

# Mastering Multimodal Projects

Rail~Volution

October 2008



# *Agenda*

- *Setting the Stage*
  - Overview of Denver's FasTracks Program
- *Multimodal Projects for RTD*
  - *Winners*
  - *Losers*
- *Ways to Increase Chances of Having a Winner*
  - Shared right of way
  - Common goals and expectations
  - Project Funding

# *Setting the Stage:* **FasTracks Overview**

# The Regional Transportation District

- Created in 1969
- Eight county service area
  - 31 municipalities
- Service area: 2,410 square miles
- 2.5 million population
- 1,071 buses
- 70 light rail vehicles
- 175 routes
- 66 park-n-rides
- 10,366 bus stops
- 2,510 employees
- 35 miles of light rail
- 36 light rail stations
- 86-million+ annual boardings
- 6 operating facilities
- Total 2006 Operating Budget:  
\$393.2 million

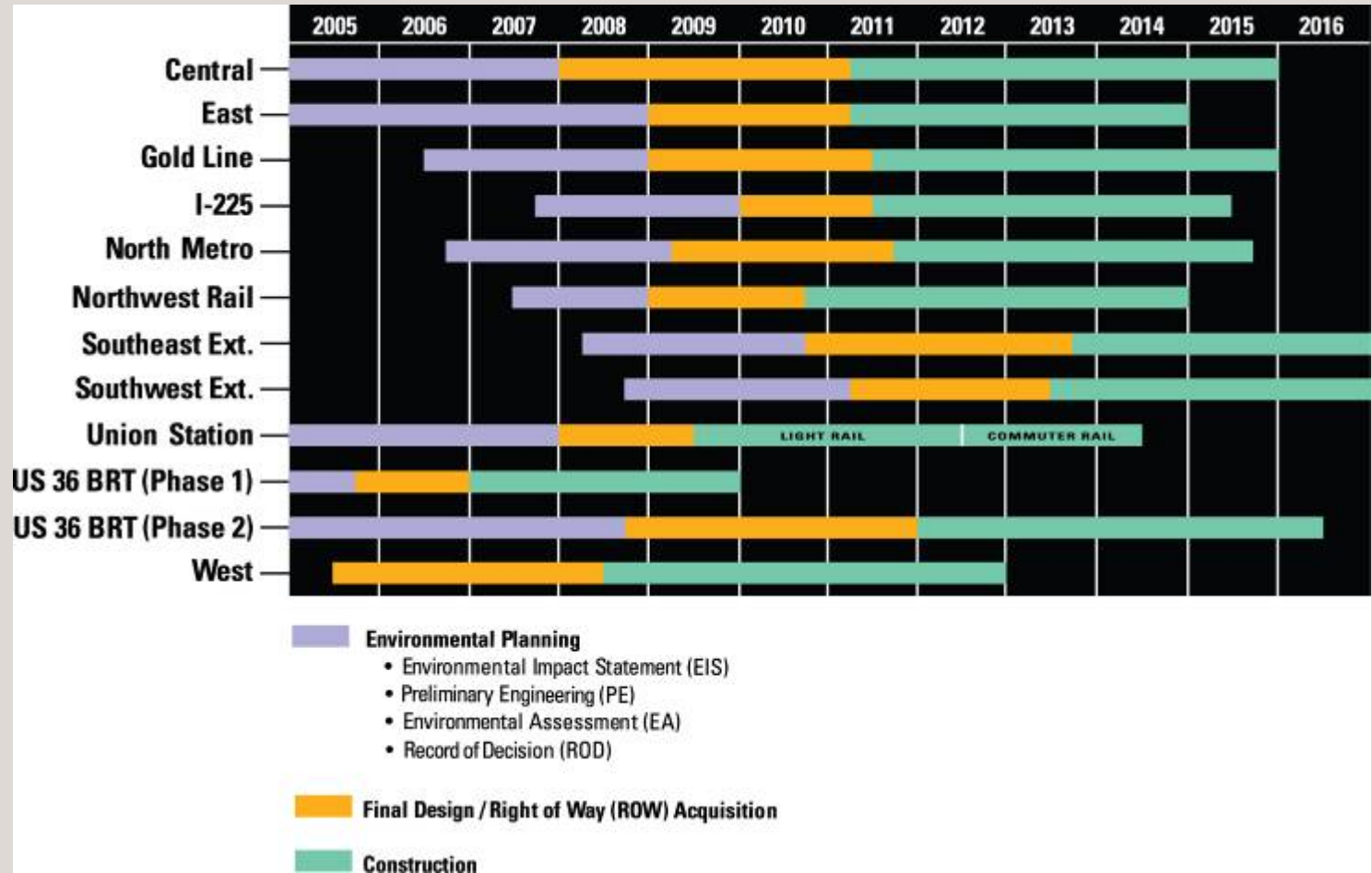


# FasTracks Program Elements

- 122 miles of rapid transit
- 18 miles of Bus Rapid Transit (BRT)
- 31 new park-n-Rides with over 21,000 new spaces
- Enhanced Bus Network & Transit Hubs (FastConnects)
- Redevelopment of Denver Union Station
- Final alignment and mode will be determined during the environmental study process.



# FasTracks Schedule



# *Multimodal Projects*

- 16<sup>th</sup> Street Mall
  - Bus and pedestrian
- TREX
  - Highway and Light Rail
- Denver Union Station
  - All modes
- US 36
  - Highway and BRT
- I-70
  - Highway and Commuter Rail

# *16<sup>th</sup> Street Mall*

- *Project Description:*
  - Opened 1982
  - Pedestrian and transit mall connecting 2 bus terminal facilities
  - \$76 M project funded by UMTA, FHWA, and RTD
  - A key 1979 election created the 16<sup>th</sup> Street Mall Maintenance District
  - Shuttle headway = 75 seconds at peak hours.
  - On an average weekday carries 63,753 passengers
- *Why it worked?*
  - Fulfills multiple goals of multiple stakeholders (transportation, revitalization)
  - Obvious support from the public via the vote
  - Integration of multiple modes (transit, pedestrians)



# TREX

- ***Project Description:***
  - **Opened summer of 2008**
  - **Highway & Light Rail in I-25 (major north to south freeway in Denver)**
  - **Budget of \$1.67 B**
  - **Funded by FTA, FHWA, CDOT and RTD**
  - **Came in on time and on budget**
- ***Why it worked?***
  - **One team, one voice**
  - **Funding commitment by all parties**
  - **Shared right of way**
- ***What didn't work?***
  - **Delays due to stakeholder requests to change stations**
  - **Permit, review & approvals should be addressed earlier in IGA's**



# *Denver Union Station*

- *Project Description:*
  - Multi modal transit hub for all of FasTracks
  - Redevelopment Project
- *Why it is working?*
  - Funding partners, mutual commitment
  - RTD, CDOT, DRCOG, FTA and FHWA working cooperatively
  - Meets needs for transportation and redevelopment
- *What isn't working?*
  - Project scope changes early on due to “wide open” RFP
  - Additional coordination and creation of governing board due to complicated financing



# US 36 Highway and BRT

- **Project Description:**
  - Highway/HOV/HOT/BRT project
  - Over \$1 B in improvements
  - Working on Final Environmental documentation
- **Why it is working?**
  - Strong corridor stakeholder support
- **What isn't working?**
  - Project scope needed to be reengineered

## BUS RAPID TRANSIT (BRT)

Bus Rapid Transit (BRT) uses exclusive lanes, on-line stations, and efficient operations to allow buses to operate more like a rail system, but with more flexibility. Buses could operate in Bus HOV lanes in the median or in separate guideway outside lanes on US 36.

Buses would stop at special stations with pedestrian walkways connecting the stations to park-n-Rides on either side of US 36.



Example BRT Vehicles

### Characteristics:

#### Reduces Travel Time

Currently, buses enter and exit the highway to access park-n-Rides. By allowing buses to remain in exclusive lanes with stations in the median or separate guideway, travel time involved in getting to and from the station will be eliminated, significantly reducing the overall time in transit.

#### Provides Flexible Service

As ridership in the corridor increases, bus routes can easily change to adapt to ridership demands. Not only can more buses be added to increase frequency, but express buses also can be added to offer direct regional service, similar to RTD's bus routes today.



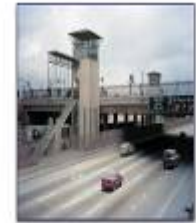
Example BRT station

#### Provides Reliable Service

BRT passengers receive more reliable service than individual motorists. Because buses could operate in exclusive lanes, they are less likely to be delayed by traffic, accidents or bad weather.

#### Potential for Enhanced Passenger Stations

Amenities can be provided at adjacent park-n-Rides in cooperation with private developers. Stations can have amenities similar to those found at rail stations.



Conceptual BRT station in San Diego, CA



US 36 Mobility Partnership

Project No. 14-1061-BRT

# *I-70 Highway & Commuter Rail*

- *Project Description:*
  - Highway/Commuter Rail project
  - Over \$1 B in improvements
  - Separated rail and highway projects after 2 years
  - Rail continues on and is successful
  
- *What didn't it work?*
  - Projects had independent utility; no right of way was shared
  - One project had identified funding (rail) other project didn't
  - Project schedules were dramatically different



# ***Ways to Increase Chances of Having a Winner***

# Common Characteristics of the Winners....

- Project owners are tied together with funding and/or right of way
- Project meets multiple stakeholder needs
- Project scope clearly defined early with few major changes
- All partners have funding identified
- Expectations and roles are clear
  - Can be accomplished including formally adopted Coordination Plans, comment periods, milestone reviews and periodic partnering
- Common goal to meet the budget and schedule