-25. With the direct connection established, SH 47 could be re-designated as US 50 and eliminate the need for the current US50B highway.

6.10.5 State Highway 45

The North Pueblo Boulevard Extension study in 1999 estimated the cost of the SH45 extension to be \$168 Million including a grade-separated interchange with US50. Since 1999, highway construction costs have more than doubled, so such an extension would be an investment in excess of \$350 million. The completion of an alternative route between Pueblo West and the Pueblo CBD south of US50, as discussed earlier, could relieve the congestion along US50 enough to postpone the need for the full reconstruction of the interchange.

Due to the purchase of conservation easements extending about two miles from the Ft. Carson boundaries, Pueblo Blvd north of Hwy 50 will also replace the western Pinon Loop shown in the 2030 LRTP. With the loss of the proposed Pinon Loop, CDOT has been asked to update the study of the alignment of Pueblo Blvd and consider extending it as far north as the Pinon/Pace Interchange (mm 110). With an improved interchange this could also provide a connection to the potential developments in the northeast quadrant of Pueblo County.

6.10.6 SH96 Alternatives

Traffic along SH96 is expected to increase as population centers continue to grow west of SH45 and south of the Arkansas River. This vital link to downtown Pueblo will require both safety and capacity

improvements between Prairie Avenue and Interstate 25. Two special studies are needed to:

- Examine the benefits and costs of developing a one-way-pair for 4th Street and 5th Street through Downtown Pueblo.
- Analyze safety improvements along SH96 between Prairie Avenue and Abriendo. In that area, the roadway was built in an existing neighborhood where residential homes and businesses have direct access on the State Highway.

In 2007, CDOT completed a paving project on SH 96 from Abriendo west to the edge of the City of Pueblo. Although there were no significant capacity improvements, sidewalks were installed and the entire section is now ADA accessible.

6.10.7 SH47 Alternatives & Potential Connections

This section of the roadway system is a non-Interstate highway that has some existing grade separated interchanges. Traffic along SH47 is expected to increase as population centers continue to grow east and north of SH47 and east of the Fountain Creek. This vital link connects Pueblo West via US Highway 50 to the Airport Industrial Park and portions of eastern Pueblo county. If large-scale development actually materializes in the northeast quadrant of Pueblo County, major freeway/expressway corridors (as well as supporting arterials and collectors) will be required to accommodate future traffic growth. Schematic general locations for these corridors are shown as extensions from interchange points on existing SH 47 all the way north into El Paso County.

From a broader inter-regional perspective, if planned employment centers in southern El Paso County and eastern Colorado Springs are developed, similar major connections will be needed to provide continuity from northeast Pueblo County to proposed major corridors such as Powers Blvd and Banning-Lewis Pkwy in the eastern Colorado Springs area. Because of the distance and potential future traffic volumes, consideration should be given to begin now working with CDOT and the Transportation Commission to designate one or more of these parallel major facilities as an extension of the State Highway system. Such a designation would recognize both the inter-regional and inter-state implications of major connectors between existing system highways in both Pueblo and El Paso counties. From a planning perspective, the Pueblo area should take the lead in the following:

- Continue to provide timely information to the US 50 East



Tiered EIS study about proposals near the Airport and in the northeast quadrant of Pueblo County which could impact a relocated US 50 corridor from SH 47 to the east county line;

- Work with CDOT Region 2 to consider the potential impacts of locating a new interchange east of Troy to connect SH47 to future north-south corridors east and west of the Baculite Mesa;
- Continue to coordinate the planning and evaluation of future major transportation connections and facilities with the Pikes Peak Area Council of Governments MPO, the Central Front Range TPR, El Paso County, Colorado Springs, and CDOT.

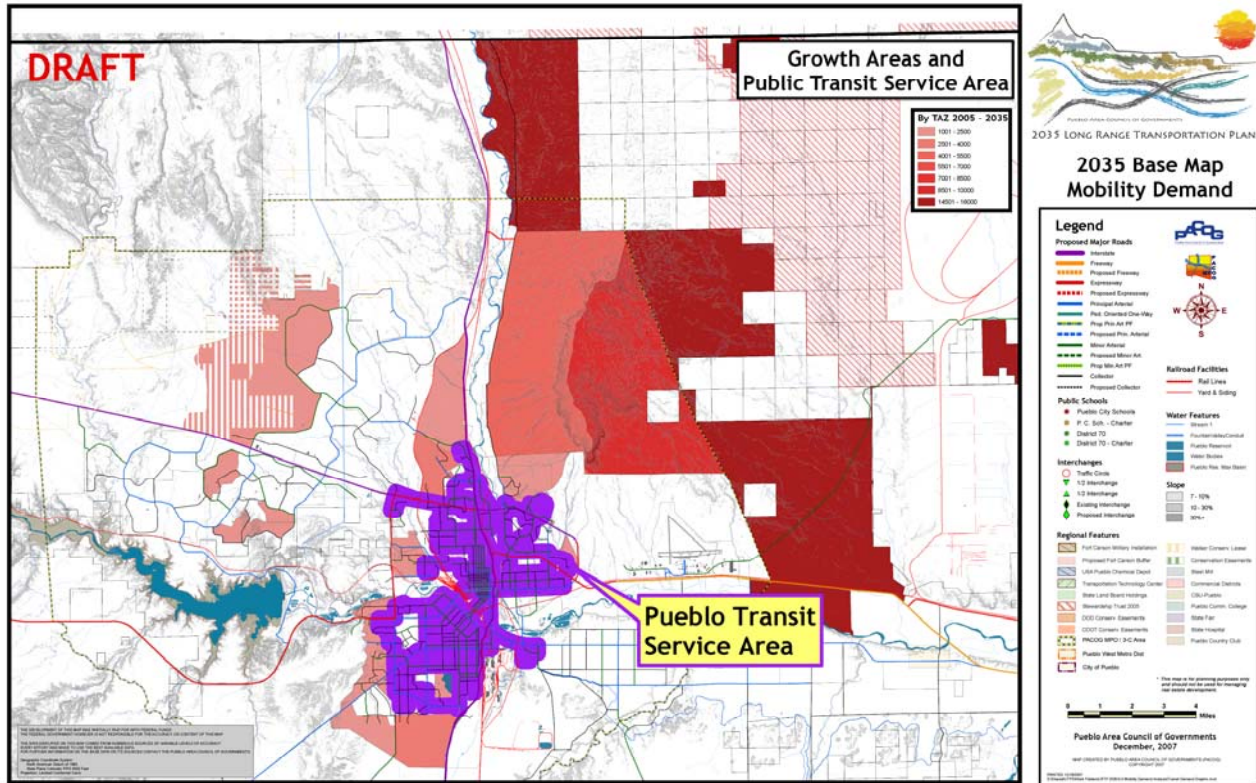
6.11 Demand for Transit Service and Non-motorized Facilities

For estimates of future demand for transit services and transit improvement options, please see the detailed analysis and discussion in Chapter 5 (Coordinated Public Transit – Human Services) of this Plan.

The rate of growth in the demand for non-motorized facilities and transit service is likely to exceed that of roadway facilities due to the rising cost of automobile fuel. Continued planning and programming of improvements for pedestrians, bicyclists and transit riders will address the increased demand. Where warranted, major roadways should be designed with appropriate bicycle and sidewalk facilities, based on criteria and design standards of the local jurisdictions.

From an operations planning standpoint, some additional consideration may become necessary to ensure year-round access to sidewalks. On roadways with significant vehicular traffic, or where plowing may occur, detached sidewalks should be considered to prevent “splashover” icing of sidewalks in the winter.

Figure 6-11: Pueblo Transit Service Area and Areas of High Growth Forecasts



6.11.1 Transit Alternatives

The Pueblo Transit fixed-route and demand-response system provides just over one million one-way passenger trips per year to residents of the city of Pueblo and a small area outside the City Limits. Transit demand and ridership are discussed in detail in the Coordinated Public Transit – Human Services Coordination Plan (See Chapter 5). The estimates include potential ridership of transit dependent groups such as the elderly, low income, and mobility limited.

Within the 2030 LRTP Transit Element there were three options proposed for changes to the Transit Services. At the time of the development of the 2035 LRTP, Pueblo Transit initiated a number of changes to the existing routes to provide expanded service within the City of Pueblo. Future transit service expansion within the City will be evaluated in the context of physical growth patterns, population growth location, and major employment locations.

Transit service outside the City to areas such as Pueblo West, the St. Charles Mesa, and the Airport Industrial Park remain in this Plan for



future consideration. Under current policies, such extensions may be implemented if sufficient funding for new vehicles and operating expenses is provided by the appropriate local jurisdictions served by new or extended routes.

6.20 Prioritization Process

Assigning specific priorities to individual projects is very difficult because of the extreme uncertainty in long term funding for CDOT. This uncertainty is discussed in more detail in Chapter 9 (Fiscally Constrained Plan).

Based on the forecast levels of future congestion, the following major corridors and sections are included as priorities for funding of major system improvements by 2035. Individual projects within these corridors will be selected and programmed through the shorter-term (6-year) Transportation Improvement Program (TIP) based on more precised estimates of actual funding levels and availability.

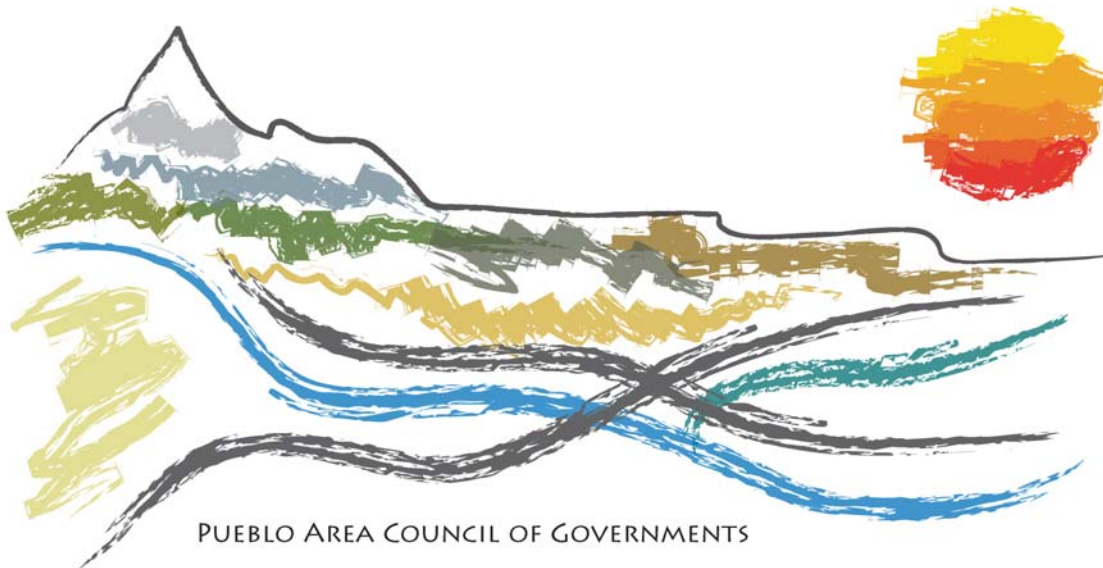
Table 5-3: Future Priorities—Regionally Significant Corridors

Priority	Corridor	Section		2035 V/C
	US Highway 50 West	Purcell Blvd. to Pueblo Blvd		198%
		Joe Martinez Parkway Extension	Optional off-system project	
	US Highway 50 West	Baltimore to Club Manor		189%
		West Pueblo Connector	Optional off-system project	
	Pueblo Blvd (SH 45)	St. Clair to Thatcher Ave		182%
		Bandera Parkway		
	US Highway 50 West	Pueblo Blvd to Baltimore		177%
		West Pueblo Connector	Optional off-system project solution	
	Pueblo Blvd (SH 45)	Lehigh to St. Clair Ave		165%
		Bandera Parkway	Optional off-system project solution	
	Interstate 25	Highway 50 Bypass to 13 th Street		138%
		Dillon south to 4 th Street	Optional off-system project solution	



PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN
 Mobility Demand & Alternative Analysis

	US Highway 50 West	Club Manor to I-25		135%
	State Highway 47	I-25 to Jerry Murphy		126%
	Interstate 25	Ilex Interchange – 1 st to Ark. River		125%
		SH227 Extension to 4 th Street	Optional off-system project solution	
	US Highway 50 West	McCulloch to Purcell Blvd.		116%
	Santa Fe Dr (SH 50C)	SH 227 to Aspen Lane		114%
	4 th Street (SH96)	Abriendo to Elizabeth		112%
	Pueblo Blvd (SH 45)	West 11 th Street to Thatcher Ave		105%
		West Pueblo Connector	Optional off-system project solution	
	Interstate 25	13 th Street to 1 st Street		103%
	Pueblo Blvd Extension	US Hwy 50 West to I-25		



2035 LONG RANGE TRANSPORTATION PLAN

Chapter 5

Coordinated Public Transit - Human Services Transportation Element

DRAFT PLAN

	<p><i>Sections with yellow highlighting are incomplete waiting for additional information or for clarification</i></p> <p><i>Text in Red represents information to verify.</i></p>
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December 2007

NOTE: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.

Table of Contents

5.1	Introduction	5
5.1.1	Purpose	5
5.1.2	JARC and New Freedom Funding	7
5.1.3	Time of Transition	8
5.1.4	Report Contents	10
5.2	Community Characteristics	12
5.2.1	Introduction	12
5.2.1.1	Study Area Overview	12
5.2.2	Population	13
5.2.3	Transit Dependant Populations	15
5.2.4	Activity Centers and Employment Centers	23
5.2.5	Employment and Wages	27
5.2.6	Minority Populations, Housing and Poverty	30
5.3	Inventory of Transit Service Providers	36
5.3.1	Pueblo Transit	38
5.3.1.1	Pueblo Transit Operations	39
5.3.1.2	Organization, Vehicles & Facilities	45
5.3.1.3	Pueblo Transit Fleet Conditions	48
5.3.1.4	Pueblo Transit Facilities	49
5.3.1.5	HARP Phase III Impacts to Pueblo Transit	49
5.3.1.6	Pueblo Transit Finances	50
5.3.1.7	Transit System Performance	52
5.3.1.8	Demand-Response Services	53
	Demand for Citi-Lift Services	53
5.3.1.9	Pueblo Transit Short-Term and Long-Term Needs	54
5.3.1.10	Citi-Lift Paratransit Changes Dec. 2007	55
5.3.2	Senior Resource Development Agency	56
5.3.2.1	Transportation Goals	58
5.3.2.2	Short Term and Long Term Transportation Needs	58
5.3.3	Pueblo County Department of Social Services	60
5.3.4	City Cab Company	60
5.3.5	Colorado Bluesky Enterprises, Inc.	61
5.3.6	Shuttle Service Of Southern Colorado	61
5.3.7	Ramblin' Express, Inc	61
5.4	Assessment Of Existing Fixed Route Transit Service	62
5.4.1	Transit Demand	64
5.4.1.1	Amy Ostrander's 2004 Demand Estimates	65
5.4.1.2	Transit Demand by Quadrant	67
5.5	Key Findings from the Literature Review and Public Input Process: Service Gaps and Unmet Transportation Needs	67
5.5.1	Alternatives For Service Improvement	69
5.5.2	Additional Proposed System Improvements	71

Service Improvements	71
5.5.2.1 Efficiency Improvements	71
5.5.2.2 Potential Alternatives For Expanded Service	71
5.6 Potential Sources Of Transit Funding	73
5.6.1 Federal Funding Sources	73
5.6.2 State Funding	75
5.6.3 Local Funding	75
5.6.4 User Fees	76

List of Tables

TABLE 5.1: 2007-9 AVAILABLE PROGRAM FUNDING FOR SMALL UZAS	7
TABLE 5.2: PUEBLO COUNTY COMMUNITY POPULATIONS	14
TABLE 5-4: PUEBLO COUNTY EMPLOYMENT, 2005	28
TABLE 5-5: SUMMARY OF TRANSIT SERVICE PROVIDERS	37
TABLE 5.6: PUEBLO TRANSIT SERVICE FREQUENCY	40
TABLE 5.7: OPERATING AND CAPITAL COSTS, 2006	51
TABLE 5.8: 2006 OPERATING REVENUE	52
TABLE 5.9: 2006 SOURCES OF CAPITAL FUNDS EXPENDED	52
TABLE 5.10: PUEBLO TRANSIT PERFORMANCE MEASURES, 2005	53
TABLE 5.10: DEMAND RESPONSE SERVICE CHANGES	54
TABLE 5.11: 2006 SRDA ELDERLY RIDERSHIP	56
TABLE 5.12: SRDA VEHICLES	57
TABLE 5.13: PUEBLO TRANSIT 2006 SERVICE PRODUCTIVITY	63
TABLE 5.14: TNBS ESTIMATE FOR PUEBLO COUNTY	65
TABLE 5.15: TRANSIT RIDERSHIP MODELS	65
TABLE 5.16: ESTIMATES OF TRANSIT DEMAND BASED ON AVERAGE VALUES FROM VARYING METHODOLOGIES*	66
TABLE 5-17: ESTIMATES OF TRANSIT DEMAND* BY PLANNING QUADRANT	67

List of Figures

FIGURE 5-1: FHWA PROGRAM AREAS	8
FIGURE 5.2: THE PUEBLO 3C PLANNING AREA	13
FIGURE 5.3: GROWTH TRENDS IN PUEBLO COUNTY COMMUNITIES	14
FIGURE 5.4: POPULATION DENSITIES IN THE CITY OF PUEBLO	15
FIGURE 5.5: PERCENTAGE OF LOW-INCOME HOUSEHOLDS BY CENSUS TRACT	17
FIGURE 5.6: GROWTH IN POPULATION AGED 65 AND OLDER, 2005-2035	18
FIGURE 5.7: CONCENTRATION OF PERSONS AGED 65 AND OVER	19
FIGURE 5.8: CONCENTRATION OF PERSONS WITH MOBILITY LIMITATIONS	21
FIGURE 5.9: CONCENTRATION OF HOUSEHOLDS WITH NO MOTOR VEHICLE AVAILABLE IN PUEBLO COUNTY	22
FIGURE 5.10: MAJOR EMPLOYMENT CENTERS	23
FIGURE 5-11: MAJOR EMPLOYMENT CENTERS AND AREAS WITHIN ¼ MILE OF FIXED ROUTE TRANSIT SERVICE	25
FIGURE 5-12: EMPLOYMENT/WAGE DISTRIBUTION BY INDUSTRY	26
FIGURE 5-13: CONCENTRATION OF MINORITY POPULATION BY CENSUS TRACT	29
FIGURE 5-14: RENTER OCCUPANCY RATE	31
FIGURE 5-15: DENSITY OF LOW-MOD INCOME HH'S	32
FIGURE 5-15: PERCENTAGE OF BIRTHS BELOW POVERTY	33
FIGURE 5-16: PUEBLO TRANSIT EXISTING FIXED ROUTE SYSTEM	35
FIGURE 5-17: AREAS WITHIN ¼ MILE (TYPICAL WALKING DISTANCE) OF FIXED ROUTE LOCATIONS	41
FIGURE 5-17: PUEBLO TRANSIT SERVICE TYPE	42
FIGURE 5-18: PUEBLO TRANSIT FARES	43
FIGURE 5-19: REQUIRED ADA SERVICE AREA WITHIN ¾ MILE DISTANCE FROM FIXED ROUTES	43
FIGURE 5-20: PUEBLO TRANSIT RIDERSHIP DEMOGRAPHICS	44
FIGURE 5-19: PUEBLO TRANSIT ORGANIZATIONAL STRUCTURE	45
TABLE 5-6: FTA RECOMMENDED SERVICE LIFE	46
FIGURE 5-21: PUEBLO TRANSIT VEHICLE SUMMARY	47
FIGURE 5-22: TRANSIT FACILITIES, BUS ROUTES, AND HARP PHASE III	48
FIGURE 5.23: 2007 CHANGES TO FIXED ROUTE TRANSIT SERVICE	50
	70



5.1 Introduction

5.1.1 Purpose

Three programs in SAFETEA-LU fund coordinated transit and human services. They are the Job Access and Reverse Commute Program (JARC, Section 5316), New Freedom (Section 5317) and the Formula Program for Elderly Individuals and Individuals with Disabilities (Section 5310). All three are required to be derived from a locally developed, coordinated public transit-human services transportation plan. SAFETEA-LU guidance issued by the Federal Transportation Administration (FTA) indicates that the plan should be a “unified, comprehensive strategy for public transportation service delivery that identifies the transportation needs of individuals with disabilities, older adults, and individuals with limited income, laying out strategies for meeting these needs, and prioritizing services.”¹ The three funding programs focus on the needs of transportation for disadvantaged persons, or those with special transportation needs that cannot be met through traditional means (access to automobile or public transportation). For purposes of this plan, the definition of people with special transportation needs is: “those people, including their attendants, who because of physical or mental disability, income status, or age, are unable to transport themselves or purchase transportation.”²

Projects funded with the above three sources of grant funds are selected through a competitive process derived from the coordinated planning effort. Many if not all of the suggested strategies and solutions could be structured to take advantage of available program funds. The sources of funds and examples of eligible projects are described below:

Job Access and Reverse Commute (JARC Section 5316):

The purpose of the JARC program is to fund local programs that offer job access services for low-income individuals. JARC funds are distributed to states on a formula basis, depending on that state’s proportion of low-income population. This approach differs from previous funding cycles, when grants were awarded purely on an “earmark” basis. JARC funds will pay for up to 50% of operating funds to support the project budget, and 80% for a capital project. The remaining funds are required to be provided through local match

¹ SAFETEA-LU does not require that Section 5311 funds (non-urbanized area formula transit funding) be subject to the Coordinated Plan.

² State of Washington House Bill 1694



sources.

Examples of eligible JARC projects include:

- Late-night and weekend service
- Guaranteed Ride Home Programs
- Vanpools or shuttle services to improve access to employment or training sites
- Car-share or other projects to improve access to autos
- Access to child care and training

New Freedom Program (Section 5317):

The New Freedom Program provides funding to serve persons with disabilities. Overall, the purpose of the program is to go “beyond” the minimal requirements of the Americans with Disabilities Act (ADA). Funds are distributed to states based on that state’s population of persons with disabilities. The same match requirements for JARC apply to the New Freedom Program.

Examples of eligible New Freedom Program projects include:

- Expansion of paratransit service hours or service areas beyond minimal requirements
- Purchase of accessible taxi or other vehicles
- Promotion of accessible ride sharing or vanpool programs
- Administration of volunteer programs
- Building curb cuts, providing accessible bus stops
- Travel Training programs

Elderly and Disabled Program (Section 5310):

Funds for this program are allocated by formula to states for capital costs of providing services to elderly persons and persons with disabilities. Typically, vans or small buses are available to support nonprofit transportation providers. A 20% local match is required.

General Public Transportation: Non-urbanized areas (Section 5311):

Federal Section 5311 funds are intended to enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services, and recreation. Services are available to the general public, but may also be used to support services for elderly and disabled. The match requirement is consistent with the JARC and New Freedom programs. SAFETEA-LU does not require that Section 5311 funds be subject to the Coordinated Plan.

Examples of eligible projects include:



- Wheelchair accessible passenger vehicles
- Communications equipment
- Purchase and installation of bus shelters or other amenities
- Operating Assistance

5.1.2 JARC and New Freedom Funding

As required by SAFEA-LU, the Federal Transit Administration provides funding for these new programs to the states on a formula basis. Funds are provided within three population categories:

- Large Urbanized Areas (UZAs) – Population over 200,000; in Colorado, the large UZA’s are Colorado Springs, Denver-Aurora, and Fort Collins/Loveland/Berthoud.
- Small UZAs – population between 50,000 and 200,000; in Colorado, the small UZAs are Boulder, Grand Junction, Greeley, Longmont, Louisville/Lafayette, and **Pueblo**.
- Non-urbanized (rural) area – all the rest of the state not within a UZA.

Within Colorado, the Large UZAs will receive direct funding of their proportion of the state allocation from FTA. The Colorado Department of Transportation is the designated recipient for the small UZA and rural area funds. CDOT will establish two ‘pots’ of funds, one for small UZAs and the other for rural areas.

Table 5.1: 2007-9 Available Program Funding for Small UZAs

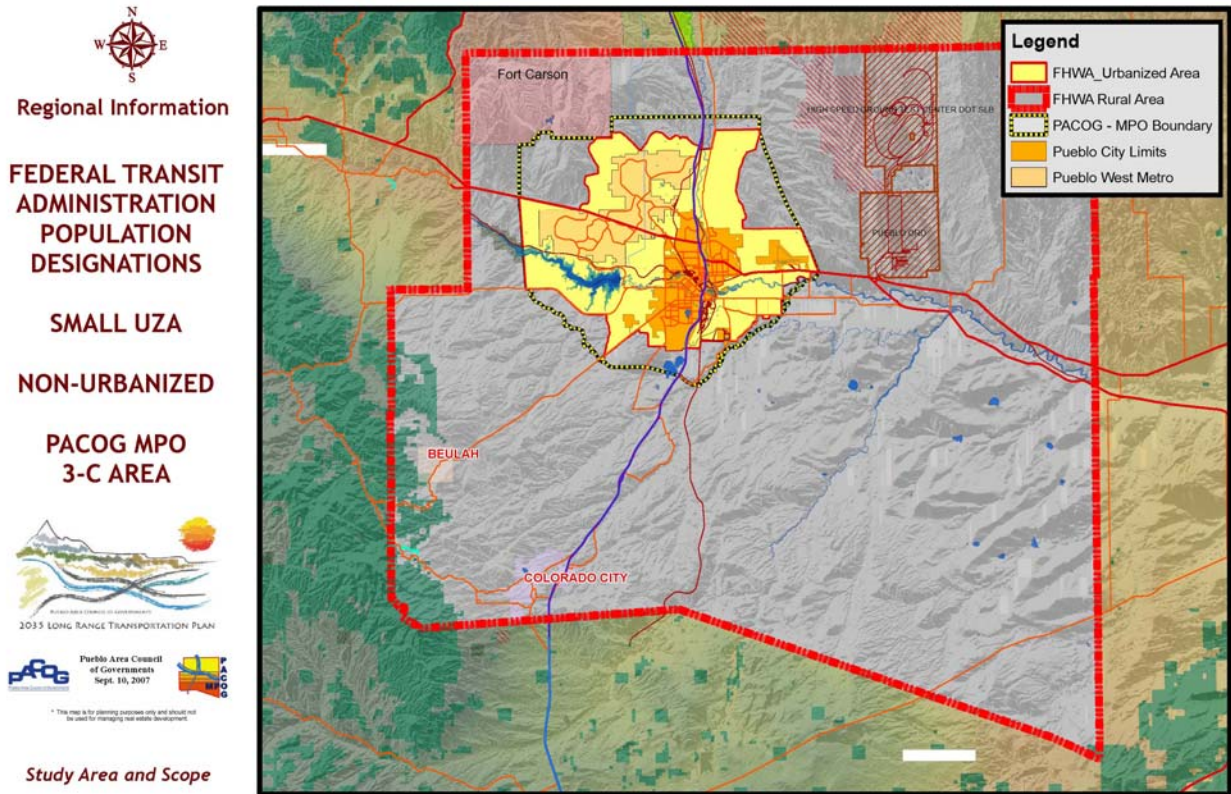
Small Urbanized Areas -	Boulder, Grand Junction, Greeley, Longmont, Louisville/Lafayette, and Pueblo .		
Grant	2007	2008	2009
5316 JARC	\$ 483,031	\$ 523,283	\$ 551,795
5317 New Freedom	\$ 183,913	\$ 198,671	\$ 210,023

Source: CDOT – Estimated, based on SAFETEA-LU language.

Within Pueblo County, the Federal Transit Administration has designated a portion of the County to be a UZA. This area is wholly within the MPO boundary but does not encompass all of it. Projects falling within the UZA are eligible to compete for JARC and New

Freedom funding. Areas within the County but outside the UZA are eligible to compete for the rural areas project funds. The boundaries of each of these areas are summarized in figure 2 below.

Figure 5-1: FHWA Program Areas



5.1.3 Time of Transition

Federal guidelines for coordinated public transit-human services transportation plans have not yet been finalized. The State of Colorado (on behalf of the rural regions of Colorado), the small MPO’s (including Pueblo Area Council of Governments) and the three large urbanized areas will need to transition to a coordinated transportation planning and service delivery process that represents the stakeholders, provides a mechanism for improving the efficiency of the transportation delivery system, and addresses critical transportation needs. This will require new relationships between entities and decisions on how Colorado and the metropolitan planning organizations can best achieve the goals of the area.



The State of Colorado is beginning to address coordination in two ways. The first is that CDOT is leading an interagency coordinating council bringing together the various state departments with programs that either provide or depend on transportation services for clients. Representatives of organizations at other levels of government, including metropolitan planning organizations, cities, counties, transit providers, and consumers are also participating. It is anticipated that this Statewide Coordinating Council will address issues involving funding and regulatory requirements at the state level and also how to support local efforts to increase coordination. The initial round of meetings has focused on identifying issues and understanding the roles of various state agencies. The Statewide Interagency Coordinating Council has not yet tackled issues such as the structure and role of Local Coordinating Councils or the specific barriers to coordinated services that exist in Colorado.

The second role for CDOT is to integrate the new federal planning regulations into its regional planning process, fulfilling its role of representing the rural and small-urbanized areas of the state. CDOT is gathering initial information in the current round of regional transportation plans to identify both transit and human service transportation needs. Local Coordinating Councils have been proposed to provide an ongoing framework for coordinating services at the local level. These local councils have not yet been identified or integrated into the planning process. The Local Coordinating Councils are envisioned to be responsible for establishing a local process for coordinating services (including standards and evaluation criteria). They may also directly contract for services. They will also provide feedback to the Statewide Coordinating Council regarding problems that need to be addressed at the State level in order to facilitate improved coordination.

One objective of this plan is to identify a local coordinating council for the Pueblo region. One specific issue to address is the limited service area of the existing Pueblo Transit. This service area is only within the City of Pueblo. The development of the Coordinated Plan will require the identification of opportunities to expand service delivery to persons outside the City of Pueblo.

Characteristics of this planning process are:

- The process is occurring in a time of transition at the Federal and state levels.
- The various coordination efforts are taking place simultaneously and final regulatory guidance is not yet available.



- Many entities at different levels of government will need to participate for successful coordination.
- The actions of agencies outside the region could have significant impacts on how coordination proceeds at a local level
- Coordination evolves in different communities in different ways. The way in which coordination can best benefit a particular community or region will reflect the needs of the area, services available, funding streams, interest of local entities, and the support for coordination that exists at the state level.
- Many steps are involved in coordination and there is not a linear path to coordination of transit and human services for a community. Rather, the process will need to respond to issues as they arise. Some issues will be resolved at the local level. Others may need State or Federal action in order to be resolved.

The Pueblo Area Council of Governments has an active Transit Advisory Committee (TAC) that provides a forum for addressing issues related to specialized transportation. A list of TAC members is included in Appendix 5. The TAC was involved in developing the Coordinated Plan, representing a variety of viewpoints. Those TAC members representing agencies were able to keep their agencies informed of progress through the development of the plan.

Once completed, the Transit Advisory Committee will recommend adoption of the Coordination Plan to the Transportation Advisory Commission of the MPO. The Plan will be adopted as a part of the 2035 Long Range Transportation Plan for the PACOG region.

5.1.4 Overview of the Chapter

This report is a condensation of the content of the Pueblo Coordinated Human Services—Transit Plan, produced as a requirement for eligibility for 5310, 5316, and 5317 funds. The chapter describes the characteristics of the community and existing services in sections 5.2 and 5.3. It then provides an assessment of needs in Section 5.5 and identifies basic issues to consider as the region moves forward with coordination. New service components to increase access to jobs for individuals with low incomes and criteria for evaluating projects are also presented in this section. Potential sources of funding are



summarized in Section 5.6



5.2 Community Characteristics

5.2.1 Introduction

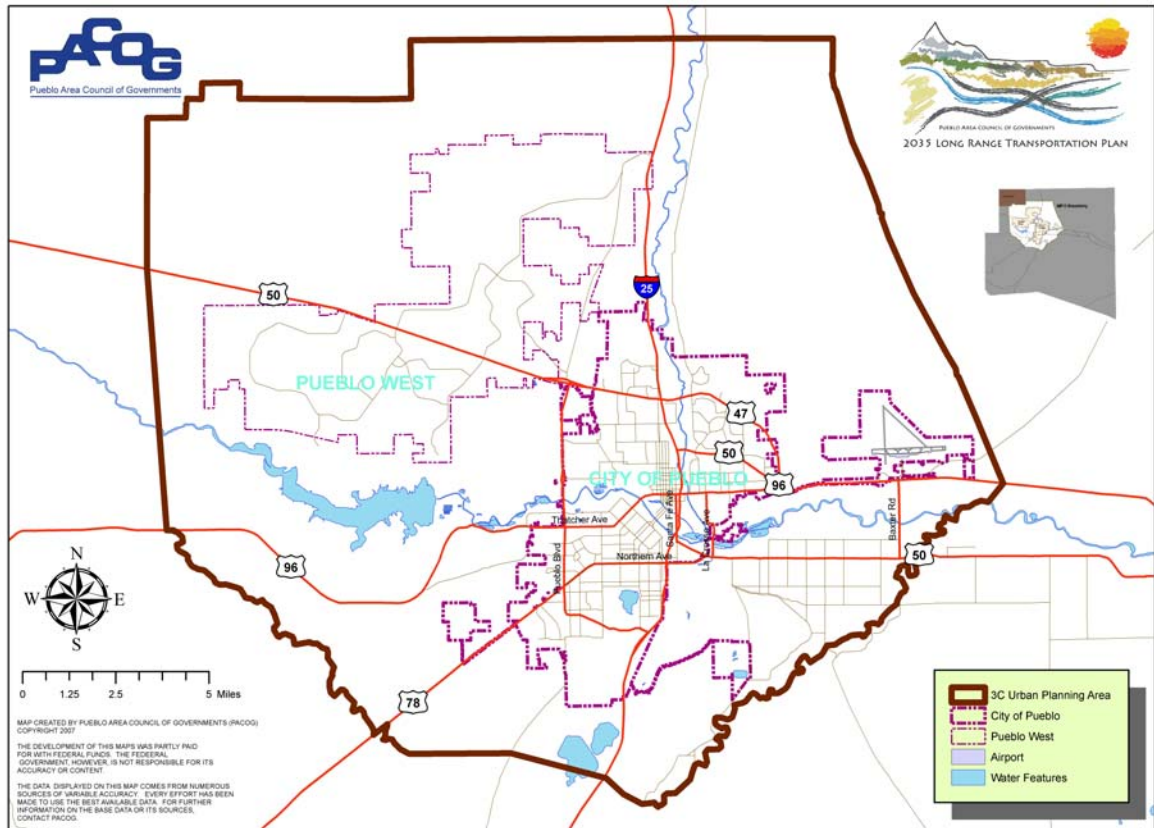
This section describes key community characteristics that impact the need for transit services. It includes a description of the study area, key demographic characteristics, the location of activity centers, and information on the location of employment, key employers, and training facilities in the area.

5.2.1.1 Study Area Overview

The primary study area is the Pueblo, Colorado 3C Planning Area, illustrated in Figure 5.2 and described in detail in Chapter 1 (pgs. 10-12) of this plan. The 3C Planning Area is the Pueblo UZA. This area has been defined for purposes of transportation planning under TEA-21, and the joint planning regulations (23 CFR Part 450 and 49 CFR Part 613) of the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). These legislative mandates require that metropolitan areas have a continuing, comprehensive, and coordinated transportation planning process (3C) that results in plans and programs that consider all transportation modes and support metropolitan community development and social goals. The focus of the work for coordination of human services transportation and for employment transportation falls within the 3C boundary.

Figure 5.2: The Pueblo 3C Planning Area

Fig. 2-1: Study Area



5.2.2 Population

Demographic information for the 3C Study Area is presented in Chapter 2 (p. 4). The 3C Study Area contains 93 percent of Pueblo County’s estimated 2005 population of 151,104 residents, concentrated in 2 large urbanized communities, the City of Pueblo and Pueblo West. Between 1990 and 2005 the percentage of the County’s population living in the City of Pueblo shrank from 80.2% to 68.9 percent. Population growth in Pueblo has been moderate in recent years, growing 0.4 percent per year from 2000-2005.

From 1990 to 2000, Pueblo West’s population almost quadrupled, increasing from 4,386 residents to nearly 17,000. In 2005, Pueblo West had an estimated population of 25,000. This translates into an estimated annual population increase of 8.0 percent per year. Table 4 and Figure 5 below summarize the relative sizes of the Pueblo County communities and the contrast in their growth rates between 1980 and

2005.

Table 5.2: Pueblo County Community Populations

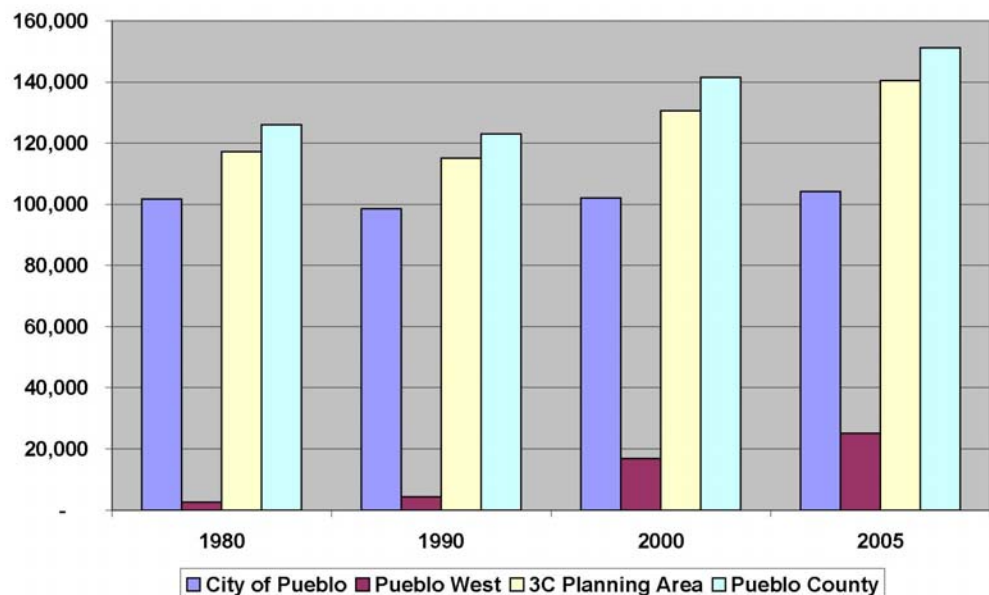
Area	2005 Population	Percent of County
PUEBLO COUNTY	151,104	100.0%
Boone	321	0.2%
Pueblo	104,169	68.9%
Pueblo West	25,000	16.5%
Rye	194	0.1%
Unincorporated Area	21,420	14.2%

Source: CO State Demographer's Office, Pueblo Area Council of Governments, Urban Transportation Planning Division

The density of population is an important characteristic when considering the delivery of transit services. Densities based on estimates developed by the Pueblo Area Council of Governments Urban Transportation Planning Division are depicted in Figure 6. It can be seen that higher urban-level densities are distributed fairly evenly across the City of Pueblo, especially the older sections of the City platted before 1970.

Figure 5.3: Growth Trends in Pueblo County Communities

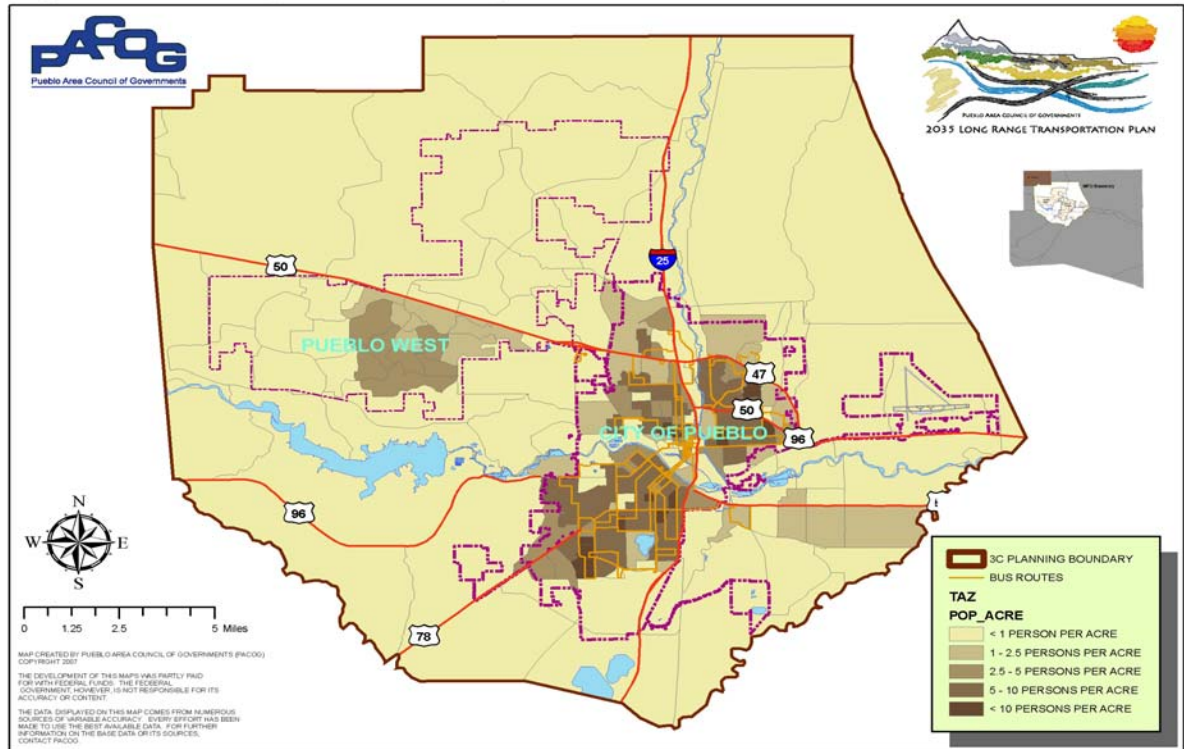
Figure 2-3 Population Growth



SOURCE: U.S. Bureau of the Census, State Demographer's Office, Pueblo Area Council of Governments, Urban Transport. Planning Div.

Figure 5.4: Population Densities in the City of Pueblo

Fig. 2-4: 2005 Population Density



5.2.3 Transit Dependiant Populations

Several characteristics tend to identify population segments that may be dependent on public transit. In general, these are population characteristics that prevent individuals from driving. Salient characteristics include the number of individuals over age 65, individuals with disabilities, and families with low incomes. Older adults face the decision about curtailing driving due to strength limitations and age-related physical impediments such as reduced vision. Other individuals with temporary or permanent disabilities that limit their ability to drive are another important market served by transit or specialized transportation services. Youth under the age of 16 are often transit riders. Finally, financial limitations make it difficult for some residents to purchase and maintain an automobile.

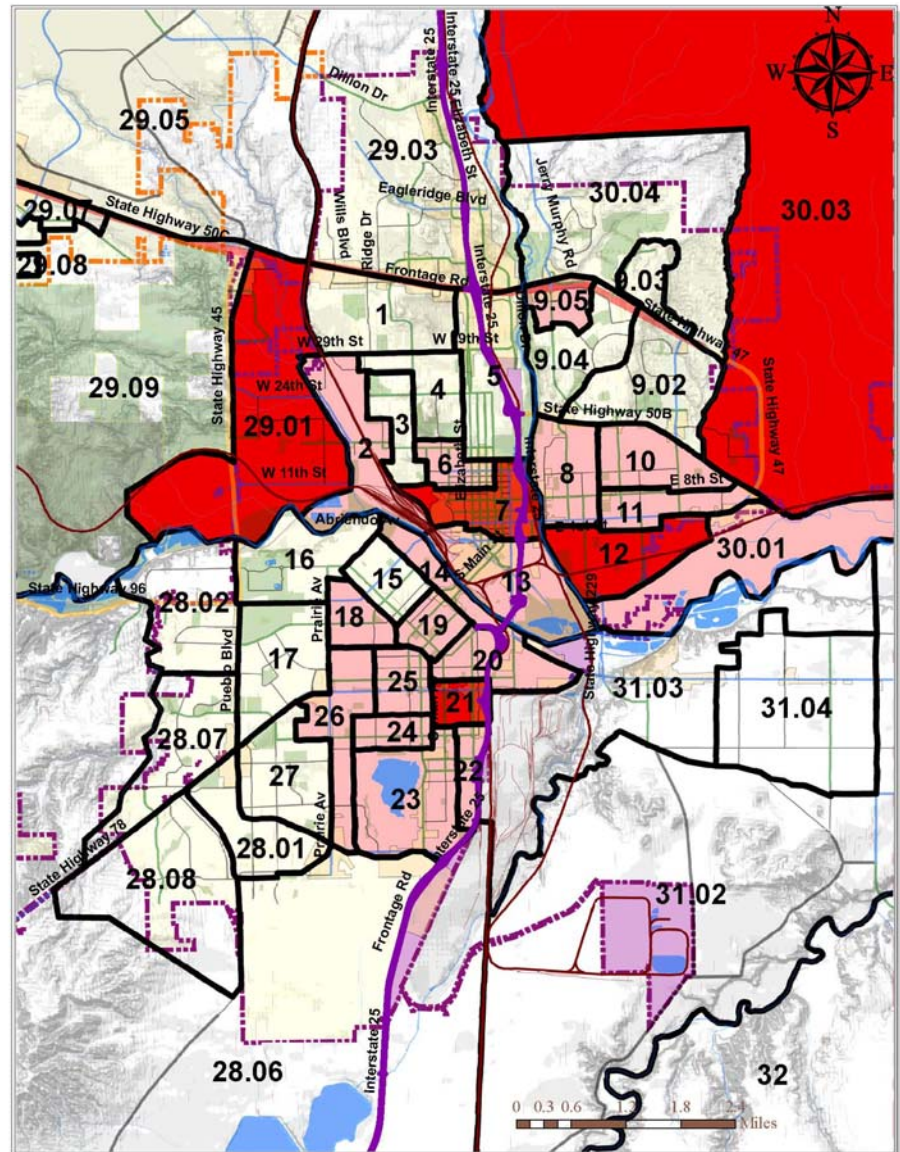
The 2005 American Community Survey, conducted by the U.S. Bureau of the Census, reports 6,749 families below the poverty level in Pueblo County. This is 16.9 percent of all families, higher than either the Colorado statewide average of 8.3 percent or the U.S.



average of 10.2 percent. Figure 5.5 illustrates the density of low-income households in the study area. This data was extracted from the 2000 Census because income data for small geographic areas more current than 2000 were not available. For purposes of this study, “low income” is defined as those households whose annual income was less than \$25,000 as recorded by the 2000 Census, or approximately the poorest one-third of county households.

The Census also reports that 15.2 percent of Pueblo County’s population (21,456 individuals in 2000) is 65 years of age or older. An average of 9.7 percent of the Colorado population is aged 65 and above, and the U.S. has an average of 12.4 percent. The aging of the population is an important trend for the region, with a continuing aging of the population structure forecasted. Between 2005 and 2015, this population is projected to increase 20.4 percent; between 2015 and 2025 an increase of 30.8 percent is anticipated; and between 2025 and 2035, a gain of 17.0 percent is envisioned. The population of older adults will nearly double from 21,947 in 2005 to over 40,000 in 2035 as illustrated in Figure 5.6. The density of persons aged 65 and over, from the 2000 Census, is illustrated in Figure 5.7. Elderly population density in Pueblo is dispersed into areas throughout the community. The neighborhood of Belmont, located in the northeast portion of the City of Pueblo accounts for a heavy concentration. In the southwest portion of the City, the neighborhood of Sunset Park and several other areas account for significant concentrations. The demographic makeup of the elderly within these areas is diverse, and might typically include elderly, somewhat affluent homeowners, impoverished householders who either own or rent their homes, and residents of nursing homes or other institutional care facilities.

Figure 5.5: Percentage Of Low-Income Households by Census Tract



**Low & Moderate Income
By Census Tracts**

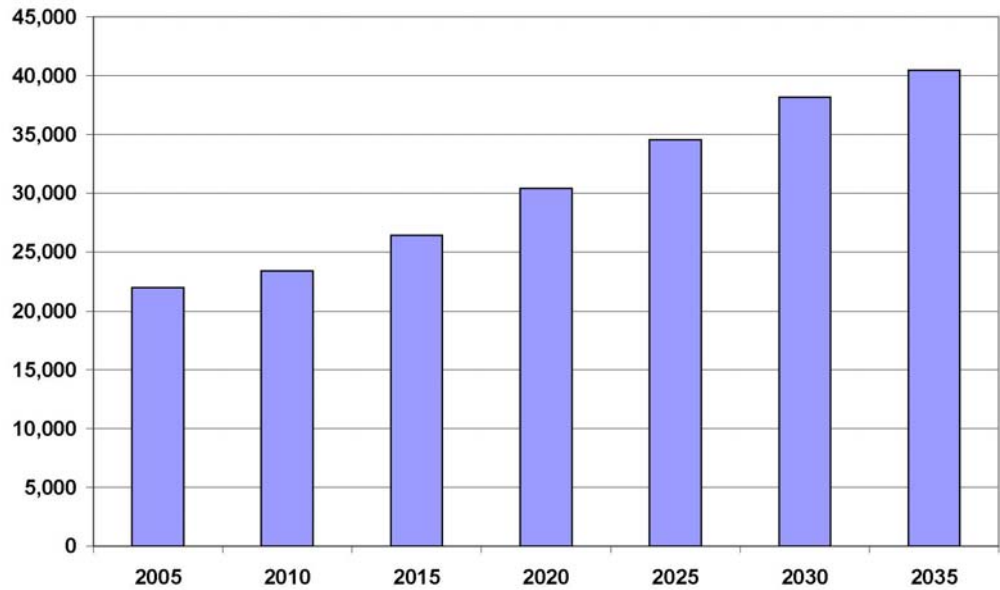
From 2000 Census Data

Legend	
	0.0 - 50.9
	51.0 - 75.0
	75.1 - 83.0

*Coordinated Public Transit-Human
Services Transportation Plan*

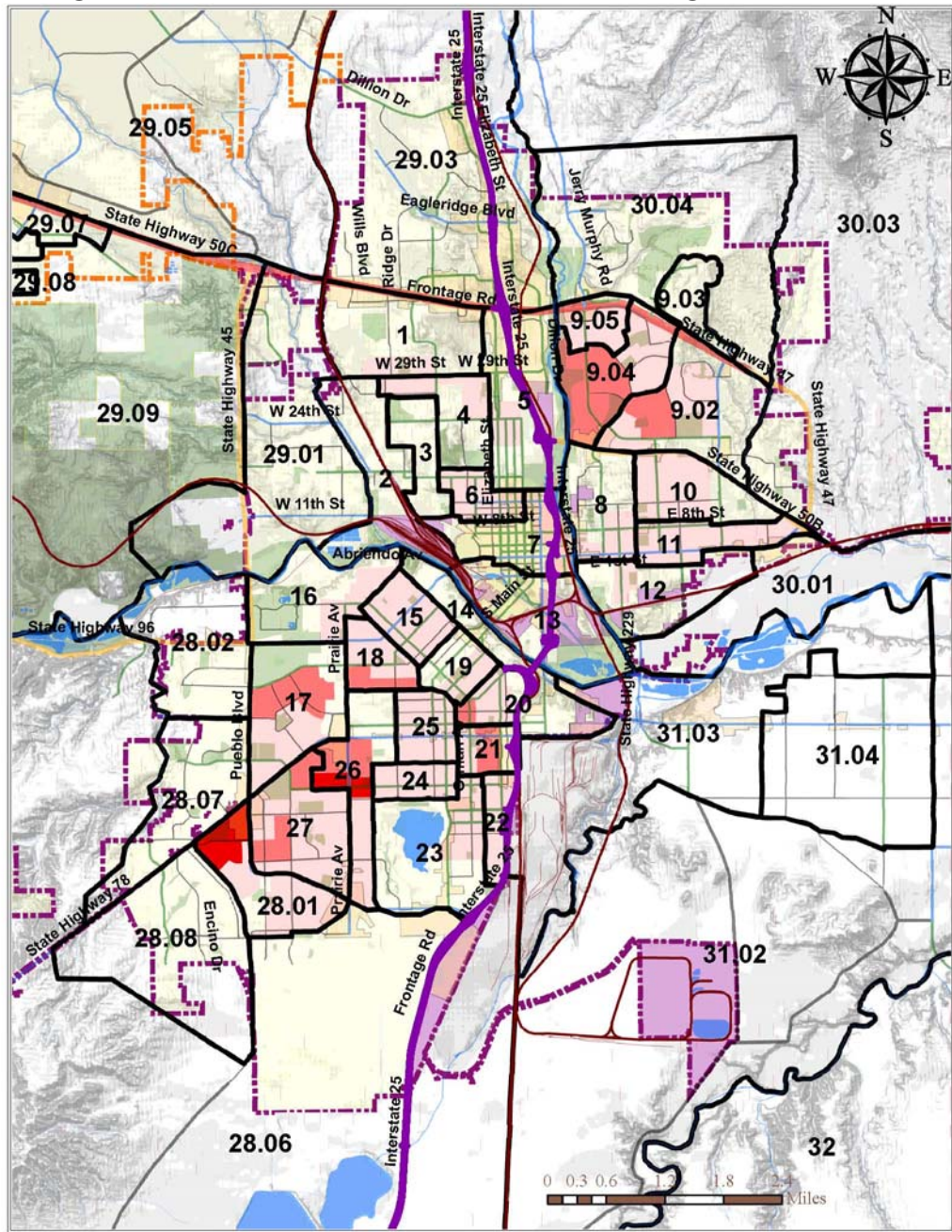
Figure 5.6: Growth in Population Aged 65 and Older, 2005-2035

Figure 2-6 Growth in Population Aged 65 and Older



Source: CO Demographer's Office, PACOG UTPD

Figure 5.7: Concentration Of Persons Aged 65 And Over



PUEBLO AREA COUNCIL OF GOVERNMENTS
 2035 LONG RANGE TRANSPORTATION PLAN

Pueblo Area Council
 of Governments
 Sept. 4, 2007

* This map is for planning purposes only and should not be used for managing real estate development.

**Density of Persons 65+
 Years Age (persons / acre)**

From 2000 Census Data

	Legend
	.5 - .99
	1.00 - 1.99
	2.00 - 2.99
	> 3.00

*Coordinated Public Transit-Human
 Services Transportation Plan*

The 2000 Census reported 30,269 individuals having a disability,

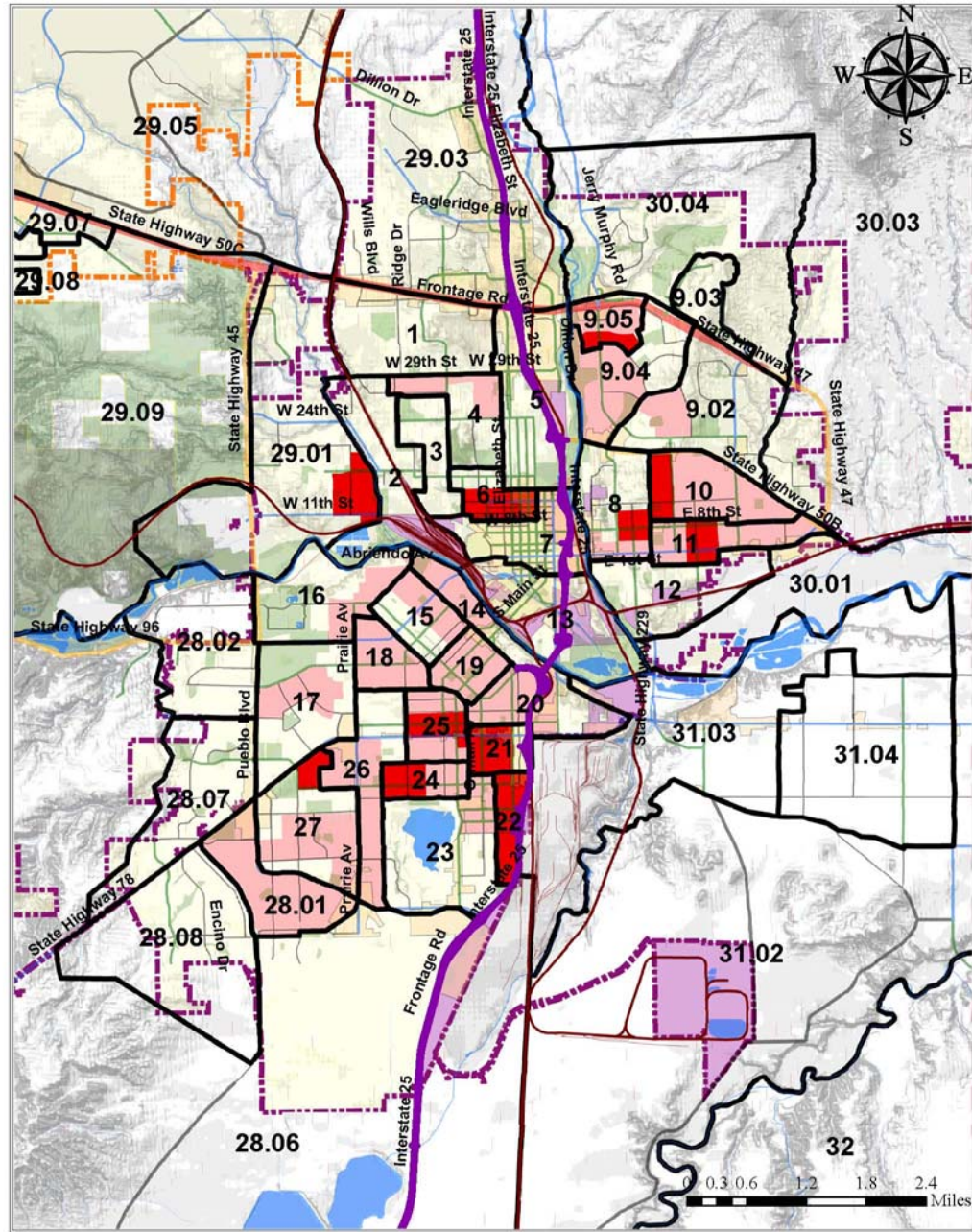


representing 23.5 percent of the population. It should also be noted that disabilities increase as one ages. The 2000 Census reported 38.0 percent of the population aged 65 to 74 as having a disability and 57.3% of the population aged 75 and over with a disability. Figure 5.8 illustrates the density of persons with mobility limitations, as identified in the 2000 Census.

As a corollary to this, a surprisingly large number of Pueblo County households did not have regular access to a motor vehicle. The 2000 Census enumerated 5,109 households, representing 9.4 percent of total households with no motor vehicle available. These are concentrated within the City of Pueblo, as shown in Figure 5.9. No clear pattern of distribution emerges other than the correlation with those areas having concentrations of low-income households.

Table 5.3 below summarizes the possible level of demand for potentially transit-dependent populations in the City. Because of the overlapping nature of these populations, a single summative estimate of demand is not possible, but easily 50,000 to 60,000 citizens of the City are implicated.

Figure 5.8: Concentration Of Persons With Mobility Limitations



Limited Mobility Density By Block Groups

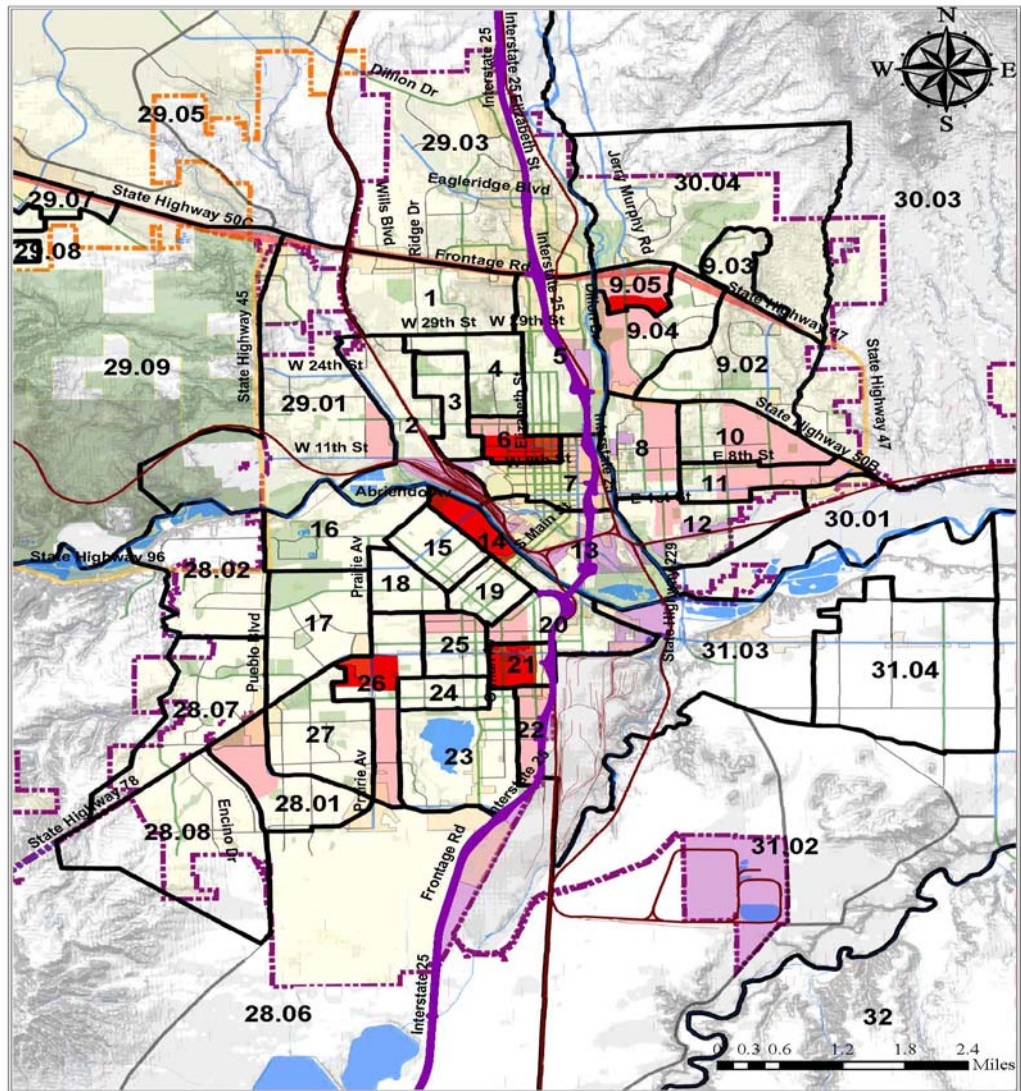
From 2000 Census Data

Legend

- 0 - 0.5
- 0.51 - 1.0
- 1.01 - 1.6

*Coordinated Public Transit-Human
Services Transportation Plan*

Figure 5.9: Concentration Of Households With No Motor Vehicle Available



**No Vehicle Available
Density by Block Groups**

From 2000 Census Data

Legend

- 0 - 0.50
- 0.51 - 1.0
- 1.01 - 1.6

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Services Transportation Plan*



**Table 5.3: Potentially Transit-Dependent Populations
 in Pueblo County**

	Quadrant				Total	%
	NW	NE	SE	SW		
Total Population	41,020	4,583	40,214	55,655	141,472	
Persons under 15	8,759	960	8,846	11,442	30,007	21%
Persons 60 and over	6,872	796	7,564	12,164	27,396	19%
Mobility Limited Population	2,822	291	3,145	4,429	10,687	8%
Below Poverty Population	4,840	497	6,636	8,476	20,449	14%
Number of Households	15,433	1,530	15,226	22,390	54,579	
Zero Vehicle Households	1,188	45	1,560	2,119	4,912	9%

Data Source: 2000 Census

Map of
 Activity
 Centers
 Needed

5.2.4 Activity Centers and Employment Centers

Throughout the UZA there are various government and non-profit center offices that provide public services and are frequented by transit-dependent populations. These are distributed across all quadrants of the City, with concentrations in the downtown, Highway 50 West corridor, Belmont and East Side. The Activity Centers include:

- Shopping Centers
- Pueblo Work Link
- Pueblo County Department of Social Services
- Social Security Office
- Veterans Administration Clinic



Special Housing and Homeless Services (*Baltimore Court, Bluesky properties, Rio Sacramento, La Posada Homeless Services, Wayside Cross Mission, Salvation Army Soup Kitchen, Cooperative Care Center*)

Senior Housing Facilities

Pueblo Diversified Industries, Goodwill, ARC

County/City Departments of Housing and Citizen Services

Colleges and Universities, Student Housing

Community Health Centers, Spanish Peaks Mental Health Center,

Crossroads Turning Points, Inc.

Parkview Hospital and Clinic, St. Mary Corwin Hospital

Centura Center for Occupational Medicine

Colorado Bluesky Enterprises

Senior Resources Development Agency

Pueblo Transit Center

Libraries

YMCA, YWCA

Pueblo Cooperative Care Center, Inc.

High Schools

Pueblo County Court House, County Judicial Center

Pueblo Police Department, Pueblo Municipal Court

Sangre de Cristo Independent Living Center

Colorado Mental Health Institute at Pueblo

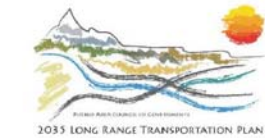
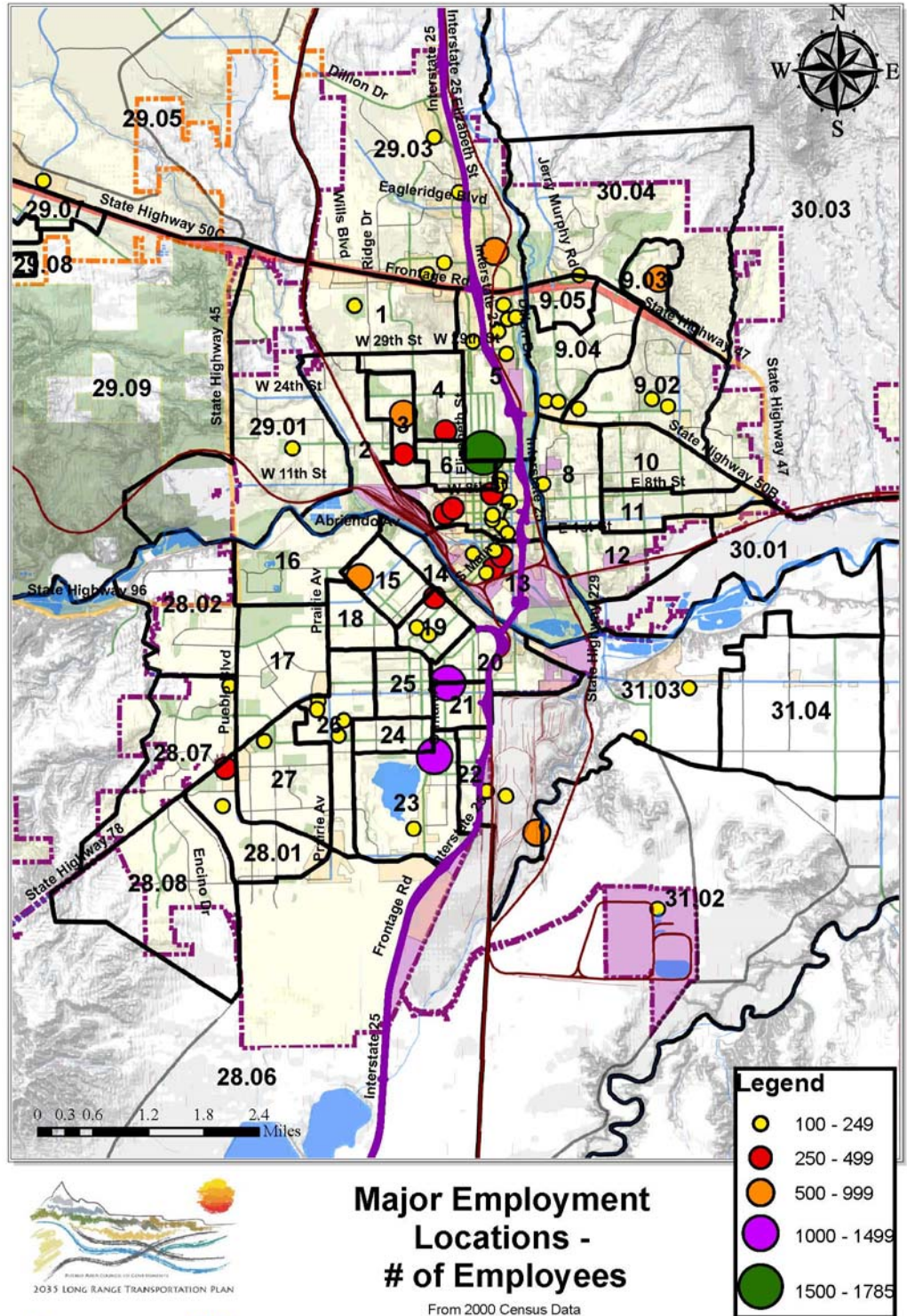
Community Correctional Facility

Hyde Park Community Center

Figures 5.10 illustrates major employment centers, including hospitals, colleges and other educational facilities, major retail centers, and other large manufacturing and services establishments. These are common locations to which low-income workers or people who use specialized transportation services may travel.

Downtown Pueblo and its surrounding vicinity remains the location for many large Pueblo employers. Retail activity tends to be concentrated on Pueblo's north side. The Pueblo Memorial Airport Industrial Park shows a concentration of large manufacturing, warehousing, and other employers, including Trane Co., the Target Distribution Warehouse, Innotrac Corp., Goodrich Corp., Atlas Pacific Engineering, and other public and private sector employers. As is illustrated in Figure 5-11, most major employers are within ¼ mile of existing fixed route transit except those in Pueblo West and the Airport Industrial Park. Employment continues to be concentrated in the downtown area, the northern portion of the City of Pueblo adjacent to the intersection of I-25 with Highway 50.

Figure 5.10: Major Employment Centers



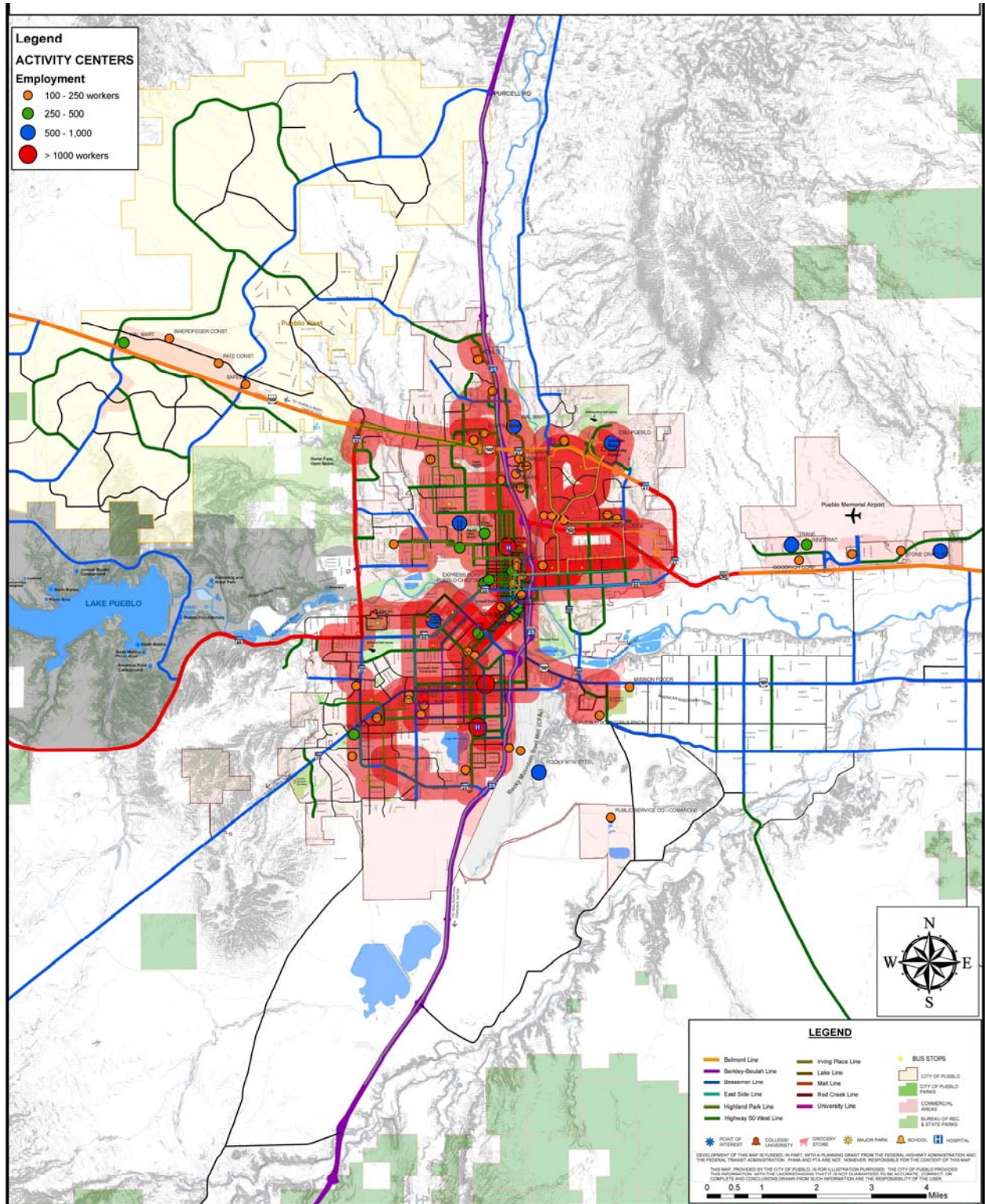
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DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
 THE UNIVERSITY OF COLORADO AT BOULDER
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Figure 5-11: Major Employment Centers and Areas Within ¼ Mile of Fixed Route Transit Service





5.2.5 Employment and Wages

As shown in Table 5-4, government, health care, retail trade, food and accommodation, and manufacturing comprise the five largest sectors of the Pueblo economy. Their impact is substantial, accounting for 69.8 percent of all jobs. The accommodation and food services sector accounts for the lowest average annual wages but represents 10.3 percent of the total employed workforce. At an average wage of \$10,235, the 5,600 workers employed in this category earn a little over one-third of the average Pueblo wage of \$29,667 (CO Department of Labor & Employment, 2007). Individuals working in this and other low wage sectors are often transit-dependent, as low paying jobs often make ownership of an automobile difficult. Table 5.4 and the accompanying graph illustrate the great diversity of wages by economic sector in Pueblo. Additionally, the overall low level of wages relative to other communities adversely impacts Puebloans. A low relative cost of living in Pueblo is of great benefit to its residents in making their dollars stretch. However, it does not entirely negate the problems of low-income residents in owning and maintaining a motor vehicle.



Table 5-4: Pueblo County Employment, 2005

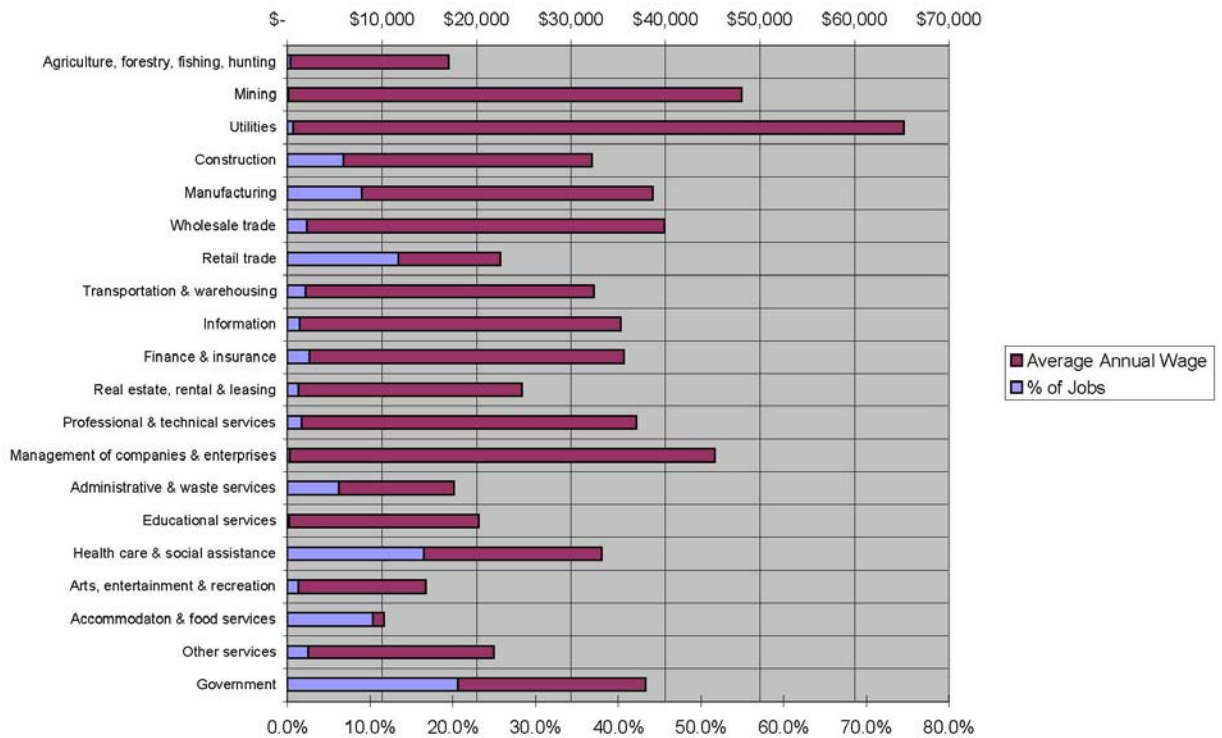
Industry Class	# of Jobs	% of Jobs	Wages	Average Annual Wage
Agriculture, forestry, fishing, hunting	194	0.4%	\$3,313,927	\$17,082
Mining	66	0.1%	\$3,172,980	\$48,075
Utilities	374	0.7%	\$24,392,225	\$65,220
Construction	3,700	6.8%	\$119,140,768	\$32,200
Manufacturing	4,915	9.0%	\$190,169,455	\$38,692
Wholesale trade	1,287	2.4%	\$51,332,686	\$39,886
Retail trade	7,324	13.4%	\$164,925,603	\$22,519
Transportation & warehousing	1,182	2.2%	\$38,335,044	\$32,432
Information	808	1.5%	\$28,516,733	\$35,293
Finance & insurance	1,471	2.7%	\$52,370,948	\$35,602
Real estate, rental & leasing	709	1.3%	\$17,580,975	\$24,797
Professional & technical services	929	1.7%	\$34,301,230	\$36,923
Management of companies & enterprises	147	0.3%	\$6,644,590	\$45,201
Administrative & waste services	3,417	6.3%	\$60,262,580	\$17,636
Educational services	127	0.2%	\$2,570,626	\$20,241
Health care & social assistance	8,997	16.5%	\$299,064,878	\$33,241
Arts, entertainment & recreation	719	1.3%	\$10,498,169	\$14,601
Accommodation & food services	5,638	10.3%	\$57,706,522	\$10,235
Other services	1,382	2.5%	\$30,183,655	\$21,841
Non-classifiable	D	D	D	D
Government	11,245	20.6%	\$426,268,164	\$37,907
TOTAL	54,631	100.0%	\$1,620,751,758	\$29,667

D - Non-disclosed

Source: Colorado Department of Labor and Employment, Labor Market Information

Figure 5-12: Employment/Wage Distribution by Industry

FIG. 2-10: EMPLOYMENT/WAGE DISTRIBUTION BY INDUSTRY, 2005



There were 67,239 persons reported employed in the region in 2006 with a labor force of 71,260 residents. The annual average 2006 unemployment rate stood at 5.6 percent, according to the Colorado Department of Labor and Employment.

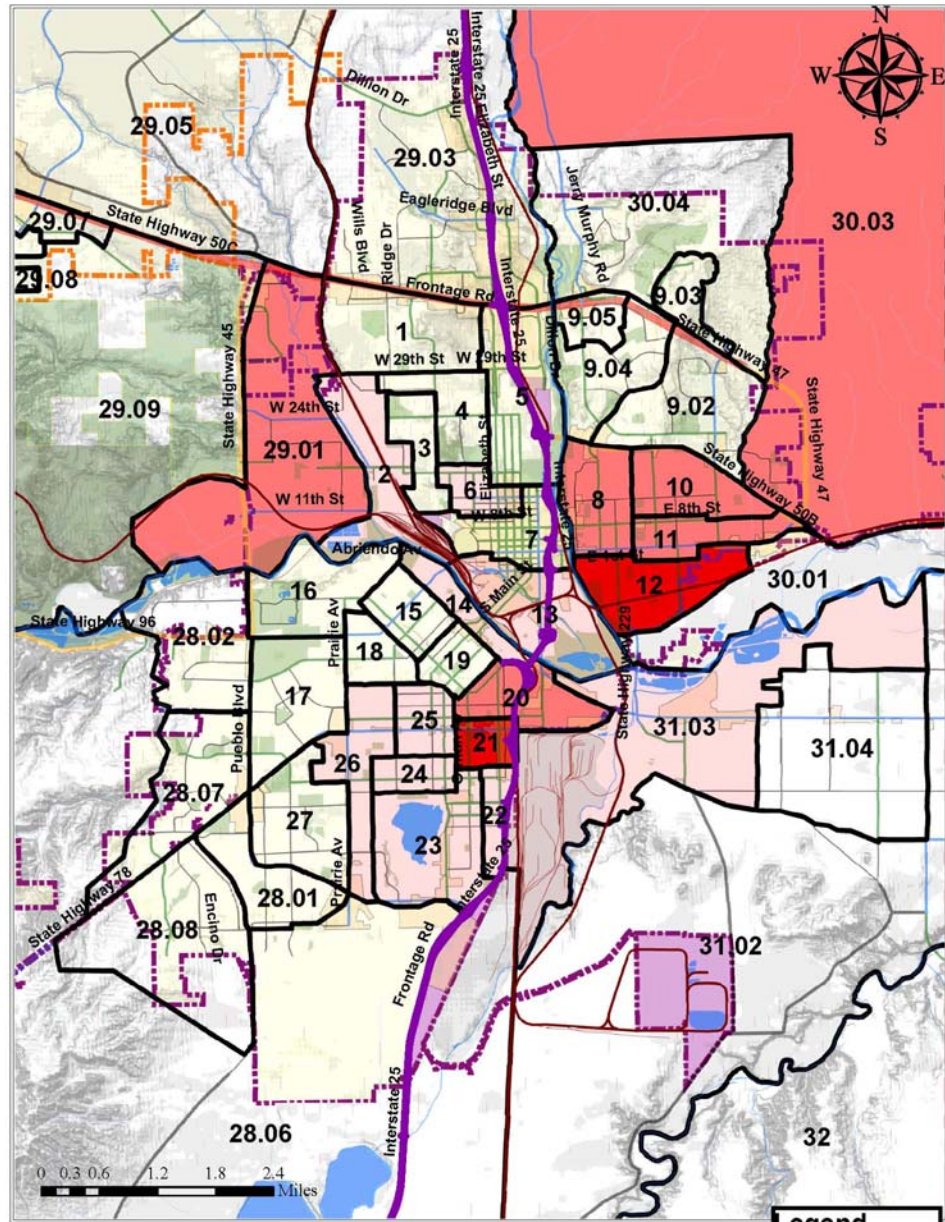
5.2.6 Minority Populations, Housing and Poverty

Pueblo’s minority populations continue to be somewhat concentrated in the City’s low/moderate-income inner city neighborhoods, commonly described as the “Y-Zone”, named after the physical shape of the geographical area included. The highest concentrations are in Bessemer (south of downtown), the East Side, and Hyde Park (west side). The trend across decennial censuses, however, is toward more equal of the distribution of minorities. In the 2000 census, the low/moderate income neighborhoods were 52% minority, while the remainder of the City outside the inner city neighborhoods was 30% minority. This distribution is summarized in Figure 5-13 below.

The density of renter-occupied housing can also be related to transit-dependency, as renters are more transient, sometimes with fewer financial resources to dedicate to transportation. The highest concentration of renters in Pueblo is in the City core, especially the Union Ave. district, the Grove and the Blocks. High concentrations of renters are also found in the Y-Zone neighborhoods as well, with new extensions of moderately high renter concentrations in the Minnequa Lake and Highland Park neighborhoods south of Bessemer.

Figure 5-14 summarizes the density of low/moderate income households by census block groups in the 2000 census. The highest concentrations were in the lower north side, Highland Park, and East Side, with moderately high concentrations in the remainder of the Y-Zone. Births to mothers with incomes below the poverty line (Figure 5-15) are an indicator of future transit needs. The highest concentrations of such births were in Bessemer and Highland Park, with moderate concentrations throughout the Y-Zone. Thus, all of the above demographic variables focus largely on enhanced public transportation needs in Pueblo’s low-moderate income neighborhoods, along with Highland Park and Minnequa Lake to the south.

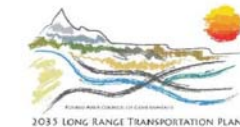
Figure 5.13: Concentration of Minority Population by Census Tract



Legend	
	11.9 - 50.0
	50.1 - 66.6
	66.7 - 75.0
	75.1 - 100.0

Minority Percentage By Census Tracts

From 2000 Census Data



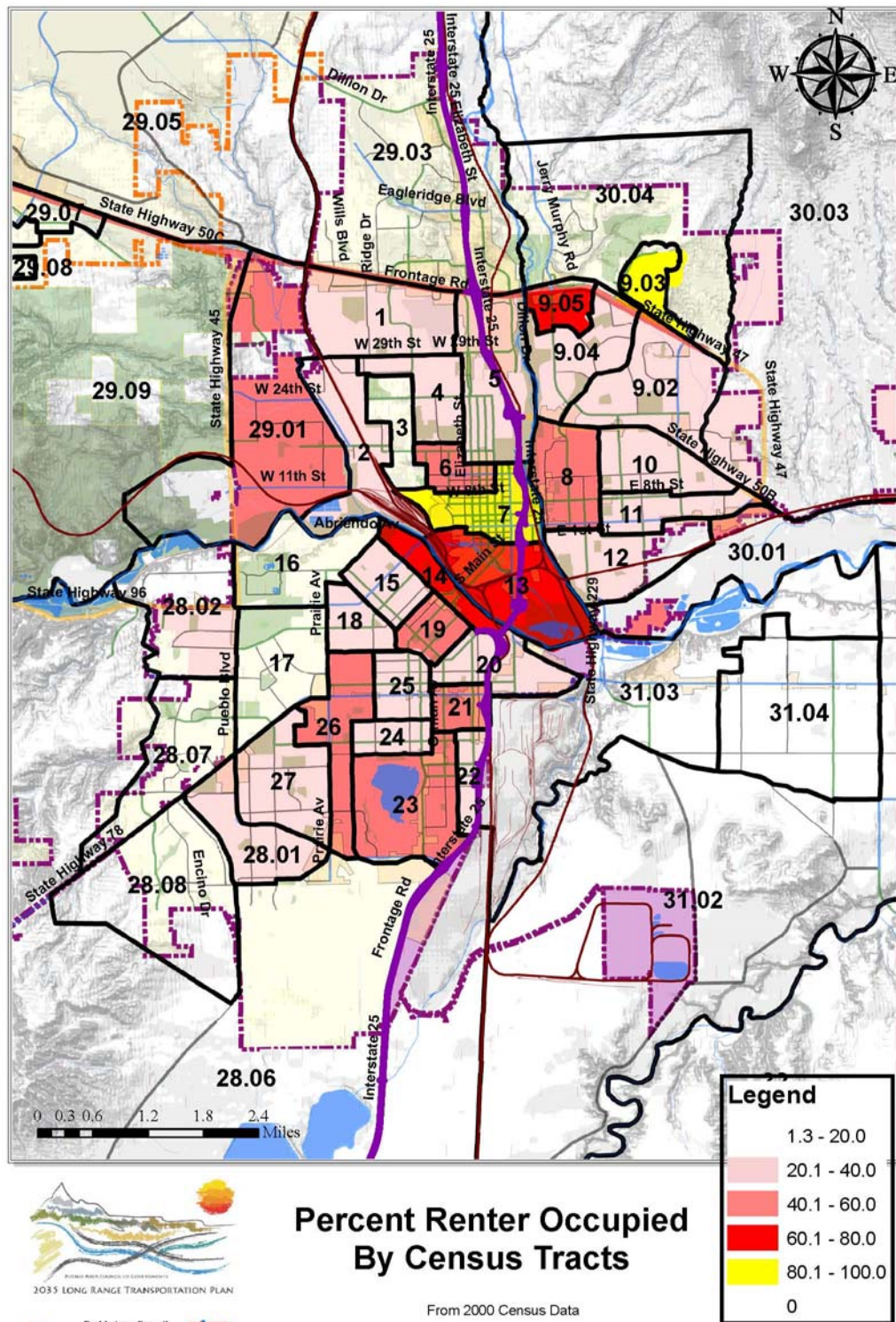
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Figure 5-14: Renter Occupancy Rate



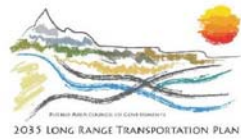
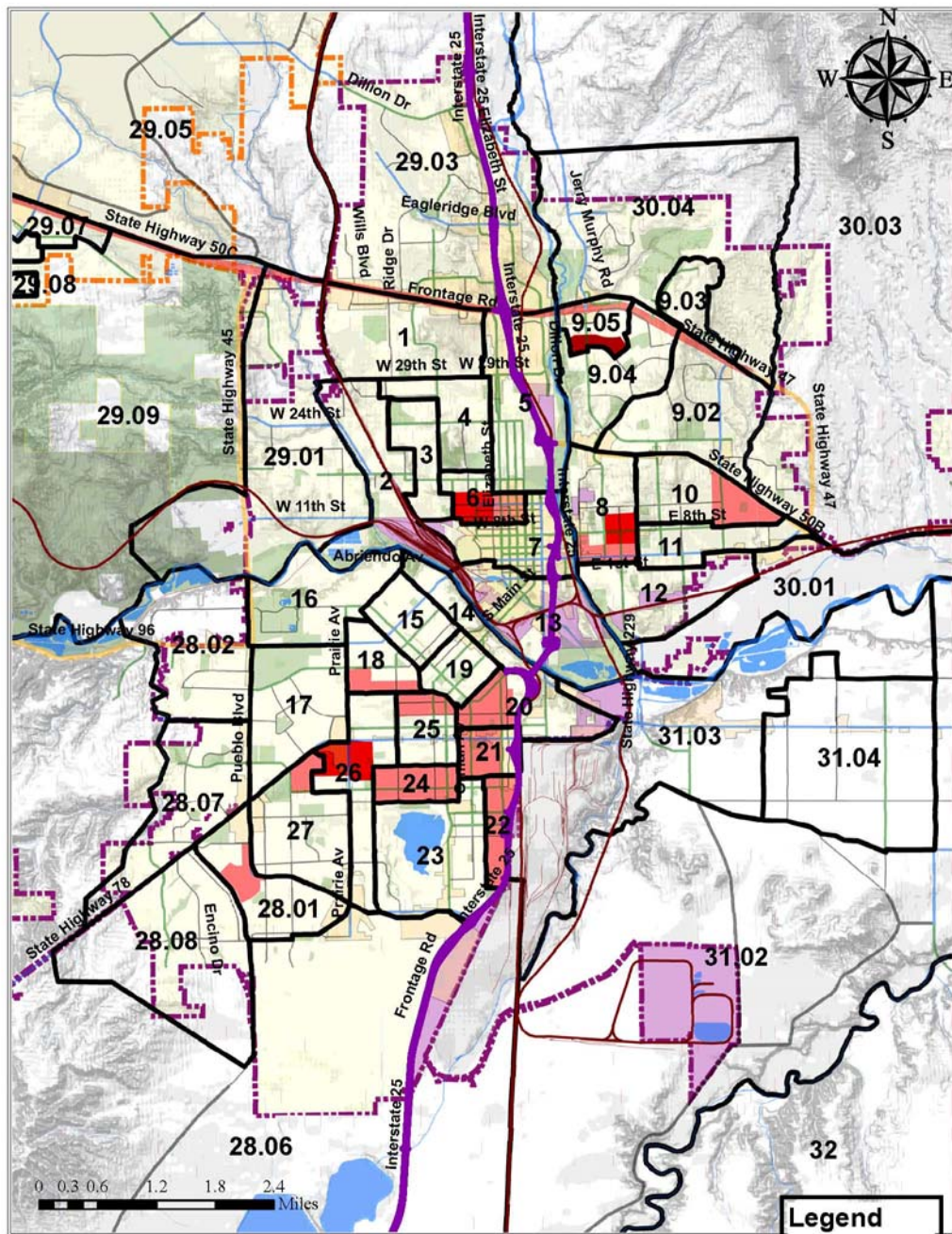
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Figure 5-15: Density of Low-Mod Income HH's



**Low & Moderate Income
Density By Block Groups**

From 2000 Census Data

Legend	
	0 - 2.0
	2.01 - 3.0
	3.01 - 4.0
	4.01 - 7.0



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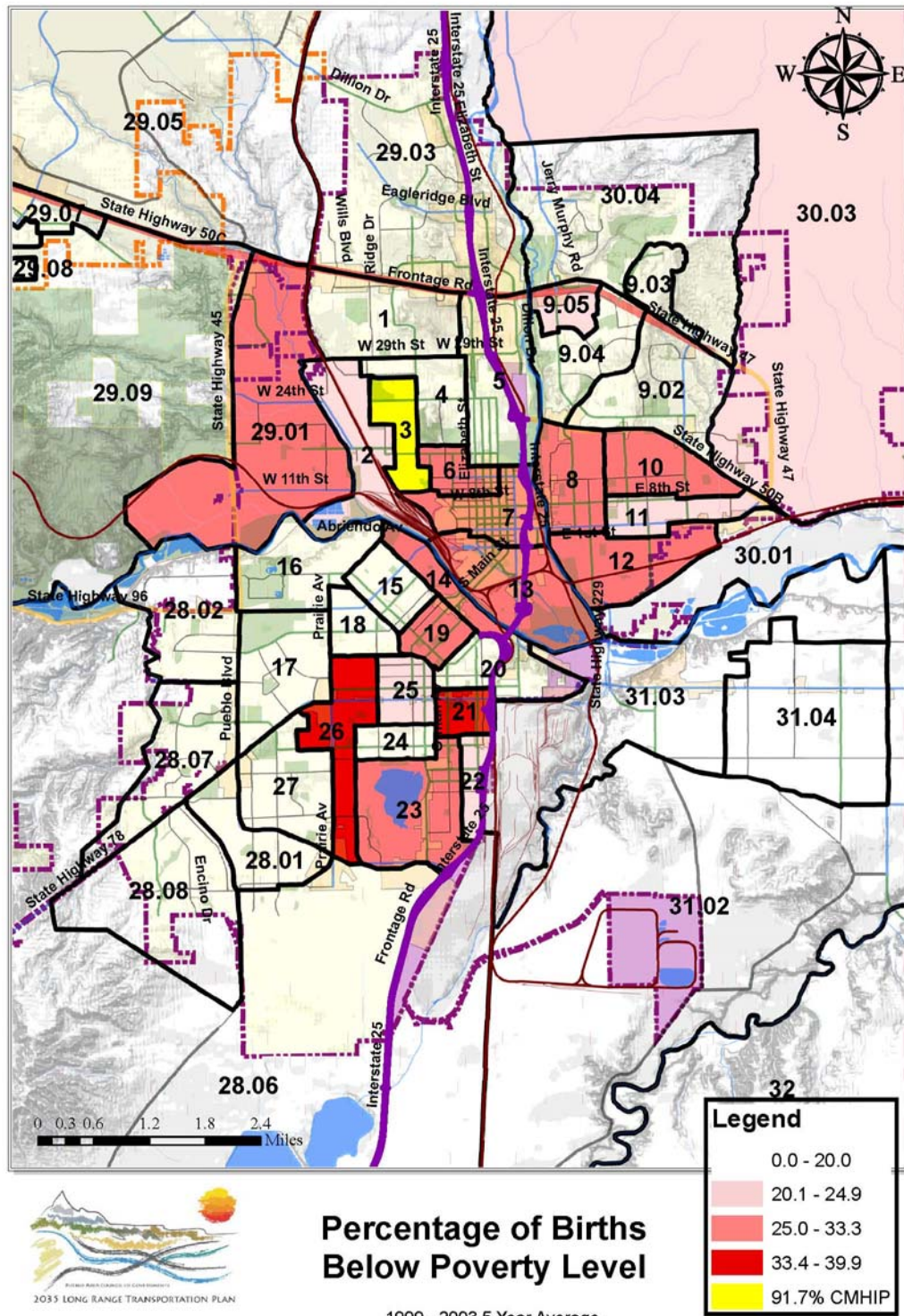
COORDINATED PUBLIC TRANSIT - HUMAN SERVICES TRANSPORTATION PLAN
 PREPARED BY THE PUEBLO AREA COUNCIL OF GOVERNMENTS (PACOG) IN PARTNERSHIP WITH THE METROPOLITAN PLANNING ORGANIZATION (MPO).
 THE MPO IS A PARTNERSHIP OF LOCAL GOVERNMENTS AND FEDERAL AGENCIES. THE MPO IS NOT A GOVERNMENT ENTITY.
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PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN –
Coordinated Public Transit – Human Services Transportation Plan

Figure 5-15: Percentage Of Births Below Poverty



Percentage of Births Below Poverty Level

1999 - 2003 5 Year Average

Coordinated Public Transit-Human Services Transportation Plan



5.3 Inventory of Transit Service Providers

Public transportation in the Pueblo Area is provided by a variety of public, non-profit, and private for-profit organizations. These services are examined below, along with a more detailed assessment of the publicly funded Pueblo Transit fixed-route system and the corresponding Citi-Lift demand-response service.

In late 2007, there will be a significant change in the operations of the Paratransit services. The City of Pueblo requested bids for the Citi-Lift Service in January 2007. The contract was awarded with the service provider changing from SRDA to MV Public Transportation.

Figure 21 lists these providers along with their owner, type of service provided and critical issues that were identified in the PACOG 2030 LRTP.



Table 5-5: Summary of Transit Service Providers

Service	Owner	Service Type	Critical Issues
Pueblo Transit	City of Pueblo	Fixed Route service to general public	- Age of bus fleet - Service Hours
Citi-Lift	City of Pueblo	On-Demand service to qualified users	- Changes to Medicaid benefits
SRDA	Non-Profit	Region-wide on-demand for seniors; meal delivery.	- Growth of elderly population - Vehicle replacement - Need dispatch services
MV Transportation Inc. Social Services	Pueblo County	Coordinates & subsidizes services	- Changes to Medicaid rules - Limited hours and service area for providers
City Cab	Private	Private Cab service Contract with Social Services	- Changes to Medicaid rules
Shuttle of Southern Colorado	Private	Airport Shuttle Service	- None identified
Ramblin' Express	Private	Charter bus	- None identified
YMCA Pueblo	Non-profit	Youth Activities Buses	- None identified
Boys and Girls Club of Lower Arkansas	Non-profit	Youth Activities Buses	- None identified



5.3.1 Pueblo Transit

As in many communities, with the growth of the City in the late 19th and early 20th century, a need for mass transportation was realized. A horse drawn streetcar system was in place as early as 1878¹. The early form of mass transportation was an electrically powered streetcar on a fixed rail system, developed by the Southern Colorado Power Company and in use from 1890 to 1947. It was replaced in 1947 and early 1948 with a fleet of diesel buses.

In 1949, a group of New York investors formed the Pueblo Transit Company and purchased the rolling stock from the Power Company. In 1956, local citizens acquired the assets of these New York investors and formed the Pueblo Transportation Company, a Colorado Corporation.

After several years of operation, the Pueblo Transportation Company made application to the Colorado State Public Utilities Commission and the City of Pueblo for the right to abandon and liquidate the corporation. This was necessary due to the declining patronage and increasing costs that prevailed during the late 50's.

The right was granted. However, the City of Pueblo, being unable to interest another company in operating the bus system in Pueblo, persuaded the Pueblo Transportation Company to continue its operations. A lease agreement between the City and Pueblo Transportation Company was entered into, whereby the Pueblo Transportation Company was exempted from several taxes, and paid a direct franchise payment to the City.

In December 1968, the Pueblo Transportation Company notified the City it would no longer continue under the present agreement. The City Council then authorized the acquisition of all assets of the Company and approved a management contract for the continual operation of the now publicly owned mass transportation system.

In January 1969, a Bus Study Committee, consisting of the City Manager, Traffic Engineer, Planning and Development Engineer, and the Finance Director, was appointed. This committee served as a continuing vehicle for the updating and improvement of the bus

¹ Thomas, A. (2007). *The Northside Intensive Historic Building Survey*. Estes Park, CO: Historitecture.



system.

In September 1971, all stock of the previous transportation company was put into a voting trust that could be administered by city officials. The City Council, by Resolution, appointed the City Manager, Director of Finance, and Director of Transportation as trustees of the Pueblo Transportation Company. On September 15, 1971, the Department of Transportation took over management of the publicly owned transit system.

5.3.1.1 Pueblo Transit Operations

The mission of Pueblo Transit is to provide safe, reliable and timely fixed route transit service in a courteous and professional manner to the citizens of Pueblo. It also provides Paratransit transportation to disabled riders who are unable to use the regular transit coaches. With a fleet of 24 vehicles, including 16 heavy-duty coaches and 8 Paratransit vans, Pueblo Transit transports over 1,000,000 passengers annually. This City department is responsible for providing service on 12 fixed routes and a mirrored Paratransit system, operating in a 38.6 square mile area of Pueblo City limits, plus one rural route that extends outside city limits into the Salt Creek area.

Pueblo Transit's Objectives include the following:

- Ensure accessibility to public transportation in the Pueblo community by carefully planning and executing transit services.
- Support the system's day-to-day clientele made up of 46% adults, 28% seniors, and persons with disabilities, and Medicare cardholders, 24% students and 2% children less than 6 years of age.
- Fully utilize resources afforded to provide quality transportation services.
- Strengthen safety awareness programs for employees and the public.
- Ensure credible programs to meet the growing demand for reliable, safe and convenient transit services.

Pueblo Transit provides fixed route service on twelve routes through the City of Pueblo. The system is sometimes referred to as a pulse system, with the majority of vehicles arriving at the Downtown Transit Center close to the same time to facilitate transfers. Service frequency varies from every thirty minutes to every hour.



Pueblo Transit services are provided Monday through Saturday from approximately 6:00 am to 6:30 pm. Peak period hours are 6:30 am to 8:30 am and 2:30 pm to 5:30 pm. Table 5.6 and Figure 5-16 summarize current route locations and frequencies, and timing based on the schedule Monday through Friday.

Table 5.6: Pueblo Transit Service Frequency

Route	Service Frequency	Initial Departure Time
Peak Half Hour Service:		
1 – Eastside	30 minutes	:30
2 – Bessemer	30 minutes	:30
3 – Irving Place	30 minutes	:30
4 – Berkeley – Beulah	30 minutes	:30
Hour Service:		
5 – Fairmount Park *	60 minutes	:30
6 – Pueblo Mall *	60 minutes	:30
7 – Highland Park	60 minutes	:30
8 – Centennial *	60 minutes	:00
9 – University	60 minutes	:30
10 – Belmont	60 minutes	:00
11 – Red Creek Drive	60 minutes	:00
12 – Lake Avenue	60 minutes	:30

* Routes Modified in April 2007



Figure 5-16: Pueblo Transit Existing Fixed Route System

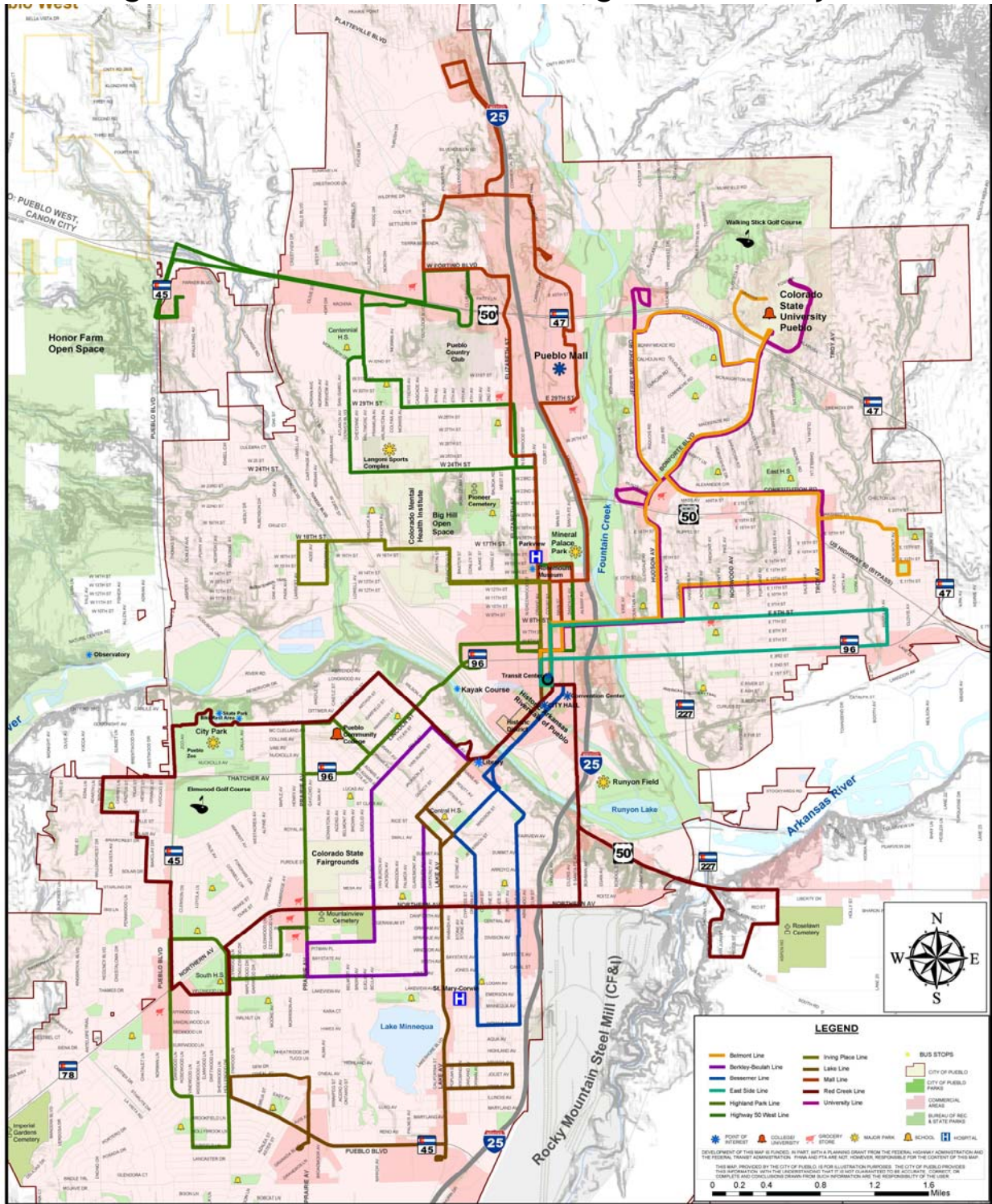
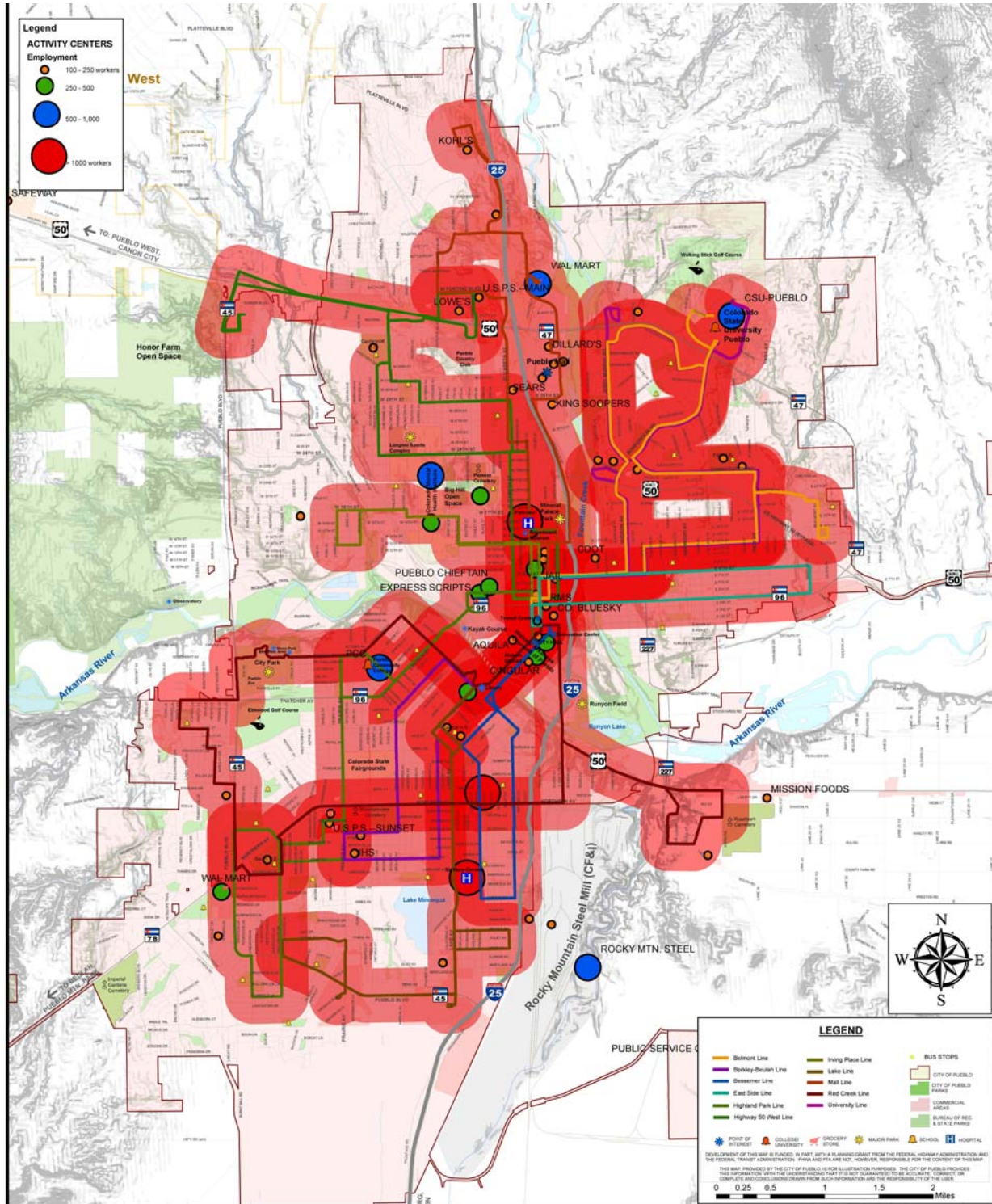


Figure 5-17: Areas Within ¼ Mile (Typical Walking Distance) of Fixed Route Locations





In 2006, Pueblo Transit provided over one million rides while traveling over 850,000 miles.

Figure 5-17: Pueblo Transit Service Type

Service Type	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Annual Unlinked Passenger Trips
Fixed Route	522,223	35,092	978,577
Citi-Lift	323,951	23,703	54,834
Total	846,174	58,795	1,033,411

Source: 2006 National Transit Database, retrieved 09/2007

Fares are collected for both fixed route and Citi-Lift services. Daily and monthly passes may be purchased at the Transit Center during operating hours or at the Administrative Office during weekday hours. Exact change is required if a rider does not have a pass. The last fare increase was in 1996. The current fare structure is shown in Figure 26.

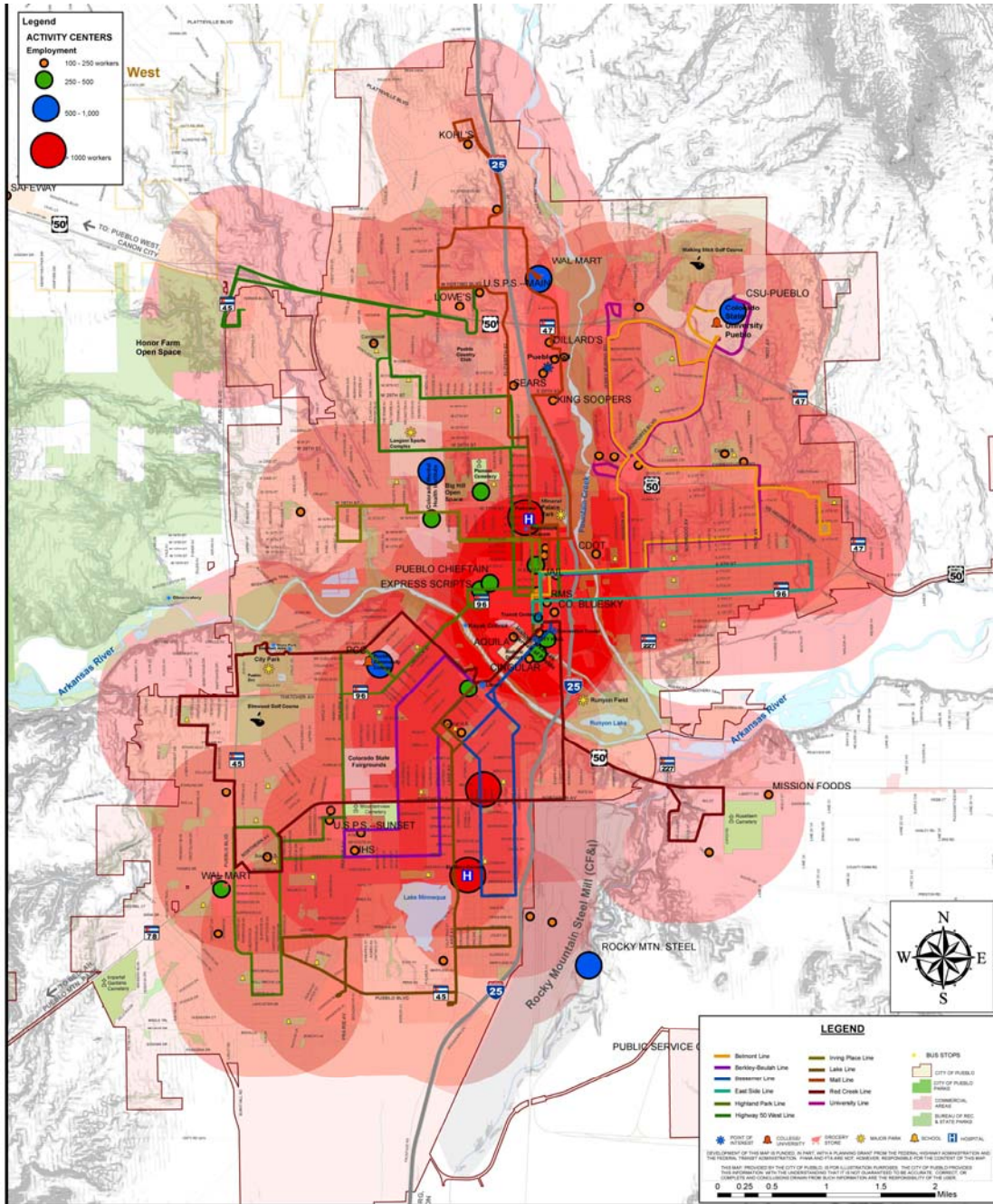
Figure 5-18: Pueblo Transit Fares

Type of Ride	Fare
Adult Fare	\$ 1.00
Student Fare: age 7 through 18	\$ 0.75
College Student with valid I.D.	
Child Fare - age 6 and under	Free
Senior Citizen, Disabled, Medicare Recipients - With valid I.D. for 60+, Medicare or Disabled Reduced Fare Card	\$ 0.50
Transfer	Free
Adult Monthly Pass: (unlimited one-way trips)	\$30.00
Student Monthly Pass	\$22.50
Senior Citizen, Disabled, Medicare Monthly Pass	\$15.00
Citi-Lift Monthly Pass (income based)	
Less than \$600.00 / month	\$ 20.00
Between \$601.00 – \$1,250.00 / month	\$ 30.00
Greater than \$1,251.00 / month	\$ 40.00
Daily Pass	\$3.00

Source: Pueblo Transit website, 08/2007

Narrative to describe figure 27 below, or pull it out.

Figure 5-19: Required ADA Service Area Within ¾ Mile Distance From Fixed Routes



While the fixed-route system provides an essential service to both disabled and elderly riders, the majority of riders on the Pueblo system may not fall into either category. Table 28 shows the ridership numbers for these groups based on on-board surveys



conducted throughout the year by Pueblo Transit staff.

Figure 5-20: Pueblo Transit Ridership Demographics

Category	% of All Trips
Adults	46%
Seniors	28%
Persons with Disabilities	24%
Students	2%
Total	100 %

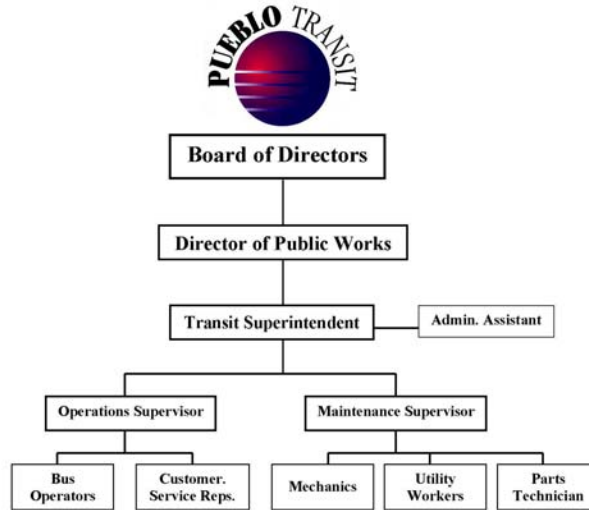
**Source: Pueblo
Transit, 2007**

5.3.1.2 Organization, Vehicles & Facilities

Pueblo Transit employs 34 full-time and 4 part-time personnel, including 20 full-time and 2 part-time drivers. All drivers are required to have a Commercial Driver’s License (CDL). Non-management employees are represented by the Amalgamated Transit Union - Local 662.

Figure 5-19 shows the organizational structure of the agency.

Figure 5-19: Pueblo Transit Organizational Structure



The vehicle fleet includes two sizes of vehicles, the larger vehicles seating 30 or more passengers used for the fixed route service and mid-size vehicles, often referred to as cutaways, used to provide the Citi-Lift demand responsive service. The Federal Transit Administration (FTA) has established service life vehicle classes (Table 5-6) to provide transit operators with a standard for comparing characteristics that impact expenditures in capital, operations and maintenance for differing vehicle sizes.



Table 5-6: FTA Recommended Service Life

Vehicle Class	Length	Service Years	Service Mileage
Large size, Heavy duty transit bus	34-40'	12 years	500,000
Medium size, Heavy duty transit bus	30'	10 years	350,000
Medium size, Heavy duty transit bus	30'	10 years	350,000
Medium size, Medium duty transit bus	30'	7 years	200,000
Medium size, Light duty transit bus	25-30'	5 years	150,000
Light duty, small buses and vans		4 years	100,000

Source: Federal Transit Administration



Figure 5-21: Pueblo Transit Vehicle Summary

Fixed Fleet	Route	Model Year	Age	Number	Avg. Mileage	Condition
Large Bus/Heavy Duty		1980	25	3	864,454	Poor
Large Bus/Heavy Duty		1992	13	4	645,530	Fair
Large Bus/Heavy Duty		1996	9	3	499,112	Fair
Large Bus/Heavy Duty		2001-06	6	6	123,291	Good

Source: Pueblo Transit, September 2007

Paratransit Fleet	Model Year	Age	Number	Avg. Mileage	Condition
Citi Lift Van – Ford Econoline 350	1995	12 years	3	281,000	Poor
Citi Lift Van – Ford Aerolite 350	2001	6 years	3	139,750	Good
Citi Lift Van – Ford Aerolite 350	2002	5 years	1	144,132	Good
Citi Lift Van – Ford E450	2003	4 years	1	83,169	Good
Citi Lift Van – Ford E450	2006	1 year	3	25,263	Excellent

Source: Pueblo Paratransit Services RFP, April 2007

Values in red represent vehicles past the Federal Transit Administration recommended service life for that type of vehicle.

5.3.1.3 Pueblo Transit Fleet Conditions

Based on the FTA recommended standards, Pueblo Transit’s fixed-route fleet is in very poor condition. Seven vehicles are beyond their recommended service life and three vehicles are within 50,000 miles of the retirement mileage.

Retiring these vehicles without replacements would leave the transit system with a shortage of operable vehicles. Industry standards



recommend that a transit agency the size of Pueblo Transit maintain a spare vehicle ratio of 20 percent - three spare vehicles for the 12 routes to use while other vehicles are scheduled for maintenance. This would require a fleet of 17 vehicles. Retiring the seven vehicles in poor condition would reduce the fleet to nine vehicles with six in fair condition.

The seven vehicles in Citi-Lift service are beyond their recommended service life. Replacement cost for these vehicles is approximately \$50,000. (The replacement cost for the larger vehicles is a\$285,000).

5.3.1.4 Pueblo Transit Facilities

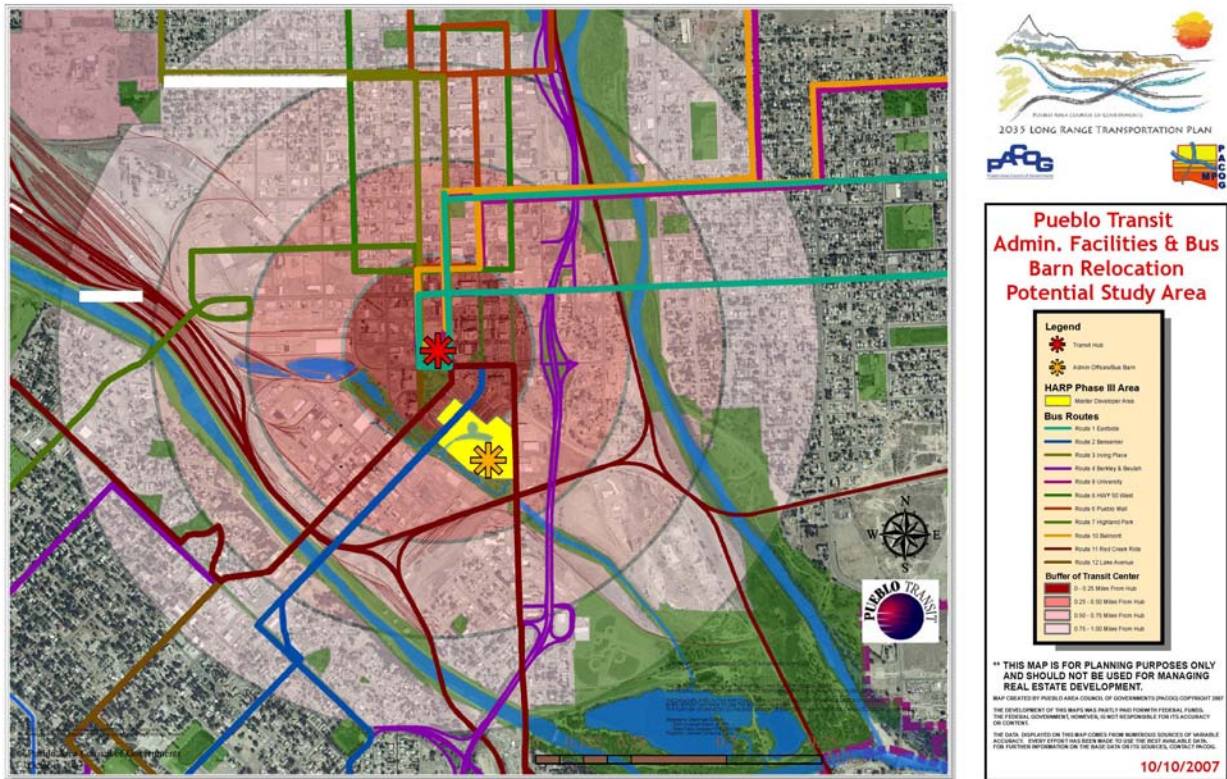
A 4,638 square foot Transit Center was built in 1996. In addition to providing a hub for bus transfers, this covered facility has a customer service counter to sell fare instruments and provide route information. Pullouts are provided for eleven buses. Restrooms are available for both employees and the public.

All transit operations are conducted from a building that includes administrative office, bus storage, and bus wash and vehicle and radio shop. This building, built in 1979, is 33,730 square feet and located at 350 S. Grand Avenue. The existing site is part of the Historic Arkansas Riverwalk Project (HARP) expansion. It is expected that all of the operations currently located at this site will need to be relocated as part of the HARP Project.

5.3.1.5 HARP Phase III Impacts to Pueblo Transit

The recommendation of Grand Gardens, LLC, as the preferred developer for HARP Phase III, will result in the needed relocation of the Pueblo Transit Operations and Administration building from the current location at 350 South Grand Ave. A site selection process will need to be undertaking as part of the analysis of possible new locations for the Pueblo Transit Operations and Administration building. This new development is described in more detail in Appendix B.

Figure 5-22: Transit Facilities, Bus Routes, and HARP Phase III



5.3.1.6 Pueblo Transit Finances

Total operating and capital costs for 2006 are shown in Tables 5.7 and 5.8. The total operating cost to provide all service is over \$4.02M. Fixed route service accounts for 84% of the total cost, or \$3,148,135 with Citi-Lift accounting for the remaining 16% or \$553,000. Capital costs for the year were \$285,000.

Grant funding, primarily from the FTA Section 5307 program provides 41% of the total revenue. City of Pueblo General Funds contribution is 41%, or \$1,461,225. Farebox collections provided \$535,942 or 15% of total revenues.



Table 5.7: Operating and Capital Costs, 2006

	Fixed Route		Demand Response		Total	
OPERATING COSTS						
Driver Salary	\$970,299	31%	\$161,465	35%	\$1,131,764	30%
Other Salaries	\$526,404	17%	\$72,133	16%	\$598,537	16%
Fringe Benefits	\$590,937	19%	\$36,634	8%	\$627,571	17%
Prof. Services	\$65,000	2%	\$67,518	15%	\$132,518	4%
Fuel	\$307,261	10%	\$80,408	18%	\$387,669	10%
Tire/Tubes/Supplies	\$35,000	1%	\$16,890	4%	\$51,890	1%
Utilities	\$73,853	2%	\$243	0%	\$74,096	2%
Insurance	\$42,500	1%	\$21,479	5%	\$63,979	2%
Misc. Expenses	\$536,881	17%		0%	\$536,881	14%
Other Pueblo Transit \$			\$126,895		\$126,895	3%
Total Operating	\$3,148,135	100%	\$583, 665	100%	\$3,731,800	100%
CAPITAL COSTS						
Vehicles	\$285,000		\$9,455		\$314,455	
TOTAL COSTS	\$3,433,135		\$643,120		\$ 4,046,255	

Source: Pueblo Transit, 08/2007 & SRDA 09/2007



Table 5.8: 2006 Operating Revenue

Source	Revenue	Total
Fares/Donation	- \$ 480,454	14 %
Local funds	- \$ 1,484,818	42 %
State funds	0	
Federal Assistance	\$ 1,484,818	42 %
Other Funds	64,232	2%
TOTAL REVENUE		\$ 3,548,289 100%

Source: 2005 National Transit Database, retrieved 08/2007

Table 5.9: 2006 Sources Of Capital Funds Expended

Source	Revenue	Total
Local funds	- \$ 55,750	20 %
State funds	0	
Federal Assistance	\$ 223,000	80%
TOTAL CAPITAL EXPENDED		\$ 278,750 100%

Source: 2006 National Transit Database, retrieved 09/2007

5.3.1.7 Transit System Performance

Several yardsticks used by transit agencies could be applied to measure the operating performance of Pueblo Transit. While these benchmarks are useful, it is misleading to compare one transit system or one type of transit service with another. However, these measurements provide a means of monitoring the on-going performance of the transit service and identify possible changes.

Table 5.10 provides a summary of operating performance. The average operating cost per vehicle hour is \$83.09 for fixed route service and \$23.68 for Citi-Lift. This is in a large part based on the difference in driver wages. Union starting wage is \$14.41 per hour with SRDA drivers starting at \$6.85 per hour. All SRDA are part-time, which reduces fringe benefits. Pueblo Transit fixed route operations absorb administrative costs associated with contract



administration and monitoring the eligibility process.

As would be expected, the productivity, expressed as passengers per hour, is much higher for the fixed route with 27.8 trips versus just over 2 for the door-to-door pick-up provided by Citi-Lift. Fixed route service cost per trip is \$3.07. Citi-Lift cost per trip is \$10.59.

Table 5.10: Pueblo Transit Performance Measures, 2005

Measure	Number			Percentage	
	Fixed-Route	Demand Response	Total	Fixed-Route	Citi-Lift
Vehicle Revenue Miles	522,223	323,951	846,174	62%	38%
Vehicle Revenue Hours	35,092	23,703	58,795	60%	40%
Annual Unlinked Trips	978,577	54,834	1,033,411	95%	5%
Operating Costs	\$2,930,657	\$583,665	3,548,289	83%	17%
Cost per Revenue Hour	\$83.51	\$24.62			
Cost per Trip	\$2.99	\$10.64			
Pass. per Hour	27.89	2.31			

Source: 2006 National Transit Database, retrieved 09/2007

5.3.1.8 Demand-Response Services

Citi-Lift is a complementary ADA paratransit transportation service *that supplements larger public transit systems by providing individualized rides without fixed routes or timetables.* Service is provided for individuals who, because of their disability, are unable to use the fixed route bus service. This does not include disabilities that only make the use of accessible transit service difficult or inconvenient.

Citi-Lift provides comparable service to the regular fixed route in terms of shared rides, door-to-door pickup, service area, and hours and days of service. All rides are \$2.00 per one-way trip. The cost of rides may be subject to changes. Rides must be scheduled at least one day in advance, up to 14 days in advance, The ADA allows Pueblo Transit to negotiate a revised pickup that may be up to one hour before or after the requested pickup time.

Demand for Citi-Lift Services



In the PACOG 2030 LRTP, the Transit Element anticipated a significant increase in the number of trips provided by the City-sponsored Citi-Lift program. Table 5.10 shows the history of the Demand Responsive Service since 2001. The number of trips was fairly constant through 2003, growing to over 52,000 unlinked trips in 2005, double the number in 2003.

Table 5.10: Demand Response Service Changes

Measure	2001	2002	2003	2004	2005	2006
Vehicle Revenue Miles	165,318	160,831	178,400	239,056	323,236	323,951
Vehicle Revenue Hours	12,577	13,155	13,800	18,612	23,604	23,703
Annual Unlinked Trips	26,659	24,189	26,500	38,388	52,789	54,834
Operating Costs	290,098	314,628	342,766	559,056	583,665	
Cost per Revenue Hour	23.07	23.92		18.42	23.68	24.62
Cost per Trip	10.88	13.01		8.93	10.59	10.64
Pass. per Vehicle Revenue Hour	2.12	1.84		2.06	2.24	2.31

Source: 2006 National Transit Database, retrieved 09/2007

5.3.1.9 Pueblo Transit Short-Term and Long-Term Needs

As part of the Transportation Provider Survey, Pueblo Transit staff was asked to provide information about current deficiencies, future needs and project costs for the short and long term.

Short-term needs (1 to 6 years)

- Replacement of 10 transit buses (35 foot) at a cost of \$325,000 each
- Replacement of 4 paratransit vans at a cost of \$60,000 each
- Additional 2 paratransit vans at a cost of \$60,000 each
- Purchase of security system for 12 buses



- Purchase of ASA voice enunciator for 16 buses at \$ 3,000 each
- Maintain current management staff levels
- Installation of Electronic fare boxes/smart cards at \$216,000
- Site Selection Study and Design of Administrative offices, maintenance shop and bus barn buildings as a result of the HARP Phase III Project.
- Construct and relocate administrative offices, maintenance shop and bus barn buildings.

Long-term needs (7 to 20 years)

- Expansion of service area and hours, and initiation of Sunday service
- Provide transit service to Pueblo West and the Airport Industrial Park
- Establish student rider program with Colorado State University Pueblo and Pueblo Community College
- Implementation of "Intelligent Technology Systems" (ITS) to assist with transit daily operations

5.3.1.10 Citi-Lift Paratransit Changes Dec. 2007

In January 2007, the City of Pueblo, on behalf of Pueblo Transit, requested proposals to provide demand responsive transportation services for a three-year contract with an option for two one-year extensions. Two vendors responded to the RFP, the existing service provider SRDA and MV Public Transportation Inc.

SRDA has had the contract for the past 16 years but did not win the contract for 2008. MV Transportation, a company that operates over 170 bus and Paratransit systems across the country was awarded the contract.

This service begins on December 1, 2007. There are no expected changes in service to the customers of the Paratransit transportation services.



5.3.2 Senior Resource Development Agency

The Senior Resource Development Agency (SRDA) transportation service promotes mobility and independence by providing quality transportation to individuals who cannot access or afford other transportation alternatives. These services are in addition to the contract operations provided to Pueblo Transit for Citi-Lift service. All Citi-Lift Paratransit operating statistics and financial information are reported by Pueblo Transit or retrieved from the National Transit Database.

The organization emphasizes safety responsiveness, efficiency and accountability. Some of the other programs that SRDA provides include nutrition support, information and referral, family caregiver support, home repair and maintenance, and recreation services. A volunteer driver program, RSVP, also assists seniors in getting to necessary appointments.

SRDA provides transportation services via several funding sources including: FTA Section 5310 (Elderly and Disabled) FTA Section 5311 (General Public Transportation: Non-urbanized), Pueblo County, and through the Pueblo Area Agency on Aging (Title III funds)

The SRDA provides transportation service within both the FHWA designated Urbanized Area (City of Pueblo, Pueblo West, Blende, and Salt Creek) and the balance of Pueblo County, which has the FHWA Rural Designation (rural Pueblo County including Avondale, Boone, Beulah, Rye, Colorado City. Service is provided Monday through Friday from 8:00 a.m. to 5:00 p.m.

The majority of trips provided are for medical appointments for senior citizens. SRDA ridership decreased over the past year based on reduction of funding from various state and federal sources (Table 5.11).

Table 5.11: 2006 SRDA Elderly Ridership

	2006
Clients Served (Non-Duplicated)	627



Trips Provided (Unlinked) 10,677

Daily Average 41

Source: SRDA 09/2007

Service is provided by nine part-time drivers operating from the SRDA offices on North Union Avenue in Pueblo. In addition to providing trips to medical appointments, meal sites and other daily activities, SRDA supports other activities with delivery of meals to various senior nutrition sites and back-up services to local senior centers. These centers may have a van for use locally but need the services of a driver temporarily. SRDA has a total of fifteen vehicles in the fleet. However, the vehicle profile is mixed.

SRDA's annual operations budget is \$277,000. Salaries and fringe benefits account for \$122,000 or 44% of this amount. Federal, state and county grants account for \$211,000 or 76% of the total revenue of \$277,000.

Table 5.12: SRDA Vehicles

Utility/Size	Number
Service Van	2
Compact Car	5
Passenger Van	2
Wheelchair Accessible	10

Source: SRDA 09/2007



5.3.2.1 Transportation Goals

The Senior Resource Development Agency (SRDA) Transportation Services promotes mobility and independence by providing quality transportation to individuals who cannot access or afford other transportation alternatives. Transportation services are provided to access regional medical facilities, employment centers, social activities, and other essential life services.

Transportation Service Delivery Goals

- Expanded service to the rural Pueblo County areas that include Avondale, Boone, Beulah, Rye, and Colorado City. The goal is to provide general public transportation Monday thru Friday, and later on as the program grows, on Saturdays.
- Expanded service in the Blende, Salt Creek and Pueblo West areas. The goal is to provide services with the 5317 New Freedom program to promote service outside the boundaries that the ADA Paratransit system provides now. This project would provide opportunities for people to get to medical appointments, shopping and general activities that are not available to them except through the taxicab system. These areas are in close proximity to the city of Pueblo and they have grown to the point where they are now considered urbanized. However these communities do not have access to public transportation.
- Expanded funding from the Small Urbanized Area funds for Pueblo West, Blende and Salt Creek, currently not utilized by Pueblo Transit.

5.3.2.2 Short Term and Long Term Transportation Needs

SRDA staff provided the following list of current deficiencies; future needs, and project costs.

Short-term needs (1 to 6 years)

- Expand Section 5310 service to the FHWA designated Urbanized Area outside the City of Pueblo – specifically Pueblo West and the St. Charles Mesa east to the St. Charles River.
- Replace 4 oldest vans with 12 passenger/ 2 W.C. accessible, wide bodied vans at a cost of \$60,000



each

- Expand fleet by 2 wide bodied vans at a cost of \$60,000 each to better serve the urbanized area outside the Pueblo Transit Service Area
- Replace the 4 existing compact vehicles with Hybrid, or alternative fuel vehicles to reduce the consumption of petroleum and to lower operating costs when serving distant areas in Pueblo County.
- Purchase 1 or 2 small wheelchair accessible vans to serve outlying urbanized and rural areas of Pueblo County.
- Hire one part-time dispatcher at \$6,300 annually
- Hire two additional part-time drivers at \$10,000 each

Long-term needs (7 to 20 years)

- Continue to apply for and obtain funding from FTA Section 5310/Elderly and Disabled Capital Program and FTA Section 5311/Rural General Public Operating/Administrative Program
- Funding to address future transportation needs within the community because the elderly population in Pueblo County is growing at a rate that exceeds current funding levels.



5.3.3 Pueblo County Department of Social Services

As part of the continuum of services provided for disadvantaged clients, Pueblo County Department of Social Services attempts to arrange transportation services to medical and other appointments. Social Services serves as a broker to arrange for transportation being provided by others and does not operate any vehicles directly.

Social Services uses Medicaid funds to provide bus passes for Pueblo Transit, arrange for rides with City Cab, and refer clients to the Senior Resource Development Agency (SRDA).

New Medicaid eligibility rules require passengers to obtain a Medical Certification from a physician that identifies a medical condition that prevents the client from using public or private transportation. These conditions are limited to the following:

- Ambulance service for non-emergency / bed-stretcher confined, only.
- Accessible Van service for clients unable to transfer from wheelchair to a passenger car

Funding cuts and changes in Medicaid certification requirements have reduced the number of trips scheduled by Social Services from 400-500 per week to approximately 25 per week.

Other challenges for providing transportation to Social Service clients include limited operating hours and service areas for transit services. City-Lift, the primary local provider of accessible transit, operates on limited days of the week and does not go outside the Pueblo City limits. Limited operating hours cannot meet the needs of dialysis patients, especially for the return trip following dialysis. Because of SRDA's limited capacity, the option to schedule a ride is a problem, with riders sometimes waiting up to two hours for a return trip.

5.3.4 City Cab Company

City Cab Company is authorized by the Colorado Public Utilities Commission and operates within a 16-mile radius of the City of Pueblo. Based on the Annual Report filed for 2006, City Cab owns and operates 12 cabs. 87,246 vehicle trips provided 109,075 passenger trips. This is down from the 143,337 passenger trips in



2002 and 159,694 passenger trips reported in 1998.

Total revenue was \$786,787. Operating costs were reported as \$809,729 producing a net loss of \$22,942. There is concern that the reduction in Medicaid payment available from the County Social Services discussed previously will erode the viability of this service.

5.3.5 Colorado Bluesky Enterprises, Inc.

When the 2030 LRTP was being prepared, Colorado Bluesky Enterprises, Inc. (CBE) provided transportation services to individuals with developmental disabilities within Pueblo County. Due to problems with funding, these services have been discontinued.

5.3.6 Shuttle Service Of Southern Colorado

Shuttle Service of Southern Colorado is authorized by the Colorado Public Utilities Commission to provide charter or other services in all southern Colorado from Colorado Springs to the state line east and south. A major service is daily scheduled runs from Pueblo to the Colorado Springs Airport.

Based on the 2006 Annual Report filed with the Public Utilities Commission, the Shuttle Service operates four vehicles including one passenger car and three vans. A total of 6,821 passengers were transported. A total of 3093 round trips were provided. Total revenue was \$169,121 with carrier operating expenses of \$172,157, a loss of \$3,035.

5.3.7 Ramblin' Express, Inc

Ramblin' Express primary service is to the gaming area in Cripple Creek from Colorado Springs and Pueblo. Operating Authority issued by the Colorado Public Utilities Commission also allows them to provide a wide range of charter service in the Pueblo area. Most recent information available indicates the fleet includes 64 vehicles, including 32 large buses, 12 small busses, 6 large vans and 14 passenger automobiles. 336,742 one-way trips were provided under the scheduled service to Cripple Creek. 9,363 charter and limousine trips were reported.



5.4 Assessment Of Existing Fixed Route Transit Service

Pueblo Transit fixed-route and demand-response system provides just fewer than one million one-way passenger trips per year. With estimates of transit demand ranging from 5.4 million in the CDOT TNBS² study to approximately 1.3 million trips in the Ostrander Transit Demand Study³ completed for the 2030 LRTP. The first value represents a perfect transit world situation, whereas the second represents a more real world estimate of the transit demand based on the service area and operating hours currently provided.

There appear to be several opportunities to expand ridership to the general population. **For example, connecting the CSU-Pueblo campus with the shopping/activity centers near the Pueblo Mall could attract additional riders to the system by providing an east-west connection that does not currently exist.**

A realistic strategy for improving transit services without additional funding is to increase the efficiency of the existing route structure. A preliminary framework that adds half hour arterial service between the Pueblo Mall and the Downtown Transit Center connection to a North Circulator has been developed. This would be supported by a consolidation of several routes in all quadrants.

The potential to expand service to new areas such as the Airport Industrial Park, or Pueblo West or extend service hours is restricted in the short-range by limited funding and the lack of concentrated areas for transit service. An alternative would be to introduce a variety of Transportation Demand Management strategies.

Based on input from the Transit Advisory Committee, the alternative to improve fixed route service efficiency by developing an arterial route from the Pueblo Mall to the Downtown Transit Center, a North Circulator, and consolidation of other quadrant routes will be refined with support from Pueblo Transit staff. Transportation Demand Management strategies could be reviewed as an alternative for expanding service to new areas.

² Colorado Department of Transportation. 1999. Transit Needs and Benefits Study

³ REFERENCE



Route Productivity

Productivity for fixed route transit service is measured by the number of riders-per-hour-of-revenue-service. The number of revenue hours of service drives the cost of transit service while ridership indicates the results of this service. High productivity usually indicates routes with a low cost per passenger. Conversely, low productivity routes are expensive on a per passenger basis. Typical productivity for a fixed route in a small urban area has been estimated to be between 15 and 20 riders per hour of operation⁴.

Table 5.13 shows these productivity measures for the twelve Pueblo Transit Routes that existed in 2006, based on riders per revenue hour. Overall, Pueblo Transit carried 2,597 riders a day with 154 Revenue hours of service daily. Route productivity is relatively consistent across the system with the Eastside, Bessemer, Irving Place, Berkley / Beulah, Pueblo Mall, Centennial, and Red Creek Drive Ride routes performing below the system-wide average of nearly 17 riders-per-revenue-hour. With the changes to the system in 2007, it is expected that the new Highway 50 West Route will have a substantial increase in riders per revenue hours. The extension of the Pueblo Mall route should also increase the use of this route due to new service to the Pueblo Crossing Shopping Center.

**Table 5.13: Pueblo Transit
2006 Service Productivity**

Route	Weekday Revenue Hours	Ave. Daily Ridership (2006)¹	Ave. Riders / Revenue Hour
1 – Eastside ²	14	189	13.50
2 – Bessemer ²	14.5	191	13.95
3 – Irving Place ²	14	200	14.30
4 – Berkley / Beulah ²	15	202	12.76
5 – Fairmount Park	12	263	21.90
6 – Pueblo Mall	12	149	12.38
7 – Highland Park	12	323	26.94
8 – Centennial	12	149	12.45
9 – University	12	264	21.97

⁴ REFERENCE



10 – Belmont	12	205	17.06
11 – Red Creek Drive Ride	12	193	16.11
12 – Lake Avenue	12	268	22.33
Total	154	2,597	16.94

Data Source: Pueblo Transit, 8/2007

¹ Calculated Average Utilizing 2006 Quarterly Weekday Ridership Counts

² Includes Revenue Hours for Peak Half-Hour Service

5.4.1 Transit Demand

In addition to an assessment of route productivity, the ability of a transit system to meet transit demand is an indicator of overall system effectiveness. Estimates of transit demand can vary widely depending on the methodology used. Therefore, several demand calculations need to be examined.

Demographic information relative to groups that rely on transit can be used to develop information about potential ridership. Demand for transit is based on demographic information relative to “transit dependent” populations. The most useful demographic characteristics for demand models are:

- total population
- elderly population
- low-income population
- zero-vehicle families
- and persons with mobility limitation.

Transit Needs and Benefits Study (TNBS)

In 1999 the Colorado Department of Transportation conducted a statewide Transit Needs and Benefits Study (TNBS), which is based on 1996 data. The study estimated transit needs for each planning region and on a county-by-county basis. An update to the study was completed in 2000, based on 1999 data.

The TNBS estimated a total transit demand of 5,404,000 trips for Pueblo County. With current ridership in Pueblo County of just over one-million, the TNBS report suggests that current transit systems capture less than 20 percent of total demand. The TNBS approach should be viewed as the “perfect” world scenario – a measurement of ridership if unlimited funds were available to develop a full-service



transit system. The transit demand estimate summary based on transit dependent demographic characteristics could be considered a more realistic approach.

Table 5.14: TNBS Estimate For Pueblo County

Year	Disabled	Program Trips	Urban Area	Total
1996	13,950	1,472,958	3,916,973	5,404,000
1999	15,700	1,472,958	4,309,344	5,798,000

Source: Colorado Department of Transportation, 2000

5.4.1.1 Amy Ostrander’s 2004 Demand Estimates

As part of the 2030 LRTP, consultant Amy Ostrander developed independent estimates of demand for Pueblo’s transit system. Table 5.15 lists the models she used to estimate demand for transit service. All these models require valid data on population to produce consistent results. They rely on certain assumptions to calculate demand and require assumptions that are valid for the local circumstances.

Table 5.15: Transit Ridership Models

	Populations Used			
	Elderly	Low Income	Mobility Limited	General Population
USDOT Regression Model for Zonal Demand	YES	YES	NO	YES
Survey Research Method (Mesa County, Colorado)	YES	NO	YES	YES
Peat Marwick Elderly and Disabled Trip Factor Model	YES	NO	YES	NO
Peterson and Smith Regression Model	NO	NO	NO	YES

Source: Ostrander Consulting, Inc (1/04)

The results of the various transit demand estimation techniques used



to estimate overall transit need for the study area are summarized in Table 5.16. These various techniques provide a snapshot of the various transit rider groups and estimates of need by quadrant. The models make use of the demographic data and trends discussed in the Pueblo Regional Socioeconomic Profile provided in Chapter 4 of this plan and above in Section 5.2.

As could be anticipated, major transit needs are identified for the elderly and mobility limited. These two groups account for over 60 percent of the potential ridership. Need for service is most prevalent in the southwest quadrant, with the lowest potential ridership in the northeast quadrant. The student population of CSU-Pueblo is not represented in northeast census data. College age students are often without immediate access to a car and have consistently proven to be supportive of transit alternatives. Therefore, the potential for ridership from the Northeast Quadrant may be underestimated.

Table 5.16: Estimates of Transit Demand Based on Average Values from Varying Methodologies*

	USDOT	Peat Marwick	Mesa County	Peterson & Smith	Value s	Average of Models
Elderly	823,420	213,689	159,993	-	3	399,034
Low Income	207,896	-	-	-	1	207,896
Mobility Limited	-	722,441	187,235	-	2	454,838
General Population	362,700	-	108,260	267,188	3	246,049
Total Est. Demand	1,394,016	936,130	455,488	267,188		1,307,817

*Number of one-way transit trips per year
 Source: Ostrander Consulting, Inc. 1/04

There is a significant difference between the TNBS study results and the average results estimated by the four different models shown above. In the TNBS study, only 20 percent of a theoretical ridership is utilizing the system. In the results shown in figure 42, the estimated ridership would be 1,307,818. Current ridership in 2006 was 1,033,411, therefore the current ridership is 79% of the estimated transit demand.

The opportunity to extend transit service to the additional 300,000



potential riders without increasing overall costs is the focus of the Short Range Coordinated Public Transit - Human Services Transportation Plan. Here, in the Long Range Coordinated Public Transit - Human Services Transportation Plan, alternatives to expand services to the level projected by the TNBS will be reviewed.

5.4.1.2 Transit Demand by Quadrant

Efforts to estimate ridership for the Pueblo area are enhanced by access to Census 2000 data that has been aggregated in a consistent manner for the four quadrants. Many of the commonly used models are designed for rural areas. The more complex modeling used in large urban areas are beyond the scope of this study. As an option, several modeling techniques have been pooled to provide an insight to potential ridership.

**Table 5-17: Estimates Of Transit Demand*
By Planning Quadrant**

	Southwest	Southeast	Northwest	Northeast	Total
Elderly	177,176	110,172	100,093	11,593	399,034
Low Income	89,648	66,040	48,204	4,004	207,896
Mobility Limited	188,498	133,851	120,104	12,385	454,838
General Population	100,949	71,046	66,903	7,152	246,050
Total Est. Demand	556,271	381,109	335,304	35,134	1,307,818

*Number of one-way transit trips per year
 Source: Ostrander Consulting, Inc. 1/04

5.5 Key Findings from the Literature Review and Public Input Process: Service Gaps and Unmet Transportation Needs

Appendix A summarizes the public input from current Transit users, along with relevant findings from previous plans and studies that

have examined needs for public transportation. It is important in the assessment of need to consider both the “Who” and the “Why” people use Public Transit. Several conclusions from previous work and current users are clear and robust. They include the following:

Service Frequency

The Analysis Of Impediments To Fair Housing Choice In Pueblo (May, 2001) report found that the current frequencies on half hour or full hour intervals between buses is a barrier to the usefulness of the system for many users. For example, taking into account the current transfer between routes, single working mothers do not have the time it takes for them to transport their children to day care, go to work and to respond to an emergency with the way the current public transportation system is set up.

Hours of Service

The Mobility Needs Of Low Income And Minority Households Research Study (2001) found that the public transportation system’s hours of availability are not as flexible as the working hours of major employment sectors such as service and retail. Sunday and night service were also the mostly highly demanded service expansion priorities among the participants in four public input meetings held in 2007 for the present Coordinated Public Transit—Human Services Transportation Plan. Seventeen percent and 14% of the total number of comments, respectively, requested night and Sunday service.

Service Area

The Analysis Of Impediments To Fair Housing Choice In Pueblo report also concluded that there are no planned low-moderate housing units available for migrant farm workers in the county where they work in the farm fields. The few housing units available to migrant workers are located within the east end of the city perimeters, with no public transportation to jobs in the County.

Lack of Circulators

Based on input from the Transit Advisory Committee, the alternative to improve fixed route service efficiency by developing an arterial route from the Pueblo Mall to the Downtown Transit Center, a North Circulator, and consolidation of other quadrant routes will be refined with support from Pueblo Transit staff. Transportation Demand Management strategies could be reviewed as an alternative for expanding service to new areas.



Job Creation / Transit Disconnect

Public transportation in Pueblo is an impediment to low-moderate income families as it is primarily available only within the city limits. Primary jobs at the airport industrial park, the Transportation Test Center, in Pueblo West, and on the St Charles Mesa are not accessible by public transportation. Many of these jobs would be in demand by low/moderate income residents, and lack of public transportation is a barrier to their interest. For example, while there is technically migrant worker housing available within the city of Pueblo, the workers do not have reasonable access to their place of employment by means of public transportation.

Accessible Route Barriers to Bus Stops

Several safety issues were highlight at the public input meetings. There are safety issues at the Tinseltown/Walmart shopping area where the bus stops now. It would be safer to stop/pickup (specifically the handicap passengers) in the shopping center due to the traffic on Dillon. An additional issue is cars driving in the bus lanes in front of the Transit Center. It is perceived as unsafe for passengers to cross the street when they leave the bus or catch the bus in and around the Transit Center Area.

Service to Educational Facilities

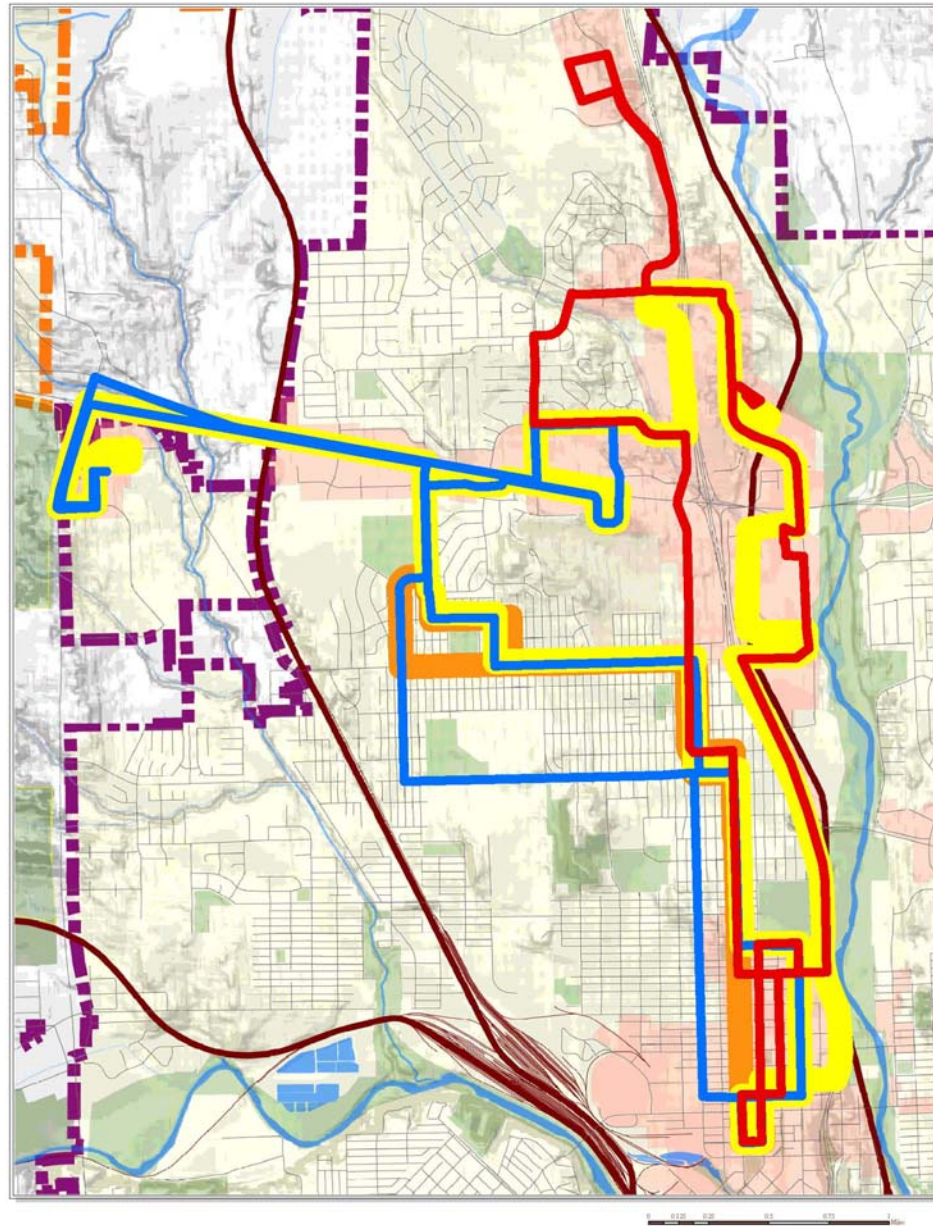
Service to the new Delores Huerta Charter High School on the West Side is now a need.

5.5.1 Alternatives For Service Improvement

The challenge to improving the fixed-route transit system is to improve productivity while serving as much of the transit demand as possible. This section of the Coordinated Public Transit - Human Services Transportation Plan lays out several recently implemented and several proposed changes in service that do this while maintaining the existing service hours offered by Pueblo Transit.

In 2007, Pueblo Transit implemented a number of systems changes. The goal was to improve service without increasing costs. Primarily the changes were the combination of the Fairmount Park and Centennial routes into a new Highway 50 West Route, and by extending the Pueblo Mall Route to the Pueblo Crossings Shopping Center.

Figure 5.23: 2007 Changes to Fixed Route Transit Service



Route Symbols Key:
Yellow – Old Fairmount Park
Orange – Old Centennial
Red – Updated Pueblo Mall
Blue – New Highway 50 West



5.5.2 Additional Proposed System Improvements

The 2030 LRTP recommended that the Transit Advisory Committee (TAC) examine a new alternative system of transit routes. This new alternative increases the efficiency of the system by establishing a series of **Neighborhood and Commercial Circulators**, connected to the downtown transit station via simultaneous transfers (where two routes arrive at the transfer point at the same time). The alternative relies on a combination of **service improvements** and **efficiency improvements** to provide better service without increasing the total revenue hours of service.

Service Improvements

- Establish a **Northside Circulator** to connect CSU-Pueblo with the commercial centers west of Fountain Creek.

5.5.2.1 Efficiency Improvements

- Combine Route 9 and Route 10 to establish a “**Belmont Circulator**” that would serve the Eastside and Belmont neighborhoods and would offer “simultaneous transfers” to the Downtown Transit Center via Route 1 and the Pueblo Mall via the Northside Circulator. Express transfer locations would need to be established along Hudson (at 8th or 4th) and at CSU-Pueblo.

Combine Route 2 and Route 4 to establish a “Bessemer Circulator” that would better serve riders in the Bessemer and Abriendo neighborhoods and provide direct transfers to the Downtown Transit Mall via Route 12 and to the commercial centers on Northern Avenue via Route 7. Express transfer locations would need to be established at the Pueblo Library and at the corner of Prairie Avenue and Wedgwood Lane.

5.5.2.2 Potential Alternatives For Expanded Service

In addition to the modifications to transit service within the existing areas, both the 2030 LRTP and the present analyses have identified three areas for possible expansion of service.

- University / Pueblo Mall connector



- Airport Industrial Park
- Pueblo West

The opportunities for expanding into these markets are currently limited by funding restrictions. However, it is important to develop information about these areas and establish a prioritized list for consideration during the development of long-range plans.

University Pueblo Mall Connector

The CSU-Pueblo Campus covers more than 275 acres on the north side of Pueblo. Enrollment is more than 4,100 students in 2007. This is a slight gain compared with the previous year and reversed a slow but steady enrollment slide that dates back to the mid-1980's. The general demand for public transit would be for students to access the Pueblo Mall, Tinseltown Movie Theater, Wal-Mart, and restaurants/bars. Current service connects to these locations. However, all routes currently go to the Downtown Transit Center, requiring a lengthy ride and transfer. A ten-minute auto trip becomes a 45-minute transit trip, making it an unattractive alternative.

The strategy to improve service efficiency by quadrant includes improved service to the CSU-Pueblo campus. In addition to connecting directly with shopping and restaurant/ entertainment centers on the North Circulator, half hour service would be available to downtown on the Pueblo Mall Arterial?.

Airport Industrial Park

The Airport Industrial Park (AIP) is located five miles east of downtown Pueblo at the city-operated Pueblo Memorial Airport. The Airport is located along US50, approximately 7 miles east of the I-25/SH50/SH47 interchange. Access to the airport has been limited to the Paul Harvey Boulevard Interchange with US50, located between mile makers 321 and 322. Paul Harvey Blvd. also provides access to the USDOT Road that leads to the U.S. Army Pueblo Chemical Depot and the Association of American Railroads' Transportation Test Center, Inc.. The AIP consists of 1,476 acres, divided into approximately 75 parcels. Utilities include City of Pueblo water and sewer, electricity (Aquila, Inc.), natural gas (uninterruptible service, Xcel Energy) and telephone (Qwest Communications).

As part of the planning for the AIP, the decision was made to construct a single main internal roadway as a fixed spine off of which access to utility services would be provided. Initially, only a single access point to the AIP was provided. A second route was planned into the AIP from the mid 1980's. At the time of the development of the 2035 LRTP, construction of the second access to the AIP from State Hwy 47 is underway.

The most realistic option to introduce transit alternatives to this location would be to implement transportation demand management strategies such as



carpool and vanpool. The distance of buildings from the main roadway and the fact that many of the businesses run multiple shifts suggest that the use of Transit will not likely be cost-effective until a much higher concentration of ridership is present.

Pueblo West

Pueblo West Metropolitan District was formed in 1969. It is a planned community with covenants and is governed by a Board of Directors. The area of the District, with inclusions, is about 26,830 acres or 49.10 square miles of contiguous lands extending west by northwest from points approximately 1.5 miles west of the limits of the City of Pueblo. The District is located immediately north of the Pueblo Dam and Reservoir. Pueblo West is bisected by east-west US Highway 50 and its northeastern border is Interstate Highway 25. Recent 2005 population estimates for Pueblo West indicate that there are about 25,000 residents. In addition to the availability of recreation land and facilities around the Pueblo Dam and Reservoir, there are multiple recreation opportunities for the area.

Developed for single family living, the road configuration does not encourage transit alternatives. Additionally, a density of less than 1 D.U. / Acres suggests that transportation demand management alternatives such as vanpool and carpool with convenient park and ride locations may be more feasible than mass transit.

5.6 Potential Sources Of Transit Funding

The following summary includes descriptions of federal and local funding sources for transit systems and identifies the relevance of each to the Pueblo Region. It does not include any recommendations for funding at this time.

5.6.1 Federal Funding Sources

Transit systems in Colorado are eligible for federal assistance under several programs. These include four Federal Transit Administration (FTA) grant programs; newer federal initiatives, local funding sources and user fees.

- **Section 5303 Large Urban Area Formula Fund**– Funding for transit operations for Urban Areas with populations greater than 200,000.
- **Section 5307 Small Urban Area Formula Fund** – Funding for transit operations for Urban Areas with populations between 50,000 and 200,000. Allocation based on formula of population and population density. Pueblo Transit received close to \$1.2 million in 2002.



- **Section 5309 Capital Fund** – Discretionary Grants administered by the Colorado Association of Transit Agencies (CASTA) to fund capital projects such as transit facilities and equipment. Pueblo Transit received \$205,651 for equipment purchases in 2002.
- **Section 5310 Elderly and Disabled Capital Fund** – Grant program administered by CDOT Transit Unit to improve mobility for the elderly and persons with disabilities. Must go towards capital needs. Requires a 20 percent local cash match.
- **Section 5311 Capital and Operating Assistance for Non-Urban Areas** – Grant program administered by CDOT Transit Unit for non-urbanized areas (population less than 50,000). Required local match: 30 percent for administrative expenses; 20 percent for capital expenses; 50 percent for operating expenses.
- **Section 5313(b) Planning and Research Programs** – Grant program administered by CDOT for planning and research programs. In Colorado, this fund program is usually reserved for rural areas and has been used for funding the Coordinated Public Transit - Human Services Transportation Plan Updates for rural TPRs. Urban planning funds are included in the Section 5307 program.
- **Welfare-to-Work Program Grants** – Possible FTA grants over the next few years that focus on getting disadvantaged labor forces to job locations. These include the *Joblink Demonstration Program* to test transportation strategies for linking unemployed persons with job sites. *Livable Communities Program* focused on linking land use issues to transit; the *Bridges to Work Program* that links inner-city residents with other job opportunities; and the *Access to Jobs Program* (JARC) to link job training centers or Private Industry Council efforts with transit programs.
- **Section 5319 Bikes to Bus Program** – FTA grants to link bicycle facilities to buses.
- **Title III Older Americans Program** - It is common to include senior services in the same budget as general public transit services. Particularly in the case where the local governments fund both programs, taking an



integrated approach can allow an area to use the Title III funds and senior program matching dollars to leverage additional Federal Section 5311 dollars.

5.6.2 State Funding

The State of Colorado does not currently fund transit services. However, recent legislation may make limited funds available.

- **SB1 Funds** – State Senate passed legislation in 2002 to dedicate a portion of SB1 funds to transit. Estimated to be approximately \$675 million statewide from 2006–2020.

5.6.3 Local Funding

Local funding is the most critical source of funding for transit systems since many other funding sources require a commitment of funds from local sources.

- **City and County General Funds** – Pueblo Transit receives approximately \$1.4 million a year in funding from the City of Pueblo General Fund and \$22,000 a year from Pueblo County to support transit operations, maintenance, and transit capital needs.
- **Dedicated Sales Tax** - CRS Sec. 29-2-103 allows counties to levy a sales tax, use tax, or both to fund transit operations, maintenance and capital needs. Sales tax is limited to 1 percent, but is exempt from the 7 percent ceiling. Some mountain resort communities, specifically Summit and Eagle counties, have used this funding source successfully. Voter approval is required.
- **Regional Transportation Authorities (RTA)** - RTAs allow for a wider range of funding sources than the dedicated sales tax. RTAs are able to impose up to a \$10 annual vehicle registration fee and may levy a sales tax of up to one percent and/or a visitor benefit fee of up to two percent on overnight lodging. Voter approval is required.
- **Ad Valorem Property Tax** - Counties are authorized by CRS Sec. 30-25-202 to impose property taxes for specific capital projects. Such special property taxes are exempt from the 5.5 percent property tax limit. Requires voter approval.

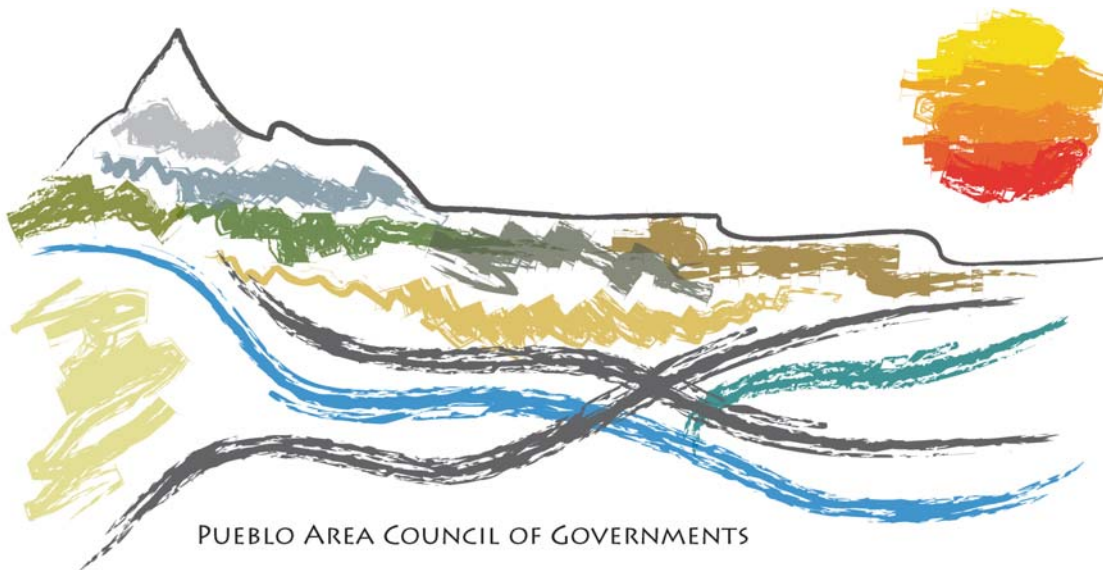


- **Special Districts** – Local districts funded from fees or property taxes to fund specific improvements. In general, these districts are limited in their usefulness as mechanisms for funding transit systems, particularly in a multi-jurisdictional setting.

5.6.4 User Fees

As with local funding sources, user fees demonstrate a commitment by those who use the service.

- **Fare Revenues** - Reporting of the farebox recovery ratio is required by CDOT for Federal Section 5311 funds. Nationwide, a farebox recovery of 20% of the cost of operations is considered standard. Farebox revenue for Pueblo Transit was \$535,942 in 2005.
- **Advertising** – Revenue from advertising on vehicles, bus stops, and promotional material. Provides revenue and a connection with the business community.
- **Client Service Revenue** – Cost sharing agreements with local businesses or government agencies to provide transit service. Employers get employees that arrive rested and on time and the transit agency receives a stable source of funding and additional ridership.



2035 LONG RANGE TRANSPORTATION PLAN

Chapter 4

Socio-Economic Profile and Trends

DRAFT PLAN

	<p><i>Sections with yellow highlighting are incomplete waiting for additional information or for clarification</i></p> <p><i>Text in Red represents information to verify.</i></p>
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December 2007

NOTE: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.

Table of Contents

4.1	Introduction	4
4.2	Regional Profile	5
4.2.1	Population	5
4.2.2	Housing	6
4.2.3	Income	7
4.2.4	Ethnicity	9
4.2.5	Employment	9
4.1.6	Density of Population and Employment	12
4.3	Major Regional Developments	17
4.3.1	City of Pueblo Growth	17
4.3.2	Pueblo Chemical Depot	18
4.3.3	Industrial Development in Pueblo County	18
4.3.4	Ft. Carson Army Base	19
4.3.5	Ft. Carson Buffer	19
4.3.6	U.S. Army's Pinon Canyon Maneuver Site	20
4.3.7	Fountain Creek Watershed Growth	21
4.3.8	Water Issues	21
4.3.9	Industrial Development	23
4.4	Development of Population, Household and Employment and Income Forecasts: 2005-2035	25
4.4.1	Introduction and Methodology	25
4.4.2	Use of the TELUM Model to Develop Small-Area Demographic and Economic Forecasts	26
4.4.3	Spatial Representation of Demographic Variables	34
4.4.3	Allocation of Socioeconomic Forecasts to TAZ's	45

List of Tables

TABLE 4.1:	REGIONAL POPULATION	6
TABLE 4.2	PLACE OF WORK FOR PUEBLO RESIDENTS 1990 AND 2000	12
TABLE 4-3	COMPARATIVE POPULATION FORECASTS BY CENSUS ZONE (TRACT): 2005 - 2035	31
TABLE 4-4:	COMPARATIVE EMPLOYMENT FORECASTS BY CENSUS ZONE (TRACT): 2005 - 2035	32
TABLE 4.5:	MEDIAN HOUSEHOLD INCOME BY CENSUS ZONE	33

List of Figures

FIGURE 4.1: PUEBLO / EL PASO AND SURROUNDING COUNTIES	4
FIGURE 4.2: CONCENTRATIONS OF POVERTY BY CENSUS TRACTS	8
FIGURE 4.3: PERCENTAGES OF MINORITY POPULATION BY CENSUS TRACT, CITY OF PUEBLO	10
FIGURE 4.4: PERCENTAGES OF MINORITY POPULATION BY CENSUS TRACT, PUEBLO COUNTY	11
FIGURE 4.5: 2005 DENSITY OF POPULATION AND EMPLOYMENT, PUEBLO COUNTY	13
FIGURE 4.6: 2005 DENSITY OF POPULATION AND EMPLOYMENT, CITY OF PUEBLO AND PUEBLO WEST METRO DISTRICT	14
FIGURE 4.7: 2035 PROJECTED DENSITY OF POPULATION AND EMPLOYMENT, PUEBLO COUNTY	15
FIGURE 4.8: 2035 PROJECTED DENSITY OF POPULATION AND EMPLOYMENT, CITY OF PUEBLO	16
FIGURE 4.10 FT. CARSON ARMY BASE BUFFER AND EASEMENTS	20
FIGURE 4.11: FOUNTAIN CREEK WATERSHED IN PUEBLO AND EL PASO COUNTIES	21
FIGURE 4.12: CITY OF COLORADO SPRINGS PROPOSED SOUTHERN DELIVERY SYSTEM PIPELINE ROUTES	23
FIGURE 4.13: PROPOSED REGIONAL INDUSTRIAL PROJECTS IN THE FOUNTAIN CREEK WATERSHED	24
FIGURE 4.14: PUEBLO URBAN AREA CENSUS TRACTS	29
FIGURE 4.15: RURAL AREA CENSUS TRACTS	30
FIGURE 4-16: 2005 POPULATION DISTRIBUTION BY CENSUS TRACT	35
FIGURE 4.17: 2035 POPULATION BY CENSUS TRACT	36
FIGURE 4-18: 2005-2035 POPULATION CHANGE BY CENSUS TRACT	37
FIGURE 4-19: 2005 POPULATION DENSITY BY CENSUS TRACT	38
FIGURE 4-20: 2035 POPULATION DENSITY BY CENSUS TRACT	39
FIGURE 4-21: 2005 EMPLOYMENT BY CENSUS TRACT	40
FIGURE 4-22: 2035 EMPLOYMENT BY CENSUS TRACT	41
FIGURE 4-23: 2005-2035 EMPLOYMENT CHANGE BY CENSUS TRACT	42
FIGURE 4-24: 2005 MEDIAN INCOME BY CENSUS TRACT	43
FIGURE 4-25: 2035 INCOME BY CENSUS TRACT	44

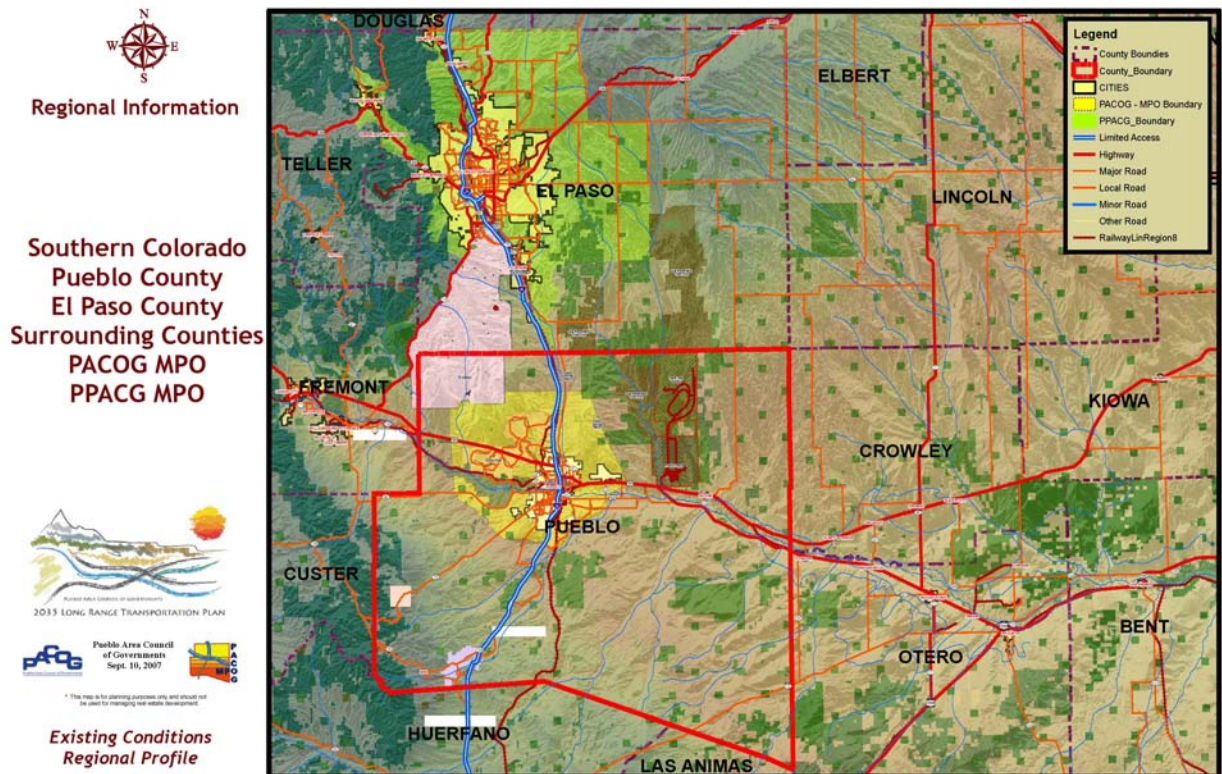
4.1 Introduction

Pueblo’s existing transportation system includes roadways, railroads, bicycle and pedestrian trails, the Pueblo Memorial Airport, and several public and private transit services. Together, these facilities support an integrated transportation system that serves both area residents, visitors and those passing through the region.

This section of the Long Range Transportation Plan provides a summary of regional demographics and the economy, as they will likely impact the transportation system.

The primary focus of this section is on the existing conditions within the PACOG MPO/TPR, but due to the interaction between the PACOG MPO/TPR and the Pikes Peak Area Council of Governments MPO, many of the issues facing the communities will have an impact on both areas. Data from the FHWA Planning & Environmental Linkage project due in early 2008 will provide additional information on prospective growth pressures for the region.

Figure 4.1: Pueblo / El Paso And Surrounding Counties



4.2 Regional Profile

4.2.1 Population

In 2000, the population of Pueblo County was 141,472 people, with over 70 percent of those living within the City of Pueblo. Growth in the region has fluctuated as a major shift in employment took place over the 1980s and 1990s. From 1990-2005, Pueblo County's population grew by 23 percent. This rate of growth, however, is much less than was true for Colorado, which experienced a 43 percent increase during this time frame. The 3C Study Area contains 93 percent of Pueblo County's estimated 2005 population of 151,104 residents. Over 92 percent of its estimated 140,500 residents are concentrated in 2 large urbanized communities, the City of Pueblo and Pueblo West.

The City of Pueblo is the historic population center of Pueblo County. Population growth within this community has been moderate in recent years. The 1990 Census recorded 98,640 City of Pueblo residents. The 2000 Census enumerated 102,121 residents, and a 2005 estimate of population developed by the State Demography Office shows 104,169 residents. During the 1990-2000 period, population grew at a compounded annual rate of 0.3 percent per year. For the 2000-2005 period, the compounded growth in population was 0.4 percent per year. In 1990, the City of Pueblo accounted for 80.2 percent of Pueblo County's population. By 2005, however, this had shrunk to 68.9 percent of total County population.

Pueblo West, the other major community within the 3C study area has seen a completely different pattern of growth. From 1990 to 2000, its population almost quadrupled, increasing from 4,386 residents to nearly 17,000. In 2005, Pueblo West had an estimated population of 25,000. This translates into an estimated annual population increase of 8.0 percent per year. Table 4 and Figure 5 below summarize the relative sizes of the Pueblo County communities and the contrast in their growth rates between 1980 and 2005.

Table 4.1 shows historic populations for the city and county as well as future growth projections developed by the Pueblo MPO. The Pueblo County projections are consistent with those developed by the Colorado State Demography Office. By 2035, the county is projected to increase to over 250,000 people with 64 percent living within the City Of Pueblo. Pueblo County and the City Of Pueblo are expected to experience more rapid growth as they become more fully integrated into the state's economy.

Table 4.1: Regional Population

	Measured					Projected		
	1970	1980	1990	2000	2005	2015	2025	2035
Population								
City of Pueblo	97,774	101,686	98,640	102,121	104,169	120,819	139,445	159,273
Pueblo County	118,238	125,972	123,051	141,472	151,104	181,116	214,093	250,477
Percent in City	83%	81%	80%	72%	69%	67%	65%	64%
Rate of Growth								
City of Pueblo		4.0%	-3.0%	3.5%	2.0%	16.0%	15.4%	14.2%
Pueblo County		6.5%	-2.3%	15.0%	6.8	19.9%	18.2%	17.0%

4.2.2 Housing

Housing development in Pueblo continues at a steady pace, growing somewhat faster than population due to shrinking household size. From 2000-2005, Pueblo County housing increased by almost 6,500 units, representing a growth rate of 11.0 percent. At the beginning of 2005, Pueblo County had an estimated 65,387 dwelling units. Growth within strictly the City of Pueblo during this interval was a more modest 6.4 percent, with a total 2005 housing inventory of 45,889 units.

Pueblo continues to enjoy a high rate of home ownership, although the housing stock is showing its age. According to the 2005 American Community Survey, owner occupied homes accounted for 67.9 percent of the occupied unit inventory. Housing constructed prior to 1950 accounted for 21.3 percent of all owner-occupied units. Within the City of Pueblo, the housing stock is generally much older than those portions of Pueblo County outside of the corporate limits. The 2000 Census recorded a median year of construction of 1959 for homes within the City of Pueblo. This means that one-half of homes were built prior to this year, and one-half subsequent to this year. For those portions of Pueblo County outside the city limits, the median year of construction for homes was 1983.

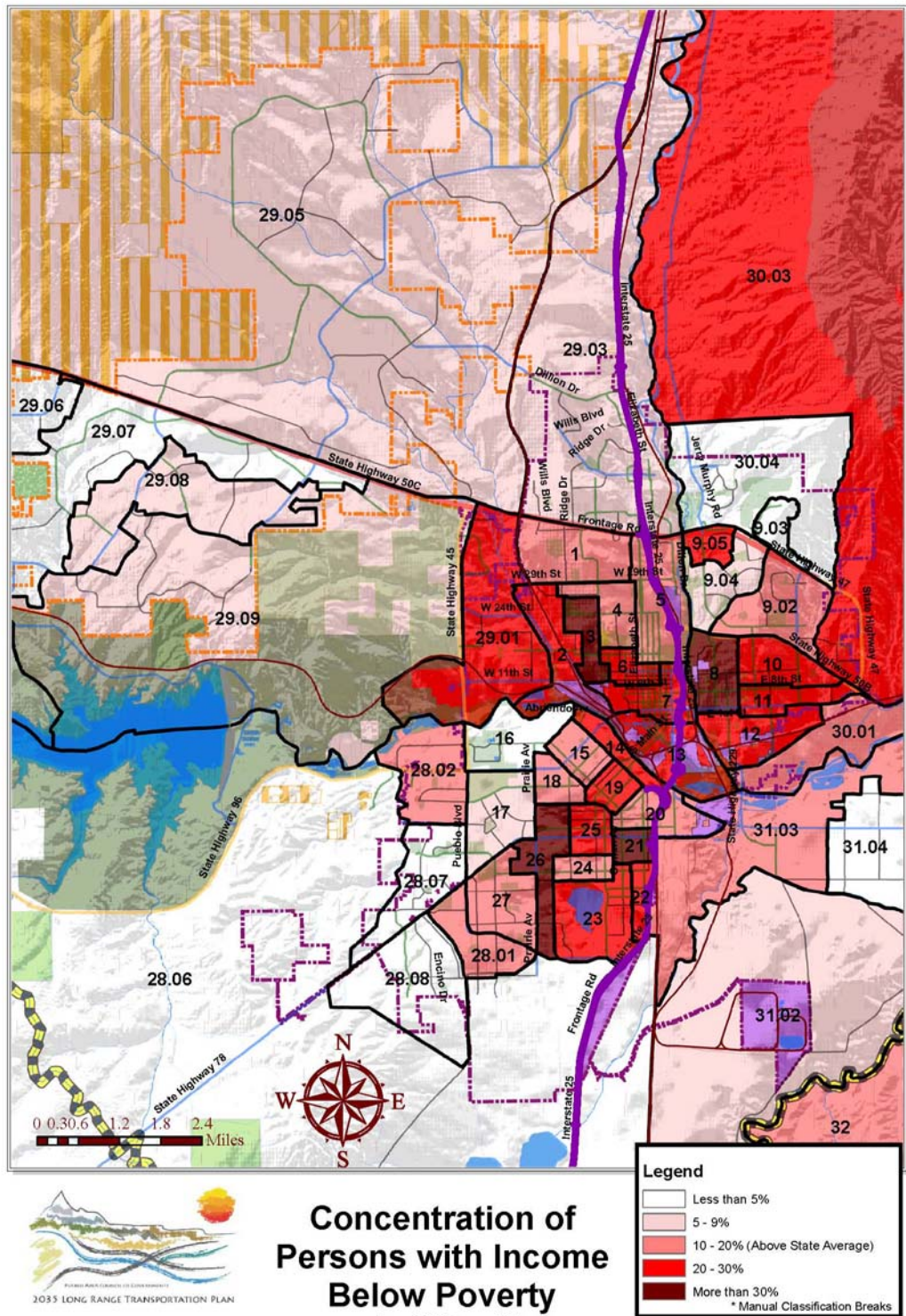
A surprisingly large number of Pueblo residents do not have the

luxury of owning a motor vehicle. Data from 2005 reveal that 7.5 percent of all Pueblo households did not have access to a motor vehicle. At the opposite end of the spectrum, over 25 percent had 3 or more vehicles available.

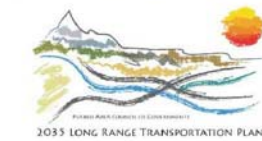
4.2.3 Income

The 2005 per capita income for Pueblo County was \$25,600 dollars; less than 70 percent of the Colorado value. Median household income in 2005 was \$37,305, about 73.7 percent of the State value. Nearly 35 percent of Pueblo's households had an annual income of less than \$25,000. In 2005, approximately 17 percent of Pueblo County's population lived in families with incomes below the poverty level as measured by the federal government's official poverty definitions. The City of Pueblo has a higher poverty rate with almost 22 percent of families living at or below the poverty line. For comparative purposes, the 2005 percentage of Colorado families below poverty stood at 8.3 percent. Figure 4.2 shows the concentration of low-income individuals for each of the census tracts within the urban area. Note that while the large Census Tract 30.03 to the northeast of the City of Pueblo takes in a portion of the area recently designated Special Development Area, the Census 2000 population of 1,166 persons lived almost exclusively in the small area adjacent to the City's eastern boundary north of Highway 50 B and south of Highway 47.

Figure 4.2: Concentrations of Poverty by Census Tracts



**Concentration of
Persons with Income
Below Poverty**
From 2000 Census Data



Pueblo Area Council of Governments
2035 LONG RANGE TRANSPORTATION PLAN

Pueblo Area Council of Governments
Sept. 10, 2007

* This map is for planning purposes only and should not be used for managing real estate development.

*Existing Conditions
Regional Profile*

4.2.4 Ethnicity

Tables 4.3 and 4.4 below summarize the distribution of minority populations in the City of Pueblo and Pueblo County from the 2000 census data. Again, remember that the 1,166 residents of Tract 30.03 are almost entirely concentrated into the southwest corner of the tract. The largest percentages of minority population are located in the City's recognized low/moderate income census tracts, often referred to as the "Y" zone, which include the West Side, East Side, and Bessemer neighborhoods. Many of these tracts include between 67% and 80% minority population. Tracts without substantial minority populations are in Pueblo West and in several neighborhoods on the western side of the City.

4.2.5 Employment

Table 4.2 shows that between 1990 and 2000 an increasing percentage of Pueblo's resident workforce traveled to neighboring counties for employment. In 2000, approximately 91 percent of the 46,000 workers living in Pueblo County still worked in the County. Approximately 5,100 commuted outside the county each day to work. The majority of these commuters work at jobs in El Paso County and Fremont County.

The 2006 average annual unemployment rate in Pueblo County was 5.6 percent, compared to Colorado's 4.3 percent and the national rate of 4.6 percent. The number of jobs in Pueblo continues to show steady growth. In 1990, the number of employed Pueblo residents stood at 52,355. By 2006, this had grown to 67,239 persons. This represents a growth rate of 28.4 percent. The average numeric growth rate during this period was about 930 jobs per year.

Figure 4.3: Percentages of Minority Population by Census Tract, City of Pueblo

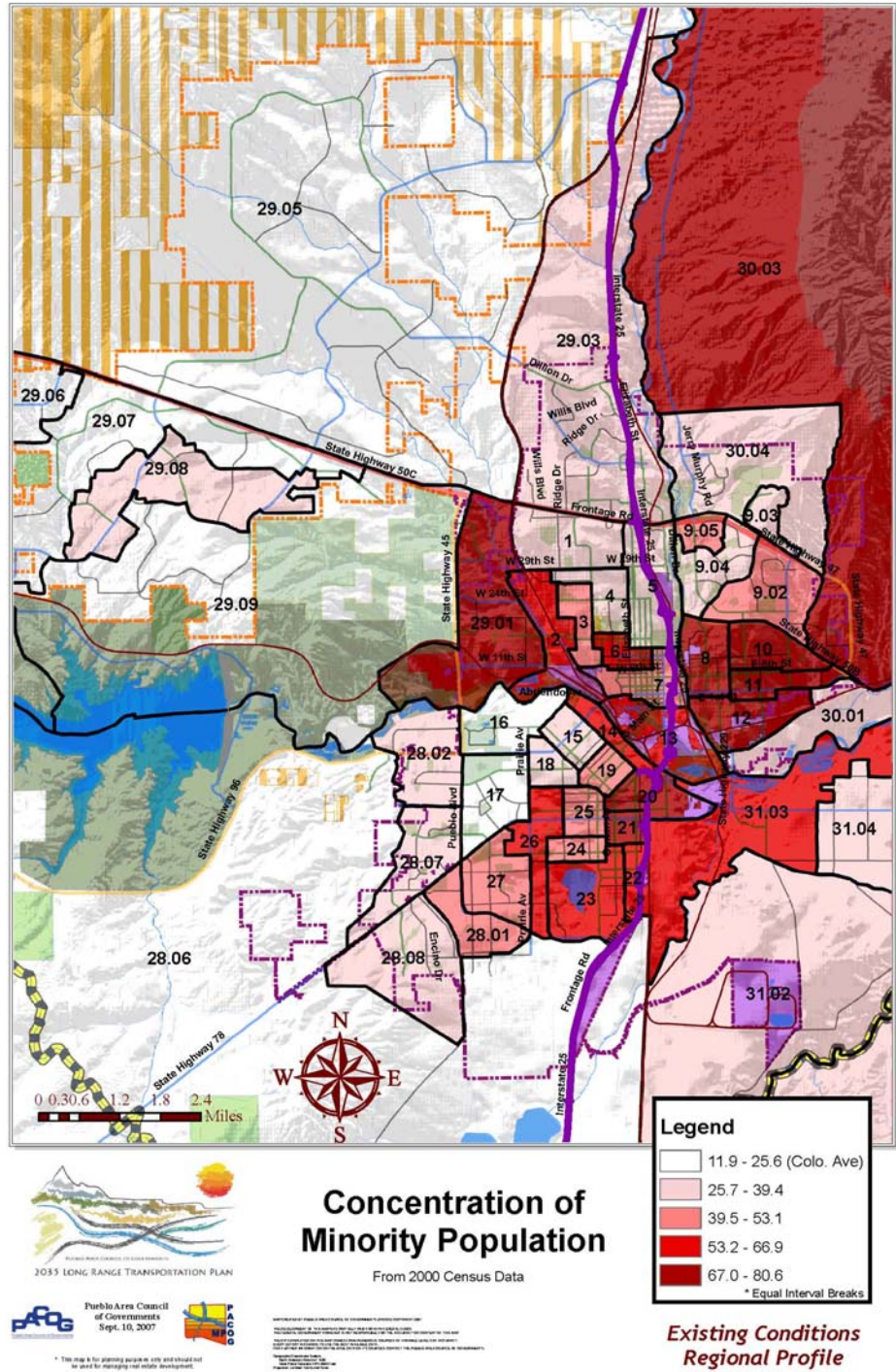


Figure 4.4: Percentages of Minority Population by Census Tract, Pueblo County

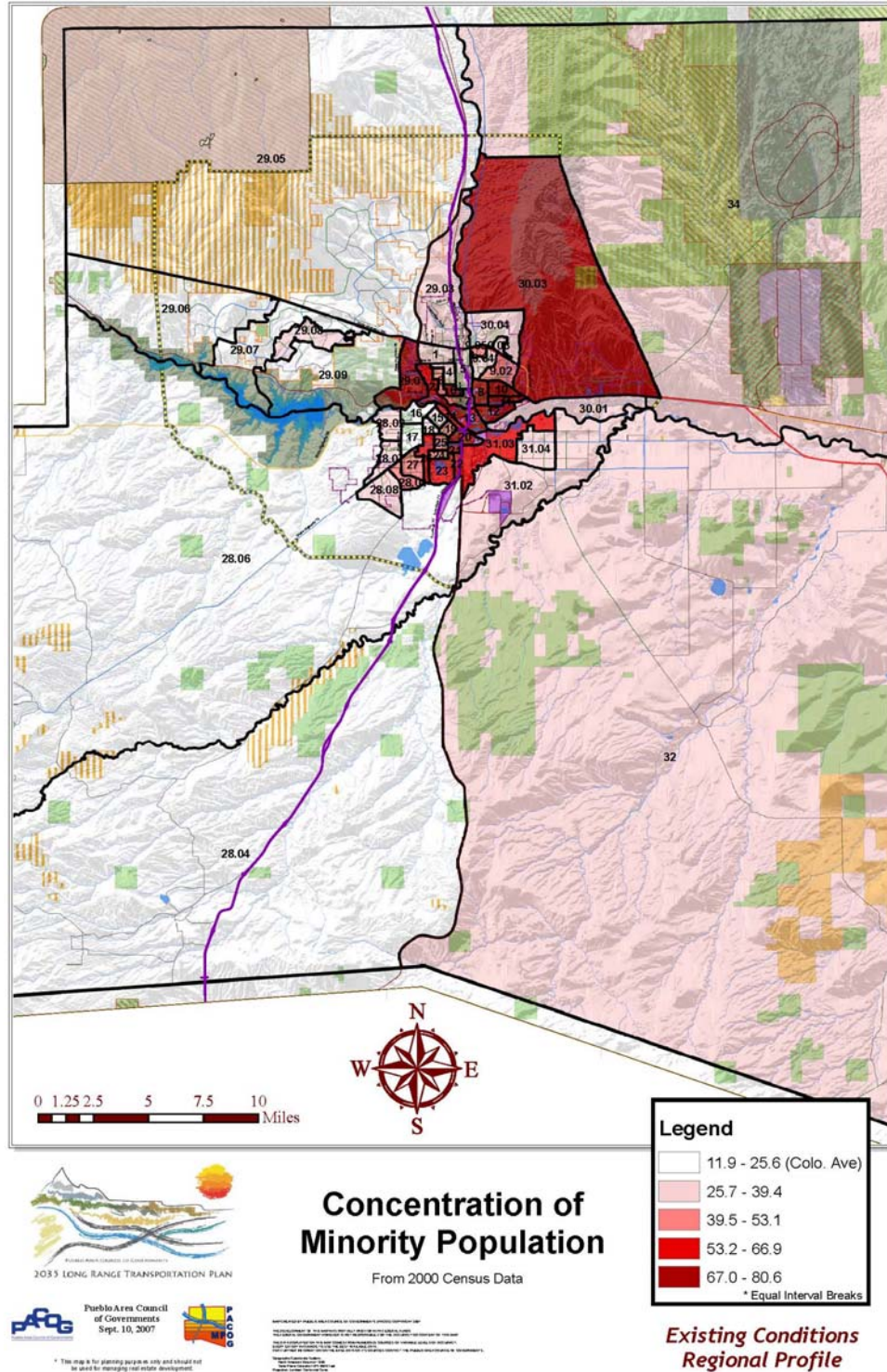




Table 4.2
Place of Work for Pueblo Residents
1990 and 2000

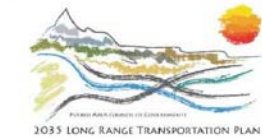
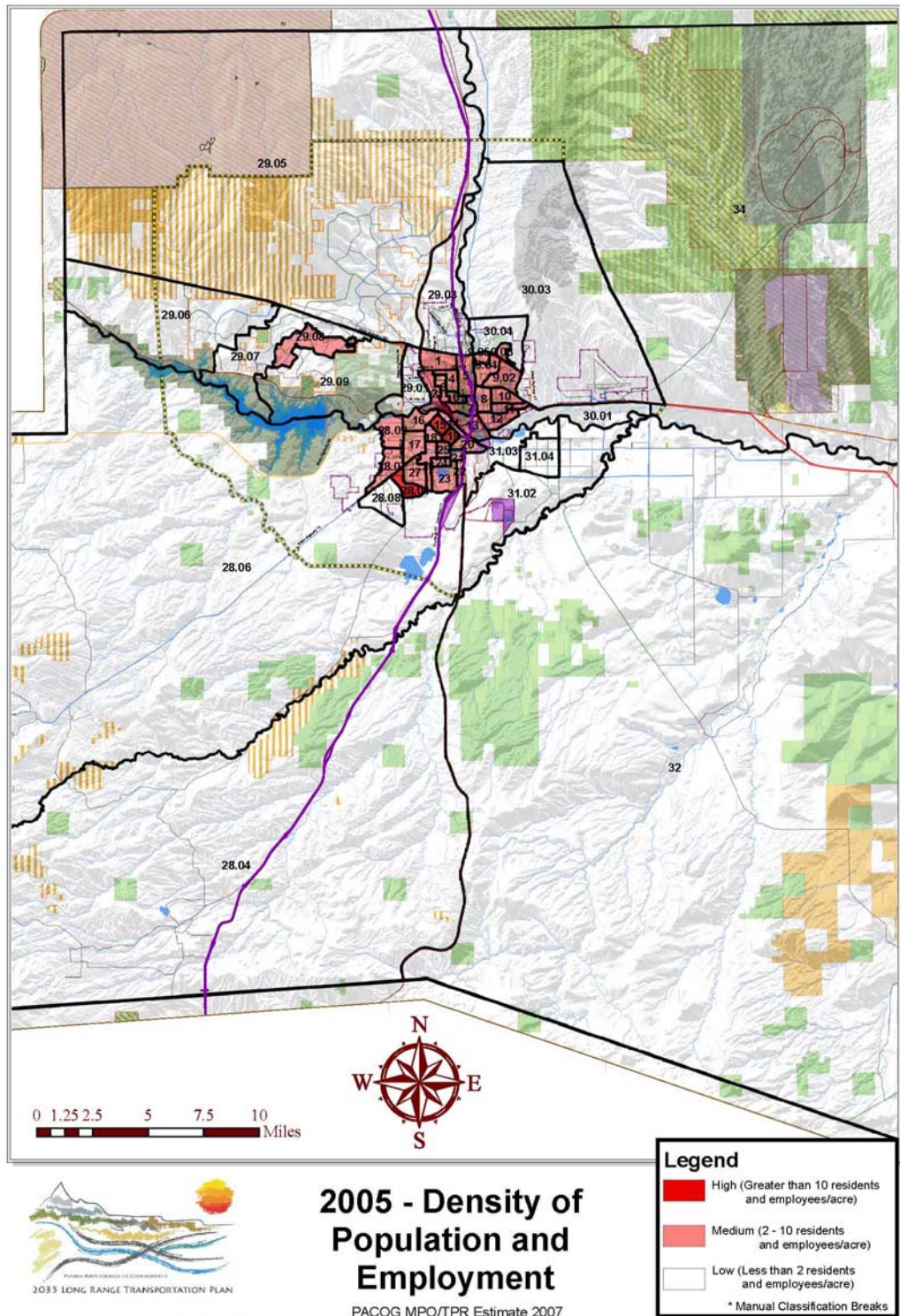
County	1990		2000	
	#	%	#	%
Pueblo County	43,505	94.5%	52,721	91.1%
El Paso County	1,524	3.3%	3,137	5.4%
Fremont County	438	1.0%	1,129	2.0%
Otero County	199	0.4%	290	0.5%
Crowley County	174	0.4%	216	0.4%
Denver County	189	0.4%	250	0.4%
Huerfano County	29	0.1%	130	0.2%
Sub-Total Other County	2,553	5.5%	5,152	8.9 %
Total	46,058		57,873	

Source: U.S. Census 1990 and 2000

4.1.6 Density of Population and Employment

Figures 4.5 and 4.6 show the density of population and employment in the Pueblo Urbanized Area. This measure is calculated as the density of residents plus employees per acre in a given Census tract. Densities in Pueblo are relatively low in most areas. However, some of the older developed areas, and regional commercial centers such as the Pueblo Mall have higher densities due to either employment centers or denser housing development. Projections for 2035 suggest that employment densities will increase from medium to high within the central business core and along State Highways 78 and 47. Employment density will increase from low to medium primarily along I25 at the north end of the City. These trends are depicted in Figures 4.7 and 4.8.

Figure 4.5: 2005 Density of Population and Employment, Pueblo County



Pueblo Area Council of Governments
Sept. 10, 2007

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ADDITIONAL MAPS AVAILABLE TO MEMBERS OF PUBLIC DEVELOPMENT DEPT.
FOR INFORMATION ON THIS MAPS CONTACT THE PUBLIC DEVELOPMENT DEPT.
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PHONE: 719.545.4400 FAX: 719.545.4401 WWW.PACOG.ORG

**Existing Conditions
Regional Profile**

Figure 4.6: 2005 Density of Population and Employment, City of Pueblo and Pueblo West Metro District

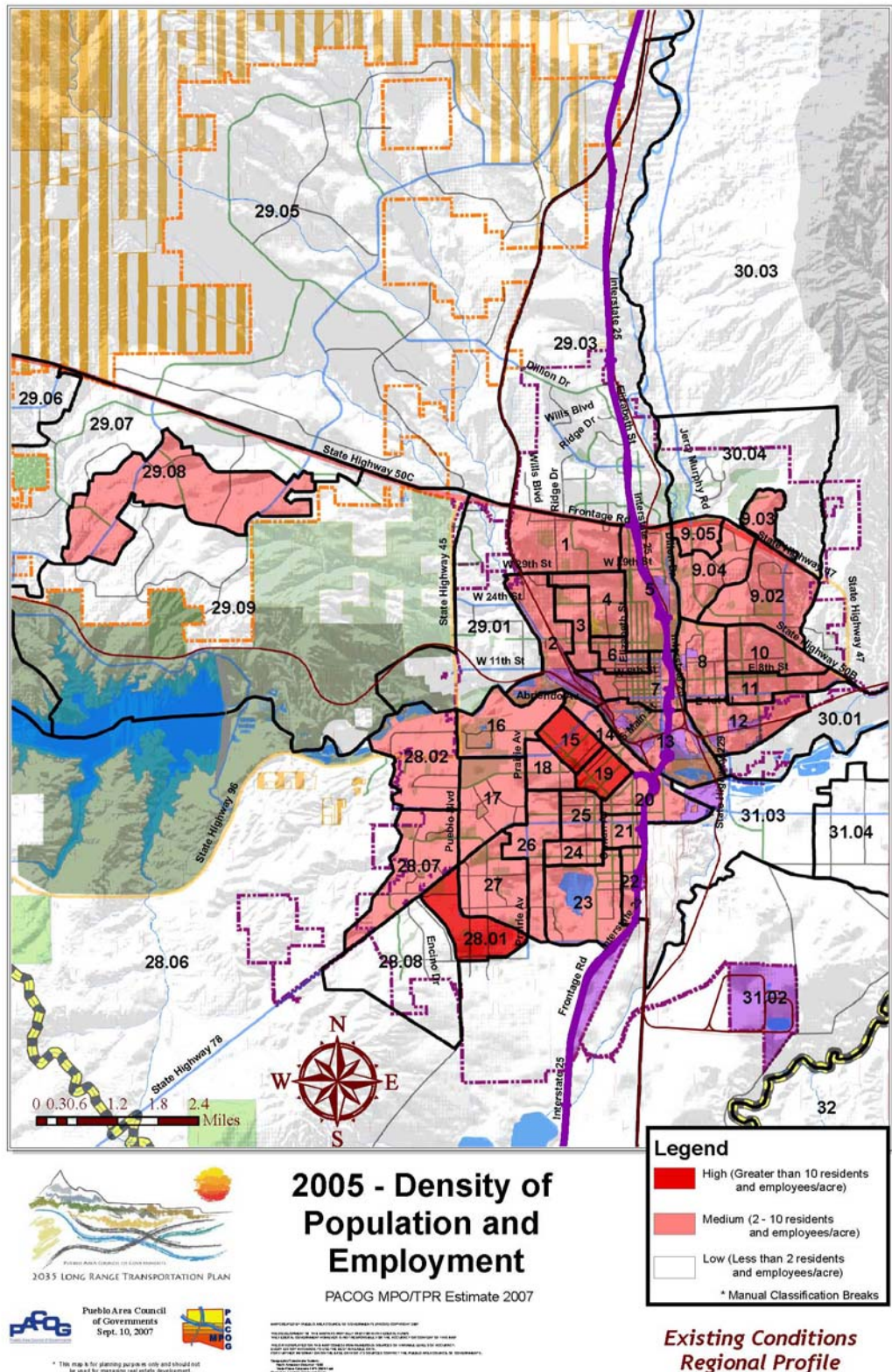
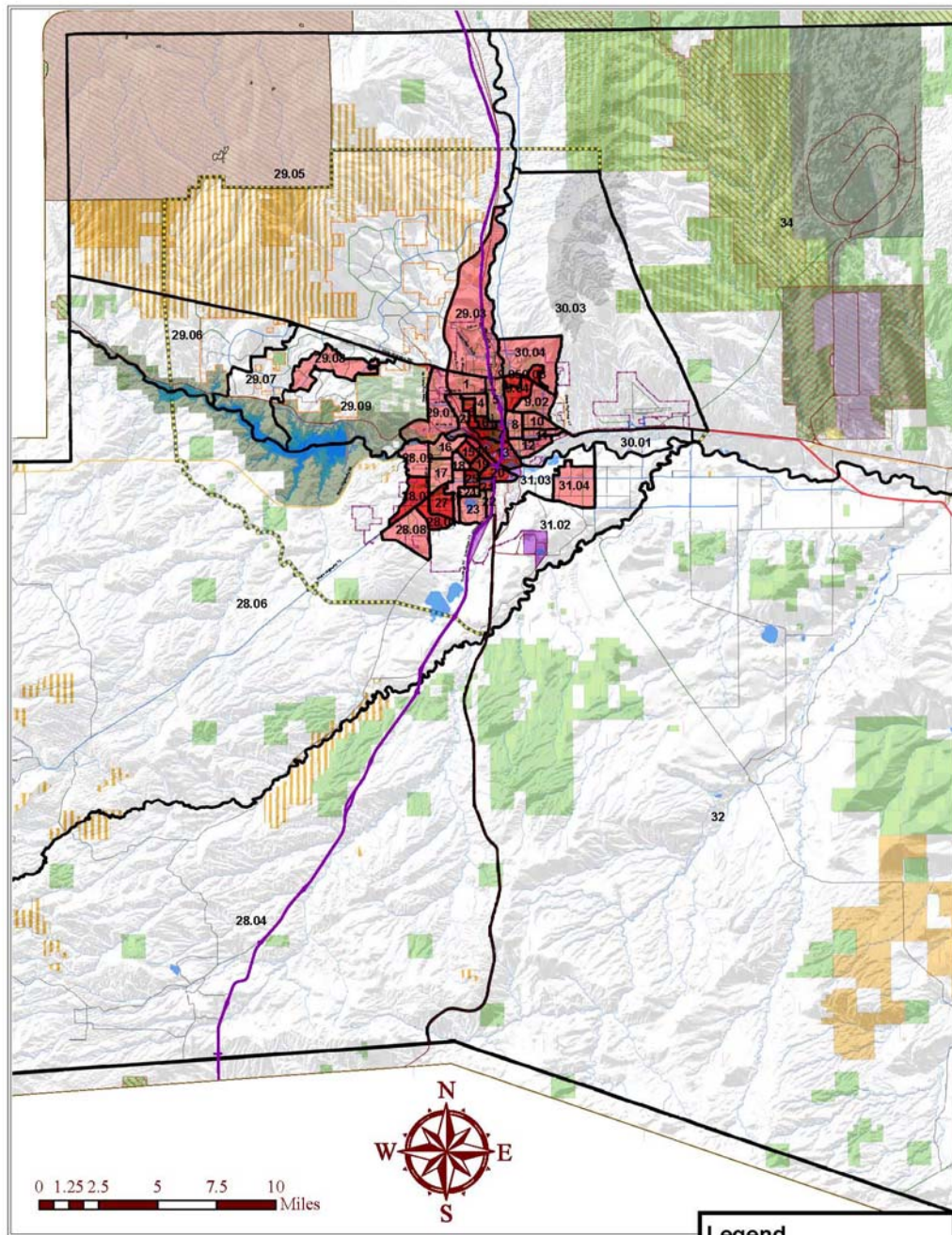


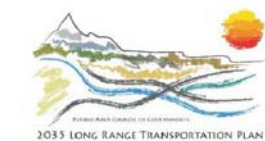
Figure 4.7: 2035 Projected Density of Population and Employment, Pueblo County



Legend

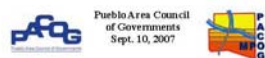
- High (Greater than 10 residents and employees/acre)
- Medium (2 - 10 residents and employees/acre)
- Low (Less than 2 residents and employees/acre)

* Manual Classification Breaks



2035 - Density of Population and Employment

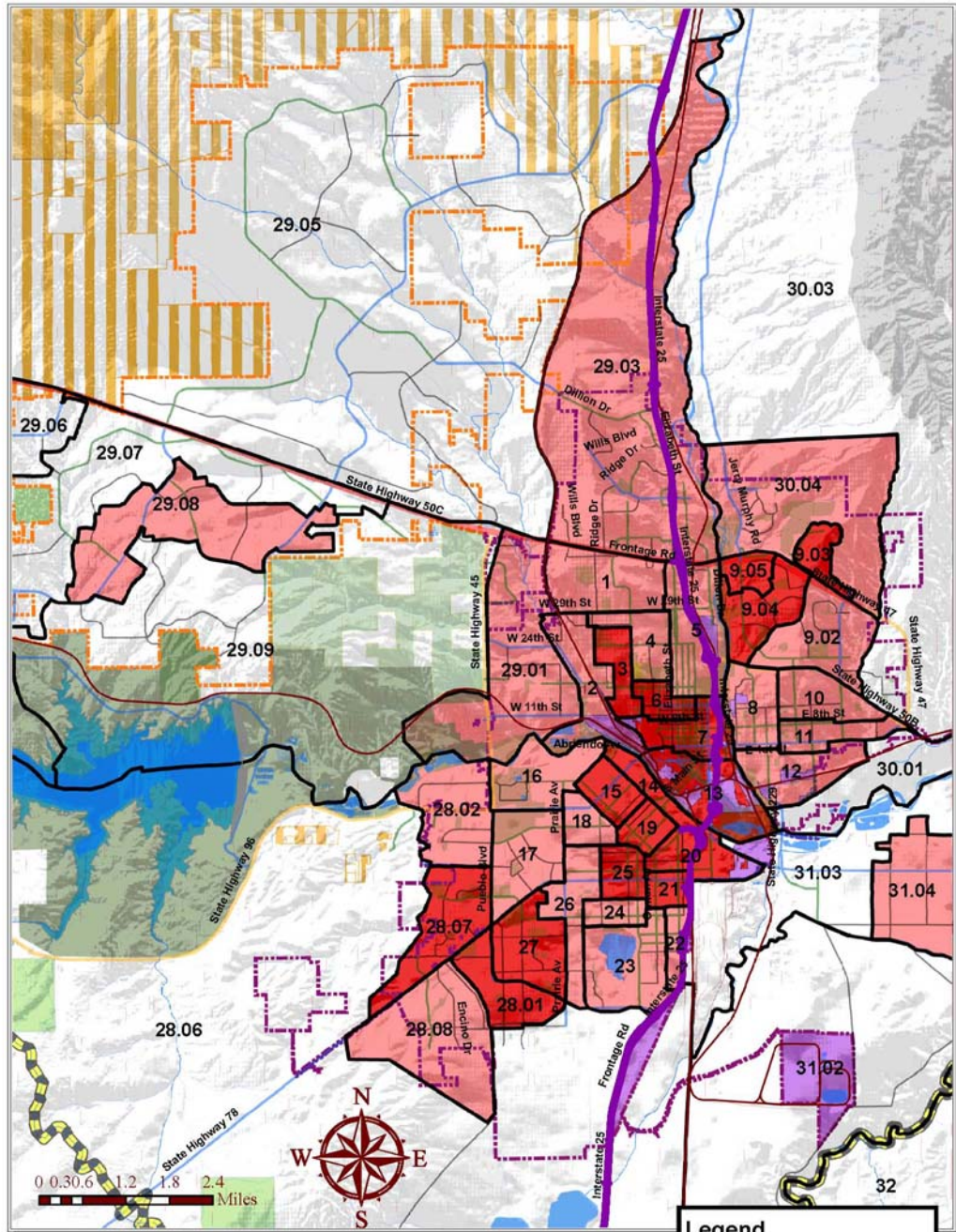
PACOG MPO/TPR Estimate 2007



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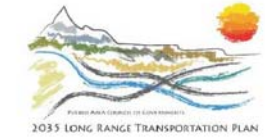
Figure 4.8: 2035 Projected Density of Population and Employment, City of Pueblo



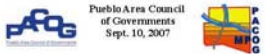
Legend

- High (Greater than 10 residents and employees/acre)
- Medium (2 - 10 residents and employees/acre)
- Low (Less than 2 residents and employees/acre)

* Manual Classification Breaks



2035 - Density of Population and Employment
PACOG MPO/TPR Estimate 2007



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*Existing Conditions
Regional Profile*

4.3 Major Regional Developments

Since the 2030 LRTP was created, there have been a number of projects that have been constructed or have been announced which will have a great impact on the Pueblo Region. Most of these developments impact the northern portion of Pueblo County. Additionally, there are several projects located on the southern side of Pueblo that will have long-term impacts on the community. Many of the recent projects have been spearheaded by development interests from El Paso County and the Denver Metro area.

4.3.1 City of Pueblo Growth

The City of Pueblo historically has been the center of population in Pueblo County. The population has been near 100,000 since 1970. In the 1960's and 1970's, the community saw a number of large annexations by the City of Pueblo and the development of the Pueblo West Metropolitan District by McCulloch Properties. In the 1990's, the City grew with the annexation of the Pueblo Municipal Airport, the south side landfill, and the SouthPointe development.

On October 22, 2007 the Pueblo City Council reclassified 56,000 acres of land from the north city limits to the El Paso County line from multiple (2002 Comprehensive Development Plan) future land use designations to *Special Development Area*, permitting the consideration of mixed-use proposals for the area to be submitted as Planned Unit Developments. Public information concerning the City's plans indicated an intention to complete the annexation of the largest development expeditiously. If the development were phased and built as proposed by the developers, it would have a significant impact on the community and the transportation system throughout the region. Early proposals from the developers indicated that there would be somewhere between 70,000 to 85,000 residential units on nearly 20,000 acres with an additional 1100 acres of commercial, retail, and industrial development.

The formal actions taken by the Pueblo City Council in reclassifying future land use in the North Pueblo Special Development Area impact the 2035 LRTP. The network of roads in the northeast quadrant of the County proposed in the 2030 LRTP has been determined to be inadequate to accommodate the scale of development and population proposed for these future land uses. The proposed future network will be discussed in more detail in subsequent sections of this report.

4.3.2 Pueblo Chemical Depot

The Pueblo Chemical Depot (PCD) was constructed during World War II as an ammunition and material storage and shipping center. It has served a variety of functions for the U.S. military since that time. Since the 1990's, the primary mission of the facility became the storage of chemical munitions. Munitions stored at the facility and scheduled for destruction include:

AGENT	ITEM	QUANTITY	POUNDS
HT-Blister	4.2-inch Cartridges	20,384	118,220
HD-Blister	4.2-inch Cartridges	76,722	460,340
HD-Blister	105mm Cartridges	383,418	1,138,760
HD-Blister	155mm Projectiles	299,554	3,504,780

The process of destruction will require the construction of a new facility at the northern portion of the PCD site. Access to this site will be via the US Department of Transportation Road (DOT Road). As part of the approval process for this facility, additional access to the site was identified as a need. To provide this access, the existing DOT Road is being upgraded and extended west to State Highway 47 at the eastern edge of the City of Pueblo.

4.3.3 Industrial Development in Pueblo County

In addition to the development at the Pueblo Chemical Depot, there are two other regionally significant industrial developments that are nearing completion in Pueblo County. The first is at the Comanche Station, which currently produces 660 MW of electric power for the Colorado area. This project, valued at \$1.3 billion, is a third electrical generating unit at Comanche. The new facility is a 750 MW coal fired generator. As part of the permitting process, the Public Service Company of Colorado has had to upgrade the pollution control equipment on the other two generators at the facility. As a result, the future air pollution from the three generators is projected to actually be lower than was produced in the past by the original generators at the Comanche Power Plant.

The second major industrial project is the \$200 million GCC Rio Grande, Inc. cement plant south of the City of Pueblo. This will be the second largest cement plant in Colorado, producing over 1 million tons of cement products each year. The site is accessed from the Stem Beach exit of I-25.

As part of the permitting process for each of these facilities, Pueblo County required improvements to the roadways servicing the facilities.

4.3.4 Ft. Carson Army Base

In 2004, the United States Army began a process of shifting troops back to the United States and Ft. Carson was a major recipient of troop transfers. In its 2005 BRAC Recommendations, the Department of Defense recommended to realign Fort Hood, TX, by relocating a Brigade Combat Team (BCT) and Unit of Employment (Uex) Headquarters to Fort Carson. Fort Hood did not have sufficient facilities and available maneuver training acreage and ranges to support six permanent heavy BCTs and numerous other operational units stationed there. Fort Carson had sufficient capacity to support these units. Overall, the expected growth of Ft. Carson as a result of these changes is:

Projection for the Expected Growth Scenario (EGS)

11,400 Military Personnel

+21,287 Military Dependents

+430 Civilian Personnel

+692 Civilian Dependents

33,809 Total New Persons in the Study Area*

*Pikes Peak Area Council of Governments Ft. Carson Regional Growth Coordination Plan newsletter, July, 2007.

It is expected that the majority of the new growth of Ft. Carson will reside in El Paso County, but a portion of the new population will likely reside in Pueblo County, specifically Pueblo West and the City of Pueblo, due to the lower cost of housing.

As a result of the development on and surrounding Ft. Carson, the Pueblo Area Council of Governments supported the request of the Pikes Peak Area Council of Governments to make the reconstruction of the I-25/SH 16 interchange the highest priority project within CDOT Region 2. This will provide better access to the Ft. Carson Army Base from I-25.

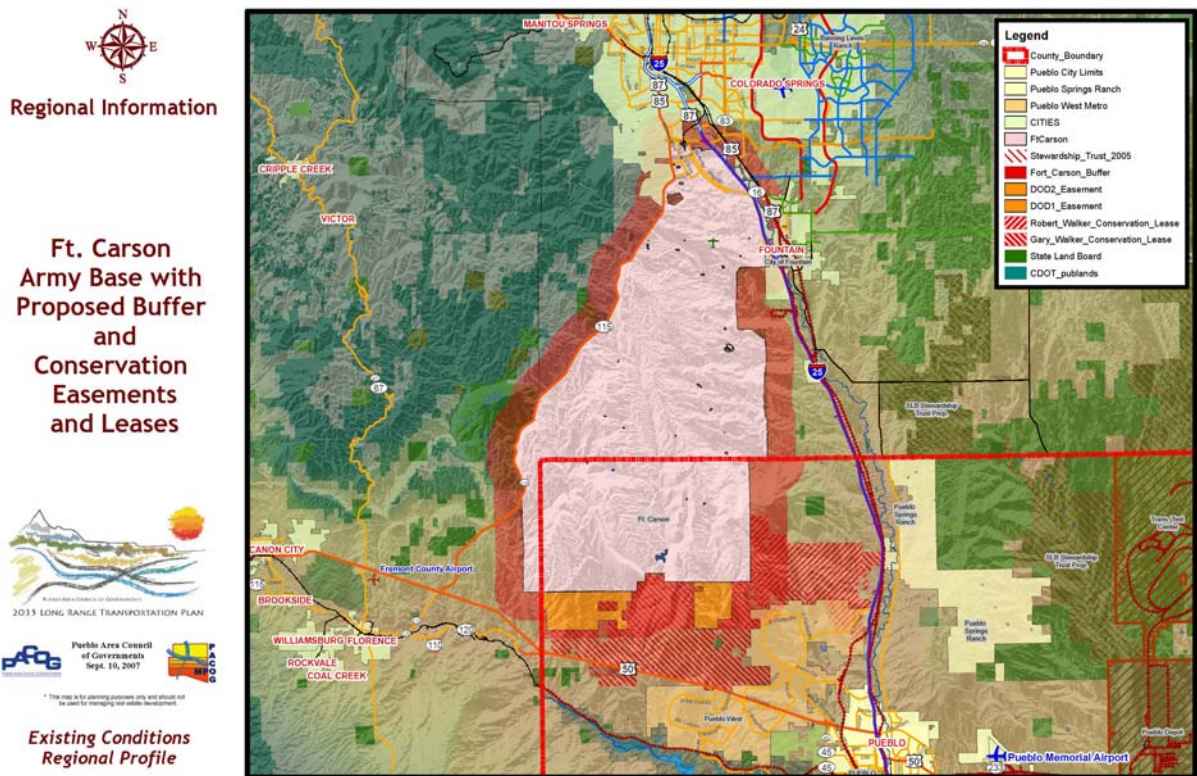
4.3.5 Ft. Carson Buffer

The US Army has determined that there is a need for a buffer around the base to protect the site from community development. The Army is in the process of securing less than fee-simple ownership interests on lands 1.5 miles to 2.5 miles out from the base boundary. This buffer would allow the use of their entire existing property without possible negative impacts to the surrounding property owners. Because of the presence of critical habitat for Threatened and Endangered Species, the Nature Conservancy has identified a parallel interest in this protection initiative and has secured three conservation

easements along the southern edge of Ft. Carson. In addition, a conservation initiative aimed at preserving land from Pikes Peak to Chico Basin, including a 28-mile stretch of Fountain Creek, recently received a \$4.75 million Great Outdoors Colorado Legacy grant, to be used over the next three years to help protect more than 29,000 acres through conservation easements including up to 3,100 acres in Pueblo County.

The buffer around Ft. Carson will have an impact on the future roadway network proposed in the 2030 LRTP. The proposed “Pinon Loop” has been removed from the 2035 LRTP to meet the SAFETEA-LU direction to be in compliance with such environmental plans as conservation easements.

Figure 4.10 Ft. Carson Army Base Buffer and Easements



4.3.6 U.S. Army’s Pinon Canyon Maneuver Site

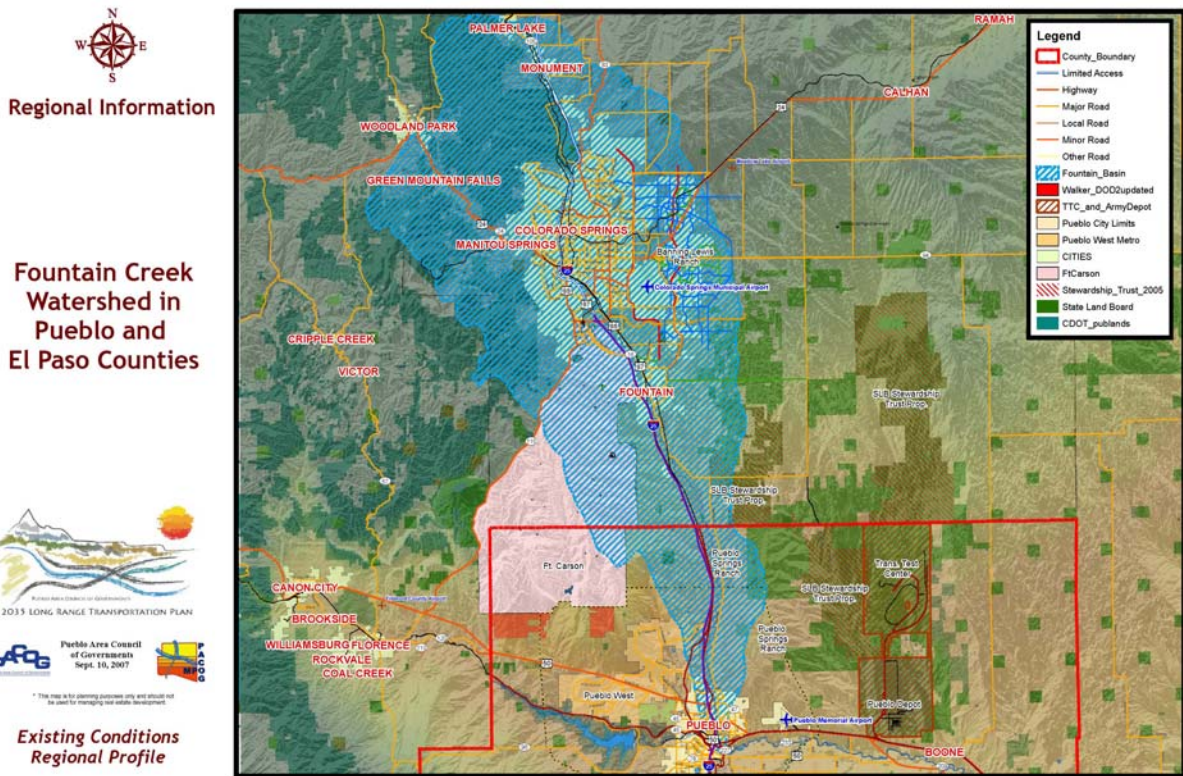
In addition to the expansion of Ft. Carson itself, there is also a proposal to expand Ft. Carson’s Pinon Canyon Training site south of Pueblo County. The expanded use of this site would likely result in additional military convoy travel through the Pueblo MPO/TPR. In July 2007, local media reported the possible use of the Pueblo Chemical Depot property in a role supporting Ft. Carson in the future. This would also increase the demands on the transportation system

surrounding the PCD.

4.3.7 Fountain Creek Watershed Growth

The Fountain Creek watershed has seen significant growth over the last few years and, as described above, is expected to continue to grow into the future. The watershed includes all of the City of Colorado Springs, Fountain, Security, Widefield, and the Monument Area (figure 4.10). In 2006, the Fountain Creek Vision Task Force was created as a regional partnership between the Pikes Peak and Pueblo Area Councils of Governments. A discussion of proposals and initiatives of the Fountain Creek Vision Task Force and its partners is provided in Chapter 3, the Environmental Profile.

Figure 4.11: Fountain Creek Watershed in Pueblo and El Paso Counties



4.3.8 Water Issues

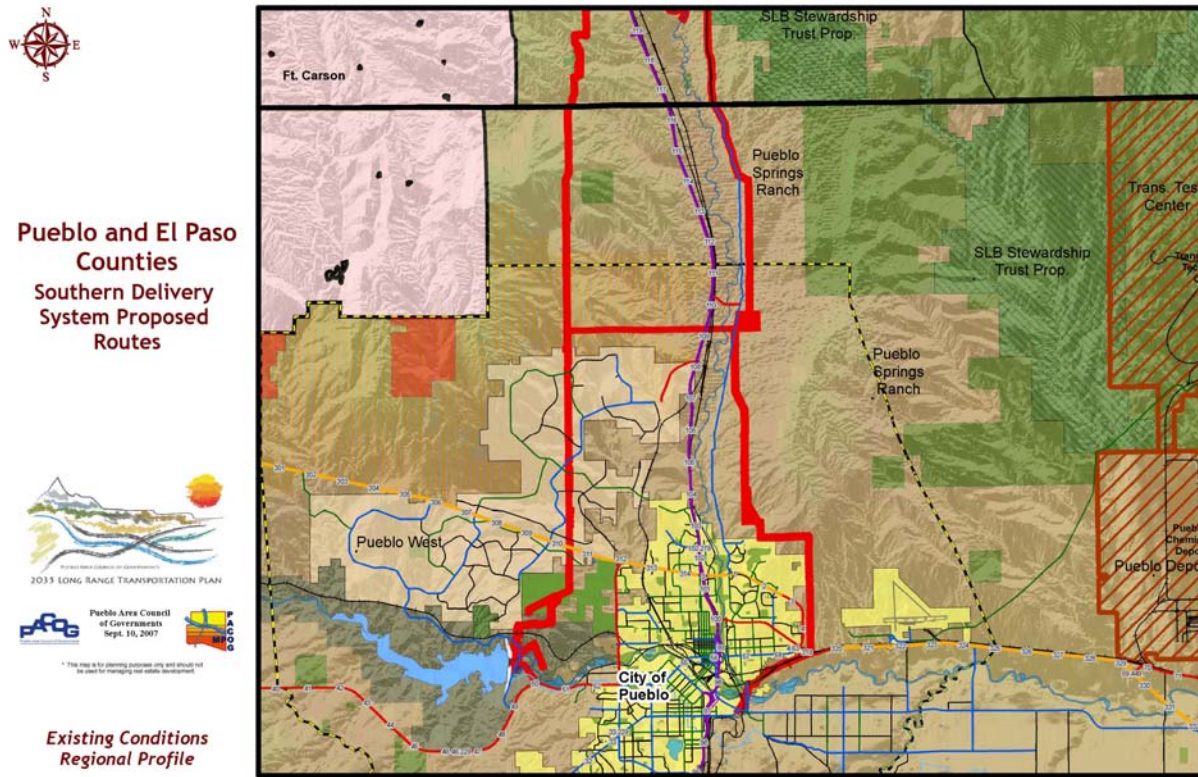
As more development occurs within the Fountain Creek Watershed, more potential problems will occur in the lower sections of Fountain Creek. In 2007, the problems involve flooding and water quality. Additionally to support the growth in El Paso County and specifically Colorado Springs, additional raw water is needed. Colorado Springs Utilities has proposed the *Southern Delivery System (SDS)*, to transport water from the Arkansas River into Colorado Springs.

As proposed, the SDS pipeline is to be built from the Pueblo Reservoir to the City of Colorado Springs. The final route of the SDS has not been determined. As originally proposed, the SDS would be constructed as follows:

- 2,200 feet of 78-inch pipeline capable of conveying 96 million gallons per day (mgd) and 1,100 feet of 72-inch pipeline capable of conveying 78 mgd of raw water
- A 160-foot long, 36-inch diameter pipeline capable of conveying 18 mgd of raw water to the existing Pueblo West Pump Station
- A 43-mile long, 66-inch diameter pipeline and three pump stations capable of conveying 78 mgd of raw water

Figure 4.11 below depicts the possible routes from the Bureau of Reclamation through Pueblo County. Right of Way for the pipeline will be acquired, and coordination of the alignment with future roadway corridors will greatly improve the efficiency of development of all projected facilities. Additionally, the alignments of other utilities (e.g. sanitary sewer lines) may be significantly impacted by the ultimate route chosen for SDS. If utilities have limited points of crossing, future development could be limited in the areas near these corridors.

Figure 4.12: City of Colorado Springs Proposed Southern Delivery System Pipeline Routes



4.3.9 Industrial Development

In the area between Pueblo and Colorado Springs, there is a series of industrial projects that are either proposed or have received some form of regulatory approval. At the time of this writing, there are three electrical power-generating facilities approved and currently proceeding through permitting. The Midway Electrical Substation is an important facility in terms of regional electrical distribution. It is the primary substation between Pueblo and the Denver area. It interconnects various electrical systems in southern Colorado and connects the Comanche Power Plant in Pueblo to the Denver Metro area. It is also the planned terminus for Western Area Power Administration (WAPA) Eastern Plains Transmission Project, which is proposing to construct approximately 1,000 miles of high-voltage transmission lines in Colorado and western Kansas. This project includes the region’s first 500 KV transmission lines that will extend from Kansas along the Arkansas River valley.

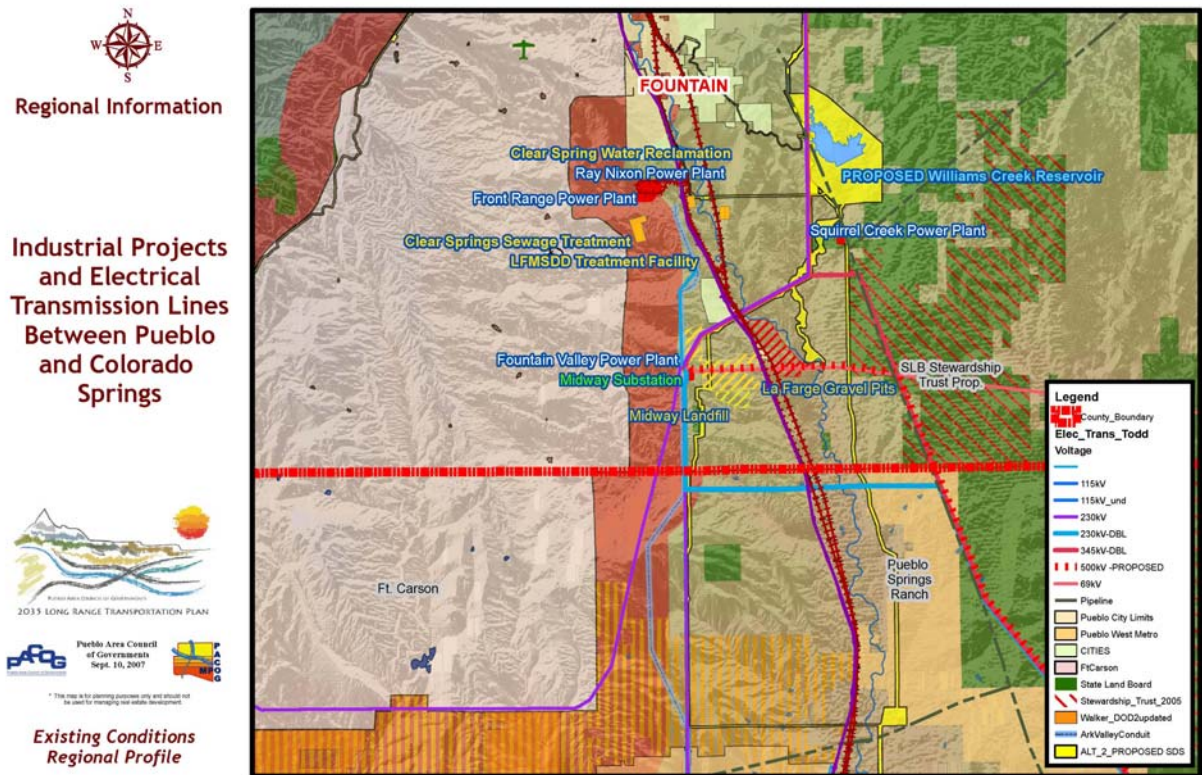
In southern El Paso County, there is currently a Colorado Springs Utilities (CSU) sewage treatment plant – Clear Springs Sewage Treatment Facility. CSU is also planning to construct the Clear Springs Water Reclamation Facility just off I-25. The Lower

Fountain Sewage Disposal District is also proposing to construct a sewage treatment facility on the opposite side of the Fountain Creek from the planned CSU facility.

El Paso County has also recently approved a gravel extraction, asphalt and concrete plant between the Fountain Creek and I-25 south of the Pikes Peak International Raceway (closed). This facility is being constructed to provide construction materials for the southern portion of El Paso County and northern Pueblo County. South of this area west of I-25 is the Midway Landfill.

Locations of these developments are summarized in figure 4-12. Industrial development in the area will add significantly to the amount of heavy truck traffic. This area has a very limited roadway network, and thus the increases in traffic will likely primarily impact the Interstate 25 system in the planning horizon for the present plan.

Figure 4.13: Proposed Regional Industrial Projects in the Fountain Creek Watershed



4.4 Development of Population, Household and Employment and Income Forecasts: 2005-2035

4.4.1 Introduction and Methodology

Demographic and economic forecasts are intrinsic to the process of transportation planning. They serve a variety of functions, including transportation modeling, update of the Federally mandated Long Range Transportation Plan, and the development and planning of future roadway networks. The long-range forecasts for Pueblo incorporate a 30-year horizon, from 2005 to a future target data of 2035. The geographic extent of the analysis includes 40 census zones incorporated within Pueblo County and 306 smaller areas known as Transportation Analysis Zones. These are subsequently referred to by their common acronym as TAZ's. The variables forecasted include:

- Total population;
- Population in households;
- Group quarters population
- Households
- Basic sector employment
- Retail sector employment
- Services sector employment
- Income, and
- School enrollment

The selection of variables to be forecasted is largely dependent upon the data required to run the TransCad model, which is used to generate travel demand forecasts. In other words, these variables serve as input data for the computer model that is used to prepare the forecast of future transportation activity.

A top-down model approach was used to create the demographic and employment forecasts. Forecasts were initially developed for Pueblo County in its entirety. The countywide forecasts were subsequently disaggregated to 40 smaller areas, which, with some exceptions correspond to the tracts used in conjunction with the 2000 Census. Through an allocation process the forecasts for the 40 zones were distributed to the 306 TAZ's that comprise Pueblo County.

The Colorado State Demography Office has developed detailed population and employment projections for each of the 64 Colorado counties. These forecasts are revised annually, and represent the

most consistent and detailed source of data available at the county level. The difficulty imposed by these forecasts is that they do not provide data disaggregated to geographic areas smaller than the entire County. They do, however, serve as a control on total county population and employment. Consequently they improve the reasonableness and consistency of forecasts for smaller areas, which if developed in their absence would tend to exceed growth that could be expected for the surrounding region.

In conjunction with staff assistance provided by the Demography Office, the official state forecasts for Pueblo County were slightly modified to reflect local knowledge about the impact of the Fort Carson troop deployment and changed assumptions regarding the level of labor force participation in Pueblo's economy. The effects of these changes on the Demographers' predictions are relatively minor. The official Demography Office 2035 forecast of Pueblo's population is 243,401 inhabitants. The revised forecast that has been incorporated in the 2035 Long Range Plan shows a projected population of 250,477 residents.

As an initial step to allocate the countywide forecasts to smaller areas, city and county planning staff members were asked to provide an assessment of where growth is likely to occur over the next 30 years. Their collective input served as a basis for assessing the reliability of the subsequent detailed forecasts developed using the TELUM model (please see below).

4.4.2 Use of the TELUM Model to Develop Small-Area Demographic and Economic Forecasts

TELUM is an abbreviation of Transportation, Economic, and Land-Use Model, and denotes software that was developed by the New Jersey Institute of Transportation. This program is a sophisticated model that has been used by many metropolitan planning organizations to develop long-range forecasts of population, households, and employment. These forecasts are a necessary component of transportation demand forecasting.

Subsequent to the growth analysis described in the preceding section, the TELUM model was used to develop demographic forecasts by five-year increments for the 40 census zones within Pueblo County. The boundaries of these zones are depicted in the sketch maps, Figs. 4-14 & 15. Each zone is given a numeric designation from 1 through 40. The boundaries of the zones largely reflect the geographic configuration of 2000 census tracts for Pueblo, although in some

cases boundaries were modified so that the subsequent allocation of demographic variables to TAZ's would sum to the total for each modified census zone. Also, each Census zone (tract) was assigned a consecutive numeric designation.

The TELUM model requires an extensive dataset of input variables in order to generate. These can be summarized as follows:

- Socioeconomic variables, including population, household and employment data for 2000 and 2005;
- Land use variables, reflecting the current distribution of land use in each census zone, representing total developed land, land suitable for development, vacant land, and the distribution of current land uses for commercial, industrial, and residential usages;
- Zonal travel time data: This is frequently referred to as impedance data, and reflects the travel time between consecutive zones. This is expressed as a 40 x 40 matrix, since there are a total of 40 geographic zones.

An initial run of the TELUM model was executed, which reflects the so-called 'Non-Constrained' scenario. This run represents the base case for subsequent elaborations of the forecasts, and can be viewed as the case where the forecasts are entirely reflective of the dataset values as outlined above.

A revised series of forecasts were developed which incorporate human judgment as to where growth is likely to occur. *The initial analysis described in Appendix B, representing the collaborative efforts of City and County Planning Department staffs, served as a guideline, but not absolute standard as to where growth is most likely to be distributed.* This process was completed for the forecasts of population, households, and employment. Tables 4-3 and 4-4 depict the respective population and employment forecasts derived from the initial and revised forecast runs. A majority of the differences between results of the initial and revised forecasts appear to be due to the tendency of the TELUM model to over-forecast population and employment to older developed areas of the community. The reader should be also be aware that revisions to the initial forecasts reflect an assessment that the northeast portions of Pueblo County, particularly zones 34 and 40 are likely to see greatly enhanced growth due to the development of new subdivisions. These developments reflect policy changes which cannot be accurately forecasted by models which are based on socioeconomic and land use input data. It would be a lengthy process to justify in detail the assumptions used in preparing the revised zonal forecasts, however, the extent to which the zone is

currently at its developed capacity and recent historic growth patterns served as criteria for assessing whether or not to revise the initial forecasts. The TELUM Model incorporates a feature that allows for the reallocation of the initial forecast values in conjunction with the revisions which are subsequently made on the basis of human judgment. Several iterations of this process were required before the final set of forecasts was developed.

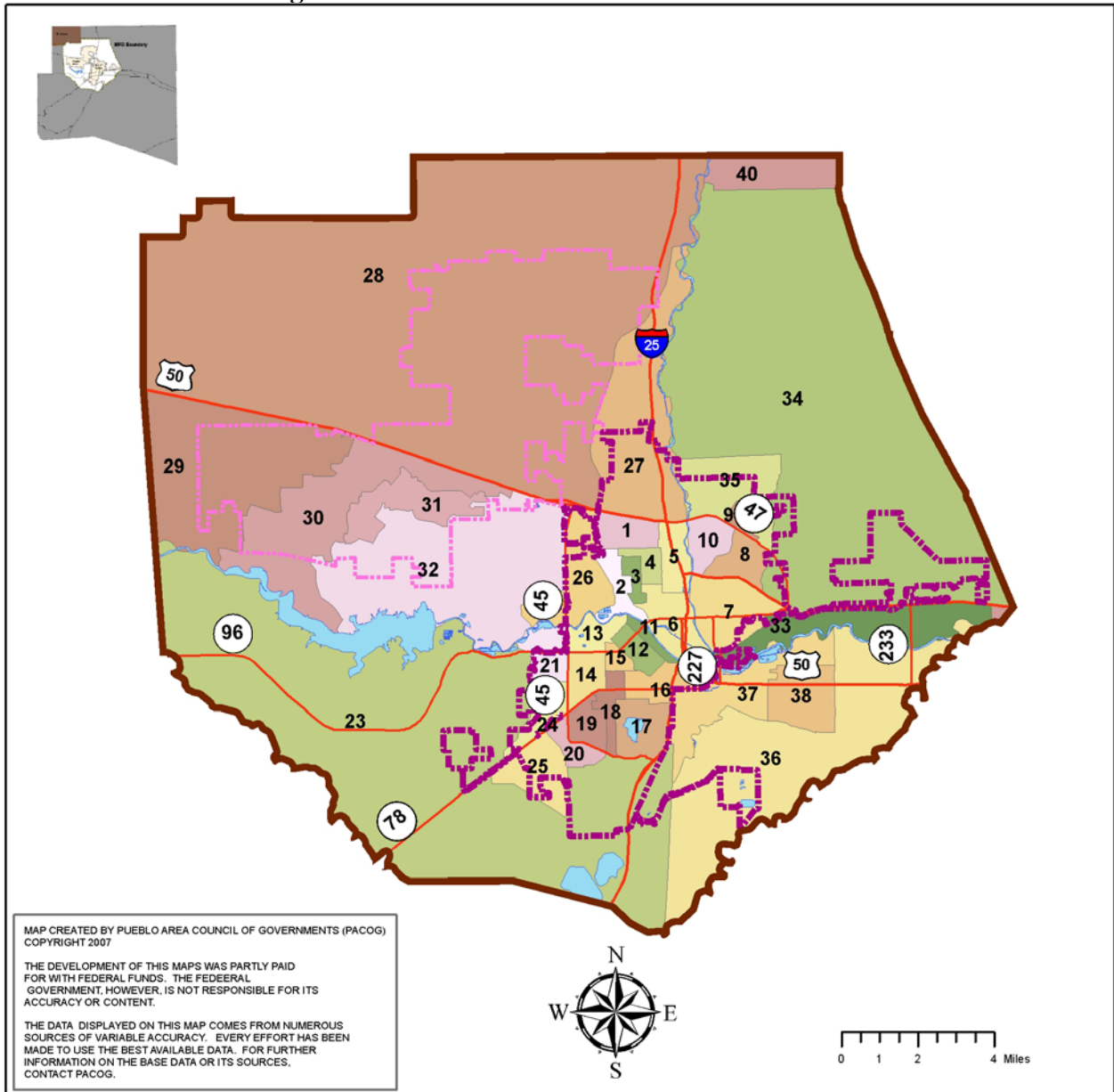
The forecasts of median income for the 40 census tract areas were based on initially developing long-term forecasts to 2035 for the entire county. These were done on the basis of the historic pattern of income trends from 1950-2000, and were extrapolated to 2035 using a 2nd degree polynomial equation fitted to the trend data. The coefficient of determination (R^2) for this data was 0.995. These values were expressed both in current dollars and constant 2005 dollars. Forecasts of U.S. Consumer Price Index data prepared by the Congressional Budget office were available to 2012. The deflator was calculated using the extrapolated trend of consumer price index data carried forward to 2035

The countywide forecasts were allocated to individual census tracts using a weighted value of 2 independent estimating techniques.

- Method 1 evaluated the median income of an individual census tract relative to the entire county from 1990 to 2000. The tract's relative change in income ranking during this period was extrapolated to 2035. The final 2035 estimate using this method was derived by multiplying the tract's proportion of the county median income value.
- Method 2 assumes that the tract's median income tends to be stable relative to the countywide value over time. Evaluations of income rankings of census tracts over time suggest that relative changes in the socioeconomic status of neighborhoods occur relatively slowly.

A weighting of 25 percent was given to the Method 1 estimates, and 75 percent to the method 2 values. The deflators expressed in 2005 constant dollars were applied to the estimates to derive income forecasts expressed in both current and constant dollars. The income forecasts are shown in Table 4.5.

Figure 4.14: Pueblo Urban Area Census Tracts



Geo-Political Features

- 3C Planning Boundary
- City of Pueblo
- Pueblo West

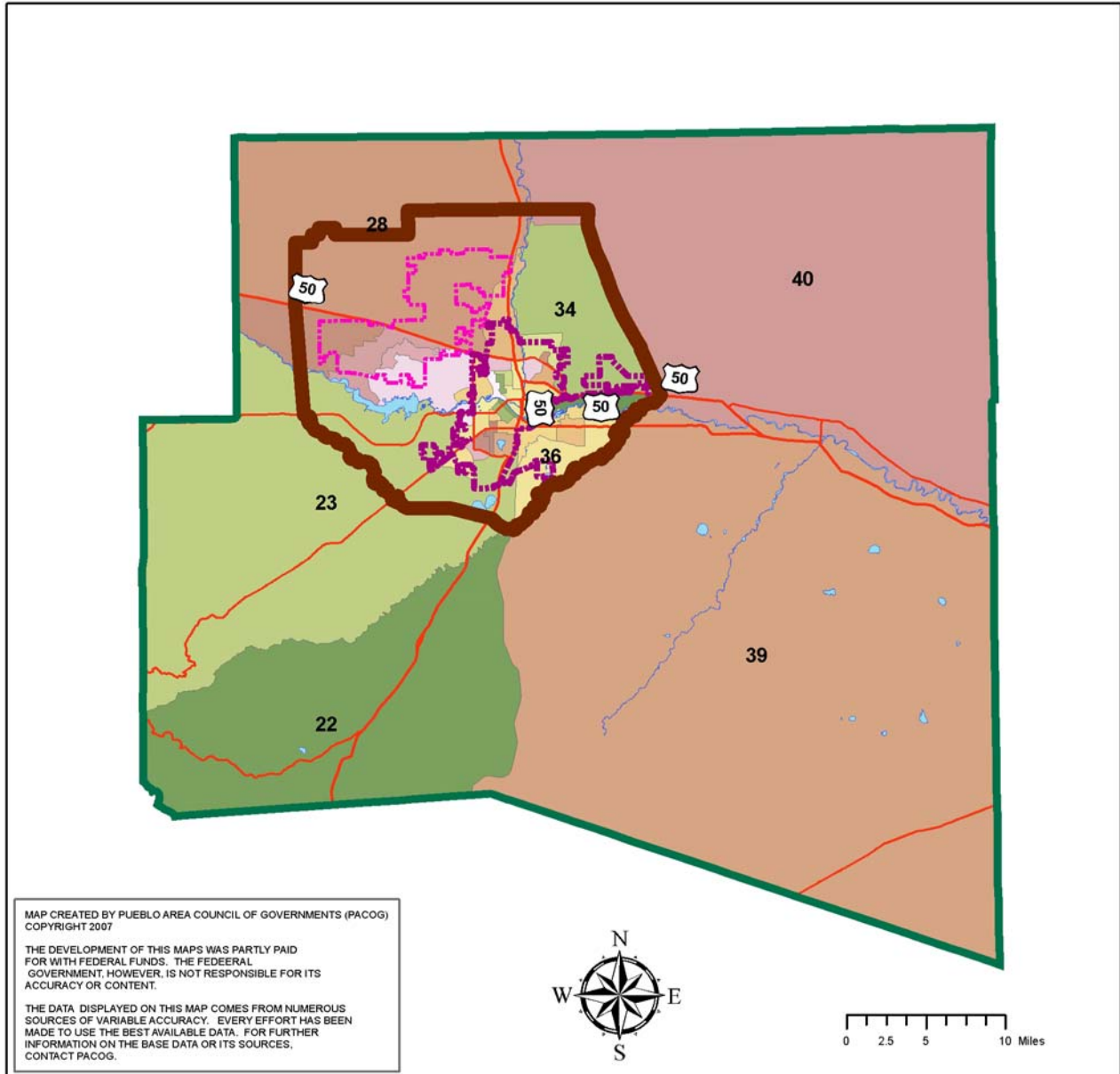
Census Zones (Tracts)

1	9	17	25	33
2	10	18	26	34
3	11	19	27	35
4	12	20	28	36
5	13	21	29	37
6	14	22	30	38
7	15	23	31	39
8	16	24	32	40

FIGURE 11
CENSUS ZONE SKETCH MAP
PUEBLO URBAN AREA

Source: Pueblo MPO

Figure 4.15: Rural Area Census Tracts



Geo-Political Features

- 3C Planning Boundary
- City of Pueblo
- Pueblo West

Census Zones (Tracts)

1	9	17	25	33
2	10	18	26	34
3	11	19	27	35
4	12	20	28	36
5	13	21	29	37
6	14	22	30	38
7	15	23	31	39
8	16	24	32	40

FIGURE 12
CENSUS ZONE SKETCH MAP
PUEBLO RURAL AREA

Source: Pueblo MPO



Table 4-3 Comparative Population Forecasts By Census Zone (Tract): 2005 - 2035

Census Zone (Tract)	2005 Population Estimate	2035 INITIAL UNCONSTRAINED Population Forecast	2035 REVISED Population Forecast	Numeric Difference	Percentage Difference
1	2,717	4,512	2,933	-1,579	-35.0%
2	1,803	3,760	2,508	-1,252	-33.3%
3	1,341	1,339	2,822	1,483	110.8%
4	2,490	4,996	2,373	-2,623	-52.5%
5	2,332	3,848	2,234	-1,614	-41.9%
6	4,362	4,088	4,235	147	3.6%
7	12,815	13,161	12,536	-625	-4.7%
8	5,420	7,222	6,526	-696	-9.6%
9	270	626	1,639	1,013	161.8%
10	6,453	8,492	6,420	-2,072	-24.4%
11	1,448	2,340	1,316	-1,024	-43.8%
12	3,757	5,628	3,747	-1,881	-33.4%
13	1,664	4,028	1,656	-2,372	-58.9%
14	4,254	6,662	3,790	-2,872	-43.1%
15	2,139	4,394	2,069	-2,325	-52.9%
16	7,291	7,431	7,439	8	0.1%
17	6,863	8,369	7,909	-460	-5.5%
18	3,812	4,443	4,284	-159	-3.6%
19	5,452	7,558	7,296	-262	-3.5%
20	5,521	8,396	7,634	-762	-9.1%
21	3,624	9,250	6,679	-2,571	-27.8%
22	4,166	5,620	5,155	-465	-8.3%
23	2,534	3,242	8,907	5,665	174.7%
24	4,212	7,680	7,555	-125	-1.6%
25	2,934	5,964	5,317	-647	-10.8%
26	2,288	6,063	5,652	-411	-6.8%
27	4,891	12,540	11,546	-994	-7.9%
28	4,469	10,072	9,309	-763	-7.6%
29	3,319	5,159	4,987	-172	-3.3%
30	6,891	11,785	11,290	-495	-4.2%
31	5,086	9,052	8,783	-269	-3.0%
32	5,343	9,989	9,546	-443	-4.4%
33	1,747	7,962	1,798	-6,164	-77.4%
34	1,361	3,380	19,424	16,044	474.7%
35	2,684	5,403	7,280	1,877	34.7%
36	4,650	8,282	7,117	-1,165	-14.1%
37	2,022	3,716	3,296	-420	-11.3%
38	2,167	4,432	4,211	-221	-5.0%
39	3,670	5,821	5,261	-560	-9.6%
40	845	1,307	15,998	14,691	1124.0%
TOTAL	151,107	248,012	250,477	2,465	1.0%



Table 4-4: Comparative Employment Forecasts By Census Zone (Tract): 2005 - 2035

Census Zone (Tract)	2005 Employment Estimate	2035 INITIAL UNCONSTRAINED Employment Forecast	2035 REVISED Employment Forecast	Numeric Difference	Percentage Difference
1	1,004	819	2,000	1,181	144.2%
2	122	5	199	194	3880.0%
3	1,531	1,453	2,305	852	58.6%
4	699	2,555	916	-1,639	-64.1%
5	4,551	4,347	5,103	756	17.4%
6	10,053	7,058	14,000	6,942	98.4%
7	1,745	1,897	1,584	-313	-16.5%
8	970	1,195	976	-219	-18.3%
9	680	278	1,002	724	260.4%
10	1,665	9,244	7,626	-1,618	-17.5%
11	918	2,500	1,365	-1,135	-45.4%
12	2,281	3,709	3,602	-107	-2.9%
13	525	839	660	-179	-21.3%
14	593	241	500	259	107.5%
15	160	341	296	-45	-13.2%
16	2,028	961	3,000	2,039	212.2%
17	2,972	3,798	2,228	-1,570	-41.3%
18	1,760	1,445	1,235	-210	-14.5%
19	747	628	1,501	873	139.0%
20	1,158	7,492	2,813	-4,679	-62.5%
21	414	393	2,000	1,607	408.9%
22	834	311	1,000	689	221.5%
23	1,203	1,680	1,404	-276	-16.4%
24	549	1,361	3,000	1,639	120.4%
25	157	463	367	-96	-20.7%
26	841	3,414	2,955	-459	-13.4%
27	5,765	19,938	26,411	6,473	32.5%
28	2,334	20,895	4,329	-16,566	-79.3%
29	117	358	350	-8	-2.2%
30	1,049	3,185	2,674	-511	-16.0%
31	484	763	614	-149	-19.5%
32	209	159	500	341	214.5%
33	601	311	601	290	93.2%
34	3,689	4,079	8,049	3,970	97.3%
35	384	249	199	-50	-20.1%
36	722	2,050	1,718	-332	-16.2%
37	1,772	2,050	2,370	320	15.6%
38	698	3,606	2,860	-746	-20.7%
39	542	878	631	-247	-28.1%
40	729	915	2,920	2,005	219.1%
TOTAL	59,255	117,863	117,863	0	0.0%

Table 4.5: Median Household Income by Census Zone

Table 4.5 Median Household Income by Census Zones

Census Zone	CURRENT \$			CONSTANT 2005 \$		
	2005	2035	% Chg.	2005	2035	% Chg.
1	\$ 37,271	\$ 73,128	96.2%	\$ 37,271	\$ 36,971	-0.8%
2	\$ 37,531	\$ 132,736	253.7%	\$ 37,531	\$ 67,107	78.8%
3	\$ -	\$ -	-	\$ -	\$ -	-
4	\$ 38,068	\$ 84,487	121.9%	\$ 38,068	\$ 42,714	12.2%
5	\$ 34,806	\$ 76,422	119.6%	\$ 34,806	\$ 38,636	11.0%
6	\$ 20,463	\$ 52,346	155.8%	\$ 20,463	\$ 26,464	29.3%
7	\$ 26,651	\$ 56,727	112.9%	\$ 26,651	\$ 28,679	7.6%
8	\$ 41,184	\$ 84,458	105.1%	\$ 41,184	\$ 42,699	3.7%
9	\$ -	\$ -	-	\$ -	\$ -	-
10	\$ 36,351	\$ 74,177	104.1%	\$ 36,351	\$ 37,502	3.2%
11	\$ 26,947	\$ 89,070	230.5%	\$ 26,947	\$ 45,031	67.1%
12	\$ 34,137	\$ 74,469	118.1%	\$ 34,137	\$ 37,649	10.3%
13	\$ 44,153	\$ 87,390	97.9%	\$ 44,153	\$ 44,182	0.1%
14	\$ 40,906	\$ 81,388	99.0%	\$ 40,906	\$ 41,147	0.6%
15	\$ 35,148	\$ 78,741	124.0%	\$ 35,148	\$ 39,809	13.3%
16	\$ 29,225	\$ 73,628	151.9%	\$ 29,225	\$ 37,224	27.4%
17	\$ 27,689	\$ 58,073	109.7%	\$ 27,689	\$ 29,360	6.0%
18	\$ 22,140	\$ 47,157	113.0%	\$ 22,140	\$ 23,841	7.7%
19	\$ 37,875	\$ 78,453	107.1%	\$ 37,875	\$ 39,663	4.7%
20	\$ 39,485	\$ 77,459	96.2%	\$ 39,485	\$ 39,161	-0.8%
21	\$ 42,051	\$ 97,164	131.1%	\$ 42,051	\$ 49,123	16.8%
22	\$ 51,672	\$ 136,988	165.1%	\$ 51,672	\$ 69,256	34.0%
23	\$ 55,199	\$ 121,366	119.9%	\$ 55,199	\$ 61,358	11.2%
24	\$ 51,740	\$ 108,894	110.5%	\$ 51,740	\$ 55,053	6.4%
25	\$ 89,276	\$ 204,238	128.8%	\$ 89,276	\$ 103,256	15.7%
26	\$ 26,317	\$ 71,543	171.8%	\$ 26,317	\$ 36,170	37.4%
27	\$ 54,549	\$ 115,840	112.4%	\$ 54,549	\$ 58,564	7.4%
28	\$ 55,681	\$ 155,212	178.8%	\$ 55,681	\$ 78,470	40.9%
29	\$ 62,611	\$ 127,185	103.1%	\$ 62,611	\$ 64,300	2.7%
30	\$ 64,718	\$ 152,022	134.9%	\$ 64,718	\$ 76,857	18.8%
31	\$ 52,468	\$ 119,704	128.1%	\$ 52,468	\$ 60,518	15.3%
32	\$ 51,639	\$ 158,763	207.4%	\$ 51,639	\$ 80,265	55.4%
33	\$ 43,189	\$ 108,130	150.4%	\$ 43,189	\$ 54,667	26.6%
34	\$ 26,179	\$ 60,146	129.8%	\$ 26,179	\$ 30,408	16.2%
35	\$ 83,673	\$ 173,204	107.0%	\$ 83,673	\$ 87,566	4.7%
36	\$ 64,094	\$ 155,314	142.3%	\$ 64,094	\$ 78,521	22.5%
37	\$ 39,479	\$ 93,274	136.3%	\$ 39,479	\$ 47,156	19.4%
38	\$ 46,856	\$ 96,368	105.7%	\$ 46,856	\$ 48,720	4.0%
39	\$ 43,440	\$ 111,060	155.7%	\$ 43,440	\$ 56,148	29.3%
40	\$ 34,362	\$ 71,431	107.9%	\$ 34,362	\$ 36,113	5.1%
TOTAL	\$ 38,575	\$ 85,884	122.6%	\$ 38,575	\$ 43,420	12.6%



4.4.3 Spatial Representation of Demographic Variables

Figures 4-16 through 4-25 below depict the population, employment and income levels for the County in 2005 and 2035, reflecting the methodology described above. The tables and maps depicting this data by TAZ are included in Appendix 4.

Figure 4-16: 2005 Population Distribution by Census Tract

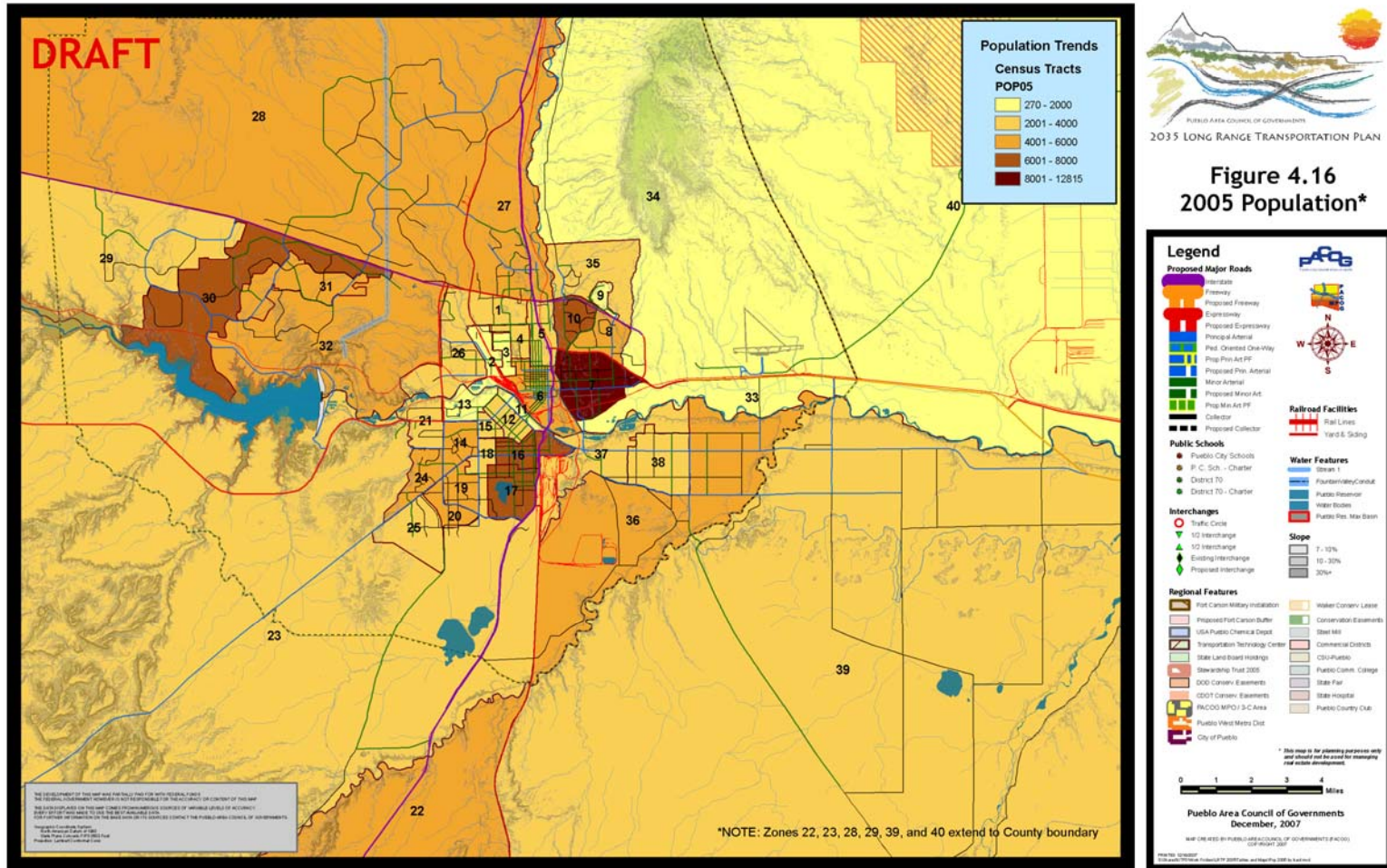


Figure 4-18: 2005-2035 Population Change by Census Tract

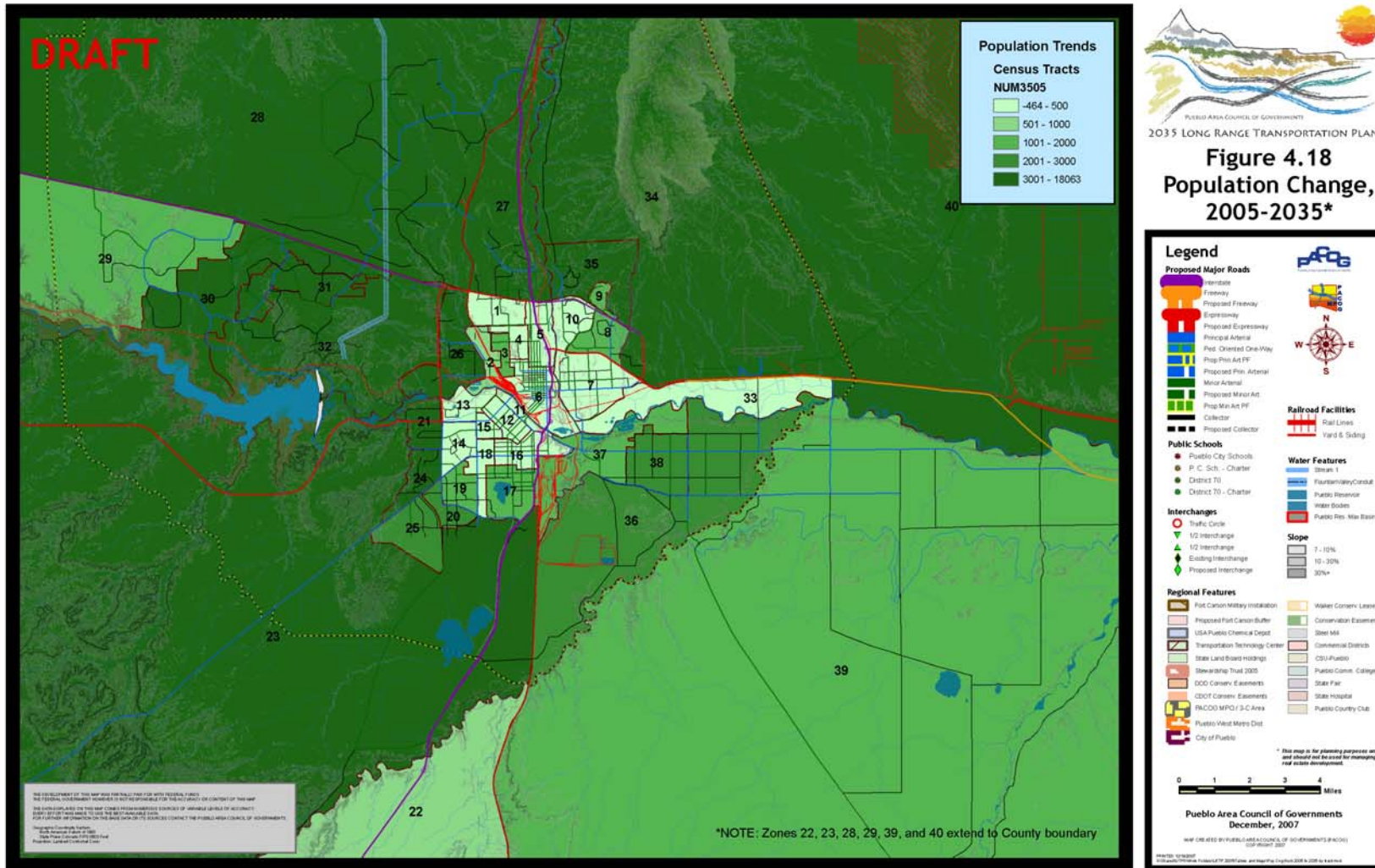


Figure 4-19: 2005 Population Density by Census Tract

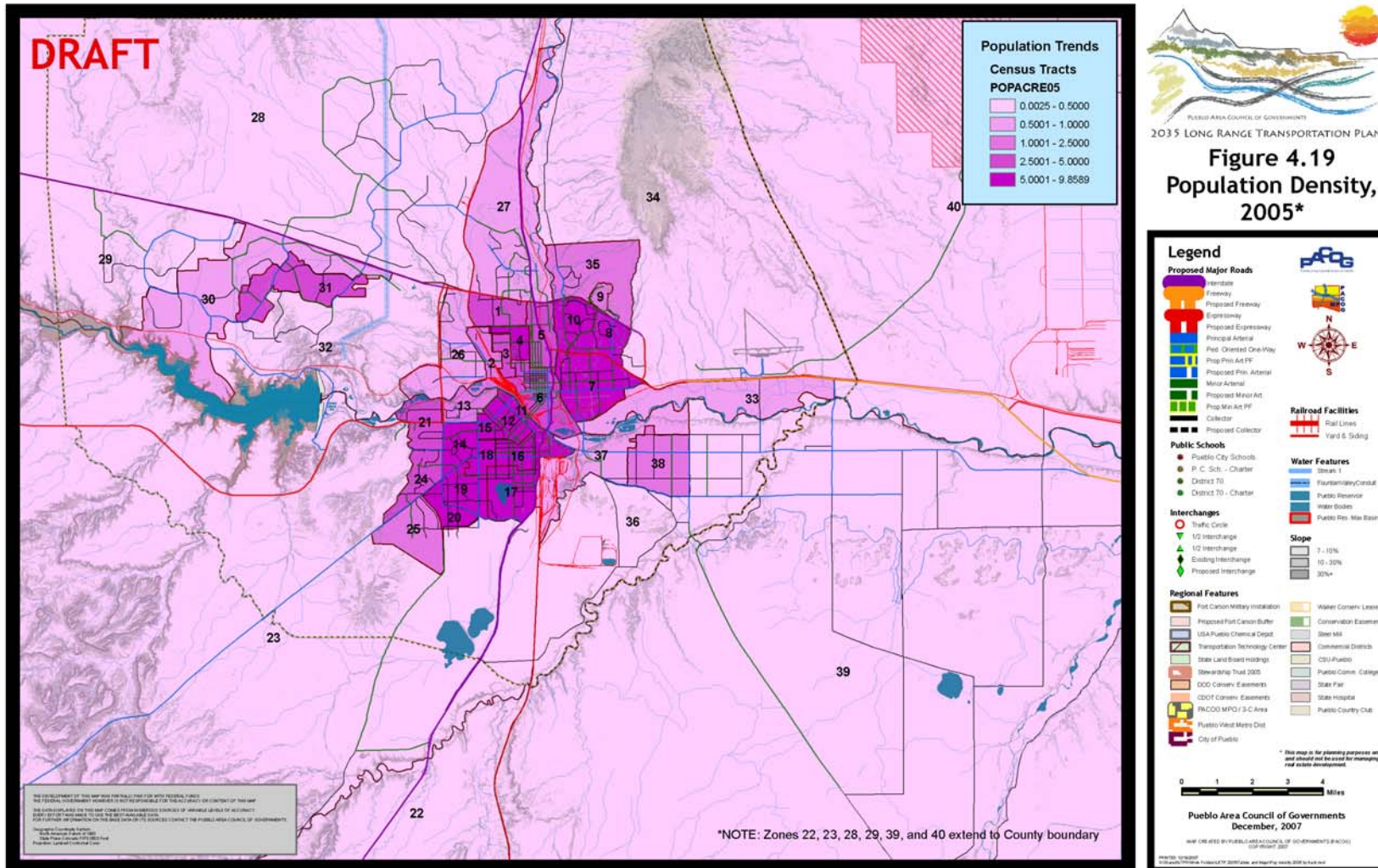


Figure 4-20: 2035 Population density by Census Tract

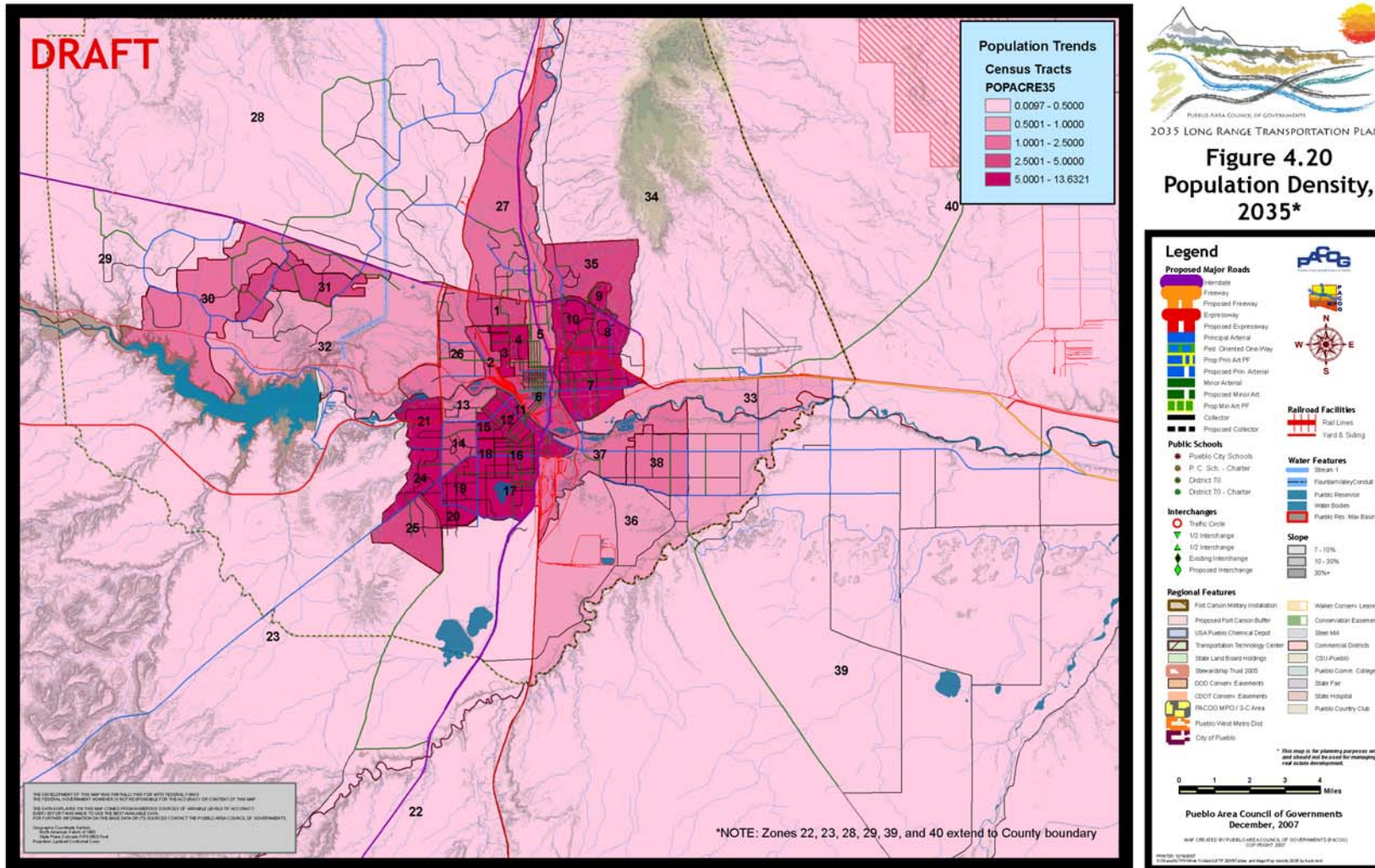


Figure 4-21: 2005 Employment by Census Tract

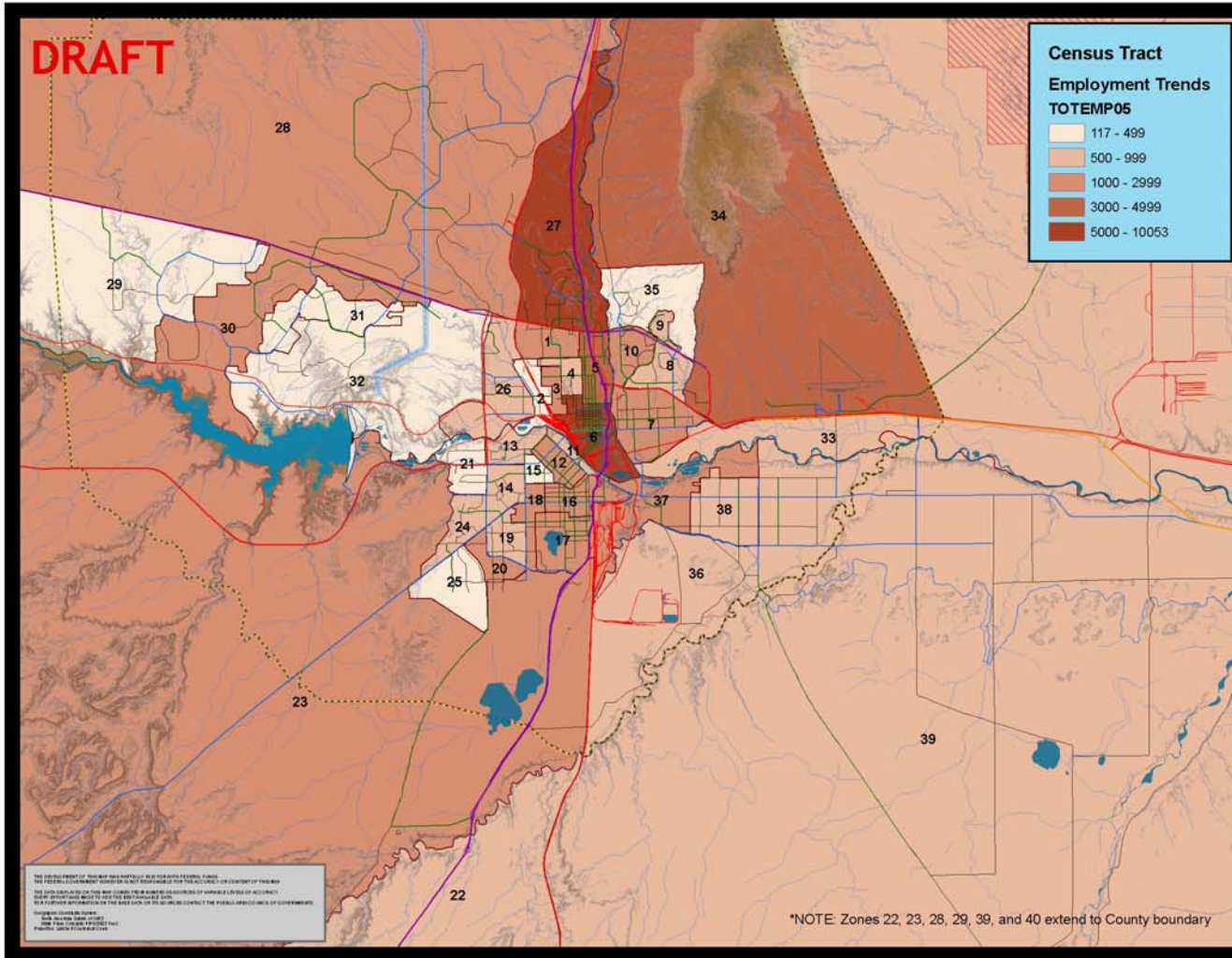


Figure 4.21
Employment,
2005*



Figure 4-22: 2035 Employment by Census Tract

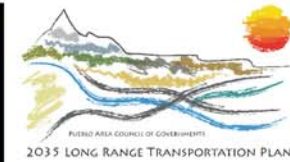
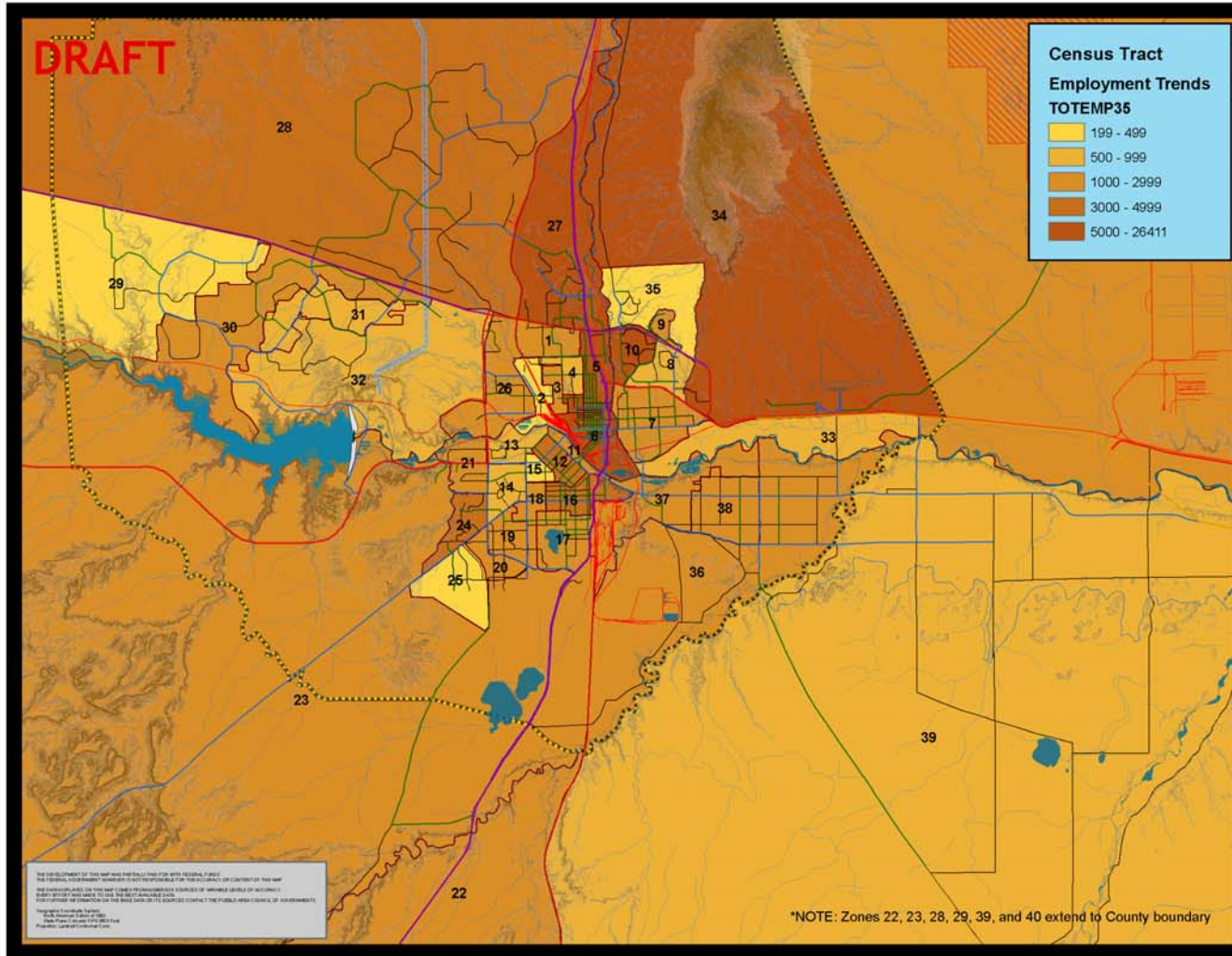


Figure 4.22
Employment,
2035*



Figure 4-23: 2005-2035 Employment Change by Census Tract

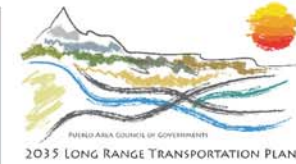
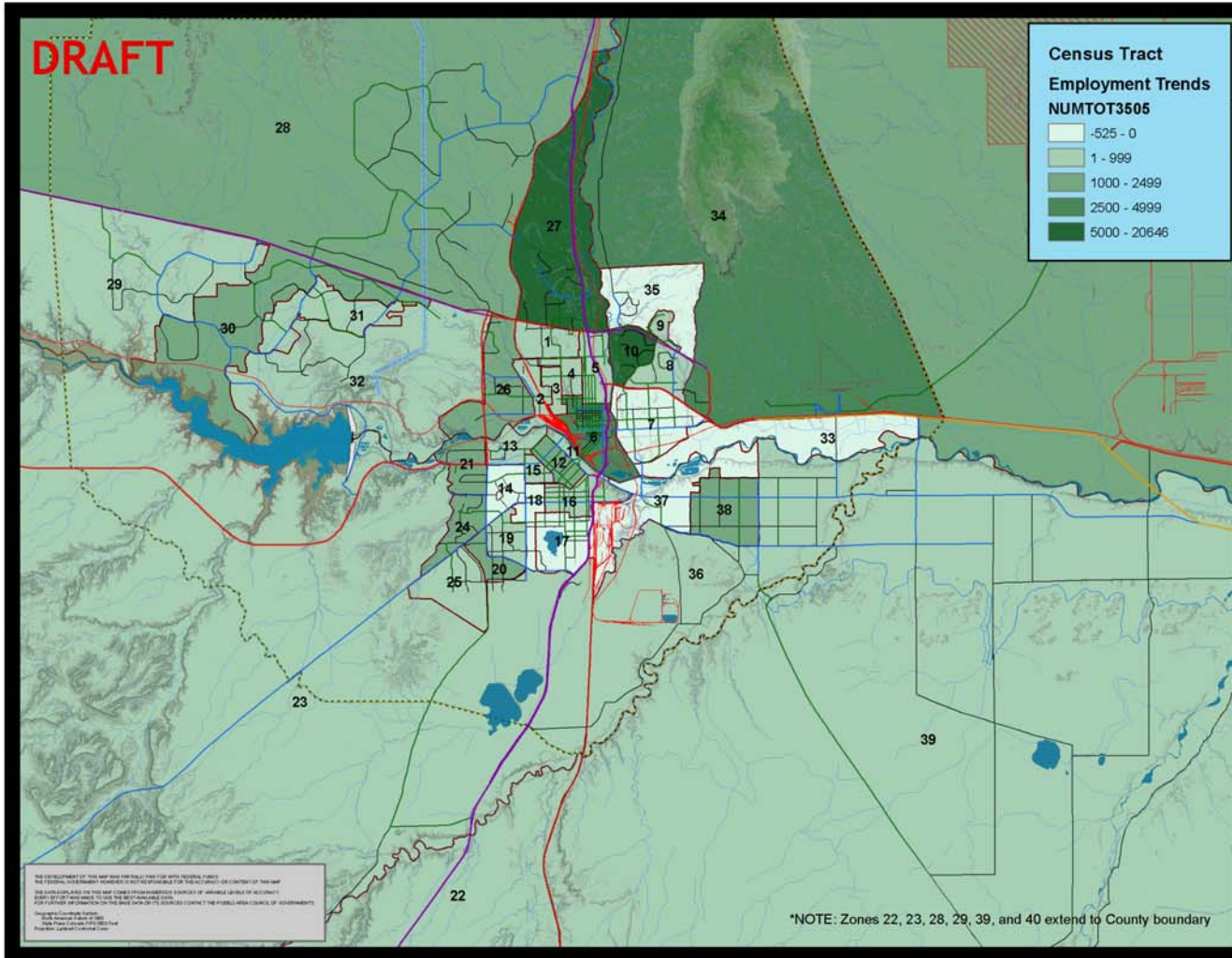


Figure 4.23
Employment Change
2005-2035*

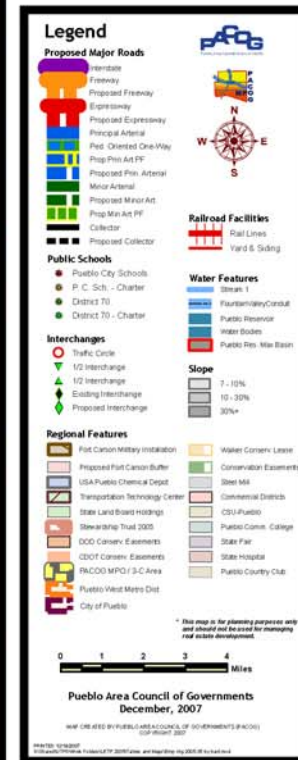


Figure 4-24: 2005 Median Income by Census Tract

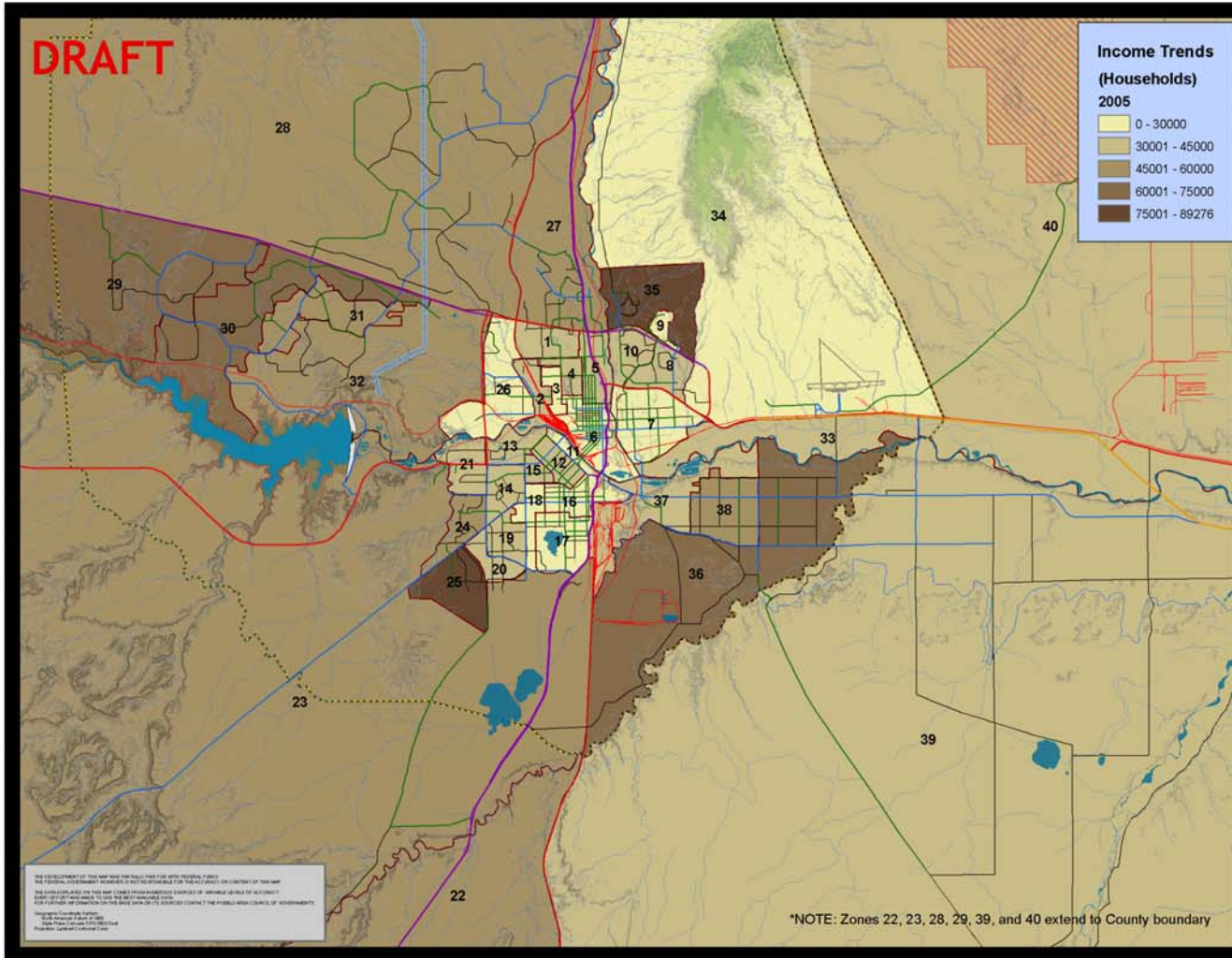


Figure 4.24
Median Income
2005*



Figure 4-25: 2035 Income by Census Tract

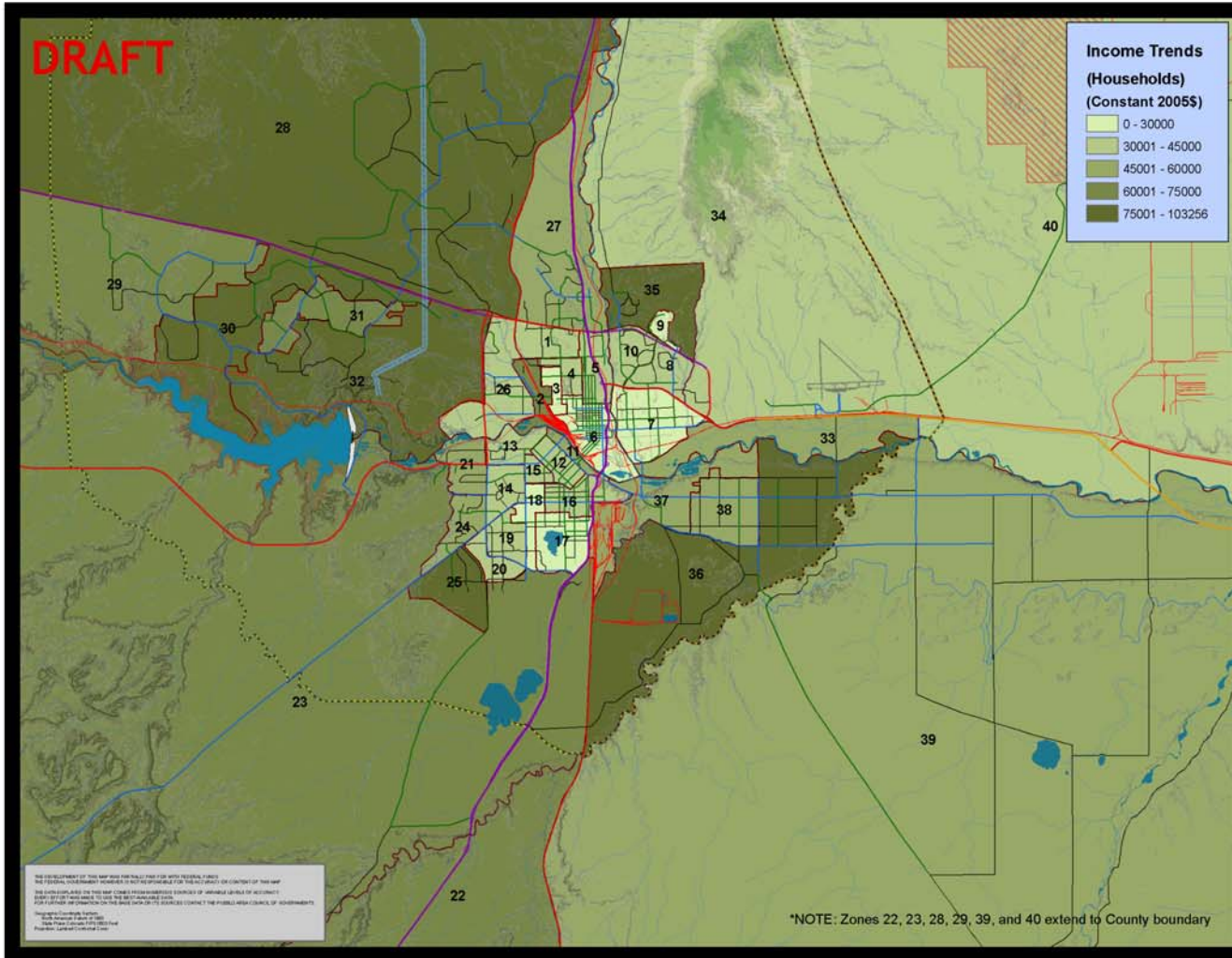


Figure 4.25
Median Income
2035*

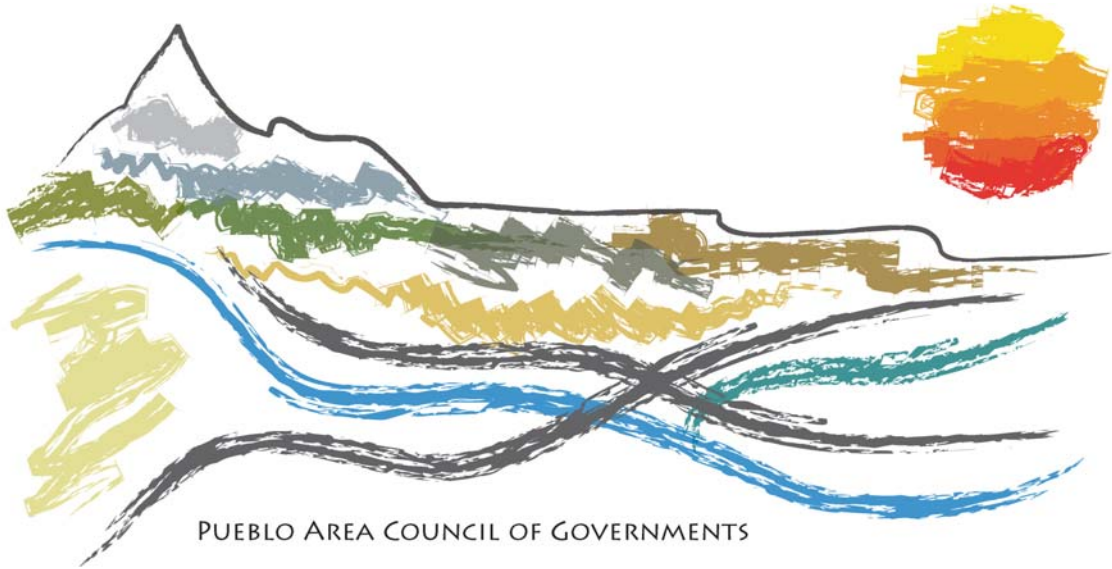


4.4.3 Allocation of Socioeconomic Forecasts to TAZ's

The final step in the process of developing the forecasts was to allocate the data for the 40 census zones to the 306 TAZ's. The previous maps depict the forecasts allocated to the 40 Census tracts. A more detailed breakdown of the demographic forecasts allocated to TAZ's can be found in Appendix B. It also provides a detailed description of the process used to allocate the census zonal forecasts to the 306 TAZ's.

The data and maps suggest that over the next three decades, Pueblo is likely to see the major component of residential growth occurring within the northern portion of the County. Proposed new subdivision developments appear likely to enhance the City of Pueblo's growth potential, reversing a long-term trend of relatively stagnant population growth. Pueblo West appears likely to see continuing growth, approaching a 2035 population of about 45,000. This figure approaches its build-out capacity of 50,000 – 55,000.

Eagleridge, and the surrounding area on Pueblo's north side adjacent to Highway 50 and I-25 appear well poised to experienced substantial job growth. This area appears likely to become Pueblo's new "downtown". The forecasts suggest that while the downtown and Union Avenue area are likely to experience some employment growth, it will be a secondary phenomenon compared to activity within the northern portion of the City. New subdivisions in the northern portion of Pueblo County have the potential for experiencing substantial growth in employment, particularly with the expansion of retail and perhaps industrial development.



2035 LONG RANGE TRANSPORTATION PLAN

Chapter 3

Environmental Profile

DRAFT PLAN

December 2007

NOTE: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.

Table of Contents

3.1	<i>Introduction</i>	4
3.1.1	Purpose and Need:	4
3.2	<i>Regulatory Framework for Environmental Considerations</i>	5
3.2.1	Transportation Related Laws	5
3.2.2	The National Historic Preservation Act (1966)	5
3.2.3	The National Environmental Policy Act [NEPA](1969)	6
3.2.4	The Clean Air Act (1970)	7
3.2.5	The Clean Water Act (1972)	7
3.2.6	The Endangered Species Act (1973)	8
3.2.7	The Emergency Wetlands Resources Act(1986)	9
3.2.8	Executive Orders	9
3.2.9	Linking Planning and NEPA	9
3.2.10	STEP UP	10
3.2.11	Natural Resource Management Plans	11
3.2.11.1	National Forest and Grasslands Management Plans	11
3.2.11.2	Bureau of Land Management (BLM) Plans	12
3.3	<i>Methodology for Environmental Analysis</i>	13
3.3.1	The PACOG “Corridor Vision” Strategy	13
3.3.2	Regional Overview	15
3.3.3	Environmental Analysis and Mapping	18
3.3.3.1	Unmapped Transportation Planning Factors	18
3.3.4	Involvement in Local Environmental Issues	20
3.3.5	Mitigation Activities	23
3.3.5.1	Single-Project Mitigation	24
3.3.5.2	Multi-Project Mitigation	25
3.3.5.3	Regional Studies	25
3.4	<i>Transportation & Land Use Planning</i>	26
3.4.1	Overview	26
3.4.2	Best Practices	29
3.4.3	The Pueblo Regional Development Plan and Future Land Use	33
3.4.2.1	Special Development Areas	35
3.4.2.2	Transportation Planning in Special Development Areas	37
3.4.4	Water and Growth	38

3.4.5	Recent Comprehensive Plan Amendments & Related Actions	38
3.4.6	Primary job creation and Expansion of Urban Renewal Districts	41

List of Tables

Table 3.1:	Land Use Categories	29	Error! Bookmark not defined.
Table 3.2:	Transportation Policy and Program Land Use Impacts:	32	Error! Bookmark not defined.
Table 3-2:	Future Land Use Intensities	34	Error! Bookmark not defined.

List of Figures

Figure 3.1:	Pueblo County Transportation Corridors	15
Figure 3.2:	The Fountain Creek Watershed	23
Figure 3.3:	Future Land Uses from the 2002 Regional Development Plan, including the North Pueblo Special Development Study Area	37
Figure 3-4:	Historical Annexations to the City of Pueblo	39
Figure 3.5:	Honor Farm Master Plan	41
Figure 3.6:	Pueblo Urban Renewal Authority Areas	42



3.1 Introduction

3.1.1 Purpose and Need:

The passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) has resulted in many changes to the transportation planning process. SAFETEA-LU requires that the adopted metropolitan transportation plan contain a discussion of potential environmental mitigation activities (area-wide, not project specific). This is a new requirement that should be developed in consultation with Federal, State, and Tribal regulatory agencies responsible for land management, wildlife, and other environmental issues. This new requirement did not apply to the previous Long Range Transportation Plan, and for many MPO regions the 2035 Long Range Transportation Plan is the first plan that will significantly address environmental issues. As local MPO offices have been working to comply with this new requirement, the Colorado Department of Transportation has been providing guidance, resources, workshops, and connections to various regulatory agencies to help achieve that goal. The purpose of the new SAFETEA-LU requirements is to help local MPO's make more informed decisions about specific transportation projects while also protecting and enhancing the environment.

This chapter describes the environmental regulatory framework from within which the 2035 LRTP is developed; the methodology used to acquire and analyze environmental data with relevance to transportation plans; and the overall approach to environmental mitigation taken by the plan. ***The chapter is accompanied by a significant collection of maps summarizing combinations of environmental data.*** Each map provides a description of the data sources employed and the analyses represented. The maps are referenced in the text of the chapter, included in Appendix 3 to the Plan, and also available individually from the PACOG MPO.



3.2 Regulatory Framework for Environmental Considerations

There are a number of environmental laws and executive orders that transportation agencies are required to address when planning for transportation within their regions. They include but are not limited to the following:

3.2.1 Transportation Related Laws

The Rivers and Harbors Act (1899)
The Federal Aid Highway Act (1956)
The Wilderness Act (1964)
The Fish and Wildlife Coordination Act (1965)
The Land and Water Conservation Fund Act (1965)
The Department of Transportation Act, Section 4(f) (1966)
The National Trails System Act(1968)
The Wild and Scenic Rivers Act (1968)
The Water Bank Act (1970)
The Marine Protection Research and Sanctuaries Act (1972)
The Surface Transportation Act (1978)
The Coastal Barrier Resources Act (1982)
The National Highway System Act (1995)

3.2.2 The National Historic Preservation Act (1966)

The National Historic Preservation Act (NHPA) affects transportation projects that are federally funded. It requires government agencies to evaluate the impact to cultural resources of all federally-funded construction projects through a process dictated by Section 106 of the Act. Under the act, agencies conduct their own preservation reviews with consultation from local governments and Indian tribes, with monitoring from the National Council on Historic Preservation.

The NHPA was enacted due to public concern that so many of the nation's historical resources were not receiving adequate protection as federally sponsored public works projects impacted their integrity. Having been strengthened and expanded by several amendments, the NHPA is today the basis of America's historic preservation policy.



The NHPA expanded the role of federal preservation efforts, begun by the National Antiquities Act. Federal power was diffused to the states, which in turn were encouraged to diffuse it further to localities. Historic preservation in the United States was thus broadened to include places with local or state as well as national historic significance.

NHPA mandates a three-part process: The identification of *potentially* historically significant resources; assessment of potential adverse effects to these resources of the proposed project; and description of resolution strategies to the adverse effects. Potentially significant cultural resources are defined as resources evaluated as eligible for listing on the National Register of Historic Places. Assessments are conducted by architectural historians authorized to conduct such reviews as part of specific Section 106 reviews, usually in conjunction with the satisfaction of NEPA requirements in an Environmental Impact Statement.

In Pueblo County, there are 114 structures currently listed on the National Register, including the individual contributing buildings in the Union Ave. and Pitkin Place Historic Districts. In addition, there are 5 structures listed on the Colorado Register and 14 on the Pueblo Register of Cultural Resources, all of which would qualify as eligible for National Register status for Section 106 review purposes. In addition, as part of the I25 improvements Environmental Impact Statement Section 106 review, 856 structures were tentatively identified as National Register-eligible within the Area of Potential Effect for the I25 Improvements project.

Many of the currently identified qualifying structures are depicted in Figure 3-3 in Appendix 3.

3.2.3 The National Environmental Policy Act [NEPA](1969)

NEPA came into existence following widespread protests against the federal government's destruction of neighborhoods and the natural environment while building Interstate highways during the 1950s and 1960s. The focus of the law was the establishment of a U.S. national policy promoting the enhancement of the environment, but its



most significant effect was to establish the requirement for environmental impact statements (EIS's) for major U.S. federal government actions. This law affects transportation projects in that it has since been applied to any public works project that either involves federal funding or when a federal agency is a key participant in the project's development.

3.2.4 The Clean Air Act (1970)

The Clean Air Act Extension of 1970 is a United States federal law that requires the Environmental Protection Agency (EPA) to develop and enforce regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health. This law is an amendment to the Clean Air Act originally passed in 1963.

In June 1989 President Bush proposed sweeping revisions to the Clean Air Act (The Clean Air Act Amendments (1990). Building on Congressional proposals advanced during the 1980s, the President proposed legislation designed to curb three major threats to the nation's environment and to the health of millions of Americans: acid rain, urban air pollution, and toxic air emissions. The proposal also called for establishing a national permits program to make the law more workable, and an improved enforcement program to help ensure better compliance with the Act.

Pueblo County is not designated as “non-attainment” by the EPA. Non-attainment zones are areas of the country where air pollution levels persistently exceed the national ambient air quality standards.

3.2.5 The Clean Water Act (1972)

Transportation projects that have potential water quality impacts will need to address the regulations of the Clean Water Act. It is the primary federal law in the United States governing water pollution. The act established the goals of eliminating releases to water of high amounts of toxic substances, eliminating additional water pollution by 1985, and ensuring that surface waters would meet



standards necessary for human sports and recreation by 1983.

Section 303 of the Clean Water Act authorizes the water quality standards and Total Maximum Daily Load (TMDL) programs. These are risk-based (also called hazard-based) programs that set site-specific pollutant standards for individual water bodies, such as rivers, lakes, streams and wetlands.

A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Over 60,000 TMDL programs are proposed or in development for US waters in the next decade and a half.

Following the issuance of a water quality standard or TMDL for a water body, implementation of the requirements involves modification to NPDES permits for facilities discharging to the water body.

There is also a system of regulating the discharge of dredged and fill material into jurisdictional waters of the United States, administered by the Army Corps of Engineers under Section 404. This program regulates the discharge of fill and dredged material into jurisdictional waters of the United States. Essentially, all discharges of fill or dredged material affecting the bottom elevation of a jurisdictional water of the U.S. require a permit from the Army Corps. These permits are an essential part of protecting wetlands, which are often filled by land developers. The Federal Government has recognized that wetlands are vital to the ecosystem in filtering streams and rivers and providing habitat for wildlife. Drainage basins in Pueblo County are shown in Figure 3-4 in the appendix.

3.2.6 The Endangered Species Act (1973)

There are a number of Threatened and Endangered Species in Pueblo County and as such, transportation projects could potentially be affected by federal regulations regarding the protection of these species and their various habitats. The Endangered Species Act, (ESA) is the most wide-ranging of the dozens of United States environmental laws passed in the 1970s. This act was designed to protect critically

imperiled species from extinction due to the consequences of economic growth and development without adequate concern and conservation. Threatened and endangered species habitat is shown in Figure 3-5. Additional wildlife-related and biodiversity maps are included in Figures 3-6 through 3-12.

3.2.7 The Emergency Wetlands Resources Act(1986)

The Emergency Wetlands Resources Act of 1986, approved November 10, 1986, authorized the purchase of wetlands from Land and Water Conservation Fund monies, removing a prior prohibition on such acquisitions. It required the Secretary of the Interior to establish a National Wetlands Priority Conservation Plan, required the States to include wetlands in their Comprehensive Outdoor Recreation Plans, and transferred to the Migratory Bird Conservation Fund amounts equal to the import duties on arms and ammunition. Pueblo County wetlands are mapped in Figure 3-13.

3.2.8 Executive Orders

Floodplain Management Executive Order 11988 (1977)
Protection of Wetlands Executive Order 11990 (1977)
Federal Emergency Management Executive Order 12148 (1979)
Invasive Species Executive Order 13112 (1999)
Environmental Stewardship and Transportation Infrastructure project Reviews Executive Order 13274 (2002)
Floodplains are mapped in Figure 3-14.

3.2.9 Linking Planning and NEPA

The passage of the National Environmental Policy Act (NEPA) in the 1970's required transportation planners to consider the significance of environmental issues in transportation. The new requirements under SAFETEA_LU further emphasize both the spirit and the letter of NEPA. NEPA mandated an environmental assessment for every federally funded project with the potential to impact the environment. If no federal funding is involved, state



environmental review requirements or local ordinances and plans may apply with similar requirements for study of impact and assessment of alternatives.

In addition to transportation-related environmental review requirements, a variety of local, state and federal permits that regulate wetlands, water quality, air quality, noise and other environmental resources may be needed for projects as well. Identifying the extent of impacts and mitigation opportunities is a key consideration when planning projects.

3.2.10 STEP UP

Strategic Transportation, Environmental and Planning Process for Urbanizing Places, or STEP UP, is an environmental streamlining pilot project involving the Colorado Department of Transportation (CDOT), the Federal Highway Administration (FHWA), the Environmental Protection Agency (EPA) and the North Front Range Metropolitan Planning Organization (NFRMPO). In July 2003, the FHWA Colorado Division office received funding to carry out the STEP UP project to evaluate environmental impacts of transportation projects early in the planning process, specifically during the development of the long range Regional Transportation Plan (RTP). CDOT administers the funds for the pilot project provided to the NFRMPO. The NFRMPO was selected as the region for the pilot study due to its moderate size (approximately 350,000 people over 1,600 square miles) and its inclusion of two rapidly-growing urbanized areas.

The primary objectives of the project included:

1. Development of an improved process for addressing environmental impacts related to transportation projects at the earliest possible stage.
2. Development of GIS-based tools for early identification of impacts of transportation projects.
3. Incorporation of a cumulative effects assessment into NFRMPO's Regional Transportation Plan process to help



understand the effects of transportation development on both land use and environmental resources.

This effort focused on the process by which projects are planned and implemented, from the creation of a Regional Transportation Plan (RTP) through the inclusion of projects in the local and state Transportation Improvements Plans (TIP/STIP), and on to the development of individual projects through the National Environmental Policy Act (NEPA) process.

The STEP-UP process has application to the PACOG MPO's planning environment, and it is PACOG's intent to implement a similar program during the next five-year planning cycle.

3.2.11 Natural Resource Management Plans

It is important for Long Range Transportation project planning to understand the long-term goals of the management plans for Federal Lands within their study areas. Knowing the goals of these agencies as expressed through their management plans will help to ensure future transportation plans are not at cross-purposes with the stated goals of these federal agencies. Public Lands and lands by agency ownership in Pueblo County are mapped in Figure 3-15 and 3-16. The following are summaries of transportation-related goals from PACOG-area resource management areas.

3.2.11.1 National Forest and Grasslands Management Plans

The Pike and San Isabel National Forests (Forests) and Cimarron and Comanche National Grasslands (Grasslands) (collectively referred to as the PSICC) include 2.8 million acres of public lands. A portion of San Isabel National Forest lies within the PACOG planning area. Management of the PSICC is very complex because it spans a variety of ecosystems, and social and economic settings, and must be integrated with the needs of two state governments and 17 counties. The PSICC is currently working under the 2006 fiscal year monitoring report of their 1984 Forest Plan.



PSICC personnel meet regularly with the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), Colorado Division of Wildlife (CDOW), Kansas Department of Wildlife and Parks (KDWP), and various other partners regarding wildlife objectives and opportunities for projects that will help achieve shared objectives. Topics have focused on lesser prairie chickens, big game, and trout with the state agencies, grazing management with the BLM, and threatened and endangered (T&E) species with the USFWS. CDOW's Habitat Partnership Program (HPP) includes representatives from CDOW, the Forest Service, BLM, private landowners, and hunters with the aim of addressing big game animal damage issues on private lands intermixed with state and federal ownerships. There are also two Antelope Conflict Resolution committees in southeastern Colorado, where state grazing allotments and the Comanche National Grassland coexist with private agricultural interests. The PSICC has established partnerships with state universities and species advocacy groups such as Trout Unlimited, Ducks Unlimited, the Rocky Mountain Elk Foundation, and the National Wild Turkey Federation for research and habitat enhancement projects.

3.2.11.2 Bureau of Land Management (BLM) Plans

The PACOG planning area lies within the area administered by the Royal Gorge Field Office in Canyon City, Colorado. The office is currently considering a proposal to amend its Travel Management Plan (TMP) as it relates to Off Highway Vehicle (OHV) designations.

The Bureau of Land Management (BLM) proposes amending the Royal Gorge Resource Management Plan (RMP) to revise current travel management regulations for portions of the six eco-subregions included in the Arkansas River TMP planning area. The TMP serves as the instrument for implementing previous travel and transportation decisions included in the Royal Gorge RMP. The TMP directs BLM to change Off-Highway Vehicle (OHV) designations used throughout most of the planning area from the current system of *Limited to Existing Roads and Trails* to a new system of *Limited to Designated Roads and Trails*. The primary TMP goals that would be achieved through the proposed amendment and changes in OHV designations include: maintaining and improving public



land health; providing appropriate and reasonable access;
and enhancing recreation opportunities.

3.3 Methodology for Environmental Analysis

3.3.1 The PACOG “Corridor Vision” Strategy

Transportation Planning often uses the concept of “corridor plans” to analyze future roadway systems and expansions in capacity to current systems. This makes rational sense from the standpoint that people have to move from point A to point B along some route roughly between the two points. Buffers are chosen to determine the width of the “corridor” from this imaginary line (or the current facility) that is reasonable for study. That area is delineated and as much information as can reasonably be gathered is traditionally combined into a very detailed analysis of the “corridor” of the project.

The challenge with this approach is that it can miss the greater environmental context. Its surgical accuracy leaves it without a reference point. For example, is there a wildlife migration route? How important is this migration route? What does it connect on a landscape level? Is this the single connection between summer and winter habitats? If this migration route is limited by the proposed transportation project, are there other options for the wildlife? These can be difficult questions to answer with limited information about large geographical areas.

PACOG has chosen to supplement this traditional “corridor” approach with a more holistic, contextually rich approach. GIS technology makes it possible now to analyze entire landscapes at a level once only available to a small locale. The technology is such that reducing this global perspective to the traditional “corridor” model is actually more difficult and more expensive, although only slightly so. In an attempt to understand the landscape-level functionality of the PACOG region we have gathered data at the state and regional levels and are able to answer questions on a project-by-project basis from that the ecosystem perspective.



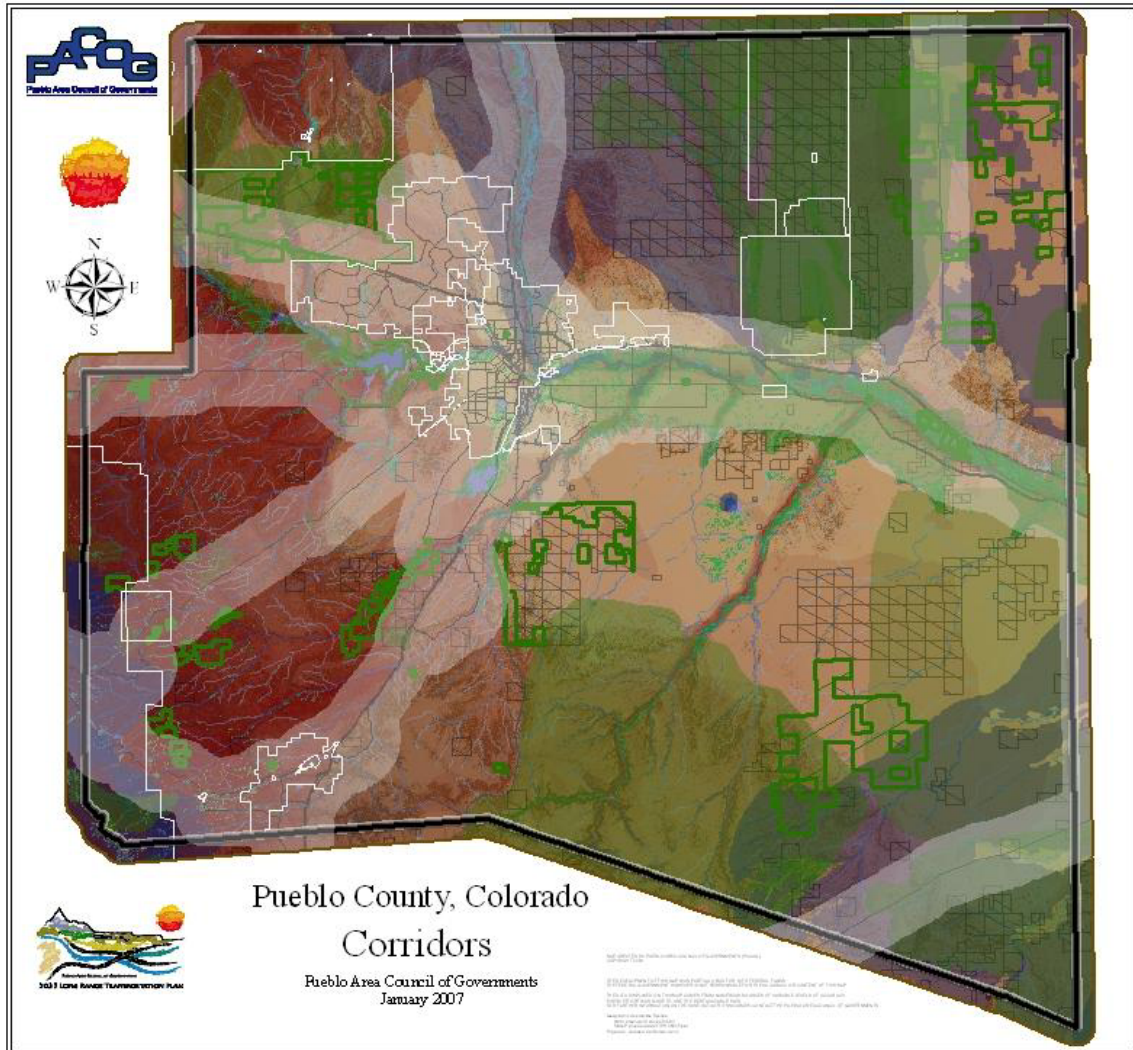
The fiscal constraints to transportation development in our region provide us with the opportunity to focus on the larger picture as opposed to the project-driven constraints of areas of the state that are growing more rapidly. The slow growth of Southern Colorado also allows us to examine a range of transportation modes more freely. Is it reasonable to believe that the single-occupant, petroleum-fueled vehicle will be the major mode of choice in 30 years? If not, what mode would we recommend as an alternative? How can we begin to imagine a transition to that mode? What would be the relative environmental cost of the new mode?

PACOG will still identify corridors and report on them in the same format as our previous transportation plans. This allows the 2035 plan to be easily and seamlessly combined with the reports of the other transportation planning regions at the state level. However, the analysis behind our corridor visions is radically different from what has been done locally in the past.

Figure 3.1 below illustrates the areas we would find if we only studied the buffers (shown as lighter areas) three miles in each direction away from existing facilities. By viewing the relatively large amount of landscape that is not included in these corridors it can be seen that had we used a traditional approach, our ability to understand the greater functionality of the landscape would be severely diminished.

The present approach is consistent with the spirit and letter of the latest regulations for Long Range Transportation Planning as delineated by both CDOT and FHWA. We are also excited about the added benefit that this level of analysis provides when working with the local governments within our jurisdiction. We have been able to share this data with them and thereby improve planning decisions being made on a number of levels within the region.

Figure 3.1: Pueblo County Transportation Corridors



3.3.2 Regional Overview

Pueblo County’s snow-capped, ruggedly alpine Wet Mountains rise majestically out of the San Isabel National Forest and provide a western backdrop for one of the most spectacularly beautiful landscapes in Colorado. At their base, rolling, pine-covered foothills give way to juniper and piñon-speckled mesas that in turn break dramatically from their flat tops and fall into hidden canyon lands. These then blend into vast expanses of short-grass prairie and fragrant sand sage ecosystems. Tying all of this variety together is a laced network of braided wetlands, reservoirs, lakes, mountain streams and riparian corridors that together form the numerous tributaries of the greater Arkansas River



system. This unique landscape that straddles the continental edge between the Great Plains and the Southern Rocky Mountains provides a setting for more than 250 individual species of birds and land animals. It shelters rare plants and animals that are found nowhere else in the world and provides critical habitat to a number of rare, threatened and endangered species including the bald eagle.

While similar examples of this arid collage of ecosystems can be found throughout the North American West, they are becoming increasingly isolated. Pockets can be found to the north along the Front Range of the Rockies, as far away as Wyoming and Montana. To the south, it can be seen extensively along the southern Sangre de Cristo Mountains to Taos and Santa Fe, New Mexico.

While these areas are all individually unique, they share many common features and qualities. Herds of elk roam across vast working ranches ringed with barbed wire fences. Black bears, mountain lions, wild turkeys, pronghorn, bighorn sheep, mule deer and the odd white tail deer leave their tracks on lands previously inhabited by Native Americans, cowboys, mountain men, pioneers, ranchers, miners, and adventurers seeking their luck in the lands of the West. These same Western lands have also been facing universal pressure from urbanization and development. The very traits that make them beautiful and desirable are the traits that attract urbanization, growth and irreversible change.

As the urbanized Front Range in Southern Colorado continues to grow at an unprecedented rate, the portion of Pueblo County that lies north of the City of Pueblo and also between the State Land Board properties on the East and Fort Carson on the West has been identified by many planning professionals, developers and investment groups as a likely area for future growth. With its current mixture of working ranches, historic trails, wetlands, wildlife corridors, and unique vistas, this sub-section of our study area is highly desirable for a number of future land uses. At its heart is the Fountain Creek watershed; a dynamic riparian zone that is currently being studied by a number of local groups with different goals and objectives.

Some of these regional goals include:



PUEBLO AREA 2035 LONG RANGE TRANSPORTATION PLAN

- Creating numerous new recreational opportunities such as camping, fishing, hunting, mountain biking, urban and wilderness hiking, horseback riding and bicycle commuting.
- Restoring natural ecosystems and wildlife habitat throughout the corridor
- Keeping agricultural lands in the corridor productive and vibrant.
- Preserving a “greenbelt” of open space as a community separator and scenic corridor along Interstate 25 between Pueblo and Colorado Springs.
- Finding an effective way to manage storm water discharges, attenuate flooding and reduce the dynamic changes of the Fountain Creek.
- Controlling the spread of noxious weeds and plants within the corridor.
- Finding effective ways to maintain or improve the wildlife habitat within the Fountain Creek riparian and upland zones.
- Managing water quality and quantity on the Fountain Creek as growth and urbanization in the watershed changes the natural hydrograph.
- Limiting the impact of urbanization to the Fort Carson training areas and vice versa.
- Protecting valuable rare plant communities and critical wildlife migration corridors.

There are many challenges facing elected officials, community leaders, planners, interest groups and the public. Prominent among them will be to integrate the numerous and sometimes disparate goals for the lands, accommodating future projected growth while protecting the rich ecological, cultural and historic resources we have inherited.



3.3.3 Environmental Analysis and Mapping

The PACOG 2030 LRTP plan was not based on environmental information. The plan projected a number of roadway networks that were based on a pre-determined one-mile grid, which in some instances placed roads on the top of high mesas and passing over steep slopes. In other cases roads ran through protected conservation areas and through the middle of areas of high wildlife and biodiversity values.

The environmental analysis for the 2035 plan examined landscape-scale environmental factors for transportation using a GIS environmental database. Layers of data were mapped individually for reporting purposes but were also used in multi-layered mapping projects to assist in planning future roadway corridors.

In the 2035 plan a number of environmental variables were considered with associated spatial databases. These variables included elevation (Figure 3-17), slope (Figure 3-18), soil types (Figure 3-19 & 20), property ownership, land cover (Figure 3-21), and wildlife habitats, Threatened and Endangered Species and biodiversity (Figures 3-5 through 3-12). The process of creating a roadway network while considering a large number of transportation and environmental factors was iterative. It is nearly impossible to read a map with all environmental factors displayed at the same time. So a few factors would be considered; roadway alignments would be moved to accommodate them; then those layers would be removed; and new layers representing other factors would be added and corridors would move again. This continued until the “best fit” for environmental and transportation factors could be achieved.

3.3.3.1 Unmapped Transportation Planning Factors

There were also a number of unmapped “environmental” factors that were used when considering transportation corridors and future transportation projects. They include Hazardous Material Sites, Possible Brownfield Sites, and Environmental Justice.

Current and former Hazardous Material Sites were not mapped because some of the data we have on hazardous



materials is dated (circa 1980) and may have changed. Other, more recent data is fairly site-specific, and while the data will be valuable for project--specific evaluations, publishing it at the parcel level would be unfair to individual property owners. It was deemed that this information, while public and available from the EPA, should not be published in this plan.

For similar reasons Potential Brownfield Sites were not mapped in this report. The EPA is currently working with local interest groups, planners, local officials and individual property owners to create an inventory of potential Brownfield Sites. Under current Brownfields regulations, a site can be deemed a Brownfield even if it simply appears to be contaminated. The appearance of a site being contaminated can lead to a stigma associated with the property that keeps it from re-developing for other uses. Sites like these are eligible for Brownfield studies through the EPA to have that stigma removed so that the site can be more easily redeveloped for the benefit of a community. As such, selecting properties that could potentially qualify as Brownfield Sites is a highly collaborative process that involves the community and individual elective property owners who choose to pursue this designation.

It is possible to guess at likely sites within the region with historic uses that are associated with contamination. Some of these uses include, dry cleaners, smelters, railroad areas, stockyards, gravel pits, slag piles, foundries, kilns, former dumps (both municipal and ad hoc), meat processing plants, industrial sites, paint stores, and mechanic shops. However, until such an inventory is complete, it would be inappropriate to publish staff-recommended potential sites, or sites with historic uses that are associated with contamination.

Environmental Justice areas were mapped in the Coordinated Public Transit-Human Services Transportation Plan. Areas characterized by a predominance of low-moderate income populations are exhibited and discussed in Chapter 5, the Coordinated Human Services-Public Transportation Plan. These areas will need to be further studied in comparison with locations of substantial environmental impact to determine whether disadvantaged populations in Pueblo are disproportionately exposed to environmental hazards. More specific spatial analysis has



been initiated by the MPO, combining census data with parcel-level data from the Pueblo County Assessor. This created a highly predictive model for portions of the study area that could be affected by Environmental Justice issues. This information, while also public, is inappropriately intrusive for inclusion in the present plan.

3.3.4 Involvement in Local Environmental Issues

One of the most pressing current local environmental issues in this region is the status of the Fountain Creek. The Fountain Creek is a tributary of the Arkansas River that extends from its confluence with the Arkansas River in the City of Pueblo north into El Paso and Teller Counties (Figure 3-2 below). Urbanization within this watershed has created a number of water quantity and water quality concerns. As a result, the Fountain Creek Vision Task Force was formed to address these issues.

The mission of the Fountain Creek Vision Task Force is to prepare a comprehensive strategic plan for the Fountain Creek Watershed. This plan will incorporate and address all of the planning, scientific, and visioning documents generated by its members, groups and sub-groups and approved by their Consensus Committee. The Task Force will then build on these documents to create a shared vision for specific actions of participating entities to realize the shared vision. El Paso County initiated this effort, and the first meeting was held in July 2006 at the Bear Creek Nature Center. The Keystone Center has been contracted to facilitate these conversations and move the group toward the achievement of common goals.

Colorado Open Lands and the Nature Conservancy have been in discussions with many key landowners within the watershed. Working with the Department of Defense to create a buffer zone around Fort Carson, they have also begun to purchase certain properties and secure conservation easements within the watershed.

Senator Salazar directed his staff in both his Pikes Peak and Arkansas Valley offices to research the potential for carrying a "Crown Jewel" project on Fountain Creek. This project has the goal of restoring Fountain Creek and turning



the corridor between Colorado Springs and Pueblo into a recreational amenity.

Colorado State Parks, under the leadership of Board Chair Tom Ready, is excited about the possibility of building a linear park, anchored by two campsite facilities - one in Southern El Paso County and one in Northern Pueblo County. There are hundreds of miles of trails in place and hundreds of miles of new trails planned (including the Colorado Front Range Trail) that would link this linear State Park to trail systems and parks throughout the state. There are a number of large reservoirs adjacent to this corridor as well as reservoirs planned that could provide new opportunities for flat water recreation and fishing.

Future plans for major utility improvements, including swage treatment plants, power plants and increasing water usage in the region through the Bureau of Reclamation's Southern Delivery System project have all raised concerns of local citizens, public officials and communities.

The Army Corps of Engineers has recently completed a study of the entire watershed to document the current characteristics, general conditions and health of Fountain Creek. This baseline information was then used to identify areas where restoration projects may be feasible and beneficial. Preliminary recommendations on rehabilitation and restoration of the watershed have been made by the Corps of Engineers.

The proposed projects of the Arkansas Valley Conduit (AVC), SDS and PSOP (Preferred Storage Option Plan) have opened the door for more regional, non-partisan cooperation than ever before. Local utilities and governments in Pueblo and El Paso Counties and throughout the region are more interested in fixing Fountain Creek than at any time in recent history.

The Pueblo Area Council of Governments has been staffing the Task Force and providing mapping support for various issues as they are addressed by the group.

Fountain Creek Vision Task Force Participants include:

- City of Fountain
- City of Colorado Springs

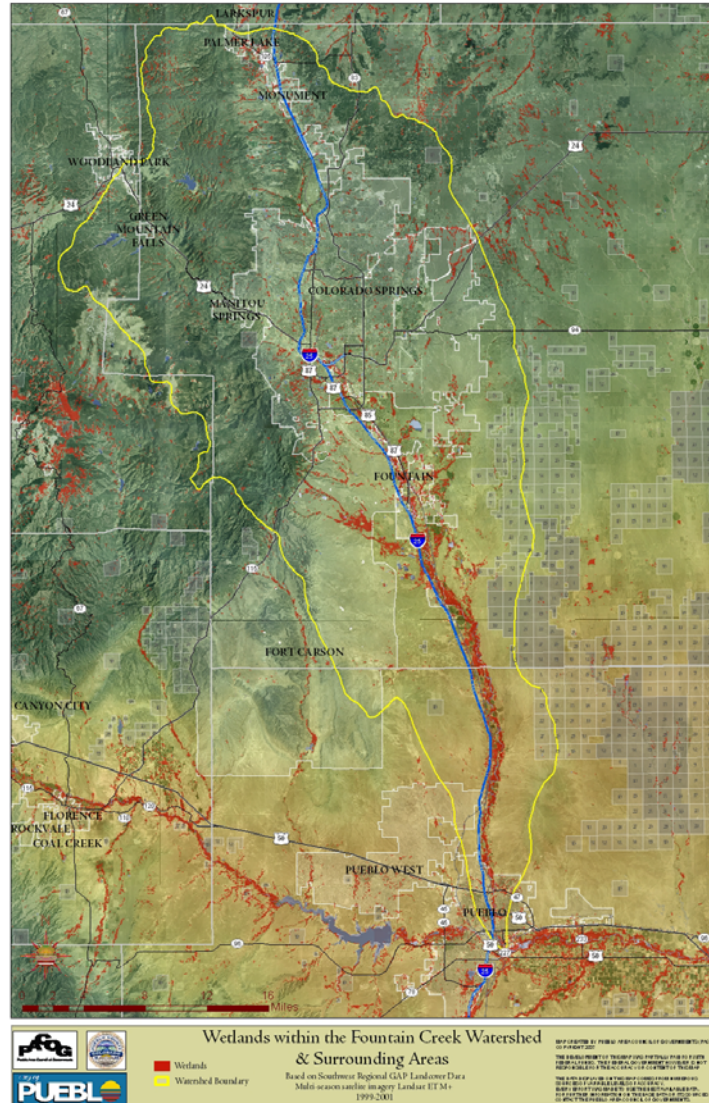


PUEBLO AREA 2035 LONG RANGE TRANSPORTATION PLAN

- City of Pueblo
- City of Palmer Lake
- El Paso County
- Pueblo County
- Pikes Peak Area Council of Governments (elected)
- Pikes Peak Area Council of Governments (staff)
- Pueblo Area Council of Governments (elected)
- Pueblo Area Council of Governments (staff)
- Colorado Open Lands
- El Paso County property owners (along Fountain Creek and the Arkansas River)
- Pueblo County property owners
- City of Pueblo residents (Colorado Progressive Coalition)
- Colorado State Parks
- Technical Advisory Committee
- Department of Defense
- U.S. Senator Wayne Allard
- U.S. Senator Ken Salazar
- U.S. Congressman John Salazar
- U.S. Congressman Doug Lamborn
- Lower Arkansas Valley Water Conservation District
- Sierra Club
- City of Fountain Utilities
- Pueblo Board of Water Works
- Colorado Springs Utilities
- Teller County
- El Paso County Water Authority

It is important to the long-range transportation planning process to be intimately aware of these various projects and issues within the planning region. This venue has also allowed PACOG staff the opportunity to provide assistance and information to the public on future plans for roadway corridors and growth within the region.

Figure 3.2: The Fountain Creek Watershed



3.3.5

Mitigation Activities

A long-range transportation plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.

While our 2035 plan does not address in detail any specific projects in the Prioritized Plan in chapters 8 and 9, there are significant development projects currently in the planning



stages within our planning region. These projects will contain major transportation and land use implications for wildlife in Pueblo County. The concept of mitigation usually contains the premise that damage has been done or is going to be done and that there is a need for compensation or softening of said damage. Traditional impacts to wildlife from both land use and transportation projects are:

- Loss of habitat and resources
- Diminished access to habitat and resources
- Fragmentation of habitat
- Loss of critical, secondary and tertiary migration corridors
- Unintentional introduction of non-native plants and animals

The Council on Environmental Quality (CEQ) regulations (40 CFR1508.20) define mitigation as:

1. Avoiding an impact altogether by not taking a certain action or parts of an action;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing the impact over time by preservation and maintenance operation during the life of the action; and
5. Compensating for the impact by replacing or providing substitute resources or environments.

Without addressing any specific projects, the environmental section of the 2035 plan attempts to fulfill the first CEQ definition of mitigation by helping local land use authorities, developers, and transportation planners avoid creating an impact altogether by making better decisions that avoid the worst environmental offenses.

3.3.5.1 Single-Project Mitigation

Typically on single projects, mitigation is made on-site. In most cases, especially as it relates to wetlands, the amount of habitat that is impacted by a project cannot be compensated for by creating the same amount of similar habitat in a new location on-site. The newly created habitats are not as productive as the ones they were



intended to replace and may never reach the level of viability and productivity as the original habitats had attained naturally. For instance, Section 404 of the Clean Water Act requires that some ratio greater than 1:1 be used when generating compensatory mitigation through the creation of new wetlands. Because of this, it may be determined at the time of environmental review that more can be gained for the greater ecosystem by providing for improvements to environmental resources off-site.

In the case of migration corridors, an understanding of the type of corridor that runs through a specific site is vital. What does this migration corridor connect? What are the consequences of this corridor being eliminated or constrained by the project? If the site is understood at the landscape level before a project begins, decisions can be made that are landscape-appropriate. In any event, Single-Project Mitigation must start with an understanding of the site within the landscape. This perspective encourages the best decisions about the most effective and responsible mitigation for a specific action.

3.3.5.2 Multi-Project Mitigation

The principles for single-project mitigation also apply to multi-project mitigation. Having multiple projects however, may lead to some greater range of mitigation options. Some of these options are:

1. Mitigation Banking
2. In-Lieu-Fee Mitigation, and
3. Conservation Banking

3.3.5.3 Regional Studies

There are many studies being carried out by various interested groups on the functionality of the local landscape as they relate to development, conservation, and environmental concerns. Pueblo County is experiencing development pressures from the north along the Front Range communities. Additionally, development impacts to water quality on Fountain Creek have generated concern across the region. Incorporation of regional studies into the decision-making process will help to provide a more



seamless environmental fabric long-term. Working together with our planning partners to the north and participating in large scale environmental studies such as the “Planning and Environmental Linkages” project, which is evaluating both Pueblo and El Paso County for environmental and development constraints, will help the transportation planning process to mitigate for future project-based impacts.

3.4 Transportation & Land Use Planning

SAFETEA-LU expanded upon the required TEA-21 Planning Factors. Specific to the incorporation of environmental and land use factors, the law includes the following mandate:

SEC. 6001. TRANSPORTATION PLANNING.

Sections 134 title 23, United States Code

(h) SCOPE OF PLANNING PROCESS.—

(1) IN GENERAL.—The metropolitan planning process for a metropolitan planning area under this section shall provide for consideration of projects and strategies that will—

(E) Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

3.4.1 Overview

The need to cooperatively plan transportation systems in conjunction with land uses is now widely recognized. The Association of Metropolitan Planning Organizations 2004 Best Practices monograph *Noteworthy MPO Practices in Transportation-Land Use Planning Integration* elaborates the recommended philosophy for integrating land use planning issues into Long Range Transportation Plans. The primary goals of this transportation planning philosophy include the following:

- A desire to improve the connection between transportation and land use;
- Recognition that land use decisions are made by many, often independent, actors and actions;
- An interest in empowering local organizations



- through a bottom-up approach;
- A readiness to work within the traditional planning process available to MPOs; and
- Willingness of the MPO to act as a leader during project conception but ultimately play the role of facilitator for local solutions and innovations.

Consistent with this philosophy, the Federal Highway Administration recommends MPO's address the following issues, which implicitly require an examination of land use and transportation issues concurrently.

Corridor Planning: State DOTs, MPOs, cities, and counties can develop transportation corridor plans considering land use as well as transportation issues. Some State agencies have developed handbooks for corridor planning as an aid to district staff and consultants when conducting planning studies.

Interchange Area Planning: Agencies at various levels have developed and/or implemented land use plans and zoning overlay ordinances to guide land development around freeway interchanges. Interchanges become magnets for development, but unplanned development and unmanaged access can quickly lead to a breakdown of traffic conditions in the vicinity of the interchange, affecting both safety and capacity. State agencies and nonprofits have sponsored the development and adoption of model codes and regulations for interchange areas, while regional agencies and local jurisdictions have sponsored the development of interchange area plans that address access, local circulation, land uses, site design, buffers, and landscaping.

Linking Planning and NEPA: Transportation planning agencies are increasingly expanding the scope of their statewide, regional, and corridor-planning efforts to address NEPA issues, including land use impacts, at an early stage. The North Front Range's STEP-UP process described above in section 3.2.10 is a good example in Colorado. Methods include: Collecting and using regional data on environmental conditions in the long-range transportation planning process; evaluating combined transportation and land use scenarios; involving federal and state resource agencies in long-range transportation planning; conducting Tier 1 environmental analysis for transportation corridors; and recommending projects and policies in statewide and corridor plans that are



designed to reduce environmental impacts.

Planning for Transit Oriented Development: Transit agencies, MPOs, and local jurisdictions have led planning processes focusing on existing or planned transit station areas and/or corridors. These processes may involve education and outreach on TOD principles and concepts; station area conceptual planning; market assessment; detailed station area plans; development and adoption of overlay districts or other zoning changes to facilitate transit-supportive development; and application of other tools and incentives.

Regional Agency Support for Local Area Planning: MPOs, Regional Planning Commissions (RPCs), and Councils of Government (COGs) have provided technical and/or financial assistance for local comprehensive planning and/or small-area planning activities that link transportation and land use. Financial support has been provided from Federal sources, including Surface Transportation Program (STP) and Planning (PL) funds, as well as from funds appropriated by State legislatures.

Regional Visioning and Scenario Planning: MPOs and nonprofit/community groups have led public processes to develop a transportation and land use "vision" for a region or multi-jurisdictional corridor and to evaluate future transportation and land use scenarios. The results of this process are typically implemented through the next updates of the Long-Range Transportation Plan and Transportation Improvement Program, and through additional actions to encourage land use changes at the local level.

State DOT support for Comprehensive Planning: State DOTs have provided assistance for integrating transportation considerations into local comprehensive planning and land use considerations into statewide transportation planning. Activities have included the development of agency policies on considering land use in transportation planning, training for State DOT staff and consultants, and provision of technical and financial assistance for local governments.

Sub-area and Neighborhood Planning: Local agencies have developed plans for sub-areas that include both multi-modal transportation and land use strategies to address issues such as traffic circulation, parking, transit service, and pedestrian and bicycle access. Planning sub-areas have



included central cities, activity centers, and neighborhoods. Plans are implemented through capital improvements, changes to zoning, and other strategies.

Tier I EIS's for Transportation Corridors: A Tier 1 Environmental Impact Statement (EIS) is a broad environmental impact statement (e.g., for a general transportation corridor) that is prepared prior to a subsequent statement or environmental assessment on a more specific action (such as a specific highway alignment). The use of a tiered EIS approach to transportation corridor studies can assist in streamlining project development, by addressing large-scale issues up front (such as growth-related impacts) and then incorporating these issues by reference into a second-tier EIS dealing with specific projects and alignments.

The Pueblo Area 2035 Plan addresses corridor plans and interchange area plans based on best knowledge to date of the land uses projected by the City of Pueblo and Pueblo County. In addition, the environmental data provided in this plan provides a basis for subsequent NEPA environmental impact assessments. In addition, sub-area analyses conducted as part of the 2030 LRTP quadrant plans still provide valuable urban land use/transportation interface plans and are therefore included in this plan.

3.4.2 Best Practices

Todd Litman (2007) provides a useful taxonomy of major land use categories which may be helpful in understanding Pueblo County's land use and transportation planning interface:

Table 3.1: Land Use Categories

(From Litman, T. 2007. Victoria Transport Policy Institute)

Built Environment	Greenspace
<ul style="list-style-type: none"> • Residential (single- and multi-family housing) • Commercial (stores and offices) • Institutional (schools, public offices, etc.) • Industrial • Transportation facilities (roads, parking, sidewalks, etc.) • Plazas/urban parks • Brownfields (old, unused and underused facilities) 	<ul style="list-style-type: none"> • Parkland • Agricultural • Forests and other undeveloped lands • Shorelines

Land use patterns can be evaluated based on the following attributes:



- *Density* - number of people, jobs or housing units in an area.
- *Mix* - whether different land use types (commercial, residential, etc.) are located together.
- *Clustering* - whether related destinations are located together (e.g., commercial centers, urban villages, residential clusters, etc.).
- *Connectivity* – number of connections within street and path systems.
- *Impervious surface* – land covered by buildings and pavement, also called *footprint*.
- *Greenspace* – portion of land devoted to gardens, parks, farms, woodlands, etc.
- *Accessibility* – ability to reach desired activities and destinations.
- *Nonmotorized accessibility* – quality of walking and cycling conditions.

Land use attributes can also be evaluated at various scales:

- *Site* – an individual parcel, building, facility or campus.
- *Street* – the buildings and facilities along a particular street or stretch of roadway.
- *Neighborhood or center* – a walkable area, typically less than one square mile.
- *Local* – a small geographic area, often consisting of several neighborhoods.
- *Municipal* – a town or city jurisdiction.
- *Region* – a geographic area where residents share services and employment options. A metropolitan region typically consists of one or more cities and various suburbs, smaller commercial centers, and surrounding semi-rural areas.

Geographic areas are often categorized in the following ways:

- *Urban* – relatively high density (5+ housing units per gross acre), mixed land use, with multi-modal



transport (typically including walking, cycling, public transit, automobile and taxi service).

- *Suburban* – medium density (2-10 residents, 1-5 housing units per acre), segregated land uses, and an automobile-dependent transportation system.
- *Town* – Smaller urban centers (generally less than 20,000 residents).
- *Village* – Small urban center (generally less than 1,000 residents).
- *Exurban* – low density (less than 1 house per acre), mostly farms and undeveloped lands, located near enough to a city for residents to commute and use services there.
- *Rural* – low density (less than 1 house per acre), mostly farms and undeveloped lands, with a relatively independent identify and economy.
- *Greenspace* (also called *Openspace*) – biologically active lands such as gardens, parks, farms, woodlands, etc.

Many experts are concerned that *sprawl* (dispersed, low-density, automobile-dependent land use development patterns) imposes various economic, social and environmental costs, and so from a public policy perspective *Smart Growth* development is preferable (Litman, 2004).

Transportation and land use decisions affect each other. Some types of land use patterns increase automobile travel, while others are more multi-modal and accessible, reducing the amount of vehicle travel needed to access goods, services and activities. Communities designed primarily for automobile transportation are called *automobile-dependent*. Some types of transport policies and programs also tend to encourage automobile dependency, while others tend to encourage multi-modal distribution of demand, as summarized below.



Table 3.2: Transportation Policy and Program Land Use Impacts:

Encourages Automobile Dependency	Encourages Multi-modal Distribution of Mobility Demand
Maximum roadway capacity and speed.	Transit service improvements.
Generous parking supply.	More affordable public transit fares.
Low road user charges and fuel taxes.	Pedestrian and cycling improvements.
Poor walking and cycling conditions.	Reduced parking supply with parking management.
Inferior public transit service.	Road and parking pricing.
High public transit fares.	Traffic calming and traffic speed reductions.

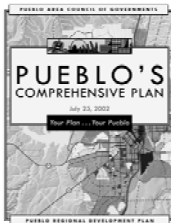
The following best practices in transportation/land use planning help achieve effective development.

- Planning should be integrated, so individual, short-term decisions are consistent with broader, strategic goals.
- Analysis should be comprehensive, reflecting all significant perspectives, impacts and objectives.
- Planners should be objective, fair and respectful.
- Stakeholders should be kept informed and have opportunities for involvement.
- The planning process should be understood by all stakeholders, with a clearly defined vision or problem statement, goals, objectives, evaluation criteria and performance indicators.
- A wide range of possible solutions should be considered, including some that may initially seem unrealistic but could be appropriate as part of an integrated program. Support innovation: try new strategies recognizing that some may fail since even unsuccessful experiments provide useful information.
- Resources, constraints, and conflicts must be identified, with attention drawn to potential

- problems.
- Results should be conveyed in ways that are comprehensible by the intended audience using suitable language and visual information (graphs, maps, images, etc.). Highlight differences between options.
 - Token solutions, which fail to really address a problem, should be avoided. Modest actions may be appropriate if they are the beginning but not the end of more substantial solutions.
 - A planning process will sometimes initially fail but later succeed if repeated, due to changing circumstances or more stakeholder understanding and commitment.
 - Changes should be implemented as predictably and gradually as possible.
 - When appropriate contingency-based planning should be used identifying a wide range of potential solutions and implementing the most cost-effective strategies justified at each point in time, with additional strategies available for quick deployment if needed in the future.

Litman, Todd. 2006, Victoria Transport Policy Institute

3.4.3 The Pueblo Regional Development Plan and Future Land Use



The complex relationships among existing and proposed land uses and existing and proposed transportation facilities are being constantly examined and modified where necessary until each of the components “best fits” with all of the others. The roadway corridors and functional classifications shown on the Pueblo Regional Development Plan (Comprehensive Plan) adopted in 2002 are the same as the 2020 Roadway Corridor Preservation Plan from the LRTP current at the time. Similarly, the future land uses in the 2002 Regional Development Plan are being used as the basis for the present LRTP. Future land use changes will be incorporated into the transportation modeling and planning process and, reflexively, changes in transportation plans are available to be incorporated into regional development planning, development standards, and zoning decisions. To the extent that both land development and transportation planning remain tightly interwoven in the future, the process will truly be deserving of the term “regional plan.”

From the adoption of the Pueblo Regional Development Plan in 2002



**PUEBLO AREA
2035 LONG RANGE TRANSPORTATION PLAN**

until the present, the recognized development action areas of Pueblo County have remained constant. Future development has been anticipated to concentrate around the existing Pueblo City limits, especially to the southwest, as well as existing lots within Pueblo West. The taxonomy of future land uses has likewise remained constant since the 2002 Comp Plan adoption. Fifteen broad future land use categories classify densities and uses across the county, with a general expectation of zoning designations consistent with these land use types. Locations for application of these land use types, and density levels are summarized in Table 3-2 below. Figure 3-3 below maps the future land use classifications as they are currently applied. Future land use and zoning are also mapped in Figures 3-23 and figure 3-24 in Appendix 3.

Table 3-2: Future Land Use Intensities

Land Use Categories	Typical Density	Pueblo	Pueblo West	CO City	County/Towns
Rural/Ranch	1 unit/35 acres				✓
Production Agriculture	1 unit/35 acres				✓
Large Parks/Open Space	N/A	✓	✓	✓	✓
Country Residential	1 unit/acre	✓	✓	✓	Rye
Country Village	1 unit/acre				✓
Suburban Residential	1-3 units/acre	✓	✓	✓	
Urban Residential	4-7 units/acre	✓	✓	✓	
High Density Residential	>7 units/acre	✓			
Urban Mixed Use (MXD)	16 units/acre 1.5 FAR	✓			
Arterial Commercial MXD	.50 FAR	✓	✓	✓	✓
Office Park/Employment Center	.25 FAR	✓	✓		
Institutional MXD	.50 FAR	✓	✓		
Light Industrial MXD	.25 FAR	✓	✓	✓	✓
Industrial	.25 FAR	✓			✓
Special Development Area	TBA				
FAR Floor Area Ratio (ratio of building area to lot size) ✓ Land use can be found within this geographical area Source: The Burnham Group, 2000					

A number of development directions have changed in the past five years since the PACOG Regional Development Plan was adopted. First, the regional role of Ft. Carson has expanded considerably. One issue that has an impact on the future transportation network is the acquisition of portions of a buffer around Ft. Carson. This buffer is intended to remove the potential negative interaction between the military training activities if development were to be located close to the base. The Nature Conservancy has acquired conservation



PUEBLO AREA 2035 LONG RANGE TRANSPORTATION PLAN

easements along the southern edge of Ft. Carson. As a result, the proposed Pinon Loop roadway shown in the 2030 LRTP has been removed from the 2035 RCPP.

Second, contrary to the assumption of the Regional Comprehensive Development Plan and the 2030 LRTP, the growth of the City of Pueblo is now expected to shift northward towards El Paso County rather than be accommodated within and adjacent to the City of Pueblo and Metro Districts. As new development occurs, additional connections between portions of the existing network should be made. If higher classifications of roads are not constructed by developers, then there needs to be an additional mechanism to pay for the upgrades from local roads, or a very conscious effort not to allow development that has limited access to occur. If only a local roadway network is to be constructed, it will need the greatest amount of connectivity to reduce the need for minor and principal arterials.

Third, as Pueblo West has grown, traffic patterns have been anticipated to change to utilize routes other than Highway 50 West. Additional connections to the City are now called for, with additional funding mechanisms.

Finally, there are likely to be additional, but limited density changes on the St Charles Mesa, necessitating changes along the western portion of Santa Fe Drive needed to improve access into the downtown area and to the existing roadway network within the City.

3.4.2.1 Special Development Areas

Special Development Areas were identified as a future land use on the 2002 Comp Plan Future Land Use Map. These areas are lands with significant development, redevelopment and/or open space potential in strategic locations that suggest the need for careful, location-specific plans for infrastructure and private development. Master plans are expected prior to development or redevelopment occurring.

Most of these areas will be developed through Master Development Plans or PUD Development Plans created either by the developer or in cases of publicly owned land, the City and the County. A Master Development Plan within Special Development Areas eligible for Annexation or a PUD Development Plan for the concurrent annexation and zoning of property within a Special Development Area is to be prepared in such a manner as to provide for:

- (1) the orderly growth and development of the municipality and



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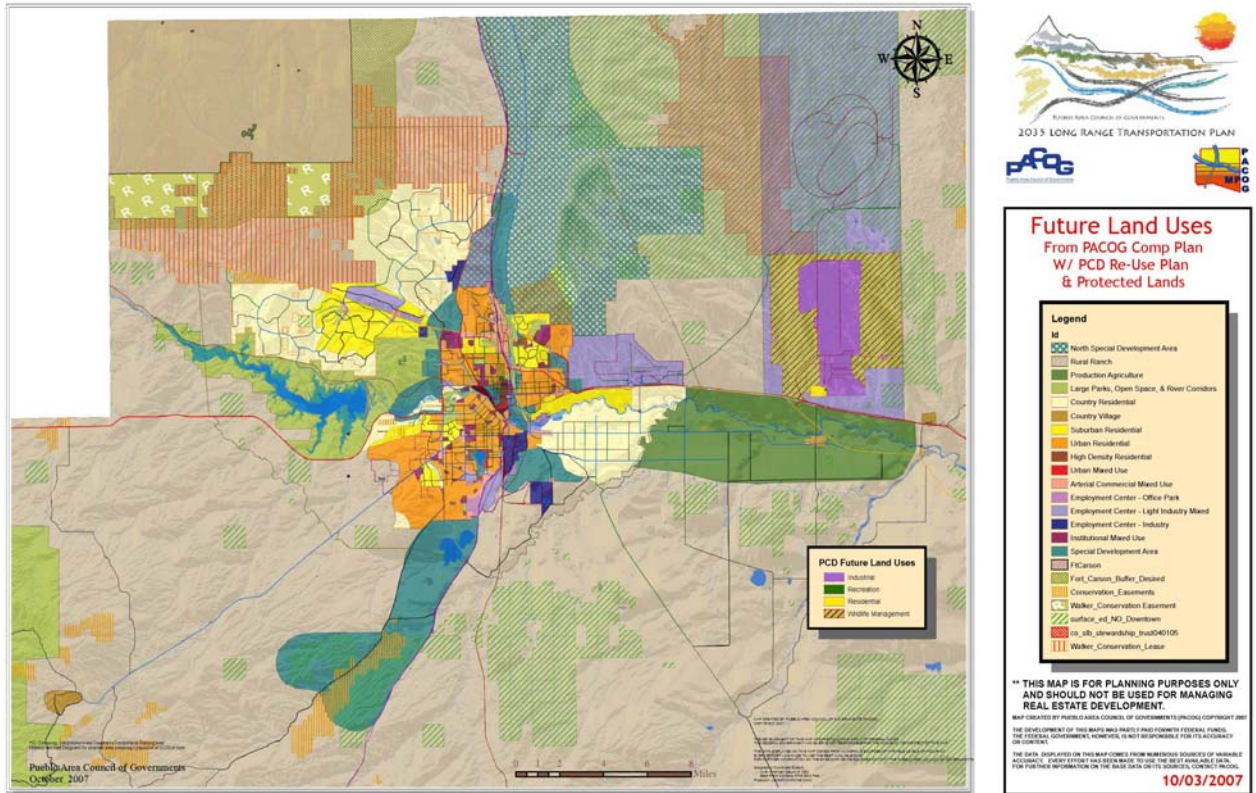
region through the logical extension of municipal services and facilities;

- (2) Areas which are urbanized or will be urbanized in the near future and share both a community of interest and are integrated or are capable of being integrated with the City; and
- (3) The fair and equitable distribution of the costs for the extension of municipal services among the persons who benefit from the services, including the cost for the development, operation, and maintenance of municipal facilities and services.

When eligible, owners of parcels within Special Development Areas that meet the above criteria, may petition the municipality for annexation. Both the Pueblo City Council and Pueblo County approved the addition of a 26,000-acre Special Development Area in October 2007, encompassing the area from the City of Pueblo north to El Paso County, east of I-25 and West of the State Land Board property. This is shown in Figure 3.3.

The broad use of large Special Development Areas, coupled with an emphasis on development by P.U.D., provides flexibility for the development of creative site-specific planning. It also provides new challenges in the planning of transportation corridors to meet the mobility needs of residents and businesses in sectors of the county with no stable future land use direction prior to the initiation of site-specific master plans.

Figure 3.3: Future Land Uses from the 2002 Regional Development Plan, including the North Pueblo Special Development Study Area



3.4.2.2 Transportation Planning in Special Development Areas

Due to the limited availability of State and Federal funding for new transportation system expansion, the transportation system within the new Special Development Areas will need to be self-financed. There may be very limited opportunities for state and federal funding for future expansion or other transportation projects. The impacts of new development within Special Development Areas on the transportation system will need to be addressed as part of the development review and approval process. Improvements to the regional transportation system will be needed in the future, and it is expected that the portions of the regional transportation system impacted by these developments will pay for the improvements required to establish and maintain the level of service found in the PACOG Region.

3.4.4 Water and Growth

Probably the greatest issue facing the front Range of Colorado is the provision of municipal water supplies. Communities that have an adequate supply or even a surplus of water will continue to grow. Those without reliable sources of water place development in a very speculative situation. The 2002 PACOG Regional Development Plan states that *The Water Board controls enough water rights to serve approximately 360,000 people along with “associated growth” (i.e., related commercial and industrial growth based on the general historic proportion of residential to commercial and industrial)*. The present plan provides a population forecast for just over 250,000 residents in 2035, with the present and projected supply of water accommodating the predicted growth over the next 30-50 years

The City of Pueblo will continue to expand through annexations that will likely significantly change the size of the City. Current trends suggest that the greatest development pressures will be along and east of the I25 north corridor inside the northern Special Development Area discussed above, and on the southwest perimeter of the City. These developments will be annexed to the City of Pueblo based on the ability to provide water and sewer services outside of existing city limits. There is a possibility of higher density of developments in the existing Pueblo West Metropolitan District Boundaries as well. Sanitary sewer service can be expanded to some extent to the northeast and southwest of the City without significant public investment in new infrastructure.

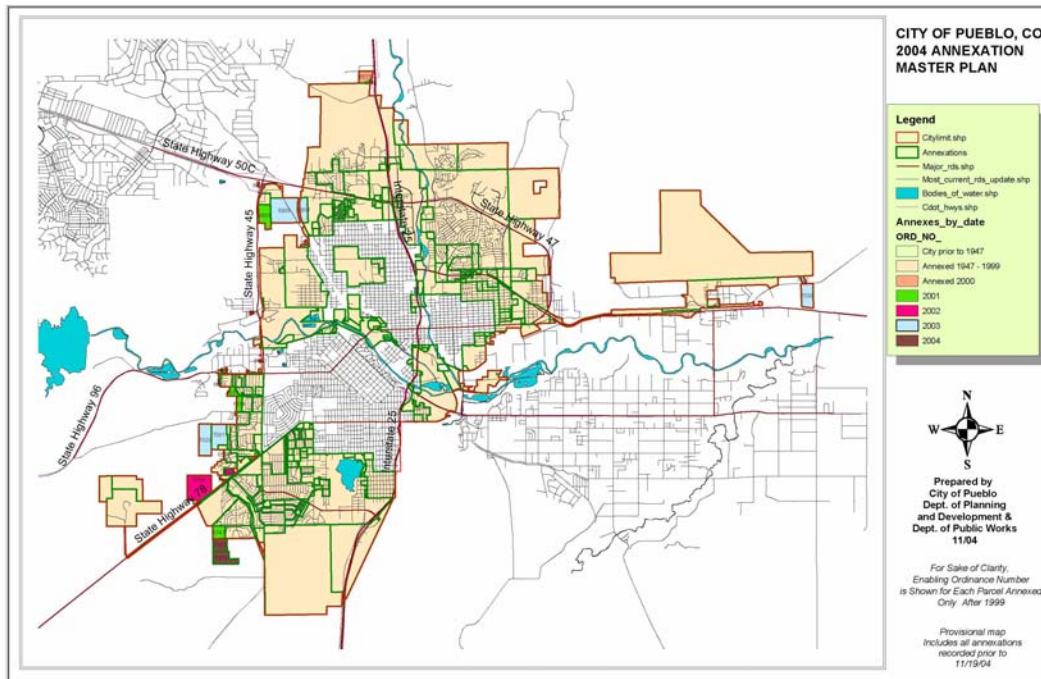
3.4.5 Recent Comprehensive Plan Amendments & Related Actions

Several significant actions with implications for the Comprehensive Plan have been taken since the adoption of the 2030 LRTP. Numerous 35-acre residential developments have been approved and established by the County, especially south and west of the City of Pueblo. The challenges to transportation planning provided by these subdivisions are discussed in Chapter 2. Rivers’ Run subdivision was approved on the Walters’ Brewery site on Pueblo’s lowers East Side. This mixed-use development included a re-zoning to P.U.D. and a development guide that served as the master plan for the Special Development Area.

Figure 3-4 below shows the pattern of annexations prior to 2000 and also in contrasting colors from 2001-2004. The clear trend between 2000 and 2004 has been demand for primarily residential

annexations on the west and southwest borders of the City of Pueblo.

Figure 3-4: Historical Annexations to the City of Pueblo



Actions taken since the 2030 LRTP was adopted resulting in changes in the Comprehensive Plan and its direction include the following:

2003

- An addition to the airport industrial Park was annexed in 2003, and a change was made in the text description for Future Land Use of Employment Center—Light Industry to include governmental use, to accurately describe uses at the Airport Industrial Park.
- Residential subdivisions were annexed to the southwest sector of the City.

2004

- Annexation of the Xcel Electric Generating Facility, and the associated change in Comprehensive Plan Future Land Use designation for the property, coupled with a text change to the Comp Plan to specifically include electric generating facilities in the description of Employment Center—Industry;



PUEBLO AREA 2035 LONG RANGE TRANSPORTATION PLAN

- Annexation of the Peakview Development near Highway 50 and Pueblo Blvd.;
- Approval of a sanitary sewer capital improvement project for trunk line expansions near California Street east of Minnequa Lake, and on south of Thatcher Blvd. From Long Street east. These projects improve capacity for development on the south and west edges of the City.

2006

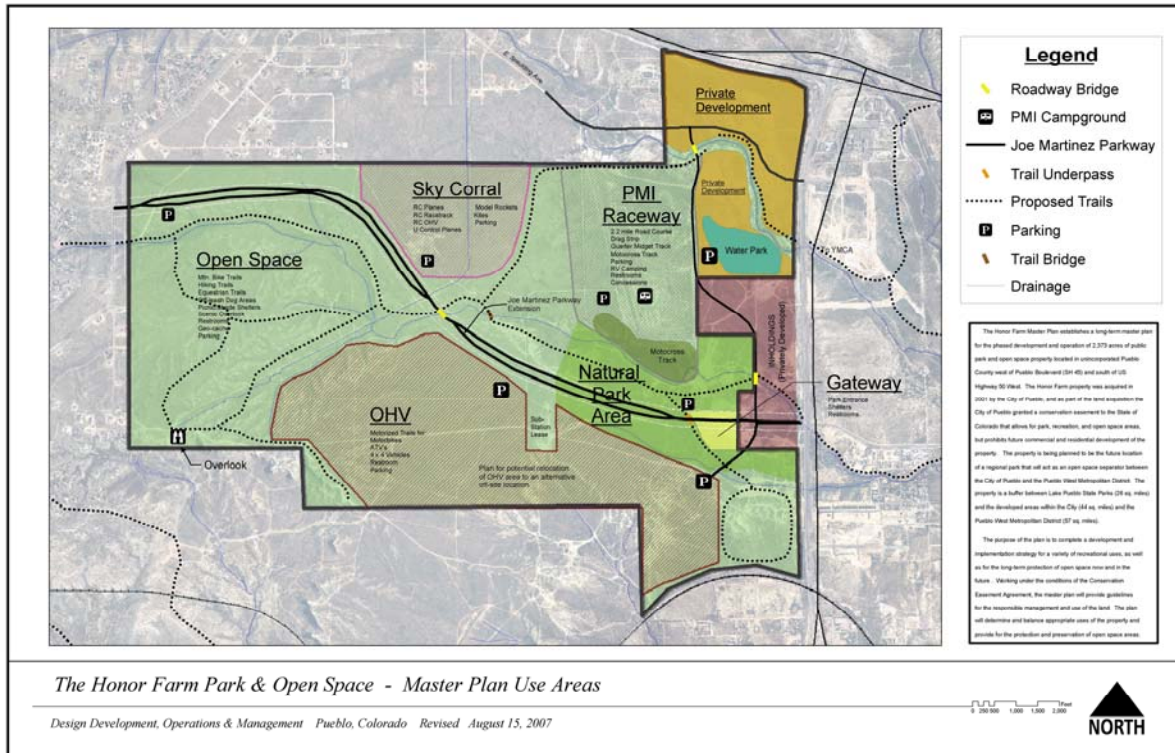
- Annexation of Cone Park West Subdivision immediately east of Pueblo Blvd. on the West Side; and
- Annexation of Lots 52 and 53 of the Airport Industrial Park, described as south of Walt Bassett Ave. and east of Braniff Street, zoned for light industrial development.

2007

- The Honor Farm Park & Open Space Master Plan was adopted in 2007. The purpose of the plan is to create a long term plan for uses, features, and amenities, open spaces and management for this 2,373-acre park and open space area located south of US Highway 50 West and west of Pueblo Blvd. that was purchased from the State of Colorado in 2001. Working under the conditions of a Conservation Easement Agreement granted to the State of Colorado, the master plan sets the framework for the responsible management and uses of this tract, designated as a Special Development Area in the 2002 Comprehensive Development Plan. The plan balances appropriate uses of the property, including the Sky Corral facility and PMI Motor Sports Park, and provides for the protection and preservation of open space (see figure 3-5 below).



Figure 3.5: Honor Farm Master Plan



3.4.6 Primary job creation and Expansion of Urban Renewal Districts

A number of primary employers have been established in Pueblo since the adoption of the 2030 LRTP, providing the impetus for jobs growth and potential population growth. Principal among them have been call centers Express Scripts and AT&T, both located downtown. Doss Aviation’s significant influence at the Airport Industrial Park is discussed more fully in the Aviation section of Chapter 2. The GCC Cement Plant located south of the City has provided many new jobs during construction, along with permanent jobs when the plant is operational.

Expansion of Pueblo’s downtown/historic district has included several significant improvements:

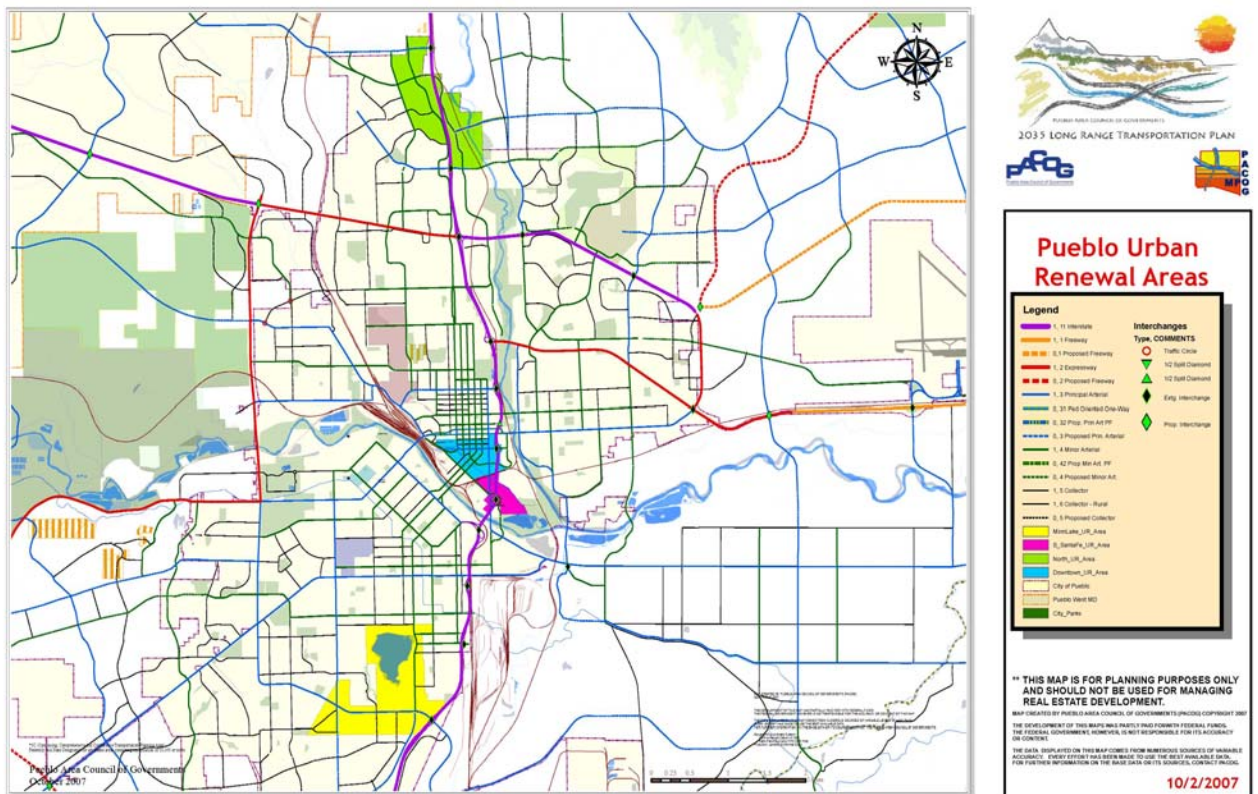
- Expansion of the Pueblo Convention Center
- A Main Street Parking Garage
- A new Cambria Suites Hotel
- Historic Arkansas Riverwalk (HARP) Lots 3 & 4 developed for retail

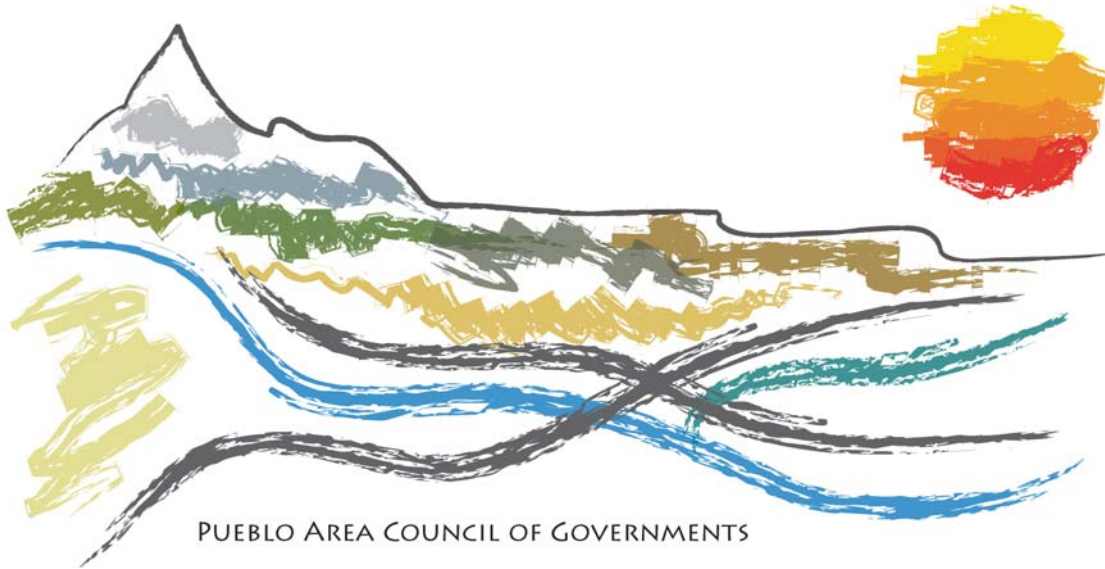
- Contract with HARP Phase III – Master Developer
- Redevelopment of the Alpha Beta Packing Plant as Lofts/Retail

In addition, the Urban Renewal Authority of Pueblo has expanded the downtown Urban Renewal District and established two significant new Districts, at the north end of the City, including Pueblo Crossings Shopping Center, and surrounding Lake Minnequa on the south side of the City (Figure 3.6).

These sources of economic activity suggest that the pace of growth in the planning area may increase during the 2005-2035 planning timeline.

Figure 3.6: Pueblo Urban Renewal Authority Areas





PUEBLO AREA COUNCIL OF GOVERNMENTS

2035 LONG RANGE TRANSPORTATION PLAN

Chapter 9 Fiscally Constrained Plan

DRAFT PLAN

December 2007

NOTE: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.

Table of Contents

9.1	The Fiscally Constrained Plan	3
9.2	Revenue Forecast and Resource Allocation	3
9.2.1	FTA Programs Administered by CDOT	5
9.2.2	FTA Programs not administered by CDOT	6
9.3	Local Revenue Forecasts	8
9.3.1	Public Roadway Funding in the PACOG MPO/TPR	8
9.3.2	Private Roadway Funding in the PACOG MPO/TPR	9
9.4	Regional Priorities and the Transportation Improvement Program (TIP)	9
9.4.1	Prioritization of Roadway Improvements	9
9.4.2	Prioritization of Transit Improvements	10
9.3.3	Prioritization of Non-Motorized Improvements	11
9.5	Implementation Plan and the 2008-2013 Transportation Improvement Program (TIP)	12

List of Tables

TABLE 9.1A:	ROADWAYS (CONSTANT 2008 DOLLARS)	4
TABLE 9.1B:	ROADWAYS (YEAR-OF-EXPENDITURE DOLLARS)	4
TABLE 9.2A	PROJECTED TRANSIT REVENUES (CONSTANT 2008 DOLLARS)	7
TABLE 9.2B	PROJECTED TRANSIT REVENUES (YEAR OF EXPENDITURE DOLLARS)	7
TABLE 9.3	PROPOSED TRANSIT IMPROVEMENTS FORECAST COSTS IN YEAR-OF EXPENDITURE DOLLARS	10
TABLE 9.4	SUMMARY OF THE PACOG 2008-2013 TIP PROGRAM	12

9.1 The Fiscally Constrained Plan

In the context of this 2035 Plan, there is a vast disparity between total projected revenues and the costs of improvements in even one of the major corridors identified in the Corridor Vision Plan. In addition, there is a high level of uncertainty about the amount of future funding and the types of strategies now being considered by the Federal and State government, as well as both public and private local funding sources. These factors make it virtually impossible to identify individual projects or project timing beyond the required 6-year period of the TIP/STIP (also fiscally constrained) being developed in conjunction with this Plan.

For example, the reconstruction project for the I-25 Corridor through Pueblo has a current estimated cost of \$846 million in constant 2008 (i.e. uninflated) dollars. The total revenue stream allocated for the Regional Priorities Program in the 28 years from 2008-2035 is only \$20.771 million in year-of-expenditure (i.e. inflated) dollars. ***This gives a ratio of at least \$40 in today's costs for each \$1 in projected (year-of-expenditure or inflated) revenues, assuming no RPP funds are used for any projects in any other major corridor in the Pueblo area.***

The required Fiscally Constrained Plan for the major roadway and transit systems in the Pueblo Area must include only those projects that can be funded with available funds from state and federal sources (plus local matches as required and if available). "Available funds" include all funding sources identified by CDOT over the 28-year planning period (2008 to 2035) and establish program "control totals." In accordance with recent FHWA planning policies, these funds are calculated and presented in both constant 2008 (deflated) dollars and "year-of-expenditure" (future inflated) dollars.

9.2 Revenue Forecast and Resource Allocation

The Revenue Forecast of control totals for the PACOG 2035 Transportation Plan now include a "planning-only" Resource Allocation estimate of "statewide and Region 2 programs" which may be expended for CDOT programs within the PACOG MPO/TPR area. In general, the PACOG estimates are based on 15% of "regional" programs or 3% of "statewide" programs. The Resource Allocation estimates are not commitments of CDOT funding during any given period of time. Tables 9.1A and 9.1B, below, show the estimated revenue forecast for CDOT roadway investment category for the 2008-2035 time period. The totals in Table 9.1A are shown in Constant 2008 Dollars, while Table 9.1B shows the corresponding totals in Year-Of-Expenditure (future inflated) dollars. Tables 9.2A and 9.2B show the transit funds CDOT has forecasted for available Federal Transit Administration programs for the same period, also in constant and inflate dollars, respectively. Details of the forecasts for both the roadway and transit

programs with annual revenue projections can be found in Appendix 9.

Table 9.1A: Roadways (Constant 2008 Dollars)

CDOT INVESTMENT CATEGORY	CDOT REGION 2 TOTAL 2008-2035	PACOG PLANNING ESTIMATE 2008-2035
Strategic Projects	\$ 1,356,771,000	*\$ 81,893,000
System Quality	1,254,322,000	188,148,000
Mobility	533,112,000	33,054,000
Safety	343,986,000	51,598,000
Program Delivery	160,051,000	24,008,000
Regional Priority	121,823,000	20,709,000
GRAND TOTAL	\$ 3,769,665,000	\$ 399,410,000

Table 9.1B: Roadways (Year-Of-Expenditure Dollars)

CDOT INVESTMENT CATEGORY	CDOT REGION 2 TOTAL 2008-2035	PACOG PLANNING ESTIMATE 2008-2035
Strategic Projects	\$ 2,499,393,000	*\$ 219,522,000
System Quality	1,992,313,000	298,847,000
Mobility	719,584,000	44,596,000
Safety	451,546,000	67,732,000
Program Delivery	209,996,000	35,194,000
Regional Priority	150,626,000	25,051,000
GRAND TOTAL	\$ 6,023,458,000	\$ 690,941,000

*Assumes new Strategic Projects (“8th Pot”) funding in 2025-2035.

The CDOT Revenues shown for roadway maintenance, operations, and construction were first estimated statewide from more than 20 separate state and federal highway programs, then allocated to each CDOT Region in the six major investment categories shown in the Table and defined as:

- 1. Strategic Projects** – Funding for completion of 28 projects included in the original “7th Pot” and TRANS bonding Program and continued in the 2035 Statewide Plan. *At present, the Pueblo area has no*

projects eligible for this funding. The CDOT statewide revenue forecast shows no new Strategic Project funding (i.e. “8th Pot”) until 2025, some 17 years from now.

2. **System Quality** – Funding for surface treatment, bridge repair and reconstruction, rest areas, and ITS. Little of this money is available for allocation to Transportation Plan projects since expenditures are determined by CDOT maintenance schedules and requirements.
3. **Mobility** – Includes the Congestion Relief Program that is allocated to address congestion on roadways with V/C of .85 or higher; the Enhancement program, that is directed towards system enhancement; and the STP Metro, CMAQ, and Gaming Programs (PACOG is not currently eligible for the latter three).
4. **Safety** – Funding available for Hazard Elimination, Safety Enhancement, Hot Spots, Signals, and Traffic Operations maintenance. Projects are identified through a statewide or regional competitive process.
5. **Program Delivery** – Funding for internal CDOT and MPO administration of program delivery including CDOT Maintenance, CDOT Road Equipment, and Metropolitan Planning Grants to MPOs.
6. **Miscellaneous/Regional Priority Program** -- Funding for priorities not addressed in the other programs, usually for major construction or reconstruction projects identified cooperatively with CDOT and the TPRs in the Region. A limited amount of discretionary money may also become available in a given year, but requires a congressional earmark for funding of each individual project.

9.2.1 FTA Programs Administered by CDOT

Similarly, the Revenue Forecasts for transit capital projects (rolling stock, maintenance facilities, etc.), system maintenance, and transit operations are first estimated statewide by CDOT using formulas from the Federal Transit Administration (FTA), then allocated for the following programs:

- **Section 5311** funds are apportioned by formula to the states for capital and operating assistance in nonurbanized areas, under 50,000 in population. The match for grantees is 80%/20% for capital equipment and administrative expenses, and 50%/50% for operating expenses.
- **Section 5310** funds are apportioned by FTA formula to the states to provide capital equipment to organizations providing transportation services for the elderly and disabled.
- **Section 5316, Job Access, Reverse Commute (JARC)** funds are apportioned by the FTA to the states and large urbanized areas to improve access to transportation services to employment and employment-related

activities for welfare recipients and eligible low-income individuals. Funding may be used for capital, operating, and planning assistance (the match ratio for capital and planning is 80% federal and 20% local, and 50%/50% for operating). CDOT only administers the small urban and rural portions.

- **Section 5317, New Freedom** funds are apportioned by the FTA to the states and large urbanized areas to fund new (not existing as of August 10, 2005) public transportation services and public transportation alternatives beyond those required by the Americans with Disabilities Act (ADA). Funding may be used for capital, operating, and planning assistance (the match ratio for capital is 80% federal and 20% local, and 50%/50% for operating). CDOT only administers the small urban and rural portions.
- **Section 5304** funds are apportioned by the FTA and may be used by state DOTs for a variety of purposes such as planning, technical studies, demonstrations and training, primarily for rural areas and statewide projects.

9.2.2 FTA Programs not administered by CDOT

- **Section 5307** funds are apportioned by formula to designated urbanized areas in three population categories: >1 million, 200,000 to 1 million, and 50,000 to 200,000. Funds are for capital, operating, and planning assistance. The FTA administers these funds directly to the urbanized areas.
- **Section 5309** Capital Program funds are discretionary and divided into three programs: Fixed Guideway Modernization, New Starts, and Bus and Bus Related allocations. The New Start and Bus allocations are made at the discretion of Congress. Funds must usually be obtained through intensive lobbying and support from one's congressional delegation.

Tables 9.2A and 9.2B show the projected revenues in constant and year-of-expenditure dollars, respectively, for each of the FTA programs for which one or more transit providers in the Pueblo area are eligible. While these revenues are forecasted to be available, there is no mandatory level of spending associated with these programs. The actual amount of funds used depends on the abilities of local providers to provide local matching funds. Additional descriptive and detailed information about transit needs and services can be found in Chapter 5 (Human Services Coordination and Transit Element) of this Plan.

Table 9.2A Projected Transit Revenues (Constant 2008 Dollars)

FTA Program Funds Available	FTA Total 2008-2035	Local Match 2008-2035	TOTAL 2008-2035
FTA 5311 Rural General Public:	\$ 1,160,398	\$ 725,249	\$ 1,885,647
FTA 5310 Elderly & Disabled Capital Equipment:	\$ 1,612,352	\$ 403,088	\$ 2,015,440
FTA 5307 (Urban Formula Funds)	\$ 53,137,120	\$ 49,948,893	\$ 103,086,012
FTA 5316 JARC:	\$ 3,305,164	\$ 82,269	\$ 3,387,793
FTA 5317 New Freedom:	\$ 1,918,391	\$ 47,516	\$ 1,965,907
FTA 5309 Bus & Facilities: (Discretionary Capital)	\$ 10,584,399	\$ 2,646,100	\$ 13,230,499
PUEBLO AREA TRANSIT TOTAL 2008-2035	\$71,717,825	\$53,853,474	\$125,571,299

Table 9.2B Projected Transit Revenues (Year Of Expenditure Dollars)

FTA Program Funds Available	FTA Total 2008-2035	Local Match 2008-2035	TOTAL 2008-2035
FTA 5311 Rural General Public:	\$ 1,505,777	\$ 941,111	\$2,446,888
FTA 5310 Elderly & Disabled Capital Equipment:	\$ 2,092,149	\$ 523,037	\$2,615,186
5307 TPR: (Urban Formula Funds)	\$ 68,955,950	\$ 64,818,593	\$133,774,543
FTA 5316 JARC:	\$ 4,288,838	\$ 107,221	\$4,396,059
FTA 5317 New Freedom:	\$ 2,489,383	\$ 61,658	\$2,551,041
FTA 5309 Bus & Facilities: (Discretionary Capital)	\$ 13,733,116	\$ 2,746,623	\$16,479,739
PUEBLO AREA TRANSIT TOTAL 2008-2035	\$ 93,065,213	\$ 69,198,243	\$ 162,263,456

9.3 Local Revenue Forecasts

9.3.1 Public Roadway Funding in the PACOG MPO/TPR

In general, the major local jurisdictions – City of Pueblo, Pueblo County, and Pueblo West Metro District do not currently use public funds to construct new arterial roadways or to extend major roadways. The expansion of the local (off-system) roadway network occurs as a result of private investment expenditures associated with new growth and development through the requirements of local subdivision, annexation, or special area planning processes.

These policies have evolved, in part, because of some unique historical circumstances that occurred in the Pueblo area:

1. Much of the roadway infrastructure was built in the decades before the 1980s when Pueblo experienced growth similar to other cities in the region or along the Front Range. During that time, the capacity of the network was sufficient to accommodate the existing traffic volumes without significant congestion.
2. In the early 1980s, however, Pueblo faced the loss of major employers such as the Pueblo Chemical Depot and substantial job cutbacks at the Steel Mill (the largest single employer in the area). Area employment decreased and a substantial out-migration occurred as people left the area to find work elsewhere.
3. Although some recovery began to occur in the mid-1980s, the earlier losses were enough that the population of the region actually showed a decrease between the 1980 Census and the 1990 Census. With the concomitant reduction in the number of vehicle-miles traveled, the existing network was more than sufficient to accommodate traffic.
4. From 1990 to 2000, regional population and economic growth occurred at a slow, but steady, rate and the overall capacity of the existing roadway network remained sufficient to accommodate the demand. The primary problem, then and now, is not necessarily the lack of physical capacity but rather the lack of connectivity between some major facilities. This lack of connectivity causes two significant problems: “bottlenecks” which create localized congestion, and the use of often-circuitous routes that are not on the major roadway system. (The latter problem can be particularly troublesome when the route penetrates or goes through residential neighborhoods.)

5. From 2000 to the present, a substantial amount of growth has occurred outside the core area of the City of Pueblo, with the highest growth occurring in Pueblo West where Census, State, and local estimates indicate population has more than doubled in the past eight years. While the overall regional roadway network capacity has undergone some expansion in developing areas and remains sufficient, the lack of off-system connectivity has now resulted in significant congestion in major on-system corridors along US 50 West & SH 47 East, I-25 in the urban area, SH 96 (4th Street) nearing and through Downtown, and SH 45 (Pueblo Blvd).

With this combination of present local policies and historical background from which they are derived, the local revenue forecast for new roadway construction for the foreseeable future is zero.

9.3.2 Private Roadway Funding in the PACOG MPO/TPR

All revenues eligible for inclusion in the forecast must fall within the FHWA and CDOT requirement that they are “known or reasonably expected revenues.” Operationally, this requires that any entry of proposed private expenditures, whether on-system or off-system must be “committed.” Committed implies that there is a written agreement or other mechanism in place to guarantee that the revenues are or will become available. At present, there are no such agreements in effect in the Pueblo area. **Thus, the local forecast for private revenues for new roadway construction for the foreseeable future is also zero.**

9.4 Regional Priorities and the Transportation Improvement Program (TIP)

9.4.1 Prioritization of Roadway Improvements

Funding for Roadway improvements is based on the following priorities.

1. **Complete the 4th Street (SH 96) Bridge Project:** Funding for this project was secured in previous years, but will be expended during the 2008-2011 timeframe.
2. **Complete the I-25 Pueblo EIS:** Completion of the I-25 Environmental Impact Statement will provide an assessment of design alternatives for I-25 through Pueblo and funds for some preliminary design work.
3. **Complete the Dillon Flyover 1601 Study, EA, and P/E.** These funds are a Congressional earmark for the project and are available only for a

limited time so must be obligated along with the 20% local matching funds.

4. **Complete the Defense Access Road to the Pueblo Depot:** On-going demilitarization work at the Chemical Depot will be served by finishing all of the safety and access improvements to this corridor using an additional \$6,000,000 in DAR funding.
5. **US50 West Corridor Improvements:** Congestion relief along the US50 Corridor between Purcell Blvd in Pueblo West and I-25, especially on the segment west of Pueblo Blvd (SH 45). (See also the West Pueblo Connector off-system priority project.)

9.4.2 Prioritization of Transit Improvements

As explained in Chapters 5 & 8, there are no specific plans to expand the transit system, or in which corridors future expansions may take place. As a result, future funding of Transit Improvements within the entire period should be based on the following priorities. Additional details of potential service improvements and system expansion can be found in Chapter 5.

Table 9.3 Proposed Transit Improvements Forecast Costs in Year-of Expenditure Dollars

<p>Continued Operations and System Maintenance: Replace fixed-route and demand-response vehicles to meet FTA recommended vehicle replacement schedule. Pueblo’s fixed route transit system and demand response operate from a mix of local revenue, user fees, and federal operating grants.</p>	<p>\$ 133.8 M*</p>
<p>Service Improvements with Expanded Service to Sundays and Peak Hour: Expanding the service hours for the Transit system to improve ridership and increase the benefits of the transit system by implementing the recommendations of the Transit Element (Human Services Coordination Plan – see Chapter 5) to reconfigure routes and provide improved service. The cost for providing such an improvement is based on the detailed service analysis in the 2030Plan, adjusted to 2008 and converted into year-of-expenditure dollars.</p>	<p>\$ 5.8 M</p>
<p>System Expansion and Expanded Service Area: Provide service to major activity centers outside of the City of Pueblo would require additional funds for both operations and for fleet expansion. The service expansion would include the additional</p>	<p>\$ 44.1 M</p>

and Sunday service described above. The expanded service are would include nearby areas such as Pueblo West, the Airport Industrial Park, and the St. Charles Mesa. Part of the operations for the expansion plan would establish programs for carpool arranging and construction of park and ride lots where appropriate.

The cost for providing such an expansion is based on the detailed service analysis in the 2030 Plan, adjusted to 2008, and converted into year-of-expenditure dollars with added funding from Sections 5309, 5316, and 5317.

*Total year-of-expenditure dollars 2008 – 2035, including local matching funds.

9.3.3 Prioritization of Non-Motorized Improvements

Funding for Trail improvement projects using state/federal Transportation Enhancement funds should be based on the following priorities.

1. **Trail Crossings:** Improve crossings of major arterials with grade-separated crossings or well-designated at-grade crossings.
2. **Trail Extensions:** Complete Goodnight Arroyo Trail and connections, complete the Wildhorse Trail in conjunction with the development of the YMCA Complex, and complete the Dry Creek Trail.
3. **Trailheads:** Create additional access points to the Trail network.

As described in Chapter 8, current projects meeting these criteria include:

- **Wildhorse Creek Trail:** Approximate cost for constructing a 10' wide concrete trail for three miles is \$1,500,000 in 2008 dollars.
- **Dry Creek Trail:** Approximate cost for constructing a 10' wide concrete trail for ten miles is \$5,000,000 in 2008 dollars.
- **Goodnight Arroyo:** Approximate cost for constructing a 10' wide concrete trail is \$3,000,000 in 2008 dollars.

An estimate of the PACOG share of the Transportation Enhancement pool of funds (which would also require a local match if trails projects are selected through the Region 2 procedures) for 2008-2035 is a total of \$ 8,623,000. Project selection will depend on the timing of various improvements along the drainage channels and the availability of Enhancement and other funds.

9.5 Implementation Plan and the 2008-2013 Transportation Improvement Program (TIP)

With the extreme disparity identified between funding availability and estimated project and program expenditures, it is impossible at this time to develop a long-term schedule of improvements. As a result, the Implementation Plan must now be developed incrementally for shorter time periods, based on the availability of “known or reasonably expected revenues” – a criterion that, along with the fiscal constraint requirement, is met in the 2008-2013 Transportation Improvement Program (TIP).

The detailed funding information for projects in the PACOG MPO/TPR area is contained in the 2008-2013 TIP, a separate document now available in both printed and electronic forms. The overall TIP funding program is shown below in Table 9.4.

Table 9.4 Summary of the PACOG 2008-2013 TIP Program

STIP #		Summary of PACOG MPO/TPR Programs	Total FY 08-13
Multiple	Bridge On-System Projects in PACOG MPO	Federal	\$ 11,174
		State	\$ 2,794
		Overmatch	\$ -
		Total	\$ 13,968
Multiple	Bridge On-System Projects - PACOG NON-MPO	Federal	\$ 1,600
		State	\$ 400
		Overmatch	\$ -
		Total	\$ 2,000
Multiple	Regional Priorities Program in PACOG MPO/TPR	Federal	\$ 3,267
		State	\$ 9,233
		Overmatch	\$ -
		Total	\$ 12,500
Multiple	SAFETEA-LU Earmarks in PACOG MPO/TPR (Safety and Local Projects) (Local earmark request for Joe Martinez not included in totals)	Federal	\$ 4,280
		State	\$ -
		Local	\$ 1,070
		Overmatch	\$ -
		Total	\$ 5,350

Transportation Enhancement Projects in PACOG Federal



2035 LONG RANGE TRANSPORTATION PLAN

	MPO/TPR (place holder estimate only from Reg 2 Pool funds)	State	\$ -
		Local	\$ 406
		Overmatch	\$ -
		Total	\$ 2,029
Multiple	Total Defense Access Road Projects in PACOG MPO/TPR	Federal	\$ 6,000
		State	\$ 500
		Local	\$ 1,700
		Overmatch	\$ -
		Total	\$ 8,200
Multiple	TOTAL ALL ROADWAY PROGRAMS IN PACOG MPO/TPR	Federal	\$ 27,945
		State	\$ 12,926
		Local	\$ 3,176
		Overmatch	\$ -
		Total	\$ 44,047
Multiple	FTA Transit Programs in PACOG MPO (Urbanized Area)	Federal	\$ 30,767
		State	\$ -
		Local	\$ 15,280
		Overmatch	\$ -
		Total	\$ 46,527
Multiple	FTA Transit Programs in PACOG NON-MPO (Rural Areas)	Federal	\$ 1,325
		State	\$ -
		Local	\$ 339
		Overmatch	\$ -
		Total	\$ 1,694
	PUEBLO MPO/TPR GRAND TOTAL - ALL MPO TRANSPORTATION PROJECTS	Federal	\$60,037
	All Roadway Programs plus All Transit Programs (Some totals may include place holders and/or estimates - for details, please see individual program spreadsheets)	State	\$12,926
		Local	\$18,794
		Overmatch	\$ -
		Total	\$92,267

PBxxxx PROPOSED US 50 W CORRIDOR - earmark requested



2035 LONG RANGE TRANSPORTATION PLAN

Joe Martinez Blvd extension from Purcell Blvd	Federal	\$	8,000
in Pueblo West to 24th St at Pueblo Blvd (SH 45)	State	\$	-
in the City of Pueblo - not included in totals	Local	\$	2,000
(note: Earmark requested by Pueblo County via	Overmatch		
Senator Salazar's ofc - subject to future approval)	Total	\$	10,000