

TIGER III CDOT Pre-Application Form

- i. **Project Title:** I-25 interchange at US34 in Loveland, Colorado
- ii. **Short Project Description:** Upgrade a portion of this interchange complex to the ultimate Preferred Alternative configuration.
- iii. **Project Application Selection Criteria (which Primary Selection Criteria will the application be written for?):**
 - a. Long Term Outcomes:
 - i. State of Good Repair
 - ii. Economic Competitiveness
The I-25 / US34 interchange provides access to Rocky Mountain National Park, one of the most popular tourist destinations in Colorado. Vibrant commercial and industrial developments lie adjacent to, or in the vicinity of the I-25 and US 34 corridors. Improving the operations and safety of the interchange increases the economic viability of the region by facilitating tourist, commuter and freight travel, contributing to Colorado's economic growth.
 - iii. Livability:
This investment increases mobility in a congested area while opening multi-modal options to residents and visitors. The existing, and well-utilized park & ride will be improved to enable better transit access.
 - iv. Environmental Sustainability
 - v. Safety
In its current configuration, oversize commercial vehicles have inadequate space to negotiate tight turns in the modified clover leaf design. The clover-leaf on-ramps also prohibit vehicles from reaching adequate speeds needed to safely merge into main-line traffic. Bicycle and pedestrian users are prohibited due to space constraints, making for an unsafe facility. Current interchange ramps were not designed to meet the traffic volumes, vehicle mix or speeds of today, let alone tomorrow. With significant current and future growth within the area, this facility must provide safe, reliable access for all modes. Recent interim improvements at the I-25 interchange with US 34 were privately funded, but did not address all the safety concerns.
 - vi. Cost Benefit
The project will construct a significant phase of the multi-modal interchange on I-25 and US34, alleviating safety issues while improving roadway operations.
 - vii. Job Creation and Economic Stimulus
- iv. **Total Project Cost:** \$30 Million

- v. **Project TIGER III Request Amount:** \$15 Million
- vi. **Project TIGER III CDOT Match Amount (source):** The City of Loveland is contributing \$15 million to the construction of the final configuration.
- vii. Project type:
 - a. Highway:
 - b. Transit
 - c. Rail
 - d. Multimodal: This project will construct an interchange that accommodates private and commercial vehicles, bicyclists, pedestrians and transit service.
- viii. **Whether the project is requesting a TIGER II TIFIA Payment:** No.
- ix. **Type of jurisdiction where the project is located (urban or rural):** Loveland, Colorado, which is urban in nature.
- x. **NEPA Status of Project:** The I-25 EIS Record of Decision is scheduled for October 2011.

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- i. **Project Title:** I-76 Reconstruction from Fort Morgan to Brush, Colorado

- ii. **Short Project Description:** Reconstruct 2 lanes, both eastbound and westbound, of I-76 from MP 75 to MP 90. The I-76 Corridor is a high priority corridor for the UFR. It connects northeastern Colorado and I-80 with the Denver metropolitan area. I-76 crosses the UFR, Eastern TPR, and DRCOG regions, including Adams, Weld, Morgan, Washington, Logan, and Sedgwick Counties. I-76 is the primary east-west corridor for Northeastern Colorado.

- iii. **Project Application Selection Criteria (which Primary Selection Criteria will the application be written for?):**
 - a. Long Term Outcomes:
 - i. State of Good Repair
The Project will use construction, maintenance, and operation practices that encourage a more efficient and improved state of good repair for I-76. This includes the use of sustainable materials. CDOT has developed new paving standards that allow up to 25 percent of asphalt materials to be comprised of recycled materials. These standards resulted in 80,000 tons of recycled asphalt pavement used on State highways in 2008. The Project will seek to implement this policy and other best practices to ensure a sustainable design and construction. The Project will reconstruct and upgrade failing pavement and structurally deficient bridges.
 - ii. Economic Competitiveness
I-76 provides a logistics lifeline for the movement of goods to, from, and through Colorado. 2010 traffic counts show 18% of the vehicles using this segment of I-76 are trucks- which bring food, materials, and goods for sale. I-76 also provides a critical link between I-70 and I-80, two of the longest interstate routes in the nation.
 - iii. Livability:
This investment increases the roadway safety, thus improving the reliability in travel and freight movement.
 - iv. Environmental Sustainability
 - v. Safety
 - vi. Cost Benefit
The project will reconstruct the next logical phase of I-76, thus reducing the expenditure of CDOT's resources to simply hold the road together. In addition, the new, stable roadway will reduce the amount of vehicle wear and tear.
 - vii. Job Creation and Economic Stimulus

- iv. **Total Project Cost:** \$40 Million

- v. **Project TIGER III Request Amount:** \$32 Million
- vi. **Project TIGER III CDOT Match Amount (source):** \$8.0M, Region Surface Treatment Funds
- vii. Project type:
 - a. Highway: This project is for desperately needed interstate reconstruction to facilitate the movement of goods and people.
 - b. Transit
 - c. Rail
 - d. Multimodal:
- viii. **Whether the project is requesting a TIGER II TIFIA Payment:** No.
- ix. **Type of jurisdiction where the project is located (urban or rural):** Fort Morgan, Morgan County and Brush! Colorado, which are rural locations.
- x. **NEPA Status of Project:** The project is designed and cleared.

TIGER III CDOT Pre-Application Form

- i. **Project Title:** US36 Managed Lane/ BRT Project Segment III from Interlocken to Table Mesa in Boulder County.

- ii. **Short Project Description:**

Construct the final segment of the US36 Managed Lane/ BRT project; the first segment was a recipient of a TIGER TIFIA Challenge Grant, which was leveraged into a \$300M project. This project would extend the Managed Lane from Interlocken to Table Mesa, continued implementation of a BRT system, which will become part of the RTD FasTracks system as well as construction of portions of a commuter bikeway. Additionally, the project would include replacement of aging infrastructure, some of which has not been upgraded since the 1950's.

- i. **Project Application Selection Criteria (which Primary Selection Criteria will the application be written for?):**
 - a. Long Term Outcomes:
 - i. State of Good Repair

The Project will use construction, maintenance, and operation practices that encourage a more efficient and improved state of good repair for the U.S. 36 facility. This includes the use of sustainable materials. CDOT has developed new paving standards that allow up to 25 percent of asphalt materials to be comprised of recycled materials. These standards resulted in 80,000 tons of recycled asphalt pavement used on State highways in 2008. The Project will seek to implement this policy and other best practices to ensure a sustainable design and construction. Moreover, the Project will reconstruct and upgrade failing pavement and structurally deficient bridges, while addressing crippling congestion. Additionally, the Colorado Transportation Commission sets annual performance goals that optimize value, minimize long-term life cycle costs, and guide decisions on how to spend limited financial resources. The U.S. 36 tolling and roadway components will be consistent with CDOT's existing asset management programs, including computer driven models that determine the optimal times to repair/replace elements of the highway system. Additionally, BRT transit vehicles and equipment will be managed using RTD's fleet management plan which conforms to the FTA's guidance on life cycle costs and maintenance standards. The aim of RTD's system is to perform routine maintenance and fleet replacement at optimal times to minimize long-term costs.
 - ii. Economic Competitiveness

U.S. 36 is a technology corridor of emerging business clusters that align closely with national and regional goals and contribute to Colorado's support of the nation's new economy. While Colorado's gross state product accounts for only 1.6 percent of the U.S. gross domestic product,

Colorado accounts for six percent of the U.S. wind and photovoltaic markets and five percent of the U.S. bio-fuels market. Due to the proximity of a well-educated workforce, complimentary services, and a transportation network that provides easy access to Denver and to the global aviation network at Denver International Airport (Airport), many global companies such as, Level 3 Communications, Ball Corporation, Hunter Douglas, and Sun Microsystems, are headquartered along U.S. 36. The University of Colorado at Boulder is also located at the western end of the corridor. In Louisville, ConocoPhillips is building its new corporate learning center and a global renewable energy technology center that anticipates supporting several thousand new employees. U.S. 36 also is integral to connecting Colorado's bioscience and renewable energy triangle, with Fort Collins's northern federal labs, Colorado State University, the University of Colorado at Boulder and federal labs to the west, and the Fitzsimmons Medical Campus to the southeast.

Colorado has one of the highest concentrations of federally funded science and research laboratories in the nation – half of which are located along the U.S. 36 corridor. Employing more than 4,500 scientists and engineers, the laboratories generate an estimated \$720 million annual regional economic impact and contribute to the continued growth of metro Denver's high tech industries. The labs stimulate significant technical transfer opportunities among higher education and area companies in critical areas such as climate research, space science and renewable energy development. The prospect of 25 minute travel time savings and a reliable travel time between Denver and Boulder would generate significant economic benefits. Improved efficiency in getting workers to and from their jobs is critical to the State's economy. Connecting the rest of the metro area's workforce to these well-paying jobs and stimulating additional employment are key benefits of the Project. The estimated economic impact of the Project includes: 7,234 person years of employment in the short term; \$276 million in direct wages; \$52 million in annual travel time savings; \$90 million in long-term employment benefits and; \$30 million in savings from reduced vehicle operating costs.

iii. Livability

Communities along the corridor are investing in over 560 acres of city council-adopted Transit Oriented Development (TOD) plans. This will reduce overall driving for the more than 13,200 residents and over 18,800 employees in these TOD areas while generating substantial economic activity. A 2007 U.S. 36 TOD workshop found that BRT and rail investments will influence the market for new compact development by more fully connecting station areas. Given these new connections, unmet market demand for housing and

commercial development in proximity to one station may be accommodated at neighboring stations.

The completion of the Project also will improve connections to the entire regional transit system through Denver Union Station, which serves as a multimodal transportation hub, integrating light rail, commuter rail, and intercity rail (Amtrak), as well as regional, express, and local bus service; the 16th Street Mall shuttle; Downtown Circulator and intercity buses; and taxis, shuttles, vans, limousines, bicycles and pedestrians. BRT users will be able to travel from Boulder to downtown Denver, or continue on transit to the Denver International Airport or employment centers throughout the metro area. Conversely, metro area residents will be able to access destinations in Broomfield or Louisville through consistent transit service.

Additionally, SOV drivers will also have the option of paying to use the congestion-free lane, freeing valuable space on the highway. The Project also constructs portions of a commuter bike path, underpasses and sidewalks that already or will connect to regional transit stops, providing car-free connectivity to what was once a traditional highway corridor. Corridor travelers currently experience four hours of severe congestion each day, resulting in 2.4 million annual person hours lost valued at \$52 million. For the 14.6 percent of truck trips on U.S. 36, the yearly cost of congestion totals nearly \$16 million. Without this project, U.S. 36 will become even more congested, making continued development of the new energy economy in this area less attractive.

The Project will enhance user mobility and modal connectivity, reduce congestion and demonstrates the benefits of coordinated transportation and land use decisions.

iv. Environmental Sustainability

Colorado's gross greenhouse gas (GHG) emissions are rising faster than those of the nation as a whole. The State's gross GHG emissions increased 35 percent from 1990 to 2005, while the national emissions rose by only 16 percent during this same period. The principle sources of Colorado's GHG emissions are electricity use and transportation, accounting for about 37 percent and 23 percent, respectively. This trend is largely due to rapid population and production growth within the State. Although the Denver metropolitan area is in attainment for Particulate Matter and Carbon Monoxide, the area was designated as being in non-attainment for the eight-hour ozone standard in 2007. The area is currently in attainment for the remaining pollutants.

Numerous actions have been taken to address air quality, including the adoption of a State Climate Action Plan and calling for new GHG emission vehicle standards. In the first two to three years after construction has been completed, the Project will support these polices, as well as yield immediate and tangible environmental benefits. Estimated Project benefits include the annual reduction of 9.9 million vehicles miles traveled, 2 million hours, and 8,630 metric tons of vehicle emissions.

According to DRCOG, Project construction will increase transit ridership by 26 percent along U.S. 36 in the near-term and the total percentage of transit ridership could double over the next 20 years. Carpooling will increase by five percent following the construction of the managed lanes. Increased transit ridership and carpool usage is expected to decrease oil dependence, resulting in an estimated reduction of 1.1 million gallons of fuel per year. In conjunction with the Project, there are number of programs already in place that are designed to encourage the reduction of automobile usage and fuel consumption. Including commuter cash programs, Eco Pass (an unlimited transit pass), and managed parking.

i. Safety

Many areas of the U.S. 36 corridor still use structures and geometry from the original construction in the 1950s. Deficiencies include: three structurally deficient and two functionally obsolete bridge structures; 12-miles of poor pavement with a remaining service life of less than six years; sections have substandard vertical alignments with greater than five percent grades; several locations where stopping sight distance, decision sight distance, and highway cross-sections are not to standard, and; several instances of lane imbalances along the corridor, including through lanes and acceleration/deceleration lanes that disrupts traffic flow.

In 2005, TRIP's Heartburn Highways report identified and ranked 50 segments of roadway throughout Colorado that caused the greatest stress to motorists. The entire U.S. 36 corridor was ranked #1 on the list due to deteriorated pavement conditions, high rates of traffic congestion, and serious traffic accidents. Similarly, CDOT safety assessments conducted in 2004 and 2005 showed worse than expected safety performance along the Project corridor in comparison to similar urban four-lane highways. The assessments found patterns of rear-end accidents attributable to congestion and barrier collisions attributable to narrow shoulders, which suggest potential for improved safety through geometric improvements planned for this heavily travelled highway. The facility remains one of the most hazardous in the State.

From 2002 to 2004, there were 1,284 crashes (1 crash/0.80 million VMT), 673 injuries (1 injury/0.29 million VMT), and 4 fatalities (0.25 fatalities for every 100 million VMT). The Project will reduce the number and rate of crashes along the corridor. Reconstruction of the highway will allow the new facilities to be built to current design standards, improving safety and operations. Repairing 50 percent of the poor pavement along U.S. 36 will alleviate pavement roughness and rutting that leads to increased crash rates on urban highways. The current substandard shoulder widths on U.S. 36 will be upgraded and widened as part of the Project, providing a safe refuge for disabled vehicles. Additional accident reduction is a likely result from the addition of two new lanes, as research shows four to six lane roadway expansions typically reduces accidents from 20 to 25 percent.

- ii. Cost Benefit
- b. Job Creation and Economic Stimulus

- ii. **Total Project Cost:** \$150 Million

- iii. **Project TIGER III Request Amount:** \$150 Million

- iv. **Project TIGER III CDOT Match Amount (source):** A Phase III financial strategy is the early stages of development.

- v. **Project type:**
 - a. Highway:
 - b. Transit
 - c. Rail
 - a. Multimodal:

The Project will involve the construction of one managed lane in each direction along the U.S. 36 median, BRT service connecting to Denver Union Station and Boulder, enhancements to BRT stations, widening of the general purpose lanes and pavement replacement, bridge replacements, sound and retaining walls in selected areas, the construction of a bikeway, and Intelligent System Improvements (ITS).

- vi. **Whether the project is requesting a TIGER II TIFIA Payment:** Potentially

- vii. **Type of jurisdiction where the project is located (urban or rural):** Boulder County, Colorado. This area is urban in nature.

- viii. **NEPA Status of Project:** The US36 Environmental Impact Study is complete, including a Record of Decision that was signed in 2009.