



**We Make Lives Better
Through Connections.**

Northwest Rail Peak Service Feasibility Study Conclusion

RTD Board Study Session

September 18, 2024

Outline



Orientation



**BNSF
Coordination**



**Summary
Report**



**Funding
Considerations**



**Passenger Rail
Opportunities**

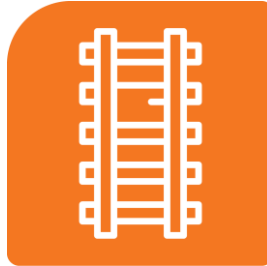


Orientation

What is Northwest Rail?



Proposed commuter rail service from Denver Union Station to Boulder that terminates in Longmont



39-mile extension from Westminster Station to Longmont would use existing freight railroad tracks owned by Burlington Northern Santa Fe (BNSF) Railway



RTD is evaluating an initial peak service approach as a **first step** toward full-day rail service to Boulder and Longmont

History

2004

FasTracks Passes

Voters approved a new tax to build transit expansion program

2010

Environmental Evaluation (EE)

EE recommended building 11 new stations and a second track alongside the BNSF freight track

2013

Northwest Area Mobility Study

RTD and local transportation partners prioritized cost-effective, near-term mobility projects (e.g., BRT) to advance while pursuing Northwest Rail as a longer-term goal

2016

B Line Opens

First Northwest Rail segment to southern Westminster begins service

2017

Peak Service Concept

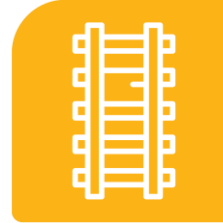
Stakeholders requested evaluation of a peak hour commuter rail starter service

What is the Peak Service Study?



Assessing feasibility of initial peak period service from Longmont to Denver:

- *3 weekday Southbound morning trips*
- *3 weekday Northbound evening trips*



Coordinating with BNSF Railway, owner of the rail line that Northwest Rail would use



Partnering with local jurisdictions to plan six new stations in Westminster, Broomfield, Louisville, Boulder, and Longmont



Evaluating potential train types and technologies



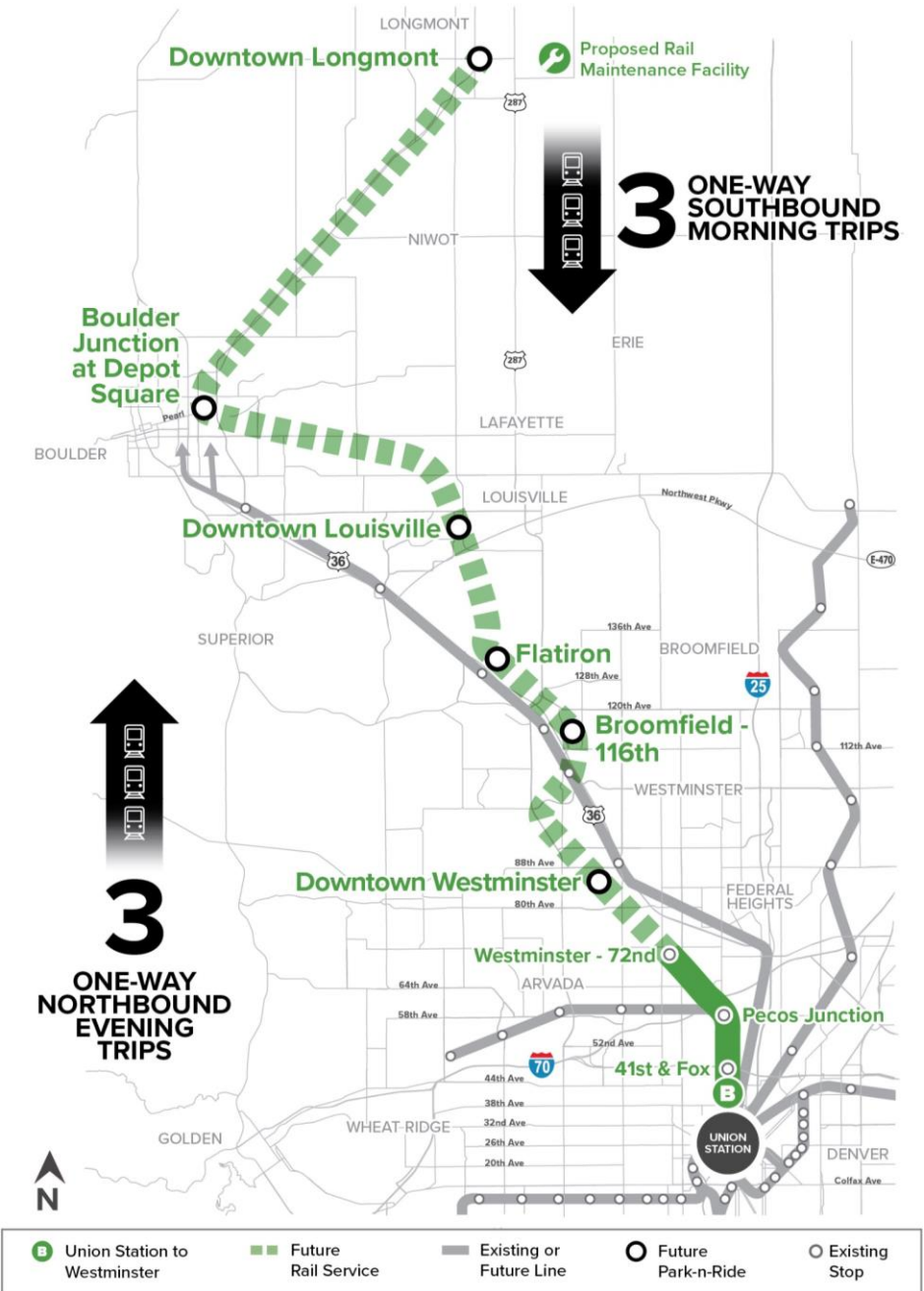
Identifying feasible locations for a commuter rail maintenance facility in Longmont



Exploring opportunities for partnership with Front Range Passenger Rail and integration with adjacent mobility projects

Proposed New Stations

- Downtown Longmont
- Boulder Junction at Depot Square
- Downtown Louisville
- Flatiron
- Broomfield – 116th
- Downtown Westminster



Partners and Collaboration

Collaborative effort between RTD, local transportation partners, BNSF Railway, CDOT, and Front Range Passenger Rail District to develop a safe, reliable, and connected multimodal transportation network

Study Advisory Team

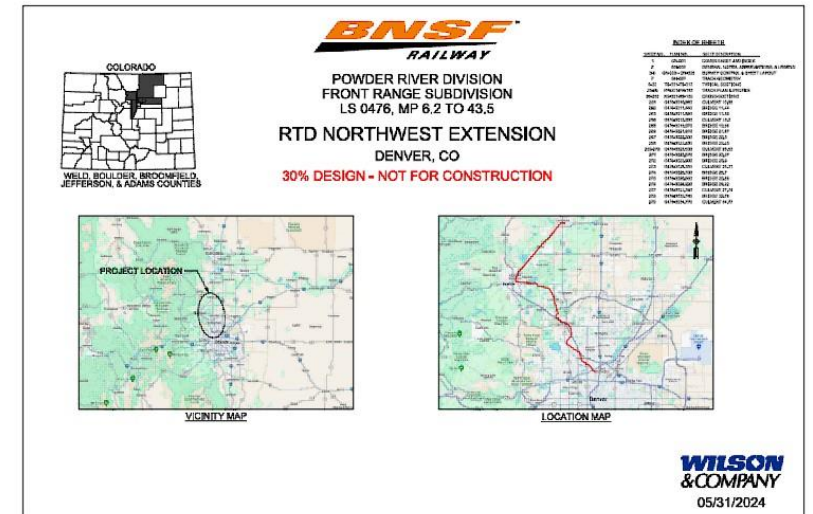




BNSF Coordination

BNSF 30% Design

- BNSF/Wilson & Co. delivered **30% Preliminary Design** package
- **Improvements Required:**
 - Railway
 - Drainage
 - Crossings
 - Structural (*e.g., bridges, walls*)
- **Preliminary Construction Cost Estimate:**
 - Design and build all trackway improvements



Required Agreements

- BNSF-provided Infrastructure Improvements
- Access Easement (weekday time blocks)
- Maintenance of Way (track maintenance, etc.)
- Dispatching and potentially train operators



Summary Report

Common Set of Facts

■ Categories

- BNSF Requirements
- Operating Specifications
- Infrastructure Needed
- Ridership Projections
- Capital and Operating Cost Estimates

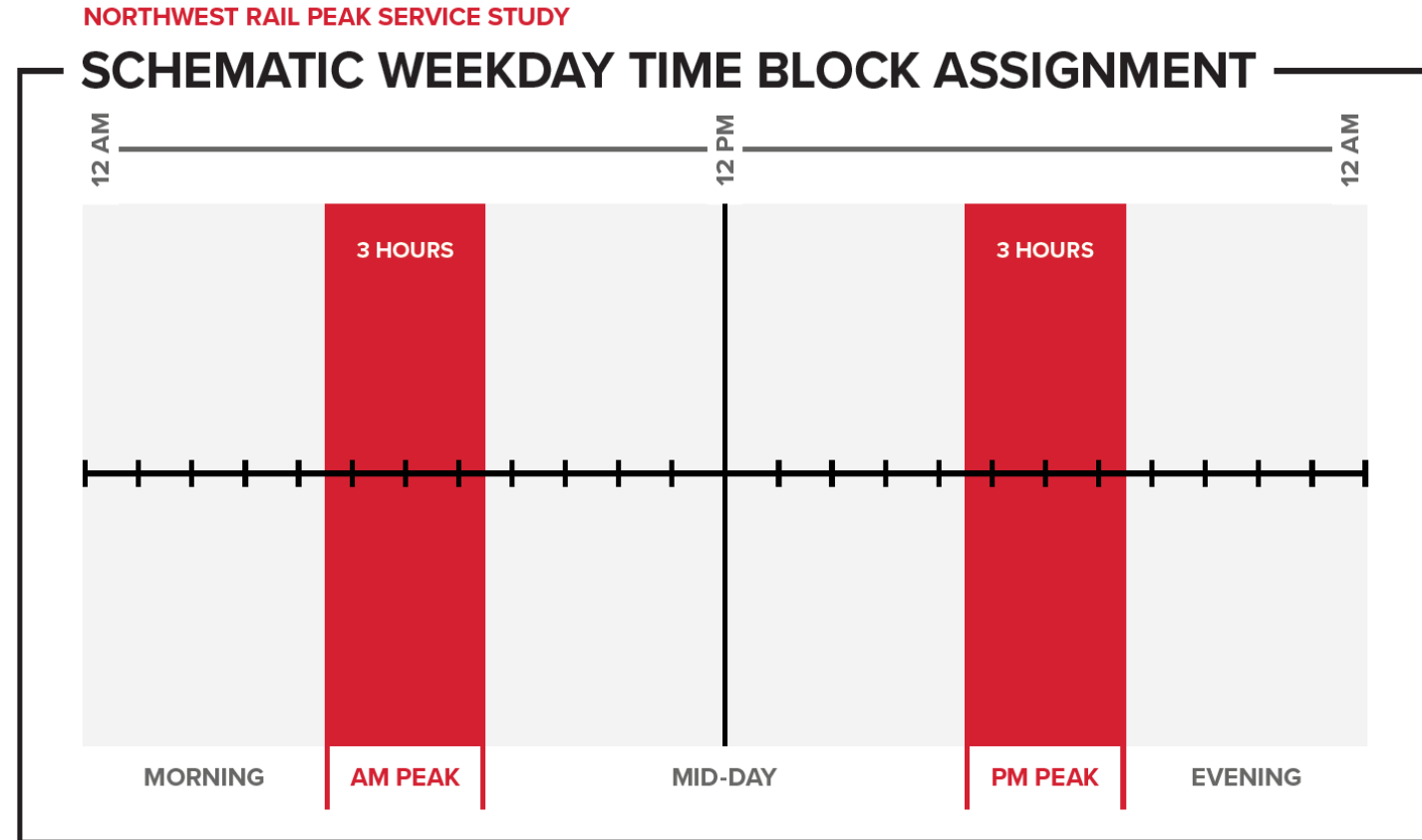
Common Set of Facts: BNSF Requirements

- **Infrastructure**—one-time capital cost*
 - Trackway improvements
 - Includes PTC, station and freight sidings, train signal and communications, and regulatory requirements
- **Access Easement**—one-time capital cost
 - Long-term/permanent property acquisition
 - Dedicated daily operating window
- **Maintenance of Way**—annual operating cost
- **Dispatch and Coordination of Train Operations**—annual operating cost

* Infrastructure assets will require periodic renewal during operating periods

Common Set of Facts: Operating Specifications

- **6 runs:** 3 during AM peak period + 3 during PM peak period
- **Run time:** 65 minutes (+/- 2 min.) between Longmont and DUS
- **Defined blocks of time** during which freight is suspended for passenger service
 - 3-hour window for AM peak service
 - 3-hour window for PM peak service
 - Includes safety buffer before and after
- **Dispatch:** BNSF and RTD/DTO



Common Set of Facts: Infrastructure Needed

- **Six new stations** with separate sidings
- **Three freight sidings (totaling 8.2 miles)**
 - Between Old Wadsworth and US 36 – about 1.85 miles long
 - Between Baseline Road and 55th Street – about 4.84 miles long
 - Between North 55th Street and North 63rd Street – about 1.47 miles long
- **Required Improvements**
 - Drainage
 - Crossings
 - Signals and Positive Train Control
 - Structures (*e.g., bridges, walls*)
- Modification of track for **mid-day storage site** at existing Westminster Station

Common Set of Facts: Projected Ridership

- **Estimated Ridership:** 1,100 daily boardings in 2030
 - Based on 2019 DRCOG Regional Travel Demand Model
- **Locomotive-hauled coaches** included as basis of cost estimates
 - Trainset=one locomotive, one coach car, and one cab car
 - 5 total trainsets recommended

Common Set of Facts: Estimated Capital Costs

- **Estimates: \$650m** (2024 dollars)

- **Access Easement Agreement**

- Estimated based upon Northstar Line commuter rail serving the Minneapolis metropolitan area

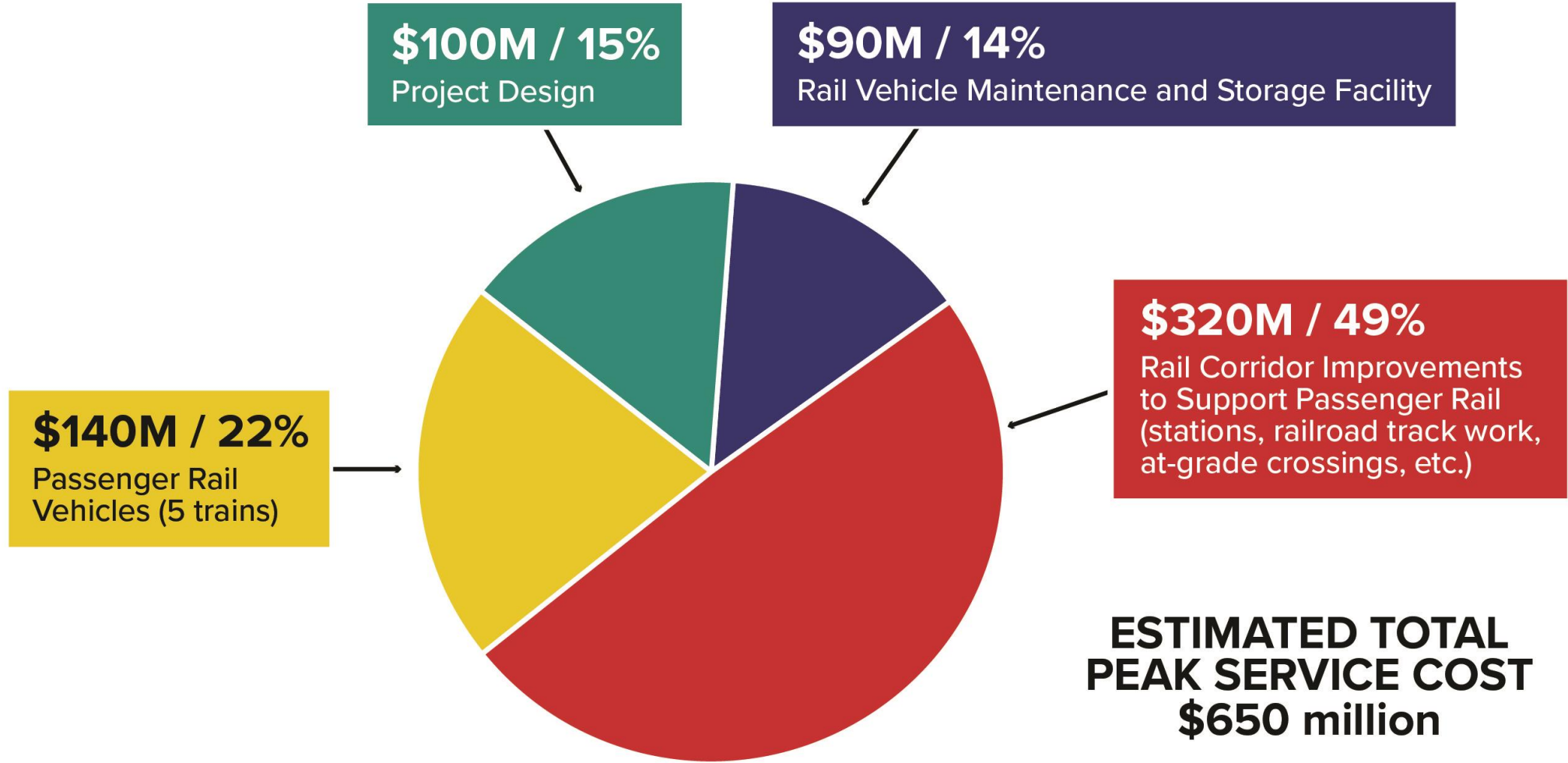
- **Included Elements**

- Stations
- Accessibility features
- Track improvements
- Sidings
- Structures
- Trains
- Commuter Rail Maintenance Facility

NORTHWEST RAIL PEAK SERVICE STUDY

COMMON SETS OF FACTS

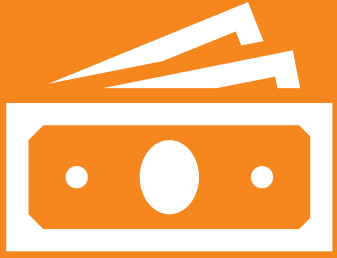
CAPITAL COSTS



(2024 dollars)

Common Set of Facts: Estimated Operating Costs

- **Estimates: \$12–16M** (2024 dollars)
 - Estimated based upon National Transit Database reported costs
- **Included Elements**
 - Train maintenance (RTD)
 - Station maintenance (RTD)
 - Train control and dispatch (BNSF/RTD proportionate cost)
 - Track maintenance (BNSF/RTD proportionate cost)
 - Train operators (RTD, BNSF, or qualified third party)



Funding Considerations

Financial Position and Forecast

- **2025-2029 Five-year Financial Forecast (FYFF)**

- Available funding for current Operations and Maintenance (O&M) and State of Good Repair
- Fund balances meet Fiscal Policy
- No additional funding available for capital or operations expansion

- **Potential opportunities**

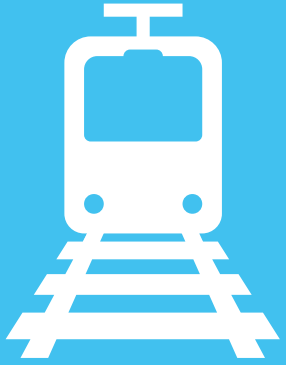
- New debt issuance for capital
- Committed ongoing state funding for debt service and O&M

Considerations – Capital Cost

- **New Revenue Bond Issuance Requires Voter Approval**
- **Certificates of Participation (COP)**
 - Lease-purchase with unencumbered collateral
 - Collateralized asset belongs to COP issuer
 - Higher borrowing costs
 - Further investigation with bond counsel, etc. needed
- **Borrowing \$650m**
 - Approximately \$40m annual debt service
 - Possible credit rating downgrades

Considerations – O&M Cost

- **\$12-\$16m annual cost not forecasted/budgeted**
- **Offset with reductions elsewhere absent additional funding**
- **Future asset renewal and replacement periodic significant costs**
- **Operating cost/rider (excluding depreciation)**
 - 2023 Light Rail/Commuter Rail combined: \$7.86
 - Northwest Rail: \$42.78-\$57.04



Passenger Rail Opportunities

Passenger Rail Opportunities

- **Two separate studies with different purposes**
 - Foundational to inform potential joint operations
 - No preclusion of separate services or potential joint service
- **SB24-184 legislation supports development of transit and rail infrastructure solution**

The Differences Between Commuter and Intercity Rail

Throughout the US, commuter and intercity rail services operate on the same tracks.



Commuter Rail

Serves one metropolitan area connecting suburbs to an urban core.

Inter-City Rail

Connects cities across the state.

| 2-4 Miles | Station Distance | 20-30+ Miles |
|----------------------|------------------|-----------------------------|
| 35-45 Miles Per Hour | Average Speed | 45-55+ Miles Per Hour* |
| 20-75 Miles | Service length | 50-300+ Miles / < 750 Miles |

* Average running speed between stops is 65-90 Miles Per Hour

Notable Elements

■ RTD Rail Only (FasTracks Peak Service)

- Cost exceeds FISA
- Federal grants opportunities limited

■ RTD + Intercity Rail

- Joint delivery and operations
- Cost sharing and operational efficiencies
- Federal discretionary grants – increased opportunities based upon NOFOs



Thank you.



Peak Service Study
Northwest Rail

