I-80/I-25 INTERCHANGE DESIGN

PROJECT DESCRIPTION

The Wyoming Department of Transportation (WYDOT) is seeking Rebuilding American Infrastructure with Sustainability and Equity (RAISE) planning funds to complete final design plans for the vital interchange reconstructions of Interstate 80 (I-80) and Interstate 25 (I-25) and adjacent I-25/US Highway 30 interchange in Cheyenne, Wyoming.

Statement of Work

WYDOT will use RAISE planning funds to complete the final design plans. Since the grading plan package is completed, WYDOT will focus on the remaining design elements as follows:

Bridge and geotechnical designs; Remaining right of way and utility plans; and Final design plans.

The new I-80/I-25 interchange design will encompass the following design features:

New flyovers; and Redesign of the adjacent I-25/US 30 interchange with a diamond configuration, including braided ramps.

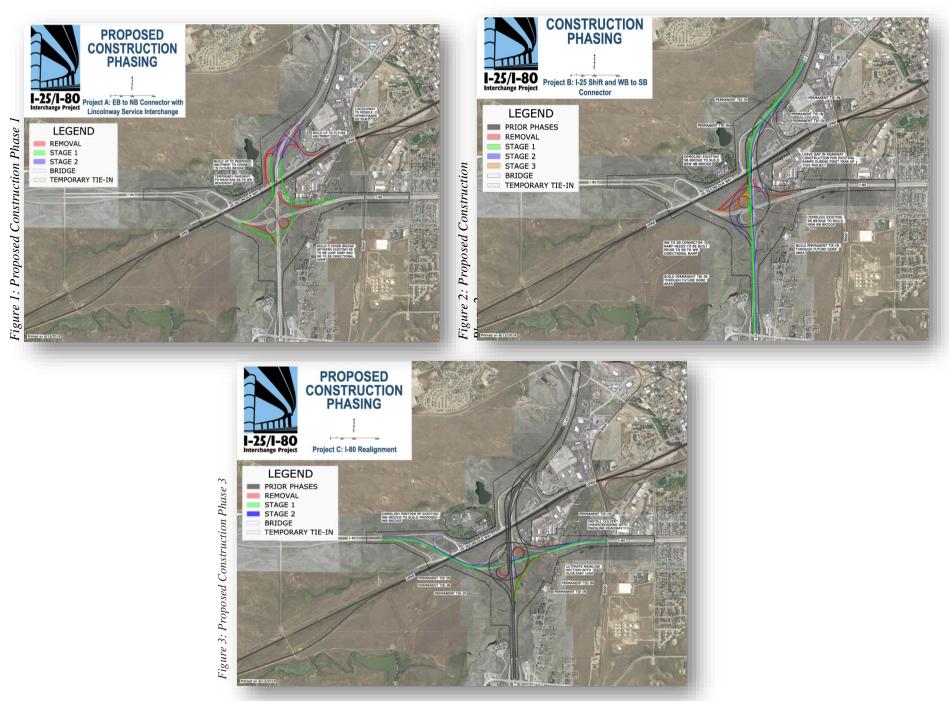
The new design will also account for future widening of I-80 and I-25 to three lanes in each direction. Once final design plans are complete, WYDOT will be better positioned to understand construction costs and to strategize a path forward to construction. When completed, the new interchange will include a multi-phase reconstruction as proposed in Figures 1 through 3.¹

Transportation Challenges Addressed

The current interchanges for I-80/I-25 and nearby I-25/US 30 are outdated and unable to keep pace with growing traffic demands, especially increased freight and industrial traffic. These interchanges, primarily I-25/I-80, are plagued by a variety of issues such as tight loop ramp geometry, vehicle weaving, and insufficient acceleration and deceleration lanes. These logistic and safety concerns are exacerbated in the often long, harsh, and unpredictable winter conditions present on Wyoming roads.

This challenging mix of increased traffic—especially large trucks—and troublesome road geometry intensifies risks and inefficiencies to traffic movement ultimately hindering safe access on and off two highly used interstate corridors. At the worst, these hazards lead to costly crashes that threaten lives, cause injury, and damage both vehicles and infrastructure.

¹ Proposed Construction Phasing



At the least, these concerns create a chokepoint of two interstate corridors through insufficient infrastructure and congestion—either related to crashes or to traffic alone—and negatively impact local, regional, and national economic competitiveness.

Despite the convenient location of these interchanges and the efficiency of accessing I-80, I-25, and US 30, local frustrations abound when using this pair of problematic

Challenges

Outdated design Vehicle weaving Congestion and slowdowns Insufficient acceleration/deceleration lanes Inefficient freight movement Crashes

interchanges. For locals, the interchange geometry makes safe driving difficult, because drivers must shoot short gaps between large trucks while merging and exiting ramps that force drastic slowdowns to accommodate tight loop configurations. Further, slowing down to safely navigate the ramps presents drivers with an additional challenge when trying to reach interstate speeds with insufficient acceleration lanes that make merging onto the busy interstates hazardous. Drivers must then choose between using an inefficient detour, which burns extra fuel and creates excess emissions, or using the interchanges and facing daily exposure to hazards on the way to work, school, and other daily destinations.

Beyond the impacts to daily quality of life for the community, commuters, and freight, the transportation challenges presented by the outdated I-80/I-25 and I-25/US 30 interchanges also negatively impact national defense. Because of both interchanges' close proximity to the F.E. Warren Air Force Base (AFB), these focal infrastructure points play a particularly key role in administering critical national defense functions. The I-80/I-25 interchange is integral to delivery, support, and maintenance of around 150 Minuteman III intercontinental ballistic missile launch facilities and 15 missile alert facilities. Loaded Minuteman III transporter erectors routinely use this interchange to transport missile stages that consist of approximately 60,000 pounds of solid rocket fuel with a combined weight of the vehicle and missile weighing about 120,000 pounds. Ensuring this vital piece of infrastructure is safe and in a state of good repair is a priority for meeting these national defense demands.

Completing the design for the reconstruction and improvement of the I-80/I-25 interchange and

Solutions

Modern design
Reduced vehicle weaving
Increased acceleration/deceleration lanes
Improved traffic flow
Reduced crashes
Future accommodation for interstate expansion

I-25/US 30 interchange will reassure all who rely on these significant pieces of infrastructure—including the local community, visitors, local businesses, contractors and other system users—that the project is progressing and their concerns are being addressed. When complete and implemented, the modern design for the new I-80/I-25 and I-25/US 30 interchanges will address the ongoing transportation challenges that contribute to crashes, inefficient freight movement, congestion, and overall mobility challenges.

The new interchange designs will use modern design standards to improve roadway and ramp geometry and bring the interchanges into a state of good repair. With more maneuverable road geometry, reduced vehicle weaving, and sufficient acceleration and deceleration lanes, traffic flow will improve and congestion will ease. These improvements will finally allow the interchanges to accommodate not only current traffic demands, but also future traffic trends, including larger freight trucks. Additionally, safer vehicle movements supported by the updated designs will reduce crashes and congestion and the resulting detours, delays, and emissions. Both the local driver commuting to work and the long haul trucker will benefit from the proposed design improvements as will the local, regional, and national economies. From an asset management perspective, replacing these interchanges and bringing them into a state of good repair with modern design standards is also the most effective way to preserve and improve these assets while saving money in overall lifecycle costs. The reconstruction design will also recognize future demands including possible interstate expansion.

Project History and Context

The I-80/I-25 interchange in Cheyenne, Wyoming, was initially constructed in 1960 and since then has served as the primary interchange in Wyoming for interstate commerce. The I-80/I-25 interchange and adjacent infrastructure (I-25/US 30) continue to be the largest and most heavily used interchanges in the state. The I-80/I-25 interchange uses a full cloverleaf design that, after 62 years, no longer meets traffic and community demands. A growing community and expanding industrial and business interests surrounding the interchanges have placed more pressure on WYDOT and the City of Cheyenne to address the increasing safety, efficiency, and logistics issues presented by the outdated infrastructure. In response, WYDOT, in partnership with the Cheyenne Metropolitan Planning Organization (MPO) and the Federal Highway Administration (FHWA), initiated a study in 2007 to analyze possible solutions to the concerns afflicting the I-80/I-25 interchange and surrounding infrastructure. In 2008, the study was completed and concluded that the interchange and nearby I-25/US 30 interchange required total reconstruction.² The more recent 2018 I-80 Corridor Study confirmed the need for total reconstruction of these interchanges for the benefit of freight movement and system resiliency.³

In February 2019, WYDOT initiated an Environmental Assessment (EA) while continuing to validate the findings of the 2008 study. The EA was completed in August 2020 with a Finding of No Significant Impact (FONSI). During the National Environmental Policy Act (NEPA) process, WYDOT gathered public comments and continues to gather comments today through the project website.⁴ The project website helps educate the public, businesses, and other interested stakeholders while gathering feedback to make the most inclusive and strategic decisions possible when designing and implementing the project.

Recently, project designers completed the grading plan package, and the right of way acquisition process continues.

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²I-80/I-25 Interchange Study, Wyoming Department of Transportation, (November 2008).

³ <u>I-80 Corridor Study: Master Plan Implementation Report, Wyoming Department of Transportation, (2018).</u>

⁴ I-80/I-25 Project Website

Project Location Narrative

The I-80/I-25 interchange, along with the adjacent I-25/US 30 interchange, in southwest Cheyenne create a hub for efficiently accessing all parts of Cheyenne while providing multidirectional access to the National Freight Network (Figure 4). With a population of over 65,000 (based on the 2020 Census), Cheyenne is a rural area despite being the state capital and the most populated city in Wyoming. The interchanges are heavily traveled access points to I-80, I-25, and US 30 and link the following important destinations:

F.E. Warren AFB,	Cheyenne Logistics Hub,
State capital building,	Cheyenne Regional Medical Center,
Historic downtown	Cheyenne Frontier Days (CFD)
Union Pacific (UP) train depot,	Complex,
Cheyenne Business Parkway,	Community centers and public parks,
Bison Business Park,	Government offices, and
North Range Business Park,	Many small businesses.

The interchanges also cross UP and Burlington Northern Santa Fe (BNSF) rail lines and provide easy access to the historic train depot and rail crossing directly off US 30 in downtown Cheyenne. Further connections include an access point to the Cheyenne Greenway multi-use pathway system and the nearby Green Route for the Cheyenne Transit Program, which provides public transportation to north Cheyenne and links key destinations that include the Comea Shelter (Transitional Living Program Complex), airport, and many residential areas.

According to the 2010 Census, 9.1 percent of Cheyenne's population lives in poverty but does not qualify as an Area of Persistent Poverty. Cheyenne is not a historically disadvantaged community; however, the city is a rural community that is not listed as a Census-designated urbanized area. Cheyenne has two designated Opportunity Zones that are considered low-income communities. Choice Neighborhoods also surround the project area.



Figure 4: Project Area

I-80/I-25 INTERCHANGE DESIGN

PROJECT BUDGET

The Wyoming Department of Transportation (WYDOT) is requesting **\$13,000,000** in Rebuilding American Infrastructure with Sustainability and Equity (RAISE) planning grant funds to complete final design plans for the new I-80/I-25 interchange in Cheyenne, Wyoming. The total project cost is \$14,444,445.

The design is 30 percent complete, and the following budget is based on the existing design as well as discussions with WYDOT's consultant. So far, WYDOT has invested over \$4.1 million in design, which is excluded from the proposed budget. However, no more incurred expenses for this project are expected before United States Department of Transportation (USDOT) announces the 2023 RAISE grant awards. WYDOT is not requesting any other federal funds besides the RAISE funds. WYDOT will use its non-federal, state matching funds, which are flexible and do not have special conditions or limitations, such as a deadline for using the funds. For the WYDOT director's funding commitment letter, please refer to the Funding Commitments attachment.

Furthering the design for this historically large interchange reconstruction will help WYDOT more precisely estimate construction costs, which are currently estimated at around \$412 million—about six times the cost of any project WYDOT has yet undertaken.

Since this is a planning grant, it is difficult to assess how much of the design work will occur for each Census tract. Table 1 shows WYDOT's best attempt to breakdown the budget by Census tract based on where the future project work will occur.

Census Tract(s)	Project Costs per Census Tract(s)
19.02	\$7,222,224
2	\$2,407,407
3	\$2,407,407
7.02	\$2,407,407
	Total Project Cost: \$14,444,445

Table 1: Budget by Census Tract(s)

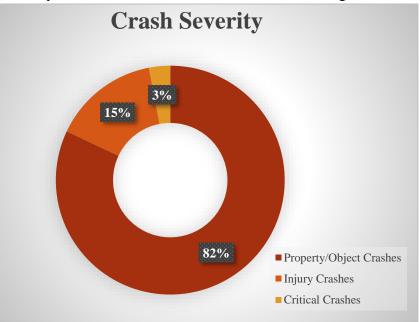
Table 2 provides a budget that includes the funding source breakdown (by percentage) of each funding source for each activity. Since this is a planning grant, the budget consists of minimal activities—design and contingency. Though it is premature to know for certain how much funding will go towards each design element, the final design plan activity shown in this budget will include bridge and geotechnical designs as well as the remaining right of way and utility plans.

	Final Design Plans	Contingency	Total Funding
Funding Source	Funding Amount	Funding Amount	
RAISE Funds:	\$11,700,000	\$1,300,000	\$13,000,000
	90%	90%	90%
Other Federal Funds:	\$0	\$0	\$0
	0%	0%	0%
Non-Federal Funds:	\$1,300,000	\$144,445	\$1,444,445
	10%	10%	10%
Total:	\$13,000,000	\$1,444,445	\$14,444,445

MERIT CRITERIA

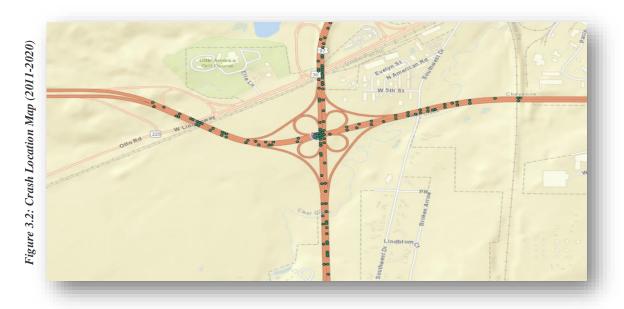
Safety

The outdated interchange designs of the I-80/I-25 and adjacent I-25/US 30 contribute to vehicle crashes that cause damage to property, severe injury, and even fatality. The tight loop ramp geometry, short acceleration and deceleration lane lengths, and entering/exiting vehicle weaving

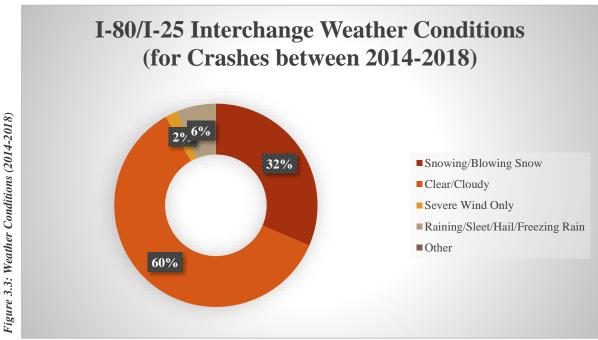


movements all create systemic safety issues in and around the project area. Increasing traffic volumes only exacerbate these safety concerns. This particular set of design-related safety issues result in frequent sideswipe and fixed-obstacle crashes, and crashes that result in serious injury have persisted without any decrease. Specifically, of the average 40 crashes per year that occur on the I-80/I-25 interchange (based on a 10-year average, see Figure 3.1), the majority of crashes

result in damage only—either to vehicles, infrastructure, or both—and around 20 percent result in injuries from serious critical crashes—involving serious injuries, fatalities, or both (see Figure 3.2).



Wyoming weather, particularly severe wind, causes unique safety concerns in the project area, especially considering the increased truck traffic that is vulnerable to blow-overs (Figure 3.3). Yet even in clear, dry road conditions, the I-80/I-25 interchange's outdated full cloverleaf design no longer suits current traffic growth, and crashes occur even without the presence of inclement weather or compromised road surface (Figures 3.4).



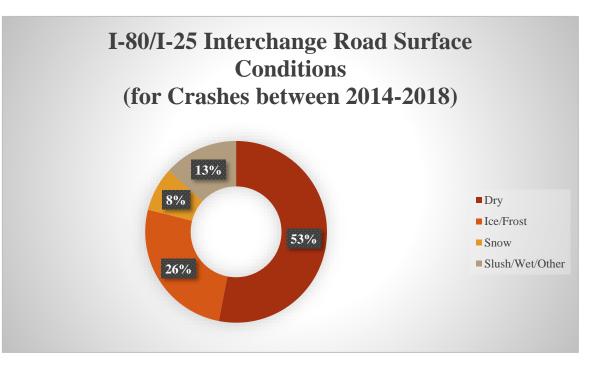
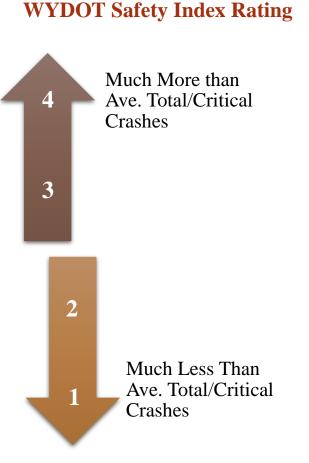


Figure 3.4: Road Surface Conditions (2014-2018)

Additionally, the Wyoming Department of Transportation's (WYDOT's) Highway Safety Segment Report, based on the *Highway Safety* Manual published by the American Association of State Highway Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA), shows an alarming safety trend regarding the project area's Safety Index (SI) Rating.¹ To support WYDOT's efforts in reducing the frequency and severity of crashes, WYDOT uses a SI Rating to help focus on areas that require more attention because of safety concerns—such as the I-80/I-25 interchange. Using a five-year crash history and weighing crashes for segments according to crash severity, WYDOT ultimately reaches a critical crashes per mile per year score for problem segments like the project area. For I-80, the SI Score is 4 for both eastbound and westbound routes with drastically above average total crashes and average critical crashes compared with all sections of the same facility type. For I-25, the SI Rating is 4 for the northbound route and 2 for the southbound route. The northbound SI Rating means that much more crashes than the average total



crashes and average critical crashes occur compared with all sections of the same facility type. The SI Rating for southbound I-25 means that somewhat less crashes than the average total crashes and average critical crashes occur compared with all sections of the same facility type.

The proposed design will drastically reduce the root causes of such crashes and the overall number and rate of crashes. The updated, modern road design and geometry will mitigate systemic safety issues by accommodating increased freight and other traffic, alleviating unnecessary vehicle weaving, providing more effective acceleration and deceleration lanes, and improving overall traffic flow. Even in poor weather conditions, the improved design will be more forgiving to vehicles, especially freight trucks, maneuvering the interchange. As the benefits of this project are linked to a rural area near an opportunity zone and choice neighborhoods, the positive effects of less crashes and a less intimidating interchange will make these interchanges a more accessible and welcoming route to efficiently reach important destinations, both locally and regionally.

Environmental Sustainability

During the National Environmental Policy Act (NEPA) process, WYDOT undertook an Environmental Assessment (EA) to extensively consider any environmental impacts and

¹ <u>Highway Safety Segment Report</u>, Wyoming Department of Transportation.

environmental justice implications. The EA concluded a Finding of No Significant Impact (FONSI).² Some of the many benefits from the more efficient and resilient design WYDOT will complete with this project will ultimately result in improved environmental conditions in and around the project area. For instance, when focusing on the proposed project area using the Environmental Protection Agency's (EPA's) Environmental Justice Screening and Mapping Tool Version 2.0 (EJ Screen), currently the project area faces more ozone pollution (parts per billion or ppb), superfund proximity, and wastewater discharge than a majority of the national and state population block group values (see Figure 3.5).

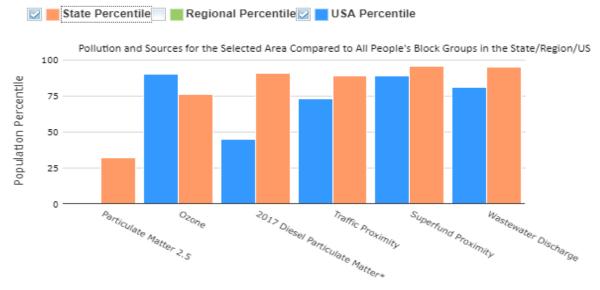


Figure 3.5: Pollution and Sources for Project Area Compared to State and National Population Block Groups

According to the FONSI, the proposed project design will improve the environmental outlook by encouraging more efficient traffic movement to reduce emissions and harmful transportation-related air pollutants. The FONSI also addresses superfund proximity and wastewater mitigation—including the future preparation of a health and safety plan and a hazardous materials management plan. Additionally, the FONSI outlines how the project's design will account for and combat wastewater and increased runoff by adding two new water quality ponds and replacing and/or extending existing culverts to match the new roadway template to better account for runoff.

An improved interchange design will also promote supply chain resiliency and energy efficiency. With fewer freight crashes and less congestion, trucks hauling vital medical, food, and other necessary supplies will reach their destinations safely and more efficiently. Further, enhanced energy efficiency is expected through reduced fuel consumption from improved traffic flow and less detouring. The new interchanges will also promote renewable energy industries by ensuring safer movement of large, oversized loads carrying renewable energy equipment, such as wind turbine blades, to nearby wind power farms along I-80 and in the Cheyenne area.

² I-25/I-80 Interchange Finding of No Significant Impact, (2020).

Project Area Environmental Justice Concerns

90th percentile for ozone nationwide

92nd percentile for 2017 Diesel Particulate Matter statewide

82nd and 91st percentiles for superfund proximity nationwide and statewide (respectively)

78th and 93rd percentiles for wastewater discharge nationwide and statewide (respectively) In regards to environmental justice, the EA and FONSI provided extensive opportunities for public comment, and the project's website currently accepts public comment. The environmental benefits that will stem from this project will also particularly help communities of color that reside in the project area. Specifically, the project area ranks in the 91st percentile for a denser population of people of color compared to statewide population blocks. As WYDOT finishes the design and advances to construction, the agency will continue to carefully consider climate impacts and environmental justice implications on the surrounding vulnerable populations.

Quality of Life

The improvements made to the interchanges will positively impact users and reduce transportation cost burdens while promoting equity and accessibility. The new, modern design will reduce crashes and related costs while benefitting traveler safety. The more maneuverable interchange designs will eliminate the need for drivers to use inefficient detours-which consume extra time, fuel, and money-to spare them the stress and hazards of using the busy interchange. For those who live in the project area, including a higher than average demographic of people of color and low-income households (relative to the rest of the state), the newly designed interchanges will reduce emissions and congestion while promoting efficient access to other parts of Cheyenne and beyond. This enhanced access includes the connections to nearby multimodal options, such as public transportation and the Cheyenne Greenway, as well as nearby job opportunities in the many businesses that populate the area. Additionally, the many commuters that depend on these interchanges-whether traveling to and from the University of Wyoming in Laramie, Wyoming (via I-80 to the west); Fort Collins, Colorado (via I-25 to the south); Casper, Wyoming (via I-25 to the north); or the Nebraska state border (via I-80 to the east)-the proposed design improvements will enhance daily commuter experience as they access I-80, I-25, or US 30.

As a unique boost to quality of life, the design modernization will also play a vital role in our national defense. Daily, both service members and civilian employees use the interchange to access F.E. Warren AFB and the entire 9,600 square mile missile complex spread across three states: Wyoming, Colorado, and Nebraska. The base employs around 3,361 military personnel and 964 civilian employees. From a national defense standpoint, the interchange provides ready access to the missile complex and is essential to support all operations necessary to provide around the clock, on-alert nuclear forces to United States Strategic Command.

Notably, the updated interchanges will positively affect the daily safety, mobility, and overall quality of life of nearby low-income neighborhoods and community development zones. The project is located in two of four federally designated community development zones— Opportunity Zones and Choice Neighborhoods. Cheyenne has two designated Opportunity Zones that are considered low-income communities (see Figure 3.6). Specifically, Census Tract 56021000402 and 56021000502 with tract 56021000402 more directly affected by the proposed project area. Further, Choice Neighborhoods (see Figure 3.7) surround the project area.

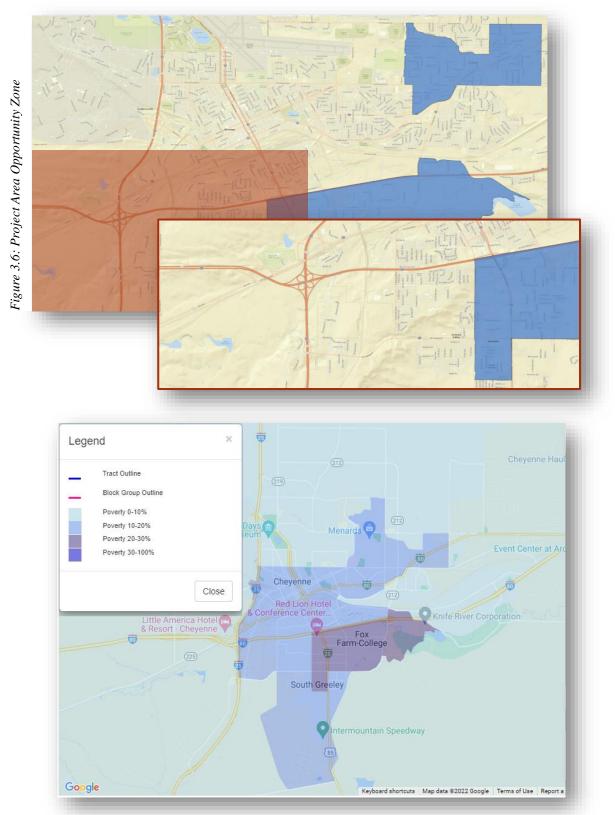


Figure 3.7: Project Area Choice Neighborhoods

Mobility and Community Connectivity

As a focal point in Cheyenne, the I-80/I-25 interchange prominently connects two major interstates and national freight corridors carrying local traffic, commuters, F.E. Warren AFB personnel, tourists, and freight. The adjacent I-25/US 30 interchange, which will also benefit from this project, connects to the historic downtown—the heart of Cheyenne's tourism—



providing access to the Cheyenne Frontier Days (CFD) Complex, the state capitol complex, the historic train depot, multiple business and industrial parks, community centers and parks, and local businesses. The interchanges also lead to vital services, such as the Cheyenne Regional Medical Center, several urgent cares, the Comea Shelter (Transitional Living Program Complex), and many government agency buildings.

Improving the design, safety, and efficiency of the I-80/I-25 and I-25/US 30 interchanges will ensure safe, efficient, and easy access to essential services and critical destinations both in the local community and beyond. As noted in the Project Location Narrative, these interchanges provide efficient connectivity to multimodal transportation options such as an access point to the Cheyenne Transit Program, Green Route (see Figure 3.8), the extensive multi-use pathway

system—Cheyenne Greenway (see Figure 3.9)— and freight rail lines for Union Pacific (UP) and Burlington Northern Santa Fe (BNSF). Importantly, smoother traffic flow will allow this highly used interchange—specifically, the highest used interchange in the state—to reduce congestion and enhance mobility for all users, especially freight traffic that accounts for around half of traffic volume for I-80 alone.

The proposed interchange design will also enhance mobility from a national defense perspective. The updated interchanges will accommodate current loads, including those transported by the nearby AFB. These operations include transporting personnel to and from the main support base and the missile complex to support command and control operations, security, and maintenance of 150 Priority-Level 1 assets and 15 Priority-Level 2 assets. On-alert nuclear forces are the bedrock of our National Security Strategy and

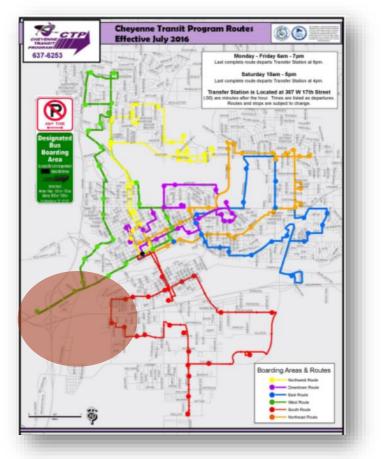
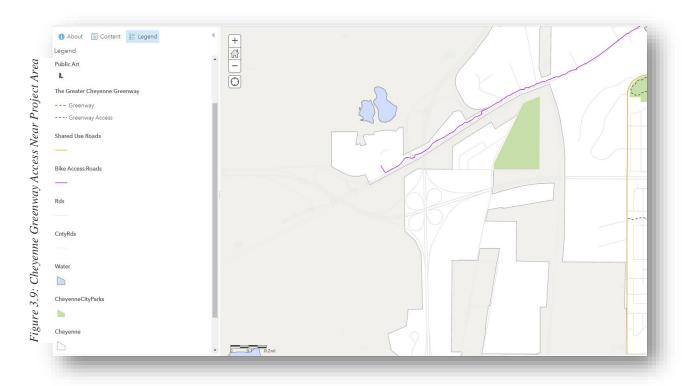


Figure 3.8: Cheyenne Transit Program Route Map with Project Area



National Military Strategy. The Wyoming National Guard 153rd Command and Control Squadron accesses the interchange weekly as well for both operations and training. Always, but particularly during convoy training, safety at the interchange is paramount for drivers and equipment.

Economic Competitiveness

The proposed design improvements for both interchanges will decrease transportation costs and improve travel time reliability—mitigating commute burdens for local traffic, visitors, and freight. With tourism ranking as Wyoming's second highest grossing industry, improving the interchanges will be advantageous for the local and state economies. Both interchanges are located near Frontier Park—a major tourist destination and home to the world's largest outdoor rodeo during CFD—and the historic downtown and train depot, which house a robust swathe of hospitality jobs including hotels, restaurants, and other businesses. The Cheyenne Chamber of Commerce Business Climate Survey supported the notion that such infrastructure improvement will help local businesses—with 92 percent of business respondents indicating that interstate accessibility and roadway connectivity were the two most favorably rated elements of the business climate in Greater Cheyenne.³

Addressing these interchanges will support equitable commercial development in the surrounding business and industrial parks allowing for growing job opportunities in the area (see Figure 3.10). This is especially important given that the project area includes an opportunity zone with a low-income population as well as a population that is in the 76th percentile

³ <u>Cheyenne/Laramie County Business Climate Survey Results, Cheyenne Chamber of Commerce, (2020).</u>

(nationally) and 82nd percentile (statewide) for unemployment compared to all EPA people's block groups in the US and in Wyoming. Fortunately, once designed, the reconstruction can be phased out and bid to allow for many high-quality contracting jobs, including Disadvantaged Business Enterprise (DBE) contractors. Beyond actual construction, the new interchange will facilitate growing industries in the project area including the Walmart Distribution Center, Cheyenne Business Parkway—with tenants including Lowe's Regional Distribution Center, EchoStar Broadcasting Corp, Sierra Trading Post Fulfillment/Catalog Headquarters, Cheyenne Firefighters Training Facility, and Greenhouse Data—and the Cheyenne Logistics Hub with over \$80 million in established infrastructure for future growth.



On a national scale, improving these interchanges to accommodate growing freight movement will also increase economic strength and resiliency. Unfortunately, the interchanges' current design paired with closures from winter weather and crashes harm freight resiliency. In fact, the interstate segments of I-80 and I-25, including the interchange, are rated by the WYDOT Freight Resiliency Plan at a higher risk of closures from weather and accident incidents than most other interstate segments statewide.⁴ The resulting delays have negative implications for national supply chains, especially when one considers that the proportions of heavy truck-involved crashes were greater than the national percentages of 4 percent for total crashes and 3 percent for injury crashes. Put another way, Wyoming averages 43 crashes involving large trucks per million people, ranking Wyoming the second highest in the nation from 2014 through 2017. Fewer crashes, lost goods and equipment, and increased efficiency reduce the cost of doing business.

⁴ Wyoming Statewide Freight Plan, Wyoming Department of Transportation, (2015).

Economic Reliance on I-80/I-25 Interchange

Approximately 50% of WY domestic exports travel west on I-80 from Cheyenne to Utah and south on I-25 from Cheyenne to Colorado

Approximately 69% of WY domestic imports travel through Cheyenne from the north and south on I-25 and from the west on I-80

WY's rural interstate vehicle miles traveled by combination trucks is third highest in the nation at 29%

2016 freight value of goods shipped through WY by truck is \$29.2 billion

Since the value of freight shipped through Wyoming by truck is expected to increase 46 percent over the next 30 years, ensuring that this significant cornerstone in Wyoming's infrastructure is up to the task is essential to Wyoming's and the nation's economic growth and competitiveness.

State of Good Repair

The proposed design improvements and replacement of the I-80/I-25 and I-25/US 30 interchanges is consistent with the WYDOT Transportation Asset Management Plan (TAMP)⁵ and the WYDOT Critical Freight Risk and Resiliency Plan.⁶ Replacing and updating the two proposed interchanges aligns with the TAMP as it will replace important assets that are currently in fair to poor condition (see Figures 3.11 and 3.12) to

accommodate for poor weather conditions and future traffic patterns while ensuring a state of good repair.

The WYDOT Risk and Resiliency Plan identified I-80, I-25, and US 30 in the top five most critical freight assets for the state. If the interchanges where these critical national freight routes converge are not updated to ensure resiliency for the future, then the outdated infrastructure will present local, regional, and national vulnerabilities for freight movement. Such vulnerabilities



include safety implications that jeopardize road users and

freight assets, delivery delays of valuable goods, wear and tear on vehicles and equipment (due to poor pavement condition), and overall disruptions to reliable mobility and freight movement that hinder network efficiency and economic growth.

Though funding such a large and involved project will be challenging, securing funding

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⁵ WYDOT Transportation Asset Management Plan, Wyoming Department of Transportation, (2019).

⁶ <u>WYDOT Risk and Resiliency Plan for Critical Freight Transportation Assets, Wyoming Department of Transportation, (2018).</u>

for the final design plans will help WYDOT to better estimate the funding required for the next project phases.

Given the outdated state of both proposed interchanges, implementing reconstruction to achieve a state of good repair will reduce overall lifecycle costs. The updated interchange designs also provide future-focused planning that will accommodate I-80's expansion, as recommended in the I-80 Corridor Study, for enhancing mobility and safety.⁷ Additionally, improving such a vital piece of rural transportation infrastructure with direct connections to national defense functions and national economic interests will be a strategic investment with positive local, regional, and national implications.

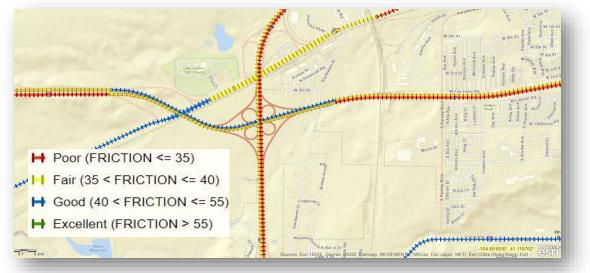


Figure 3.11: Project Area Friction Rating

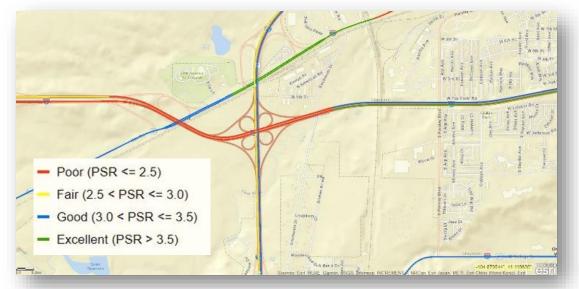


Figure 3.12: Project Area Pavement Serviceability Rating (PSR)

⁷ I-80 Corridor Study: Master Plan and Implementation Report, (2018).

Partnership and Collaboration

WYDOT will be the sole project sponsor. Because of the many benefits the proposed reconstruction will bring to interested transportation and community stakeholders, WYDOT continues to collaborate with interested parties to receive important feedback and considerations while completing the final design plans. Stakeholder letters of support from the following entities are included as attachments to this application. Stakeholders include the following entities:

Cheyenne Metropolitan Planning Organization (MPO); Laramie County; Local community and businesses (including DBEs); Cheyenne Frontier Days volunteer organization; Wyoming Trucking Association (WTA); Associated General Contractors of Wyoming (AGC of Wyoming); and Governor Gordon.

WYDOT has been and will continue to extensively pursue local engagement and consider public comment throughout the design and planning process.

In 2020, WYDOT hosted a virtual public meeting where attendees could select boards to view and select icons to leave voicemails, email comments, obtain an address to mail comments, or complete an online comment form. The virtual public event was well attended with approximately 148 individual visitors who viewed the meeting room and spent an average of 25 minutes exploring the room. Of the 148 virtual room visitors, over 11 percent visited the room more than once. To accommodate those without internet access, WYDOT also distributed print copies of the project summary fact sheet and comment form, provided in both English and Spanish, to three community centers. The community centers were selected based on communities within the project area that were identified as having a higher than average percentage of households without internet access compared to the rest of Laramie County according to the 2018 Census data.

WYDOT also plans to continue its push to increase DBE participation to further benefit and strengthen the community and economy. Once design is complete, the construction phases will provide many opportunities for construction-related businesses to participate. WYDOT's Civil Rights Program will continue to actively solicit participation from women and minority-owned businesses, including for opportunities related to this project. For many years now, WYDOT has exceeded its DBE goals. As of 2021, WYDOT set a DBE participation goal of 5.9 percent with actual accomplishments reaching 6 percent. A project such as the one proposed will provide ample opportunity for WYDOT to increase DBE participation even further.

Innovation

Since this is a planning request for advancing project design, no innovative technology, project delivery, or financing will be deployed at this time. When the project eventually proceeds to construction, WYDOT will likely explore innovative project delivery and financing options given the significant project size and complexity.

I-80/I-25 INTERCHANGE DESIGN

PROJECT READINESS

Since the Wyoming Department of Transportation (WYDOT) is only requesting planning funds, the following Project Readiness assessment only includes the required Technical Capacity assessment.

Technical Capacity

WYDOT has extensive experience with managing federal funds, including discretionary funding. In fact, the Federal Highway Administration (FHWA) Resource Center uses Wyoming's project closeout process as a best practice for other states. Additionally, WYDOT has completed other grant projects on time and within budget numerous times.

WYDOT is familiar with the type and scope of the project design. WYDOT is capable of delivering project design on time and within budget. Further, WYDOT is familiar with receiving past awards for Transportation Investment Generating Economic Recovery (TIGER), Better Utilizing Investments to Leverage Development (BUILD), and Infrastructure for Rebuilding America (INFRA) grants. WYDOT is also familiar with the reporting requirements involved.

Since the requested funding is for design only, the project's right of way acquisition status does not pose any risk to the project.

Finally, WYDOT is well versed in the federal requirements needed for delivering a federally funded project and is confident it can do so for this final design plan project.