Albuquerque Rapid Rail

A Preliminary Proposal

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About Me

I was raised in Tijeras, and I am a graduate of the University of New Mexico (B.A., Economics) and Brown University (Master of Public Affairs). I work as a policy analyst in transportation in Washington, D.C. I am passionate about my hometown and about bettering our communities!

About the Project

Conceived in December 2023 after researching the Réseau Express Métropolitain (REM) in Montréal, Canada, my proposal for a rapid rail system in Albuquerque attempts to envision what a basic network and funding model could look like, as well as propose ideas for development around the city.



Introduction

Albuquerque's transportation options have not changed for 100 years - even as the city has grown and changed, getting around has stayed the same.

Studies from the Mid-Region Council of Governments (MRCOG) and Rio Metro Regional Transit District (RMRTD) show that residents want more choices.

Rapid rail would be transformative for the city and its residents, changing how we move. Through innovative partnerships, construction could be more feasible, taxpayers can be protected, and financial returns can make our rail infrastructure work for us.



An electric streetcar in downtown Albuquerque circa 1915. Albuquerque Museum archives.

Where We Are Today



transportation. Note: This figure does not account for any travel besides commuting.

Residents spent an average of 44 hours stuck in traffic in 2022 - almost two days! That's 19.4 million hours of delay, 7.7 million wasted gallons of gas, and 77,000 tons of excess carbon emissions.



...And What it Costs

7.7 million 77,000 tons gallons of gas of carbon emissions





Deadly and Dissatisfied

New Mexico Albuquerque 2nd 1st Deadliest **Deadliest** State for City per **Pedestrians** 100k

Dissatisfied 42.3%

Pedestrian deaths in America are the highest in almost 40 years. New Mexico had the highest rate of pedestrian fatalities, and Albuquerque had the second-highest rate among cities.





The State of ABQ RIDE

Albuquerque's bus network has been dealing with financial headwinds, recovery from COVID-19, and a shortage of drivers. The city's transit department has also been chronically underfunded.

ABQ Ride is also proposing a reducedcoverage network to boost ridership, with tradeoffs for neighborhoods that could lose bus service.



2.2 million trips in 2023

> But to meet its own goals for transit use, Albuquerque will have to invest much more in the transit system, and remake how people move in the city.

For FY 2025, transit is 4.6% of the city budget.



ART is performing well: 6th busiest 60 percent reduction in deaths **BRT** line in and injuries America

A Vision for Rapid Rail

Seven lines, 70 stations, 103 miles of new rail. Fully automated, fully elevated above street level.

Connections to the Sunport, Balloon Fiesta Park, UNM, CNM, hospitals, downtown, Coronado and Cottonwood, Intel, Netflix studios, planned Maxeon Solar factory, sports stadiums, the Rail Runner, ART, and the planned New Mexico United stadium.

Every line connects with another line, and not all lines send riders to downtown - a common mistake in older transit systems focused only on commuters.





The Network vs. The Data



Here, three demographic maps are compared with the network (in black). Activity Density, Job Density, and Zero-Vehicle Density. (Maps taken from ABQ Ride Forward website)

Why Rapid Rail?

Capacity is key! There is no better way to move many people *fast* than with rapid rail.

Running 2 minutes apart, an ART-style bus could move 3,960 people per-hour. A single train could move 18,000 people per-hour.

To move 20% of morning commuters on bus rapid transit, 90 new ART-style buses are needed, at maximum capacity and running 7.5 minutes apart.

A bus-focused network costs \$3.7 billion to operate over 30 years using calculations from MRMPO (adjusted for inflation since 2018), including bus replacement costs. This cost does not account for any increase in population over time.





ON-STREET TRANSITWAY. BUS OR RAIL 10.000—25.000/HR

Even a sidewalk moves nearly 10x more people than driving a car!

A Financing and Building Partner

The Canadian **Caisse de dépôt et placement du Québec (CDPQ)** manages the funds in the public pension plan created by the Québec government.

CDPQ manages **assets worth \$326 billion** as of June 2024. They established an infrastructure firm called CDPQ Infra to build and operate transportation projects "from A to Z."

The financial benefits flow to CDPQ's assets and public partners, meaning money goes back into the pockets of pensioners.

In Montréal, where CDPQ is headquartered, the firm is building a brand new 42-mile rapid rail line that will double the size of the city's transit network: **The REM.**

| CDPQ Infra | | | | |
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| Conception | | | | |
| Planning & financing Consultation & commun | | | | |
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| Operation | | | | |
| Controlling shareholder | | | | |
| Assets on balance sheet | | | | |
| Ownership of assets | | | | |
| Graphic created by CDPQ Inf | 5 | | | |
| https://www.cdpainfra.com/ | | | | |

CDPQ's Partnership Structure

Gouvernment

| Private consortium | Public | Public- private | CDPQ Infra |
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<u>/en/news/articles/cdpq-infra-a-better-understanding-of-the-model</u>

The REM in Montréal

The REM (shown in green) was originally proposed in 2016, and went from groundbreaking to first service in just over five years. The rest of the network is scheduled to open between 2025 - 2027.

Trains will run **20 hours per-day, seven days** per-week, carrying up to 600 passengers per train at rush hour - all fully automated.

Automated rail technology has been used on Vancouver, Canada's SkyTrain since the 1980s, and multiple lines of Paris's centuryold métro are being automated.



REM stations are fully disability-accessible and equipped with heating, air conditioning, WiFi, and screen doors to protect passengers from the elements and train tracks.



Map created by Metropolitan Express Network: <u>https://rem.info/fr/actualites/la-vraie-facture-du-rem</u>



Financing the REM

CDPQ is the main investor in the REM, and its main contractor. The financial agreement for the REM project is made up of several partners, as shown on the right.

Total investment amounts for the external partners have remained fixed - meaning taxpayers are protected from cost increases that happen during major infrastructure projects. This is one of the beneficial aspects of the REM's financing structure.

CDPQ's return threshold is 8%, and the REM has an anticipated rate of financial return between 8% and 9%. Its partners in the Québec and Canadian government also expect a return on their investment from the REM, which has been set at 3.7%.

Québec \$1.283





REM Funding Share

Conceptual Funding for Albuquerque

Given limited transit budgets, other partners in New Mexico are needed. Two major contenders are the SIC/LGPF and New Mexico PERA. Both of these firms are responsible financial guardians with tens of billions in assets.

LGPFNM PERA\$32.4B\$16.6BNet AssetsLGPF
\$2.5

SIC and PERA have the same incentive as CDPQ: To generate reliable returns for their beneficiaries. When someone rides the rails in Albuquerque, they will contribute to New Mexico's public retirement and wealth funds - just by paying their fare.



ABQ Rapid Rail Funding Share

Many Competing Priorities: Why This?

Significant data shows that access to reliable transportation is one of the most important factors in escaping poverty.

All policies, programs, and practices are fundamentally connected to one another - none of them happen in isolation. Better transit means better housing, denser neighborhoods, lower cost of transportation, cleaner air, safer streets, and money saved.

"....Having access to transit, services, and jobs closer to home *is important to people.* This is also critical to low-income populations and people who lack dependable travel options." - Mid-Region Metropolitan Planning Organization

70% of respondents to MRMPO's questionnaire desired to live in an urban or semi-urban area.



Desired Housing Location (Percent), 2018

Data: MRMPO 2040 Connections Questionnaire





"The growing congestion on our river crossings and the major roads that lead to them, particularly during peak commute times, is a source of frustration particularly for residents who live and work on separate sides of the Rio Grande."

- MRMPO Connections 2040

"In fact, the preliminary modeling...suggests that significant investment in increased transit service will be required to avoid capital costs for roadway and bridge expansions that the region cannot afford."

– RMRTD Long-Term Strategic Vision

Albuquerque will not be able to build its way out of traffic congestion, crashes, and pollution by adding lanes, miles of roadways, and acres of parking. Reforming our transportation network is not a choice, but a necessity.



Transit Commute Mode Share (Percent)

Data: American Community Survey 1 Year Estimates, ABQ MSA

Thank You!

I am happy to answer your questions!

Please find much more information in my comprehensive research report. I am also happy to answer questions you may think of later and send in writing - or feel free to contact me.



