



Preliminary Purpose and Need



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Acronyms

BNSF	BNSF Railway
BRT	bus rapid transit
CDOT	Colorado Department of Transportation
CRISI	Consolidated Rail Infrastructure and Safety Improvements
DOLA	Colorado Department of Local Affairs
FRA	Federal Railroad Administration
FRPR	Front Range Passenger Rail
GHG	greenhouse gas (emissions)
NEPA	National Environmental Policy Act
Rail Commission	Southwest Chief and Front Range Passenger Rail Commission
RTD	Regional Transportation District
SB	Senate Bill
SDP	Service Development Plan
SOV	single-occupancy vehicle
UP	Union Pacific Railroad

1. Introduction

Governmental coalitions and transportation advocacy groups have planned and promoted a passenger rail system serving Colorado’s Front Range urban corridor—Front Range Passenger Rail (FRPR)—for decades (Figure 1). This FRPR project furthers that planning by focusing on the near-term opportunity to introduce intercity passenger rail service along Colorado’s Front Range urban corridor, predominately utilizing freight railroad infrastructure and interoperating with the BNSF Railway (BNSF) and Union Pacific Railroad (UP) freight rail operations in the state.

The preliminary Purpose and Need supports the pre-National Environmental Policy Act (NEPA) preliminary Service Development Plan and analysis of route, service, and financial options for the FRPR project. It informs evaluation criteria and performance measures to assess how system alternatives meet project needs and whether the undertaking as finalized accomplished the intended results. It also provides a framework to engage stakeholders and the public about the scope, needs, benefits, impacts, timing, and structure of the FRPR system. The preliminary Purpose and Need will evolve and be updated as the continuing service development planning effort informs potential demand and service options.

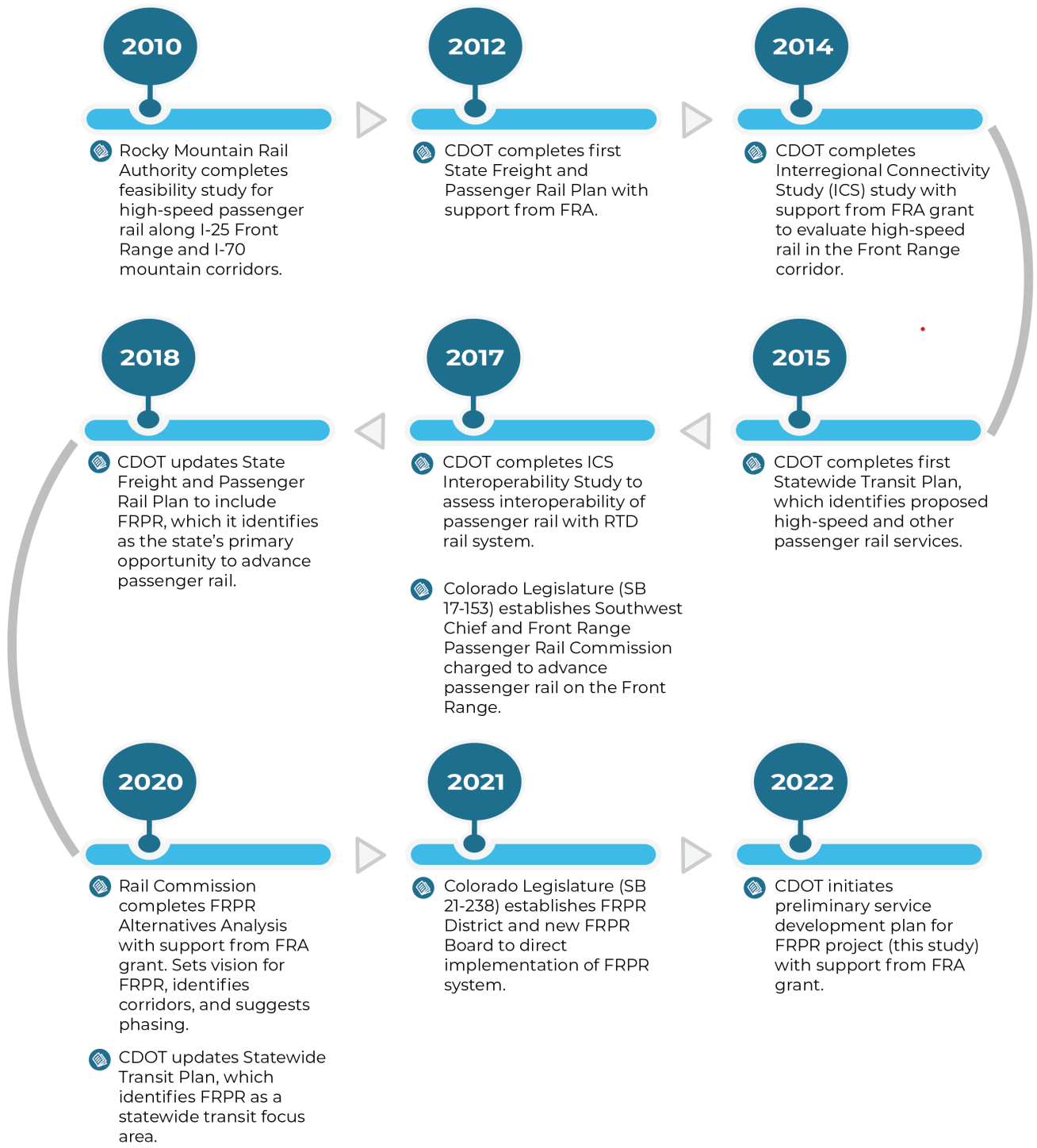
Implementation of an FRPR system will involve completion of a comprehensive FRA NEPA process, which is required for its approval for intercity passenger rail systems and potential Federal funding participation. The Purpose and Need will be subject to further agency and public review and comment during the NEPA phase.

1.1. Planning Background

In 2017, the Colorado Legislature passed Senate Bill (SB) 17-153 to establish the Southwest Chief and Front Range Passenger Rail Commission (Rail Commission), an 11-member body that included rail advocates, local officials and representatives of the metropolitan planning organizations along the Front Range, BNSF, UP, the Regional Transportation District (RTD), the Colorado Department of Transportation (CDOT), and Amtrak. SB 17-153 tasked the Rail Commission to “facilitate development and operation of a Front Range passenger rail system that provides passenger rail service” along the Front Range (Interstate 25) corridor between Pueblo and Fort Collins.

Figure 1: Planning Timeline for the FRPR System

Front Range Passenger Rail Planning Timeline



In 2020, the Rail Commission, in partnership with CDOT and with support from the Federal Railroad Administration (FRA), continued planning for an FRPR system and documented its findings in an *Alternatives Evaluation Report* (Rail Commission, 2020). This effort incorporated past planning to develop a vision for an FRPR system, evaluate corridors for passenger rail service that could serve the major population centers along the Front Range, consider governance options for the FRPR program, and conduct extensive stakeholder outreach. The Rail Commission concluded through this study that interoperating passenger rail service along the existing freight alignment provided the best opportunity to initiate FRPR service and capitalize on the operational partnerships and complementary services of the Rail Commission partners such as BNSF, UP, RTD, and Amtrak. In 2020, CDOT received a CRISI (Consolidated Rail Infrastructure and Safety Improvements) grant from the FRA to analyze the feasibility of introducing FRPR service through interoperation with freight railroads, which is the focus of the FRPR project in this study.

Shortly after the grant award, in 2021, the Colorado State Legislature passed SB 21-238, which created the Front Range Passenger Rail District “for the purpose of planning, designing, developing, financing, constructing, operating, and maintaining a passenger rail system.” Also in 2021, the US Congress passed the Bipartisan Infrastructure Investment and Jobs Act, which provides significant Federal funding for intercity passenger rail service, such as the FRPR system.

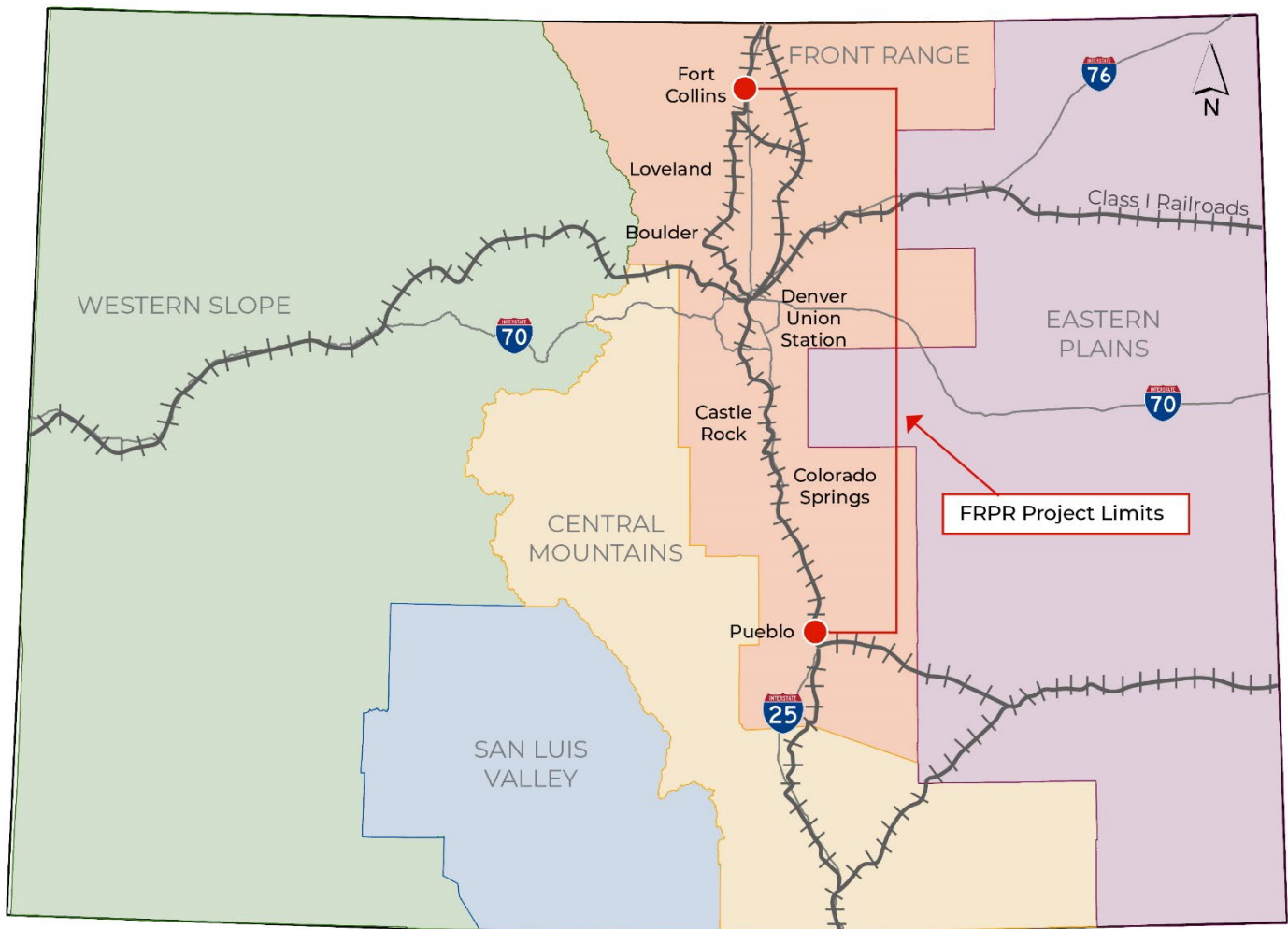
1.2. Project Location and Context

The FRPR project is located within the BNSF and UP freight rail corridors along Colorado’s Front Range urban corridor between Pueblo and Fort Collins. The project limits traverse the cities of Pueblo, Colorado Springs, Castle Rock, Denver, Boulder, Loveland, and Fort Collins (Figure 2).

The BNSF and UP freight corridors are the focus for introducing the FRPR system because their freight corridors generally encompass the core and connections to Front Range urban corridor where intercity passenger rail is planned. The FRPR District and its predecessors have developed relationships with the Class I railroads and are collaborating to develop the FRPR system.

Additionally, Amtrak has expressed interest in operating passenger service along the Front Range within the freight corridors and has been an active participant in the FRPR District and former Rail Commission.

Figure 2: FRPR Project Location



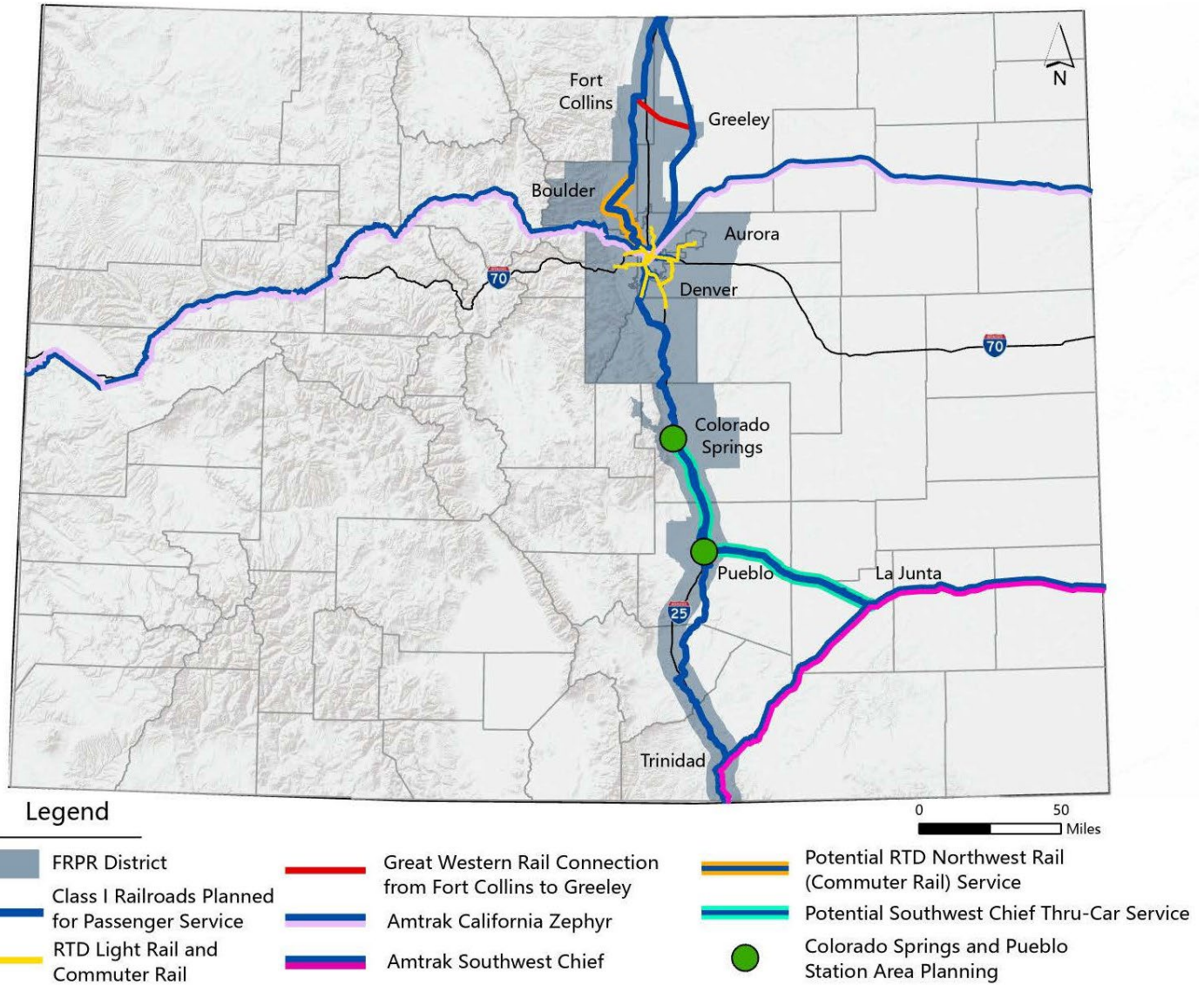
*Colorado Regions are shown as defined by the Department of Local Affairs (DOLA) and created through combination of county boundaries

0 50 Miles

Colorado’s transportation system includes an extensive network of roads and transit services in the Front Range and beyond. However, intercity passenger rail in the state is limited to two Amtrak long-distance routes—the California Zephyr and the Southwest Chief, neither of which connect Front Range communities—and a seasonal service between Denver and the Winter Park Ski Resort. These Amtrak services operate on tracks of the two Class I railroads that operate in Colorado: BNSF and UP.

Other complementary and supporting existing and planned multimodal connections would support the FRPR system by capturing and distributing FRPR system travelers beyond the Pueblo-Fort Collins service area (Figure 3). The vision for an intercity FRPR system to be the backbone of non-vehicular travel throughout the Front Range relies on transit investments by Front Range communities and the demand for travel options by Front Range travelers.

Figure 3: Colorado's Freight and Intercity Passenger Rail Network



Supporting transit services are summarized below for context of how the FRPR system could integrate with the state's multimodal transportation network.

Supporting Multimodal Infrastructure

Denver Union Station, located in downtown Denver, is the multimodal hub of rail and transit services in the Denver metropolitan area, the state's capital and largest urban area. Union Station is home to Amtrak, RTD bus and rail services, and intercity bus services and would also be a key hub for an FRPR system.

RTD services at Union Station include four commuter, two light rail, two Bus Rapid Transit (BRT), three regional bus, and six local bus routes, which offer connections to destinations throughout the Denver metro area, as well as the RTD MallRide, a free shuttle serving downtown destinations.

Outside of services connected to Union Station, RTD also provides bus, light rail, and commuter rail services throughout the Denver metro area with 143 fixed routes, 96 Park-n-Ride facilities, and other specialized bus services.

Additionally, CDOT funds and operates (under contract) intercity bus service, branded Bustang, that provides daily service between urbanized areas along the Front Range including Denver-Fort Collins and Colorado Springs-Denver. CDOT also operates Bustang Outrider, which serves rural areas across the state within the Front Range corridor, and several services focused on the I-70 mountain corridor. The Bustang family of routes that serve Denver operate out of Union Station.

Other Front Range communities also have local transit services that could integrate with the FRPR system outside of the Denver metro area. These include:

- Fort Collins' Transfort transit service, which includes MAX BRT, a 5-mile-long system that serves Colorado State University and downtown Fort Collins;
- City of Loveland Transit, COLT, which includes six fixed bus routes in Loveland;
- Mountain Metro Transit in Colorado Springs, which includes 40 routes through Colorado Springs, along with a free downtown shuttle; and
- Pueblo Transit, which offers 11 bus routes through Pueblo.

2. Preliminary Purpose and Need

The FRPR project is proposed to advance implementation of the FRPR system. It also supports the state's multimodal transportation vision that decreases dependence on single-occupancy vehicle (SOV) travel with the capacity to meet the future mobility needs of residents, businesses, and visitors. This vision is viewed as critical to Colorado's quality of life by stakeholders and policy makers. An FRPR system can deliver an excellent customer experience, fundamentally changing the way people in the Front Range travel and contribute to community, economic, and environmental benefits. Past planning, partnerships, and stakeholder engagement have demonstrated widespread support for an FRPR system. Together, they have positioned Colorado to develop an operating service using existing freight railroad infrastructure that can be implemented dynamically as demand and ridership grows and matures.

2.1. Preliminary Purpose

The preliminary purpose of the FRPR project is to introduce intercity passenger rail service along Colorado's Front Range urban corridor between Pueblo and Fort Collins, operating within freight railroad corridors and predominately utilizing shared track with the BNSF and UP railroads. An FRPR system would add a new intercity travel option for Front Range travelers that would enhance the state's transportation network and facilitate integrated multimodal travel options between major population centers. Adding a service that attracts people to choose passenger rail over SOV travel would enhance community connections and contribute to future economic vitality, equity, and environmental sustainability. The FRPR system would:

- Provide increased mobility choices for safe, efficient, and reliable travel along the Front Range now and in the future.
- Connect communities to jobs, retail, recreation, health care, leisure, education, entertainment, and other regional destinations.
- Foster economic vitality and improve transportation equity.
- Advance Federal, state, and community economic, environmental, and equity outcomes and capitalize on Federal objectives and funding to expand passenger rail infrastructure investments outside of the Northeast Corridor.

2.2. Preliminary Needs

Demand for passenger rail transportation is driven by Colorado's growing population, expanding economy, increasing tourist and business travel, worsening highway congestion, and public and business demand for multimodal and sustainable travel options. The FRPR project is needed to:

- **Improve mobility and multimodal travel options**—Colorado needs integrated multimodal travel options to reduce traveler dependence on SOVs, increase transportation system capacity, and serve regional travel demand.
- **Connect communities**— Limited mobility choices exist along the Front Range that efficiently connect people to jobs, retail, recreation, health care, leisure, education, entertainment, and other regional destinations.
- **Foster economic vitality and improve transportation equity**—an FRPR system would strengthen links among Front Range economies and increase options for residents and businesses to equitably access economic opportunities.
- **Support environmental sustainability goals**—an FRPR system that enables increased non-SOV travel supports Colorado and Federal priorities and commitments to reduce the impacts of the transportation sector on the environment and climate. .

2.2.1. Improve Mobility and Multimodal Options

The lack of reliable and time-competitive alternatives to SOV intercity travel in the Front Range contributes to traffic congestion and stresses the region's economic competitiveness and quality of life. For instance, CDOT data show that on a typical weekday through central Denver, I-25 averages 8 hours or more of congestion—three hours in the morning peak period and five in the afternoon peak period (CDOT, 2020a). In this same area, crashes, incidents (such as disabled vehicles), and special events further contribute to the unreliability of trip times, requiring full or partial closure of the interstate every three to four days (CDOT, 2020a). In its 10-year transportation plan, CDOT reports the existing highway system cannot accommodate future travel growth without significant changes from future technology or capacity improvements, and alternatives to expanding roadway capacity are required to meet transportation demands, travel needs, and environmental policy objectives (CDOT, 2022).

As an additional, competitive travel option for the region's maturing multimodal transportation system. An FRPR service can offer a reliable and enjoyable alternative to SOV travel and decrease the region's dependency on congested roadways.

Front Range population and employment are expected to increase dramatically over the coming decades. Colorado is the seventh fastest growing state in the country, and current projections indicate that Colorado will experience growth rates more than twice the national average in population, employment, and visitors (U.S. Census, 2021a). The Colorado Department of Local Affairs (DOLA) projects that by 2025, there will be more than 6 million people in Colorado; and more than 7.5 million people by 2050 (DOLA, 2023) (Figure 4) Employment in Colorado is projected to grow 28 percent by 2050 (Figure 5). This increase in population and employment will place a heavy burden on existing transportation systems and result in an increase in demand for travel up and down the Front Range from Pueblo to Fort Collins, exacerbating congestion and unpredictable travel times.

Colorado's population is highly concentrated in the Front Range, where 85 percent of the state's population currently lives and is projected to live in 2050 (DOLA, 2023). Employment is also concentrated in the Front Range with 86 percent of the state's jobs in the Front Range urban markets. The Denver-Boulder areas have the highest proportion with 71 percent of the state's jobs. Congestion will grow and intensify on major highways due to population and employment growth.

Growing congestion, compounded by the unreliability of highway travel, increases travel time and the demand for alternative options, such as passenger rail, along the Front Range region (CDOT, 2020b). In its 2018 State Freight and Passenger Rail Plan, CDOT identified the FRPR system as Colorado's most immediate opportunity to improve and expand mobility, relieve pressure on the state's existing transportation network, and provide travel options to meet future demand.

Figure 4: Colorado 2050 Population Projections

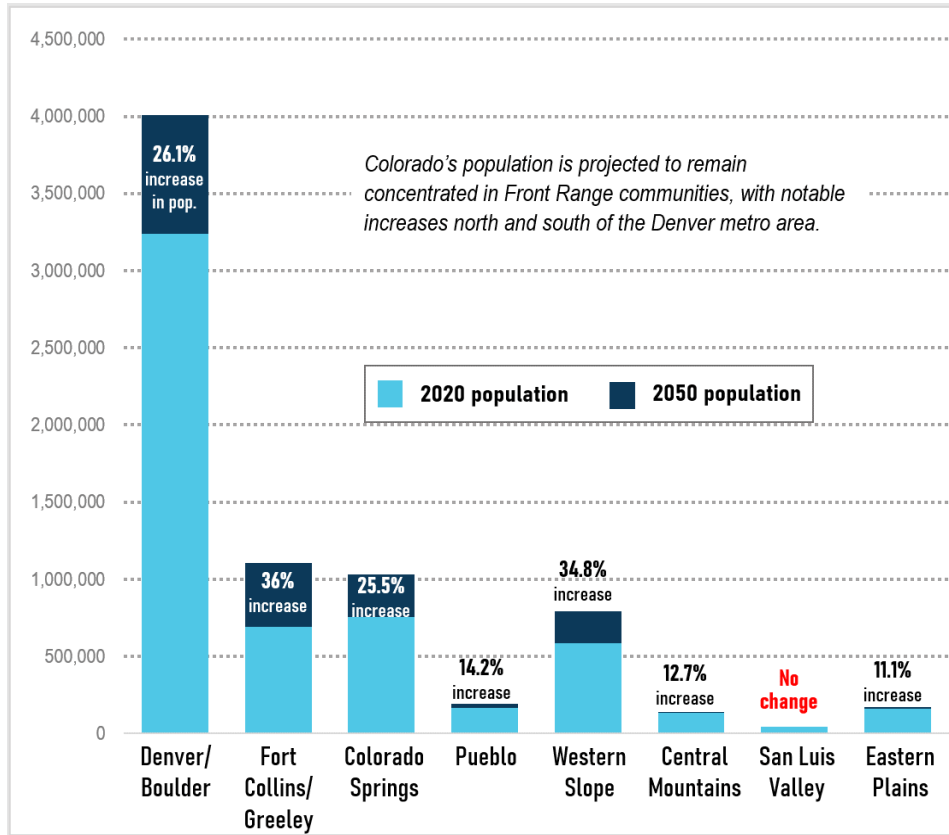
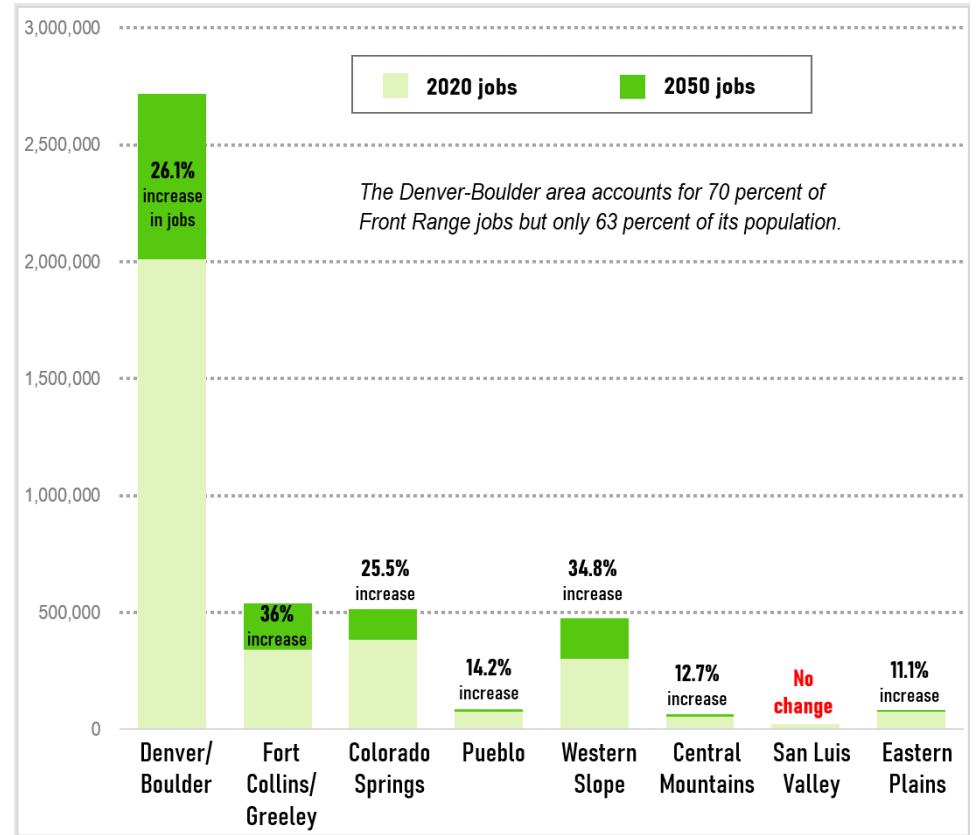


Figure 5: Colorado 2050 Employment Projections



Sources: Colorado Division of Local Affairs and State Demography Office; geographic regions are shown in Figure 2.

2.2.2. Connect Communities

Connecting communities with an efficient and reliable SOV alternative would provide an attractive mobility choice for Front Range residents, workers, and visitors. An efficient, integrated FRPR service as part of the state's core transportation network would be the backbone of Front Range connectivity and mobility, enhance intercity and interregional travel throughout the state, and contribute to economic and social opportunities. An FRPR system would enhance connectivity between significant regional origin and destination points and provide an important new intercity transportation option among Front Range communities as part of an integrated transportation network.

According to the 2020 US Census, the Denver-Aurora-Lakewood and Colorado Springs areas rank in the 100 most populated metropolitan areas in the country, ranking 18 and 66 respectively, and other Front Range communities, including Boulder, Fort Collins, and Greeley, are among the nation's most populated and fastest growing areas (U.S. Census, 2021b). Greeley was the sixth fastest growing metro area in the nation between 2010 and 2020; and Fort Collins (38), Denver-Aurora-Lakewood (51), Colorado Springs (62) were in the top 100 fastest growing metro areas during the same period (U.S. Census, 2021b). Linking key destinations in these population centers through passenger rail provides choices for urban communities and supports sustainable land use and development, including leveraging local transit investments and policies that would be needed to distribute users from the FRPR system to their ultimate origins and destinations.

FRPR also provides the potential for employers and smaller communities in rural areas, many of which are projected to lose population over the next 25 years, to leverage and/or develop local and regional transit systems to connect with the urban economies and amenities. Five rural counties (with no populated areas of 50,000 or more)—Las Animas, Huerfano, Custer, Teller, and Elbert—are adjacent to the FRPR district.

Lastly, a mature FRPR system can better connect urban and rural areas in Colorado to the national passenger rail system, linking the growing Colorado market to and between Amtrak's Southwest Chief (Chicago-Los Angeles) and California Zephyr (Chicago-San Francisco).

2.2.3. Foster Economic Vitality

Colorado ranks among the nation's top regional economies according to numerous metrics and surveys. For instance, US News and World Report ranks Colorado the second strongest economy in the US overall, and first in employment, fourth in business environment, and fifth in growth (US News and World Report, 2021). Another 2022 analysis conducted by WalletHub ranked Colorado's the sixth economy in the country based on key economic indicators of economic activity, economic health, and innovation potential (McCann, 2022).

The Denver metro area is the hub of economic activity for the state, with more than half the state's population, jobs, and housing. Colorado's continued economic competitiveness for the

Denver area and the state would be strengthened by an integrated transportation network of multimodal options, including better intercity connections, which provide choice for Coloradans and visitors. Economic development organizations, local governments, and private businesses across the region support the concept of the FRPR system and cite transportation connections and multimodal choices as factors in attracting businesses and employees that have fueled Colorado's recent economic growth and competitiveness. Communities along the Front Range see passenger rail as a significant economic benefit, attracting economic investment and business, connecting employees to jobs and affordable housing, and bringing communities together to support economic vitality throughout the state and enable a more balanced and equitable distribution of economic prosperity across the Front Range.

Improving transportation equity is needed to provide travel options that provide improved access to housing, jobs, education, health care, and other services along the Front Range. The FRPR project is committed to seeking and implementing equitable access to transportation options to ensure reliable, safe, and affordable transportation choices for all potential users—workers, leisure travelers, older adults, young people, persons with disabilities, and historically underserved communities. In addition to supporting travel choices and access, and with input from the public and elected officials/representatives, an FRPR system can be a foundation for equitable transportation choices that enable underserved populations and communities, who are hampered by disconnected travel options and choices today, to access quality transportation options. It would reduce dependency on highways, improve air quality and community health, and could connect to complementary mobility options (such as sidewalks, bike lanes, micro-transit, and feeder transit services) to support a multimodal transportation network that is particularly lacking in historically disadvantaged communities.

By leveraging existing infrastructure and capitalizing on complementary community transit investments, the FRPR project could accelerate the delivery of economic benefits and provide mobility choices and economic opportunities sooner, with lower capital costs.

2.2.4. Support Environmental Sustainability Goals

An attractive alternative mode to SOV travel would provide Front Range travelers the choice to select a more sustainable method for traveling along the Front Range that benefits communities and the environment collectively. As more people can and do choose alternatives to SOV travel, vehicle miles traveled and vehicle emissions will be reduced, advancing the state's environmental goals and providing sustainable mode choices for future generations.

Colorado has bold goals to preserve and protect its natural environment, quality of life, and visitor and recreational economy that are foundational to the state. In 2019, the state legislature passed HB-19-1261, Climate Action Plan to Reduce Pollution, which set greenhouse gas (GHG) pollution reduction goals. In 2021, Governor Polis issued the Greenhouse Gas Pollution Reduction Roadmap (Polis, 2021) to further the HB-19-1261 climate action plan. The Roadmap concludes that changes

to transportation planning and infrastructure are necessary to reduce growth in driving, which is a key to reducing GHG pollution. The Roadmap specifically identifies Front Range [Passenger] Rail as a near-term action the state will pursue over the next two years to make progress toward its 2025 and 2030 GHG pollution reduction goals. In 2021 the Colorado Senate enacted SB-21-260, Sustainability of the Transportation System, which creates new funding sources and state enterprises to improve and expand transportation infrastructure with a focus on mitigating environmental and health impacts of transportation systems. CDOT is committed to pursuing transit investments that support economic goals in an environmentally responsible manner. In its recent 10-Year Plan update (September 2022), CDOT outlines transportation goals that focus on multimodal mobility, safety, asset management, and reducing greenhouse gas emissions. An FRPR system—and its role in shifting from SOV-dominated travel—is a key component of system connectivity and transit mobility that is needed to achieve those goals. All the metropolitan planning organizations along the Front Range have multimodal and climate goals that align with the FRPR project.

The FRPR project would have tangible and aspirational environmental benefits and would play a role in mitigating congestion and emissions. By predominately utilizing existing rail infrastructure and shared passenger and freight operations, the FRPR project would avoid many new environmental impacts, minimize disruption, and protect and enhance previous investments compared with building on a new alignment.

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