

EL PASO COUNTY



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TIGER DISCRETIONARY GRANT PROGRAM APPLICATION

Project Title: Charter Oak Ranch Road Plan to Assist Fort Carson Gate 19

Project Location: El Paso County, Colorado – Rural (non-urban area)

Project Type: Planning Project

Applicant: Public Services Department of El Paso County

Total Project Cost: \$1,500,000

TIGER VI Request: \$1,200,000

TIGER VI Match: \$300,000 (20%)

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1. Project Description

El Paso County is seeking a \$1.2 million TIGER planning grant to develop preliminary engineering and final designs including environmental clearances, utility, and final cost estimates for Charter Oak Ranch Road and its intersection with Santa Fe Avenue, Colorado. The reconstruction of Charter Oak Ranch Road and its intersection with Santa Fe Avenue will provide required access to Fort Carson Military Training Reservation at Gate 19, which is necessary to accommodate soldiers and the associated creation of approximately 16,000 jobs. Fort Carson Army Post (Fort Carson) is an institute of strategic and economic importance to the nation and to Colorado.

From 2011 through 2015, an Infantry Brigade Combat Team (IBCT) and a new Combat Aviation Brigade will move onto Fort Carson and occupy Butts Army Air Field, adding 6,400 new soldiers and an estimated 9,600 indirect jobs to the region, for a total of almost 16,000 new jobs. The majority of this workforce will live in affordable housing south of Fort Carson in southern El Paso County and in Pueblo County, and east of Fort Carson in the City of Fountain. El Paso County is working with the Army to reopen Gate 19, the southernmost gate of the base, which will provide an alternate transportation route to the base's training infrastructure. In addition, it will provide needed access to Butts Army Air Field, a helicopter facility that is currently undergoing renovation, and where most of these job opportunities will be located.

Access to Gate 19 from I-25, the major north/south interstate highway, is by way of Santa Fe Avenue and Charter Oak Ranch Road. Currently Charter Oak Ranch Road is a 2 lane substandard road consisting of 2-3 inches of bituminous asphalt laid on top of native soils. The road is filled with large areas of alligator cracking and potholes, and is almost impassible for passenger vehicles.

The eventual rehabilitation of the Charter Oak Ranch Road and the Santa Fe Avenue intersection will transform the commute to the quarries and Fort Carson for residents of the City of Fountain and Pueblo County, which are predominantly low-income areas with high poverty rates. Approximately 8,300 trips per day originate in areas that would benefit from the use of Gate 19, impacting about 2,970 residents that house soldiers. This trip number does not include civilian employees on or off base. The project will potentially eliminate over 26,110 miles driven per day in the region, and would ease traffic congestion at Gate 20 to the north, which is the only other access gate for the surrounding area.

The eventual rehabilitation will also enable civilian job opportunities for nearby residents of the City of Fountain and areas south of Fort Carson where the unemployment rate is 9.1% (January 2014 – BLS). In addition, soldiers and other employees will drive from the County of Pueblo where the unemployment rate is 9.7% (January 2014 – BLS) to Gate 19. With Santa Fe Avenue and Charter Oak Ranch Road as the central links to connecting residents with training and employment, particularly on the base, construction readiness is necessary in order to grow the area into a walkable, commutable, livable employment center that is critical to the region.

Inevitably an improved Charter Oak Ranch Road, able to accommodate passenger vehicles and heavy equipment to Fort Carson as well as the large tractor trailer trucks accessing the quarries, will spur development activities from the I-25 interchange to Gate 19. The volume of workers commuting through the Gate is sure to attract retail and services and additional jobs to the

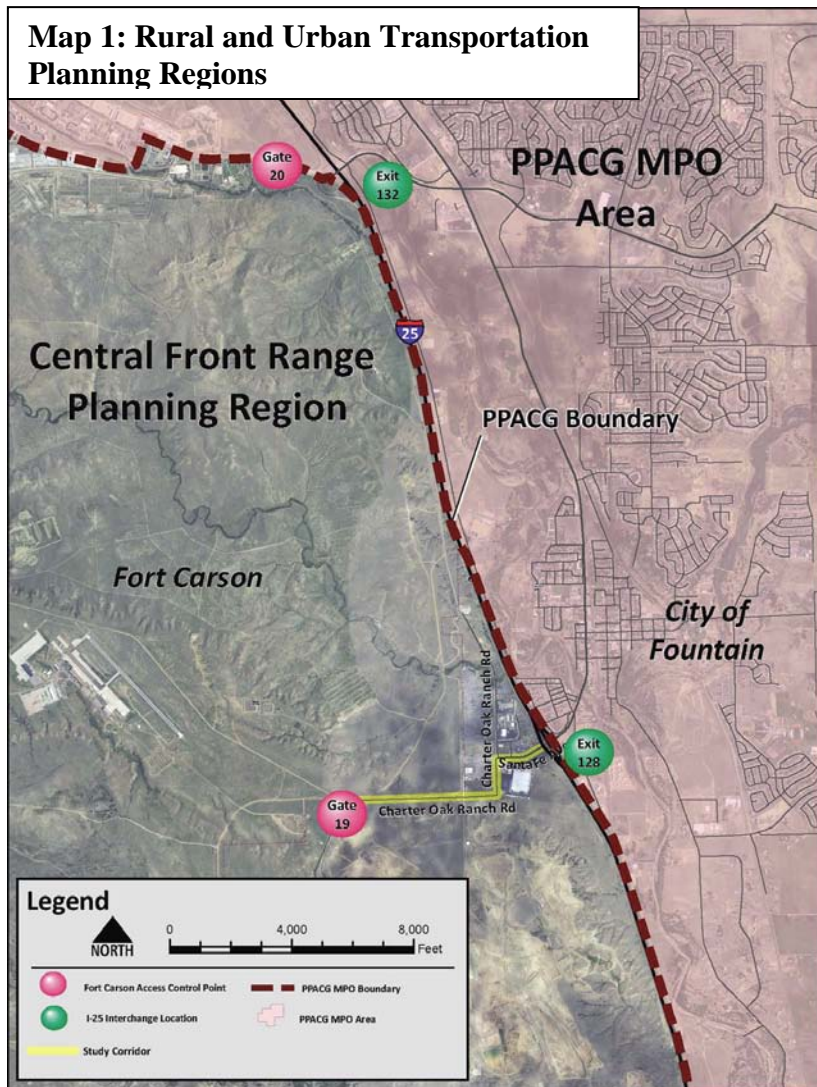
currently vacant land adjacent to the road, and companies to the underutilized industrial parks along the roughly mile long corridor into the base.

1.1 A Rural Application for a Planning Grant

El Paso County is responsible for the roads, bridges and drainage in the unincorporated parts of the County. Of the 636,000 residents, approximately 169,000 live in unincorporated El Paso County, which accounts for 1,800 square miles of the County's 2,100 square mile area. This means that while unincorporated El Paso County manages over 84% of the land, only 27% of residents are in its purview, generating far less tax revenue for road improvements that must carry people and goods over longer distances.

The planning project is located outside of the urbanized Pikes Peak Area Council of Governments (PPACG) Metropolitan Planning Organization (MPO) area. While PPACG has conducted planning studies, these were completed as part of their countywide services; in this case under Military Impact Planning and not under the transportation planning that occurs in just the MPO area. For transportation planning, the project is located within the Central Front Range Transportation Planning Region, which serves rural areas of southern Colorado. The Charter Oak Ranch Road project is not currently included in the Statewide Transportation Plan as

it is an off-system road that serves Fort Carson. Only when federal funds are used on off-system roads are they required to be included in the Statewide Plan and the Statewide Transportation Improvement Program. While the project is not included in the Statewide Transportation Plan, the Colorado Department of Transportation and the Central Front Range are in full support of this project. (See Letters of Support). El Paso County will have the project added to the plan and the Statewide Transportation Improvement Program if the project becomes funded.



1.2 A Project that Benefits Colorado’s Largest Military Installation and El Paso County

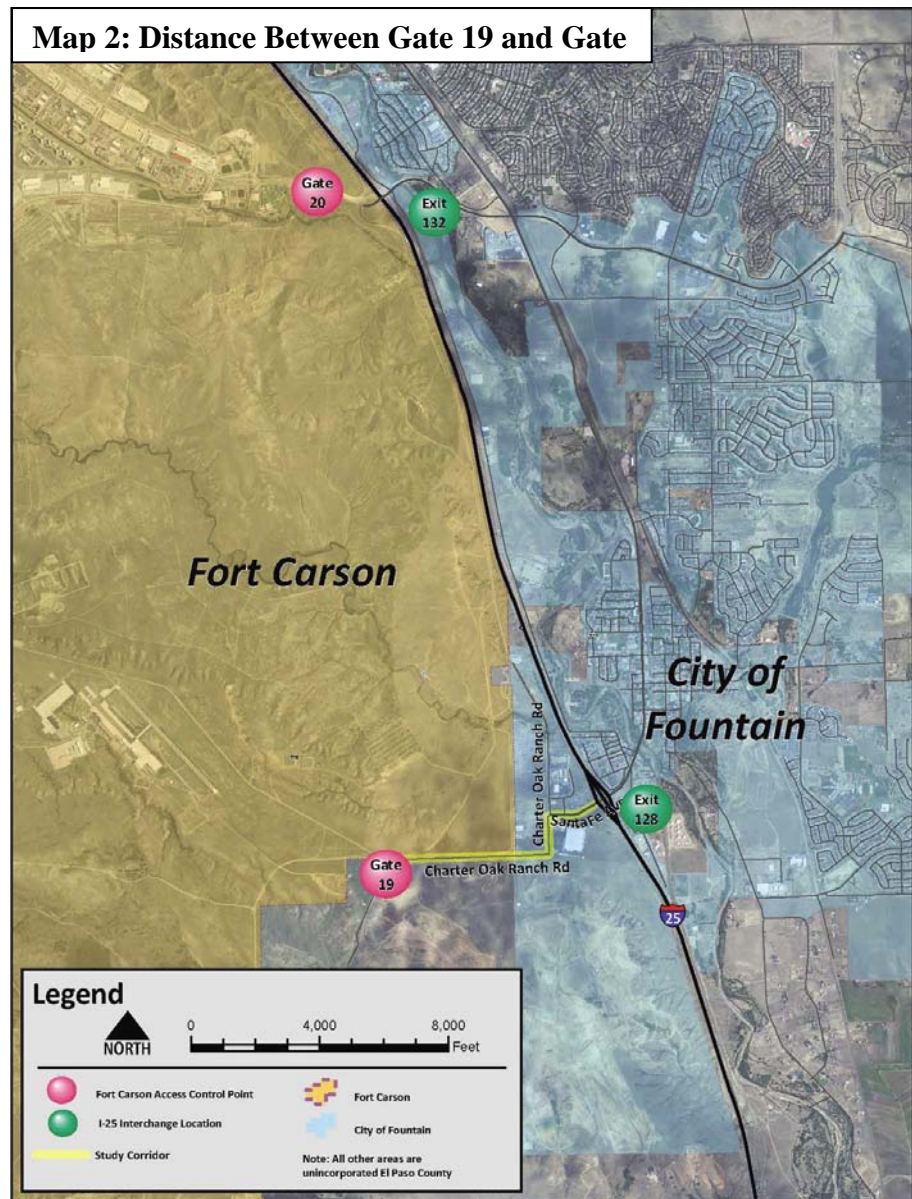
Charter Oak Ranch Road serves as the southernmost access road to enter Fort Carson through Gate 19. This United States Army installation in El Paso, Pueblo and Fremont Counties currently provides jobs for 30,010 assigned military personnel. The post also hosts units of the Army Reserve, Navy Reserve and the Colorado Army National Guard.

The population of Fort Carson is increasing as it continues to restructure its forces to meet increased national security and defense requirements while maintaining a sustainable balance between training readiness and operational mission requirements. The Army’s decision to increase the number of soldiers at Fort Carson has resulted in the Post receiving an Infantry Brigade Combat Team (IBCT) of approximately 3,700 troops and the Combat Aviation Brigade (CAB) is expecting to add 2,700 troops by 2015. To accommodate the new soldiers, the Army is constructing new facilities at Butts Army Air Field (BAAF). While the location of the IBCT and BAAF facilities and the future arrival of the CAB necessitate the activation of Gates 19 for

regular commuter use, any of the approximately 180,000 active duty, National Guard and Reserve service members, military family members and veterans who are served by Fort Carson could use Gate 19.

The need for Gate 19 has been demonstrated in two studies. Fort Carson conducted a *Comprehensive Transportation Study* in 2008 to determine transportation infrastructure needs to support the additional troops. A recommendation from this study was to open Gate 19 and implement needed transportation improvements both on-Post and off-Post to support the opening of the gate. In addition, PPACG has been collaborating with the base since 2008,

Map 2: Distance Between Gate 19 and Gate



establishing an ever evolving *Fort Carson Regional Growth Plan*. In this regional study, a transportation recommendation was to continue planning efforts to open Fort Carson's Gate 19 access control point. This recommendation was based on analyses showing that the permanent opening of Gate 19 would reduce peak hour volumes at the already congested Gate 20, provide direct access for troops stationed at the IBCT and BAAF facilities, and provide more convenient Post access to personnel living in the Fountain and Pueblo areas.

Currently Charter Oak Ranch Road has crumbling pavement, poor drainage, no facilities for bikes or pedestrians, narrow lanes and steep grades. These conditions prevent soldiers from southern El Paso County, the City of Fountain, and Pueblo County from using Gate 19. Instead, soldiers from the south heading to the base drive an additional 5.5 miles north on I-25 to Gate 20, which already experiences high traffic volumes and heavy congestion. Once a commuter clears Gate 20 security, many must traverse back 5 miles south, to reach their command stations located close to Gate 19. For soldiers commuting from the South, this equates to 21 miles of extra driving per day, using an extra 5 gallons of gasoline a week for each soldier. The opening of Gate 19 will add traffic volumes to Santa Fe Avenue and Charter Oak Ranch Road. Approximately 8,300 trips per day originate in areas that would benefit from the use of Gate 19 from about 2,970 residences that house soldiers. This trip number does not include civilian employees on or off base. (*Appendix C: Phase II Transportation Technical Report*, April 2010). Adding in the off base jobs created and the number of trips that will be added to Santa Fe Avenue and Charter Oak Ranch Road, the number could be as high as 16,000.

1.3 Existing Conditions and Transportation Challenges

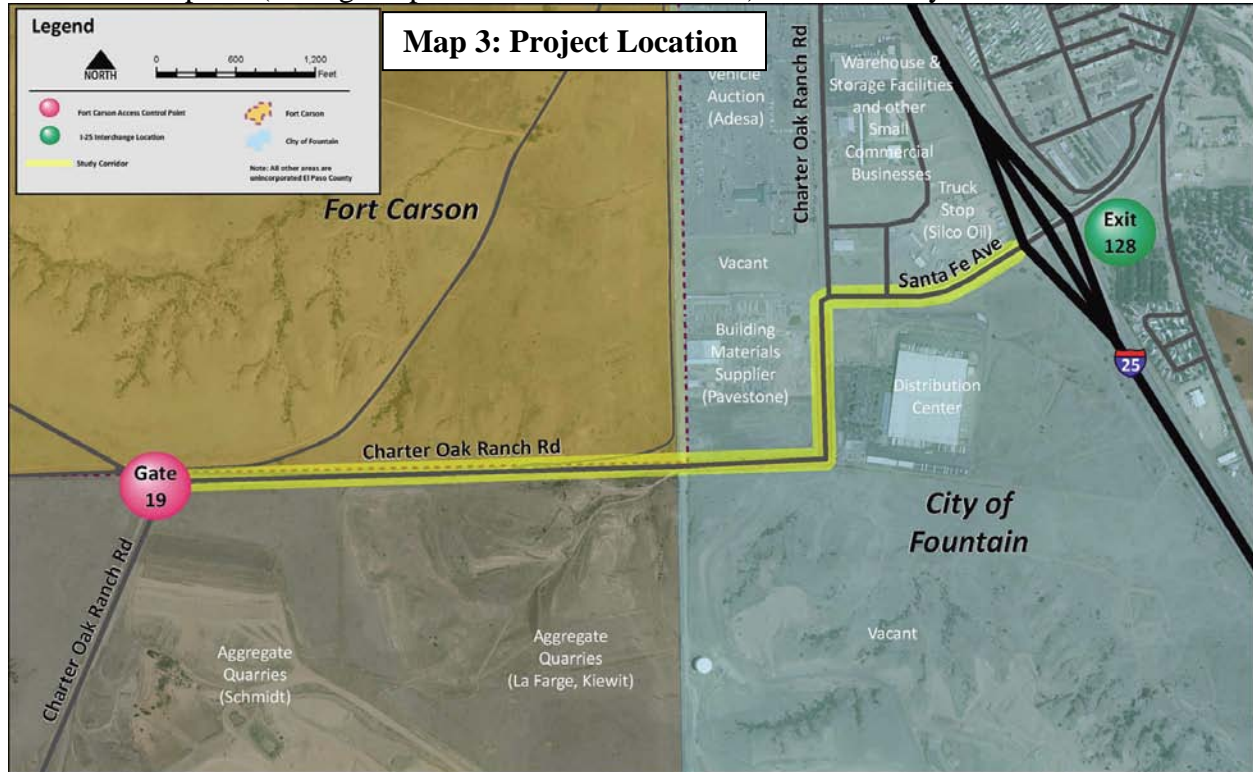
Charter Oak Ranch Road will primarily serve Fort Carson, three commercial rock quarries, the sparsely populated Christian Ranch area (located south of Gate 19) and various commercial and industrial businesses (such as warehouse and manufacturing) located within the City of Fountain. El Paso County has prescriptive right-of-way for maintenance purposes from Gate 19 to the westerly edge of the City of Fountain (approximately 4,100 feet). The City of Fountain has annexed property along and around the remainder of Charter Oak Ranch Road to a point near the intersection of South Charter Oak Ranch Road and South Santa Fe Avenue; however, the County still owns and maintains the 80 foot road right-of-way (approximately 2,550 feet).

Charter Oak Ranch Road once served as a ranch access. County maps from the early 1900's depict a dirt roadway in the same alignment as it is today. County records indicate that the road historically has been unimproved until the time that private rock quarries were established. Sometime before 1956, it appears that these private businesses placed pavement on the native dirt roadway. The quarries even maintained the road for some time by filling potholes. The pavement on dirt was not constructed to any engineering standards or criteria. The lack of adequate drainage facilities allows the stormwater to run over the road at points. There have been no major improvements to the road since the County took maintenance of the road in 1956. Improvements are long overdue and needed for economic growth and the use of Gate 19 on Fort Carson.

Located just west of I-25 at Exit 128, the proposed project includes planning improvements to Charter Oak Ranch Road and Santa Fe Avenue. Charter Oak Ranch Road is a two-lane paved roadway that extends approximately 5,200 feet east and then 1,450 feet north from Fort Carson's boundary at Gate 19 to the intersection with Santa Fe Avenue. Santa Fe Avenue is a two-lane paved roadway from Charter Oak Ranch Road to a truck stop access. The roadway surface is

bituminous asphalt and there are no turn lanes at the intersections. At the truck stop access, Santa Fe Avenue transitions to four lanes which extend to the southbound ramp intersection at the I-25 interchange. Also, at the truck stop access, the roadway surface becomes concrete which extends through the I-25 interchange. Both Charter Oak Ranch Road and Santa Fe Avenue serve various commercial and industrial businesses (such as warehouse and manufacturing) located within the City of Fountain.

In its present condition, the corridor is inadequate and unsafe to serve the anticipated needs of Fort Carson. The average pavement width is 27 feet. The road is currently paved with bituminous asphalt (average depth of two to three inches) and is mostly bordered on both sides



by unimproved shoulders. Curb and gutter exists at the Santa Fe Avenue/Charter Oak Ranch Road intersection and along the west side of Charter Oak Ranch Road adjacent to the Pavestone property. The grades on the road range from zero percent to nine percent with the overall pavement condition being rated very poor, with an estimated Pavement Quality Index (PQI) of 21 on a scale of 20-100. In addition, there are no bike or pedestrian facilities on Charter Oak Ranch Road. The prospect of passenger vehicles and large gravel tractor trailers sharing this narrow, pitted, poorly signed road is a prescription for disaster.

Drainage facilities consist of an existing 48-inch corrugated metal cross-culvert located just west of the access serving the Kiewit and La Farge operated aggregate quarries, cross-culverts at accesses, and a small privately owned detention pond at the southwest corner of the Santa Fe Avenue/Charter Oak Ranch intersection. The study corridor does not have posted speed limit signs except for a 20 mph advisory speed limit sign for the curve where the Charter Oak Ranch Road alignment transitions from east-west to north-south. Several utilities (phone, water, sewer, gas, electric, etc.) have been established within the Charter Oak Ranch Road right-of-way. Most are underground except for the overhead electric lines running along both Charter Oak Ranch

Road and Santa Fe Avenue. Commercial businesses have direct access to both Charter Oak Ranch Road and Santa Fe Avenue and most do not have left- or right-turn lanes.

2. Project Scope

The goal of this planning grant is to be prepared for the rehabilitation of Charter Oak Ranch Road and the Santa Fe Avenue Intersection. While there have been many planning, housing, economic development and land use studies that support the need for these improvements, additional specific information is needed. With the planning grant, the County will develop conceptual design and preliminary engineering including environmental analysis, feasibility studies, and other pre-construction activities. The project task will require assessment of existing available information necessary to define alignments, right-of-way and easement issues, utility issues, property ownership and acquisition requirements, environmental and permitting issues and requirements, and final design and cost estimates.

The 2012 improvement study entitled *Appendix H: Improvements Study For Charter Oak Ranch Road And Santa Fe Avenue To Facilitate Access To Fort Carson's Gate 19* (improvement study) screened alternative alignments and improvements. This preferred alternative was based on extensive input from project stakeholders and was reviewed by neighboring property owners at two meetings. The neighborhood property owners did not express any serious concerns with the recommendations. The improvements recommended included:

- Santa Fe Avenue improvements based on a 4-lane typical section, with a center left-turn lane that follows CDOT standards.
- Charter Oak Ranch Road improvements based on a two-lane, typical section that follows City of Fountain and/or El Paso County standards where appropriate.
- A high-speed curve where Charter Oak Ranch Road transitions from a north-south to an east-west alignment.

While the improvement study recommended a preferred alternative, it is only based on available GIS information. The contours that were used to create the digital terrain model came from the latest LIDAR data. Due to the fact that this improvement study did not have a field survey, geotechnical borings, and other site specific data, the preferred alternative requires additional analysis before a project design can be completed and costs assigned for construction. All activities associated with this project will be completed in compliance with federal, state, and local laws, regulations, standards, policies and procedures.

2.1 Preliminary Design Activities

Design Survey: A survey of existing topography will be conducted. Based on field conditions and general engineering standards, the survey will extend to a sufficient distance on either side of the existing roadway centerline and north and south. It will also include any additional survey needed to locate utilities, and verify and/or supplement topography. Base maps will be produced to assist preliminary and final design.

Geotechnical and Subsurface Investigation Report: The project will identify soil and subsurface information necessary to advance the design of the road approaches, bridge/structures, and utilities relocation if required. The project will develop a detailed geotechnical investigation plan including borings and/or test pits for obtaining the information, and a geotechnical and subsurface investigation report.

Utility Coordination: The improvements may impact existing utilities in addition to drainage. All existing utility systems will be considered in the design of the roadway and intersection and drainage facilities. The project will coordinate with utility companies during conceptual design and preliminary engineering. Plans will clearly identify the existing location and proposed relocation of the utilities and utility corridor requirements within the roadway right-of-way and identify any easement or acquisition requirements.

Environmental Clearances / Permitting: The project will investigate conditions within the project area and identify any required environmental permitting or environmental clearance requirements necessary to advance the project; e.g. ISA checklist, floodplain permitting, wetlands mitigation/permitting, threatened and endangered species, migratory birds, water quality issues, etc. The project will coordinate with environmental agencies including local, state, and federal agencies, U.S. Army Corps of Engineers, Colorado Division of Wildlife, Colorado Department of Public Health and Environment, US Fish and Wildlife, and the Regional Floodplain Administrator to determine appropriate processes and permitting required as a federally funded project. All work will be in accordance with the requirements of the current federal and state environmental regulations including the National Environmental Policy Act of 1969 (NEPA), as applicable. Based on the 2012 improvement study, a Categorical Exclusion is anticipated.

Conceptual Property Impacts: The project will determine a list and exhibit(s) identifying all properties that are likely to be impacted by the project.

Preliminary Drainage Report: The project will complete a project hydrology and hydraulics report to support needed drainage facilities and structures. Water surface profiles for the design storms and flood delineation will be evaluated and included with the report. The project will prepare a preliminary design and report that defines the best management practices (BMPs) that will be incorporated into the design for managing construction and post-construction stormwater quality. If the proposed disturbance is anticipated to be one (1) or more acres, a Stormwater Management Plan (SWMP) will be prepared in accordance with state and county guidelines. Plan and detail sheets will be incorporated into the construction plan set. The project will determine any property acquisition requirements that may be required for managing stormwater quality.

Preliminary Construction Documents: The project will develop preliminary construction documents that define the improvements that will be advanced into the final design stages and will incorporate the findings from the investigations identified above. The preliminary construction documents will include design criteria, conceptual construction drawings, right-of-way (ROW) and easement status reports and exhibit(s), phasing, cost estimates, and a construction schedule. At a minimum the conceptual drawings will show existing conditions, proposed improvements, existing and future utility lines and corridors, existing and proposed ROW and/or easements, environmentally sensitive lands that are affected by the improvements, preliminary vertical alignment information, as well as typical roadway cross-sections and details, drainage improvements, construction, and post construction stormwater quality improvements.

Staging Plans/Traffic Control: The project will develop and prepare preliminary staging plans for the improvements including lane closures, detours, and maintenance of traffic provisions that will be required during each phase of construction.

Preliminary ROW Plans: Based upon the design and title work, the project will prepare preliminary ROW plans describing existing and proposed ROW and non-exclusive permanent and temporary easements.

Cost Estimate and Schedule: A preliminary construction cost estimate and schedule will be provided based upon the preliminary construction drawings. The estimate and schedule will include all elements that will impact the project including, but not limited to: property acquisition, utility relocations, construction, and contingencies.

2.2 Final Engineering Design Services

Construction Documents: The project will prepare final designs and final construction documents for bidding. Production of roadway profile sheets will be developed. Grading plans separate from the plan and profile drawings will also be produced to include all drainage related grade information including inverts and top of grade for all existing and proposed drainage structures, channels, etc.

Final Utility Coordination: The project will include coordination for utilities relocation. Plans will be sent for review and a utility coordination meeting will be held.

Signage/Striping/Detour Plans: The project will prepare final construction phasing and construction traffic control plans to be incorporated in the construction plan set in conformance with the *Manual of Uniform Traffic Control Devices* (MUTCD). These plans shall clearly delineate detours and traffic control devices including barrels, cones, and impact attenuators, and signage for each construction phase. Recommendations for the most cost effective construction traffic control will be provided.

Permanent Signage and Striping Plan: The project will prepare final permanent traffic control plans to be incorporated in the construction plan set. The plan will be prepared for the project in conformance with the design criteria and the *Manual of Uniform Traffic Control Devices* (MUTCD). These plans will clearly delineate signage and pavement markings as required.

Final Drainage Report and Plan: The project will provide a final Hydrology and Hydraulics Design Report that supports the final design and includes complete design calculations. The project will provide a final Erosion Control and Stormwater Management Plan (SWMP) if required. If a SWMP is not required, the reasoning will be documented.

Environmental Clearances / Permitting: The project will obtain all necessary environmental clearances and permits to advance the project. Coordination with CDOT to obtain Environmental Clearance will be needed. When all of the requirements have been met, an Environmental Clearance letter on behalf of the County will be requested from the Colorado Department of Transportation (CDOT).

ROW Plans: Based upon the final design utility coordination, property owner coordination and updated title work, the ROW plans describing existing and proposed ROW and easements will be produced.

Contract Specifications: The project will produce Project Specifications using appropriate manuals and criteria. The Project Specifications will include the bid form, the bid quantities

form, technical specifications, and standard special provisions. All applicable inserts for the specifications will be included such that the submittal will be ready for advertisement.

Final Cost Estimate: A detailed construction cost estimate will be produced based upon the completed final design construction drawings. Estimates will include all construction material items, construction survey, utility relocations, construction inspection, mobilization, signing, construction traffic control, and force account work required.

3. Project Parties

El Paso County Public Services Department is the sole applicant for the grant. El Paso County is responsible for maintaining the roads, bridges and drainage in the unincorporated parts of the County including Charter Oak Ranch Road. Not only is this project on County ROW, the County is obligated to provide support for the five military bases within its borders. El Paso County aims to support the training and operational needs of the five bases even when the impacts occur off base, such as with Gate 19. The County has experience working with Fort Carson, Pikes Peak Area Council of Governments (PPACG), the City of Fountain, the Central Front Range Rural Transportation Planning Region, the Colorado Department of Transportation, and the City and County of Pueblo in previous planning studies. See attached letters of support.

El Paso County Public Service Department has decades of experience in managing complex construction projects under cost and under deadline. In addition, the Public Services Department will be supported by the Finance Department, which has received numerous awards from the Government Finance Officers Association (GFOA) and conducts business in compliance with generally accepted accounting principles and allocable legal requirements. Also in a supporting role will be the Contracts and Procurement Division, which maintains the highest standards of professionalism and is fully accredited and certified by the National Institute of Governmental Purchasing. The Contracts and Procurement Division procures over \$60,000,000 in contracts a year in accordance with federal, state, and local procurement standards. Examples of grants we have administered include Transportation Enhancement Grants, Congestion Mitigation and Air Quality, Surface Transportation funds, Community Development Block Grants and Emergency Watershed Protection grants that we received after the wildfires and resulting flooding that struck our community in the last two years.

4. Grant Funds, Sources and Uses of Project Funds

El Paso County Public Services Department seeks \$1,200,000 in TIGER FY14 grant funding to develop preliminary and final engineering designs including environmental analysis, feasibility studies, and other pre-construction activities for Charter Oak Ranch Road and the Santa Fe Ave intersection. El Paso County will provide \$300,000 from its local funds to be used as a match for the TIGER FY14 grant. Table 1 provides a summary of the funding sources and amounts.

El Paso County is a member of the Pikes Peak Rural Transportation Authority (PPRTA) that collects a sales tax for roads. Although this project cannot be funded with PPRTA funds, the roadway maintenance after construction can be paid for with PPRTA funds. The design and construction projects are all listed specifically and were voter approved. Unfortunately, Charter Oak Ranch Road is not on the construction list. In addition, the County encompasses a vast area with a relatively small population resulting in a small tax base to support road funding. Finally, there are difficulties funding this project because it is outside of the Metropolitan Planning Area, where more federal funds are available. Fewer funds are available to the rural parts of the county.

Table 1. Sources of Funding

Source of Funding	Amount	% of Total Project Cost
El Paso County	\$300,000	20%
TIGER FY14 Request	\$1,200,000	80%
Total Cost	\$1,500,000	100%

Table 2 provides the current cost estimates by planning activity. Based on past projects of similar size and scope, we have estimated the costs of the proposed activities split into two phases: preliminary and final design.

Table 2. Use of Funding

Activity	Amount
Preliminary Design <ul style="list-style-type: none"> • Survey, geotechnical and subsurface investigation report • Utility coordination • Environmental Clearances / permitting • Conceptual Property Impacts • Preliminary Drainage Report • Preliminary Construction Documents • Staging Plans/Traffic Control • Preliminary ROW Plans • Cost Estimate and Schedule 	\$600,000
Final Engineering Design Services <ul style="list-style-type: none"> • Construction Documents • Final Utility Coordination • Signage/Striping/Detour Plans • Permanent Signage and Striping Plan • Final Drainage Report and Plan • Environmental Clearances / Permitting • ROW Plans • Contract Specifications • Final Cost Estimate 	\$900,000
Total Cost	\$1,500,000

5. Primary Selection Criteria

5.1 State of Good Repair

The project is consistent with the preferred alternative chosen during the improvement study. This study considered both the existing state of the road and the projected future demand caused by changes in personnel at Fort Carson. One finding of the improvement study was that Charter Oak Ranch Road has several design and typical section deficiencies that create potential safety issues and would make travel inefficient and dangerous given the growing traffic demand.

Charter Oak Ranch Road is a two-lane paved roadway that extends Fort Carson's access control point at Gate 19. The existing roadway has an average pavement width of 27 feet and unimproved crumbling dirt shoulders. El Paso County criteria require a pavement width of 48 feet, six-foot shoulders and curb and gutter for streets of this type. The existing road does not provide for safe travel conditions as tractor trailer trucks are forced to pass in alternate lanes at close distances forcing them onto the dirt shoulders. The existing pavement width provides little avoidance room for vehicles and is substandard for the types of vehicles utilizing the road such as tractor trailer rigs and military vehicles. The addition of civilian passenger cars will complicate safety in the extreme.

Picture 1: Charter Oak Ranch Road Degradation and Lack of Drainage Facilities



El Paso County has the ability and funding to maintain the improvements once constructed. In 2013, residents of the County overwhelmingly approved a 1% sales tax used to operate and maintain the transportation system. These funds can be used for maintenance to keep the Charter Oak Ranch Road improvements in good working condition over time. The funds are used for a proactive crack sealing program, pothole repair, chip sealing, and mill and overlay program.

The County utilizes RoadMatrix Pavement Management System software to effectively manage its maintenance funds. RoadMatrix is Stantec's next generation pavement management system, and is designed for municipal agencies to meet all of their planning and decision making needs. RoadMatrix uses current software development technology for pavement data collection, pavement engineering, and cost benefit analysis. This pavement management system helps the County to select the most cost effective maintenance for its roads. With a PQI of 21, the road can no longer be maintained but must be reconstructed.

Gate 19 was opened to Fort Carson personnel on a trial basis in September of 2011. The trial ended after a month due to low utilization of only 400 vehicles per day. According to surveys of personnel using the gate, the primary reason for the low usage was the poor condition and safety of the roadways servicing the gate. The existing roadway, with its design deficiencies and poor pavement conditions, is inadequate in providing off-post access to Gate 19, which ultimately dissuaded personnel from using the gate.

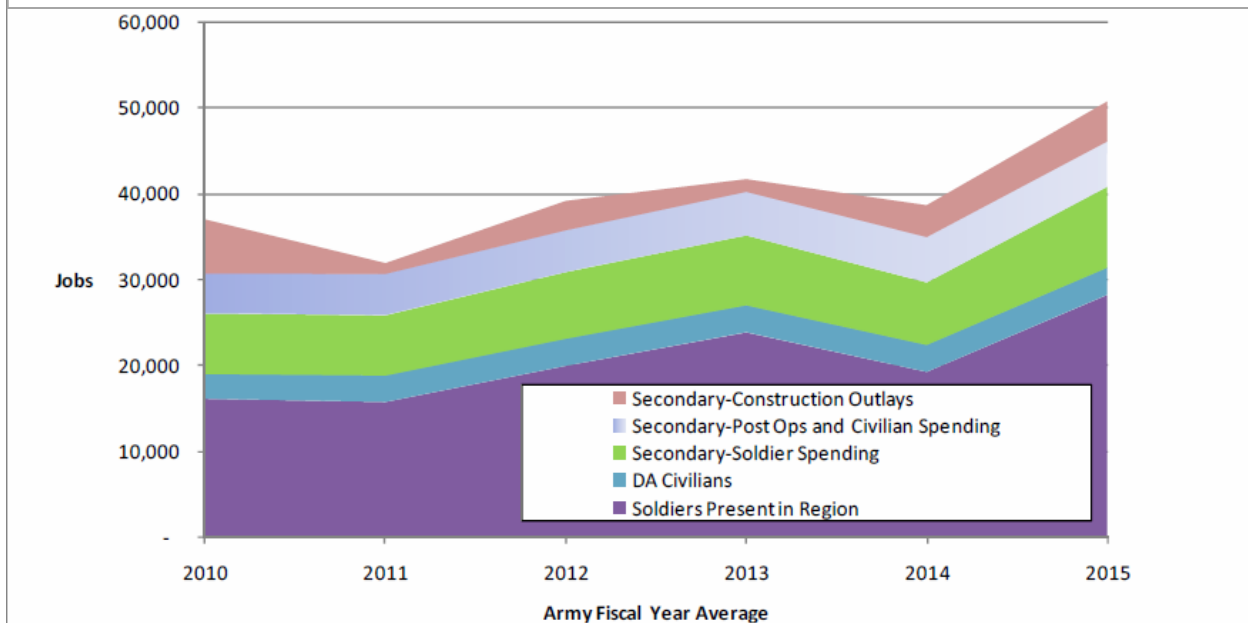
In addition El Paso County, including portions of Fort Carson, have suffered from recent wildfires and flooding from burn scars. The improvements will increase transportation resilience for both the road system and for Fort Carson by adding an alternative access point onto and off of the base in case of a severe weather event, accident, or other issue. Furthermore, the project will improve drainage by adding drainage structures where none currently exist.

Finally, the project will also fill a missing link in the multimodal system. The design will add pedestrian and bicycle access to Fort Carson Gate 19, which currently does not exist. The pedestrian and bicycle facilities will connect residential properties and businesses in the City of Fountain to Fort Carson improving access to employment, training and education facilities.

5.2 Economic Competitiveness

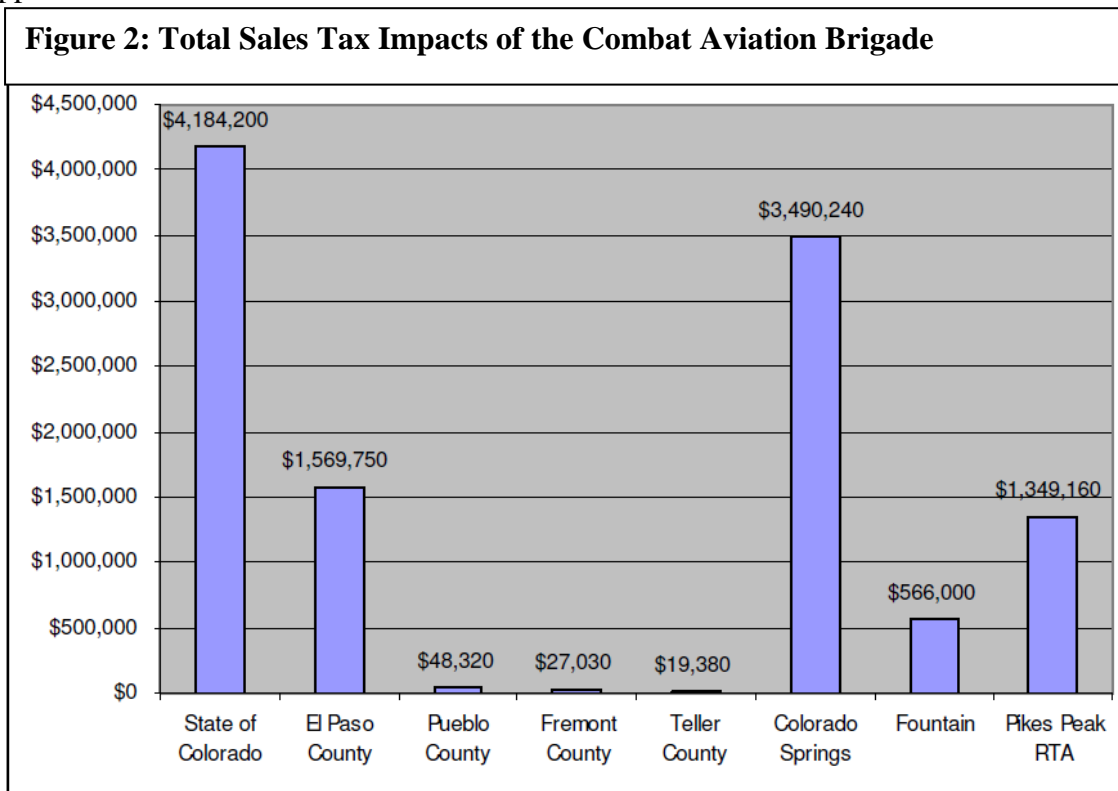
In 2011, it was announced that Fort Carson would be home to the Infantry Brigade Combat Team (IBCT) of approximately 3,700 troops and by 2015 home to a new 2,700 soldier aviation brigade. These changes bring hundreds of civilian jobs such as contractors for aircraft maintenance, high-tech weapons, and training simulators. As seen in Figure 1 as troop numbers increase, it is expected that more civilian and secondary jobs are supported in the region. These include construction jobs, contractors and service positions on base, and jobs supported by soldier and base spending at local businesses. This increased spending at local businesses allows them to hire additional workers and spurs demand to open new businesses.

Figure 1: Estimated and Project Direct and Secondary Jobs in the Region, Supported by Fort Carson (FY2010 – 2015)



A military impact plan evaluated the economic impacts of Fort Carson growth on the state and region. Based on \$730 million in military construction (MILCON) funding and a projected 6,400 additional soldiers, it is expected that the total number of new jobs would be approximately 16,000. The total economic impact (direct and indirect) by FY 2015 is estimated to be more than \$1.3 billion (*Implementation Status Report*, March 2012 and *Appendix E: Fort Carson Demographic and Economic Impact Models*, 2011).

Spending from the base and soldiers provides sales tax revenues to local governments. Sales tax impacts from MILCON and additional jobs associated with the CAB are also significant. Figure 2 illustrates total sales tax numbers through FY 2015 (in 2011 dollars). El Paso County may see an additional \$1.57 million in sales taxes and the City of Fountain will benefit from over \$500,000 in revenues. In most cases, the increased sales tax revenues go to fund the increase in services needed to support the additional population and additional students in schools. In the case of the Pikes Peak Rural Transportation Authority (PPRTA), the sales tax revenue is designated for roads in El Paso County including the City of Colorado Springs, Manitou Springs, and others. The City of Colorado Springs also benefits, as most commercial properties are in Colorado Springs rather than in unincorporated El Paso County. People from Fountain and Pueblo often drive north to Colorado Springs to enjoy the more diversified shopping opportunities.



Source: PPACG's Fort Carson demographic and economic models, based on Fort Carson estimates of MILCON and troop increases, March 2012.

While some parts of El Paso County are doing well, other parts are struggling economically. The County has a median household income of \$57,531, which is \$713 less than the Colorado average. In comparison, the soldiers of Fort Carson have a median household income of \$39,288, which is almost \$19,000 less than the state average. The City of Pueblo has a median

household income of \$35,176, which is approximately \$23,000 less than the Colorado average. (Data from Census.gov). All of these areas would benefit by the economic development opportunities that will come when Gate 19 is fully functional.

This project is crucial for the region to achieve economic benefits such as access to jobs, education, attracting new businesses, and expanding existing businesses. A finding from the improvement study is that many area businesses generate truck traffic and require adequate access off of the interstate, through the Santa Fe intersection, and onto business properties. Adequate access is vital to the operation of existing businesses and is essential for the development of vacant parcels (see Table 3). In some instances businesses have arranged their on-site facilities (such as vehicle check-in points and fueling areas) to properly utilize access points on Santa Fe Avenue and Charter Oak Ranch Road. In meetings with area businesses and land owners, their main concerns were that existing accesses to businesses are vital to their success and that access to undeveloped land parcels should not be precluded.

The project lies in Economically Distressed Census Tract 45.09 Block 2, which has one of the highest concentrations of low income people in the County. Approximately 60% of residents are classified as having low- to moderate-income levels, while 27% are classified as low income, and 17% classified as extremely low income. The City of Fountain continues to collaborate with the County and Fort Carson to improve access to jobs. Currently, jobs for the people with disabilities and those with less education are neither bountiful nor close.

Census Tract 45.09 is separated by the interstate, with the population concentrated on the east side. The project will design and eventually create a direct corridor from the east side trailer parks, apartments, and modest homes to the jobs on the west side, which houses an industrial park, quarries, and Fort Carson. It will create easy access to jobs for the low income neighborhoods in Tracts 45.09 and 45.08.

The project dovetails perfectly with the City’s recently completed plan for Olde Town revitalization. “Olde Town” is the older southern end of Fountain at I-25 Exit 128, and along Santa Fe Avenue. Olde Town is in the heart of the Santa Fe Avenue corridor where it connects to I-25 and Charter Oak Ranch Road. Olde Town consists of older buildings which are generally below market price and are cost-prohibitive to improve. The average home in Fountain sells for about \$55,000 less than homes in other parts of Colorado attracting lower income residents to the area (Census.gov). The City of Fountain has created an Olde Town revitalization plan, which calls for building daytime employment in the area to support niche businesses in the section of the City near I-25 exit 128, which leads to Gate 19 (*City of Fountain Olde Town Revitalization Summary*, April 2014). In 2009 Fountain completed a *U.S. Highway 85 Corridor Gateway Redevelopment Plan* specifically addressing this area and calling for development of employment centers. The eventual rehabilitation of the Santa Fe intersection and Charter Oak Ranch Road will create the necessary infrastructure and economic traffic to attract business development and create jobs.

Table 3: Businesses Near Proposed Improvements
Adesa Colorado Springs
Adult Video, Inc.
Advantage Logistics
Baebis Properties
Bisquits Café
Carson Bluffs Self Storage
Carson Butcher Company
City of Fountain
Dillon
Fountain Colony Development
Interstate Diesel Repair & Truck Wash
Kiewit Construction – Fountain pit
Kroger
Krogers Payton
Pavestone – Fountain
Rampart Realty
ReMax Properties
Rocky Mountain Forest Products
Schmidt Construction – Levy
SilCo Oil – Tomahawk Truck Stop
T-Bone
Vacant Land
Ventimiglia Family Foundation
Weathercraft

Finally, multimodal connections will be enhanced because this project will make bicycle and foot traffic possible. The project is within a distance that is easily walked or biked from the residential side of the City of Fountain. The City has a transit stop and park and ride a block from the interstate, so this project will also tie in these existing amenities. Providing the missing link of the multimodal system is a desire of Fort Carson as it supports their Sustainable Fort Carson Plan. The plan includes a goal for sustainable transportation that reduces automobile dependency and provides balanced land use and transportation systems and impacts transportation costs and equitable access for all people that Fort Carson serves.

5.3 Quality of Life

This project provides transportation choices to connect economically disadvantaged populations, non-drivers, senior citizens, and persons with disabilities with access to employment, training and education centers across the I-25 interstate at Fort Carson and the adjacent development opportunities. The eventual road reconstruction will include ADA compliant non-motorized facilities, allowing individuals the opportunity to walk or bike to their place of employment. Additionally, the improvement project will be accessible by public transit and by users of the nearby park and ride lot on Santa Fe Avenue. The non-motorized facilities and access to carpooling and transit presents low-cost alternatives for individuals to utilize in areas where incomes are tight.

This project coordinates land-use planning and economic development plans by creating the corridor the City's Economic Development plan recommends. It is also consistent with the City of Fountain's Comprehensive Plan that promotes Santa Fe Avenue as an area for revitalization, for building daytime employment and supporting niche businesses. In addition, the project is consistent with Fort Carson's plans for troop numbers and for a residential buffer zone adjacent to training lands. El Paso County is currently buying some residential properties adjacent to Fort Carson, about seven miles south, as a training facility for munitions explosions and helicopter training, which is not conducive to residential development. Fountain's Comprehensive Plan shows the area as Planned Industrial development and not residential. However, Fountain would consider allowing other commercial rezoning on Charter Oak Ranch Road as demand warrants.

In the near future, Fort Carson is expected to have over 6,400 soldiers and supporting personnel working at the Infantry Brigade Combat Team (IBCT) and Butts Army Air Field (BAAF) facilities. Gate 19 directly serves this area and is only accessible by Charter Oak Ranch Road via the Santa Fe intersection off of I-25. Currently, personnel working at the IBCT and BAAF facilities who access Fort Carson from the east must enter through Gate 20 where the wait time is eight to ten minutes. This forces personnel to drive through the entire installation to access the IBCT and BAAF facilities. With Gate 19 open, personnel living south and east of Fort Carson (primarily in Fountain and Pueblo West) would have more convenient access to the IBCT and BAAF facilities. It is anticipated that the opening of Gate 19 and improving the study corridor would significantly reduce the travel time during the peak hour by approximately 20-25 minutes for IBCT and BAAF personnel. Once a commuter clears Gate 20 security, many must traverse back 5 miles south to reach their command stations located close to Gate 19. For soldiers commuting from the south this equates to 21 miles of extra driving per day, using an extra 5 gallons of gasoline a week for each soldier.

Gate 19 is currently strategically located so as to not negatively impact on-post training facilities. Moving the gate, and thus realigning the access, has the potential to negatively impact training grounds and will not happen. The mission of Fort Carson is to train soldiers. A key component of this is the availability of training land for maneuvers and specific training areas (i.e. fire ranges). Improvements to the study corridor that are on or adjacent to the existing Charter Oak Ranch Road and Santa Fe Avenue alignments would preserve these training areas.

5.4 Environmental Sustainability

5.4.i Reduce Energy Use and Air Pollution

The project is located close to residential, industrial and commercial areas. Both the addition of non-motorized facilities and proximity to transit and the park and ride all help to reduce energy use. Approximately 8,300 trips per day originate in areas that would benefit from the use of Gate 19 from about 2,970 residences that house soldiers. (*Appendix C: Phase II Transportation Technical Report*, April 2010). Given the uses on base near Gate 19, Fort Carson estimates 2,487 daily trips would use Gate 19. Gate 19 is 5.5 miles from Gate 20. The opening of Gate 19 would save almost 13,680 miles a day traveled on I-25 and 12,435 miles saved on Fort Carson. In total, the improvements to Charter Oak Ranch Road would save approximately 26,115 miles per day in the region.

The project will ease traffic congestion at Gate 20 (Mesa Ridge Parkway) to the north, which is the only other gate for the surrounding area. Gate 20 counts show the peak traffic flow occurring between 5:00 to 7:00 AM. Field observations were conducted from 5:15 to 6:30 AM which revealed that from about 5:30 to 6:15 AM, queues extended to the SH 16 interchange and onto the southbound I-25 off-ramp. It was estimated that during the peak time, queue delays could be eight to ten minutes, regardless of which lane passengers were in. After 6:15 AM queues were typically only a few vehicles in each lane (*Appendix C: Phase II Transportation Technical Report*, April 2010).

As seen below, Gate 20 is on the left side of the picture. The cars waiting to get into the gate are backed up onto the interchange and extend to the I-25 off ramp. This picture was taken the week of April 14, 2014 at about 5:30 AM. While trees partially block the view of some brake lights, this is a continuous line of traffic.



Picture 2: Line of Traffic at Gate 20 in the Morning

Peak-hour turning movements and daily vehicle classification counts were recorded on Charter Oak Ranch Road August 17, 2011. Peak-hour turning movement data was collected at 15-minute intervals from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM on:

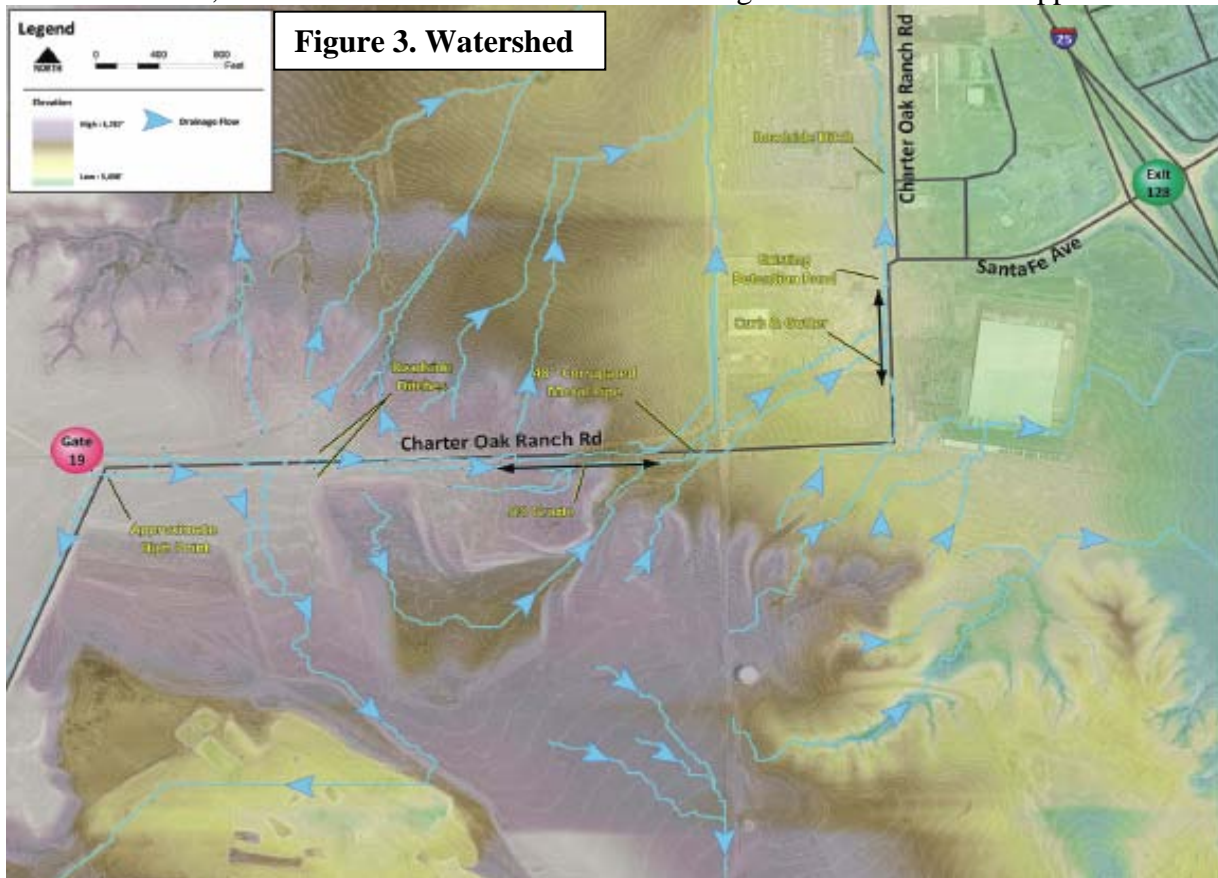
- Northbound and southbound ramp terminals at the I-25 / Santa Fe Avenue Interchange
- Santa Fe Avenue/Champlin Lane
- Santa Fe Avenue/Shell Access

- Santa Fe Avenue/Charter Oak Ranch Road
- Charter Oak Ranch Road and private accesses to existing businesses.

In general, the peak-hour pattern is to the west in the morning and then shifts to the east in the afternoon. Peak-hour counts show Santa Fe Avenue carries approximately 310 vehicles per hour (vph) during the morning peak and 390 vph during the afternoon peak hour in both directions east of the Shell Gas Station access. On Charter Oak Ranch Road, two-way traffic is about 55 vph during the morning peak and 100 vehicles per hour during the afternoon peak (*Appendix H: Improvements Study For Charter Oak Ranch Road And Santa Fe Avenue To Facilitate Access To Fort Carson's Gate 19*, February 2012). Both the Fort Carson Growth Plan and the Improvement Study note significant congestion at Gate 20. With the better pavement condition and a roundabout, there would be no extra pollution generated by the wait times and extra miles traveled by using Gate 20.

5.4.ii Improve Drainage and Stormwater Runoff Quality

In general, Gate 19 is located at the high point of the road and the runoff sheds both west and east from there. The majority of the runoff from this project is directed north to a creek and then under I-25 and ultimately into Fountain Creek. More specifically, the southwest runoff is directed into shallow road side ditches. The easterly runoff is directed into roadside ditches as well for about 3,500 feet. The Charter Oak Ranch Road grade east of Gate 19 appears to be less



than 1% for approximately 400 feet, and then steepens to 9% for another 400 feet. Charter Oak Ranch Road then gradually flattens to an ultimate 1% grade within 700 feet. At the bottom of the 9% grade, the runoff is directed into an existing 48" Corrugated Metal Pipe (CMP) on the south

side. This culvert directs the runoff under Charter Oak Ranch Road to the north side where the combined flow from the culvert and north ditch section are directed north in a man-made swale.

North of the existing tight horizontal curve, Charter Oak Ranch Road has curb and gutter on the west side that directs the runoff north and into a curb cut and then to a small private detention pond. The east side has runoff directed along a small berm off the edge of asphalt. This drainage is routed north and across the intersection into the above mentioned roadside ditch. Currently Santa Fe Avenue drains from the east to the west. Runoff sheet flows off the road section and into roadside ditches. The runoff is then directed north alongside Charter Oak Ranch Road in a broad roadside ditch.

The project will improve both the stormwater that ponds on the road and the quality of the stormwater that eventually enters Fountain Creek. On the west end of the project, the curb and gutter will catch the runoff from Charter Oak Ranch Road and any offsite tributary areas. This runoff will be directed by curb and gutter south along its historic path. Due to MS4 requirements, water quality will be needed. Several different methods could be used including grass swales and water quality ponds. However, the exact nature of appropriate water quality measures will need to be determined during the design phase.

The road section east of the high point captures the runoff and routes it east via curb and gutter. With relatively small amounts of off-site runoff, storm drains are not needed until flows reach the bottom of the hill. On the south side of the Charter Oak Ranch Road, it is proposed that three 12' curb cuts with concrete rundowns be provided to capture the flow. Similarly two 12' curb cuts with concrete rundowns are proposed on the north side of Charter Oak Ranch Road.



Picture 3: Pavement Conditions, No Drainage and Vegetation at the Charter Oak Ranch Road Hill

The existing 48" CMP is proposed to be replaced with a 48" Reinforced Concrete Pipe (RCP). Two 20' type-R inlets are proposed connected by 100' of 24" RCP. A water quality pond on Fort

Carson property and adjacent to the Pavestone property is proposed to catch the runoff at this point. Fort Carson was contacted to verify the feasibility of locating water quality ponds on their property and they did not preclude this possibility.

Two more 20' Type R inlets are proposed connected by 60' of RCP which outlets into an existing water quality pond on the Pavestone property. It is anticipated that the existing water quality pond would need to be enlarged to handle the additional flow. Pavestone will need to be further coordinated with during the design phase to determine the right-of-way or easements and maintenance agreements required to use the existing water quality pond. Just north of the proposed roundabout intersection, a proposed 24" CMP will carry runoff from Santa Fe Avenue to the west side of Charter Oak Ranch Road along a proposed grass buffer (swale). This swale will serve as the water quality feature for the roundabout.

5.5 Safety

During the four-year period between January 1, 2007 and December 12, 2010, eight crashes were recorded in the study area. However, the data shows that all crashes occurred at the I-25 ramps. A sideswipe same-direction crash occurred at the southbound ramp intersection with Santa Fe Avenue. Two crashes occurred on the northbound on-ramps, two at the northbound off-ramps, and three on the southbound off-ramps. There were no crashes recorded on Santa Fe Avenue west of I-25 or on Charter Oak Ranch Road during the study period. There was one crash on Charter Oak Ranch Road between 2011 and 2012.

While there have been few crashes on Charter Oak Ranch Road over the years, historically, there have been few cars on the road. Daily traffic counts to classify traffic by vehicle type were collected at the three locations described in Table 4. These daily classification counts show that Santa Fe Avenue carries approximately 4,000 passenger cars per day and about 1,000 trucks per day just west of Interstate 25. Vehicle classification counts on Charter Oak Ranch Road show traffic volumes decrease significantly south of Santa Fe Avenue but the percentage of trucks and tractor-trailers increase significantly. In fact, the data shows only 1/3 of the traffic on Charter Oak Ranch Road are passenger vehicles.

Table 4. Vehicle Classification Summary (by FHWA Vehicle Types)

Count Location	Total Daily Traffic	Passenger Cars, Pick-Up Trucks, Buses (FHWA Class 1-5)		Single Unit Trucks (FHWA Class 6-7)		Tractor Trailer 5-Axles or Less (FHWA Class 8-13)	
		Vehicles	%	Vehicles	%	Vehicles	%
Santa Fe Avenue	5040	4089	81%	328	7%	623	13%
Charter Oak Ranch (South)	645	237	37%	157	24%	251	39%
Charter Oak Ranch (West)	272	97	36%	69	25%	106	39%

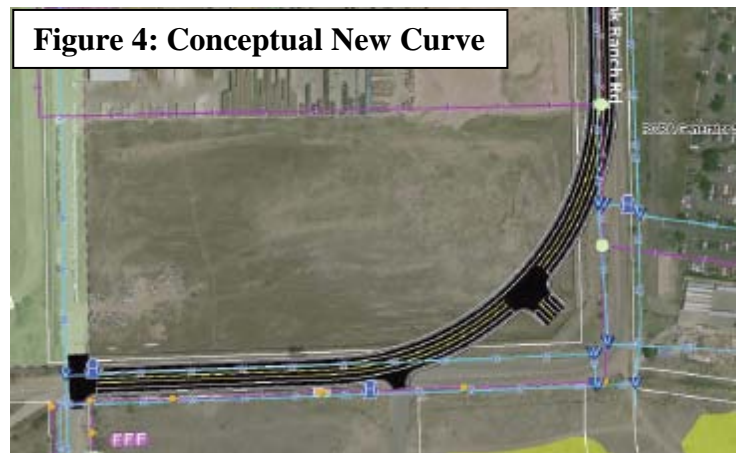
While there have been few reported accidents on Charter Oak Ranch Road, it has the potential to become a safety concern with increased traffic due to expected Gate 19 Fort Carson use. If Charter Oak Ranch Road is not improved swerving to avoid pot holes, limited pavement width, no pedestrian facilities, and flooding of road due to lack of drainage facilities all make this road

at risk for higher accident rates when use of the road increases. The improvements that we are proposing would fix all of these problems, from pavement quality and drainage to safety.

Another factor affecting safety and efficiency within the study corridor is the existing pavement conditions. As measured in 2008, the pavement quality index (PQI) of Charter Oak Ranch Road is 27 out of a possible score of 100. Based on standard deterioration criteria, the pavement quality is now estimated to be a 21 – only one point above the worst possible score of 20. The existing pavement structure is failing as evidenced by significant areas containing interconnected cracks caused by a fatigue failure of the existing asphalt bituminous surface under repeated traffic loading. The result of this pavement failure is potholes. The poor pavement quality forces vehicles to swerve into other lanes or to slow considerably to avoid hitting potholes, increasing the likelihood for accidents and head-on collisions. This situation will only become more hazardous by the opening of Gate 19 as additional privately-owned vehicles and construction-related vehicles utilize the study corridor to access Gate 19. New pavement would be provided in the future construction project.

Traffic cannot safely maneuver Charter Oak Ranch Road at the current posted speeds due to the substandard turning radius where Charter Oak Ranch Road transitions from north-south to east-west. This substandard turning radius causes vehicles to slow below posted speeds while navigating the curve. As tractor trailers navigate this curve, they are crossing into the oncoming lanes or are driving on the unpaved shoulder. This condition increases safety concerns for both the tractor trailers and for oncoming traffic. If the curve is taken at too high a speed, then vehicles tend to overcorrect and are at risk of skidding into the opposing lane of traffic or rolling off the road. Ice and snow conditions exacerbate the safety risks as vehicles may slide off the road or into oncoming traffic. This project will include changing the curve and widening the pavement to prevent these safety hazards as shown in the picture. The blue line is the current turn radius at about 90 degrees. The black line is a conceptual drawing of a potential solution, depending on the results of field data from surveys that have not yet been conducted.

In addition to the poor pavement conditions and substandard curve radius, Charter Oak Ranch Road has grades as high as nine percent. This exceeds the El Paso County criteria of six percent for urban roadways and eight percent for rural roadways. Given the number of tractor trailer rigs utilizing this road, the high grade causes substantial slowing of traffic as trucks climb the grade. As traffic increases on the road, there is a risk that passenger cars may try to pass slower moving tractor trailers, thereby increasing the risk of collision given the limited sight distance over the hill. The project would look to flatten the steep hill and reduce the grade.



The Santa Fe Avenue intersection with Charter Oak Ranch does not have any turn lanes or medians. Projected left-turn volumes from westbound Santa Fe Avenue to southbound Charter

Oak Ranch Road are 130 vph. Left-turn lanes are required when volumes exceed 50 vph. The lack of turn lanes and medians increases the chance of rear-end crashes because drivers are not expecting left turning vehicles and may swerve into oncoming traffic to avoid rear-end crashes.

Three rock quarries and various commercial and industrial businesses utilize Charter Oak Ranch Road and Santa Fe Avenue. These businesses generate more than 1,000 tractor trailer vehicles per day that utilize access points along the study corridor. Currently there are no dedicated left- or right-turn lanes at these accesses. The lack of turn lanes will become a safety risk when the number of passenger vehicles increases. This project would plan for turn lanes where indicated for access to businesses.

Finally, a roundabout has been proposed to best address the Santa Fe Ave intersection's lack of turn lanes, volumes, its proximity to interstate highway, speeds, high percent of tractor trailer trucks, and Fort Carson's need to move heavy equipment through Gate 19. In this case, a roundabout is safer because head on and T-bone crashes will be reduced and will improve air quality as intersection wait times decrease.



6. Secondary Selection Criteria

6.1 Innovation

Innovative materials, designs, and stormwater control techniques will be considered during final design. The suggested use of a roundabout rather than a traditional intersection can improve not only traffic flow, but also the ease and safety of the trucks and tractor trailers. The roundabout will need to be carefully designed as almost 65% of all vehicles are trucks and tractor trailers going to commercial facilities.

During the improvement study, the project team determined that sustainability should be a consideration for the recommended alternative. The selected roundabout alternative will have numerous benefits to the social and built environment. Roundabouts reduce traffic delays and idling, and as a result reduce vehicle emissions (including greenhouse gases) into the atmosphere. The proposed roundabout requires less right-of-way acquisition and has a smaller footprint. Additionally, the roundabout will utilize less energy than installing the required traffic signal because there is no electricity required.

6.2 Partnership

There have been many planning efforts from multiple jurisdictions that support improvements to Charter Oak Ranch Road. El Paso County, Fort Carson, Pikes Peak Area Council of Governments, the City of Fountain, the Central Front Range Rural Transportation Planning Region, the Colorado Department of Transportation, and the City and County of Pueblo have all been involved in previous planning studies or coordination meetings. The improvement study and the military impact plans are examples of the ongoing partnerships that have looked at improvements to Charter Oak Ranch Road. All of the major stakeholders have provided letters of support for this project.

7. Project Readiness

El Paso County will obligate the FY14 TIGER funds before September 30, 2016. An improvement study has been completed and accepted by all participants including the City of Fountain, El Paso County Board of County Commissioners, Fort Carson, and the Pikes Peak Area Council of Governments. This study provides the County the ability to develop preliminary and final designs because the preferred alternative has been selected and the NEPA process has been started.

7.1 Project Schedule

STIP Inclusion / IGA / Notice of Award	6 months
Request for Proposals / Procurement Process / Design Contract Award	3 months
Preliminary Design	7 months
Final Design	6 months
Utility Coordination / Clearances (<i>concurrent with preliminary/final design</i>)	3 months
Environmental Clearances (<i>concurrent with preliminary/final design</i>)	7 months
ROW plans (<i>concurrent with preliminary/final design</i>)	2 months
Contracting Specifications and Final Cost estimate	2 month
Total Project Length	24 months

El Paso County has studies on drainage and flood risk. The proposed roadway improvements are primarily located in the Fort Carson Drainage Basin, with the exception of the west end of the project near Gate 19, which is located in the Little Fountain Creek Drainage Basin. Flows from this site are tributary to Fountain Creek. No portion of this site is within a designated F.E.M.A. floodplain, as determined by Flood Insurance Rate Map Nos. 08041C0961F and 08041C0962F dated March 17, 1997.

El Paso County has already completed an environmental inventory. The resource areas studied were selected based on the characteristics of the study corridor and on input from project representatives. In reviewing the actions associated with the Preferred Alternative, a NEPA resource specialist determined the following issues are present in the study corridor:

- Hazardous Materials
- Vegetation
- Wildlife
- Special Status Species
- Wetlands
- Noxious Weeds
- Noise
- Water Quality and Floodplain

In addition, a NEPA resource specialist determined that the following issues are either not present in the study corridor or would not be impacted by the Preferred Alternative:

- Farmlands – not present
- Wild and scenic rivers – not present
- Historic elements (i.e. structures, ditches) – not present
- Parks and Recreation (and Section 4(f) resources) – not present
- Air quality – outside maintenance area

These issues have no potential for project-related impacts and were dismissed from further discussion. Given the project's proximity to Fort Carson's proposed projects covered in the 2009 study entitled *Final Environmental Impact Statement (EIS) for Implementation of Fort Carson Grow the Army Stationing Decisions*, this document served as a reference for baseline resource information. In addition, the improvement study presents the results of an analysis of each of the resource topics. It is important to note that when an adverse impact was predicted, efforts were first made to avoid or minimize the adverse impacts. Recommended mitigation measures were then developed to address adverse impacts that could not be avoided. Given the findings from the improvement study, we expect the project will receive a Categorical Exclusion.

The planning effort will be able to begin as soon as El Paso County receives a notice to proceed. Given the large amount of existing data and studies, it will be possible to have the funds obligated no later than September 30, 2016. The attached resolution by the El Paso Board of County Commissioners states that we will commit local funds for the match to this project. In El Paso County, only the Board of County Commissioners can make fiscal commitments and expend funds. In addition, our 1% sales tax will be used to maintain the road once improvements are made.

8. References:

City of Fountain Comprehensive Development Plan 2005

August 2005

https://www.fountaincolorado.org/egov/docs/1381271115_460906.pdf

City of Fountain Traffic Master Plan

October 2002

https://www.fountaincolorado.org/egov/docs/1178290501_231811.pdf

City of Fountain Olde Town Revitalization Summary

April 2014

<https://www.fountaincolorado.org/egov/apps/document/center.egov?path=doc&id=3478&id2=2633&linked=0>

City of Fountain U.S. Highway 85 Corridor Urban Renewal Plan

April 2008

https://www.fountaincolorado.org/egov/docs/1209668923_922180.pdf

City of Fountain U.S. Highway 85 Corridor Gateway Redevelopment Plan

October 2009

http://www.fountaincolorado.org/egov/docs/1260403183_352172.pdf

Comprehensive Transportation Study

2008 Update

Fort Carson and Gannett Fleming

Environmental Impact Statement (EIS) for Implementation of Fort Carson Grow the Army Stationing Decisions

2009

Fort Carson and US Army Environmental Command

<http://www.carson.army.mil/DPW/nepa%20documents/2009%20ROD%20for%20Implementati on%20of%20Fort%20Carson%20Grow%20the%20Army%20Stationing%20Decisions.pdf>

FORT CARSON REGIONAL GROWTH PLAN

Pikes Peak Area Council of Governments

<http://www.ppacg.org/mip/fort-carson-regional-growth-plan>

Appendix B: Economic Impacts Technical Report

January 11, 2008

http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20Phase%20I%20-%20July%202008/3-FCRGP%20Vol%202%20-EconomicTechnicalReport.pdf

Appendix C: Phase II Transportation Technical Report

April 2010

http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20Phase%20II%20-%20June%202010/FCRGP%20Phase%20II%20-%20

[%20Plan/APPENDIX%20C.%20Fort%20Carson%20Final%20Phase%20II%20Transportation%20Report.pdf](#)

Appendix D: Fort Carson Soldier and Household Survey

June 2011

http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20Phase%20III%20-%20July%202011/Appendix%20D%20-%20Final%20Survey%20Report.pdf

Appendix E: Fort Carson Demographic and Economic Impact Models

Update 2011

http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20-%20February%202012%20Report/Appendix%20E%20-%20Fort%20Carson%20Demographic%20and%20Economic%20Impact%20Update%202011.pdf

Appendix H: Improvements Study For Charter Oak Ranch Road And Santa Fe Avenue To Facilitate Access To Fort Carson's Gate 19 (Referred to as the

Improvement Study)

February 2012

[http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20-%20February%202012%20Report/Appendix%20H%20-%20\(Gate%2019%20Report\)%20Improvement%20Study%20for%20Charter%20Oak%20ORanch%20Rd%20and%20Sante%20Fe%20Ave.pdf](http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20-%20February%202012%20Report/Appendix%20H%20-%20(Gate%2019%20Report)%20Improvement%20Study%20for%20Charter%20Oak%20ORanch%20Rd%20and%20Sante%20Fe%20Ave.pdf)

Appendix I: Summary of Recommendations

July 2011

http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20Phase%20III%20-%20July%202011/Appendix%20I%20-%20Recommendations%20Implementation%20Table.pdf

Implementation Status Report

March 2012

http://www.ppacg.org/files/MIP/plan_docs/FCRGP%20-%20March%202012%20Report/March%202011%20Status%20Report%20-%20without%20appendices.pdf

Sustainable Fort Carson Goals

Fort Carson

<http://www.carson.army.mil/paio/sustainability.html>

9. Federal Wage Rate Certification



April 17, 2014

To Whom it may concern:

RE: Federal Wage Rate Certification

If El Paso County is awarded a TIGER grant for "Charter Oak Ranch Road Plan to Assist Fort Carson Gate 19" application, we hereby certify that the County will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (Federal wage rate requirements), as required by the FY 2014 Continuing Appropriations Act).

Sincerely,

Andre' P. Brackin, P.E., MPA
County Engineer
El Paso County Public Services Department

