

# *Christensen Railroad Overpass and Corridor Project*

*May, 2013*

**CHEYENNE, WYOMING**

*Grants for Transportation Investment Generating  
Economic Recovery (TIGER V) Application*



*Prepared by:  
The Cheyenne Metropolitan  
Planning Organization*

*In cooperation with: The City of Cheyenne, the Wyoming  
Department of Transportation, and Laramie County*



## **TABLE OF CONTENTS**

<b>Basic Project and Contact Information</b>		iv
<b>Acronyms and Abbreviations</b>		v
<b>Executive Summary</b>		1
<b>I. Project Description</b>		3
A. Overview		3
B. Area History		4
C. Project History		5
D. Existing Facilities		7
E. Connections with Existing Transportation Infrastructure		8
F. Proposed Improvements		9
<b>II. Project Parties</b>		11
<b>III. Grant Funds and Sources</b>		13
<b>IV. Selection Criteria</b>		14
A. Long-Term Outcomes		14
i. State of Good Repair		14
ii. Economic Competitiveness		15
iii. Livability		16
iv. Environmental Sustainability		19
v. Safety		19
vi. Project Readiness		19
a. Technical Feasibility		19
b. Financial Feasibility		19
c. Project Schedule and Jobs Created		20
d. Assessment of Project Risks		21
B. Innovation		22
C. Partnership		22
i. Jurisdiction & Stakeholder Collaboration		22
ii. Disciplinary Integration		23
iii. Evaluation of Project Performance		23

- D. Results of Benefit-Cost Analysis..... 24
  - i. Expected Benefits..... 24
  - ii. Expected Project Costs..... 26
  - iii. Evaluation of Project Performance..... 26
- 5.0 Planning Approvals and NEPA Status..... 28**
  - A. Project Schedule..... 28
  - B. Environmental Approvals..... 28
  - C. Legislative Approvals and Support..... 29
  - D. State and Local Planning..... 29
  - E. Budget..... 29
  - F. Performance Measures..... 29
- VI. Federal Wage Rate Certification..... 30**

**FIGURES**

- 1. Figure 1: Map of Project Location in Laramie County, Wyoming..... 3
- 2. Figure 2: Map of Christensen Railroad and Corridor Project..... 4
- 3. Figure 3: Map of Cheyenne’s UPRR Crossing Locations..... 8
- 4. Figure 4: Proposed Greenway and On-Street Bike Lane Plan Map..... 17
- 5. Figure 5: Cheyenne Fire Stations with Proposed Training Facility Fire Station  
4-Minute Response Areas..... 25

**TABLES**

- 1. Table 1: Project Partnerships..... 12
- 2. Table 2: Christensen Railroad Overpass and Corridor Design and Construction  
Schedule..... 21
- 3. Table 3: Economic Impact of the Christensen Project..... 21
- 4. Table 4: Expected Project Benefits..... 24
- 5. Table 5: Christensen Railroad Overpass and Corridor Project Engineering Schedule 27
- 6. Table 6: Budget..... 29

**APPENDICES****Appendix A - Benefit-Cost Analysis Report****Appendix B - Support Letters**

1. The Board of County Commissioners
2. Mayor of Cheyenne, Richard L. Kaysen
3. Director of the Wyoming Department of Transportation, John F. Cox
4. Cheyenne LEADS CEO, Randy Bruns
5. Cheyenne Fire and Rescue, Chief James A. Martin
6. Cheyenne Police Department, Chief Brian N. Kozak
7. Cheyenne Transit Program Director, Joe Dougherty
8. Cheyenne Housing & Community Development Program Manager, Deanne Widauf
9. Cheyenne Public Works Director, James Elias
10. Greenway Advisory Committee Chairman, Jo Butler
11. Laramie County Planning, Gary Kranse
12. Cheyenne Light, Fuel & Power, Vice President Operations, Mark Stege
13. Edwards Construction, William J. Edwards
14. #1 Properties, Jim Weaver
15. Coldwell Bankers/Property Exchange, Brad Graham
16. Laramie County Road & Bridge, Don Beard

**Appendix C - Felsburg Holt and Ullevig Cost Analysis****Appendix D - Federal Wage Rate Certification****Appendix E - Environmental Approval Letters**

**BASIC PROJECT AND CONTACT INFORMATION****Applicant for this Grant:**

Cheyenne Metropolitan Planning Organization (MPO)  
Contact: Thomas M. Mason, Director of MPO  
2101 O'Neil Avenue – Room 205, Cheyenne, Wyoming 82001-3512  
Phone: (307) 637-6299  
FAX: (307) 638-4308  
E-Mail: [tmason@cheyennempo.org](mailto:tmason@cheyennempo.org)

**DUNS Number for Grantee and First-Tier Sub-awardees:**

075758169

**Project Type:**

Road and Bridge (Minor Arterial Urban - 4071). This is a RURAL TIGER V Grant Project since the only part of the 2010 U.S. Census Urbanized Area next to this project corridor is the private land west of Christensen that is between Tate Road and Archies Road (815 linear feet).

**Project Location:**

The project location is in Laramie County, Wyoming, partly within the City of Cheyenne corporate limits on the east edge of the urban area. The beginning of the Christensen Project is at the intersection of Commerce Circle and heads generally north intersecting with East Pershing Boulevard and then continues further north to an intersection with United States Highway 30 (US 30). The project is located in the statewide “at large” congressional district in Wyoming.

**Amount of Grant Request for the Project:**

The grant request amount is \$10.0 million.

**Project Design and Construction Management:**

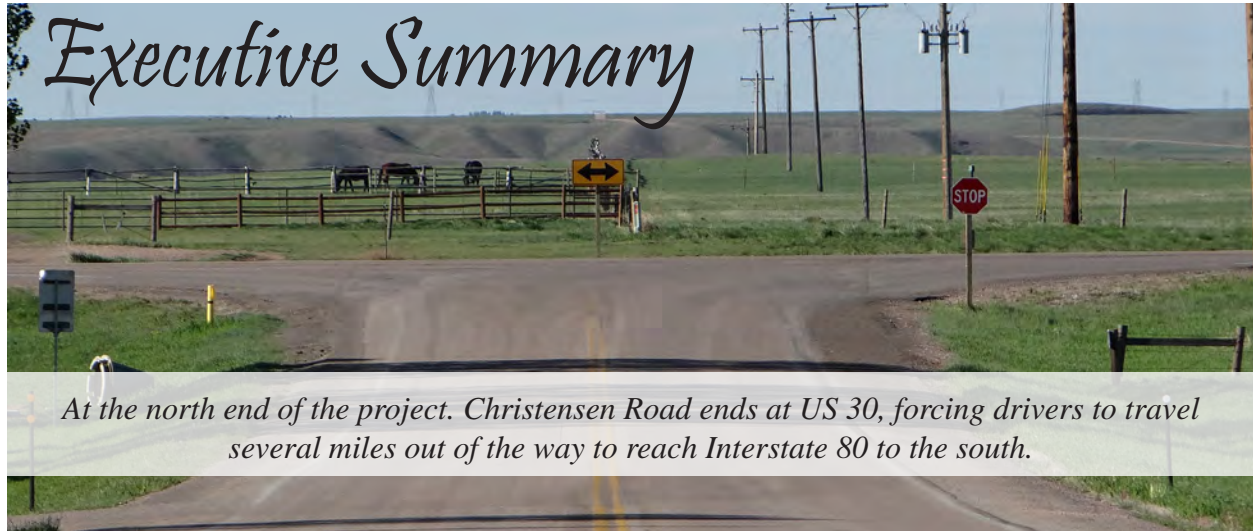
By the City of Cheyenne Engineering Department in coordination with Laramie County, the Wyoming Department of Transportation and the Cheyenne Metropolitan Planning Organization.

**Planning Documents:**

For additional back-up reference, the planning project for the Christensen Project may be found at <http://www.plancheyenne.org/east-dell-rangeus-30-and-christensen-railroad-overpass-plan/>

**ACRONYMS AND ABBREVIATIONS**

BCA	Benefit-Cost Analysis
BCR	Benefit-Cost Ratio
Business Park	Cheyenne LEADS Business Parkway
City	City of Cheyenne
EPA	Environmental Protection Agency
E. Pershing	East Pershing Boulevard
FHU	Felsburg Holt & Ullevig
I-25	Interstate 25
I-80	Interstate 80
County	Laramie County
LEADS	Cheyenne-Laramie County Corporation for Economic Development Agency
MPO	Cheyenne Metropolitan Planning Organization
NPV	Net Present Value
NEPA	National Environmental Policy Act
RFQ	Request for Qualifications
ROW	Right-of-Way
SHPO	Wyoming State Historic Preservation Office
UPRR	Union Pacific Railroad
US 30	United States Highway 30
VMT	Vehicle Miles Traveled
WYDOT	Wyoming Department of Transportation



Thank you for the opportunity to submit this application on behalf of the Christensen Railroad Overpass and Corridor Project partners for TIGER V Grant funds for a rural project. The project will provide a critical and logical road and bridge connection for all modes of transportation on the eastern edge of the growing community of Cheyenne, Wyoming.

The southern end of the project begins at Commerce Circle, which is near Interstate 80 in the center of the Cheyenne LEADS Business Parkway (Business Park). The project crosses the Union Pacific Railroad mainline, then continues north to East Pershing Boulevard, where a modern roundabout is planned. From there, new construction continues north to the Intersection of U.S. Highway 30 (US 30). See Figure 2: Map of Christensen Railroad and Corridor Project. The completed project will represent one of only three arterials that connect Interstate 80 to US 30 in the Cheyenne urban area. Once the new road and bridge have been constructed, a 1934 bridge which is beyond repair or replacement will be removed.

#### **LONG-TERM OUTCOMES:**

- **State of Good Repair** – The cost of maintenance of the road system with and without the Project was determined to be evenly balanced.
- **Economic Competitiveness** - The Christensen Project provides a strategic, logical, and much-needed connection to help create a more balanced transportation system in the Cheyenne area. A second major access to the Business Park is necessary to facilitate economic activity and job creation. Job years created during the design and construction of this project were estimated to be 156, based on \$12.0 million of project spending.
- **Livability** – 12,000 vehicle miles traveled (VMT) are reduced from the current system providing an annual savings of \$2.6 million in vehicle operation costs. Over the life of the project, the vehicle operations cost savings are \$320 million. The annual cost of time saved is \$2.0 million, while over the life of the project the cost of time savings is \$250 million.

Transportation options are increased with the added Greenway and transit links between housing and employment.

- **Environmental Sustainability** - 12,000 VMT are reduced from the current system, providing an annual savings of \$88,000 for all emissions. Over the life of the project the emissions cost savings are \$6.2 million.
- **Safety** – Given the ratio of the Cheyenne area’s crash rates to vehicle miles traveled, the annual reduction of crash cost is estimated to be \$550,000. Over the life of the project the crash reduction savings are \$30.5 million.
- **Project Readiness** – Planning and design to the 35% design level is complete; the city has “Officially Mapped” the corridor; \$2.0 million of local funds are in place to begin the NEPA and final design; and, the City will begin the consultant selection for that design work in June, 2013. If the TIGER V grant is awarded, the project schedule assures that the project will be ready to go out to bid by the end of September, 2014.

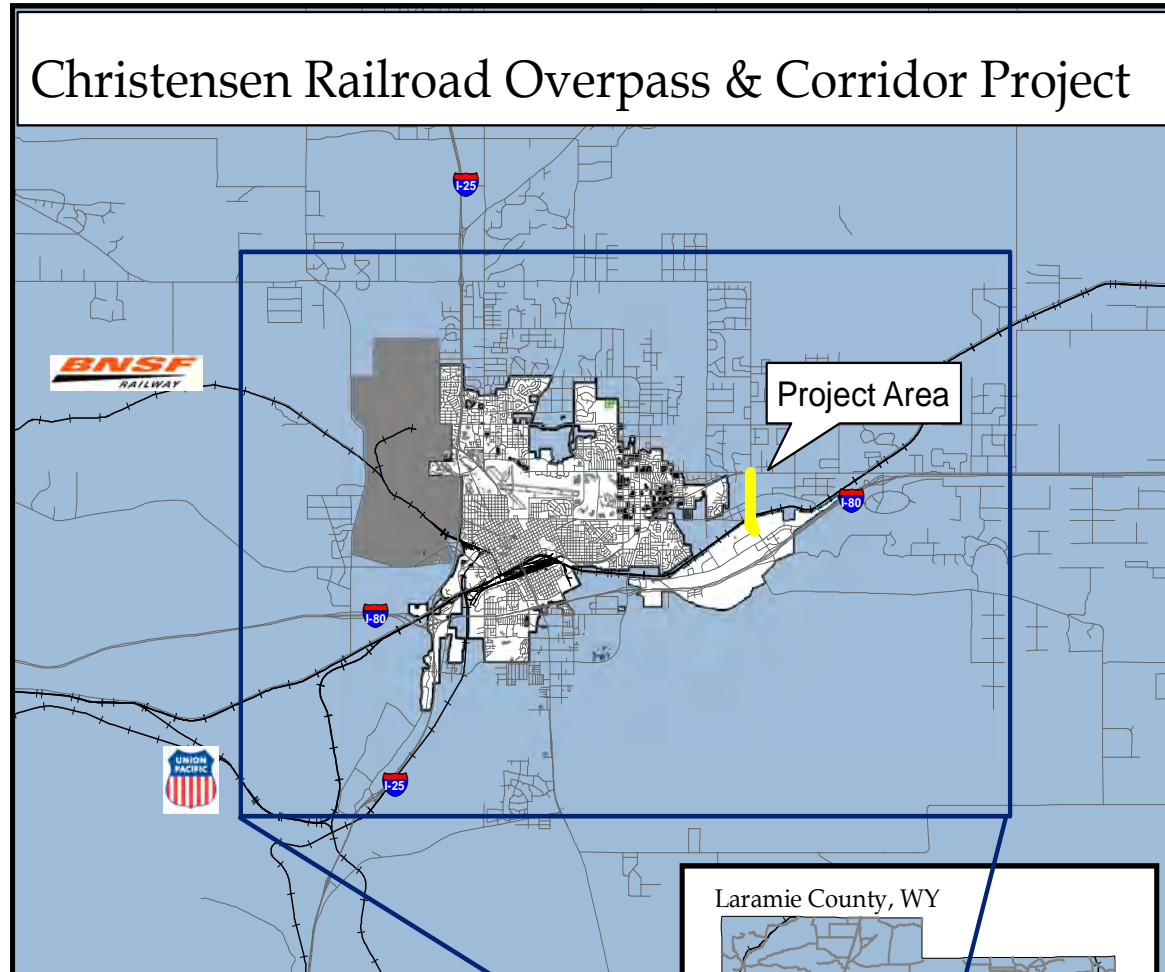
**BENEFIT-COST ANALYSIS:** The benefit-cost ratio for the Christensen Project is between 11.2:1 (seven percent discount rate) and 24.3:1 (three percent discount rate). See Table 1 in Appendix A for detailed calculations.

#### **PROJECT READINESS AND NEPA STATUS:**

- **Project Schedule** – The Cheyenne Metropolitan Planning Organization (MPO), City of Cheyenne and Laramie County believe the project construction schedule requirement is realistic. Details are in Section V.
- **Environmental Approvals** – A categorical exclusion is expected for this project. Environmental research will begin this summer and will be completed in time to meet the schedule. Several “no impact” letters have already been received and can be found in Appendix E.
- **Legislative Approvals and Support** – Government support is in place and the local match was approved on August 21, 2012 by a county-wide tax election.
- **State and Local Planning** – The Christensen Project is found in the MPO Master Transportation Plan and the Transportation Improvement Program.
- **Technical Feasibility** – Planning projects and centerline surveys detailing the Christensen Project have been prepared and adopted.
- **Financial Feasibility** – With funding from TIGER V, the local tax, and the land and dirt storage and additional right-of-way (ROW) from nearby property owners, the project can begin with funding secured.
- **Federal Wage Rate Certification** – Signed and included in Appendix D.



# I. Project Description



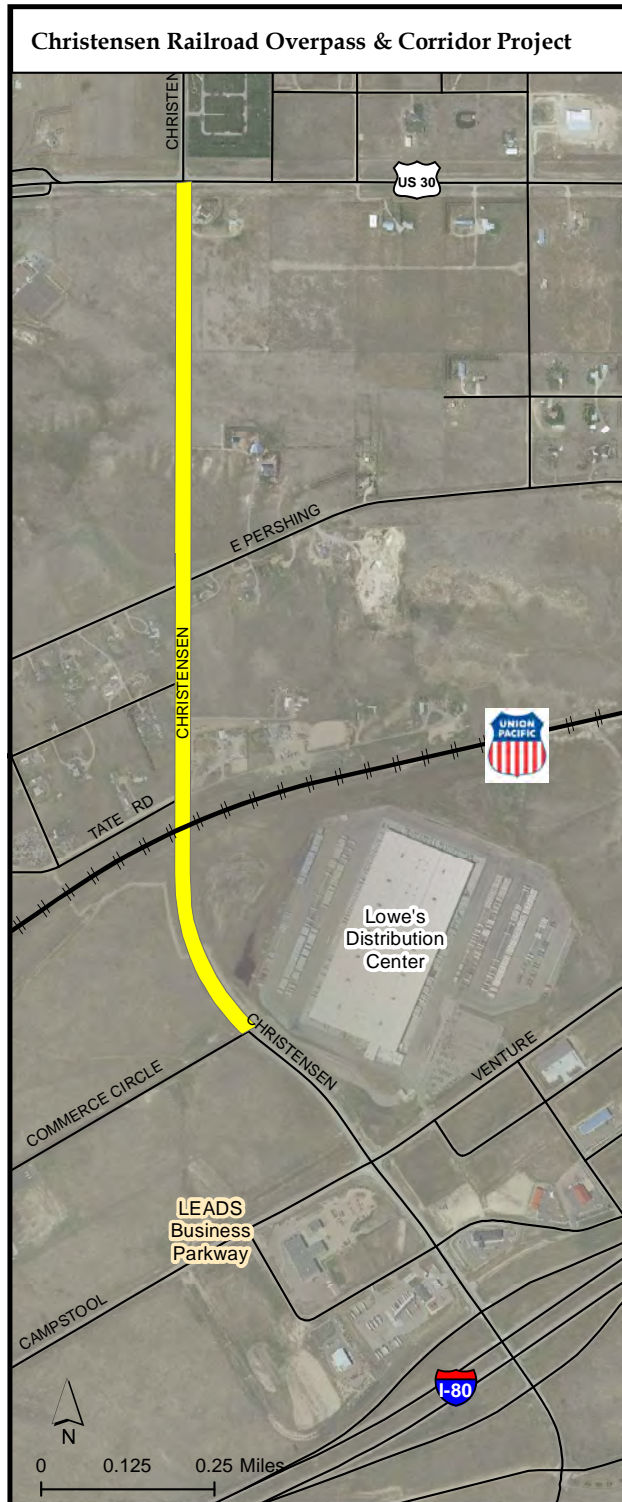
**Figure 1:**  
Project Location  
in Laramie  
County,  
Wyoming

## A. OVERVIEW

The Christensen Railroad Overpass and Corridor Project will provide a critical bridge and road connection (with non-motorized facilities) on the eastern edge of the growing community of Cheyenne, Wyoming. There are two main segments of the project:

- 1) The first segment begins at the intersection of Christensen Road and Commerce Circle, which is in the center of the Cheyenne LEADS Business Parkway (Business Park). This intersection is at the main truck entrance into the 1.12 million ft<sup>2</sup>. Lowe’s Distribution Center and is also

**Figure 2: Map of Christensen Railroad and Corridor Project**



3,100 feet from the Interstate 80/Campstool Interchange. The new construction from Commerce Circle will head generally north up a grade where the Union Pacific Railroad (UPRR) mainline right-of-way (ROW) is met. Because the two existing UPRR tracks are in a cut that is lower than the proposed abutment level, the project would bridge over the cut and the railroad tracks without requiring much fill. After bridging over the Union Pacific ROW, the proposed road would be constructed over an existing rural dirt road between Tate Road and East Pershing Boulevard (E. Pershing). A modern roundabout is planned at the E. Pershing intersection.

2) The second proposed segment is a 3,050 foot section of new construction on the section line spanning between the new roundabout at E. Pershing and the intersection of US-30. Because the private lands on both sides of this section are still undeveloped, future access and street spacing needs will be built at approved access standards.

**B. AREA HISTORY**

In 1867, the Union Pacific arrived in the southeast corner of the Wyoming Territory. General Grenville Dodge surveyed the new town and laid out the original city with the Union Pacific Railroad dividing the town into what remains its north and south sides. Today there are only five crossings of the railroad in the urban area stretching east to west for nine miles. There are approximately 60-85 trains a day that use these tracks. Interstate 25 (I-25) is on the far west edge of the community. Between I-25 and the proposed Christensen overpass, there are the following railroad crossings: Southwest

Drive (at grade two-lane rural section); Ames Underpass (two-lane urban section); I-180 Viaduct (four-lane divided); Norris Viaduct (four-lane); and College Drive/WYO 212 (five-lane).

Although past Christensen Corridor planning efforts considered a realignment of the E. Pershing intersection, current best practices suggest that a modern roundabout is more appropriate for this location. A modern roundabout is being planned and recommended for this location because it will eliminate the need for a traffic signal (and thus reduce costs); result in reduced ROW requirements, eliminate traffic signal maintenance and electric costs, slow traffic on E. Pershing, and provide a generally safer intersection with long-term cost reductions due to fewer crashes.

- About 1.5 miles east of the proposed Christensen overpass, there is a very narrow railroad crossing, built in 1934, at E. Pershing. This “structurally deficient” bridge would be removed as part of this project once the new connection is in place. With a sufficiency rating of 24.2 out of 100, the old bridge is economically beyond repair. A historical assessment of the old structure will be prepared in cooperation with Wyoming State Historic Preservation Office (SHPO) as part of the National Environmental Policy Act (NEPA) process. The entire WYDOT Sufficiency Rating Report and pictures can be found at: <http://www.plancheyenne.org/east-dell-rangeus-30-and-christensen-railroad-overpass-plan/>

Laramie County has applied for Bridge Replacement “Off-System” (BROS) Program federal funds to help fund the removal of this 1934 bridge. The date these funds will be made available by WYDOT is not known at this time. The local match would come from the county.

### C. PROJECT HISTORY

The Cheyenne MPO on behalf of the city, county and WYDOT has planned for this project for several decades. Although the final concept was modified recently, there have been plans for an inner and outer belt circling Cheyenne for over 25 years. Christensen Road has always been considered the eastern edge of the outer belt. The Christensen Project first appeared on MPO and WYDOT functional classification maps in 1993. The following is a summary of planning efforts for this project over the past several decades:

- The MPO and WYDOT first proposed this Christensen corridor and bridge project in the 1988 *Master Transportation Plan*.
- *The Long Range Master Plan and Traffic Study for the LEADS Cheyenne Business Parkway* prepared in April 1990 recommends the construction of a railroad overpass along Christensen.
- The *Cheyenne Area Master Transportation Plan* of 1994 included the Christensen Project as a high/medium priority project with funding recommended.
- The *East Cheyenne Land Use and Transportation Plan*, which was adopted in 1998 by the city and county, was a more detailed neighborhood land use and transportation plan. The Christensen railroad overpass and corridor was listed in this document as a high priority



proposed connection. <http://www.plancheyenne.org/wp-content/uploads/2012/10/EastCheyenne.pdf>

- In order to preserve the Master Plan and the important Christensen corridor, the MPO (on behalf of the City of Cheyenne), conducted an official mapping survey of the proposed corridor center-line. Two separate center line official mapping projects were approved and adopted by city ordinance. The first was the Christensen Corridor between the I-80/Campstool Interchange and US 30. It was adopted by the city governing body in May, 1996 in Ordinance #3279. The second official mapping project surveyed major roads intersecting Christensen along the corridor. It was adopted by the city governing body on May, 2011 in Ordinance #3922.
- In 2006, the award-winning Cheyenne Area Comprehensive Plan, *PlanCheyenne* was adopted by both the city and county governing bodies. *PlanCheyenne's* Transportation Plan solidly recommends the Christensen railroad overpass and corridor in its fiscally constrained transportation plan. <http://plancheyenne2006.com/welcome.cfm>
- Based on the recently completed Master Transportation Plan - *PlanCheyenne, The East Dell Range/US 30 Corridor Study and The Christensen Railroad Overpass Plan* was prepared by consultant Felsburg Holt & Ullevig (FHU). The planning document was dated May 2008 and it was adopted by both the city and county governing bodies along with support by WYDOT. <http://www.plancheyenne.org/wp-content/uploads/2012/12/EDellRangeUS30ChristensenRROverpassPlan.pdf> and <http://www.plancheyenne.org/wp-content/uploads/2012/12/FinaldesignReport.pdf>
- Due to the interest in the Christensen Project by both city and county local officials, the MPO asked FHU to update estimated project costs in 2012. These estimates were used for this TIGER V grant application request (Appendix C).

In Wyoming, counties are enabled by the state legislature to tax themselves for specific projects and uses. Laramie County has used the 6<sup>th</sup> Penny Specific Use and Purpose Sales Tax to fund several important local projects. A special committee comprised of local elected officials from Laramie County, the City of Cheyenne and other towns in the county developed the 6<sup>th</sup> Penny Tax

ballot. The committee allocated \$2 million towards the Christensen project on the ballot which was voted on and approved by the citizens of Laramie County on August 21, 2012. The \$2 million will serve as the TIGER V matching funds even though this is a rural project and no local match is required.

The City of Cheyenne has hired US Bank to finance all of the projects that were approved on the August 21, 2012 ballot. Therefore, the \$2 million for the Christensen Railroad Overpass Project is available for immediate use.



*The future bridge will span these two main line railroad tracks.*

#### **D. EXISTING FACILITIES**

Campstool Road between the I-80/Campstool Interchange and the Campstool/Venture Road intersection and Christensen Road between the Campstool/Venture Road intersection and Commerce Circle is a 3,010' long five-lane arterial with two 10' shoulders (note: the same continuous road, Campstool Road and Christensen Road, changes names at the Venture Road intersection). This principal road and the others nearby were built/rebuilt as a joint cooperative project between the city, county and WYDOT once the Lowe's Distribution Center announced they were going to build at their current location in 2001.

The Christensen Project can be segmented and described as follows:

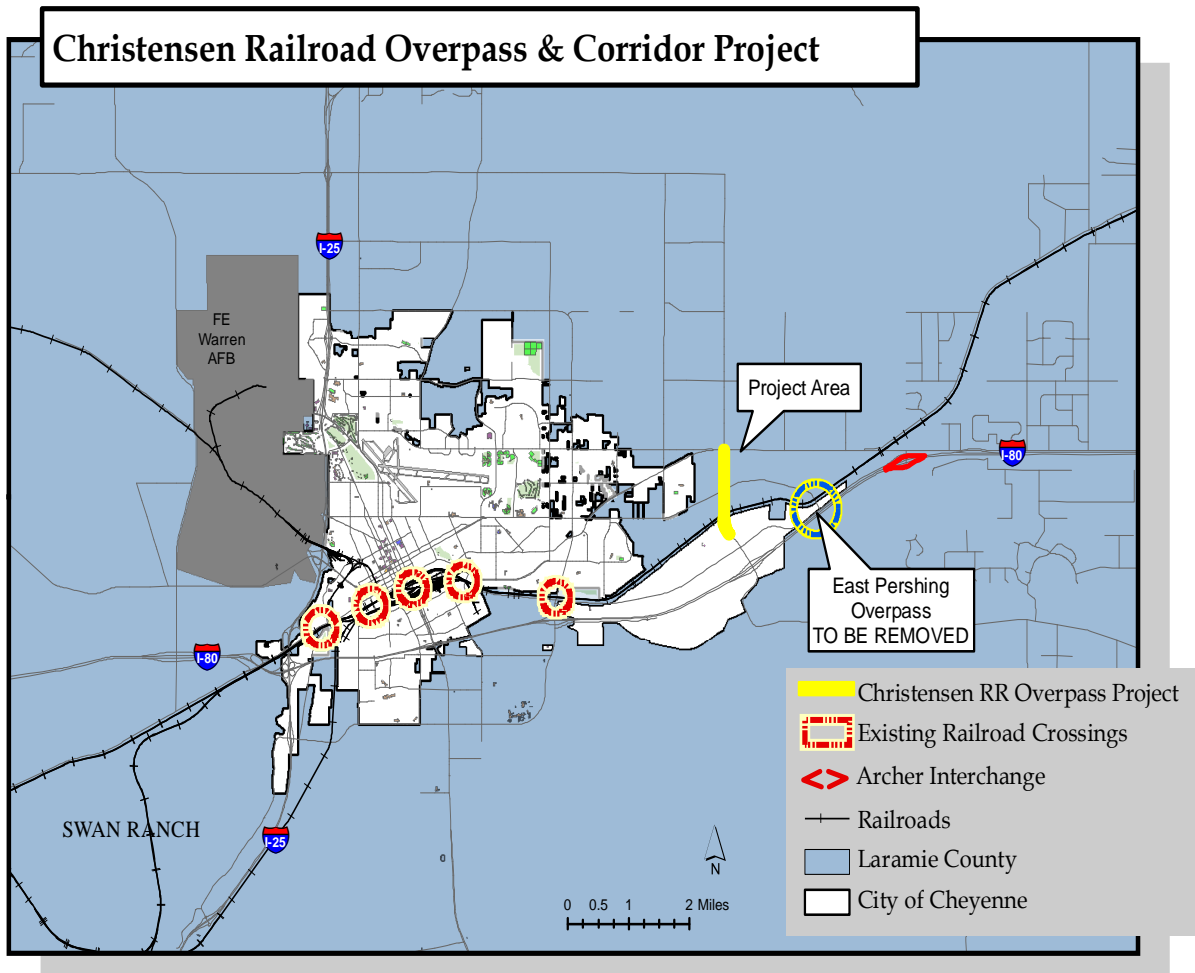
1. North of Commerce Circle to the Union Pacific ROW, the Christensen ROW is in place but no road is built. The land is undisturbed prairie. New road construction would be in this segment as the elevation rises at the approach of the southern edge of the UPRR ROW.
2. Segment two is the future bridge location. The two main line railroad tracks are in a cut at the future bridge location. U.P. will require spacing for a future third track.
3. Segment three is between the north side of the UPRR ROW (near the Tate Road intersection) and E. Pershing. This segment is 1,660' long with an 80' ROW. A two-lane rural gravel/dirt road is in place and is approximately 34' wide.
4. Segment four is between E. Pershing and the intersection with US 30. This section is 3,050' long and is barren prairie land with only electric power lines and fences along the length of the corridor. There is 80 feet of ROW dedicated the entire length.

Christensen Road continues north of US 30 for four miles to Iron Mountain Road. Turning west, Iron Mountain Road goes another six miles to I-25 at the northwest corner of the Cheyenne urban area.

**E. CONNECTIONS WITH EXISTING TRANSPORTATION INFRASTRUCTURE**

The proposed Christensen Project would complete a critical missing link in the Cheyenne transportation system. In eastern Cheyenne, UPRR crossings are few and far between. The best crossing is at College Drive with volumes of 23,000 ADT. Over 4.5 miles to the east of College Drive is the next crossing at the unsafe and narrow bridge, built in 1934, on E. Pershing. Beyond that is the Archer Interchange which is approximately 6.5 miles from College Drive and far outside the urban area.

**Figure 3: Cheyenne’s UPRR Crossing Locations**



The E. Pershing bridge structure carries only 745 vehicles a day. The eastern section of E. Pershing that crosses the UPRR tracks serves a limited area and does not provide a complete road network because it dead-ends at a Interstate 80 (I-80) Service Road. The new Christensen connection would adequately serve all traffic that is currently using the E. Pershing bridge, plus it will accommodate other modes of travel and be much safer.

The proposed project would build a 1.25 mile corridor between Commerce Circle and US 30 which would complete a direct connection between I-80 and US 30. Once the Christensen Project is complete, the distance between I-80 and US 30 will be 1.85 miles. Once this project is built, no other crossings of the UPRR east of I-25 are envisioned until 40+ years of additional growth has occurred (*PlanCheyenne*).

The county is developing 850 acres at the Archer and I-80 interchange (see Figure 3). Currently, the Archer Complex houses the following county services and amenities: Emergency Management, County Planning, County Road and Bridge, County Coroner, Juvenile Detention Center, a Motor Cross Track, and Shooting Sports Park. The future Laramie County Fair Grounds, a future business park along with other uses are planned. The Archer Complex is located three miles east of the I-80 and Campstool Interchange.

Construction of the Christensen overpass would provide convenient and safe access that would serve county employees as well as Laramie County citizens. Currently, many citizens have to utilize the existing E. Pershing overpass, which is listed by WYDOT as a deficient overpass and is quite unsafe. When a new overpass at Christensen Road is constructed, Laramie County residents would have much better access to the Archer Complex and other commercial centers of the city and county.

## **F. PROPOSED IMPROVEMENTS**

The proposed project will construct a 1.25 mile stretch of roadway and bridge between Commerce Circle and US 30 in the following five segments:

1. The Christensen roadway section from Commerce Circle to the south edge of the UPRR ROW will consist of a three-lane minor arterial street section. The roadway section will allow for a 5' sidewalk on the east side and a 10 feet greenway path on the west. This segment is 1,272 feet in length and rises 59 feet at a 5.56 percent grade. Approaching the future bridge, the lanes would narrow to two. ROW in this section is platted and of sufficient width.
2. Within the 560 feet of UPRR ROW the 300 linear foot bridge will be built over the two UPRR mainline tracks, with space provided for three tracks in the future. The bridge will consist of two travel lanes with a substructure built to handle future expansion to four lanes. Sidewalk will be built on the east side and 10 feet greenway on the west side of the bridge. Required safety pedestrian fences that meet Cheyenne's enhancement standards will be placed on the bridge to protect the tracks below. Pedestrian lighting and other bridge enhancement elements would be added.
3. North of the UPRR ROW, the three lane minor arterial street section would continue to replace the existing gravel/dirt rural road. Tate Road would end in a cul-de-sac since the current intersection with Christensen is too close to the proposed bridge structure.

Archies Road and other private driveways would be realigned for safer intersections. The length of this segment is 1,823 feet and the total rise in elevation is 15 feet. Eighty feet of ROW is in place in this section and the proposed road could be built within it; however, an additional 20 feet will be obtained.

4. A roundabout will be installed at the E. Pershing/Christensen Road intersection, correcting the current skewed angle of the intersection as much as possible. Some ROW may be required. Sidewalk around the roundabout will be built. Street lighting and other appropriate enhancements will be installed at this location.
5. The extension of Christensen Road between E. Pershing and US 30 will be built as a two-lane minor arterial roadway section with appropriately spaced left turn lanes. A 10-foot wide path will run along the west side of Christensen Road. Earthwork will be completed for a full three-lane rural section to avoid the need for additional cut if and when the paved width is expanded to accommodate three lanes. Eighty feet of ROW is in place in this section and the proposed road could be built within it; however, an additional 20 feet will be obtained, with some, if not all, by ROW donation. The Christensen intersection at US 30 would be modified to accommodate all the appropriate turn lanes and electrical conduit and foundations for a future traffic signal when it becomes warranted. Street lighting will be installed at this location.

**ROW (80')** for the entire project is in place and the proposed cross sections could be built in it; however 100 feet of ROW is preferred to meet local road design standards. Additional width will be obtained once design is complete to accommodate fills, slopes, turning lanes, etc.

**NOTE:** One adjacent major property owner (northwest corner of E. Pershing and Christensen) has agreed to donate or receive earth for the entire project free of charge to reduce hauling cost. This same property owner has also committed to donate land for his share of any necessary ROW. Other property owners may also be willing to donate additional ROW needs.



## II. Project Parties



*Lowe's Distribution Center is one of 20 businesses operating in the Cheyenne Business Parkway. Under the project, this dead end would continue north to a bridge over the UPRR.*

The multitude of past planning efforts detailed in Section I speak to how important this corridor is to the entire Cheyenne urban area. During the development of *The East Dell Range/US 30 Corridor Study and The Christensen Railroad Overpass Plan*, which was prepared by the consultant Felsburg Holt & Ullevig (FHU) in 2008, public involvement and support was substantial. The Cheyenne MPO also presented this planning document to the executive staff of WYDOT on February 5, 2010.

As a testament to the collaboration on this project, the city and county governing bodies each supported the \$2 million which was placed on the proposed 6<sup>th</sup> Penny Specific Purpose and Use Tax ballot (in Group 4). The measure was voted on and approved by the Laramie County citizens on August 21, 2012.

Cheyenne LEADS, the Cheyenne-Laramie County Corporation for Economic Development agency, recruits jobs and businesses to the Cheyenne area. The Cheyenne Business Parkway (Business Park) is a 900-acre heavy industrial and business park managed by LEADS. The Business Park today houses 20 companies with 2,000 full-time employees whose main access in and out of the park is just north of the College Drive interchange. The highway commercial area at the I-80 interchange (i.e. The Campstool Addition) currently contains 12 additional businesses with 800 jobs, with the potential for additional future development and job creation.

Interstate access is at the I-80 interchange but additional access to the rest of the city is very limited. LEADS and all the major businesses in the industrial park are very supportive of the potential new access to the area by way of Christensen. Letters of support from Cheyenne LEADS and others in the area can be found in Appendix B.

Table 1 on the following page shows the project partners and their project roles and responsibilities.

**TABLE 1: PROJECT PARTNERSHIPS**

Project Party	Responsibility/Role
Cheyenne MPO	Prepare grant application; coordinate with local agencies; resolve ROW acquisition; help write Request for Proposals for design; initiate environmental work; facilitate agreements; and help keep the project on schedule. The MPO is the Title VI Agent for the city.
City of Cheyenne	Lead agency for Request for Proposals; contractual, environmental, engineering, and construction activities; maintenance of built facility.
Laramie County	Facilitated the 6 <sup>th</sup> Penny Election; apply for possible new local/state/federal grants for funding if necessary; maintenance of built facility.
WYDOT	Oversight of contractual, environmental, engineering, acquisition and construction activities.
Union Pacific Railroad	Review and approval of design.
Private Citizens	Donation of dirt fill or storage needed for project construction; right-of-way donations.



*The photo at left shows the I-80 interchange near the southern terminus of the project.*



The Cheyenne MPO requests \$10.0 million in TIGER V Discretionary Grant funds to construct the Christensen Railroad Overpass and Corridor Project. This rural project will be matched with \$2 million of local funds collected from the 6<sup>th</sup> Penny Specific Use and Purpose Sales Tax.

**Note:** ROW (80') for the entire project is in place, providing adequate space for the proposed cross sections. However, 100' of ROW is preferred to meet local road design standards. Additional width will be obtained once design is complete to accommodate fills, slopes, turning lanes, etc. Some of this additional ROW is being donated by adjacent land owners.



*Looking north from the UPRR ROW, the photo shows the dirt road that will be rebuilt and then continue past E. Pershing up the hill toward US 30.*



## A. LONG-TERM OUTCOMES

Building the Christensen Project would provide a missing link in the Cheyenne area street and transportation system, remove some traffic from the congesting College Drive UPRR overpass, safely accommodate current and projected multimodal use, shorten emergency vehicles response times, improve Cheyenne Transit route options, shorten travel times for many users as they commute to work or other trips, and decrease crashes. The proposed project would greatly benefit the entire urban area of Cheyenne, a population of 84,500 which is 89.4 percent of the 94,483 population of Laramie County.

The US Census Bureau recently ranked Cheyenne as the 20th fastest-growing metropolitan area in the country. People are moving to Cheyenne to cash in on the city's transformation into a budding technology hub, including the National Center for Atmospheric Research Wyoming Supercomputing Center and a Microsoft data storage center. In addition, the region around Cheyenne is expecting growth due to oil and gas extraction from the Niobrara Formation.

### *i. State of Good Repair*

The city and county both view the Christensen Project as a regional transportation and economic benefit. Twenty-two percent of the project is in the city corporate limits. The City Public Works Department and the Laramie County Road and Bridge Department have agreed to maintain the road and bridge in the state of good repair once construction has been finalized. Their letters of support can be found in Appendix B.

The City of Cheyenne has a Pavement Management System utilizing Lucity's software. The city provides and shares the data with the county. Funding to the city and county for all pavement maintenance comes from the local 5<sup>th</sup> Penny Sales Tax and is programmed annually to keep the area's road system in good repair.

Road maintenance costs before and after project completion are expected to remain relatively stable, if not decrease slightly.

- ↓ Maintenance costs for E. Pershing between Choke Cherry and the I-80 Service Road and the E Pershing Bridge will be eliminated, as the bridge and pavement leading up to it will be removed.
- ↓ Likewise, VMT are expected to decrease throughout the entire network, leading to reduced wear and tear on area roadways.
- ↑ Although the new Christensen bridge and roadway segments will represent new maintenance costs, they should be no more costly (and may be less costly) to maintain than the comparable Pershing bridge and roadway.

## *ii. Economic Competitiveness*

The Christensen Project provides a strategic, logical, and much-needed connection to help create a more balanced transportation system in the Cheyenne area. Currently, the majority of traffic enters the Cheyenne LEADS Business Park from the west at College Drive and I-80. Without a second access point, as employment increases, congestion and traffic conflict are also expected to increase on the existing access to the Business Park and the feeder roads. Eventually, businesses may choose to locate in other parks due to limited access and local/regional roadway congestion.

The updated (September 2011) figures from the Council of Economic Advisers were used to estimate the extent of job creation and economic stimulus from the Christensen Railroad and Overpass Corridor Project. The CEA estimates that one job-year is created by every \$76,923 in transportation spending. Thus, based on a \$12.0 million project, an estimated 156 job-years would be created (see Table 3 for job years and spending by quarter).

Besides the Business Park, there is private land on the north and south side of the I-80 and Campstool interchange that is a developing Highway and Community Business center. The addition of the Christensen Railroad Overpass Project is extremely important to these developers so that access to housing on the northside of the UP Tracks for the workers in this area is provided.

Located 1.5 miles from the southern edge of the Project at Christensen and Commerce Circle, Black Hills Corp., doing business as Cheyenne Light, Fuel & Power began construction of a new \$237 million, 132 megawatt, natural gas-fired electric generation facility in May, 2013. The plant is only the second in the nation to receive a greenhouse gas air permit from the U.S. EPA. This generation facility will provide cost-effective, safe, reliable service to Cheyenne area customers while balancing changing environmental regulatory demands, economic development needs and an increasing demand for energy. The plant will be ready for commercial operation by the fourth quarter of 2014. The Christensen Project is also important to this work site as it will provide an additional route for workers for years to come.

### ***iii. Livability***

The city, county and MPO take livability seriously, and these agencies have been recognized and awarded for multiple past planning efforts that incorporate the six Livability Principles. The Cheyenne Area Comprehensive Plan (*PlanCheyenne*) won many awards for its progressive livability and sustainable planning. Past awards include:

1. 2006 Transportation Planning Excellence Award from Federal Highway Administration/ Federal Transit Authority, cosponsored by the American Planning Association
2. American Planning Association – 2007 Daniel Burnham Award for a Comprehensive Plan

On June 16, 2009, a Senate Hearing was held before the Committee on Banking, Housing, and Urban Affairs on Greener Communities, Greater Opportunities: New Ideas for Sustainable Development and Economic Growth. The secretaries of the U.S. Department of Housing and Urban Development, the Environmental Protection Agency and the U.S. Department of Transportation introduced a joint support of livable communities, comprehensive planning and sustainable development. U.S. Secretary of Transportation, Ray LaHood, specifically mentioned in his written testimony the work of *PlanCheyenne*. [http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing\\_ID=bc7b8261-a455-4499-ac44-84329af836ad&Witness\\_ID=71990386-4cf3-4147-9de2-c3a69f9a4131](http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=bc7b8261-a455-4499-ac44-84329af836ad&Witness_ID=71990386-4cf3-4147-9de2-c3a69f9a4131)

Secretary LaHood is quoted:

“For example, in Cheyenne, Wyoming, the City, County and Metropolitan Planning Organizations (MPOs) developed *PlanCheyenne* which is an integrated community master plan that defines the Cheyenne area future growth. The plan places specific emphasis on integrating three major elements of the community’s planning efforts: land use, transportation, and parks and recreation and open space. The transportation component of the plan promotes developing mixed-use and activity centers along a network of principal arterials. Incidentally, EPA worked with Cheyenne to engage residents in developing policy options to implement *PlanCheyenne’s* vision.”

The following section describes how the project would positively affect additional quality of life measures throughout the community:

***Provide more transportation choices*** – The new bridge and road would provide a safe, reliable and economical transportation choice decreasing household transportation costs, reducing fuel usage, improving air quality, reducing greenhouse gas emissions, and promoting public health. Currently, non-motorized access to this large employment center is also lacking. The city and county have built 33 miles of greenway trails throughout the Cheyenne area in recent years; however, no bike or pedestrian facilities exist at this time in the Business Park.

The Christensen project would build a greenway path and sidewalk on the corridor (as shown in Figure 4, at right), reaching into the heart of the employment center, thus increasing the span and viability of the non-motorized transportation system.

Last year, the MPO teamed with ALTA Engineering to develop a new Greenway Plan Update and On-Street Bicycle Plan. The map at right is from this recently adopted plan.

The new project will also open up opportunities for additional transit bus routes, which will pass by housing and the major employment center. The Cheyenne MPO is currently updating the Cheyenne Transit Program Transit Development Plan. It has been identified during public meetings that there is a high demand for transit to expand service to the Business Park. Currently, with only one way in and out, this does not provide an efficient route. However, if the Christensen Project was in place a loop route could be implemented.



**Promote equitable, affordable housing** – The new corridor will open up lands for new housing of all types and price points, and make housing closer to a major economic/jobs center in the region.

**Enhance economic competitiveness** – The project will improve economic competitiveness through reliable and timely access to employment centers, services and other basic needs by workers as well as expanded business access to markets.

**Support existing communities** – The MPO has targeted TIGER V funds to invest in the existing communities. The transportation investment will revitalize the eastern edge of Cheyenne, maintain and expand transit, improve the efficiency of public works investments, and safeguard rural landscapes - a particularly important consideration in the Rocky Mountain West.

**Coordinate policies and leverage investment** – The policies of the U.S. Department of Transportation are in alignment with all planning work done by the MPO on behalf of the city and county. Plans and their implementation are accountable and effective.

**Value communities and neighborhoods** – Over a year ago, the City of Cheyenne codified the visions and plans of *PlanCheyenne* by adopting a *Unified Development Code (UDC)*. This document ensures that both redevelopment efforts and new neighborhoods help create healthy,

safe and walkable neighborhoods. The Cheyenne MPO is currently updating *PlanCheyenne*. A part of this scope of work includes defining goals and objectives of the region's rural, urban or suburban character and future development patterns. The development of performance measures is also part of the scope for the plan update.

Recent EPA grants awarded to the City of Cheyenne show that the city takes livability and the six planning factors seriously, and is working to implement them. In 2012, the EPA awarded an \$1 million Assessment Grant to the EPA Coalition Partners on behalf of the city, county and Downtown Development Authority (DDA) that will help Cheyenne redevelop the near west side into a revitalized downtown amenity, incorporating flood control and stormwater quality features within park amenities and social gathering spaces. The redevelopment strategies adopted in the assessment grant are ambitious yet founded on goals and ideas established in the Chamber's Vision 2020 Plan, the DDA's Market-Based Downtown Plan, and the community's PlanCheyenne.

Additionally, a \$1 million EPA Revolving Loan Fund (RLF) grant was awarded to the Coalition Partners in April 2013 to help facilitate overcoming this hurdle by providing an immediate funding source to complete remediation activities needed on these properties prior to redevelopment. Additionally, \$114,613 CDBG funding and \$450,000 Nonpoint Source funding have been awarded to the coalition partners in support of this project. The Cheyenne West Edge investment will be leveraging funds from multiple sources including significant support from the community. Our community residents, both city and county, overwhelmingly adopted the \$4.8 million August 2012 6th Penny Ballot initiative for this project recognizing the critical need to address storm drainage infrastructure for our core historic district. The City's intent is to use the \$4.8 million in approved tax dollars as leverage for pursuing grants to help further fund the West Edge Project.

#### ***iv. Environmental Sustainability***

The Christensen Project improves energy efficiency by reducing daily vehicle miles traveled (VMT) by approximately 12,000 and by 28,600 VMT 25 years after built. The savings come from the reduced trip length from Christensen being built in a logical and strategic location. In contrast, access to the Business Park is now only from one direction as all traffic must approach the park from College Drive due to the barrier of the UPRR tracks located on the north edge of the entire property. Carbon dioxide (CO<sub>2</sub>) emissions are consequently reduced by 1,804 metric tons per year at a cost reduction of \$4,164,000 over the expected life of the project. Based on past planning work and knowledge of this area, there are no known environmental issues, concerns or adverse impacts. The project crosses dry prairie and an existing rural county roadway. During construction, the city will implement re-vegetation, enhancements and landscaping appropriate to the area.

#### ***v. Safety***

The new road and bridge would be built to current city and WYDOT construction specifications and standards, therefore meeting all safety standards. The current safety hazards on the E. Pershing section associated with the structurally deficient bridge would be removed. The project would



address all existing safety hazards and provide a road that safely accommodates a variety of users and vehicle types. The new road will be sufficiently wide and smooth, with separation of vehicles and non-motorized users. The reduction in crashes correlates to \$550,000 a year savings for building the project.

Safety for the Union Pacific trains will also be improved as a result of the project, since piers of the older bridge are closer and the clearance is less than allowed by current standards. The 1934 Pershing railroad bridge will be removed as part of the Christensen project.

#### *vi. Project Readiness*

##### *a. Technical Feasibility*

Engineering and planning work was completed to a 35 percent level through The East Dell Range/US 30 Corridor Study and The Christensen Railroad Overpass Plan prepared by consultant Felsburg Holt & Ullevig (FHU). The planning document, dated May 2008, was adopted by both the city and county governing bodies with support by WYDOT. <http://www.plancheyenne.org/east-dell-rangeus-30-and-christensen-railroad-overpass-plan/>

In preparation for the TIGER IV grant application in 2012, the MPO requested that FHU revise and update their cost estimates for the project based on new concepts for specific design details including the roundabout at E. Pershing. The memorandum detailing these new estimates (dated February 17, 2012) can be found in Appendix C.

For this TIGER V application the inflation and contingencies were increased to 12.79 percent to account for the added year. This closely matches the cost estimate found in Appendix C for the year 2015.

In addition, the official mapping of the centerline of this corridor and bridge serves as an official survey, which was adopted by ordinance by the City of Cheyenne. Based on the previous work and grant approval, the additional steps of design and environmental clearance are expected to proceed on time and schedule.

The City of Cheyenne with cooperation from WYDOT, has the staff on hand with experience in design and construction management for a project of this size. In October 2009, the city completed the construction of the federally funded Norris Viaduct Project, with a total cost of \$27 million. The Norris Project was a four-lane UPRR Viaduct which included city street reconstruction.

Federal funds were utilized as one of the funding sources for this project. The city and WYDOT have a history of working cooperatively on federal projects including agreements where the WYDOT ROW Department negotiates and buys necessary ROW for federal projects on behalf of the city.

##### *b. Financial Feasibility*

With the award of the TIGER V Discretionary Grant, the viability and project financing package

for this project is assured. The City of Cheyenne is requesting \$10.0 million from the TIGER V grant for the Christensen Overpass Project. The estimated cost of the project is \$12.0 million. The \$2 million local contribution to the project is coming from the 6th Penny Special Purpose and Use Tax, which Laramie County voters approved in August 2012.

Additionally, the City of Cheyenne has always maintained contingency reserves. A number of years ago, the Cheyenne Governing Body established a policy that \$6 million must be maintained in the reserves. The city's financial condition is good.

In regards to operating revenue for the proposed project, the City Public Works Department and Laramie County Road and Bridge maintains the roads and bridges and, if funded and constructed, will add this project to its road maintenance schedule. Additional funds are not expected to be needed to add this project to the city or county's maintenance schedule. The section of corridor between Commerce Circle and the south UPRR ROW is within the city corporate limits, north of that to US 30 is in the county. The two agencies have a cooperative agreement for road maintenance and it would be determined at a later date if the city and county would singly or jointly maintain this new project.

In its 146 years of existence, the City of Cheyenne has established strong financial stability. Over the past several decades, the city has sought and been awarded numerous federal and state grants for a variety of purposes. The city has skillfully and efficiently carried out the grant projects and capably completed required paperwork, retained files and successfully executed the necessary reporting. Cheyenne has remained in good standing with grantors by successfully implementing projects, as promised. The City of Cheyenne has never been disbarred or suspended from competing for or receiving federal grants.

The City of Cheyenne is very capable of managing the TIGER V grant, if awarded. The Treasurers/Accounting Office is well staffed with exceptionally competent employees who regularly monitor funds. The Planning Office, including the MPO Office, plans the transportation projects, partnering with other jurisdictions and agencies as necessary and appropriate. During the bidding and construction phases of a project, the Engineering Department reviews and monitors project plans and progress. Further, the city usually hires a private engineering firm to fully design the project and manage the construction. Again, the City Engineering Department oversees these contractors. The TIGER V grant will be managed competently and effectively by experienced City of Cheyenne staff, in keeping with an excellent tradition of successful grant management.

*c. Project Schedule and Jobs Created*

Table 2, below shows the proposed and very feasible schedule proposed to construct the Christensen project. Since local funds are already in place for design and NEPA work, the City and MPO will be able to proceed immediately with RFP preparation and solicitation.

**Table 2: Christensen Railroad Overpass  
and Corridor Design and Construction Schedule**

<b>Task Name</b>	<b>Duration (Days)</b>	<b>Start</b>	<b>Finish</b>
TIGER V Application Due	31	May 1, 2013	May 31, 2013
Writing letters to federal and state agencies to begin environmental research and NEPA groundwork	28	June 1, 2013	June 28, 2013
Prepare and advertise request for proposals (RFP) for design and environmental work	42	June 1, 2013	July 12, 2013
Receive and select top 3 from RFPs for design and environmental work	17	July 15, 2013	July 31, 2013
Approve design contract	27	Sept. 1, 2013	Sept. 27, 2013
Notice to proceed and complete 65% design	88	Oct. 1, 2013	Dec. 27, 2013
Complete 95 percent design	94	Dec. 28, 2013	March 31, 2014
Final design reviews	30	April 1, 2014	April 13, 2014
Design approvals	76	April 1, 2014	June 15, 2014
Bid preparation, advertisement, receive bids	62	July 1, 2014	Aug. 31, 2014
Approve contract and let to construction	15	Sept. 1, 2014	Sept. 15, 2014
Construction begins		Sept. 18, 2014	
Construction ends	256		May 31, 2015

**Table 3: Economic Impact of the Christensen Project**

<b>Quarter</b>	<b>Estimated \$ Spent</b>	<b>Job Years Created</b>
<b>Q3 2013</b>	<b>\$290,000</b>	<b>3.8</b>
<b>Q4 2013</b>	<b>\$780,000</b>	<b>10.1</b>
<b>Q1 2014</b>	<b>\$780,000</b>	<b>10.1</b>
<b>Q2 2014</b>	<b>\$75,000</b>	<b>1.0</b>
<b>Q3 2014</b>	<b>\$75,000</b>	<b>1.0</b>
<b>Q4 2014</b>	<b>\$5,400,000</b>	<b>70.2</b>
<b>Q1 2015</b>	<b>\$2,600,000</b>	<b>33.8</b>
<b>Q2 2015</b>	<b>\$2,000,000</b>	<b>26.0</b>
<b>TOTALS</b>	<b>\$12,000,000</b>	<b>156</b>

*d. Assessment of Project Risks*

An assessment of project risks has been conducted along with multiple previous planning efforts

for the Christensen Railroad Overpass and Corridor plan. No environmental risks, right-of-way issues, or potential design roadblocks have been identified. The only potential delay would come during the design review phase by the Union Pacific Railroad.

However, the City and MPO have already had substantial communications with the UP design and public relations office. The UP is very much aware of this project and has provided the City/MPO with a report called *BNSF-Union Pacific Railroad Guidelines for Railroad Grade Separation Projects*. This document, along with other e-mail communications have helped the city/MPO prepare plans for the UP to minimize problems and setbacks once the design is ready for review.

Further, the Request for Proposals for the NEPA and design work for this project will require that consultants have a proven track record of working with railroad companies. The Union Pacific strongly supports the concept of removing the 1934 East Pershing railroad overpass, as it provides a threat to the UP mainline due to its age and design deficiencies.

## **B. INNOVATION**

The original plans for this project called for the realignment of E. Pershing at Christensen Road to improve intersection geometry and flow. However, the current plan has been updated to reflect contemporary best practices, and calls for the installation of a modern roundabout. Roundabouts bring three major benefits over traditional intersections:

- Roundabouts are safer than traditional stop sign or signal-controlled intersections, largely due to their traffic calming effects and directional simplification (i.e. eliminating left turns). Roundabout installation should help mitigate concerns expressed by citizens west of this intersection about speeding.
- Although they have similar construction costs, roundabouts cost less than traditional intersections over the long term due to reduced hardware, maintenance, and electrical costs.
- Roundabouts are more efficient at moving traffic through an intersection, resulting in significantly fewer stops and reduced overall delay.

Cheyenne currently has nine roundabouts installed throughout the area with another large, two-lane, 5-leg roundabout currently under construction.

## **C. PARTNERSHIP**

### ***i. Jurisdiction and Stakeholder Collaboration***

Planning for the Christensen Project has, and will continue to involve strong collaboration among a broad range of stakeholders including public and private organizations. The project partners and stakeholders include, but are not limited to:

- City of Cheyenne
- Laramie County
- WYDOT
- Cheyenne Chamber of Commerce
- Businesses located in the LEADS Business Parkway
- Cheyenne LEADS

Detailed Christensen Project planning has been done by the city, the county and MPO for about a decade. The MPO has prepared grant requests for this project to the Wyoming Congressional Delegation at the time when earmarks were potentially an option while the SAFETEA-LU Legislation was ending and there was hope of a new reauthorization in FY 09-10. Although the county has the option of the 6<sup>th</sup> Penny Specific Purpose and Use Tax for project funding, the local county-wide needs are so great for projects related to transportation, parks and recreation, utilities, law enforcement and other government buildings that funding this project solely with this local tax is infeasible. This is why the TIGER V Grant provides the best opportunity for project completion.

Additionally, an adjacent landowner is getting ready to plat and develop his land in the next 10 years. Mr. William Edwards owns 129 acres west of Christensen north of E. Pershing. He has volunteered to use his land for free dirt or storage of dirt to help build the project. This will translate to a significant cost savings for project construction. He and possibly other adjacent land owners will donate additional land in order to provide a ROW of 100, 10 feet on each side of the existing ROW.

Note: The 80 feet of right of way that is in place for the entire corridor is sufficient to build the project. This additional 20 feet of right of way is desirable to help meet local design standards.

### *ii. Disciplinary Integration*

One of the main benefits of this built project is that overall there will be less gas consumption as the travel time is reduced to and from the Business Park, supporting the goals of reduction of energy use and emissions. This project also helps to meet the goals of the local Housing and Urban Development Office by providing better access to jobs. Additionally, access by non-motorized modes will also be increased with the inclusion of Greenway paths and sidewalk.

### *iii. Evaluation of Project Performance*

After the stabilization period following project completion, an assessment of the long-term outcomes can be performed. This evaluation will include the economic competitiveness, livability, sustainability, safety, job creation, and economic stimulus.

- Economic competitiveness can be evaluated based on future analysis of traffic volumes; however, increases in traffic volumes depend on a variety of factors, such as the economy, fuel prices, freight traffic, and regional oil field development.
- The livability outcomes can be evaluated by public comments and feedback, usage of the non-motorized system, and new and livable housing options built nearby.
- The environmental sustainability test will be performed using traffic volumes and the MPO Travel Demand Forecasting model recalibration and forecasting to determine whether vehicle miles driven are responding as expected. This modeling and forecasting will

help clarify potential reductions in energy use and emissions due to decreased VMT. With enhanced non-motorized access, it is expected that some drivers may opt to use other modes of travel besides driving. Safety can be evaluated by the *Cheyenne MPO's Transportation Safety Management Program* to determine whether a reduction in accidents was achieved.

- Job creation and economic stimulus can be evaluated based on direct jobs created by the project and new jobs in the Business Park and other surrounding properties.

## D. RESULTS OF BENEFIT-COST ANALYSIS

### i. Expected Benefits

Table 4, below summarizes the expected project benefits from time savings and reduces crashes, emissions, and vehicle operations costs (for the detailed analysis, see Appendix A).

**TABLE 4: Expected Project Benefits**

Current Status/Baseline & Problem to be Addressed	Change to Baseline / Alternatives	Type of Impact	Population Affected by Impacts	Annual Savings (year one)	Economic Benefit @ 3% Reduction over 50 years	Summary of Results in BCA
Lack of roadway connectivity on eastern edge of town	Construct a new overpass over the railroad and connect two highways	Reduction in Crashes	12,000 vehicle miles of travel for local residents per day for the first year	\$550,000	\$30,500,000	p. A-4
		Emissions Savings		\$88,000	\$6,200,000	p. A-5
		Time Savings		\$2,010,000	\$111,500,000	p. A-5
		Vehicle Operation Savings		\$2,600,000	\$142,900,000	p. A-5
		Total = \$5.2M		Total = \$290M		

Based on the WYDOT and MPO Travel Demand Forecasting Model the vehicle miles traveled per day in the entire Cheyenne road and highway system is reduced by approximately 12,000 with the Christensen Project in place. This is a 0.48 percent reduction of VMT for the entire network. The reduction for the drivers going to work in the Business Park is much higher, with even greater potential benefits. System-wide this transfers into an annual travel time savings of \$2,010,000 and \$2,600,000 of annual vehicle operating cost (which includes fuel saved), in 2013.

The reduction of VMT in the system once the project is opened also contributes to a potential reduction in crashes in the Cheyenne area. Cheyenne MPO has a robust Transportation Safety Management Program with very good data. With a reduction of VMT, the projected annual savings are \$550,000.

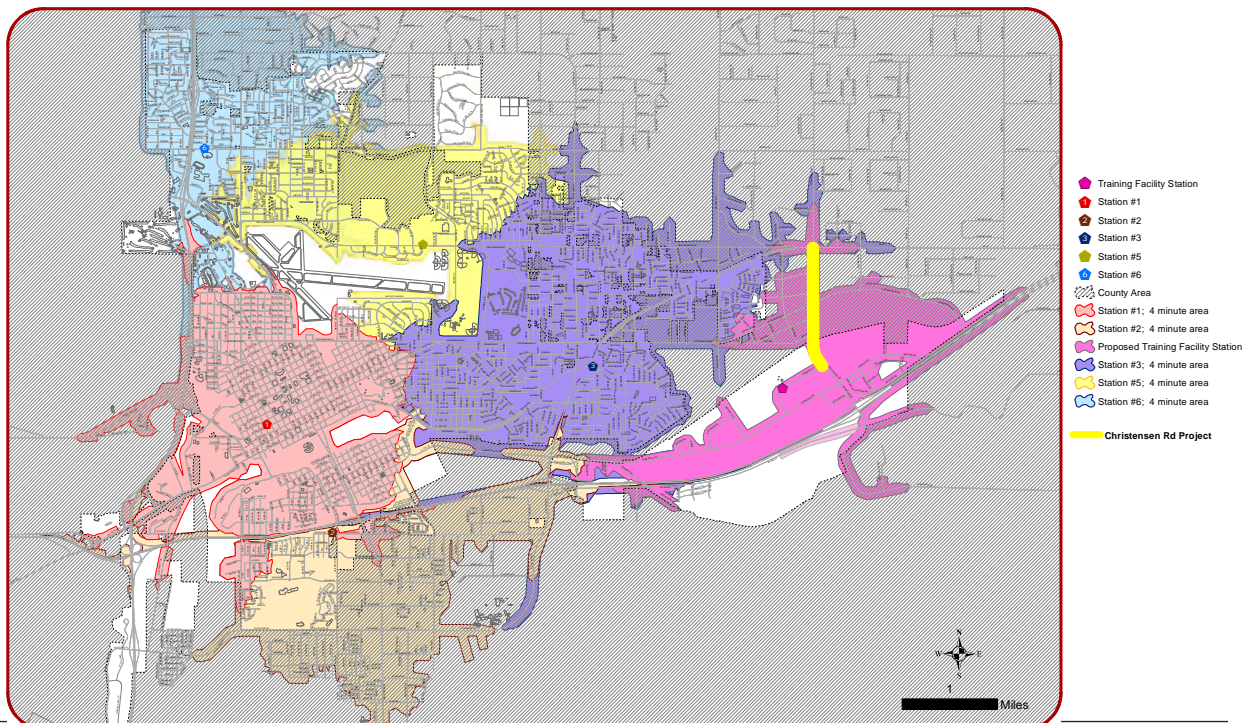
Finally, emissions reduction was also calculated based on VMT reductions. The annual total emissions savings totaled \$88,000. This analysis included CO<sub>2</sub> (carbon dioxide), VOCs (volatile organic compounds), NO<sub>x</sub> (nitrogen oxides), and PM (particle matter). The total dollar value of all the above annual benefits for time, fuel/vehicle expense, crashes and emissions is \$5.2 million.

Many of the project benefits have been described above, but there are two additional considerations which are of particular importance to this project.

- In the core area of the City of Cheyenne, there are five railroad crossings east of I-25, but past College Drive (WYO212), UPRR crossings are few and far between. This disparity between north and south is a growing problem as the Cheyenne urban area is expanding on the east side of town. Many urban and suburban residential neighborhoods have been built in the last 15 years and there is still a lot of land which could potentially be developed. Adding the possible job growth in the Business Park, the lack of a logical and convenient crossing will hinder the area’s ability to grow to its highest and best potential.
- Much has been said by the businesses within the Business Park and by emergency response agencies about the insufficient fire and police response times from existing fire stations. Over two million square feet of office and industrial building space are located in the Business Park. Since the majority of the Business Park is outside the 4 minute response time of the closest fire station, the large buildings and businesses in the park have an ISO Rating of 9. The rest of the city has an ISO Rating of 3. The cost differential incurred by these individual businesses is significant (see Figure 5 for a map of fire station response times).

The city built a state-of-the-art fire training complex in August 2003. This complex is the only one of its kind in Wyoming. The complex consists of a multi-purpose classroom/fire station, a six-story tower and a two-story burn building. This complex provides Cheyenne firefighters and the region a great opportunity to train and participate in scenarios and evolutions working together. This building was built to man and house a new fire station. The Fire Department has not pursued manning and equipping the site as a full fire station because of the lack of access to the north.

**FIGURE 5: Cheyenne Fire Stations with Proposed Training Facility Fire Station**



Fire Chief James Martin states in his Support Letter, found in Appendix B:

“With the overpass built Station 4 will be manned with 3 to 4 paid firefighters on a 24 hour tour of duty 7 days a week. By manning the station we will not only cover the LEADS Business Parkway, but we also will be able to respond faster to several housing developments in the eastern half of the City of Cheyenne, a proposed power plant, and also to several firms now developing at the Niobrara Oil formation. Station 4 also would respond to accidents along the Interstate 80 corridor...and serve the volunteer Fire Districts in the eastern area of the county...The east part of our city is continually growing and the overpass being built will allow us quicker access, which results in faster responses to citizens in need of emergency services.”

### ***ii. Expected Project Costs***

Expected project costs would total \$12.0 million, with \$10.0 million coming from TIGER V and \$2 million coming from local tax dollars.

### ***iii. Evaluation of Project Performance***

After the stabilization period following project completion, an assessment of the long-term outcomes can be performed. This evaluation will include the economic competitiveness, livability, sustainability, safety, job creation, and economic stimulus:

- Economic competitiveness can be evaluated based on future analysis of traffic volumes; however, increases in traffic volumes depend on a variety of factors such as the economy, fuel prices, freight traffic, and regional oil field development, among others.
- The livability outcomes can be evaluated by public comments and feedback, usage of the non-motorized system, and new and livable housing options built nearby.
- The environmental sustainability test will be performed using traffic volumes and the MPO Travel Demand Forecasting model recalibration and forecasting to determine whether vehicle miles driven are responding as expected. This modeling and forecasting will help clarify potential reductions in energy use and emissions due to decreased VMT. With enhanced non-motorized access, it is also expected that some drivers may opt for other modes of travel over driving.
- Safety can be evaluated by the *Cheyenne MPO's Transportation Safety Management Program* to determine whether a reduction in accidents was achieved.
- Job creation and economic stimulus can be evaluated based on direct jobs created by the project and new jobs in the Business Park and other surrounding properties.





**A. PROJECT SCHEDULE**

The Christensen Railroad Overpass and Corridor Project will have all required steps completed by June 30, 2014, and therefore will be ready for obligation by September, 2014.

**Table 5: Christensen Railroad Overpass and Corridor Project Engineering and NEPA Schedule**

Task Name	Completion Date
TIGER V Application Due	May 31, 2013
Receive letters from federal & state agencies involved with NEPA to begin environmental research and NEPA groundwork	June 28, 2013
Receive request for proposals (RFPs) for design & environmental work	July 12, 2013
Select top 3 firms from RFPs for design and environmental work	July 31, 2013
Approve contract	September 27, 2013
65% Design	December 27, 2013
Design and NEPA complete	June 15, 2014
Bids received	August 31, 2014
Construction bids approved	September 15, 2014
Construction begins	September 18, 2014

**B. ENVIRONMENTAL APPROVALS**

Given the 35 percent planning level design work accomplished through *The East Dell Range/US 30 Corridor Study* and *The Christensen Railroad Overpass Plan* prepared in 2008, and the city official mapping work, it is anticipated that a categorical exclusion would be forthcoming. The consultant selected to prepare the design will be chosen based on their knowledge and expertise

in producing all necessary environmental assessment work and in obtaining environmental clearance. It is anticipated that environmental approvals will be completed in a timely manner to meet the TIGER V statutory time lines.

Now that the TIGER V Grant is a possibility, the City of Cheyenne will immediately begin the process of hiring an environmental/engineering firm to begin the NEPA process and final design for the Christensen Railroad Overpass and Corridor Project. The Cheyenne MPO received letters from some federal and state agencies involved with the NEPA process in June 2012 which helps demonstrate that a categorical exclusion is anticipated. These letters are found in Appendix E.

### **C. LEGISLATIVE APPROVALS AND SUPPORT**

As described above, the city and county governing bodies placed \$2 million on a tax election ballot that was approved April 21, 2012. All planning efforts described in the History Section of this proposal included numerous public meetings and hearings at the city and county levels. Letters of support from locally elected officials can be found in Appendix B.

### **D. STATE AND LOCAL PLANNING**

The project is currently listed in the Cheyenne MPO Transportation Improvement Program (TIP), which was approved by the MPO Policy Committee on February 28, 2012. <http://www.plancheyenne.org/TIP/tip12-15%202%20amendment.pdf>. The project has also been provided to WYDOT for inclusion in the State Transportation Improvement Program. This project is also listed in the proposed Draft FY `14 - `17 Transportation Improvement Program which will be approved by the MPO Policy Committee on June 25, 2013. [http://www.plancheyenne.org/wp-content/uploads/2013/03/13\\_17\\_TIP\\_Projects.pdf](http://www.plancheyenne.org/wp-content/uploads/2013/03/13_17_TIP_Projects.pdf).

*PlanCheyenne*, the current Master Land Use and Transportation Plan dated November 2006, lists the Christensen Project as a high priority project. Christensen is also listed on the 2030 Fiscally Constrained Roadway Plan of *PlanCheyenne* (“Build” Section 2-12, Table 7). [http://plancheyenne2006.com/pdf/final/4/TBuild\\_Sec2.pdf](http://plancheyenne2006.com/pdf/final/4/TBuild_Sec2.pdf)

### **E. BUDGET**

The city intends to construct the entire project from Commerce Circle to US 30 in one phase. However, if funding received is less than requested, the project could be split into two phases. The segment providing the greatest benefit includes the roadwork from Commerce Circle to E. Pershing, including the UPRR bridge. The segment between E. Pershing and US 30 could be completed at a later date when additional funding became available (via collaboration between the county and adjacent land owners). See Table 6 for detailed budget calculations.

**Table 6: Budget**

Funding Source					AMOUNT	
	TIGER V					\$10,000,000
	6th Penny Specific Purpose and Use Tax					\$2,000,000
	TOTAL =					<b>\$12,000,000</b>
<i>Approximate in-kind land donation and dirt for fill or storage</i>						\$200,000
ITEM		UNIT	UNIT COST	QUANTITY	% OF TOTAL COST	COST
<b>REMOVALS / RELOCATIONS</b>						
	REMOVAL OF ASPHALT MAT	S.Y.	\$ 5	5,069	0.2%	\$ 26,000
	REMOVAL OF BRIDGE	EACH	\$ 200,000	1	1.7%	\$ 200,000
<b>ROADWAY/CONSTRUCTION</b>						
	PAVEMENT - (10" HMA)	TON	\$ 70	18,246	10.7%	\$ 1,278,000
	CONCRETE SIDEWALK	S.Y.	\$ 42	7,613	2.7%	\$ 320,000
	CURB AND GUTTER	L.F.	\$ 22	7,075	1.3%	\$ 156,000
	CONCRETE PAVEMENT- (10" DEPTH)	S.Y.	\$ 45	518	0.2%	\$ 24,000
	MEDIAN CONVER MATERIAL (PATTERNED CONCRETE)	S.F.	\$ 6	8,377	0.4%	\$ 51,000
<b>EARTHWORK</b>						
	EMBANKMENT (COMPLETE IN PLACE)	CY	\$ 12	170,079	16.3%	\$ 1,956,000
<b>BRIDGES/STRUCTURES</b>						
	STANDARD	SF	\$ 130	15,300	16.6%	\$ 1,989,000
<b>RETAINING WALLS</b>						
	MSE WALL HEIGHT (0-10')	L.F.	\$ 280	400	0.9%	\$ 112,000
<b>SUBTOTAL (A) =</b>					<b>50.9%</b>	<b>\$ 6,112,000</b>
	<b>DRAINAGE</b>	5%	OF (A)	N.A.	2.6%	\$ 306,000
	<b>SIGNING AND STRIPING</b>	1%	OF (A)	N.A.	0.5%	\$ 62,000
	<b>CONSTRUCTION TRAFFIC CONTROL</b>	2%	OF (A)	N.A.	1.0%	\$ 123,000
	<b>URBAN DESIGN / LANDSCAPING</b>	1%	OF (A)	N.A.	0.5%	\$ 62,000
<b>TOTAL CONSTRUCTION BID ITEMS (CBI)</b>					<b>55.5%</b>	<b>\$ 6,665,000</b>
	<b>MOBILIZATION</b>	5%	OF CBI	N.A.	2.8%	\$ 334,000
	<b>CONTINGENCIES &amp; OTHER COST</b>					
	CONTINGENCIES	25%	OF CBI	N.A.	13.9%	\$ 1,667,000
<b>TOTAL CONSTRUCTION ITEMS (CI)</b>					<b>72.2%</b>	<b>\$ 8,666,000</b>
	<b>UTILITIES</b>	5%	OF (CI)	N.A.	3.6%	\$ 433,000
<b>ENGINEERING</b>						
	DESIGN	10%	OF (CI)	N.A.	7.2%	\$ 867,000
	CONSTRUCTION MANAGEMENT	5%	OF (CI)	N.A.	3.6%	\$ 433,000
	<b>ROW*</b>	AC	\$30,000.00	8	2.0%	\$ 240,000
<b>Christensen-Commerce Cir to Hwy 30 with Roundabout at Pershing - TOTAL</b>						<b>\$10,639,000</b>
	Inflation 2-years and Additional Contingencies		12.79%			\$1,361,000
<b>GRAND TOTAL COST</b>						<b>\$12,000,000</b>

**F. PERFORMANCE MEASURES**

The Cheyenne MPO is currently updating PlanCheyenne, the land use and transportation Master Plan for the Cheyenne area. The scope-of-work was written to include the development of performance measures to be used by the Cheyenne MPO as the new plan was prepared and implemented. The Cheyenne MPO will be ready, willing and able to follow through with the PM set by the USDOT to track the goals and targets set for the Christensen Railroad Overpass Project.

## *V9. Federal Wage Rate Certification*

The City of Cheyenne has signed a Federal Wage Rate Certification stating they will comply with the requirements of subchapter IV of Chapter 31 of Title 40, United States Code, as required by the FY 2011 Continuing Appropriations Act. The City of Cheyenne also commits to completing any and all other certification requirements as part of this grant application. The wage rate certificate can be found in Appendix D.

# Appendix A

## TIGER V Grant Application

### Benefit Cost Analysis

**May 2013**

The data provided in this application was calculated using best practices for benefit-cost analysis (BCA) in transportation planning and reflect the TIGER V grant application guidelines. As noted in the application, a formal BCA is not a comprehensive measure of a project’s total economic impact, as many benefits cannot be readily quantified or occur under conditions of uncertainty. Attempts to provide information regarding the broader scope of economic benefits, quality of life improvement and impacts on local and regional growth and competitiveness are in other portions of the application.

To the greatest possible extent given available data, the formal BCA prepared in connection with this TIGER grant application reflects quantifiable economic benefits. The BCA covers three of the five primary long-term impact areas identified in the TIGER grant application guidelines:

- **State of Good Repair:** This topic is addressed in the main application on page 14.
- **Economic Competitiveness:** This topic is addressed in the main application on page 15.
- **Livability:** The project will result in a substantially more efficient commute compared to current travel options (i.e. reduced mileage, lower emissions, reduced travel time)
- **Environmental Sustainability:** The project will result in a major decrease in vehicle miles traveled, thereby decreasing pollutants and fuel consumption, and will also facilitate the use of alternative modes of transportation.
- **Safety:** The project will result in a reduction in vehicular collisions resulting from improved, less congested roadways.

Current Status/Baseline & Problem to be Addressed	Change to Baseline / Alternatives	Type of Impact	Population Affected by Impacts	Annual Savings (year one)	Economic Benefit @ 3% Reduction over 50 years	Summary of Results in BCA
Lack of roadway connectivity on eastern edge of town	Construct a new overpass over the railroad and connect two highways	Reduction in Crashes	12,000 vehicle miles of travel for local residents per day for the first year	\$550,000	\$30,500,000	p. A-4
		Emissions Savings		\$88,000	\$6,200,000	p. A-5
		Time Savings		\$2,010,000	\$111,500,000	p. A-5
		Vehicle Operation Savings		\$2,600,000	\$142,900,000	p. A-5
		Total = \$5.2M		Total = \$290M		

**Discount Rates**

Federal TIGER guidance recommends that applicants discount future benefits and costs to 2013 present values using a real discount rate of 7 percent to represent the opportunity cost of money in the private sector. TIGER guidance also allows for an alternate present value analysis using a 3 percent discount rate when the funds currently dedicated to the project would be other public expenditures. In this analysis all of the funds earmarked for this project are public expenditures and since the new overpass will have a very long life, the 3 percent value is the more appropriate rate for the analysis.

Given the above caveats, the computed benefit-cost ratio (BCR) for the Christensen project is 24.3 to 1.0 using a three percent discount rate and 11.2 using a seven percent discount rate. The data provided compares the capital construction costs to the quantifiable benefits of the project for 50 years following construction. After 50 years, the overpass will need to be rehabilitated, so no residual project value was assumed past 2065. The quantified project benefits are:

1. Reduction in vehicle collisions
2. Emissions reductions
3. Time savings
4. Reduction in vehicle operating costs

**Cost Benefit Results**

BCA Table 1 summarizes the cost and the quantifiable benefits of the project in terms of present value. As indicated in the table, the present value of the project’s capital cost is valued at \$12 million. The benefits have an estimated present value of \$290 million over the 50-year period, yielding a 24.3 BCR at a 3 percent net present value (NPV) and an 11.2 BCR at a 7 percent NPV.

**BCA Table 1 - Benefit Cost Analysis Summary**

	Annual Savings (year one)	Discounted @ 7% for 50 years	Discounted @ 3% for 50 years
Construction Costs		\$12,000,000	\$12,000,000
Evaluated Benefits			
Reduction in Crashes	\$550,000	\$13,800,000	\$30,500,000
Emissions Savings	\$88,000	\$5,100,000	\$6,200,000
Time Savings	\$2,010,000	\$50,400,000	\$111,500,000
Vehicle Operation Savings	\$2,600,000	\$64,600,000	\$142,900,000
Total Evaluated Benefits	\$5,200,000	\$133,900,000	\$291,100,000
<b>Benefit/Cost Ratio</b>		<b>11.2</b>	<b>24.3</b>

## Benefit Calculation Assumptions

The benefits of the project are determined by comparing conditions under “Build” and “No Build” scenarios. These two scenarios are defined as follows:

- **No Build:** Under the No Build scenario, the Christensen overpass will not be built and the Pershing overpass will remain until such time it is deemed impassable and then closed to all traffic. As a result, there will be increased mileage and driving time by citizens; increased traffic congestion burden on nearby roadways; increased response time for emergency services; and greater instances of vehicle crashes causing unnecessary fatalities and injuries.
- **Build:** Under the Build scenario, the E. Pershing overpass will be closed after the completion of the Christensen Overpass. All data forecasts indicates improvements such as reduced commute times and emergency response times, improved safety, increased economic growth potential, lower emissions, and improvement to quality of life for the region.

## Verification of Demand

The Cheyenne Area Travel Demand Model, a transportation analysis tool based on the TransCAD software, helps demonstrate the impacts of the project to the roadway system. The model relies on population demographics, employment, and economic activity in order to forecast vehicle miles traveled (VMT). The model was run twice: once using the No Build scenario and a second time using the Build scenario. Subtracting the two model results provides an estimate of the decrease in traffic that can be expected by installation of the overpass.

A 2013 Travel Demand Model has not yet been calibrated for the Cheyenne area; therefore it was necessary to apply a reduction to projected VMT to represent current traffic flows. Calculations showed that 2021 traffic volumes are expected to be approximately 31 percent higher than today’s volumes. Conversely, a 31 percent reduction to projected 2021 volumes serves as an estimate for current VMT. Table 2 below shows these calculations.

**BCA Table 2 - Vehicle Mile Calculations**

	(A)	(B)	(C)	(D) <sup>1</sup>	(E)
	No Build	Build	Decrease	VMT Saved	% Decrease
	VMT/Day	VMT/Day	[A-B]	[C*365]	[C/A]
			VMT/Day	VMT/Year	
2021 Projected Model	3,487,301	3,470,466	16,835	6,144,762	0.48%
2013 Calculated Model	2,406,238	2,394,622	<b>11,616</b>	<b>4,239,886</b>	<b>0.48%</b>

<sup>1</sup> Automatic traffic recorders in the area show that weekday and weekend traffic differ by less than .05%, all days of the week were calculated in the same manner.

## Safety Benefits

### City-wide Average

With the implementation of the Christensen overpass, traffic volumes will be impacted across the entire city transportation system; thus, vehicle collisions were compared on a city-wide scale. To ensure accuracy, a five-year city-wide average was used in the 2021 transportation model.

**BCA Table 3 - System Wide Crashes**

	No Injury	Possible Injury	Non-Incapacitating Injury	Incapacitating Injury	Fatal	Unknown
2012	1107	186	141	18	7	65
2011	1217	237	170	27	9	70
2010	1246	262	154	34	6	83
2009	1276	250	158	25	6	73
2008	1206	202	152	36	2	114
Total	6052	1137	775	140	30	405
5 year Average	<b>1210</b>	<b>227</b>	<b>155</b>	<b>28</b>	<b>6</b>	<b>81</b>

### Monetizing Crashes

After converting the crash data to AIS Levels as defined by the TIGER Benefit-Cost Analysis Guide then converting them to monetary amounts, the expected reduction in crash value was then calculated using the expected reduction in VMT. *Annual Savings = \$550,000*

**BCA Table 4 - Monetizing KABCO-scaled Crashes by AIS Level**

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Accident Counts by KABCO Level <sup>1</sup>	No Injury	Possible Injury	Non-Incapacitating Injury	Incapacitating Injury	Fatal	Unknown	Total Accident Counts by AIS Level Sum[A-F]	Unit Value of AIS Level (2012\$)	Total Value by AIS Level [G*H] (2013\$)
	<b>1210</b>	<b>227</b>	<b>155</b>	<b>28</b>	<b>6.0</b>	<b>81</b>			
<b>AIS 0</b>	1120	53.3	12.9	1.0	0.0	35.4	1223	-----	-----
<b>AIS 1</b>	87.8	156.8	119.1	15.5	0.0	33.8	413	\$27,300	\$11,379,232
<b>AIS 2</b>	2.4	14.5	16.9	5.9	0.0	7.2	47	\$427,700	\$20,225,344
<b>AIS 3</b>	0.1	2.4	4.9	4.0	0.0	3.9	15	\$955,500	\$14,870,263
<b>AIS 4</b>	0.0	0.3	1.0	1.1	0.0	0.5	2.9	\$2,420,600	\$7,083,027
<b>AIS 5</b>	0.0	0.0	0.2	0.5	0.0	0.2	0.9	\$5,396,300	\$5,160,360
<b>Fatality</b>	0.0	0.0	0.0	0.0	6.0	0.0	6.0	\$9,100,000	\$55,096,850

Total Annual Value of All Crashes City Wide \$113,815,076

Expected Decrease in Crashes under "Build" scenario [Total Value x % Decrease in VMT<sup>2</sup>] **\$549,443**

<sup>1</sup> BCA Table 3 - System Wide Crashes

<sup>2</sup> BCA Table 2 - Vehicle Mile Calculations



## Emissions

Reductions in fuel consumption, VMT and travel time equate to less pollutants emitted into the atmosphere. This study reviewed the impacts of CO<sub>2</sub> (carbon dioxide), VOCs (volatile organic compounds), NO<sub>x</sub> (nitrogen oxides), and PM (particle matter). The cost of CO<sub>2</sub> emissions was calculated in BCA Table 8, which can be found on page A-7. **Annual savings reduced of VOCs, NO<sub>x</sub>, and PM = \$36,000**

### BCA Table 5 - Reduction of Emissions

(A) <sup>1</sup>	(B) <sup>2</sup>	(C) <sup>2</sup>	(D) <sup>2</sup>	(E) <sup>2</sup>
Reduction in VMT/Year	VOCs Reduced (Metric Tons) [A * 0.597 g/mile]	NO <sub>x</sub> Reduced (Metric Tons) [A * 1.06 g/mile]	PM Reduced (Metric Tons) [A * 0.005 g/mile]	CO <sub>2</sub> Reduced (Metric Tons) [A * 426 g/mile]
4,239,886	2.53	4.49	0.02	1,804

(F) <sup>3</sup>	(G) <sup>3</sup>	(H) <sup>3</sup>
VOCs Reduced (2013\$) [B * \$1,403]	NO <sub>x</sub> Reduced (2013\$) [C * \$5,718]	PM Reduced (2013\$) [D * \$312,907]
\$3,548	\$25,673	\$6,626

<sup>1</sup> BCA Table 2 - Vehicle Mile Calculations

<sup>2</sup> EPA Office of Transportation and Air Quality - Emission Facts, August 2005

<sup>3</sup> Tiger Benefit-Cost Analysis (BCA) Resource Guide

## Travel Time and Driving Costs

Most of the roadways affected by the Build scenario had an average actual speed of 28 mph, which was used to calculate the time saved for all drivers. The results were then multiplied by the value of time saved given in the TIGER Benefit-Cost Analysis Guide. Driving cost was analyzed using the 2013 AAA actual costs/mile for driving a vehicle. **Annual Travel Time Savings = \$2,000,000** and **Annual Operating Costs Savings = \$2,600,000**

### BCA Table 6 - Travel Time and Driving Costs

(A) <sup>1</sup>	(B)	(C) <sup>2</sup>	(D) <sup>3</sup>	(E) <sup>4</sup>
Reduction in VMT / Year	Time Saved [A / 28mph] (Vehicle Hrs)	Value of Time Saved [B * \$12.50] (2009\$)	Value of Time Saved [C * 116.44/109.53] (2013\$)	Vehicle Operating Costs [A * \$0.61/mile] (2013\$)
4,239,886	151,425	\$1,892,806	\$2,012,186	\$2,577,851

<sup>1</sup> BCA Table 2 - Vehicle Mile Calculations

<sup>2</sup> Tiger Benefit-Cost Analysis (BCA) Resource Guide

<sup>3</sup> U.S. Department of Commerce, Bureau of Economic Analysis, U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts Table, Table 1.1.9. Implicit Price Deflators for Gross Domestic Product

<sup>4</sup> <http://www.exchange.aaa.com/wp-content/uploads/2013/04/Your-Driving-Costs-2013.pdf>

**Non-CO<sub>2</sub> Benefits**

BCA Table 7 reflects in monetary terms the substantial total benefit projected in all areas unrelated to CO<sub>2</sub>.

**BCA Table 7 - Non-CO<sub>2</sub> Benefits**

(A) <sup>1</sup>	(B) <sup>2</sup>	(C) <sup>3</sup>	(D) <sup>4</sup>	(E) <sup>3</sup>	(F) <sup>3</sup>	(G) <sup>3</sup>	(H)
Reduction in VMT / Year	Value of Crash Reduction	Vehicle Operating Costs	Timed Saved	VOCs Reduced	NOx Reduced	PM Reduced	Undiscounted Net Benefits SUM [B-G]
4,239,886	\$549,443	\$2,577,851	\$2,012,186	\$3,548	\$25,673	\$6,626	<b>\$5,175,326</b>

<sup>1</sup> BCA Table 2 - Vehicle Mile Calculations

<sup>2</sup> BCA Table 4 - Monetizing KABCO-scaled Crashes by AIS Level

<sup>3</sup> BCA Table 5 - Reduction of Emissions

<sup>4</sup> BCA Table 6 - Travel Time and Driving Costs

**Grand Total of Benefits**

A reflection of gross projected benefits including CO<sub>2</sub> for 50 years, calculated at a 7 percent reduction and a 3 percent reduction as outlined by the TIGER Benefit-Cost Analysis Guide.

***Project Life Savings = \$291,000,000 at 3 percent and \$134,000,000 at 7 percent.***

## BCA Table 8 - Total Benefits

(A)	(B)	(C)	(D) <sup>1</sup>	(E)	(F)	(G) <sup>2</sup>	(H) <sup>3</sup>	(I)	(J)	(K)	(L)
Project Year	Calendar Year	Reduction of VMT	Net Non-CO <sub>2</sub> Benefits (2013\$)	7% NPV Non-CO <sub>2</sub> Benefits [D/(1.07^A)]	3% NPV Non-CO <sub>2</sub> Benefits [D/(1.03^A)]	CO <sub>2</sub> Reduced (Metric Tons)	3% SCC (2013\$)	Undiscounted CO <sub>2</sub> Costs @ 3% Avg SCC [G*H]	NPV CO <sub>2</sub> Costs @ 3% Avg SCC [I/(1.03^A)]	7% NPV Total Benefits [E+J]	3% NPV Total Benefits [F+J]
-1	2013		\$0	\$0	\$0	0	\$24.99	\$0	\$0	\$0	\$0
0	2014		\$0	\$0	\$0	0	\$25.54	\$0	\$0	\$0	\$0
1	2015	4,716,106	\$5,756,614	\$5,380,013	\$5,588,945	2,007	\$26.09	\$52,355	\$50,831	\$5,430,843	\$5,639,776
2	2016	4,954,216	\$6,047,258	\$5,281,909	\$5,700,120	2,108	\$26.64	\$56,154	\$52,931	\$5,334,840	\$5,753,051
3	2017	5,192,326	\$6,337,901	\$5,173,615	\$5,800,078	2,210	\$27.18	\$60,064	\$54,967	\$5,228,583	\$5,855,045
4	2018	5,430,436	\$6,628,545	\$5,056,885	\$5,889,377	2,311	\$27.73	\$64,085	\$56,939	\$5,113,824	\$5,946,315
5	2019	5,668,546	\$6,919,189	\$4,933,286	\$5,968,553	2,412	\$28.28	\$68,217	\$58,845	\$4,992,131	\$6,027,398
6	2020	5,906,656	\$7,209,833	\$4,804,216	\$6,208,122	2,514	\$28.83	\$72,460	\$60,684	\$4,864,900	\$6,098,806
7	2021	6,144,766	\$7,500,477	\$4,670,920	\$6,098,574	2,615	\$29.60	\$77,387	\$62,923	\$4,733,843	\$6,161,497
8	2022	6,382,876	\$7,791,121	\$4,534,503	\$6,150,383	2,716	\$30.25	\$82,173	\$64,868	\$4,599,371	\$6,215,250
9	2023	6,620,986	\$8,081,765	\$4,395,944	\$6,194,000	2,818	\$31.02	\$87,400	\$66,985	\$4,462,929	\$6,260,984
10	2024	6,859,096	\$8,372,408	\$4,256,108	\$6,229,858	2,919	\$31.68	\$92,463	\$68,801	\$4,324,909	\$6,298,659
11	2025	7,097,206	\$8,663,052	\$4,115,754	\$6,258,373	3,020	\$32.45	\$97,990	\$70,790	\$4,186,544	\$6,329,163
12	2026	7,335,316	\$8,953,696	\$3,975,548	\$6,279,942	3,122	\$33.10	\$103,330	\$72,474	\$4,048,022	\$6,352,416
13	2027	7,573,426	\$9,244,340	\$3,836,072	\$6,294,946	3,223	\$33.87	\$109,157	\$74,331	\$3,910,403	\$6,369,276
14	2028	7,811,536	\$9,534,984	\$3,697,831	\$6,303,748	3,324	\$34.53	\$114,775	\$75,880	\$3,773,711	\$6,379,628
15	2029	8,049,646	\$9,825,628	\$3,561,260	\$6,306,697	3,425	\$35.19	\$120,527	\$77,361	\$3,638,621	\$6,384,058
16	2030	8,287,756	\$10,116,272	\$3,426,731	\$6,304,126	3,527	\$35.95	\$126,798	\$79,016	\$3,505,747	\$6,383,142
17	2031	8,525,866	\$10,406,915	\$3,294,563	\$6,296,355	3,628	\$36.61	\$132,827	\$80,362	\$3,374,925	\$6,376,717
18	2032	8,763,976	\$10,697,559	\$3,165,022	\$6,283,689	3,729	\$37.38	\$139,398	\$81,882	\$3,246,903	\$6,365,570
19	2033	9,002,086	\$10,988,203	\$3,038,330	\$6,266,419	3,831	\$38.04	\$145,705	\$83,093	\$3,121,423	\$6,349,512
20	2034	9,240,196	\$11,278,847	\$2,914,668	\$6,244,824	3,932	\$38.80	\$152,576	\$84,478	\$2,999,146	\$6,329,302
21	2035	9,478,306	\$11,569,491	\$2,794,183	\$6,219,171	4,033	\$39.46	\$159,160	\$85,556	\$2,879,740	\$6,304,728
22	2036	9,716,416	\$11,860,135	\$2,676,989	\$6,189,715	4,135	\$40.23	\$166,331	\$86,807	\$2,763,795	\$6,276,522
23	2037	9,954,526	\$12,150,779	\$2,563,169	\$6,156,699	4,236	\$40.89	\$173,193	\$87,756	\$2,650,924	\$6,244,455
24	2038	10,192,636	\$12,441,422	\$2,452,784	\$6,120,355	4,337	\$41.54	\$180,188	\$88,641	\$2,541,425	\$6,208,996
25	2039	10,430,746	\$12,732,066	\$2,345,873	\$6,080,906	4,439	\$42.31	\$187,804	\$89,696	\$2,435,569	\$6,170,602
26	2040	10,668,856	\$13,022,710	\$2,242,452	\$6,038,562	4,540	\$42.97	\$195,077	\$90,456	\$2,332,908	\$6,129,018
27	2041	10,906,966	\$13,313,354	\$2,142,523	\$5,993,526	4,641	\$43.63	\$202,483	\$91,156	\$2,233,679	\$6,084,682
28	2042	11,145,076	\$13,603,998	\$2,046,071	\$5,945,991	4,743	\$44.28	\$210,022	\$91,796	\$2,137,867	\$6,037,787
29	2043	11,383,186	\$13,894,642	\$1,953,070	\$5,896,141	4,844	\$44.83	\$217,164	\$92,153	\$2,045,223	\$5,988,294
30	2044	11,621,296	\$14,185,286	\$1,863,480	\$5,844,150	4,945	\$45.49	\$224,959	\$92,680	\$1,956,160	\$5,936,830
31	2045	11,859,406	\$14,475,930	\$1,777,253	\$5,790,186	5,047	\$46.15	\$232,888	\$93,152	\$1,870,405	\$5,883,338
32	2046	12,097,516	\$14,766,573	\$1,694,333	\$5,734,407	5,148	\$46.69	\$240,385	\$93,350	\$1,787,684	\$5,827,758
33	2047	12,335,626	\$15,057,217	\$1,614,656	\$5,676,966	5,249	\$47.35	\$248,569	\$93,717	\$1,708,373	\$5,770,683
34	2048	12,573,736	\$15,347,861	\$1,538,153	\$5,618,006	5,351	\$48.01	\$256,886	\$94,032	\$1,632,184	\$5,712,038
35	2049	12,811,846	\$15,638,505	\$1,464,748	\$5,557,665	5,452	\$48.67	\$265,336	\$94,296	\$1,559,044	\$5,651,961
36	2050	13,049,956	\$15,929,149	\$1,394,365	\$5,496,073	5,553	\$49.22	\$273,311	\$94,301	\$1,488,666	\$5,590,374
37	2051	13,288,066	\$16,219,793	\$1,326,922	\$5,433,354	5,655	\$49.87	\$282,016	\$94,471	\$1,421,393	\$5,527,824
38	2052	13,526,176	\$16,510,437	\$1,262,336	\$5,369,626	5,756	\$50.64	\$291,486	\$94,799	\$1,357,135	\$5,464,425
39	2053	13,764,286	\$16,801,080	\$1,200,521	\$5,305,001	5,857	\$51.30	\$300,470	\$94,874	\$1,295,396	\$5,399,875
40	2054	14,002,396	\$17,091,724	\$1,141,392	\$5,239,585	5,959	\$52.07	\$310,240	\$95,106	\$1,236,498	\$5,334,691
41	2055	14,240,506	\$17,382,368	\$1,084,861	\$5,173,479	6,060	\$52.72	\$319,501	\$95,092	\$1,179,953	\$5,268,572
42	2056	14,478,616	\$17,673,012	\$1,030,842	\$5,106,780	6,161	\$53.49	\$329,570	\$95,232	\$1,126,074	\$5,202,012
43	2057	14,716,726	\$17,963,656	\$979,247	\$5,039,577	6,263	\$54.15	\$339,109	\$95,135	\$1,074,382	\$5,134,711
44	2058	14,954,836	\$18,254,300	\$929,991	\$4,971,956	6,364	\$54.81	\$348,781	\$94,998	\$1,024,990	\$5,066,954
45	2059	15,192,946	\$18,544,944	\$882,989	\$4,903,999	6,465	\$55.57	\$359,295	\$95,011	\$978,001	\$4,999,011
46	2060	15,431,056	\$18,835,587	\$838,157	\$4,835,783	6,567	\$56.23	\$369,245	\$94,799	\$932,956	\$4,930,582
47	2061	15,669,166	\$19,126,231	\$795,411	\$4,767,381	6,668	\$56.89	\$379,328	\$94,551	\$889,962	\$4,861,932
48	2062	15,907,276	\$19,416,875	\$754,672	\$4,698,861	6,769	\$57.55	\$389,544	\$94,269	\$848,941	\$4,793,130
49	2063	16,145,386	\$19,707,519	\$715,858	\$4,630,287	6,871	\$58.09	\$399,140	\$93,778	\$809,636	\$4,724,065
50	2064	16,383,496	\$19,998,163	\$678,893	\$4,561,723	6,972	\$58.75	\$409,612	\$93,435	\$772,328	\$4,655,158
<b>Totals</b>				\$129,699,376	\$286,893,039			\$10,216,932	\$4,163,535	<b>\$133,862,910</b>	<b>\$291,056,573</b>

<sup>1</sup> BCA Table 7 - Non-CO<sub>2</sub> Benefits

<sup>2</sup> BCA Table 5 - Reduction of Emissions

<sup>3</sup> Tiger Benefit-Cost Analysis (BCA) Resource Guide

### Sensitivity of Analysis

Traffic data provided herein was calculated using figures that account for growth in the area, and should thus be considered maximum projections of benefit. The figures assume that traffic will increase according to projected growth rates, and that development will occur in adjacent areas as they become more accessible and attractive. Although it is difficult to produce an exact figure, if development does not continue on its current upward trend, the benefit cost ratio could drop from 24.3 (as projected at a 3 percent discount rate) to 11.24 (also projected at a 3 percent discount rate).

### Other Non-Quantifiable Costs and Benefits

Non-quantifiable benefits include the following:

- Decrease in emergency response times, including fire services, an issue of utmost concern in this region.
- Revitalization and growth in surrounding areas.
- Significant increase in employment opportunities.
- Quality of life improvement due to commute time and cost reduction.
- Enhanced opportunities to use alternative modes of transportation.

### Summary

As all calculations and data show, the approval of this grant will provide benefit to the community in a myriad of factors, both quantifiable and non-quantifiable. No foreseen negative impact to the community is projected.

**BCA Table 1 - Benefit Cost Analysis Summary**

	Annual Savings (year one)	Discounted @ 7% for 50 years	Discounted @ 3% for 50 years
Construction Costs		\$12,000,000	\$12,000,000
Evaluated Benefits			
Reduction in Crashes	\$550,000	\$13,800,000	\$30,500,000
Emissions Savings	\$88,000	\$5,100,000	\$6,200,000
Time Savings	\$2,010,000	\$50,400,000	\$111,500,000
Vehicle Operation Savings	\$2,600,000	\$64,600,000	\$142,900,000
Total Evaluated Benefits	\$5,200,000	\$133,900,000	\$291,100,000
<b>Benefit/Cost Ratio</b>		<b>11.2</b>	<b>24.3</b>

# **APPENDIX B**

## **SUPPORT LETTERS**

1. The Board of County Commissioners
  2. Mayor of Cheyenne Rickard L. Kaysen
  3. Director of the Wyoming Department of Transportation, John F. Cox
  4. Cheyenne LEADS CEO, Randy Bruns
  5. Cheyenne Fire and Rescue, Chief James A. Martin
  6. Cheyenne Police Department, Chief Brian N. Kozak
  7. Cheyenne Transit Program Transit Director, Joe Dougherty
  8. Cheyenne Housing & Community Development Program Manager, Deanne Widauf
  9. Cheyenne Public Works and Street & Alley Director, Jim Elias
  10. Greenway Advisory Committee Chairman, Jo Butler
  11. Laramie County Planning, Gary Kranse
  12. Cheyenne Light, Fuel & Power Vice President Operations, Mark Stege
  13. Edwards Construction, William J. Edwards
  14. #1 Properties, Jim Weaver
  15. Coldwell Bankers/Property Exchange, Brad Graham
- 380\*\*\*\*\*Nctco kg'Eqwpv{ 'Tqcf "cpf "Dtkf i g."F qp"Dgctf "



# The Board of Laramie County Commissioners

*Troy Thompson*  
Chairman

*K. N. Buck Holmes*  
Vice-Chairman

*Amber Ash*  
Commissioner

*Diane Humphrey*  
Commissioner

*M. Lee Hasenauer*  
Commissioner

May 22, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington DC 20410

RE: FY '13 TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project, Cheyenne Wyoming

Dear Mr. Hill,

The Laramie County Board of County Commissioners strongly supports the Cheyenne Metropolitan Planning Organization in their request for \$10 million in TIGER V Discretionary Grant funds to construct the Christensen Road / Union Pacific Railroad Overpass in the City of Cheyenne, Laramie County Wyoming.

The County is developing the Archer Complex, an 850 acre development at the Interstate 80 (I-80) and the Archer (Exit 370) interchange. Major access to the project is currently from the Pershing Street overpass, which is currently listed by the Wyoming department of Transportation as deficient. Laramie County residents, employees of those businesses locating to the Archer Complex and the general public would be better and more safely served by having access to Interstate -80 from the proposed Christensen Overpass.

Emergency response times would be greatly improved with the construction of the overpass. The City of Cheyenne has an existing Fire Training Facility located in the LEADS Cheyenne Business Park located north of the I-80 and Campstool Road interchange. The facility is unmanned at this time due to the lack of available access. The Christensen Overpass will provide the needed access from the facility and provide a higher level of emergency service to citizens in the north east portion of the City of Cheyenne.

The Union Pacific Railroad north of I-80, is a physical barrier in our community due to limited crossings. The Christensen Overpass will provide an improved opportunity for crossing the railroad and provide better access to thousands of County residents.

Growth pressures are occurring across Laramie County and particularly in the north east portion of Cheyenne. The LEADS Business Park just north of I-80 is planned as a major employment center for the region; however, the lack of access from the north is hindering the full potential for this employment center to reach its full potential and thus impacts the overall economic future of the area. The Christensen Overpass will significantly improve this situation.

Please consider Laramie County's strong support for this project as it will improve livability, economic growth, local and regional transportation and emergency services within this area of Laramie County.

Sincerely,

Troy Thompson  
Chairman

K. N. Buck Holmes  
Vice-Chairman

Diane Humphrey  
Commissioner

Amber Ash  
Commissioner

M. Lee Hasenauer  
Commissioner



A COMMUNITY OF CHOICE

**OFFICE OF THE MAYOR**  
**2101 O'Neil Avenue**  
**Cheyenne WY 82001**  
**(307) 637-6300**  
**(307) 637-6378 FAX**  
[www.cheyennecity.org](http://www.cheyennecity.org)

May 21, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington, DC 20410

RE: FY '13 TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project, Cheyenne Wyoming

Dear Mr. Hill:

Please consider the City of Cheyenne's support of the Cheyenne Metropolitan Planning Organization request for \$10 Million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

As a public municipality, the City is obligated to provide numerous services including police, fire and rescue, public works, water and sewer services in the area of the proposed overpass. The overpass will certainly provide better access to serve the residents and businesses in this area. Specifically, police and fire and rescue emergency services will be enhanced. The city built a Fire Training Facility in the Cheyenne Business Parkway, and it was built to also serve as a fire station. Once the Christensen Overpass is in place, the city can move forward to establish this facility as a fire station thus improving emergency service to both residents and businesses. In addition, this fire station will provide a better Insurance Service Office (ISO) rating resulting in lower insurance premiums for residents and business.

The Union Pacific Railroad is a great neighbor and their corporate presence in the State of Wyoming is well known; however, the railroad tracks themselves present a physical barrier in our community as the existing crossings are very limited. The proposed Christensen Overpass would provide an extremely safe desirable crossing and at a very strategic location. The overpass would connect Interstate 80 to US Highway 30.

With eastern Cheyenne continually growing and the Cheyenne Business Park presenting an opportunity for job and business growth, this proposed north/south corridor is very important to the economics of the entire region.

In addition, this corridor would also provide residents and business employees a better route to get to work other than their car, as bicycle trails would be built and additional transit routes would be feasible given this new access from the rest our community.

Please consider my support for this project.

Sincerely,

  
Richard L. Kaysen, Mayor



Matthew H. Mead  
Governor

# Wyoming Department of Transportation

*"Providing a safe, high quality, and efficient transportation system"*

5300 Bishop Boulevard  
Cheyenne, Wyoming 82009-3340



John F. Cox  
Director

May 20, 2013

Mr. Ray LaHood, Secretary  
U.S. Department of Transportation  
1200 New Jersey Avenue, S.E.  
Washington, D.C. 20590

RE: Support for Cheyenne Christensen Road and Railroad Overpass  
TIGER V Grant Application

Dear Secretary LaHood:

The Wyoming Department of Transportation is pleased to offer its support to the Cheyenne Metropolitan Planning Organization's \$10 million TIGER V grant application to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming between Commerce Circle and US 30. This project is listed as a priority in the PlanCheyenne transportation plan.

The Christensen Road and Railroad Overpass Project will facilitate business access and improve safety for Cheyenne residents. Currently, access to the Cheyenne LEADS Business Parkway is limited. This project will provide a direct access to this site which is instrumental for job and business growth in Cheyenne. The route will better serve the commercial and residential areas, and emergency response times will be enhanced in this portion of the City. Planned bicycle trails and the potential to add transit routes along the corridor are worthwhile aspects of this project. Further, the new bridge over the Union Pacific Railroad will allow the County to remove a nearby, 65-year-old deficient structure which serves a limited area.

Thank you for the opportunity to support this worthwhile project application.

Sincerely,

John F. Cox  
Director

JFC:kso



May 20, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington, DC 20410

RE: US DOT TIGER V Discretionary Grant – Christensen Road and Railroad Overpass Project, Cheyenne, Wyoming

Dear Mr. Hill:

I am writing to express Cheyenne LEADS' support for the Cheyenne Metropolitan Planning Organization's request for \$10 Million in US DOT TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

Cheyenne LEADS is the economic development entity for Cheyenne and Laramie County Wyoming. As such, we strongly support this needed project for our community. This overpass has long been anticipated in transportation plans and is important, even critical, to business development and safety in the Cheyenne Business Parkway and surrounding area.

The Cheyenne Business Parkway currently is only part of the property that will be served by this overpass. But is alone is home to 20 companies with nearly 2,000 Full Time Equivalent employees. These numbers do not reflect the companies and employees in adjacent developments. For these employers and employees, there is a growing need for improved access to residential areas and transportation infrastructure of east Cheyenne north of the railroad.

The Christensen Road and Railroad Overpass is also a critical public safety concern. This relates, predominately, to access and response times for fire, police and emergency personnel, particularly to the eastern portion of the business park and to the Campstool developments. With access over the railroad at Christensen Road, response times could be radically improved and resources in the business park more fully integrated with the growing residential and commercial developments north of the railroad.

Beyond the obvious safety issues, this also has implications for business expense and for LEADS ability to attract businesses. Large employers and/or companies with extensive facilities or inventory typically are sensitive to insurance rates for any given location. Those rates are driven by several factors, including emergency response times.

As the economic development entity, we cannot overstate the importance of the grant funds to the overall project, nor can we overstate the importance of this project to the economic well being of this community.

Respectfully,  
Cheyenne LEADS



Randy Bruns  
CEO



**Cheyenne Fire & Rescue**  
2101 O'Neil Ave. #304, Cheyenne WY 82001  
307-637-6311



May 16, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER IV Discretionary Grant Manager  
Washington, DC 20410

RE: FY 13 TIGER V Discretionary Grant Application-Christensen Road and Railroad Overpass Project, Cheyenne Wyoming

Dear Grant Manager,

Please consider the Cheyenne Fire and Rescue's support of the Cheyenne Metropolitan Planning Organization request for \$10 million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

Cheyenne Fire and Rescue is tasked with providing fire protection in the Cheyenne LEADS Business Parkway as well as all incorporated areas of Cheyenne. We protect approximately 26 square miles of property. Station 4 currently sits in the eastern edge of the parkway. Station 4 is our training center, but also has been built to include all amenities for a standard response station. Currently the LEADS Business Parkway are served by our Station #3 located in the east part of Cheyenne. Currently responses to this area take approximately 6 to 8 minutes due to the distance travelled.

With the overpass built Station 4 will be manned with 3 to 4 paid firefighters on a 24 hour tour of duty 7 days a week. By manning the station we will not only cover the LEADS Business Parkway, but we also will be able to respond faster to several housing developments in the eastern half of the City of Cheyenne, a proposed power plant, and also to several firms now developing the Niobrara Oil formation. Station 4 also would respond to accidents along the Interstate 80 corridor, and support Station 3's area as a support station and serve the volunteer Fire Districts in the eastern area of the county through our mutual aid agreements. The east part of our city is continually growing and with the overpass being built will allow us quicker access which results in faster responses to citizens in need of emergency services.

Again Cheyenne Fire and Rescue wholeheartedly supports this project because it will allow us to provide upgraded services to our citizens, faster response to those in need, and an immediate response to a major interstate that runs through Wyoming.

Sincerely



James A. Martin, Chief  
Cheyenne Fire and Rescue  
2101 O'Neil Avenue rm. 304  
Cheyenne, WY 82001  
307-637-6311



*Cheyenne, Wyoming*  
*Police Department*  
*Protecting the Legend*

2020 Capitol Avenue  
Cheyenne, WY 82001  
Phone (307) 637-6500  
Fax (307) 637-6558

*Brian N. Kozak, Chief of Police*

[www.cheyennepd.org](http://www.cheyennepd.org)

May 22, 2013

U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington, DC 20410

RE: FY 13 TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project,  
Cheyenne, Wyoming

Dear Grant Manager:

The Cheyenne Police Department is in support of the Cheyenne Metropolitan Planning Organization request for \$10 Million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

Police response to priority calls would greatly improve with the development of this overpass. The railroad tracks present a physical barrier in our community as the existing crossings are very limited. The proposed project is in a strategic location to assist us with our mission of protecting lives.

Sincerely,

Brian N. Kozak  
Chief of Police



322 W. Lincolnway  
Cheyenne, WY 82001-4402

May 21, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington, DC 20410

RE: FY '13 TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project, Cheyenne Wyoming


Dear Sir:

The Cheyenne Transit Program supports of the Cheyenne Metropolitan Planning Organization request for \$10 Million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

Our Transportation Planning Process continues to reconfirm this project would be great benefit to the efforts of the Cheyenne Transit Program in providing public Transportation in this area. Though the Union Pacific Railroad is a great neighbor and their corporate presence in the State, the railroad tracks themselves present a physical barrier in our community as the existing crossing are very limited. The proposed Christensen overpass would provide an extremely desirable crossing and at a very strategic location. Christensen would connect an Interstate Highway to another US Highway, US 30, this is very important to Public Bus Transportation.

With eastern Cheyenne continually growing and the LEADS Business Park presenting an opportunity for job and business growth, this proposed north/south corridor is very important to the economics of the entire region and this is an area that could be much better served if public transportation options and livability, in rendering a Tiger V Grant for construction of this most viable project.

Sincerely,

  
Joe Dougherty  
Transit Director  
Cheyenne Transit Program

CC Mayor Kaysen  
Public Works Director,  
Metropolitan Planning Director



A COMMUNITY OF CHOICE

Housing & Community Development  
2101 O'Neil Avenue, Room 102  
Cheyenne, WY 82001  
307/637-6255  
307/637-6231 (fax)

May 21, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER IV Discretionary Grant Manager  
Washington, DC 20410

RE: FY 2013 TIGER V Discretionary Grant Application  
Christiansen Road and Railroad Overpass Project, Cheyenne, Wyoming

Dear Grant Manager:

Please consider the Housing & Community Development (H&CD) Office support of the Cheyenne Metropolitan Planning Organization request for \$10 Million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

The H&CD Office manages the city of Cheyenne Community Development Block Grant (CDBG) funding from the U.S. Department of Housing & Urban Development (HUD). HUD requires the H&CD Office to provide a Comprehensive Consolidated 5 Year Plan. This plan lists goals and objectives that have been identified by residents, non-profit agencies, and city, county and state employees.

One of the identified objectives for Economic/Community Development is to "Focus transportation and safe pedestrian access to increase services to vulnerable populations." Census Tract 15.02 Block 3 has 54% low/moderate income residents and is one of Cheyenne's vulnerable populations. This is Cheyenne's eastern most low income census tract and is approximately 1 mile from the Christensen Road and Railroad Overpass Project. Transportation for low income residents is an issue in Cheyenne and having an overpass at Christiansen Road will shorten the commute for all residents who work north of the railroad tracts.

Two additional identified objectives are "New job creation" and "Quality jobs". The creation of the overpass will draw additional businesses to the LEADS Business Parkway which will create new jobs for Cheyenne and bring more quality jobs into the community.

Please consider my strong support for this project as it will increase the livability standards in Cheyenne.

Best Regards,

Deanne Widauf  
Program Manager



A COMMUNITY OF CHOICE

**PUBLIC WORKS DEPARTMENT**

James E. Elias, Director  
2101 O'Neil Avenue, Suite 210  
Cheyenne, Wyoming 82001  
Telephone: 307.637.6263 Fax: 307.637.6256 Email: [jelias@cheyennecity.org](mailto:jelias@cheyennecity.org)

May 28, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington, DC 20410

RE: TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project, Cheyenne Wyoming

Dear Mr. Hill:


The City of Cheyenne Public Works Department supports the Cheyenne Metropolitan Planning Organization request for \$10 Million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

The Public Works Department through its Streets and Alleys Division and 1% Programs maintains the streets within the City. In addition, the Department is responsible for the City's Pavement Management System (PMS). The PMS is used by our staff engineers to help determine appropriate levels of street maintenance, repair and/or replacement of City streets. These projects are then prioritized, scheduled and conducted based upon available funds. The PMS allows the City to provide the efficient maintenance of City streets and the most effective use of available maintenance funding.

If the grant application is approved and the Christensen Road and Railroad Overpass is built, the portions of the road that lie within the City's boundaries will be added to the PMS program and appropriate maintenance will be scheduled and conducted on the road.

I urge your positive consideration of this much needed project for the residents and businesses of Cheyenne and surrounding communities. Please let me know if I can provide any additional information.

Respectfully,

  
James E. Elias  
Director

c: Mayor Rick Kaysen  
Tom Mason, MPO Director



May 22, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington, DC 20410

RE: FY '13 TIGER V Discretionary Grant Application –  
Christensen Road and Railroad Overpass Project, Cheyenne, Wyoming

Dear Grant Manager:

This letter is from the Greenway Advisory Council (GAC) to the City of Cheyenne, Wyoming, for the Greater Cheyenne Greenway. The GAC would like to offer its support to the Cheyenne Metropolitan Planning Organization request for \$10.0 Million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

GAC serves as the steering committee that has implemented a 32-mile bicycle and pedestrian pathway that winds throughout the City, providing non-motorized routes from neighborhoods to schools, ball fields, shopping areas, under busy streets and along the scenic waterways. It provides access to and connectivity between the on-street bicycle routes developed through the inner-City. The Greenway is a linear park, adding quality of life and safety through grade separation from heavily traveled streets by motorized traffic. As the City grows, a case can easily be made that the Greenway should expand, connecting busy neighborhoods with destinations that are important to its residents.

The Christensen Road and Railroad Overpass Project would make a wonderful addition to Cheyenne's mode of getting from one side of the City to the other. Cheyenne is bisected by the mainline of the Union Pacific Railroad with only a few major arteries that provide direct connection to the both sides of the City. The northeastern part has been growing rapidly with housing subdivisions in the past several years. The LEADS Business Park in the southeast was developed and is home for many large employers. Christensen Road and the Overpass would add a direct access from the eastern neighborhoods into the Business Park.

The new Archer County Complex is currently being built to the east of the Business Park. When fully developed the Complex will encompass a fairgrounds area, a shooting park, a motocross track, and other public uses to the destinations that could be reached by the Christensen Road. An exciting aspect of the Overpass is that it was designed not only as a motorized route, but it is accompanied by a wide pedestrian walk, as well. It would be a great way to connect sections of the Greenway that are in close proximity on the north to others that are built or in the planning stages on the south. The Greenway has in place the rights-of-way that will take hearty bicyclers to the Fair!

Thank you for consideration of the Christensen Road and Railroad Overpass Project. It has been in design for a number of years. The area is developing rapidly and this connection to the rest of the City would be very timely.

Sincerely,

A handwritten signature in black ink that reads "Jo Butler". The signature is written in a cursive style with a large, looped "J" and "B".

Jo Butler, Chairman  
Greenway Advisory Committee





## LARAMIE COUNTY PLANNING & DEVELOPMENT DEPARTMENT

---

### Planning • Building

May 22, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington D.C. 20410

RE: FY'13 TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project, Cheyenne Wyoming

Dear Mr. Hill,

The Laramie County Board of County Commissioners strongly supports the Cheyenne Metropolitan Planning Organization in their request for \$10 million in TIGER V Discretionary Grant funds to construct the Christensen Road / Union Pacific Railroad Overpass in the City of Cheyenne, Laramie County Wyoming.

The County is developing the Archer Complex, an 850 acre development at the Interstate 80 (I-80) and the Archer (Exit 370) interchange. Major access to the project is currently from the Pershing Street overpass, which is currently listed by the Wyoming Department of Transportation as deficient. Laramie County residents, employees of those businesses locating to the Archer Complex and the general public would be better and more safely served by having access to Interstate -80 from the proposed Christensen Overpass.

Emergency response times would be greatly improved with the construction of the overpass. The City of Cheyenne has an existing Fire Training Facility located in the LEADS Cheyenne Business Park located north of the I-80 and Campstool Road interchange. The facility is unmanned at this time due to the lack of available access. The Christensen Overpass will provide the needed access form the facility and provide a higher level of emergency service to citizens in the north east portion of the City of Cheyenne.

The Union Pacific Railroad north of I-80, is a physical barrier in our community due to limited crossings. The Christensen Overpass will provide an improved opportunity for crossing the railroad and provide better access to thousands of County residents.

Growth pressures are occurring across Laramie County and particularly in the north east portion of Cheyenne. The LEADS Business Park just north of I-80 is planned as a major employment center for the region; however, the lack of access from the north is hindering the full potential for this employment center to reach its full potential and thus impacts the overall economic future of the area. The Christensen Overpass will significantly improve this situation.

Please consider Laramie County's strong support for this project as it will improve livability, economic growth, local and regional transportation and emergency services within this area of Laramie County.

Sincerely,

Gary B. Kranse  
Director of Planning and Development



Mark Stege  
Vice President –Operations  
Mark.Stege@Blackhillscorp.com

1301 W. 24th Street  
Cheyenne, Wyoming 82001  
P: 307-778-2105  
F: 307-7782191

May 28, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington, DC 20410

RE: FY `13 TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project, Cheyenne Wyoming

Dear Grant Manager:

Please consider Cheyenne Light, Fuel & Power's support of the Cheyenne Metropolitan Planning Organization request for \$10.0 Million in TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming.

Cheyenne Light has recently begun construction of the Cheyenne Prairie Generating Station, a \$222 million, 132mw natural gas fired power plant located just south of Christensen Road and I-80. The extension of Christensen Road will provide better access to and from this new power plant.

In addition, as a business owner and employer of 80 employees, we have a substation located near the Cheyenne LEADS Business Parkway strategically placed off of Interstate 80 located between two interchanges, College Drive and Campstool Road. College Drive is currently the closest way our employees can get in and out of the Business Park. If Christensen was built, our employees would have better access to the substation. An additional benefit is that a large number of employees would have a shorter trip to work from their home and other commercial centers of the City.

Fire and police Response would also be greatly improved. The City of Cheyenne has built a Fire Training Facility in the LEADS Business Parkway and it was also built to house an active Fire Station. Once it is known that Christensen would be funded, the Fire Department could actively work to obtain grants and other funding to man the building. This would have a great benefit to our company by lowering the ISO (Insurance Safety Office) rating.

Though the Union Pacific Railroad is a great neighbor and their corporate presence in the State is well-known, the railroad tracks themselves present a physical barrier in our community as the existing crossings are very limited. The proposed Christensen overpass

Mr. Howard Hill  
Page 2  
May 28, 2013

would provide an extremely desirable crossing and at a very strategic location. Christensen would connect an Interstate Highway to another US Highway, US 30.

With eastern Cheyenne continually growing and the LEADS Business Park presenting an opportunity for job and business growth, this proposed north/south corridor is very important to the economics of the entire region.

We strongly support this project.

Sincerely,



Mark Stege  
Vice President Operations  
Cheyenne Light, Fuel & Power

# EDWARDS

May 31, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grand Manager  
Washington DC 20410

RE: FY '13 TIGER V Discretionary Grant Application  
Christensen Road and Railroad Overpass Project  
Cheyenne, Wyoming

Mr. Howard Hill:

I am writing this letter in support of the much needed road extension located in east Cheyenne, Wyoming, known as the Christensen Road and Railroad Overpass Project. I am a landowner in the growing area of Cheyenne. My land is adjacent to a significant portion of the proposed projects' road right-of-way. This project will not only be of tremendous value to the many residents and businesses, located in that area, but is vitally important to the economic and community development of Cheyenne as a whole. As such, I have committed to the City of Cheyenne that, if they build this project, I will donate my portion of the land needed for the road right-of-way.

In addition, I am offering two additional valuable considerations at no cost to the city. The first is to make available any and all dirt for export and use in the construction of any portion of the project. My property has plenty of dirt available for export and would be easily accessible for use. Second, as my land is vacant, I am offering its use during the construction of the project as a staging area for the contractor, storage of dirt and storage of any other materials associated with the project.

These commitments for donation represent a significant dollar valuation. I hope they help to secure funding for this critically needed road project.

Very Truly Yours,

  
William J. Edwards  
Landowner

506 SHOSHONI STREET P.O. BOX 2630  
CHEYENNE, WYOMING 82003  
TELEPHONE: (307) 634-8400 TELEFAX: (307) 638-4764



May 29, 2013

U.S. Department of Transportation  
Tiger V Discretionary Grant Manager  
Washington, DC 20410

Regarding: **TIGER V Discretionary Grant funds to construct the Christensen Road and Railroad Overpass Project in Cheyenne, Wyoming between Commerce Circle and US 30**

I'm writing this letter in support of the Overpass Project at the Christensen Road. As a Commercial Real Estate Broker, the placement of the Overpass is essential to the future development of the East side of Cheyenne. Many prospects that I have shown property to in this area have declined to locate to sites within a 5 mile area of where this Overpass would be located. They are consistently critical of the traffic flow in the area due to the lack of access to the north part of town over the railroad tracks.

I personally have lost sales of otherwise commercially viable sites due to this deficiency in the transportation infrastructure. I believe that funding this project would meet the true intent of the Grant program and would provide for solid economic growth in the area.

Sincerely,



Jim Weaver, CCIM, CRS



COLDWELL BANKER COMMERCIAL  
THE PROPERTY EXCHANGE, COMMERCIAL  
255 STOREY BLVD  
CHEYENNE, WY 82009

BUSINESS (307) 632-6481  
TOLL FREE (800) 221-6694

May 29, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
Tiger V Discretionary Grant Manager  
Washington, DC 20410

Dear Mr. Hill:

Re: US DOT TIGER V Discretionary Grant, Fiscal Year 2013.

It is my understanding that the Cheyenne WY Metropolitan Planning Organization (MPO) is applying for a grant in the approximate amount of \$ 10 million dollars to construct the Christiansen Road and Railroad Overpass in Cheyenne, WY. I strongly support the construction of this overpass. I am a commercial real estate broker that represents many of the employers in this area of town. The Campstool and Interstate 80 interchange is a very active interchange for eastern Cheyenne. Without the ability to cross the railroad the employees working in the Cheyenne Business Parkway have limited access to the northerly residential neighborhoods. Response time for Fire and Police protection will also be decreased because of this overpass.

This overpass is also a significant factor in the growth of our community. By providing the funds to build this overpass the US Department of Transportation will create and encourage economic growth in the eastern part of our community.

Coldwell Banker The Property Exchange strongly supports the construction of this overpass and asks that your department consider the grant of the TIGER V FUNDS for the construction of this project.

Sincerely,  


Bradley R. Graham  
Associate Broker/Owner  
CBC The Property Exchange Inc.



## LARAMIE COUNTY PUBLIC WORKS

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May 22, 2013

Mr. Howard Hill  
U.S. Department of Transportation  
TIGER V Discretionary Grant Manager  
Washington D.C. 20410

RE: FY'13 TIGER V Discretionary Grant Application – Christensen Road and Railroad Overpass Project, Cheyenne Wyoming

Dear Mr. Hill,

The Laramie County Board of County Commissioners strongly supports the Cheyenne Metropolitan Planning Organization in their request for \$10 million in TIGER V Discretionary Grant funds to construct the Christensen Road / Union Pacific Railroad Overpass in the City of Cheyenne, Laramie County Wyoming.

The County is developing the Archer Complex, an 850 acre development at the Interstate 80 (I-80) and the Archer (Exit 370) interchange. Major access to the project is currently from the Pershing Street overpass, which is currently listed by the Wyoming Department of Transportation as deficient. Laramie County residents, employees of those businesses locating to the Archer Complex and the general public would be better and more safely served by having access to Interstate -80 from the proposed Christensen Overpass.

Emergency response times would be greatly improved with the construction of the overpass. The City of Cheyenne has an existing Fire Training Facility located in the LEADS Cheyenne Business Park located north of the I-80 and Campstool Road interchange. The facility is unmanned at this time due to the lack of available access. The Christensen Overpass will provide the needed access form the facility and provide a higher level of emergency service to citizens in the north east portion of the City of Cheyenne.

The Union Pacific Railroad north of I-80, is a physical barrier in our community due to limited crossings. The Christensen Overpass will provide an improved opportunity for crossing the railroad and provide better access to thousands of County residents.

Growth pressures are occurring across Laramie County and particularly in the north east portion of Cheyenne. The LEADS Business Park just north of I-80 is planned as a major employment center for the region; however, the lack of access from the north is hindering the full potential for this employment center to reach its full potential and thus impacts the overall economic future of the area. The Christensen Overpass will significantly improve this situation.

Please consider Laramie County's strong support for this project as it will improve livability, economic growth, local and regional transportation and emergency services within this area of Laramie County.

Sincerely,

Don Beard  
Public Works Director

**APPENDIX C**

**FELSBURG, HOLT AND ULLEVIG  
COST ANALYSIS**





February 17, 2012

**MEMORANDUM**

To: Tom Mason  
Cheyenne MPO

From: Lyle DeVries, PE, PTOE  
Janis Christopher, PE

RE: Christensen Road Railroad Overpass  
Probable Cost Estimate Update  
FHU Reference No. 12-003-01

---

***Background***

The Christensen Road probable cost estimate was originally prepared in 2007 based on year 2006 Wyoming weighted average bid prices. To incorporate applicable unit cost changes since 2006, this probable cost estimate was prepared using Year 2011 cost data made available by WYDOT engineers.

Per your request, for this cost update, we:

- Completed a cost estimate for completing the following construction:
  - Extension of Christensen Road from Commerce Circle to Pershing Boulevard, including an overpass of the UPRR railroad.
  - Installation of a roundabout at the Pershing Boulevard / Christensen Road intersection, maintaining the current skewed angle of the intersection.
  - Extension of Christensen Road between Pershing Boulevard and East Lincolnway (US Highway 30) as a 2 –lane rural roadway section.

February 17, 2012

Mr. Tom Mason

Page 2

- Included maintenance costs for landscaping and structural enhancement features,
- included costs for demolition of the existing Pershing Boulevard bridge over the railroad,
- increased the bridge unit cost to include architectural enhancements to the bridge per the Interchange Enhancement Design Guide, dated October 2011, and
- provided costs in Year 2012 and 2015 values based on a conservative inflation factor.

This memorandum outlines what was revised from the original estimate, assumptions, quantity checks, and recent cost data information.

### ***Probable Cost Estimate Assumptions***

The following lists the assumptions made during the probable cost update:

- Regarding the extension of Christensen Road between Pershing Boulevard and East Lincolnway:
  - Christensen Road will be built as a 2-lane rural section based on the City of Cheyenne Roadway Design Guidelines (Cheyenne MPO, 2007)
  - A 10-foot wide path will run along the west side of Christensen Road.
  - Earthwork will be completed for a full 3-lane rural section, to avoid the need for additional cut if and when the paved width is expanded to accommodate 3 lanes.
  - An adjacent property owner has agreed to donate or receive earth free of charge to reduce hauling cost. The effect of this agreement on unit costs is minimal, and for the purposes of this cost estimate, it is assumed that this would not change the unit costs associated with earthwork.
- The design of Christensen Road between Commerce Circle and Pershing Boulevard hasn't changed from the Christensen Road design included in the East Dell Range/US 30 Corridor Study dated May 2008
- Maintenance of the landscaping and structural enhancement features is estimated to be very minor and, therefore, is not included in the cost
- Based on the Bureau of Labor Statistics, the construction cost index (a measure of inflation) over the next four years is estimated to be an average of 3% per year (see attached)

February 17, 2012

Mr. Tom Mason

Page 3

The following describes the unit cost updates from 2006 WYDOT Weighted Average Bid Price costs to 2011 WYDOT dollars:

- Removal of asphalt mat increased from \$3/SY to \$5/SY
- Removal of bridge was added at \$200k/bridge
- Pavement (Hot Mix Asphalt) increased from \$65/TON to \$70/TON
- Concrete sidewalk decreased from \$45/SY to \$42/SY
- Curb and gutter decreased from \$25/LF to \$22/LF
- Bridge increased from \$120/SF to \$130/SF to account for architectural features.
- Retaining walls remained the same at \$280/LF
- ROW costs estimated at \$30k/acre (not based on appraisals)

Unit costs in the opinion of probable cost were taken from the following sources:

1. WYDOT Year 2011 weighted average bid prices. Information will be available at: [http://www.dot.state.wy.us/wydot/business\\_with\\_wydot/contractors/contractor\\_bids/weighted\\_bid\\_price](http://www.dot.state.wy.us/wydot/business_with_wydot/contractors/contractor_bids/weighted_bid_price), when completed (WYDOT Staff provided early information to FHU).
2. Relevant previous project experience

### ***Right-of-Way Assumptions***

For the segment of Christensen Road between Commerce Circle and Pershing Boulevard:

- The required 120' of Right-of-way (ROW) is dedicated from Commerce Circle to Tate Road. From Tate Road to Pershing Boulevard, approximately 80 feet of ROW would be acquired.

For the segment of Christensen Road between Pershing Boulevard and East Lincolnway:

February 17, 2012

Mr. Tom Mason

Page 4

- 20 feet of additional ROW will be acquired east and west of the section line.
- An additional 40 feet of ROW will be acquired west of the section line for approximately 1,185 feet of the project length.
- The remainder of the ROW needed is assumed to be reserved and will not need to be acquired.

### ***Cost Estimate***

The opinion of probable cost is divided into two components to facilitate comparison with previous cost estimating efforts, described as follows:

1. Christensen Road extension from Commerce Circle to Pershing Boulevard, including UPRR overpass and roundabout intersection with Pershing Boulevard
2. Christensen Road extension from Pershing Boulevard to East Lincolnway (US Highway 30).

In addition, we have prepared an estimate of probable costs assuming the projects are completed concurrently. Completing the projects concurrently would save some earthwork cost.

**Table 1** depicts the opinion of probable cost scenarios developed for the projects, if done separately.

**Table 1.** Estimated Project Cost – Individual Segments

<b>Component</b>	<b>Opinion of Probable Cost (\$M)</b>		
	<b>Year 2011</b>	<b>Year 2012</b>	<b>Year 2015</b>
Commerce Circle to Pershing Blvd.	\$9.59	\$9.87	\$10.79
Pershing Blvd. to East Lincolnway	\$1.85	\$1.91	\$2.08

February 17, 2012

Mr. Tom Mason

Page 5

**Table 2** provides a cost estimate if the projects are done concurrently. Constructing the two segments as one project would save approximately \$800,000 in 2011 dollars.

**Table 2.** Estimated Project Cost – Concurrent Completion

Component	Opinion of Probable Cost (\$M)		
	Year 2011	Year 2012	Year 2015
Commerce Circle to E. Lincolnway	\$10.64	\$10.96	\$11.98

Please feel free to call me at (303)721-1440 if you have any questions or additional needs.

**Christensen Road without Pershing re-alignment Option  
Opinion of Probable Cost  
(Commerce Cir. to E. Pershing Blvd.)**

ITEM	UNIT	UNIT COST	QUANTITY	COST
<b>REMOVALS / RELOCATIONS</b>				
REMOVAL OF ASPHALT MAT	S.Y.	\$ 5	5,069	\$ 26,000
REMOVAL OF BRIDGE	EACH	\$ 200,000	1	\$ 200,000
<b>ROADWAY/CONSTRUCTION</b>				
PAVEMENT - (10" HMA)	TON	\$ 70	12,742	\$ 892,000
CONCRETE SIDEWALK	S.Y.	\$ 42	4,782	\$ 201,000
CURB AND GUTTER	L.F.	\$ 22	7,075	\$ 156,000
CONCRETE PAVEMENT- (10" DEPTH)	S.Y.	\$ 45	518	\$ 24,000
MEDIAN CONVER MATERIAL (PATTERNED CONCRETE)	S.F.	\$ 6	8,377	\$ 51,000
<b>EARTHWORK</b>				
EMBANKMENT (COMPLETE IN PLACE)	CY	\$ 12	168,144	\$ 1,934,000
<b>BRIDGES/STRUCTURES</b>				
STANDARD	SF	\$ 130	15,300	\$ 1,989,000
<b>RETAINING WALLS</b>				
MSE WALL HEIGHT (0-10')	L.F.	\$ 280	400	\$ 112,000
<b>SUBTOTAL (A) =</b>				<b>\$ 5,585,000</b>
<b>DRAINAGE</b>	5%	OF (A)	N.A.	\$ 280,000
<b>SIGNING AND STRIPING</b>	1%	OF (A)	N.A.	\$ 56,000
<b>CONSTRUCTION TRAFFIC CONTROL</b>	2%	OF (A)	N.A.	\$ 112,000
<b>URBAN DESIGN / LANDSCAPING</b>	1%	OF (A)	N.A.	\$ 56,000
<b>TOTAL CONSTRUCTION BID ITEMS (CBI)</b>				<b>\$ 6,089,000</b>
<b>MOBILIZATION</b>	5%	OF CBI	N.A.	\$ 305,000
<b>CONTINGENCIES &amp; OTHER COST</b>				
CONTINGENCIES	25%	OF CBI	N.A.	\$ 1,523,000
<b>TOTAL CONSTRUCTION ITEMS (CI)</b>				<b>\$ 7,917,000</b>
<b>UTILITIES</b>	5%	OF (CI)	N.A.	\$ 396,000
<b>ENGINEERING</b>				
DESIGN	10%	OF (CI)	N.A.	\$ 792,000
CONSTRUCTION MANAGEMENT	5%	OF (CI)	N.A.	\$ 396,000
<b>ROW*</b>	AC	\$30,000.00	3	\$ 90,000
<b>Christensen Roadway with Roundabout at Pershing Option - TOTAL</b>				<b>\$ 9,591,000</b>

\*\$30,000/Acre estimated (not based on appraisals), 3 acres estimated, assumed 40' of 120' of R.O.W. will be donated.

1. Unit costs are in 2011 prices
2. Maintenance of landscaping and enhancement features is estimated to be very minor and not included in the cost

**Christensen Road Pershing to Hwy 30 Option  
(Rural 2 Lane Roadway Section)  
Opinion of Probable Cost**

ITEM	UNIT	UNIT COST	QUANTITY	COST
<b>REMOVALS / RELOCATIONS</b>				
REMOVAL OF ASPHALT MAT	S.Y.	\$ 5	0	\$ -
REMOVAL OF BRIDGE	EACH	\$ 200,000	0	\$ -
<b>ROADWAY/CONSTRUCTION</b>				
PAVEMENT - (10" HMA)	TON	\$ 70	5,504	\$ 386,000
CONCRETE SIDEWALK	S.Y.	\$ 42	2,831	\$ 119,000
CURB AND GUTTER	L.F.	\$ 22	0	\$ -
<b>EARTHWORK</b>				
UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	\$ 5	97,100	\$ 486,000
<b>SUBTOTAL (A) =</b>				<b>\$ 991,000</b>
<b>DRAINAGE</b>	5%	OF (A)	N.A.	\$ 50,000
<b>SIGNING AND STRIPING</b>	1%	OF (A)	N.A.	\$ 10,000
<b>CONSTRUCTION TRAFFIC CONTROL</b>	2%	OF (A)	N.A.	\$ 20,000
<b>URBAN DESIGN / LANDSCAPING</b>	1%	OF (A)	N.A.	\$ 10,000
<b>TOTAL CONSTRUCTION BID ITEMS (CBI)</b>				<b>\$ 1,081,000</b>
<b>MOBILIZATION</b>	5%	OF CBI	N.A.	\$ 55,000
<b>CONTINGENCIES &amp; OTHER COST</b>				
CONTINGENCIES	25%	OF CBI	N.A.	\$ 271,000
<b>TOTAL CONSTRUCTION ITEMS (CI)</b>				<b>\$ 1,407,000</b>
<b>UTILITIES</b>	5%	OF (CI)	N.A.	\$ 70,000
<b>ENGINEERING</b>				
DESIGN	10%	OF (CI)	N.A.	\$ 141,000
CONSTRUCTION MANAGEMENT	5%	OF (CI)	N.A.	\$ 70,000
<b>ROW*</b>	AC	\$30,000.00	5	\$ 159,000
<b>Christensen Roadway Pershing to Hwy 30 Option - TOTAL</b>				<b>\$ 1,847,000</b>

\*\$30,000/Acre estimated (not based on appraisals), 5 acres estimated, assumed 40' of 120' of R.O.W. will be donated.

1. Unit costs are in 2011 prices
2. Maintenance of landscaping and enhancement features is estimated to be very minor and not included in the cost

**Christensen Road Commerce Circle to Hwy 30 Option  
(Roundabout at Christensen/Pershing Intersection)  
Opinion of Probable Cost**

ITEM	UNIT	UNIT COST	QUANTITY	COST
<b>REMOVALS / RELOCATIONS</b>				
REMOVAL OF ASPHALT MAT	S.Y.	\$ 5	5,069	\$ 26,000
REMOVAL OF BRIDGE	EACH	\$ 200,000	1	\$ 200,000
<b>ROADWAY/CONSTRUCTION</b>				
PAVEMENT - (10" HMA)	TON	\$ 70	18,246	\$ 1,278,000
CONCRETE SIDEWALK	S.Y.	\$ 42	7,613	\$ 320,000
CURB AND GUTTER	L.F.	\$ 22	7,075	\$ 156,000
CONCRETE PAVEMENT- (10" DEPTH)	S.Y.	\$ 45	518	\$ 24,000
MEDIAN CONVER MATERIAL (PATTERNED CONCRETE)	S.F.	\$ 6	8,377	\$ 51,000
<b>EARTHWORK</b>				
EMBANKMENT (COMPLETE IN PLACE)	CY	\$ 12	170,079	\$ 1,956,000
<b>BRIDGES/STRUCTURES</b>				
STANDARD	SF	\$ 130	15,300	\$ 1,989,000
<b>RETAINING WALLS</b>				
MSE WALL HEIGHT (0-10')	L.F.	\$ 280	400	\$ 112,000
<b>SUBTOTAL (A) = \$</b>				<b>6,112,000</b>
<b>DRAINAGE</b>	5%	OF (A)	N.A.	\$ 306,000
<b>SIGNING AND STRIPING</b>	1%	OF (A)	N.A.	\$ 62,000
<b>CONSTRUCTION TRAFFIC CONTROL</b>	2%	OF (A)	N.A.	\$ 123,000
<b>URBAN DESIGN / LANDSCAPING</b>	1%	OF (A)	N.A.	\$ 62,000
<b>TOTAL CONSTRUCTION BID ITEMS (CBI)</b>				<b>\$ 6,665,000</b>
<b>MOBILIZATION</b>	5%	OF CBI	N.A.	\$ 334,000
<b>CONTINGENCIES &amp; OTHER COST</b>				
CONTINGENCIES	25%	OF CBI	N.A.	\$ 1,667,000
<b>TOTAL CONSTRUCTION ITEMS (CI)</b>				<b>\$ 8,666,000</b>
<b>UTILITIES</b>	5%	OF (CI)	N.A.	\$ 433,000
<b>ENGINEERING</b>				
DESIGN	10%	OF (CI)	N.A.	\$ 867,000
CONSTRUCTION MANAGEMENT	5%	OF (CI)	N.A.	\$ 433,000
<b>ROW*</b>	AC	\$30,000.00	8	\$ 240,000
<b>Christensen-Commerce Cir to Hwy 30 with Roundabout at Pershing - TOTAL \$</b>				<b>10,639,000</b>

\*\$30,000/Acre estimated (not based on appraisals), 8 acres estimated, assumed 40' of 120' of R.O.W. will be donated.

1. Unit costs are in 2011 prices
2. Maintenance of landscaping and enhancement features is estimated to be very minor and not included in the cost

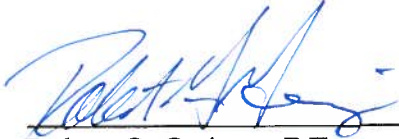


**APPENDIX D**

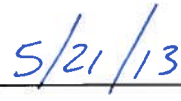
**FEDERAL WAGE RATE CERTIFICATION**

## Federal Wage Rate Certification

The City of Cheyenne certifies that it will comply with the requirements of subchapter IV of Chapter 31 of Title 40, United States Code, as required by the FY '2011 Continuing Appropriations Act.



Robert G. Geringer, P.E.  
City of Cheyenne  
City Engineer



Date

## **APPENDIX G**

**GP XKT QP O GP VCN'CRRT QXCN'NGVVG TU**



## WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006

Phone: (307) 777-4600 Fax: (307) 777-4699

Web site: <http://wgfd.wyo.gov>

GOVERNOR  
MATTHEW H. MEAD

DIRECTOR  
SCOTT TALBOTT

COMMISSIONERS  
AARON CLARK – President  
MIKE HEALY – Vice President  
RICHARD KLOUDA  
FRED LINDZEY  
T. CARRIE LITTLE  
ED MIGNERY  
CHARLES PRICE

June 19, 2012

WER 12947

Cheyenne Metropolitan Planning Organization  
Environmental Review NEPA Requirements  
City of Cheyenne Christensen Railroad Overpass and Corridor Project  
City of Cheyenne and Laramie County  
Laramie County

Tom Mason  
MPO Director  
Cheyenne Metropolitan  
Planning Organization  
2101 O'Neil Avenue  
Cheyenne, WY 82001

Dear Mr. Mason:

The staff of the Wyoming Game and Fish Department has reviewed the environmental review for the City of Cheyenne Christensen Railroad Overpass and Corridor Project on behalf of the City of Cheyenne and Laramie County. We have no terrestrial wildlife or aquatic habitat concerns pertaining to the proposed project.

Thank you for the opportunity to comment. If you have any questions, please contact Amanda Losch, Staff Biologist, at (307) 473-3436.

Sincerely,

John Emmerich  
Deputy Director

JE/mf/gb

cc: USFWS  
Martin Hicks – WGFD, Laramie  
Terry Creekmore – WGFD, Laramie  
Mike Snigg – WGFD, Laramie

# ARTS. PARKS. HISTORY.

Wyoming State Parks & Cultural Resources

State Historic Preservation Office  
Barrett Building, 3rd Floor  
2301 Central Avenue  
Cheyenne, WY 82002  
Phone: (307) 777-7697  
Fax: (307) 777-6421  
<http://wyoshpo.state.wy.us>

June 21, 2012

Mr. Tom Mason, MPO Director  
City of Cheyenne  
2101 O'Neil Ave, 309  
Cheyenne, WY 82001

re: City of Cheyenne Christensen Railroad Overpass and Corridor Project (SHPO File # 0612LKN017)

Dear Mr. Mason:

Thank you for notifying the Wyoming State Historic Preservation Office (SHPO) of the above referenced undertaking. We look forward to continued consultation on this project. After looking at the preliminary information, the SHPO recommends that a Class III cultural resources survey be conducted in order to identify any cultural resources present within the Area of Potential Effect (APE).

The Federal Highways Administration (FHWA) will be the lead federal agency for this project and we will need to receive directly from them (or WYDOT) determinations of eligibility for any cultural resources found and determinations of effect.

Please refer to SHPO project #0612LKN017 on any future correspondence regarding this undertaking. If you have any questions, please contact me at 307-777-6179.

Sincerely,



Laura Nowlin  
Historic Preservation Specialist

Cc: Lee Potter, FHWA



Matthew H. Mead, Governor  
Milward Simpson, Director



2101 O'Neil Ave., 309  
Cheyenne, WY 82001  
307.637.6281  
www.plancheyenne.org

METROPOLITAN PLANNING ORGANIZATION

June 12, 2012

Mr. Mark Sattelberg  
US Fish & Wildlife Service  
5353 Yellowstone Rd., Ste 308A  
Cheyenne, WY 82009

RECEIVED  
2012 JUN 14 AM 10:15  
US FISH & WILDLIFE SVC  
CHEYENNE, WY

Re: City of Cheyenne Christensen Railroad Overpass and Corridor Project

Dear Mr. Sattelberg:

The Cheyenne Metropolitan Planning Organization (MPO), on behalf of the City of Cheyenne and Laramie County is requesting that your office review the proposed project. The MPO is beginning the environmental review to meet the NEPA requirements. Prior to issuing approval for the eventual construction of this project, WYDOT and the FHWA require that an environmental field review and associated documents be submitted.

The project begins at Commerce Circle, which is near Interstate 80 in the center of the Cheyenne LEADS Business Parkway. The project crosses the Union Pacific Railroad mainline then continues to East Pershing Boulevard where a modern roundabout is planned. From there, new construction continues north to the Intersection of US Highway 30. Once the new road and bridge are in, a 1928 railroad bridge on East Pershing which is beyond repair or replacement will be removed. The project can be built within the existing 80 feet of right-of-way however 100 feet is desired and will be pursued. Along with the proposed road and bridge the project will include sidewalk/greenway path and all required safety amenities and traffic control.

On August 21, 2012 Laramie County is holding an election for the 6<sup>th</sup> Penny Special Purpose and Use Tax. If approved, \$2.0 million will be raised to prepare a final design for the project. Additionally, the MPO prepared a Federal TIGER IV Grant application for \$9.5 million. If the grant application is successful, then the final environmental analysis and design will begin in earnest once notified by the USDOT. Notification will come sometime this summer. Since there is a possibility of receiving the TIGER IV Grant, the MPO office must start the environmental research to keep ahead of schedule of the anticipated design beginning.

Please find a project map, an aerial and Topo map of the area, and project area photos. If you have any questions or concerns, or if you require any additional information, please do not hesitate to contact me.

Sincerely,

Tom Mason  
MPO Director

Enc. Project Area Map  
TOPO Map  
X Photos of Project Area

<b>U.S. FISH AND WILDLIFE SERVICE</b>	
Based on the information provided, you may consider this project to be in compliance with the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq. The project should be reanalyzed by our office if any new information indicates there may be effects to protected species or their habitats.	
Date: <u>7-6-12</u>	Signature: <u>[Handwritten Signature]</u>
Field Supervisor U.S. Fish and Wildlife Service - Wyoming ES Office 5353 Yellowstone Road, Suite 308A Cheyenne, WY 82009 Phone: (307) 772-2374 Fax: (307) 772-2358	
<u>Ref: WY12TA0302</u>	