

FRPR Scope Provision - **DRAFT**: March 2024

Executive Summary

In Summer 2023, the Front Range Passenger Rail (FRPR) District announced their preference to narrow the ambitions for the first phase of FRPR to a low-cost, infrastructure-light, and low-frequency minimal starter service that is unlikely to exceed 6 roundtrip trains per day. The media has labeled this vision of FRPR as a “[bare bones](#)” project.

Greater Denver Transit (GDT) is strongly convinced that a minimal FRPR starter service would (a) fail to offer a viable alternative to driving and (b) fail to expand the initial line into a broader rail network as envisioned by the FRPR District to eventually link Colorado (including Greeley) with New Mexico and Wyoming.

In this white paper, we provide evidence supporting our position and conclude with three proposals:

1. The FRPR scope must be sufficient to provide fast, frequent, reliable and accessible service from day one.
2. Recommend studying a more substantial build-out alternative costing roughly \$14.5B over 15 years generated by a 0.5% sales tax.
3. Recommend adequate polling be completed before selecting the project’s funding levels.

Background

The FRPR District is made up of approximately 5 people chiefly focused on raising awareness and gathering public and political support for a ballot measure to fund a FRPR service via sales tax. The team is working with the **Colorado Department of Transportation (CDOT) Division of Transit and Rail**, a highly-skilled but similarly-skeletal team, to review and validate the major technical questions around scope, cost, and next steps recommended by their contracted consultant (HNTB). HNTB hosts the bulk of the technical rail service expertise and is responsible for delivering the Service Development Plan (SDP).

Until the SDP is complete, most technical details for the project are limited to an [Alternatives Analysis report](#) published in 2020, which established [3 quantified funding scenarios](#) for rail service from Pueblo to Fort Collins which GDT has adjusted for the inflation since 2020 along with that from the IMF’s inflation outlook:

1. Scenario 1: A robust build-out of dedicated double-track for 24+ trains/day, costing \$10B - \$16B
2. Scenario 2: A minimal service on existing freight tracks for 2-6 trains/day, costing \$2B - \$3B
3. Scenario 3: A basic dedicated single-track build for 12-24 trains/day costing \$7B - \$11B

As of February 2024, there is no publicly-available polling data that quantifies the public’s willingness to fund FRPR aside from a binary question in support of a train vs. no train, which scored radically in favor of a train (85%). We presume the minimal alternative appears most attractive to the FRPR District because of its low estimated cost and a tied assumption that a lower cost is an easier ask at the ballot, but these benefits are illusory.

Why is a minimal starter service the wrong strategy?

Numerous precedents from across the country demonstrate that minimal “starter services” over freight tracks almost never grow into fully built-out, 12+ trains per day service. This challenge is compounded by Colorado’s unique legal requirements and public disillusionment from underperforming transportation investments.

1. **A minimal FRPR starter service would not build new tracks** but instead run passenger trains over existing, slow-running freight tracks that are prone to highly-disruptive delays.
2. **Such a minimal starter service would see Colorado’s intercity passenger rail begin from a position decades behind our neighboring states (Utah and New Mexico)** who built on dedicated passenger tracks with sufficient capacity for 30 minute frequencies starting on day one of service.
3. **Colorado’s TABOR restrictions make later expansions even less likely** as they require a second and larger ballot measure with severely inflated costs compared to a substantial build out in Phase 1 given growing labor and inflationary pressures.
4. **The failure to deliver a useful FRPR Phase 1 will hurt all future transit projects.** The outcome of the public experiencing a non-useful FRPR will undermine their support not just for expanding FRPR, but similar to FasTracks, would temper future investments in local transit as well. Subsequent phases will also likely require tearing up obsolete and low-capacity infrastructure built for the minimal implementation, wasting taxpayer’s money and public resources.

While the SDP is currently under development, the FRPR District already risks following a perceived political path-of-least-resistance to a train service that is not competitive with cars on I-25 (not fast), not frequent, not reliable, and not accessible.

Outcomes risked by a minimal train service strategy:

Poor Speed

C.R.S. 32-22-103 (2) requires that FRPR must be, “competitive in terms of travel time with other comparable forms of surface transportation.” GDT conducted an analysis of best case station to station travel times for a minimal train trip vs driving, and then did the same analysis but for a best case train trip with dedicated track vs driving. On average, a minimal train trip is 22 minutes slower between major city pairs when driving conditions are good, and saves less than 5 minutes during rush hour. When considering the extra time it takes on either end of a journey to make it to a traveler’s final destination, **a minimal train trip will be slower than a car for all trips even in the best conditions without delays.**

By comparison, a train with dedicated tracks presents travel time savings in all conditions. Even when the roads are clear, the train is, on average, 6 minutes faster between major city pairs. During rush hour the time savings are immense: 33 minutes for the average train passenger over the same journey in a car. **In fact, out of the 4 scenarios simulated, a train beats a car between every single proposed station in the Front Range during rush hour if the train has dedicated tracks.** This performance more effectively offsets the first and last mile time investment required for all trains that otherwise advantages the personal car. Combined with increased frequencies, a train that is competitive in all scenarios will become an extremely attractive travel option for people in the Front Range, and will only become more appealing over time as congestion on I-25 increases.

Poor Frequency

We would like to ask: Why is fewer than 6 trains per day seen as the correct starting point for a phase 1 of FRPR? This level of service is less than half of what mountain state peers such as Utah's [FrontRunner](#) and New Mexico's [Rail Runner](#) have offered since day one of operations in 2008 and 2006 respectively. Both were designed with track infrastructure to accommodate 30-minute frequencies. Colorado's plan for 2-6 trains/day is akin to services offered on Amtrak Midwest which, despite being built on a century of legacy service and having received significant federal investment in the last 15 years, has never achieved double-digit frequencies on any corridor. **History indicates that a minimal FRPR starter service could operate with 2-6 trains per day for decades causing stagnant ridership which would fail to garner political support needed to expand service.**

2-6 trains/day is not an acceptable starting point for a train entering service in the 2030s with ambitions to grow ridership. This service pattern will barely serve the pre-COVID commuter model, and will almost certainly fail to offer the early morning and late-night schedules required to serve the ski transit connections, major league sports games, concerts, and other tourist activities. 12+ trains/day should be considered a bare minimum, offering a starting level of flexibility and convenience for riders who need to get to their destinations and back during off-peak periods.

Poor Reliability

A minimal starter service scope assumes FRPR operates almost entirely over freight tracks, which are prone to major congestion delays unlike the intercity rail operating in Utah and New Mexico. An analysis of all medium-distance, state-supported, and track-sharing Amtrak routes comparable to FRPR reveals that ¼ of all trips experienced a delay of 15 minutes or more. This poor on-time performance hindered ridership growth across the Midwest and Pacific Coasts, and it will hinder Front Range Passenger Rail unless substantial service operates over dedicated, passenger-only tracks. This is especially important around Denver's heavily-congested freight yards and other choke points (like Palmer Lake, which frequently sees freight trains breaking down on the single main track).

Poor Accessibility

When passenger trains run on new-build dedicated passenger-only tracks like RTD's new Commuter Rail system, ADA requires level-boarding. Riders using mobility devices along with those boarding with bikes/e-bikes, luggage, skis, and small children in strollers all benefit from boarding seamlessly without employee assistance. US Class I freight railroads, whose tracks would be used in a shared-service proposal, each prohibit level-boarding platforms along their tracks due to clearance issues. Grandfathered-in workarounds for passenger trains on shared track almost always require riders in mobility devices to board and disembark with employee assistance that must manually place a ramp or operate an electric lift. This increases dwell time, operating expenses, and the likelihood of human error and mechanical failure.

This lack of accessibility is not acceptable for a new train beginning service in the 2030's. The cost to build dedicated tracks, dedicated station platform sidings, and/or Brightline-style high platforms with retractable bridge plates/gap fillers will almost certainly exceed the funding included in a minimal train proposal. GDT's partners at the Colorado Cross Disability Coalition will oppose the project if boarding requires employee assistance at any stations, as this infrastructure is not something that can wait for future expansion.

Proposal: Ensure FRPR's scope is sufficient to provide a fast, frequent, reliable and accessible service from day one.

This means:

1. A travel time that is competitive with cars throughout the day
2. Operate bi-directional service with at least 12 round trips per day (approximately hourly)
3. On-time performance of 95%+ of trains arriving within 15 minutes of scheduled time at their final destinations
4. Fully accessible boarding at every door and at every station, without employee assistance

Funding

Greater Denver Transit studied the 2020 FRPR funding alternatives along with rules around ballot measures in Colorado in compliance with TABOR and more recent restrictions imposed by the state legislature. When going to voters, the FRPR District can ask for between a sub-0.1% and 0.8% sales tax (ST) increase. Building on the 2020 alternatives adjusted for inflation and population growth, this translates to:

1. Scenario 1: A robust build-out of dedicated double-track for 24+ trains/day, at 0.35% - 0.55% ST
2. Scenario 2: A minimal service on existing freight tracks for 2-6 trains/day, costing 0.1% - 0.15% ST
3. Scenario 3: A basic dedicated single-track build for 12-14 trains/day costing 0.25% - 0.4% ST

Conclusion

With continued inflation on the horizon and uncertainties surrounding growth trends after the pandemic, Greater Denver Transit recommends a 0.5% sales tax be studied to generate ~\$14.5B over 15 years. It is essential that the FRPR District conduct the polling required to ascertain public willingness to fund a substantial build-out of FRPR, and begin to promote the benefits of a fast, frequent, reliable and accessible intercity transit service that will transform the Front Range's mobility landscape.

Best Regards,



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