

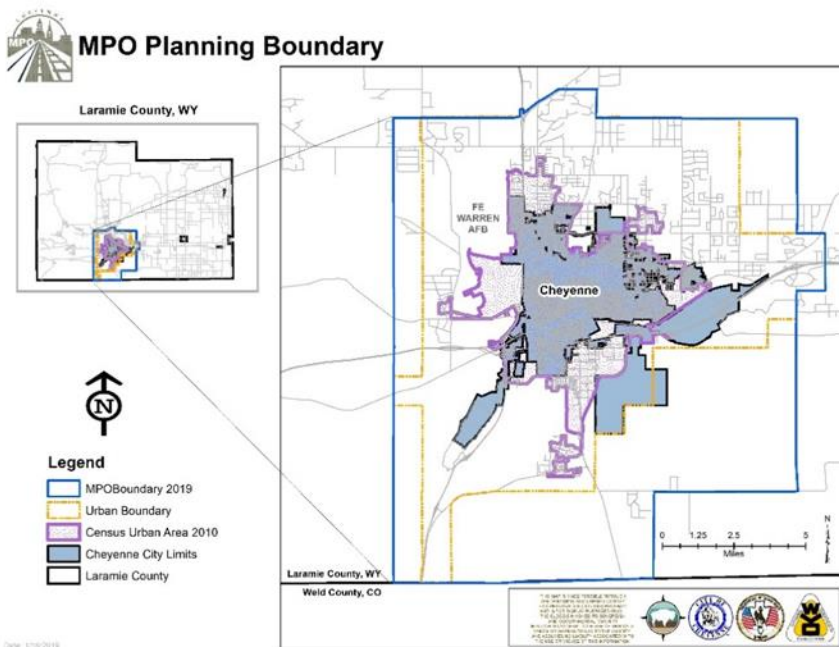


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## INTRODUCTION

The *Master Transportation Plan* (Plan) is the long-range transportation plan for the Cheyenne urbanized region defined by the MPO planning boundary (Figure 1), which includes the City of Cheyenne as well as parts of surrounding Laramie County. The Transportation Plan is a part of and under the umbrella of *PlanCheyenne*. The Plan identifies future transportation investments for all modes of transportation. Although travel in the region is predominately by automobile, other modes such as public transit, pedestrian, and bicycle transportation are becoming increasingly important. Additionally, with the expansion of industrial and commercial business southwest of the City and increased oil and gas activity in the region, accommodating heavy truck traffic and understanding related infrastructure impacts is essential.

Figure 1 - MPO Planning Boundary



The Planning Boundary is the MPO Boundary shown in blue above.

As such, the *Transportation Plan* identifies specific services and projects for each mode of travel that will be necessary to meet the transportation needs of the region through 2040 and beyond. The 2014 Plan was adopted by the City, County and MPO Policy Committee on April 7, 2014 to full-fill 23 U.S. 134(i) (I) (A) and (i) (B) (ii) which requires Metropolitan Planning Organizations to prepare and update a transportation plan every five years. Additionally, 23 CFR § 450.324 requires Metropolitan Planning Organizations to prepare a Master Transportation Plan which must include provisions relating to the development of a transportation plan addressing at least a twenty (20) year planning horizon. The plan must include both long-range and short-range strategies and actions leading to the development of an integrated intermodal transportation system that facilitates the efficient movement of

people and goods. The 2014 Plan can be found here: <https://www.plancheyenne.org/about-cheyenne-mpo/plancheyenne-cheyennne-area-master-plan/>

## **PURPOSE**

The 2014 Plan was the first update to *PlanCheyenne (2006)*. For MPO's in attainment for National Ambient Air Quality Standards, the Plan is to be updated every five years. Projects to be designed and built utilizing federal funds are first listed as a need in the Plan to help handle expected growth within the 20-year timeframe of the Plan. Once federal funding is prioritized to build an eminent project, the MPO and WYDOT must list the project in the Transportation Improvement Program (TIP) and the State Transportation Improvement Program (STIP). These are both approved by the MPO Policy Committee.

The most current Cheyenne TIP was approved June 26, 2019 and can be found at: <https://www.plancheyenne.org/transportation/transportation-improvement-program/>. The WYDOT STIP was approved on September 19, 2019 and can be found at: <http://www.dot.state.wy.us/STIP>.

Since the 2014 Plan expired on April 8, 2019 projects that the City of Cheyenne, Laramie County or WYDOT wish to add to the TIP/STIP cannot be added and therefore cannot be federally funded and move forward to design or construction. Many projects are listed in the most recent TIP/STIP and were forwarded from the 2014 Plan or other plans prepared by the MPO since April 2014. These plans prepared between April 2014 and September 2019 are listed in the *Past Plans Section* and are considered amendments to the 2014 Plan.

The Cheyenne MPO's second Transportation Plan Update to PlanCheyenne is not expected to be completed until approximately December 2020. Therefore, this Interim Plan is being prepared to allow potential new federally funded project by the City of Cheyenne, Laramie County or WYDOT which are not yet listed in the most recent TIP/STIP to move forward. This Interim Plan will be superseded once the Policy Committee adopts the new Master Transportation Plan (2020-2045) Update.

## **MPO CORDINATION, COOPERATION AND CONSULTATION**

Coordination of the overall transportation planning process for the Cheyenne Urban Area is provided by the Policy Committee of the Cheyenne Metropolitan Planning Organization. The membership of the Policy Committee includes the Wyoming Department of Transportation and elected representatives of the City of Cheyenne and Laramie County. The FHWA/FTA representatives are non-voting members of the Transportation Committees.

The Policy Committee reviews and approves the overall work program (UPWP), Transportation Improvement Program (TIP), corridor and small planning studies and Master Transportation Plan. The UPWP and the TIP are submitted to the State of Wyoming Planning Coordinator and the Air Quality Division of the Wyoming Environmental Quality Department. Much of the coordination of the program and the discussion related to transportation issues takes place within the Policy Committee.

Coordination and expertise at the technical level is provided by a variety of professional engineers, planners, and other technically oriented employees from participating agencies. Also represented in this technical process are Laramie County School District #1, Cheyenne Regional Airport, Cheyenne Transit Program, non-motorized transportation (Greenway), F.E. Warren Air Force Base, members from the trucking and railroad industries, local utility companies, Emergency Management, Cheyenne LEADS, and other groups such as local builders and developers. The Technical Committee provides a forum for discussion on issues as they relate to plans, programs, and individual projects and effectively establishes communication and coordination on a technical level. The FHWA/FTA are ex-officio members.

Citizens' input is obtained through the Citizens' Advisory Committee. The City and/or County Planning Commissions are utilized for public meetings or hearings. A significant amount of public access to the planning process is through the MPO's web site and social media. The MPO's public activity is also advertised through e-mail and standard media advertising.

## **PAST PLANS**

Relevant to this 2019 Interim Plan, the MPO has prepared the following plans since the 2014 *PlanCheyenne* Update and they are considered amendments to the 2014 *PlanCheyenne* Update plus are, through reference and given the recommended improvements within each plan, amendments to this Interim Plan. These can all be found at:

<https://www.PlanCheyenne.org/transportation/transportation-plans/>

- Transit Development Plan (2013)
- Planning for Fiscal and Economic Health in Cheyenne, Next Steps Memo by Smart Growth America (2015)
- Division Avenue and Wallick Road Plan (2015)
- Pershing Boulevard Complete Streets Plan (2015)
- Downtown Lincolnway Placemaking Pedestrian and Urban Design Plan (2016)
- Dell Range/Prairie Traffic Study & Section 20 Study (2016)
- Evers Boulevard Plan (2016)
- High Plains Road Plan (2016)
- Freight Mobility Study (2016)
- Downtown Parking Plan (2016)
- Converse and Dell Range Intersection and Converse Avenue Plan (2016)
- Storey Boulevard & Van Buren Avenue Plan and Official Mapping (2016)
- Transportation Safety Management Plan (2017)
- Reed Avenue Rail Corridor Plan (2017)
- Cheyenne Frontier Days Traffic Study and Transportation Plan (2017)
- Southeast Greenway Trails Connector (2017)
- Parsley Boulevard Plan (2019)
- Archer Trails Connector Plan (2019)

- East Dell Range and US 30 (2019)
- Whitney Road Plan (2019)

## **GROWTH IN THE REGION**

The forecasts from the 2014 Plan estimated that the County's Population was projected to add between 870 and 1,130 persons per year for the first 10 years; between 990 and 1,270 persons per year for the next 25 years; and between 940 and 1,230 persons per year for the next 50 years. Overall, Laramie County's total population is projected to add between 8,700 and 11,300 persons over the first 10 years; between 24,700 and 31,600 persons over the next 25 years; and between 47,200 and 61,800 persons over the next 50 years. It was projected that the Cheyenne Area could grow at a rate of between 1.08% and 1.38% to a population of between 103,026 to 135,829 residents in 2035.

A new population forecast was prepared for the 2019-2045 Master Transportation Plan Update by Economic & Planning Systems, Inc. (EPS) and was dated September 20, 2019. Overall, Laramie County's total population is now projected to add between 10,366 and 13,713 persons over the next 9 years; and between 30,148 and 42,510 persons over the next 28 years (with 2017 the base year). It was projected that the Cheyenne Area could grow at a rate of between 0.95% and 1.28% to a population of between 111,030 to 121,605 residents in 2045.

The 2014 Plan reported that total full-time employment in Laramie County was projected to increase from 45,536 in 2010 to between 56,698 for a low growth to 63,213 for a high growth in 2035, a compound increase of between 0.88 and 1.32 percent annually. The 2019 EPS forecast now estimates that the low employment growth from 2017 to 2045 will be from 50,152 to 59,202 and that the high employment growth will be from 50,152 to 67,333. This is a 0.59 and a 1.06 percent annual increase. Both scenarios represent a healthier economy in the future than the projection in 2014.

In general, the projected growth for the Cheyenne Urban Area is consistent between the 2014 Plan and the growth projected in 2019 for the next 20-25 years. The Cheyenne urban area within the MPO Planning Boundary is expected to retain most of the projected growth in Laramie County. Some development will still take place in the County but the impact on the Cheyenne Area roadway network will be most impacted.

The Land Use Plan from the 2014 Plan has received a few formal amendments since that time and they are on record. The 2020-2045 Plan currently in the works will be reviewing the Future Land Use Map and make appropriate modifications, however, for the purpose of this Interim Plan the 2014 Land Use Map with its amendments have not changed substantially and is still a sufficient representation of the communities expected land use into the future.

## **TRAFFIC FORECASTS**

The Travel Demand Forecast Modal calibrated for the 2014 Plan is currently still in use as of the end of 2019. However, the model is being recalibrated for the 2019-2045 Plan which is currently underway. Though changes will be made to the 2045 model based on updated land uses, new planned and platted subdivisions, etc. the outcomes of the 2014 model are still legitimate and usable.

## **PRINCIPLES AND POLICIES**

Creation of a robust and effective transportation system in Cheyenne requires a vision of the type of transportation system the area desires. To guide this vision, a set of principles and policies was developed. These principles reflect a vision of the character of Cheyenne's future transportation system. The associated policies present a way to implement this vision.

**Principle 1: Roadways in and around our new neighborhoods will be designed to accommodate increased travel demand while maximizing safety.**

### *Policy 1a: Arterial Construction*

Construct arterial facilities in developing areas to safely accommodate future travel demand.

### *Policy 1b: Right-of-Way Preservation*

Preserve right-of-way in developing areas to accommodate expected buildout traffic volumes. When development occurs along a proposed arterial, right-of-way dedication will be sufficient to accommodate the *Buildout Transportation Vision Plan*.

### *Policy 1c: Neighborhood Design and Mix of Uses*

Build new neighborhoods with a mix of compatible uses so that residents have employment and shopping opportunities within walking or bicycling distance of their homes. Ensure safe non-motorized facilities are provided in these areas so trips shifted to non-motorized modes can be made safely.

### *Policy 1d: Access Management*

Provide acceptable spacing between access roads (1,320 feet between driveways on new principle arterials) by consolidating driveways and space signals to facilitate a properly timed system and reduce conflict points.

### *Policy 1e: School Location*

Locate new schools within neighborhoods preferably on collector or local streets to avoid school crossings on higher speed roadways. Schools should be located adjacent to a collector street or streets within neighborhoods. Selection of new school locations should consider the ability of students to safely walk and bicycle to school. Avoid constructing new schools adjacent to principal arterials and or constructing principal arterials near schools.

*Policy 1f: Traffic Study Requirements*

Require traffic studies for all larger development proposals to address not only automobile and transit, but also bicycle and pedestrian travel. All projects should consider all modes and their connection to the transportation system as well as anticipated safety impacts.

*Policy 1g: Interconnected Neighborhood Street, Bikeway, and Sidewalk Patterns*

Design new neighborhoods to contain street systems that encourage internal pedestrian, bike, and auto circulation as well as provide direct connections to the larger transportation network. Limit traffic volumes and speeds on neighborhood collector and local streets where houses front. Sidewalks should be installed on both sides of streets.

**Principle 2: Impacts to existing neighborhoods will be minimized when making road improvements.**

*Policy 2a: Limit Roadway Widening in Neighborhoods*

Avoid widening roadways that may impact existing neighborhoods to the extent possible, only considering those roadways that already serve as major thoroughfares.

*Policy 2b: Consider Alternative Solutions to Road Widening*

Consider multimodal solutions as an alternative to roadway widening even if the solutions may be less effective at reducing traffic congestion. Prioritize alternatives that will improve safety, increase mobility, and minimize impacts to existing neighborhoods.

*Policy 2c: Impacts in Historically Significant Neighborhoods*

Preserve the integrity and character of historically significant neighborhoods when widening roadways and seeking alternatives. Consider reducing street width in appropriate context.

**Principle 3: The Cheyenne Area will build a safe, multimodal transportation system that consists of streets, sidewalks, bicycle facilities, and transit.**

*Policy 3a: Complete Streets*

Build arterial and collector streets as complete streets, providing travel lanes for automobiles and buses, and bicycle facilities and sidewalks. Ensure safety is a primary consideration in street design, e.g. seek to provide buffered bike lanes when possible and carefully evaluate the safety of street design on higher-speed roads. Provide for MPO review of all applicable projects to ensure complete streets integration.

*Policy 3b: Neighborhood Design to Support Walking and Bicycling*

Design new neighborhoods to contain a mix of compatible uses so that residents have recreation, employment and shopping opportunities within walking or bicycling distances of their homes.

*Policy 3c: Public Transit*

Develop and maintain a public transportation system that enhances safe mobility choices and increases per capita ridership.



*Policy 3d: Bicycle Connections*

Develop and maintain a system of safe and efficient bikeways connecting neighborhoods with activity centers, schools, parks, and other destinations.

*Policy 3e: Pedestrian Connections*

Develop and maintain a pedestrian circulation system that provides direct, continuous, and safe movement within and between neighborhoods and activity centers.

*Policy 3f: Safe Routes to Schools*

Use the 5-E strategy to encourage and facilitate walking, bicycling, and the use of other non-motorized modes of transportation for school travel. Strategies should focus on Evaluation, Engineering, Education, Encouragement, and Enforcement, including (but not limited to): providing safe infrastructure for non-motorized transportation and removing existing barriers; providing educational materials to both students and parents to enhance understanding and address potential safety concerns; and conducting ongoing encouragement activities to incentivize and reward program participation.

*Policy 3g: Systematic Safety*

The Cheyenne MPO will coordinate with implementing agencies to consider installation of appropriate low-cost countermeasures to reduce the occurrence and severity of crashes at signalized intersections and countermeasures at non-signalized intersections, such as installing roundabouts at high crash locations in preference to signalizing.

*Policy 3h: Stormwater Management*

Coordinate City/County stormwater and detention goals in concert with planned roadway improvements, addressing unique site considerations on a case-by-case basis.

**Principle 4: The Cheyenne Area will maintain a fiscally responsible *Transportation Plan*.**

*Policy 4a: Pursue Developer Funding*

Cheyenne and Laramie County will pursue development funding for improvements to the transportation system that are development driven.

*Policy 4b: Prioritize Transportation Improvements*

Consider life-cycle accounting of costs and benefits of potential transportation improvements when prioritizing transportation improvements to ensure that the most effective transportation improvements are built with limited funds.

**Principle 5: The Cheyenne Area will maximize use of the existing roadway system.**

*Policy 5a: Land Use and Transportation*

To minimize the need to expand arterial streets for new arterial streets, compact development will be promoted as described in the *Community Plan*.

*Policy 5b: Congestion Management*

Cheyenne will employ Traffic Congestion Management techniques to efficiently utilize existing roadways.

**Principle 6: Transportation that provides opportunities for residents to lead healthy and active lifestyles will be promoted.**

*Policy 6a: Support Active Transportation*

Support physically active transportation (e.g., bicycling, walking, etc.) by building and maintaining infrastructure such as bike lanes, sidewalks, trails, lighting, and facilities for easy and safe use; implementing bike, pedestrian, and transit safety education and encouragement programs; and providing law enforcement.

*Policy 6b: Design for Active Living*

Promote neighborhood and community design that encourages physical activity by planning development that allows for direct non-motorized connections, close proximity between community destinations, aesthetic improvements, and pedestrian and bicycle amenities that make active transportation comfortable and appealing.

**Principle 7: The Cheyenne Area will accommodate Truck and Freight goods movement.**

*Policy 7a: Freight Mobility*

Maintain a truck routing plan with designated truck routes to provide commercial access and minimize truck travel through residential neighborhoods.

*Policy 7b: Industrial Development*

Coordinate industrial development with transportation investments to promote freight efficiency, productivity, and economic competitiveness.

## **NEEDS**

The 2014 Plan did a Need Assessment for Roadways, Transit, Bicycles, Pedestrians, Complete Streets, Truck and Freight, and Safety. As in most communities experiencing growth, the transportation system that currently serves the Cheyenne Area will not be enough to accommodate all future growth. Unless otherwise addressed in this document, the needs stated in the 2014 Plan (p. 61-82) are the same and consistent through the duration of the 2019 Interim Plan.

## **VISION**

The 2014 Plan provided Vision Statements Roadways, Transit, Bicycles, Pedestrians, Complete Streets, Truck and Freight, and Safety. A transportation vision describes a desired future for the transportation system. Unless otherwise addressed in this document, the visions stated in the 2014 Plan (p. 83-100) are the same and consistent through the duration of the 2019 Interim Plan.

## FINANCIAL PLAN

The long-range transportation plan must include a financial plan that estimates how much funding will be needed to implement recommended improvements, as well as operate and maintain the system as a whole, over the life of the Plan. The financial plan must demonstrate that there is a balance between the expected revenues for transportation investments and the estimated costs of the projects and programs described in the Plan – a concept referred to as fiscal constraint. Additionally, the financial analysis should be thorough and comprehensible, including all categories of systems costs, reasonably expected available revenues, forecasting methods, and supporting assumptions.

The Cheyenne MPO produced a Fiscally Constrained Transportation Plan in the 2004 and 2014 update. The available funding for this 2019 Interim Plan is similar and consistent with the 2014 Update.

### Anticipated Funding Sources

Transportation revenues in the Cheyenne Area come from a variety of local, state, and federal sources such as: Federal Surface Transportation Program Urban funds, state gasoline tax revenues and contributions from the City of Cheyenne. The City of Cheyenne estimates 2019 transportation revenues, from all sources, at \$35,000,000.

A breakdown of these expected funds is provided in **Table 1**.

*Table 1: Anticipated Funding Sources*

Roadway Funding Source	Estimated FY 2019 Funding (\$)	Anticipated Funds through 2040 (\$)
Urban Allocation of Federal Funds (STP-U)	1,090,000	21,800,000
FTA 5307 Funds (Transit)	1,200,000	24,000,000
WYDOT Construction Funds (STIP)	5,100,000	102,000,000
Motor Vehicle Taxes	1,968,000	39,360,000
General Fund Contributions	40,000	800,000
5th Penny Optional Sales Tax	8,500,000	170,000,000
6th Penny Optional Sales Tax	5,850,000	0
Developer Exactions	0	0
Local Match-FTA Funds	980,000	19,600,000
<b>Total</b>	<b>24,728,000</b>	<b>377,560,000</b>
Motor Fuel Tax - Projected Increase	2,200,000	44,000,000
<b>Total with Gas Tax Increase</b>	<b>26,928,000</b>	<b>421,560,000</b>

### **Fiscally Constrained Roadway Plan**

The Fiscally Constrained Roadway Plan contains projects selected from the Roadway, Bicycle, and Pedestrian Vision Plans based on a number of factors that are detailed below.

### **Roadway Vision Plan Background**

The Roadway Vision Plan would cost about \$495 million in 2014 dollars to build, and only \$114 million in capacity funds has been identified. **Table 2** compares the available capital funds to estimated capacity improvement costs. Without additional funding sources, the 2040 Roadway Vision Plan cannot be completed.

As identified in the Needs Assessment in the Shape section, the maps present congestion associated with different scenarios: However, unless additional funding sources are identified, the Roadway Vision Plan cannot be built with the funding currently identified. Therefore, it is necessary to identify projects from the 2040 Vision Plan that would best serve the community.

*Table 2: Comparison of Capital Funding Sources and Costs*

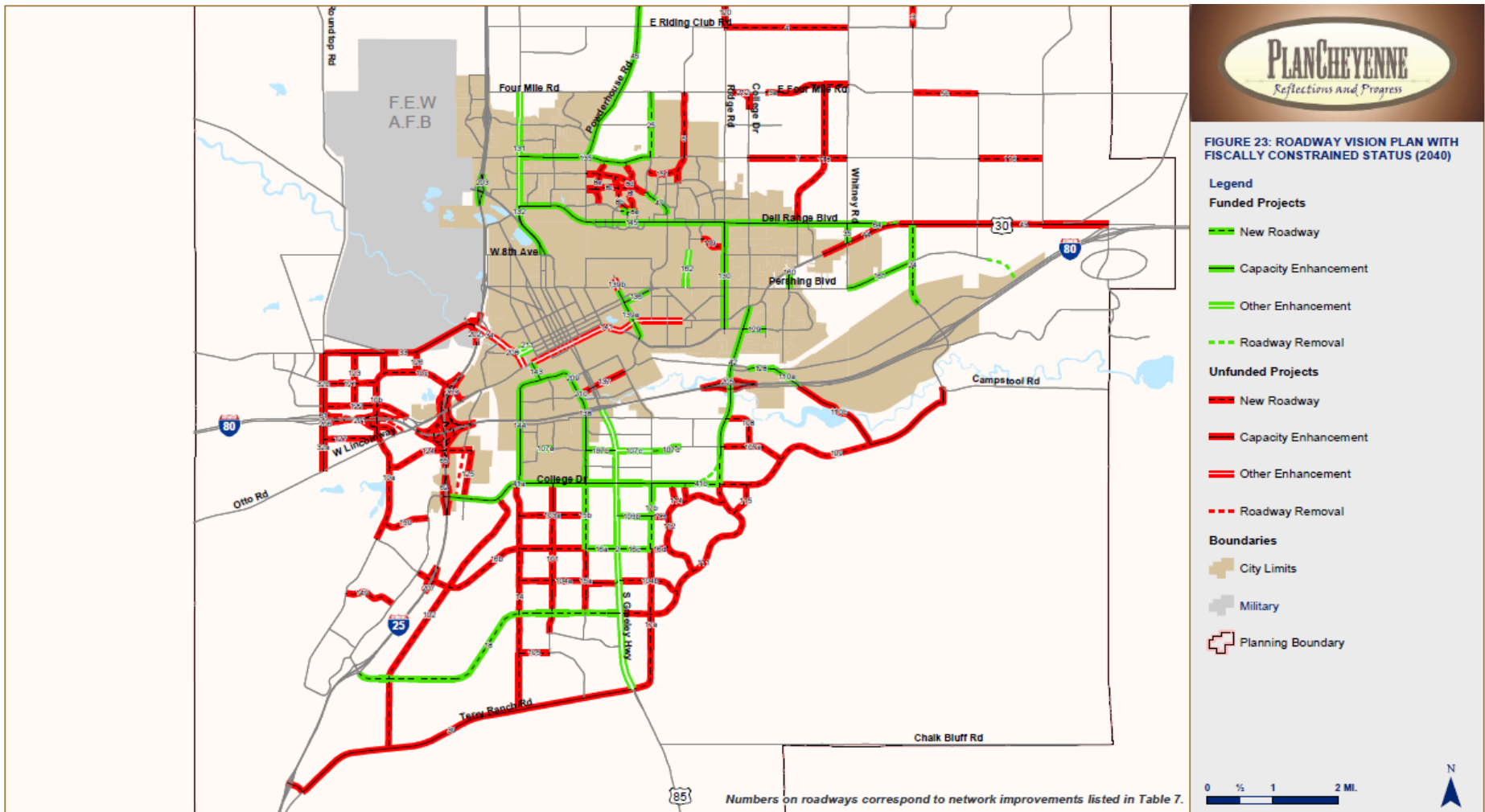
<b>Funding Source</b>	<b>Available Capital Funds for Capacity Improvements</b>	<b>Estimated Capacity Improvement Costs</b>	<b>Estimated Shortfall</b>
State / Federal	\$38,000,000	\$235,000,000	(\$197,000,000)
Local Roads	\$76,000,000	\$260,000,000	(\$184,000,000)
<b>Total:</b>	<b>\$114,000,000</b>	<b>\$495,000,000</b>	<b>(\$381,000,000)</b>

### **Assumptions and Approach**

The Fiscally Constrained Roadway Plan was developed by prioritizing the Roadway Vision Plan. Improvements were analyzed based on the results of the travel model, advancing performance goals, and considering cost estimates to determine which improvements provided the best use of limited funds. Additionally, MPO Staff had considerable input in the prioritization.

### **Fiscally Constrained Improvement List**

A list of 2040 Roadway Vision Plan projects and costs is provided in Table 3, along with information about each project's inclusion and cost in the 2040 Fiscally Constrained Roadway Plan. Some improvements defined in the Roadway Vision Plan have been replaced with interim improvements, such as adding a center turn lane, in the 2040 Fiscally Constrained Plan. This phased concept maximizes capacity for the 2040 horizon and builds toward the 2040 Roadway Vision Plan improvements.



# ROADWAY VISION PLAN WITH FISCALLY CONSTRAINED STATUS (2040)

## Cheyenne Area Master Plan

CLARION - FEHR & PEERS - EPS - AVI - URBAN INTERACTIVE

### Interim Cheyenne Area Master Transportation Plan (April 2019 – December 2040)

Table 3:

**Interim Cheyenne Area Master Transportation Plan (April 2019 – December 2040)**

**U.S./State Highways**

No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Fiscally Constrained Status	Fiscally Constrained Cost
41b	E. College Dr. /S. College Dr.	S. Greeley Hwy. to Fox Farm Rd.	Increase capacity / widen to principal arterial	2.61	\$10,000,000	FUND	\$10,000,000
132	Central Ave.	8th Ave to Dell Range Blvd.	Increase capacity / widen to principal arterial	1.48	\$3,000,000	FUND	\$3,000,000
64	Dell Range Blvd and US 30	Intersection	Operational improvements	N/A	\$2,300,000	FUND	\$2,300,000
141	W. Lincolnway/ E. Lincolnway	Snyder to Omaha Rd.	Pedestrian safety & enhancement improvements	2.49	\$2,000,000		
61	I-80 at Roundtop	Interchange	Widen underpass	N/A	\$12,000,000		
201	I-80 at Berwick Dr.	Interchange b/w Roundtop Rd. and Otto Rd.	Modify interstate ramps	N/A	\$5,000,000		
62	I-25 at West College Dr.	Interchange	Widen to 4 lane DDI	N/A	\$6,400,000		
42	N. College Drive	Fox Farm Rd to Lincolnway	Increase capacity / widen to principal arterial	1.78	\$8,200,000	FUND	\$8,200,000
41a	W. College Drive	I-25 to S. Greeley Hwy.	Increase capacity / widen to principal arterial	2.66	\$8,000,000	FUND	\$8,000,000
2	N & S Greeley Hwy	I-80 to Terry Ranch Rd.	Improve access control, enhancements, and non-motorized improvements per county adopted plan	6.00	\$2,000,000	FUND	\$2,000,000
202	I-25 at Missile Dr.	Interchange	Modify interstate ramps	N/A	\$5,000,000		
203	I-25 at Central Ave	Interchange	Ramps & operational improvements	N/A	\$4,500,000	FUND	\$4,500,000
213	I-25 at Berwick Dr. Ext.	Interchange between Missile & I-80	Build Interchange	N/A	\$5,000,000		
205	I-80 at College Dr.	Interchange	Ramps & operational improvements	N/A	\$5,000,000		
206	I-80 at Roundtop Rd	Interchange	Ramps & operational improvements	N/A	\$5,000,000		
212	College and Four Mile	Intersection	Rebuild	N/A	\$1,000,000		
207	I-25 at Wallick Rd.	Interchange	Build interchange	0.88	\$25,000,000		
44	US 30	Hayes Ave to Christensen Rd.	Increase capacity / widen to principal arterial	1.47	\$4,600,000		
33	Happy Jack Rd.	Roundtop Rd. to I-25	Increase capacity / widen to minor arterial	2.33	\$5,000,000		
43	US 30	Christensen Rd to Archer Rd.	Increase capacity / widen to principal arterial	3.00	\$8,500,000		
39	Terry Ranch Road	I-25 to South Greeley Hwy.	Improve as minor arterial	5.71	\$3,500,000		
65	I-80 and I-25	Interchange	Improve/rebuild interchange	N/A	\$100,000,000		
32a	Roundtop Rd.	Otto Rd. to I-80	Improve as minor arterial	0.73	\$1,500,000		
32b	Roundtop Rd.	I-80 to Happy Jack Rd	Increase capacity / widen to minor arterial	0.96	\$2,500,000		
					<b>\$235,000,000</b>		<b>\$38,000,000</b>

**Interim Cheyenne Area Master Transportation Plan (April 2019 – December 2040)  
Capacity/New Roadway Improvements (Local Roads)**

No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Fiscally Constrained Status	Fiscally Constrained Cost
145	Dell Range Blvd.	Yellowstone Rd to N. College Dr.	Increase capacity & non-motorized improvements	3.59	\$6,000,000	FUND	\$6,000,000
144	Parsley Blvd.	W. College Dr. to Ames Ave	Improve as minor arterial	1.81	\$3,600,000	FUND	\$3,600,000
130	Ridge Rd	12th St to Dell Range Blvd	Improve as minor arterial	1.63	\$2,000,000	FUND	\$2,000,000
143	Ames Ave Underpass	Parsley Blvd to Lincolnway	Widen to minor arterial & drainage improvements	0.29	\$1,750,000	FUND	\$1,750,000
16a	Wallick Rd.	Division Ave. to South Greeley Hwy.	Extend/improve as minor arterial	0.50	\$1,250,000	FUND	\$1,250,000
16b	Wallick Rd.	Division Ave. to Clear Creek	New minor arterial	2.82	\$10,000,000		
16c	Wallick Rd.	South Greeley Hwy. to Avenue C	New minor arterial	0.50	\$1,500,000		
16d	Wallick Rd.	Avenue C to Sweetgrass Inner Loop	New collector	0.25	\$500,000		
15a	Division Ave.	High Plains Rd. to Wallick Rd.	Extend/improve as collector	1.00	\$2,000,000		
15b	Division Ave.	Wallick Rd. to W. College Dr.	New collector	1.02	\$1,800,000	FUND	\$1,800,000
14	Parsley Blvd.	Terry Ranch Rd. to W. College Dr.	Extend as minor arterial	3.50	\$7,000,000		
24	Christensen Rd. (construction only)	Commerce Circle to US-30	New minor arterial and UP-RR overpass	1.25	\$10,000,000	Funding will come from Federal Grants, 6th Penny, or other sources	
138	Walterscheid Blvd/Deming Dr.	W. College Dr. to Ames Ave	Increase capacity / widen as minor arterial	2.16	\$4,000,000	FUND	\$4,000,000
129	12th Street	N. College Dr. to Cleveland Ave	Increase capacity / widen to minor arterial	0.34	\$800,000	FUND	\$800,000
135	Storey Blvd.	Yellowstone to Converse Ave	Increase capacity / widen to minor arterial	2.04	\$2,000,000	FUND	\$2,000,000
18	High Plains Rd	I-25 to South Greeley Hwy.	New minor arterial	4.50	\$10,000,000	FUND	\$10,000,000
111	E. High Plains Extension	South Greeley Hwy. to College Dr.	New minor arterial	3.36	\$7,000,000		
137	5th St.	Deming Dr. to Morrie Ave.	Extend/improve as collector	0.72	\$2,000,000		
128	Campstool Road	Livingston Ave. to Burlington Trl.	Improve as a minor arterial	0.41	\$1,000,000	FUND	\$1,000,000
149	Bridger Peak Dr.	Clear Creek Pkwy to Berwick Dr.	New collector	0.80	\$1,400,000		
31	Dell Range Blvd	N. College Dr. to New US 30 intersection	Increase capacity / widen to principal arterial	2.02	\$6,600,000	FUND	\$6,600,000
8a	Prairie Ave	Extend to Rue Terre	Realign curve and extend as a minor arterial	0.22	\$1,000,000	FUND	\$1,000,000
8b	Prairie Ave / New collector	Extend to E Carlson St.	Realign curve and extend as a collector	0.65	\$2,100,000		
8c	Melton St	Powderhouse to Carlson Extension	Extend as a collector	0.75	\$2,000,000		
8d	E Carlson St	Powderhouse to Converse	Extend as a collector	1.02	\$2,100,000		
8e	Fort Laramie Trl.	Prairie Ave to Storey Blvd	New collector	0.70	\$2,800,000		
8f	Rue Terre	Prairie Ave to Storey Blvd	Extend as a collector	0.83	\$1,800,000		

No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Fiscally Constrained Status	Fiscally Constrained Cost
47	Converse Ave.	Dry Creek to Carlson Extension	Increase capacity / widen to minor arterial	0.50	\$2,000,000	FUND	\$2,000,000
136	19th Street	Logan Ave to Converse Ave	Increase capacity / widen to minor arterial	0.41	\$1,500,000	FUND	\$1,500,000
10a	Berwick Dr.	Wallick Rd. to I-80	New minor arterial with UP RR/Otto rd. overpass	1.99	\$17,000,000		
10b	Berwick Dr. Ext	I-80 to Veta Ext	New minor arterial	0.49	\$3,000,000		
10c	Berwick Dr. Ext	Veta Ext to W. Lincolnway	New minor arterial	1.21	\$3,000,000		
45	Powderhouse Rd.	Storey Blvd. to Iron Mountain Rd	Increase capacity / widen	3.22	\$2,100,000	FUND	\$2,100,000
17a	Avenue C	US 85 at Terry Ranch Rd. to Wallick Rd.	New collector	2.30	\$3,000,000		
17b	Avenue C	Wallick Rd. to E. College Dr.	Extend/improve as a minor arterial	1.00	\$2,000,000	FUND	\$2,000,000
107d	E. Allison Rd.	Avenue C to west of Energy Drive	New collector	0.50	\$2,100,000	FUND	\$2,100,000
107e	E. Allison Rd.	S. College to East College Extension	Extend/improve as a collector	1.00	\$2,000,000		
25	Converse Ave.	Storey Blvd to Four Mile Road	Extend/improve as a minor arterial	1.00	\$2,500,000	FUND	\$2,500,000
122	Horizon Dr. Ext	Roundtop Rd. to W. Lincolnway	Extend/improve as collector	1.34	\$5,000,000		
114	New Collectors (2)	Sweetgrass Inner loop to E College Dr.	New collectors	0.58	\$1,000,000		
102	New Collector	Terry Ranch Rd. to W. College Drive	New collector	4.48	\$8,300,000		
7	Summit Dr.	N. College Dr. to Whitney Rd.	Extend/improve as collector	1.50	\$3,000,000		
150	Gannett Peak Dr.	Clear Creak Pkwy to Berwick Dr.	New collector	0.72	\$2,900,000		
5a	Four Mile Rd.	Braehill Rd to Whitney Rd	Extend/improve as a collector	1.29	\$2,600,000		
5b	Four Mile Rd.	Christensen Rd. to Reese Rd.	Extend as a collector	1.00	\$2,000,000		
108	E. Fox Farm Rd.	S. College Dr. to Allison Rd Extension	New collector	0.73	\$2,900,000		
105	Remington Dr.	Parsley Blvd. to Troyer Dr.	Extend/improve as a collector	0.47	\$1,000,000		
104a	Julianna Rd.	Parsley Blvd. to S. Greeley Highway	Extend/improve as a collector	1.55	\$3,000,000		
104b	Julianna Rd.	S. Greeley Highway to E High Plains Ext	New collector	0.96	\$2,000,000		
126	New Collectors (2)	Happy Jack Rd. to Berwick Dr. Extension	New collector	0.64	\$1,500,000		
127	New Collector	Roundtop Rd to Berwick Ext	New collector	0.85	\$1,700,000		
103a	Artesian Rd	Parsley Blvd. to Division Rd	Extend/improve as a collector	1.00	\$2,000,000		
103b	Artesian Rd	S. Greeley Highway to Avenue C	Extend/improve as a collector	0.50	\$1,000,000	FUND	\$1,000,000
121	Veta Ext	Roundtop Rd to Berwick Ext	Extend/improve as a collector	0.81	\$1,600,000		



No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Fiscally Constrained Status	Fiscally Constrained Cost
120	Ridge Rd.	Riding Club Rd. to Iron Mountain Rd.	Extend/improve as a collector	1.00	\$2,000,000		
6	Mountain Rd./ Chief Washakie	Plain View Rd. to Four Mile Rd.	Extend/improve as a collector	1.42	\$2,800,000		
22	Powderhouse Rd.	Iron Mountain Rd. to Torrington Hwy	Extend/improve as a collector	2.20	\$2,000,000		
109	E. College Extension	E. College Dr. to Campstool Rd.	New minor arterial	4.19	\$10,000,000		
101	York Ave.	W. College Dr. to Dayshia Ln	Extend/improve as a collector	2.31	\$4,000,000		
110a	Burlington Trl	S. Industrial Rd. to Campstool Rd.	Extend/improve as a collector	0.43	\$1,700,000	FUND	\$1,700,000
110b	Burlington Trl	E. College Dr. Ext. to S. Industrial Rd.	Extend/improve as a collector	1.30	\$5,200,000		
123	New Collectors	Between Horizon, Happy Jack Rd., and Berwick Ext.	New collector	0.80	\$3,200,000		
115	New Collector	E High Plains Ext to E College Ext	New collector	0.50	\$2,000,000		
4	Riding Club Rd.	Ridge Rd. to Whitney Rd.	Extend/improve as a collector	2.00	\$3,700,000		
124	Swan Ranch Rd	Berwick Dr. to Broken Arrow	New collector	1.33	\$5,300,000		
151	Crane Bluff	Converse Ave. to Mountain	New collector	0.48	\$1,900,000		
1	Iron Mountain Rd.	Whitney Rd. to Christensen Rd	Extend as a collector	0.98	\$1,000,000		
3	Christensen Rd.	Riding Club Rd. to Iron Mountain Rd.	Extend/improve as a collector	1.00	\$1,000,000		
125	Broken Arrow	W. College Dr. to Swan Ranch Rd	New collector	0.74	\$1,500,000		
119	Rock Springs St	Ridge Rd. to Moran	Extend/improve as a collector	0.42	\$1,000,000		
118	Van Buren Ave.	Dell Range Blvd to Four Mile Rd	New collector	2.30	\$4,600,000		
116	Beckle Rd.	Reese Rd. to Westedt Rd.	Extend/improve as a collector	1.00	\$1,000,000		
112	Sweetgrass Inner Loop	E High Plains Ext to E High Plains Ext	New collector	2.09	\$4,200,000		
113	Artesian Dr.	Avenue C to Sweetgrass Inner loop	Extend/improve as a	0.26	\$1,000,000		
161	E. Pershing Blvd.	Whitney Rd. to Christensen Rd	Increase capacity / widen as minor arterial	1.09	\$1,000,000	FUND	\$1,000,000
35	Whitney Rd.	U.S. 30 to Dell Range Blvd	Increase capacity / widen as minor arterial	0.24	\$500,000	FUND	\$500,000
					<b>\$236,300,000</b>		<b>\$58,200,000</b>

**Interim Cheyenne Area Master Transportation Plan (April 2019 – December 2040)**  
**Other Roadway Improvements (Local Roads)**

No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Fiscally Constrained Status	Fiscally Constrained Cost
162	Windmill	Pershing north to new section	Improve as a collector with roundabout	0.59	\$1,500,000	FUND	\$1,500,000
131	Yellowstone Rd	Dell Range Blvd to Four Mile Rd.	Non-motorized improvements, access control	1.95	\$3,800,000	FUND	\$3,800,000
139b	Logan and Pershing	Intersection	Rebuild and realign with concord	N/A	\$2,000,000		
208	19th Street	Bridge (Crow Creek)	Bridge rebuild	N/A	\$2,000,000	FUND	\$2,000,000
211	19th St and 20th St	Intersection (at Missile Drive)	Operational improvements	N/A	\$5,000,000	FUND	\$5,000,000
209	9th Street	Bridge (Crow Creek)	Rebuild bridge/greenway underpass	N/A	\$1,500,000	FUND	\$1,500,000
34	Missile Dr.	W. Lincolnway to I-25	Streetscape, landscape & non-motorized improvements	2.01	\$4,150,000		
210	5th Street	Bridge (Crow Creek)	Bridge rebuild	N/A	\$1,500,000	FUND	\$1,500,000
407a	W. Allison Rd.	Gibbon to Snyder	Safety medians & pedestrian crossings	0.25	\$500,000	FUND	\$500,000
107c	E. Allison Rd.	South Greeley Highway to Avenue C	Total reconstruction	0.56	\$2,000,000	FUND	\$2,000,000
					<b>\$23,950,000</b>		<b>\$17,800,000</b>
<b>Total Fiscally Constrained Local Roads</b>							<b>\$76,000,000</b>

**Fiscally Constrained Transit Plan**

Funds available for operation and expansion of the transit system in the Cheyenne Area are driven by FTA 5307 funds. The amount of funding Cheyenne transit receives is based on the population in the most recent Census, with adjustment for inflation. The Cheyenne Area does not provide additional funding beyond the required FTA 5307 local match. However, additional funding will be required in order to provide the level of service described in the Transit Vision Plan.

The Fiscally Constrained Transit Plan uses the 2014 estimated funding of \$1.9 million per year as the base year to project total transit funding through 2040 at approximately \$65 million. The 2040 funding estimate is based on a growth rate of 1.08% percent per year and assumes funding increases commensurate with population growth. Funds available for operation of the transit system must be split among three primary categories: administration, demand response, and fixed route.

The 2013 Cheyenne 5-Year Transit Development Program indicates that the annual cost of Cheyenne Transit Program (CTP) operations has remained nearly constant at just under \$1.5 million since FY 2008. However, the city has made some cuts to service hours for transit and

paratransit to keep net operations costs from rising. While estimated 2019 CTP expenses are not available, it is reasonable to assume that expenses will continue to remain around \$1.5 million a year. The demand response and fixed route categories include the replacement of aging busses as well as the purchase of additional busses needed to expand service.

Some of the short-range recommendations such as modifications to the South and East Routes are budget neutral and should be implemented first. Technology Enhancements should be considered for CTP to better position the system for the future and are estimated to cost between \$50,000 and \$75,000. Expanding paratransit to include the Saddle Ridge area will cost approximately \$70,000 annually.

The Cheyenne 5-Year Transit Development Program also provides long range direction for transit system improvements through 2035. The Development Program lays out two conceptual alternatives as options for a preferred future transit system in Cheyenne. Cheyenne should consult this plan when deciding how to direct any residual transit funding.

### **Fiscally Constrained Bicycle & Pedestrian Projects**

Historically, Cheyenne has not provided dedicated funding for bicycle and pedestrian transportation projects. While competitive funding sources exist for bicycle and pedestrian standalone projects, such as Transportation Alternatives Program (TAP), due to the uncertainty from their competitive nature, projections for these funding sources are unknown and not considered in the Fiscally Constrained Plan. Consequently, improvements to the bicycle and pedestrian transportation system are included in the Fiscally Constrained *Roadway Plan* as stand-alone projects or are tied to other improvements listed in the Plan. Any proposed Greenway Project prioritized by the Greenway Advisory Committee may be selected for a TAP Grant.

Should dedicated funding for bicycle and or pedestrian improvements become available, priority should be given to:

- Tier 1 projects listed in the 2012 Cheyenne *On-Street Bicycle Plan and Greenway Plan*.
- Projects from other stand-alone Greenway Plans done since 2012.
- Priority improvement areas identified in the 2010 *Pedestrian Plan*.

# Interim Plan Cheyenne Master Transportation Plan (2019)

## Performance Report

### Background

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, state Departments of Transportation (DOT) and Metropolitan Planning Organizations (MPO) must apply a transportation performance management approach in carrying out their federally-required transportation planning and programming activities. The process requires the establishment and use of a coordinated performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule).<sup>1</sup> This regulation implements the transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

In accordance with The Planning Rule and the Performance Management Agreement between WYDOT and the Cheyenne Metropolitan Planning Organization, WYDOT and each MPO must publish a System Performance Report for applicable performance measures in their respective statewide and metropolitan transportation plans and programs. The System Performance Report presents the condition and performance of the transportation system with respect to required performance measures, documents performance targets and progress achieved in meeting the targets in comparison with previous reports. This is required for the following:

- In any statewide or metropolitan transportation plan or program amended or adopted after May 27, 2018, for Highway Safety/PM1 measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after October 1, 2018, for transit asset measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after May 20, 2019, for Pavement and Bridge Condition/PM2 and System Performance, Freight, and Congestion Mitigation and Air Quality/PM3 measures; and
- In any statewide or metropolitan transportation plan or program amended or adopted after July 20, 2021, for transit safety measures.

As part of the interim Cheyenne MPO Long Range Transportation Plan update, the System Performance Report is included, herein, for the required Highway Safety/PM1, Bridge and Pavement Condition/PM2, and System Performance, and Freight.

### Highway Safety/PM1

Effective April 14, 2016, the FHWA established the highway safety performance measures<sup>2</sup> to carry out the Highway Safety Improvement Program (HSIP). These performance

measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled;
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled; and
5. Number of combined non-motorized fatalities and non-motorized serious injuries.

Safety performance targets are provided annually by the States to FHWA for each safety performance measure. Current statewide safety targets address calendar year 2019 and are based on an anticipated five-year rolling average (2015-2019). WYDOT statewide safety performance targets for 2019 are included in Table 4, along with statewide safety performance for the two most recent reporting periods<sup>3</sup>. The Cheyenne MPO adopted/approved the statewide safety performance targets on September 19, 2018.

The latest safety conditions will be updated annually on a rolling 5-year window and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

**Table 4. Highway Safety/PM1, System Conditions and Performance**

<b>Performance Measures</b>	<b>WYDOT Statewide Performance (Five-Year Rolling Average 2018)</b>	<b>WYDOT Statewide Performance (Five-Year Rolling Average 2019)</b>	<b>WYDOT Performance Target (Five-Year Rolling Average 2020)</b>
Number of Fatalities	123.4	128.2	128
Rate of Fatalities per 100 Million Vehicle Miles Traveled	1.30	1.346	1.35
Number of Serious Injuries	434.2	403.4	462
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	4.64	4.24	4.9
Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	28.8	29.6	29

The Cheyenne MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the MPO planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes.

To support progress towards approved highway safety targets, the FY `20 MTIP includes several key safety investments. The City has five projects, the County has two and WYDOT has one which specifically address safety. A total of \$23,744,000 has been programmed in the

FY `20 - `23 TIP to improve highway safety; averaging approximately \$5,936,000 per year.

### **Pavement and Bridge Condition/PM2**

Effective May 20, 2017, FHWA established performance measures to assess pavement condition<sup>4</sup> and bridge condition<sup>5</sup> for the National Highway Performance Program. This second FHWA performance measure rule (PM2) established six performance measures:

1. Percent of Interstate pavements in good condition;
2. Percent of Interstate pavements in poor condition;
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;
4. Percent of non-Interstate NHS pavements in poor condition;
5. Percent of NHS bridges by deck area classified as in good condition; and
6. Percent of NHS bridges by deck area classified as in poor condition.

#### Pavement Condition Measures

The pavement condition measures represent the percentage of lane-miles on the Interstate or non-Interstate NHS that are in good condition or poor condition. FHWA established five metrics to assess pavement condition: International Roughness Index (IRI); Pavement Condition Index (PCI); and Present Serviceability Rating (PSR). For each metric, a threshold is used to establish good, fair, or poor condition.

Pavement condition is assessed using these metrics and thresholds. A pavement section is in good condition if three metric ratings are good, and in poor condition if two or more metric ratings are poor. Pavement sections that are not good or poor are considered fair.

The pavement condition measures are expressed as a percentage of all applicable roads in good or poor condition. Pavement in good condition suggests that no major investment is needed. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

#### Bridge Condition Measures

The bridge condition measures represent the percentage of bridges, by deck area, on the NHS that are in good condition or poor condition. The condition of each bridge is evaluated by assessing four bridge components: deck, superstructure, substructure, and culverts. FHWA created a metric rating threshold for each component to establish good, fair, or poor condition. Every bridge on the NHS is evaluated using these component ratings. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified as good. If the lowest rating is less than or equal to four, the structure is classified as poor. If the lowest rating is five or six, it is classified as fair.

To determine the percent of bridges in good or in poor condition, the sum of total deck area of good or poor NHS bridges is divided by the total deck area of bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width. Good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

## Pavement and Bridge Targets

Pavement and bridge condition performance is assessed and reported over a four-year performance period. The first performance period began on January 1, 2018 and runs through December 31, 2021. WYDOT reported baseline PM2 performance and targets to FHWA on October 1, 2018 and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022, to December 31, 2025, with additional performance periods following every four years.

The PM2 rule requires states and MPOs to establish two-year and/or four-year performance targets for each PM2 measure. Current two-year targets represent expected pavement and bridge condition at the end of calendar year 2019, while the current four-year targets represent expected condition at the end of calendar year 2021.

States establish targets as follows:

- Percent of Interstate pavements in good and poor condition - four-year targets;
- Percent of non-Interstate NHS pavements in good and poor condition - two-year and four-year targets; and
- Percent of NHS bridges by deck area in good and poor condition - two-year and four-year targets.

MPOs establish four-year targets for each measure by either agreeing to program projects that will support the statewide targets or setting quantifiable targets for the MPO's planning area that differ from the state targets.

The Cheyenne MPO adopted their own PM2 targets on September 19, 2018. Table 5 presents baseline performance for each PM2 measure as well as the current two-year and four-year statewide targets.

On or before October 1, 2020, WYDOT will provide FHWA a detailed report of pavement and bridge condition performance covering the period of January 1, 2018, to December 31, 2019. WYDOT and the Cheyenne MPO will have the opportunity at that time to revisit the four-year PM2 targets.

**Table 5. Pavement and Bridge Condition/PM2 Performance and Targets**

<b>Performance Measures</b>	<b>MPO Performance (Baseline)</b>	<b>MPO 2- year Target (2019)</b>	<b>MPO 4- year Target (2021)</b>
Percent of Interstate pavements in good condition	21.4%	10%	10%
Percent of Interstate pavements in poor condition	.5%	25%	25%
Percent of non-Interstate NHS pavements in good condition	12%	5%	5%
Percent of non-Interstate NHS pavements in poor condition	17.4%	65%	65%
Percent of NHS bridges (by deck area) in good condition	14.9%	30%	30%
Percent of NHS bridges (by deck area) in poor condition	4.6%	8%	8%

The Cheyenne MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets.

- MAP-21 requires WYDOT to develop a TAMP for all NHS pavements and bridges within the state. WYDOT's TAMP must include investment strategies leading to a program of projects that would make progress toward achievement of WYDOT's statewide pavement and bridge condition targets.
- The Interim Long-Range Transportation Plan references the adopted PlanCheyenne Conditions, which addresses infrastructure preservation and identifies pavement and bridge infrastructure needs within the metropolitan planning area and allocates funding for targeted infrastructure improvements. The 2014 Plan along with many of the plans and studies listed in the "Past Plans" list above address the streets, highways and bridges in the urban area that are in need of replacement to improve capacity and deficiencies of the pavement and bridge network.

To support progress towards the Cheyenne MPO PM2 targets, the FY '20 MTIP includes a number of investments that will maintain pavement and bridge condition performance. Investments in pavement and bridge condition include pavement replacement and reconstruction, bridge replacement and reconstruction, new bridge and pavement capacity, and system resiliency projects that improve NHS bridge components (e.g., upgrading culverts).

A total of \$11,966,235 for bridges has been programmed in the FY 2020 MTIP to improve conditions; averaging approximately \$2,991,559 per year. A total of \$10,090,873 is available for NHS maintenance for pavement statewide; averaging approximately \$2,522,718 per year.

### **System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program (PM3)**

Effective May 20, 2017, FHWA established measures to assess performance of the National Highway System<sup>6</sup>, freight movement on the Interstate system<sup>7</sup>, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program<sup>8</sup>. This third FHWA performance measure rule (PM3) established six performance measures, described below.

#### *National Highway System Performance:*

1. Percent of person-miles on the Interstate system that are reliable;
2. Percent of person-miles on the non-Interstate NHS that are reliable;

#### *Freight Movement on the Interstate:*

3. Truck Travel Time Reliability Index (TTTR);

#### *Congestion Mitigation and Air Quality Improvement (CMAQ) Program:*

4. Annual hours of peak hour excessive delay per capita (PHED);
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction).



The Cheyenne MPO is not required to measure, report on or set targets for the PHED and Non-SOV measures. These requirements apply to only MPOs with populations over 1 million people. The CMAQ performance measures apply to states and MPOs with projects financed with CMAQ funds whose boundary contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. The Cheyenne MPO meets air quality standards, therefore, the CMAQ measures do not apply and are not reflected in the System Performance Report.

### System Performance Measures

The two System Performance measures assess the reliability of travel times on the Interstate or non-Interstate NHS system. The performance metric used to calculate reliability is the Level of Travel Time Reliability (LOTTR). LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, Mid-day, PM peak, and weekends) that cover the hours of 6 AM to 8 PM each day.

The LOTTR ratio is calculated for each segment of applicable roadway, essentially comparing the segment with itself. A segment is deemed to be reliable if its LOTTR is less than 1.5 during all four time periods. If one or more time periods has a LOTTR of 1.5 or above, that segment is unreliable.

The measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles take into account the number of people traveling in buses, cars, and trucks over these roadway segments. To determine total person miles traveled, the vehicle miles traveled (VMT) on each segment is multiplied by average vehicle occupancy. To calculate the percent of person miles traveled that are reliable, the sum of the number of reliable person miles traveled is divided by the sum of total person miles traveled.

### Freight Movement Performance Measure

The Freight Movement performance measure assesses reliability for trucks traveling on the Interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout weekdays and weekends (AM peak, Mid-day, PM peak, weekend, and overnight) that cover all hours of the day. For each segment, the highest TTTR value among the five time periods is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index.

Table 6. System Performance/Freight Movement/CMAQ (PM3) Performance and Targets

<b>Performance Measure</b>	<b>MPO Performance (Baseline)</b>	<b>MPO 2-year Target (2019)</b>	<b>MPO 4-year Target (2021)</b>
Percent of person-miles on the Interstate system that are reliable	99.8%	94%	94%
Percent of person-miles on the non-Interstate NHS that are reliable	90.7%	85%	85%
Truck Travel Time Reliability Index	1.24	1.4	1.44

The Cheyenne MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY '20 MTIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes.

The Cheyenne Regional Freight Mobility Plan adopted June 30, 2016 addresses reliability, freight movement, congestion, and identifies needs for each of these issues within the metropolitan planning area and allocates funding for targeted improvements.

### **Metropolitan Planning Organization (MPO) Freight Goals**

PlanCheyenne identifies future transportation investments for all modes of transportation in the region. A particular focus of PlanCheyenne is determining the infrastructure impacts associated with increasing heavy truck traffic due to the expansion of industrial and commercial business related to oil and gas activity in the southwest portion of Cheyenne.

As part of the greater vision for PlanCheyenne, a principle and related policies were developed to assist in implementing the state and regional combined vision for freight mobility within the Cheyenne area:

- Principle: The Cheyenne area will accommodate truck and freight goods movement.
- Policy: Freight Mobility – Maintain a truck routing plan with designated truck routes to provide commercial access and minimize truck travel through residential neighborhoods.
- Policy: Industrial Development – Coordinate industrial development with transportation investments to promote freight efficiency, productivity, and economic competitiveness.

As part of the 2014 Update to PlanCheyenne, the following freight issues were identified within the Cheyenne MPO area:

- Growth in the deep layered oil industry is spurring increased rail-based industrial use. The economic benefits of and transportation access to facilities, such as the Cheyenne Logistics Hub at Swan Ranch were identified as critical and influential to this report.
- Lack of adequate truck parking facilities and rest areas along major regional truck routes, especially during roadway closures due to bad weather.
- Increasing traffic congestion, uncertainty, and safety at at-grade rail crossings related to increased rail activity due to the rapid growth of the regional oil industry.
- Concerns voiced by the trucking industry about difficulties experienced by trucks in negotiating regional roundabouts (e.g., I-25 and Vandehei Avenue). However, during the specific Freight Mobility Plan of 2016, Roundabouts were not brought up as a concern. This indicates more familiarity and comfort.
- Roadways serving residential areas do not accommodate vehicles delivering goods to homes.

The goals, objectives, and performance measures of Cheyenne’s freight network include:

- Goal 1 - Safety – In order to achieve a significant reduction in traffic fatalities and serious injuries on public roads, concentrate freight traffic to the truck route network and address network safety concerns.
  - Measure: Reduce crash rates on regional truck route system.
- Goal 2 - Infrastructure Condition – To maintain the highway infrastructure assets in a state of good repair by designing or modifying roadways on the truck route network to accommodate the number of trucks and the corresponding weight load.
  - Measure: Reduce deficient miles of excessive rut depth, pavement serviceability and roughness; reduce structurally deficient and low clearances bridges.
- Goal 3 - Congestion Reduction – To achieve a significant reduction in congestion on the National Highway System, which is represented as part of the regional truck route network.
  - Measure: Address traffic bottlenecks and reduce delays by reducing the number of intersections with LOS E or F on regional truck routes.
- Goal 4 - System Reliability – To improve the efficiency of the surface transportation system, with emphasis on regional truck routes and major at-grade rail crossings. Address impacts of weather on truck freight movement.
  - Measure: Minimize rail – vehicle delays by addressing higher volumes at-grade railroad crossings.
  - Measure: Parking spaces available for truck parking during weather closures on Interstate.
- Goal 5 - Freight Movement and Economic Vitality – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets and support regional economic development.

- Measure: Reduce rail delays and address design deficiencies at interstate interchanges and along routes that are part of the national freight network. presented as part of the regional truck route network.

The Cheyenne MPO mainly relies on WYDOT to help meet PM3 targets by funding projects on the local Interstates that will address passenger and highway freight reliability and delay.

	2017 Results	Target
<b>% of reliable Interstate person-miles traveled</b>	99.8%	94%
<b>% of reliable non-Interstate NHS person-miles traveled</b>	90.7%	85%
<b>Truck Travel Time Reliability</b>	1.24	1.44

## Transit Asset Management

The Cheyenne Transit Program strives to keep its vehicles safe and running as efficiently as funds allow possible. The target for rolling stock useful life is 50% of the fleet. The 2017 results were at 68.8%. The target for transit facilities useful life is 100%. The 2017 results were 100%. The Cheyenne Transit Program have programmed approximately \$400,000 a year in the FY `20-23 STIP to replace vehicles. Improvements to the Transit facility have funds programmed at \$340,000 in the next four years of the MTIP.

	2017 Results	Target
<b>Transit Rolling Stock Useful Life Benchmark</b>	68.8%	50%
<b>Transit Facilities Useful Life Benchmark</b>	100%	100%

<sup>1</sup> 23 CFR 450.314

<sup>2</sup> 23 CFR Part 490, Subpart B

<sup>3</sup> [https://safety.fhwa.dot.gov/hcip/spm/state\\_safety\\_targets/](https://safety.fhwa.dot.gov/hcip/spm/state_safety_targets/)

<sup>4</sup> 23 CFR Part 490, Subpart C

<sup>5</sup> 23 CFR Part 490, Subpart D

<sup>6</sup> 23 CFR Part 490, Subpart E

<sup>7</sup> 23 CFR Part 490, Subpart F

<sup>8</sup> 23 CFR Part 490, Subparts G and H

## **PUBLIC AND AGENCY OUTREACH, COORDINATION AND FEEDBACK**

An advertisement was placed in the October 20, 2019 Wyoming Tribune Eagle announcing the two public hearings for the *Interim Master Transportation Plan*. The City of Cheyenne Planning Commission Public Hearing was held on November 18, 2019 and the Laramie County Planning Commission Public Hearing was held on December 12, 2019. The Interim Plan was made available for review on the [www.plancheyenne.org](http://www.plancheyenne.org) web page and physical copies were placed at the MPO Office, City Clerk's Office, the County Planning Office and at the Laramie County Library.

The draft plan was provided for review to WYDOT Planning and District, the FHWA Wyoming Division, FTA Region 8 Office and to the Cheyenne MPO Citizens' Advisory and Technical Committees. The MPO Technical Committee recommended adoption of the Plan to the Policy Committee at their November 13 meeting and the MPO Citizens' Advisory Committee recommended adoption by the Policy Committee at their November 21 meeting.

There were no significant comments received from the public at the two Public Hearings.

The City Planning Commission passed a resolution at their November 18 meeting adopting the Interim Plan and asked the City Governing Body to certify the plan and resolved that the "*Interim Cheyenne Area Master Transportation Plan*" will remain in effect until the "*Connect 2045 Transportation Update to PlanCheyenne*" is adopted by the MPO Policy Committee which is expected to be approximately December 2020. The City Governing Body approved a resolution certifying the Interim Plan at their December 9, 2019 meeting.

The County Planning Commission held their Public Hearing on December 12 and recommended adoption by the Laramie County Board of Commissioners. The Commissioners adopted the "*Interim Cheyenne Area Master Transportation Plan*" at their December 17 meeting.

The MPO Policy Committee adopted the "*Interim Cheyenne Area Master Transportation Plan*" at their December 18 meeting.