

Maintenance and Operations

The Maintenance and Operation (M&O) Plan identifies the cost to maintain the existing corridor as well as the new improvements. Both routine and preventive maintenance actions were analyzed to identify the different needs, challenges, and problems arising along the corridor. The team collected data and analyzed existing corridor facilities to determine lifespan and the approximate time frame for needed improvements.

The cost of maintaining and operating the existing corridor over the next 20 years is estimated at more than \$162 million. The new roadways will offset some of the M&O requirements on the existing system. While new roadways have minimal M&O requirements, the 20-year time frame of the CDMP means that improvements built in the early years will require maintenance as they age. The net cost of M&O for the improvements, approximately \$28 million, is the M&O amount included in the economic analysis.

Environmental Considerations

The Environmental Considerations Analysis in the CDMP is not an Environmental Impact Statement or Environmental Assessment. It is a scan of potential impacts to the environment where roadway widening may be undertaken and relief routes may be built. Descriptions of the environmental tasks that will be required for future development of the corridor are also included in the CDMP.

The CDMP included high level review of available data for wetlands, rivers, and streams, "high-quality" rivers and streams, areas of wildlife habitat, protected species, cultural resources, hazardous materials sites, and areas of special national, state, or local interest that are crossed by the corridor. An agency coordination meeting was held to confirm the available data. Corridor maps are included in the CDMP showing the sections with a relatively higher potential for impacts to key resources.

Future environmental studies will determine the effects of implementing the CDMP and how to protect these resources. Additional time and funding will be needed for in-depth investigations of the resources, studies regarding the impacts of widening the roadway, and development of mitigation measures that will avoid or reduce project-related disturbances. Existing data in the CDMP will need to be confirmed for future environmental studies. These detailed environmental studies will comply with the National Environmental Policy Act (NEPA) of 1969 and other environmental compliance and permitting processes.

Benefit-Cost Analysis

Traditional transportation benefit-cost analysis compares benefits, such as travel time savings and savings as the result of decreases in accidents, to the cost of the proposed improvements. From an economic perspective, the investment in the corridor creates economic and fiscal benefits. These benefits come from the investment in the roadway, use of the roadway, and the market's response to the improved level of service in the corridor. The planned improvements will encourage businesses to locate along the corridor, producing new employment opportunities.

Once the four groups of improvements were established, a "Benefit Cost Analysis" was performed to determine whether the benefits of the improvements outweigh the expenditures or costs. Four scenarios were examined that assumed different levels of traffic in the corridor.

These scenarios included:

1. The traffic levels if only Heartland Expressway were constructed
2. The traffic levels if Heartland Expressway were constructed and with intensified oil and gas and alternative energy development in the region, such as the Niobrara energy basin and wind energy potential
3. The traffic levels if Heartland Expressway were constructed along with the entire Canada to Mexico "border-to-border" Ports-to-Plains Alliance Corridor, and
4. The traffic levels with the entire Ports-to-Plains Alliance Corridor and intensified energy development in the region.

In each scenario, the benefits outweighed the costs.

A secondary Economic analysis was also performed. This analysis focused on jobs and income. Two study areas were analyzed in the secondary Economic Analysis:

1. 16 Counties in the Nebraska Heartland
2. 16 Counties in the Nebraska Heartland, plus additional counties in Colorado, South Dakota and Wyoming

The secondary economic analysis outcomes involve jobs and spending in the region resulting from the construction activities, and from the increased maintenance and operations of the improved corridor.

It is important to note that a secondary economic outcome such as increased jobs and earnings occurs in response to a region's improved competitiveness.

Transportation investment alone DOES NOT CAUSE economic development to occur. The transportation system is only one of the variables that can help improve the competitiveness of the region and improve the likelihood of economic development.

Next Steps

DEVELOPMENT OF THE FINANCE PLAN

RISK ASSESSMENT

SECONDARY BENEFITS

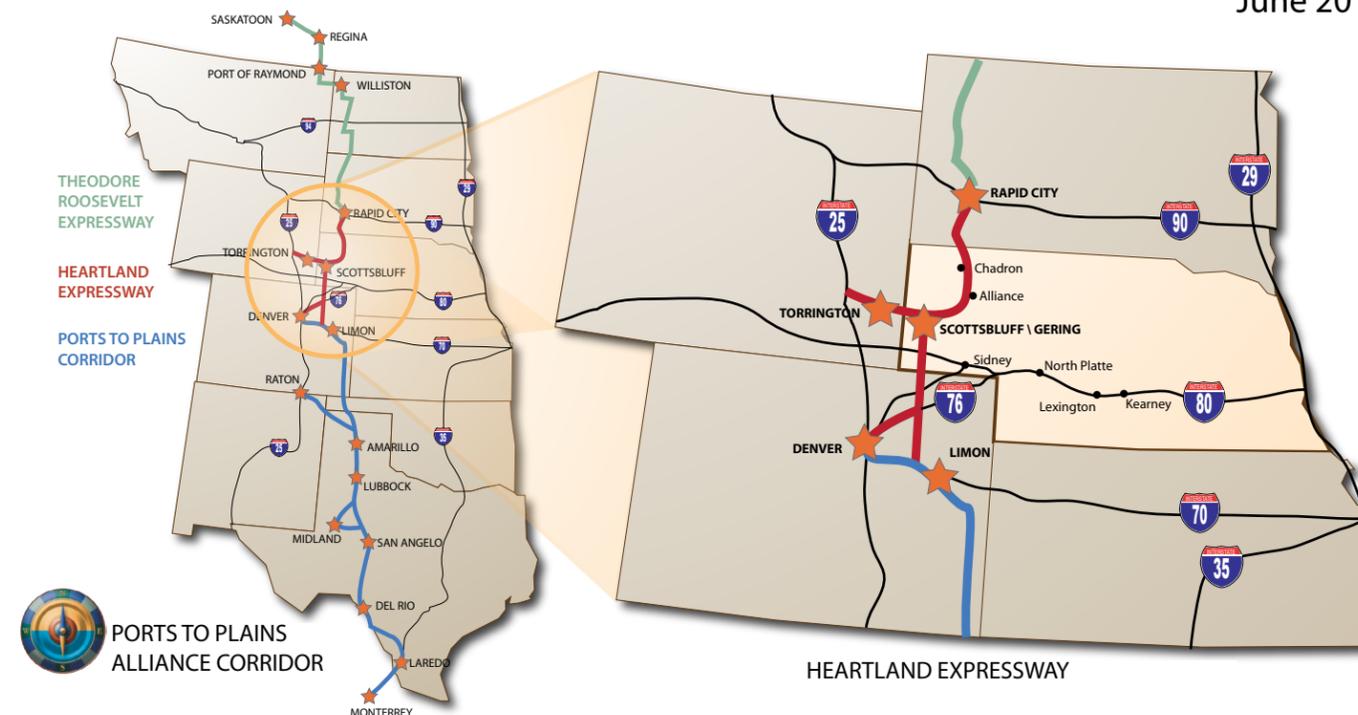


HEARTLAND EXPRESSWAY

CORRIDOR DEVELOPMENT AND MANAGEMENT PLAN

Study Overview

June 2012



The Corridor Development and Management Plan

The Heartland Expressway is located between Limon, Colorado and Rapid City, South Dakota and connects to I-25 in Wyoming. The Heartland Expressway is the middle section of the larger Great Plains International Trade Corridor that extends from Mexico to Canada. Approximately 200 miles of the Heartland Expressway's 498 miles is located within Nebraska's borders.

A Corridor Development and Management Plan (CDMP) is a critical step in the corridor development process and tool to pursue future funding.

Recognizing the strategic importance of this route, the Federal Transportation Equity Act for the 21st Century (TEA-21) designated the Ports to Plains Alliance Corridor as one of 45 "High Priority Corridors" on the National Highway System in 1998.

The Corridor Development and Management Plan's (CDMP) primary objective is to identify a long-term vision for future improvements and actions needed to create a modern trade corridor that benefits the public and commerce by providing additional capacity, addressing safety needs, and promoting economic development. The CDMP identifies costs and benefits, priorities possible improvements and helps identify possible funding options for the prioritized improvements.

The CDMP includes improvement priorities, a schedule, an environmental overview, corridor costs and benefits, a finance plan, including potential financing methods, and identification of possible impediments. These impediments involve potential environmental impacts, social considerations, political issues and economic objections.

The process began in May of 2011 and began with a thorough analysis of the corridor that addressed traffic, safety and other needs in the future. The project team met with key resource agencies and gathered public input late last year. In 2012, information was gathered and analyzed anticipated conditions using a series of evaluation factors to identify improvement priorities and their associated costs and benefits.



Major Improvement Priorities

The CDMP identifies 24 improvement projects. The projects include various ways of providing additional capacity, safety improvements, and address needs associated with pedestrian facilities, truck facilities and “Intelligent Transportation Systems” or ITS projects. Planning level costs estimates were developed along with groups of projects staged in five-year increments. The estimated range of costs for the individual groups of projects is between \$95 million and \$159 million. The total estimated cost is approximately \$542 million. The CDMP provides for staged development and identifies long-term operation and maintenance costs. US 385 from the L62A intersection to Alliance is the only project that is currently funded.

Major improvement priorities are sorted into four priority groups, with each group involving a target implementation period of five years.

Corridor Assessment

Early in the development process, the project team agreed on a corridor definition and a combination of “Super Two” and “Four Lane Divided” highway cross-sections to address future needs. A Super Two is a two-lane surface road built to highway standards with partial control of access, occasional passing lanes, and hard shoulders. A Super Two can be converted into a four lane divided highway in the future.

The project team used existing data as well as field assessments and meetings with transportation and community officials to identify existing conditions along the corridor and needed improvements. Traffic and safety data were collected from NDOR, and review of the current NDOR funding sources and planning projects.

Gap Analysis

The Gap Analysis recommended a range of improvements that will make the corridor more attractive to private and commercial motorists, improve safety, and help improve the competitiveness

of the region and improve the likelihood of economic development. The results of this analysis produced detailed information on needed construction elements, which are summarized in the four groups of major capital improvements.

The recommended improvements were assigned to one of four priority groups, as shown on the maps below. A specific set of prioritization criteria were used to rank these projects based on engineering considerations. The scheduled implementation of these projects was then adjusted to fit with existing planning on the corridor, projects currently funded within the State of Nebraska, reasonable construction timeframes for the projects and connection to scheduled corridor improvements in adjacent states.

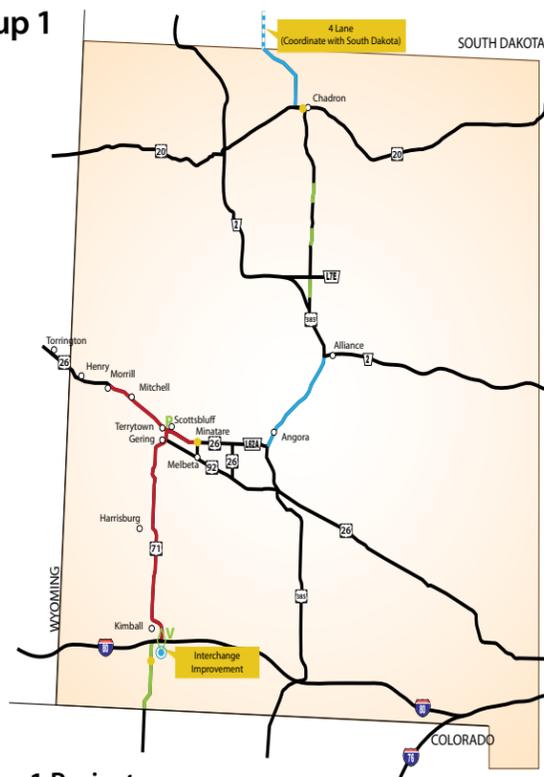
Some of the criteria used in the prioritization process included average annual daily traffic, existing conditions, accident rates, system connectivity, travel time savings, and roadway congestion. Information was gathered from stakeholders through public workshops and meetings, and other sources.

Intelligent Transportation Systems

Intelligent Transportation Systems or (ITS) are a means of using computer, communication, and management systems to enhance the safety and efficiency of roadways. The ITS plan recommends the installation of advisory message boards and cameras along the corridor to communicate with the drivers of current traffic conditions.



Group 1



Group 1 Projects:

1. US 385 (L62A to Alliance)
2. US 385 & US 20 Intersection Improvement
3. US 385 (Super 2 – Alliance to Chadron)
4. US 385 (4 Lane – Chadron to SD)
5. NE 71 (Super 2)
6. Pedestrian Overpass (Scottsbluff)
7. I-80 & NE 71 East Interchange
8. NE 71 Intersection Improvements (Clean Harbors)
9. NE 71 South Kimball Bypass
10. L79E Intersection Improvement (Minatare)
11. Visitor Center (Kimball)

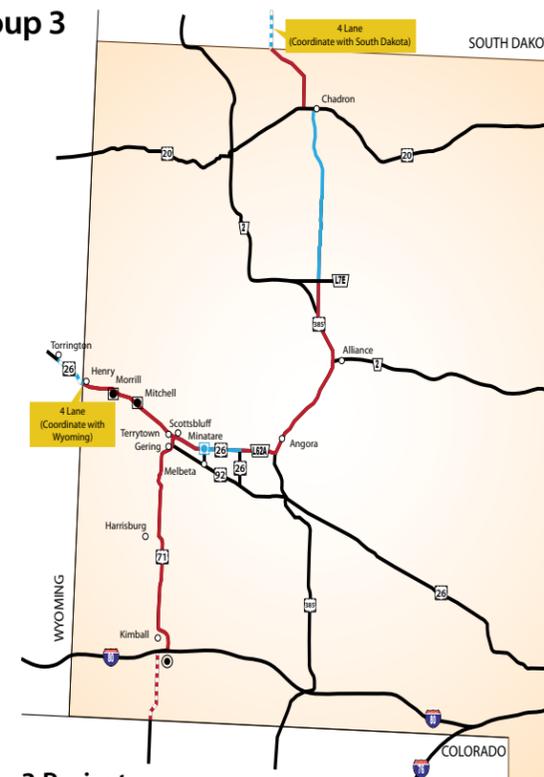
Group 2



Group 2 Projects:

1. L62A (US 26 to US 385)
2. US 385 (4 Lane – Alliance to L7E)
3. US 26 (4 Lane – WY to Morrill)
4. US 26 Safety and Traffic Operations Improvements (Morrill)
5. US 26 Safety and Traffic Operations Improvements (Mitchell)

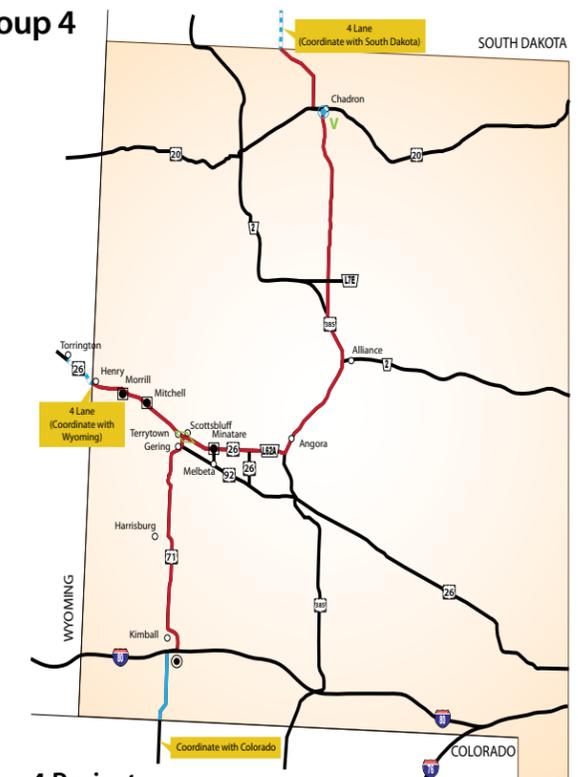
Group 3



Group 3 Projects:

1. US 385 (4 Lane – L7E to US 20)
2. US 26 (4 Lane – Minatare to L62A)
3. US 26 Safety and Traffic Operations Improvements (Minatare)

Group 4



Group 4 Projects:

1. US 385 (Chadron Relief Route)
2. Visitor Center (Chadron)
3. NE 71 (4 Lane – CO to I-80)
4. US 26 Safety and Traffic Operations Improvements (Mitchell)
5. US 26 and NE 71 Interchange

LEGEND	
— Existing 4 Lane	— 4 Lane
- - - Completed Super 2	— Super 2
Railroad Grade Separation	Completed Relief Route
Completed Safety & Operation Improvements	Intersection Improvement
Safety & Operation Improvements	Pedestrian Overpass
Interchange Improvement	Visitor Center