

## **Region 1 – I-25 North: US 36 – 120<sup>th</sup> Avenue PEL Improvements**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 169,500

**AADTT:** 15,814

**Percent Truck:** 9.3%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 4<sup>th</sup>

**NHFP Funding Request:** \$11 M for completion of NEPA and design for 88<sup>th</sup> Ave. bridge (\$1 M), and construction of 88<sup>th</sup> Ave. bridge (\$10 M)

**Total Project Cost:** \$11 M (up to \$95 M for full construction package including other PEL improvements)

### **Project Description**

This project will implement improvements to the corridor identified in the PEL. Improvements include a new southbound lane between 84<sup>th</sup> Ave and Thornton Parkway, Auxiliary Lanes, improved movements and a replacement of the 88<sup>th</sup> Ave Bridge over I-25.

### **Project Narrative**

Primary Goal: Mobility

Secondary Goals: Safety, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

This is a crucial segment of highway which serves almost 16,000 trucks each day. It is not only a crucial part of the states' primary north/south artery but is near the junctions of I-270, I-76 and US36.

### **Freight Specific Elements of Project**

The highway was temporarily lowered under 88<sup>th</sup> Ave to improve the vertical clearance. The planned improvements in the corridor will require the highway to be re-graded and the bridge will again be height restricted if not replaced. This request of \$1M will allow for NEPA and design of the bridge replacement. \$10M will provide for bridge reconstruction and will remove the low vertical clearance.

### **Freight Benefit**

The vertical clearance will be permanently corrected for the many freight vehicles on this segment of highway.

### **Other Information**

Without advancing the bridge reconstruction, the other highway improvements will require regrading which will once again create a clearance issue for the bridge.

## **Region 1 – I-25: Valley Highway Phase 3.0: Santa Fe to Bronco Arch (including bridges)**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 222,384

**AADTT:** 13,299

**Percent Truck:** 5.98%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 3<sup>rd</sup>

**NHFP Funding Request:** \$2 M to add NEPA and design for the 23<sup>rd</sup> and Speer bridges to upcoming Planning and Environmental Linkages (PEL) study

**Total Project Cost:** \$60 M for construction, including \$40 M for bridges

### **Project Description**

Overall project will look at capacity and safety needs of the corridor to continue work on recently completed projects. The freight project focuses on the low vertical clearance bridges at 23<sup>rd</sup> Ave and Speer Blvd.

### **Project Narrative**

Primary Goal: Mobility

Secondary Goals: Safety, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

This is a vital economic corridor for the metro area and the state. It serves the central business district and parallels major rail lines. The height restriction is a significant impediment to the 13,000 plus trucks traveling this corridor every day.

### **Freight Specific Elements of Project**

The \$2M freight request will add \$1M to the planned PEL study to identify highway needs surrounding the bridges and allowing the bridges to be broken out of the overall study as an early implementation project. An additional \$1M will be used for NEPA and design on the bridges to prepare them for construction.

### **Freight Benefit**

An improved highway and standard height bridges will improve safety and mobility for trucks on the corridor.

### **Other Information**

While the overall project will provide indirect benefits to freight, this request is specifically designed to speed implementation of the bridge replacements to remove the height restriction.

## **Region 1 – I-270/Vasquez/60<sup>th</sup> Ave Improvements and Interchange Reconstruction**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 43,650

**AADTT:** 5,893

**Percent Truck:** 13.5%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 4<sup>th</sup>

**NHFP Funding Request:** \$22 M for design and ROW (\$10 M), and match (\$12 M) for potential grant application for construction phase

**Total Project Cost:** \$60 M for construction

### **Project Description:**

Reconstruction of the interchange at I-270 and intersection at 60th Ave to improve safety and traffic operations by addressing the existing substandard geometric configuration of the interchange, addressing the existing problems at the five legged intersection of Vasquez and 60th, and improving access points, based on a PEL study recommendation.

### **Project Narrative:**

Primary Goal: Improved Safety and Operations

Secondary Goals: Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor:**

This is an important freight, energy and industrial corridor. There are high concentrations of energy production, heavy industry and shipping in the area. The area is also served by rail and pipeline.

### **Freight Specific Elements of Project:**

The project is currently in a PEL study. The specific improvements are not yet identified. One of the primary goals of the study is to improve freight movement in the area and all alternatives will be evaluated based on the alternatives effect on freight movement.

### **Freight Benefit:**

All alternatives will address freight mobility, safety and geometrics. Alternatives being considered include access, priority signals and geometrics to benefit freight in the area.

### **Other Information:**

The AADT on this segment is 43,650 vpd, with a truck percentage of 13.5%. This segment currently has many significant safety, geometric and mobility issues which negatively impact both automobile and freight traffic. A PEL is currently underway to determine specific improvements. The Colorado Motor Carriers Association (CMCA), an advocate group dedicated to improving opportunities on the trucking industry, is an integral participant in the PEL and is providing valuable input to develop alternatives to benefit freight in the area.

## **Region 1 – I-70 West Tier II NEPA from Twin Tunnels to MP 244 (Floyd Hill)**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 39,101

**AADTT:** 2,692

**Percent Truck:** 6.9%

**Regional Freight Quartile:** AADTT: 3<sup>rd</sup>; Percent Truck: 3<sup>rd</sup>

**NHFP Funding Request:** \$5 M to fund Tier II NEPA to advance projects

**Total Project Cost:** \$250 M for construction of full package of improvements

### **Project Description**

Reconstruction of westbound Bridge at US 6 (MP 244) including improvements to geometrics and curve and construction of third lane westbound down Floyd Hill to bridge. Construction of third lane to Twin Tunnels.

### **Project Narrative**

Primary Goal: Mobility

Secondary Goals: Safety, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

Primary east/west corridor for the state. Serves quarry off of US6.

### **Freight Specific Elements of Project**

Bridge Enterprise funding is available to replace the bridge, however Tier II NEPA is required before the bridge replacement can begin. The study will look at overall corridor needs including the bridge replacement, options for improving the curve and alternatives such as a deceleration lane for the new interchange.

### **Freight Benefit**

In addition to the overall benefit of mobility improvements on the corridor, improvements to geometrics of the highway and the new interchange will greatly improve conditions for trucks in the area.

## **Region 1 – US 85: Louviers to MP 191**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 17,122

**AADTT:** 1,206

**Percent Truck:** 7%

**Regional Freight Quartile:** AADTT: 2<sup>nd</sup>; Percent Truck: 3<sup>rd</sup>

**NHFP Funding Request:** \$11.1 M

**Total Project Cost:** \$31 M

### **Project Description**

Reconstructs 2 lane highway with little to no shoulders, with a 4 lane template with raised median and access control and standard shoulders. Replaces a Structurally Deficient bridge and addresses an eroding hillside that drops boulders onto the roadway and limits sight distance.

### **Project Narrative**

Primary Goal: Mobility

Secondary Goals: Safety, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

Highway is the primary alternative to I-25 between Denver and Castle Rock. This serves an industrial area including a railroad auto transfer facility. 7.1% Truck Traffic with 18,000 ADT.

### **Freight Specific Elements of Project**

Adding laneage by widening the roadway and providing standard shoulder widths will directly benefit trucks on the corridor.

### **Freight Benefit**

Level of Service of Safety rating for crash frequency and severity is LOSS-III for Moderate to High Potential for reduction. In addition, another access road to the Big Lift Auto Facility is available should the facility choose to reopen it. Acceleration and deceleration lanes on US-85, along with a full turning movement across the raised median, were constructed as part of the projected completed three years ago. At that time, the Facility appears to have elected to abandon the access road and at-grade crossing at the railroad but the earthwork and roadway template are available should the Big Lift Auto Facility choose to reopen the access road.

### **Other Information**

Project is currently short of funds for construction. Current options for proceeding include reducing shoulder width.

## **Region 2 – I-25: City Center Drive to 13<sup>th</sup> Street (MP 98.5-100.0)**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 66,667

**AADTT:** 4,087

**Percent Truck:** 6.1%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$2 M for design

**Total Project Cost:** \$130 M for construction

### **Project Description**

This project would be for level design for complete reconstruction and widening of I-25 (between 13<sup>th</sup> Street and City Center Drive), construction of a split-diamond interchange between City Center Drive and 13<sup>th</sup> St. with additional exit ramps near 6<sup>th</sup> St., and construction of one-way frontage roads between the ramps.

### **Project Narrative**

**Primary Goal:** This segment of I-25 hasn't been updated since it was built in the 1950's. High accident rates in this section are due to sub-standard roadway design. Congestion occurs as a result of these accidents and due to reduced speeds caused by various highway deficiencies. These deficiencies include vertical and horizontal profiles that are not standard, short on and off ramps and interchange spacing that doesn't meet current standards. Currently there are three interchanges in less than a mile at 13<sup>th</sup> Street, 6<sup>th</sup> Street, and 1<sup>st</sup> Street (City Center Drive).

**Secondary Goals:** Reducing congestion along this segment will improve freight mobility along the Front Range. Additionally, making these improvements will bring I-25 to standard and help maintain the system.

### **Freight Characteristics on the Corridor**

I-25 in Pueblo provides freight direct access to US 50. US 50 west is a primary retail and industrial corridor. US 50 East provides access to the Pueblo Regional Airport and Industrial Park. Improvements made to I-25 in Pueblo will benefit the US 50 East and West corridors. Part of the design would remove the 6<sup>th</sup> Street Interchange and provide a slip ramp between 13<sup>th</sup> Street and City Center Drive (1<sup>st</sup> Street). This would improve freight and retail deliveries to downtown Pueblo.

### **Freight Specific Elements of Project**

Many truck/freight accidents occur due to substandard roadway design. This project will eliminate one of the interchanges within this segment helping to reduce accidents. Ramps would be brought up to standard along with horizontal and vertical roadway deficiencies.

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### **Freight Benefit**

Removing the 6<sup>th</sup> Street interchange and providing a slip ramp between 13<sup>th</sup> Street and City Center Drive will provide better commercial access to downtown Pueblo. Bringing this oldest segment of I-25 to current roadway design stands will greatly improve safety and mobility through Pueblo for freight traffic.

### **Other Information**

EIS/ROD is complete. This is an important project that needs to be designed in order for it to be ready for construction should new funding become available.

## **Region 2 - SH 21: Research Parkway Interchange**

SH 21 (MP 149.6-150.5)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 50,000

**AADTT:** 2,900

**Percent Truck:** 5.8%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$1.75 M for design

**Total Project Cost:** \$30 M for construction

### **Project Description**

SH 21 (Powers Blvd) and Research Parkway is currently an at-grade signalized intersection. This project would complete the design (FOR level) for a grade separated interchange. This project is a phase of the SH 21 Woodmen Road to SH 83 Environmental Assessment.

### **Project Narrative**

Primary Goal: The Powers (SH 21) Corridor is the second busiest corridor in the Pikes Peak Region and is planned as a limited access freeway. In addition, the Powers Boulevard is regarded as the number one retail corridor in the Pike Peak area according to a recent economic study completed for the Powers Central Environmental Assessment. Freight along this corridor is critical for serving this need. In addition, the corridor services 4 military bases (Peterson AFB, US Airforce Academy, Schriever AFB, and Fort Carson). It is a primary route for national defense and for rapid deployment of troops, freight and equipment. The corridor also service the Colorado Springs Airport and Air Cargo for the Pike Peak area. Freight from the north passes through this intersection.

This intersection has a high accident rate. Over a 5-year period there has been over 83 accidents with 51 people injured. The crash rate is 2.2 or more than double the expected accident rate for this type of intersection. It is considered one of the highest accident location in the City of Colorado Springs. Creating a grade separated interchange would improve safety. Furthermore, this is the only at-grade intersection along the North Powers Boulevard which conflicts with driver expectations and also leads to congestion. Backups are occurred daily especially a peak periods extending over 1 mile to the north and south of Research. Current travel time delay can be as much as 20 minutes during peak periods because of this bottleneck.

Secondary Goals: This section of SH 21 also has pavement issues associated with a high water table. Addressing this issue would help to maintain the system and maintain this needed freight corridor. The project will also create safer pedestrian and bicycle movement with grade separated crossing. Much of the intersection delay is from long pedestrian crossing lengths. Heavy pedestrian traffic is generated from nearby neighborhood and a large high school (Liberty High School) in the northeast corner.



### **Freight Characteristics on the Corridor**

SH 21 (Powers Boulevard) is the largest retail corridor in the Pikes Peak Region. The northern portion of the corridor is a heavy retail area this is still being built out. The central and southern portions of the corridor have some industrial uses and the Colorado Springs Airport is primarily accessed from SH 21. Much of the freight from the airport is transported along SH 21. SH 21 also provides redundancy to I-25 for north/south mobility through Colorado Springs. The corridor also services 4 military bases and is a part of the military rapid deployment route.

### **Freight Specific Elements of Project**

Removing an at-grade, signalized intersection and replacing it with a full movement grade separated interchange will improve both safety and mobility along the corridor. Travel delays will be eliminated. Freight travel times will be improved up to 20 minutes during peak periods and accidents reduced. Additional elements will construct pedestrian and bicycle facilities and remove conflicts with mainline high speed truck and car traffic.

### **Freight Benefit**

Removing an at-grade, signalized intersection and replacing it with a grade separated interchange will improve both safety and mobility along the corridor. The project will solve a major congestion bottleneck which is critical for retail freight and national defense access.

### **Other Information**

Design has been initiated and the Environmental Assessment is complete. This is the only at-grade intersection along the North Powers Corridor (SH 21). Completion of this project would improve safety and mobility for freight movement. Design has been initiated and the environmental review (EA) for the corridor is complete.

## **Region 2 – SH 47 and Fountain Creek Stabilization**

(MP 0.4-0.85)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 42,000

**AADTT:** 1,680

**Percent Truck:** 4%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$2 M

**Total Project Cost:** \$2 M

### **Project Description**

Due to numerous high water events over the last couple of years Fountain Creek has changed its alignment and as a result is threatening to damage SH 47. This project would realign Fountain Creek and stabilize the banks in order to protect SH 47.

### **Project Narrative**

Fountain Creek is currently threatening to damage SH 47 by scouring away the 70 feet of bank between the highway and the creek. Fountain Creek has changed its alignment in the last couple of years and if not addressed quickly, SH 47 may be closed due to scour. SH 47 provides a freight resiliency to US 50 and I-25, and is one of the few roadways that provide access across Fountain Creek. SH 47 provides access to retail business between I-25 and Dillion Drive for those accessing this corridor from the east. SH 47 also provides resiliency to US 50 by providing access, via Pete Jimenez Parkway, to the Pueblo Airport and the adjacent industrial park, which includes a Target Distribution Center.

**Primary Goal:** By making stream stabilization improvements to Fountain Creek, this will help maintain the SH 47/US50/I-25 system.

**Secondary Goals:** Making these improvements will greatly reduce the risk of the roadway being lost to scour and ensure the continual movement of freight across Fountain Creek. Loss of this roadway will have economic impacts to retail between I-25 and Dillion Drive.

### **Freight Characteristics on the Corridor**

The Pueblo Mall is located between I-25 and Dillion Drive and access to this retail corridor from the east is accomplished via SH 47. SH 47 also provides resiliency to US 50 via Pete Jimenez Parkway to the Pueblo Airport and the adjacent industrial park including a Target Distribution Center. Colorado State University-Pueblo is also located north of SH 47.

### **Freight Specific Elements of Project**

Loss of SH 47 will impact freight movement along the SH 47/US 50/I-25 System.

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### **Freight Benefit**

Continue to provide freight access along the SH 47/US50/I-25 System.

### **Other Information**

The Fountain Creek Watershed Flood Control and Greenway District will contribute \$3.5 Million to this project. Preliminary design has begun and could be ready for construction by summer 2017.

## **Region 2 – SH 85/Charter Oaks Ranch Road**

(SH 85 MP 127.7 – 128.0/ and Charter Oaks Rd approx. 1.2 miles)

**Colorado Freight Corridor:** N

**Federally Designated High Priority Corridor:** N

**AADT:** 10,000

**AADTT:** 610

**Percent Truck:** 6.1%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$6.3 M

**Total Project Cost:** \$6.3 M

### **Project Description**

Widen SH 85 to four lanes to Charter Oaks Road and widen shoulders. Reconstruct Charter Oaks Road and improve grades and turning radius for trucks and other vehicles accessing Fort Carson.

### **Project Narrative**

Primary Goal: SH 85 to the west of I-25 provides access to a small industrial park and provides access for truck traffic to Fort Carson at Gate 19 using Charter Oaks Road. This project would widen SH 85 to four lanes and provide wider shoulders helping to improve truck/freight movement and safety in and out of the industrial park. Reconstruction of Charter Oaks Road will improve the substandard turn radius, and the steep grades which trucks have a difficult time maneuvering safely. Furthermore, the condition of the road is in such poor condition that trucks and other vehicles often use the other lane to avoid poor pavement.

Secondary Goals: While much of the improvements are off system, this project would help reduce congestion on I-25 for trucks and personnel accessing Fort Carson by opening up access to Gate 19. Currently, Gate 20 is the only access off of I-25 to Fort Carson and congestion occurs as a result of personnel accessing and leaving the Post. Improvements to SH 85 and Charter Oaks Road would not only improve truck and freight movement to Fort Carson but also improve freight mobility on I-25 by reducing congestion on the interstate by providing multiple accesses to the Post. Finally, by having a second access to Fort Carson and improving the roadway around the industrial park would have positive economic impacts as it is expected that support business would locate to the surrounding area

### **Freight Characteristics on the Corridor**

A small industrial park is located along SH 85, west of I-25. A truck stop/fueling station is also located off of SH 85. Quarries are located just off of Charter Oaks Road and large trucks access I-25 using the Charter Oaks Rd/SH85 roadway. Gate 19 at Fort Carson also provides truck and personnel access to the Post.

### **Freight Specific Elements of Project**

Turning radii on Charter Oaks Rd and SH 85 are substandard and trucks cannot negotiate these turns at the posted speed limits safely. Charter Oaks Road also has steep grades and poor pavement conditions which are safety issues for trucks accessing Gate 19. This project would correct these safety issues by ensuring that the

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turn radii meet current standards, reconstruct the roadway, and reducing the current grades on Charter Oaks Rd.

### **Freight Benefit**

Turning radii on Charter Oaks Rd and SH 85 are substandard and trucks cannot negotiate these turns at the posted speed limits safely. Charter Oaks Road also has steep grades and poor pavement conditions which are safety issues for trucks accessing Gate 19. This project would correct these safety issues by ensuring that the turn radii meet current standards, reconstruct the roadway, and reducing the current grades on Charter Oaks Rd. Improvements made to SH 85, four lanes and shoulder widening, will provide safer access into and out of the industrial park.

### **Other Information**

Project is currently under design with a TIGER Grant and will be ready for Advertisement by the end of 2017, early 2018. Making improvements to this roadway system not only provides access resiliency to Fort Carson but also reduces congestion on I-25. Project would also improve drainage and storm water runoff by adding infrastructure and Water Quality features.

## **Region 2 – US 24 West – Drainage Improvements** (MP 293-294)

**Colorado Freight Corridor:** N

**Federally Designated High Priority Corridor:** N

**AADT:** 23,550

**AADTT:** 683

**Percent Truck:** 2.9%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$5 M

**Total Project Cost:** \$15 M

### **Project Description**

Construct drainage improvements along US 24. Waldo Canyon Fire change the hydrologic regime of the corridor and drainage improvements are necessary including installing sediment basins and enlarging culverts.

### **Project Narrative**

The Waldo Canyon Fire change the hydrologic regime of the corridor and upgrades in the drainage infrastructure are necessary in order to keep US 24 open to all traffic including freight. Debris and flooding resulting from the fire have impacted US 24 and lead to one related death. US 24 has been closed numerous times as a result which impacts not only freight but also emergency vehicles.

### **Primary Goal:**

Upgrading the drainage facilities along the corridor will provide better safety for freight, emergency vehicles and other local and regional traffic. Since US 24 has experienced numerous closures due to the fire, making these improvements will improve mobility through Ute Pass.

**Secondary Goals:** Keeping US 24 open will provide economic benefits to freight and the communities along the corridor.

### **Freight Characteristics on the Corridor**

US 24 is the only freight route through the mountains for 50 miles in either direction. US 24 also provides access to the Cripple Creek and Victor Gold Mine.

### **Freight Specific Elements of Project**

Making these drainage improvements will improve safety and mobility for freight movement through Ute Pass.

### **Freight Benefit**

US 24 is the only route through the mountains in 50 miles in either direction. Making these drainage improvements keep the system open to freight and mining traffic that utilized this portion of US 24. Alternate routes utilized during closures can add several hours of travel time.

**Other Information**

US 24 is the only route through the mountains in 50 miles in either direction. Making these drainage improvements keep the system open to freight and mining traffic that utilized this portion of US 24. Alternate routes utilized during closures can add several hours of travel time.

## **Region 2 – US 50 West: Widening US 50 Westbound Lanes** (MP 307.6-311.2)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 23,890

**AADTT:** 1,433

**Percent Truck:** 6%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$12 M

**Total Project Cost:** \$25 M

### **Project Description**

Widen westbound US 50 from two lanes to three lanes between MP 307.6 to 311.2. This project is a phase from the US 50 West Environmental Assessment.

### **Project Narrative**

Primary Goal: Project would increase mobility by reducing travel time and relieving traffic congestion during peak morning and evening hours. The Purcell Blvd and Pueblo Blvd intersections will soon operate at a Level of Service F if improvements are not made soon. This corridor segment is primarily zoned for retail and industrial use. Making these improvements would promote economic vitality by reducing congestion along the corridor for retail and industrial freight. The project area has the highest growth in the PACOG area and is expected to grow by 10% by 2035. This corridor also has a high accident rate, especially at Pueblo and Purcell Boulevards as evidenced by rear end crashes consisting of 73% of the crashes compared to an expected rate of 45%.

Secondary Goals: US 50 is an alternate freight route to I-70. Making these improvements would help provide redundancy to the freight system.

### **Freight Characteristics on the Corridor**

This segment of US 50 is primarily zoned for industrial and retail use and is the only direct way for freight and goods to be delivered along the corridor. Furthermore there is a direct connection to I-25, which lies approximately 2.5 miles to the east of the project.

### **Freight Specific Elements of Project**

Widening US 50 will address both safety and congestion issues along the corridor. Both of these will benefit freight movement by increasing mobility along the corridor.

### **Freight Benefit**

Widening US 50 will address both safety and congestion issues along the corridor. Both of these will benefit freight movement by increasing mobility along the corridor.



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### **Other Information**

An Environmental Assessment and FONSI have been completed for the corridor improvements. Design can be completed by spring 2017 and could go to Ad by summer 2017.

## **Region 3 – I-70: Palisade to Debeque: Palisade Curve**

I-70 (MP 42 – 44)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 17,000

**AADTT:** 2,108

**Percent Truck:** 12.4%

**Regional Freight Quartile:** AADTT:4<sup>th</sup>; Percent Truck: 3<sup>rd</sup>

**NHFP Funding Request:** \$3 M to complete design and ROW acquisition

**Total Project Cost:** \$20 M for Phase I construction, \$25 M for Phase II construction

### **Project Description**

This project will correct a sharp curve at the western entrance to Debeque Canyon near Palisade, Colorado that has resulted in numerous crashes involving motor carriers. It will require the reconstruction of mainline Interstate 70 to realign the curves and improve the superelevation of the roadway. The project will also include the construction of a connection to a bike and pedestrian trail in Mesa County. This funding request will allow the identification of a preferred alternative, complete design and land acquisition.

### **Project Narrative**

**Primary Goal: Safety** – I 70 consists of long relatively straight segments of roadway through Utah and into Colorado. Despite proactive signage, the tight curves entering this canyon have resulted in accidental lane changes and load shifts causing motor carriers to lose control and strike the center median barrier.

**Secondary Goals: Mobility** – These crashes often result in an I-70 closure causing long detours and severe back-ups.

### **Freight Characteristics on the Corridor**

I-70 is a major corridor for interstate and intrastate freight shipments and Debeque Canyon is one of a few choke points that can impede the reliable movement of freight to the I-70 Mountain Corridor, Colorado Ski Resorts and a 200+ mile length trip to Denver and the Plains. I-70 is the only contiguous east/west interstate in Colorado and the percent of trucks in this corridor can be as high as 11.5% of the total AADT, in some locations along the corridor that could be as high as 1500 trucks per day. Additionally I-70 through Debeque Canyon connects to SH 13 which will allow freight to move north to US 40 or I-80 in Wyoming.

### **Freight Specific Elements of Project**

The primary goal of this project is realign the curves and improve the superelevation entering the canyon so that motor carriers don't have a significant reduction in speed and safety.

### **Freight Benefit**

Over the years there have been significant multi-vehicle accidents that have closed the canyon for long periods of time and causing significant delays in travel because there is no reliable alternative between UT and Denver without adding more than two hours of travel.

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## **Region 3 - I-70 Truck Parking**

**I-70; Various Locations in the vicinity of Glenwood Springs**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** N/A

**AADTT:** N/A

**Percent Truck:** N/A

**Regional Freight Quartile:** AADTT: N/A; Percent Truck: N/A

**NHFP Funding Request:** \$2.7 M

**Total Project Cost:** \$2.7 M

### **Project Description**

This project will establish up to 4 truck parking locations along I-70 in the vicinity of Glenwood Springs. Two locations are on mainline I 70 and two locations are anticipated to be located along US 6 between I 70 Exits 114 and 116 in Glenwood Springs.

### **Project Narrative**

Primary Goal: Mobility – The project would fill an important need to improve operation of the Interstate at Glenwood Canyon where closures commonly cause back-ups and there is very limited space for motor carriers to stage on the west side of the canyon.

Secondary Goals: Safety – Project will provide a safe and secure place for truckers to get off the road, stage, and rest during long hauls.

### **Freight Characteristics on the Corridor**

The I-70 Mountain Corridor extends over 144-miles west of Denver from C-470 to the Town of Rifle and includes two mountain passes and several tunnels. I-70 is the only contiguous east/west interstate in Colorado and the percent of trucks in this corridor can be as high as 11.5% of the total AADT, in some locations along the corridor that could be as high as 1500 trucks per day. Additionally, the I-70 Mountain Corridor is also the lifeline for mountain cities and ski resorts, which are among the top economic drivers in the state.

### **Freight Specific Elements of Project**

The project will construct at least 66 truck parking spaces at up to four different locations along I-70 and US 6. The spaces will be linked to Variable Message Signs and other electronic information devices that will let drivers know the condition of the road and eventually the availability of vacant parking locations.

### **Freight Benefit**

It is estimated that when I-70 is closed for one hour the economic impact equates to \$800,000.00/per hour. During these closures, the existing tractor-trailer parking in West Glenwood has filled up within an hour or two. When Glenwood Canyon is closed, the only detour routes (north via US 40 and SH 13, south via US 50) add an additional 5 hours or more of travel time. Many tractor-trailer operators will park to save on fuel costs

and to rest while the interstate thru Glenwood Canyon is closed rather than taking a detour route. CDOT has identified four locations within the Glenwood Springs area where we could add 60 or more spaces

**Other Information**

According to corridor-specific survey data collected in 2008 by CDOT in partnership with the CMCA, private truck stops along I-70 between the Colorado/Utah Stateline and Denver reach maximum occupancy on a daily basis. Furthermore, there are no privately operated long-term parking spaces available in the Mountain Corridor from the Town of Rifle to Denver.

Long-term truck parking is virtually non-existent within the I-70 Mountain Corridor. Based on the model developed for the national assessment of commercial vehicle parking, there is demand for an additional 266 total long-term parking spaces along the corridor.

**Truck parked on US 6 in front of bus stop**



## **Region 3 – I-70 West: Vail Pass Auxiliary Lanes and Wildlife Overpass**

**I-70 (MP 180 – 190)**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 21,000

**AADTT:** 2,289

**Percent Truck:** 10.9%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 3<sup>rd</sup>

**NHFP Funding Request:** \$7 M to complete NEPA and preliminary engineering

**Total Project Cost:** \$75 M for construction

### **Project Description**

The I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS) identified west Vail pass as a priority segment for installation of auxiliary travel lanes. This segment is very steep and has numerous tight curves. Motor carriers and other heavy vehicles must travel slowly both uphill and downhill causing substantial speed differences with other vehicles. This speed differential causes lane changes, back-ups, and crashes as fast moving vehicles or faster moving motor carriers must change lanes to pass slower moving vehicles. This funding will be used to analyze and obtain federal approval for final design and land acquisition.

### **Project Narrative**

**Primary Goal: Safety** – The speed differential between fast and slow moving vehicles is a safety issue, particularly in winter driving conditions.

**Secondary Goals: Mobility** – This segment of I-70 requires long detours when closures occur.

### **Freight Characteristics on the Corridor**

The I-70 Mountain Corridor extends over 144-miles west of Denver from C-470 to the Town of Rifle and includes two mountain passes and several tunnels. I-70 is the only contiguous east/west interstate in Colorado and the percent of trucks in this corridor can be as high as 11.5% of the total AADT, in some locations along the corridor that could be as high as 1500 trucks per day. Additionally, the I-70 Mountain Corridor is also the lifeline for mountain cities and ski resorts, which are among the top economic drivers in the state.

### **Freight Specific Elements of Project**

The I-70 PEIS identified slow moving vehicle lanes as required in this segment to serve freight haulers and other slow moving vehicles.

### **Freight Benefit**

This improvement will specifically address freight related safety and reliability issues by installing a new travel lane to decrease the conflict between freight haulers and other travelers.

**Other Information**

The I-70 PEIS identified numerous capacity and safety related improvements being implemented to improve the entire corridor. These West Vail Pass Safety improvements are an important element in improving the entire Interstate route.

## **Region 3 - SH 13: Rio Blanco South**

SH 13 (MP 16.5 – 20.5)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 2,960

**AADTT:** 529

**Percent Truck:** 17.9%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 4<sup>th</sup>

**NHFP Funding Request:** \$13 M completes funding package

**Total Project Cost:** \$20 M

### **Project Description**

The project will reconstruct State Highway 13, which is a National Highway System route that carries a high volume trucks between Interstate 70 and Interstate 80 in Wyoming. The project will improve vertical and horizontal curves, install a passing lane, and add full width shoulders.

### **Project Narrative**

Primary Goal: Safety – The lack of shoulders and passing lanes is a safety issue. CDOT has been reconstructing segments of the corridor for 18 years to improve this roadway for freight and other users.

Secondary Goals: Mobility – The improved will benefit all users due to the improve geometrics and addition of 8' paved shoulders.

### **Freight Characteristics on the Corridor**

SH 13 Corridor is the most direct North/South connection between I-70 and I-80 in Wyoming. It has seen significant increases in truck and commuter traffic because of ongoing oil and gas development in Western Colorado. SH 13 also serves as an alternate norther route when I-70 is closed.

### **Freight Specific Elements of Project**

This project will reconstruct and realign the existing roadway to eliminate substandard geometrics as well as construct 8' paved shoulders and passing lanes where possible.

### **Freight Benefit**

Design of the project will include improved geometrics, additional passing lanes and 8' paved shoulders, which will improve safety for all modes of transportation. Safety work will also include acceleration and deceleration lanes and turning lanes to accommodate traffic at the intersection of County Road 5 which is heavily utilized for oil and gas exploration in the Piceance Basin.

### **Other Information**

Completing this project will finish an eighteen year, 20 mile long project to improve this highway from South of Meeker to the Rio Blanco County Line.



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## **Region 3 - US 50: Little Blue Canyon**

US 50 (MP 123 – 127)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 2,600

**AADTT:** 312

**Percent Truck:** 12%

**Regional Freight Quartile:** AADTT: 3<sup>rd</sup>; Percent Truck: 3<sup>rd</sup>

**NHFP Funding Request:** \$4 M completes funding package

**Total Project Cost:** \$33 M

### **Project Description**

This project will reconstruct and widen US 50 to improved geometric design standards and improve safety, drainage and access in this corridor. The project includes the addition of passing lanes, shoulders, and mitigation of a land-slide within the project limits.

### **Project Narrative**

Primary Goal: Safety – There have been two head-on fatal crashes over the last two years in this canyon. CDOT data show that between 2010 and 2015, 37 crashes were reported in the project limits; 8 involving a total of 13 people injured and a fatality. There was another fatality in the summer of 2016 due to a crash between a semi-truck and a motorcycle.

Secondary Goals: Mobility and Maintaining the System – The highway is closed whenever there is an accident causing severe delays due to no alternate route. In addition to geometric concerns, the roadway surface is experiencing transverse and low to medium severity fatigue cracking.

### **Freight Characteristics on the Corridor**

US 50 is a National Highway running east from Montrose, west to Pueblo, taking cars and trucks through the heart of the Southern Colorado Rocky Mountains and carrying over 3600 vehicles a day, 12% of which are freight trucks. US 50 also serves as an alternate southern route when I-70 is closed. US 50 accesses all of the entrances to both National Parks, the National Forest, and the Bureau of Land Management; the proposed US 50 Blue Creek Canyon Project connects east-west travelers to all of it. US 50 intersects I-70 in Grand Junction and I-25 in Pueblo. Additionally, between these termini, US 50 intersects State Highways 141, 348, 92, 347, 149, 135, 114, 69 and US 285.

### **Freight Specific Elements of Project**

Safety for all travelers and especially freight haulers is the main reason this project is high on the Region's priority list. US 50 Blue Creek Canyon is a steep, curvy, and very narrow location along the corridor and is the last section remaining in the corridor between Montrose and Gunnison to be updated. Additionally, three local, mountain communities depend on this highway for the delivery of goods and services by tractor-trailer to residents and tourists. Keeping this highway open and operational is crucial for their economy.

**Freight Benefit**

Widening and adding shoulders to this area will improve safety and reliability for all modes of transportation along US 50. The current lack of shoulders, steep grades, and tight curves makes it potentially dangerous for non-motorized travelers and motorcyclists when they encounter motor carriers, especially wide loads. Adding paved shoulders will allow drivers to better negotiate curves and allow cyclists to have a safe zone to ride or evade oncoming traffic.

**Other Information**

When a driver in the opposing lane meets these trucks and trailers, or a semi-trailer it is unsafe and accidents have occurred. Over the last 12 years CDOT has been widening the roadway and adding passing lanes where possible on US 50 between Montrose and Gunnison and this is the last phase of that corridor.



## **Region 4 – I-76 / SH 52 Interchange Improvements**

052A (MP 29.2-29.326)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 7,750

**AADTT:** 643

**Percent Truck:** 8.3%

**Regional Freight Quartile:** AADTT: 3<sup>rd</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$20 M completes funding package

**Total Project Cost:** \$25 M

### **Project Description**

Sight distance issues mix with unsafe turning movements in a confined area. Hudson is home to a busy Loves Truck stop that serves trucks and vacationers. Unclear turn movement restrictions means vehicles tend to take chances on illegal turns. Poor visibility from one side of the bridge to the other causes problems. Project will improve turning movements, sight distance and access points that are causing conflicts.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

The project will be designed to address existing interchange deficiencies, primarily as they pertaining to accommodating freight trucks. SH 52 is a popular alternate route connecting Boulder County to I-76 without venturing into Denver.

### **Freight Specific Elements of Project**

The vision SH 52 / I-76 interchange project is to increase safety and mobility in a heavily favored freight area. The project addresses sight distance issues of the interchange and approaches. Reducing problems increases desirability of the interchange.

### **Freight Benefits**

Reducing freight access challenges at the I-76 / SH 52 interchange enhances Hudson as quality choice for driver services and amenities.

### **Other Information**

This project is the #1 priority for the UFR TPR. They have committed over 10 years' worth of RPP funding as a means to construct the project. Injecting short term freight funding expedites the project completion prior to 2025 and enables the UFR to focus future funds on other project priorities

## **Region 4 – SH 14: Sterling “S” Curve**

SH 006J (MP 404.00 to MP 405.00)

SH 006Z (MP 0.00 – 0.60)

SH 014C (MP 236.00 – 236.92)

SH 138A (MP 0.00 – 1.00)

SH 138Z (MP 0.00 – 0.61)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 6,240

**AADTT:** 356

**Percent Truck:** 5.7%

**Regional Freight Quartile:** AADTT: 3<sup>rd</sup>; Percent Truck: 1<sup>st</sup>

**NHFP Funding Request:** \$9.5 M completes funding package

**Total Project Cost:** \$17 M

### **Project Description**

Re-aligning SH 14 (freight route) to an "S" curve alignment in order to connect to I-76 while eliminating 90 degree turns

### **Project Narrative**

Primary Goal - Safety

Secondary Goals - Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

SH 14 from I-76 to I-25 was recently added to the National Highway Network due to its criticality of connecting two interstates, creating an alternate route to I-76 and US 34 in Northern Colorado. This corridor is a freight alternative to haulers wanting to bypass metro areas. Agribusiness, energy, and long-haul commodities utilize this corridor.

### **Freight Specific Elements of Project**

The project is needed to improve traffic flow, optimize traffic operations and enhance safety along several streets, highways and intersections in downtown Sterling. The project is needed to address inadequate roadway geometry used by visitors, residents and regional freight traffic. Large trucks, especially during harvest periods, present safety issues on the state highways as they are required to negotiate 90 degree turns through the project area. These turns, combined with circuitous routes and a system of one-way streets, delay regional through movements.

### **Freight Benefits**

This project will address numerous safety concerns:

- Heavy traffic near the downtown area with heavy pedestrian traffic
- Poor intersection geometry for truck and oversize load traffic

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- Inadequate highway lighting

### **Other Information**

To minimize traffic in the downtown area, CDOT would take ownership of S. Division Ave. from Phelps St. to Main St. and devolve 3rd St. and 4th St. (+7000 ft) to the City of Sterling. This would direct US 6 traffic onto the S-Curve bypass alignment and avoid school and pedestrian areas. The City of Sterling will greatly benefit with the conversion of existing one-way couplets to two-way traffic, making downtown businesses easier to access. Removing large trucks from the travel mix makes downtown an even more attractive destination.

This is a high priority for Region 4. The City of Sterling, Logan County, the Downtown Development Group, and Citizens Advisory Board are all in support of this project. The Eastern TPR has also supported this project through the rural planning process. The Colorado Department of Transportation recognizes the value of SH 14 as an alternative connection between I-76 and I-25 along the Front Range with the corridor's inclusion on the National Highway System (NHS).

## **Region 4 – SH 71: Super 2 from Limon to Nebraska**

071D (MP 101.973 – 174.357)

071E (MP 175.486 – 201.636)

071F (MP 205.525 – 232.899)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** Y

**AADT:** 1,070

**AADTT:** 338

**Percent Truck:** 31.7%

**Regional Freight Quartile:** AADTT: 3<sup>rd</sup>; Percent Truck: 4<sup>th</sup>

**NHFP Funding Request:** \$6 M

**Total Project Cost:** \$100 M for construction of all planned segments

### **Project Description**

The project will construct to Super 2 cross section with 12' travel lanes, 8'-10' shoulders, and other safety treatments designed to accommodate large trucks, including Oversize / Overweigh permitted trucks. Research shows Super-2 highways are typically safer than two-lane highways and can be constructed at lower costs than traditional four-lane highways.

### **Project Narrative**

Primary Goal: Mobility

Secondary Goals: Safety, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

Colorado is the only state to lag in investment on the Ports-to-Plains connection between Texas and Canada. Constructing SH 71 to Super 2 configuration gives long-haul trucks a north / south travel option beyond just I-25. The Colorado Front Range corridor is at or beyond capacity. Removing a portion of the truck from the traffic mix will have a noticeable difference in delays and conflicts.

### **Freight Specific Elements of Project**

On the National Highway System, SH 71 extends from I-70 in Limon. Traveling through the Pawnee Buttes National Grassland, the project improves an international designated freight route that will be favored to that of the Colorado Front Range. Due to the federal designation as a "high priority corridor" (Heartland Expressway), freight volumes are expected to increase significantly. The communities along the corridor value connections to other areas, access to adjoining National Grassland, safety and system preservation. They depend primarily on agriculture and some commercial activity for economic activity in the area. Users of this corridor want to preserve the agricultural character of the area, support the movement of freight in and through the corridor, and provide a connection between the City of Fort Morgan and the Fort Morgan Municipal Airport (via SH 52) while recognizing the environmental, economic and social needs of the surrounding area.

**Freight Benefits**

The economic benefits of constructing a Super 2 connection as part of the Heartland Expressway and Ports-to-Plains include local, regional, national and internationally. Local and regional benefits will be seen by diverting large trucks off of the I25 corridor in order to directly connect I70 in Colorado to I80 in Wyoming. National and international freight traffic will benefit heavily with a designated freight route that avoids Colorado's growing Front Range, thus reducing travel time delays.

**Other Information**

The congressional freight route designation for SH 71 highlights the importance of this roadway as a piece of the state-to-state and international corridors.



## **Region 4 – US 85: I-76 North**

085C (MP 226.797 – 265.763)

08LE (MP 265.849 – 309.542)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 12,260

**AADTT:** 1,680

**Percent Truck:** 13.7%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 2<sup>nd</sup>

**NHFP Funding Request:** \$7 M for design and construction of site specific projects.

**Total Project Cost:** Up to \$207 M for construction of improvements as outlined in PEL

### **Project Description**

Safety, intersection and interchange improvements as defined by US 85 Planning & Environmental Linkages Study.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

Traffic congestion, inadequate intersections that fail to accommodate users' needs, highway design, and unreliable travel times substantially impact the ability of freight and people to move across and along the corridor. These conditions are expected to worsen in the future as the region grows due to local and regional population and employment growth.

### **Freight Specific Elements of Project**

Project elements include construction of a grade-separated interchange at 104th, intersection + safety improvements and rail siding upgrades associated with the Union Pacific RR. The new facilities will require limited annual maintenance expenditures upon opening, thus reducing the operational costs for the roadway.

### **Freight Benefits**

Conditions along US 85 inhibit freight's ability to move easily across, onto and along the corridor. Most of the corridor is experiencing substantial daily truck volumes of greater than 2,000 trucks per day. As a result of varying land use decisions along US 85, traffic is impacted:

- Traffic volumes, speeds and inadequate accel / decel lanes make it difficult to access US 85 at certain locations
- Many sub-standard intersections impact the corridor's ability to provide reliable travel times.

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### **Other Information**

Traffic issues costs money to the travelling public. Delivery delays, employees arriving late to the work site, slow train movements are all consequences of an inadequate transportation.

This is a high priority for Region 4. A FASTLANE federal discretionary application is in development for this corridor for Dec 2016 submittal. The US 85 Coalition, including membership from each agency along the corridor, was heavily involved in the US 85 PEL.

## **Region 4 – US 385: Cheyenne / Kiowa County line to Nebraska**

**385B (MP 135.0 – 149.701)**

**385C (MP 150.251 – 216.861)**

**385D (MP 219.448 – 310.996)**

**Colorado Freight Corridor: Y**

**Federally Designated High Priority Corridor: N**

**AADT: 655**

**AADTT: 183**

**Percent Truck: 27.9%**

**Regional Freight Quartile: AADTT: 2<sup>nd</sup>; Percent Truck: 4<sup>th</sup>**

**NHFP Funding Request: \$10 M**

**Total Project Cost: TBD**

### **Project Description**

Project installs shoulders and other safety improvements to enable passage for Oversize / Overweight trucks. The US 385 is the further eastern North/South roadway that provides suitable access from I-70 to I-76 and I-80 in Nebraska. Narrow lane widths coupled with little to no shoulder in locations makes for unsafe driving conditions.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

US 385 is a popular truck route, designated as the High Plains Highway. Agribusiness, energy, through-freight all utilize this corridor to avoid travel through Colorado's Front Range Communities on I-25. Widening shoulders in critical locations keeps freight off other congested Front Range roadways. US 385 is the furthest eastern north/south route that directly connects I-70, I-76 and I-80 in Nebraska. Increasing the roadway's shoulders and safety features makes the route a much more attractive alternative than traveling to I-25. This corridor serves as a multi-modal regional facility, connects to places outside the region, serves as both the Main Street and state-designated hazardous waste route, and makes north-south connections within the eastern plains of Colorado from Oklahoma to Nebraska. Travel modes now and in the future include passenger vehicle, local public transit, aviation (Kit Carson County Airport, Julesburg Municipal Airport, and Wray Municipal Airport), oil and gas production, and truck freight. The transportation system in the area serves both destinations within and outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. Recreational reservoir traffic (destined for Bonny Lake State Park) and oversized loads are key elements of the corridor. The communities along the corridor value safety, high levels of mobility, transportation choices, and connections to other areas, system preservation, and economic development. They depend on tourism, agriculture, grain storage, energy production, and renewable energy (such as ethanol and biodiesel production and wind generation), and local commerce, all of which are expected to grow, contributing to the increase in

freight traffic. The Eastern Plains Transmission Project, which proposes further development of utility-scale wind farms, has increased freight traffic and oversized loads significantly along the corridor.

**Freight Specific Elements of Project**

US 385 carries heavy freight volumes into, within and through Colorado's eastern plains. Year-round agriculture shipments, energy development, long-haul freight and Over-sized / Over-weight cargo all utilize the High Plains Highway. US 385 travels through the heart of Cheyenne Wells, Burlington, Wray, Holyoke and Julesburg, affording truckers with fueling, rest and food options that other corridors do not. Improving shoulders, passing lanes and intersections and other safety features of US 385 increases the corridor's viability as a freight reliever route for Colorado.

**Freight Benefits**

The communities along the corridor value safety, high levels of mobility, transportation choices, and connections to other areas, system preservation, and economic development. They depend on tourism, agriculture, grain storage, energy production, and renewable energy (such as ethanol and biodiesel production and wind generation), and local commerce, all of which are expected to grow, contributing to the increase in freight traffic. The Eastern Plains Transmission Project, which proposes further development of utility-scale wind farms, has increased freight traffic and oversized loads significantly along the corridor.

**Other Information**

Smaller investments to this corridor, compared to I-25 improvements will yield greater benefits to Colorado's freight network.

## **Region 5 – Mountain Pass Critical Safety Needs**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** N/A

**AADTT:** N/A

**Percent Truck:** N/A

**Regional Freight Quartile:** AADTT: N/A; Percent Truck: N/A

**NHFP Funding Request:** \$2.55 M

**Total Project Cost:** \$2.55 M

### **Project Description**

The Region 5 Mountain Pass Safety Improvement Project consists of lengthening and widening chain up stations to improve capacity and add a safety buffer between live traffic. Overhead LED lighting will be added to both sides of each truck chain up station. Sub-standard road closure gates will be replaced with gates that meet federal standards.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

Throughout the state, without adequate chain stations in the correct locations, some truckers wait and are forced to chain up in the live traffic lane where there are no shoulders higher up on the passes. Other drivers do not chain up at all which can result in jack-knifed trucks, crashes, hazmat spills and highway closures that impact the driving public and force CDOT to assist the driver and removing crews from maintaining the entire roadway. These roads all feed commerce into southwestern Colorado. The three regional Transportation Planning Regions (TPR's) in Region 5 have each identified these highways as critical corridors for CDOT to focus on to maintain that commerce.

### **Freight Specific Elements of Project**

The CDOT Region 5 Mountain Pass Critical Safety Needs Project will provide needed highway infrastructure for the traveling public on these difficult mountain passes. The project consists of improvements at up to seven chain up locations depending upon the funding received. The project improvements consist of lengthening and widening chain up stations to improve capacity and add a buffer between live traffic. LED lighting will be added to both sides of a truck. Widening and lighting of the chain up stations will increase the buffer between the stopped trucks and live lanes of traffic. This will improve safety for drivers who are installing chains and overall highway safety by separating stopped vehicles from traffic. Sub-standard road closure gates will be replaced with gates that meet federal standards. Level of Safety Service is either a 3 or 4 for these mountain corridors.

**Freight Benefit**

This project has the greatest cost/benefit for freight vehicles by improving safety and reducing the frequency and duration of road closures due to crashes. This project will decrease the incidences of jack-knifed trucks, crashes, hazmat spills and highway closures that reduce the efficiency of our highway system.

**Other Information**

The development of truck chain stations has never been a funded asset to the highway system and they have been pieced together over the years by using small amounts of CDOT Maintenance funding. By receiving these funds, CDOT will be able to fully complete the chain stations to ensure that they are safer and more effective for the traveling public. Additionally, this project is highly scalable per site.

## **Region 5 – Rest Area Improvements for Truck Parking**

(MP 46.5 and 191.4)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 7,300/4,900

**AADTT:** 365/441

**Percent Truck:** 6.3%/10.3%

**Regional Freight Quartile:** AADTT: 3<sup>rd</sup>/4<sup>th</sup>; Percent Truck: 1<sup>st</sup>/2<sup>nd</sup>

**NHFP Funding Request:** \$2.22 M

**Total Project Cost:** \$2.22 M

### **Project Description**

Expansion of truck parking at the Sleeping Ute (MP 46.5) and Shaw Creek (MP 191.4) Rest Areas on US 160. This project will expand the Sleeping Ute truck parking from 2 to 6 spaces and expand the Shaw Creek truck parking from 4 to 10 spaces.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Maintaining the System

### **Freight Characteristics on the Corridor**

Highway US 160 connects with Interstate 25 to the east and to Interstate 40 to the west, via US 89 in Arizona. It is a highway corridor that connects 305 miles of southern Colorado from east to west. Travelers to and from Utah, New Mexico, Arizona, and Colorado rely on this highway to access the Four Corners region. There are no other paved roads which are viable alternative detour routes due to the remote location, therefore the resiliency of the overall highway system is dependent on this corridor. It is designated as a 2015 Freight Corridor in the State Highway Freight Plan with the Level of Safety Service as an identified need.

### **Freight Specific Elements of Project**

Additional truck parking will provide rest spots for freight drivers. Construction components consist of earthwork, HMA paving, re-striping, signage and lighting.

### **Freight Benefit**

The addition of truck parking spaces will improve the statewide freight system as well as improve assets in accordance with the "Statewide Rest Area Study Final Recommendations". Additional truck parking will provide rest spots for tired truck drivers.

### **Other Information**

The Sleeping Ute Rest Area has a predicted usage of 135 vehicles per hour. The Shaw Creek rest area has a predicted usage of 91 vehicles per hour. Shaw Creek also gets additional usage when Wolf Creek Pass closes due to winter weather or crashes.

## **Region 5 – US 160: Towoac Passing Lanes**

(MP 27.71-32.26)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 6,800

**AADTT:** 700

**Percent Truck:** 10.3%

**Regional Freight Quartile:** AADTT: 4<sup>th</sup>; Percent Truck: 2<sup>nd</sup>

**NHFP Funding Request:** \$9.1 M

**Total Project Cost:** \$9.1 M

### **Project Description**

The US160 Towoac Passing Lane Project includes the construction of new, 12-foot passing lanes for approximately 6,000 feet in both directions. The project also includes full depth reclamation and flattening of slopes, the installation of 3 box culverts as well as new signage and guardrails. Shoulders will be widened to 10 feet for improved safety of motorists, cyclists, and pedestrians, and access improvements will be made in residential areas and on County Road B which is the entrance to Yucca House National Monument.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Economic Vitality

### **Freight Characteristics on the Corridor**

There is a high level of freight on this 2-lane undivided highways since it has an AADT of 7,000 with 11.7% trucks. Highway US 160 connects with Interstate 25 to the east and to Interstate 40 to the west, via US 89 in Arizona. It is a highway corridor that connects 305 miles of southern Colorado from east to west. Travelers to and from Utah, New Mexico, Arizona, and Colorado rely on this highway to access the Four Corners region. There are no other paved roads which are viable detour routes due to the remote location, therefore the resiliency of the overall highway system is dependent on this corridor. This corridor is designated as a 2015 Freight Corridor in the State Highway Freight Plan with the Level of Safety Service as an identified need.

### **Freight Specific Elements of Project**

Over the last three years, this 2.5 mile project area has had 29 accidents, 12 injury accidents, and one fatal accident. This segment of highway has an accident rate in the top 20% of similar rural 2-lane undivided highways. The rolling terrain has insufficient sight distance which degrades the operation of the roadway and increases the risk by drivers trying to pass. The effects of inadequate passing sight distance are evident on this section of US 160 where the traffic volumes have approached the capacity of the two-lane rural highway. Passing Lanes will alleviate the congestion on this stretch of roadway and improve safety.



**Freight Benefit**

This passing lane project is needed to improve the roadway's line of sight, alleviate driver frustration due to slow moving traffic, and implement other safety measures. It will greatly improve freight, safety, and mobility.

## **Region 5 – US 160 Wolf Creek, Road Safety Improvements**

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 3,400

**AADTT:** 354

**Percent Truck:** 10.4%

**Regional Freight Quartile:** AADTT: 3<sup>rd</sup>; Percent Truck: 2<sup>nd</sup>

**NHFP Funding Request:** \$1.6 M

**Total Project Cost:** \$1.6 M

### **Project Description**

The project will implement safety measures recommended by FHWA as part of the US 160 Wolf Creek Pass Road Safety Audit. Project improvements include improving the roads curvature, rumble strips, addition of crash barrier, widen shoulders in pull-out locations, informational signing, highway re-striping, and VMS specifically targeting freight traffic to improve safety.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

Highway US 160 connects with Interstate 25 to the east and Interstate 40 to the west, via US 89 in Arizona. It is a highway corridor that connects 305 miles of southern Colorado from east to west. Travelers to and from Utah, New Mexico, Arizona, and Colorado rely on this highway to access the southwest region. There are no other paved roads which are viable alternative detour routes due to the remote location, therefore the resiliency of the overall highway system is dependent on this corridor. It is designated as a 2015 Freight Corridor in the State Highway Freight Plan with the Level of Safety Service as an identified need.

Wolf Creek Pass is the primary route for freights access to the southwest corner of the state since other routes have more difficult mountain passes. The west side of Wolf Creek Pass has a high frequency of severe injuries and fatalities from to run-away trucks. The crash rate is four times similar rural mountainous 3-lane undivided highways. The rate of injuries and fatal crashes is 4.7 times higher than similar highways.

### **Freight Specific Elements of Project**

This project involves modest adjustments to the roads curvature and also improves the hairpin turn at the bottom of the pass where the vast majority of the crashes occur. It is also is focused on making drivers, specifically freight drivers, safer on this pass by improving driver awareness of the steep grades and sharp curves.

CDOT has asked FHWA to conduct a Road Safety Audit to provide recommendations to reduce the number and severity of freight crashes. The FHWA defines a Road Safety Audit (RSA) as the formal safety

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examination of an existing or future road or intersection by an independent, multidisciplinary team. The purpose of an RSA is to identify potential safety issues and possible opportunities for safety improvements. The project will also install locations for trucks to cool and maintain brakes.

### **Freight Benefit**

This project will improve the highways safety by reducing the high frequency of crashes with improvements to the roadway geometry and safety features. It will also improve driver awareness of the steep grades and sharp curves. The project will improve the roadways resilience and state of good repair by reducing the associated travel delays due to road closures and crash clean-up. This will help ensure that freight drivers and the general public will arrive at their destinations safely.

## **Region 5 – US 550/US 160 Connection - Finalize Pre-Construction** (MP 15.5 – 16.491)

**Colorado Freight Corridor:** Y

**Federally Designated High Priority Corridor:** N

**AADT:** 6,750

**AADTT:** 418

**Percent Truck:** 6.2%

**Regional Freight Quartile – AADTT:** 4<sup>th</sup>; **Percent Truck:** 1<sup>st</sup>

**NHFP Funding Request:** \$10.5 M to complete design and ROW acquisition

**Total Project Cost:** \$91 M for construction

### **Project Description**

This phase of the US 550/US 160 Connection project will finalize pre-construction. This final phase will purchase ROW required for US160-CR302, complete the final design for the connection and prepare the project for advertisement.

### **Project Narrative**

Primary Goal: Safety

Secondary Goals: Mobility, Maintaining the System, Economic Vitality

### **Freight Characteristics on the Corridor**

US 550 is the only direct continuous north-south route in western Colorado. It extends south to Albuquerque, New Mexico (connecting to I-40 and I 25) and north to Grand Junction, Colorado (connecting to I-70). It is an essential freight and travel route for oil and gas truck traffic servicing the San Juan Basin in southwestern Colorado and northern New Mexico. The project area was identified as an energy corridor in the CDOT Statewide Freight Plan, which serves significant amounts of oil and gas-related truck trips to the 3,300 active wells in La Plata County. Truck traffic also provides goods and services between Durango, Colorado, and Albuquerque New Mexico, including the Durango-La Plata County Airport, Mercy Regional Medical Center, Fort Lewis College, and the growing Three Springs development north of US 160.

### **Freight Specific Elements of Project**

The proposed project will bring US 550 up to current AASHTO and CDOT design standards which will help alleviate heavy traffic congestion due to steep grades and excessive curves causing trucks and larger vehicles to slow down.

### **Freight Benefit**

See the 2015 FASTLANE application. The project improves safety, mobility, pavement DL, economic vitality, freight, environmental and transportation resiliency.

**Other Information**

This is a congested corridor with a vehicle/capacity ratio greater than 0.85. The daily VMT by motor carrier freight in the Project area is expected to increase by 40 percent by 2040. Given the projected population growth, LOS in the future during the peak hours will deteriorate to LOS F by 2035 at the current intersection. The new alignment to the Grandview interchange allows the future LOS to operate at LOS A at both roundabout ramp terminals during the peak hours.

This project also provides multiple opportunities for animals to safely cross US 550, which reduces the number of animal-vehicle crashes. Over a five-year period from January 2008 to December 2012, 38 percent of the accidents along US 550 from MP 15.0 to MP 16.56 were caused by wild animals. These collisions are safety problems, have economic impacts to the traveling public, and have environmental impacts associated with the loss of individual animals.

This project is Region 5's highest priority project. It improves safety, mobility, pavement DL, economic vitality, freight, environmental and transportation resiliency. It also has local agency backing and support.