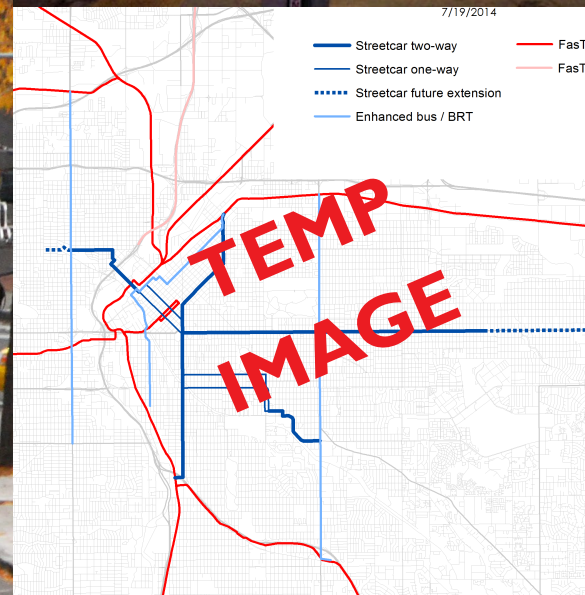


# DENVER TRANSIT VISION

A grassroots plan for better  
mobility in the urban core

August, 2014







Cover photos:

Seattle streetcar and Cherry Creek sign by BeyondDC.com.

Los Angeles bus rapid transit by Metro Library and Archive via Flickr.

This page: Portland, OR streetcars by BeyondDC.com.



# Contents

Page Section

3 **What** this is

4 **Who** we are

5 **Where** to build

7 Streetcar corridors

8 Enhanced bus corridors

9 **Why** this helps Denver

11 Assumptions

12 **How** to make it happen

# What this is



## FasTracks for central Denver

RTD's FasTrack's program is a great start. Metropolitan Denver should be proud of it. But FasTracks' focus on commuters leaves a hole in Denver's densest, most transit-oriented neighborhoods. This plan examines what it would take to cover that hole, and bring high-quality transit to where it's needed most.

## Attainable vision

This isn't a fantasy. It's an achievable vision of the urban transit system Denver needs, deserves, and can build practically. We've grounded our assumptions in fiscal reality, to propose a realistic scale of new infrastructure investment.

## Unofficial plan

Neither the City and County of Denver nor the Regional Transportation District were involved in creating this plan, nor does either make any endorsement of the plan's contents. This is a concept designed by advocates to start a discussion, not an official plan.



# Who we are

## We're the grassroots

### We're transit riders and urbanites.

We are a group of individual citizens interested in building a better transit network for central Denver. We were brought together by the online communities *DenverInfill.com* and *SkyscraperPage.com*, where we discuss transportation, urban development, the economy, and the environment.

### Both professional and amateur.

Some of us are professional transportation planners, some of us are involved in other aspects of transportation or city planning, and some of us are simply regular people. We're a mixed group, with no formal organization. But we love Denver, we love riding transit, and we'd love for you to join us to make something like this plan a reality.

## Participants

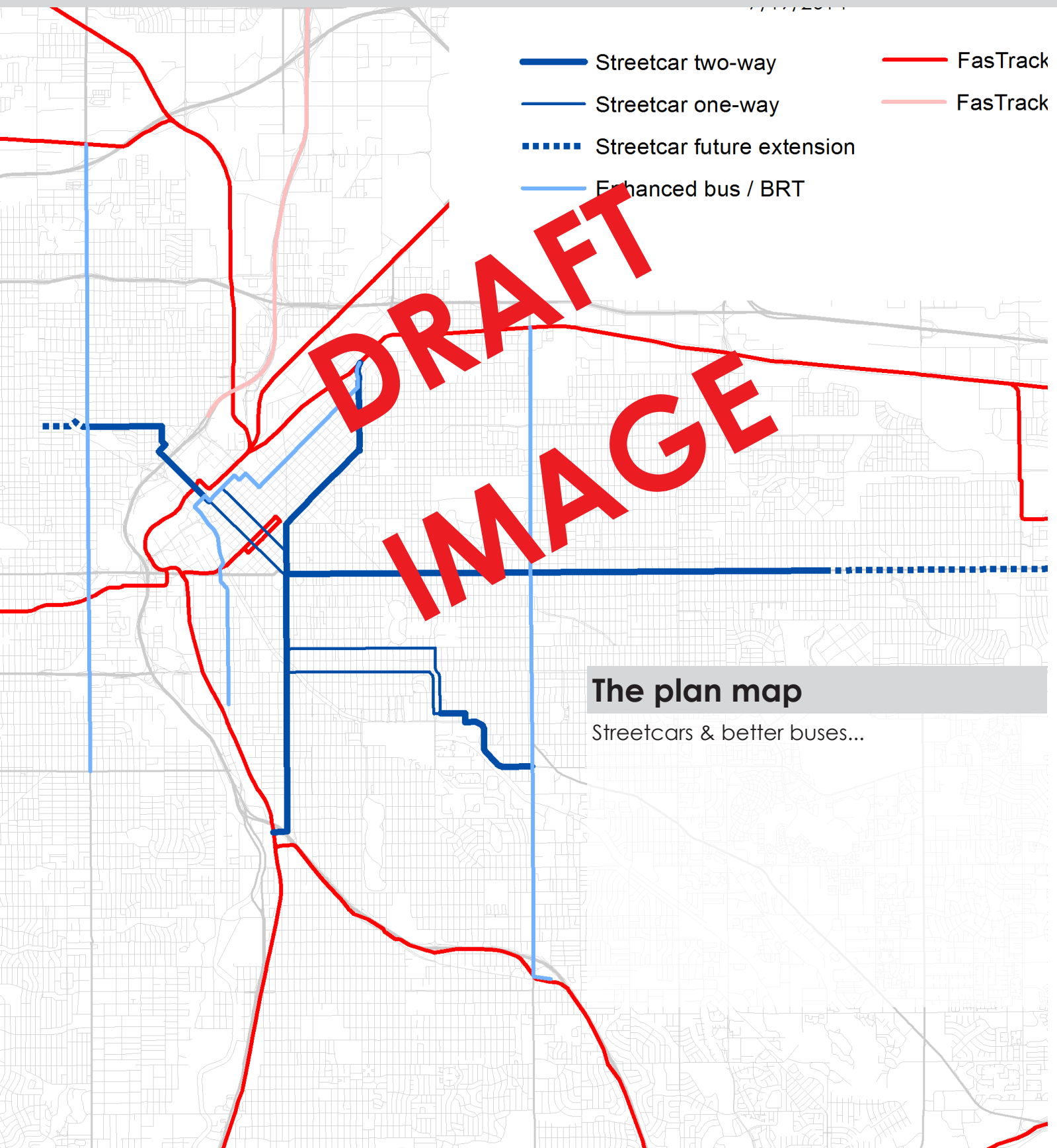
Dan Malouff

**Who else wants their name here?**





# Where to build





## Streetcars: Urban light rail

Modern streetcars are light rail trains specially adapted for short routes on city streets. Compared to buses, streetcars can carry more passengers more comfortably, and their spacious interiors and long frames with at least 3 doors speed up boarding—making them perfect for hop-on-hop-off service.



## Proposed routes

- Colfax Avenue
- Highlands to Cherry Creek
- Broadway to Five Points

## Enhanced bus: Neighborhood MetroRide

Priority bus lines, like the new downtown Denver MetroRide, improve upon regular buses with more frequent headways, faster service, special branding, and enhanced passenger amenities such as nicer stations. Improved bus lines in Denver could be branded as an expanded network of MetroRide routes, or could take on a new brand.



## Proposed routes

- Larimer to Santa Fe
- Colorado Boulevard
- Federal Boulevard



# Streetcar corridors



## Proposed streetcar routes

**East Colfax to Union Station:** Colfax Avenue is the busiest bus corridor in Colorado, and the most densely populated. In short, it's Colorado's most transit dependent place. A streetcar line running along East Colfax will provide high-quality transit service where it's needed most.

The proposed line begins on Wynkoop Street in front of Union Station, uses 15th Street (and perhaps 17th Street) to reach Civic Center, where it turns east and follows Colfax Avenue to the Denver city line. If Aurora is willing to help provide funding, the line could extend all the way to the Colfax station on the I-225 light rail line.

**Highlands to Cherry Creek:** Cherry Creek functions like a second downtown, with high-rises, regional shopping, and growing employment. Meanwhile, Highlands is an increasingly popular mixed-use neighborhood.

The proposed line would begin at Colorado Boulevard and Alameda Avenue, run into the center of Cherry Creek North, use Broadway to enter downtown, 15th Street to cross into Highlands, and then end at 32nd Avenue and Federal Boulevard. The line could optionally be extended to Lowell Boulevard.

**Broadway to Five Points:** RTD is considering reconfiguring the Five Points section of the existing Central light rail corridor as a streetcar line. This proposal would complete that process, then extend the line south along Broadway to the I-25 / Broadway light rail station.

Broadway is Denver's second busiest bus corridor after Colfax Avenue, and provides a convenient alternate entry to downtown from the south.

## Why rail?

Streetcars are expensive, compared to buses. Why use them?

**Capacity:** Streetcars are longer and can carry more people.

**Reassuring:** Riders know streetcars only go where there are rails. They won't veer off onto another route unexpectedly.

**Better ride:** Gliding along a rail is inherently smoother than rumbling along asphalt, providing rail riders a more comfortable experience.

**More riders:** When all other things are equal, streetcars attract more riders than buses. So-called "choice" riders are much more likely to ride a train.

**Sustainability:** Streetcars are economic development magnets, helping redirect growth from environmentally destructive sprawl to sustainable transit-oriented development.



# Enhanced bus corridors



## Proposed enhanced bus routes

**Larimer to Santa Fe:** This proposed route connects two growing center city neighborhoods that have been historically underserved by transit.

**Colorado Boulevard:** Colorado Boulevard is lined with high-rises and major retail centers, but its car-oriented form and poor transit service hold back its potential as a mixed-use urban neighborhood. Improved transit will serve a busy arterial highway and help redevelopment occur in a more transit-oriented form.

**Federal Boulevard:** Federal Boulevard is the most important north-south corridor on the west side of downtown, and is lined with commercial properties ripe for redevelopment. RTD provides relatively frequent bus service on Federal already, but priority bus enhancements (potentially including bus lanes) would dramatically improve travel times.

## BRT toolbox

We can't afford to build trains everywhere. Where streetcars aren't practical, enhancements like these can improve buses.

**Branding:** Unique name and paint schemes, like MetroRide, help passengers identify the most important bus routes.

**Limited stops:** Buses that stop too often take too long to traverse their routes. Stopping every 5 or 6 blocks, instead of every block would speed up routes.

**Operations:** Traffic signal prioritization, queue jumps, lanes, and other operational improvements speed up buses on the roads.

**Enhanced stations:** There's no reason bus stops can't be more like light rail stations. Features like raised platforms, real time arrival information, pre-pay, and sidewalk bulb-outs improve the rider experience and/or speed up service.



# Why this helps Denver

## Sustainable living

Humans have to live somewhere. Accommodating more of them in transit-oriented cities rather than sprawling suburbs saves open space from development, and reduces pollution from vehicle exhaust.



Photo by Sam Howzit on Flickr



## Growth without congestion



Congestion occurs when driving a car becomes the near-mandatory way to travel.

But it doesn't have to be that way. Cities can opt-out of the congestion nightmare by growing mixed-use, walkable communities, built around transit.

That model has worked in cities around the US, and it can work in Denver.

Photo by BeyondDC

## Urban quality of life

Mountain recreation has given Colorado a world-famous quality of life. But why should Denverites have to leave their neighborhoods to live well?

More walkable places to live, work, and play, connected by worry-free transit, can make city living as enjoyable as weekend gallivanting.



Photo by BeyondDC

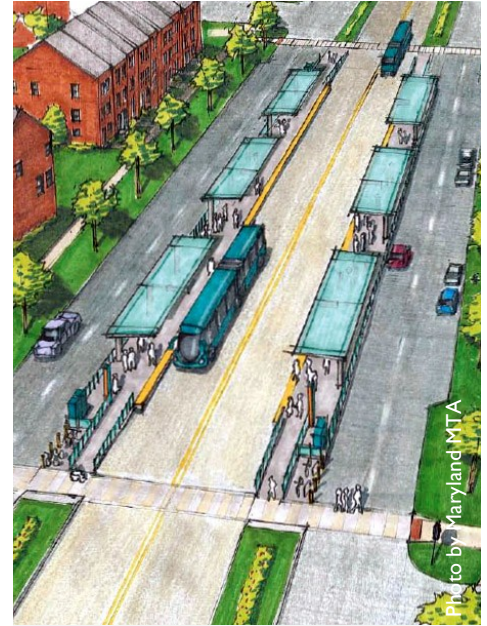


# Assumptions

## Technical assumptions

While producing this vision, we following these assumptions:

- RTD's FasTracks plan will be completed.
- Existing RTD bus ridership is a reasonable proxy to identify corridors with the highest potential future transit ridership, but we have not done detailed ridership modeling.
- DRCOG's land use and population forecasts are essentially accurate, although more growth (and therefore more ridership) could shift to the central city from suburbs if commensurate transit investments and zoning changes are made to encourage transit-oriented development.
- **Anything else we need to say here?**



## Dedicated lanes

Both streetcars and buses provide faster and better service when they have dedicated lanes. Center transitways separated by full medians are best, but even a simple curbside lane painted into the asphalt is better than nothing.

This plan recommends dedicated lanes wherever feasible, regardless of mode. More detailed engineering analysis will be needed to ascertain where they will fit.

## Construction cost assumptions

Financial assumptions are based on review of peer projects around the United States.

**Streetcar lines** cost \$40-50 million per mile. Peer projects: Tucson, Seattle, Denver's 2010 Colfax study. For the Five Points streetcar line, costs are halved due to existing RTD light rail tracks.

**Enhanced bus routes** with dedicated lanes cost \$25 million per mile, or \$4 million per mile without. Peer projects: Cleveland, Kansas City, Las Vegas.

**TOTAL COST**  
**\$1.2**  
**BILLION**

**That's roughly  
the same cost  
as the FasTracks  
East rail line to  
DIA all by itself.**



# How to make it happen

**WHAT  
SHOULD  
WE PUT  
HERE?**



**Grassroots Transit Vision for Denver, CO**  
**August, 2014**