



# PHOENIX WEST UPDATE

HIGH CAPACITY TRANSIT STUDY

March 2011

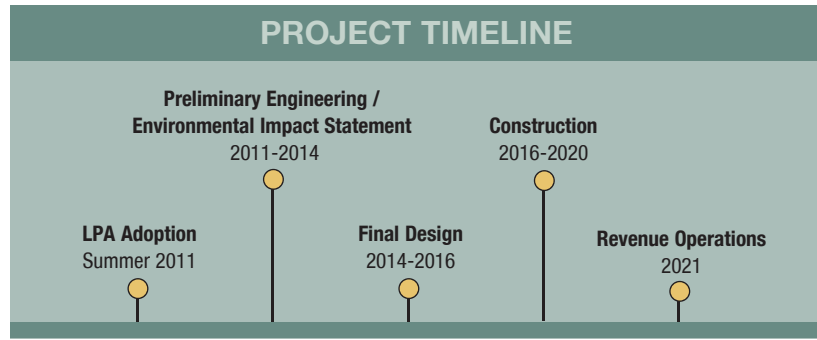
## ALIGNMENT ALTERNATIVE PROGRESSION TABLE

ALIGNMENT ALTERNATIVE	Pre-Tier 1 Screening	Tier 1 Screening	Tier 2 Screening		Final Definition of Alternatives
			Conceptual	Detailed	
<b>Mainline Section</b>					
I-10					➔
Thomas Road	■				
McDowell Road	■				
Van Buren Street	■				
Buckeye Road	■				
<b>Downtown Section (East-West Alignment Alternatives)</b>					
Thomas Road	■				
McDowell Road	■				
I-10 (BRT)					
I-10 (LRT)					
Van Buren Street					
Adams Street					
Washington Street/ Jefferson Street Couplet					➔
Jefferson Street (2-Track)					
Madison Street*					
Jackson Street*					
Buckeye Road	■				
<b>Downtown Section (North-South Alignment Alternatives)</b>					
27th Avenue					
I-17					➔
19th Avenue					
17th Avenue					
Grand Avenue					
15th Avenue (via Grand Avenue)					
7th Avenue	■				
5th Avenue	■				
3rd Avenue	■				

■ = Removed from consideration      ➔ = Carried forward for further evaluation

### FOR MORE INFORMATION

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 To receive this information in alternative formats call 602-253-5000/TTY 602-322-4499. MetroLightRail.org/phoenixwest  
 Para recibir esta información en formatos alternativos favor de llamar al 602-253-5000/TTY 602-322-4499.  
 Part of the Phoenix West Alternatives Analysis/Environmental Impact Statement prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), 40 CFR Parts 1500-1508, and its implementing regulations.



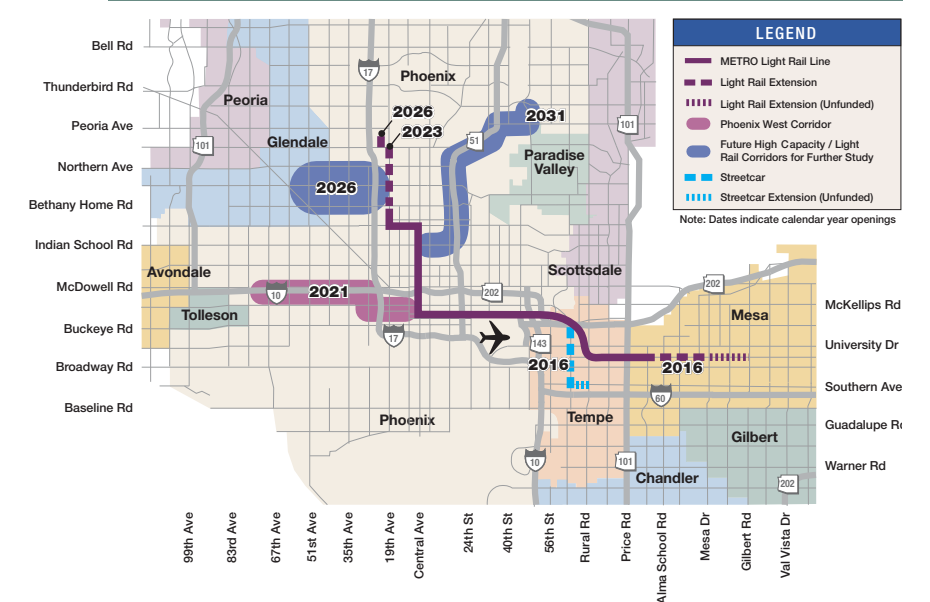
### INTRODUCTION

Since summer 2007, METRO and the City of Phoenix have analyzed potential high capacity transit improvements for the West Valley. The study area is bounded by Thomas Road to the North, Buckeye Road to the South, 7th Street to the East and Loop 101 to the West.

The Phoenix West high capacity transit improvement will be built using Proposition 400 (a county-wide, half-cent transportation sales tax extension approved by Maricopa County voters in 2004) and federal monies. Phoenix West is one of several extensions of the 20-mile light rail starter line that will eventually help create a 57-mile high capacity transit system supportive of the region's growth.

An Alternatives Analysis, the first step in the federal transit planning process, was initiated in summer 2007 and has looked at a variety of potential transit technologies and alignments that could help relieve traffic congestion and provide enhanced mobility in the study area. Light rail transit and bus rapid transit represent transit technologies that have been examined as part of the study. The study has also evaluated connections to the light rail starter line in the downtown Phoenix area. For the purposes of this study, the corridor was divided into two distinct planning areas – the Mainline and Downtown sections. The alternative alignment table on the back page shows progression of the alternatives analysis process.

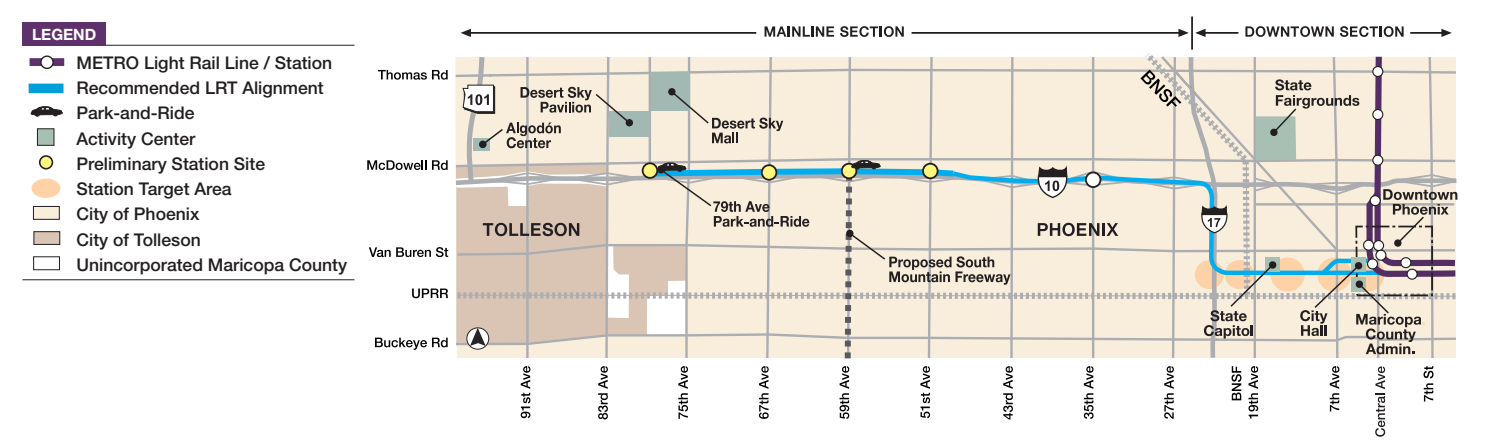
### Future High Capacity Transit System



### PRELIMINARY LOCALLY PREFERRED ALTERNATIVE RECOMMENDATION

METRO's preliminary staff recommendation is to advance light rail transit as the preferred technology along the preferred route as shown in the alignment recommendation map below.

### Alignment Recommendation



## ALTERNATIVES ANALYSIS PROGRESS

As a result of the Alternatives Analysis and guidance provided through a comprehensive public involvement process, METRO has defined a recommended light rail transit alternative for the Phoenix West Study Area. The recommended alignment provides connection to the West Valley through use of the I-10 freeway right-of-way and I-17 freeway access road, before connecting to the METRO starter line using local arterial rights-of-way. METRO is currently presenting the recommended alternative to local policy making entities including the City of Phoenix and Maricopa Association of Governments for formal approval of the transit mode and alignment, described in this update.

## MODE EVALUATION AND PRELIMINARY STAFF RECOMMENDATION

METRO recommends **light rail transit** as the selected high capacity transit option for the Phoenix West study area. The reasons for this recommendation, determined through the Alternative Analysis, are due to:

1. Lower cost per rider compared to bus rapid transit options
2. Higher ridership potential compared to bus rapid transit option
3. Higher vehicle passenger capacity compared to bus rapid transit
4. Provides a faster travel time compared to bus rapid transit
5. Provides greater opportunity for economic development

## RECOMMENDED LIGHT RAIL TRANSIT OPERATION

Light rail would operate daily service consistent with the existing METRO system in the year 2021. Currently, METRO is considering interlining the Phoenix West extension with the 20-mile starter line in Downtown Phoenix near the 1st Avenue/Central Avenue and Washington and Jefferson Streets to connect with light rail vehicles traveling north and south along Central and 1st Avenues, respectively.

METRO would work with regional agencies to facilitate seamless transit connectivity to improve ridership in the West Valley.



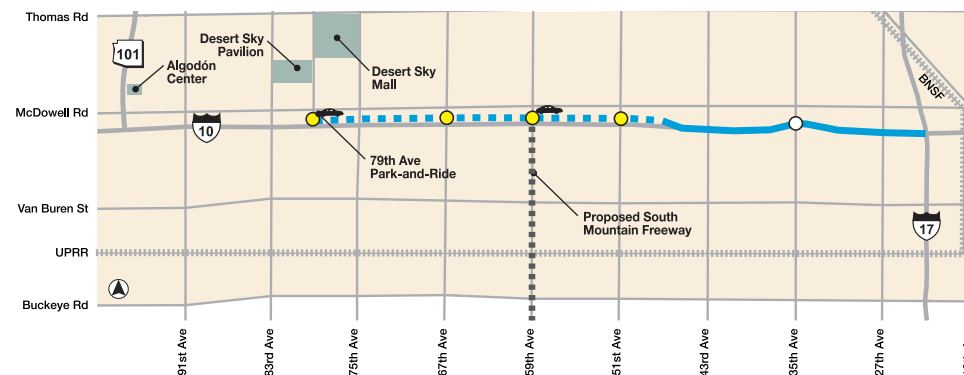
## RECOMMENDED ALIGNMENT – MAINLINE SECTION

A key decision that resulted from the preliminary screening phases was the selection of the **I-10 freeway right-of-way (ROW)** as the recommended option within the Mainline Section of the Phoenix West corridor, since the freeway ROW clearly achieved the study goals. In July 2008, the MAG Regional Council endorsed this recommendation west of I-17. The Mainline Section of the alignment would connect directly from the I-17 Southbound Frontage Road to the I-10 median via a direct access ramp constructed west of the I-17/I-10 interchange. The recommended alternative alignment would operate within the freeway median for approximately three miles before transitioning near 47th Avenue via grade separation over the westbound freeway traffic lanes to the north side of I-10.

The alignment would be placed adjacent to a drainage channel that parallels I-10 to the north, within the ADOT freeway right-of-way. From approximately 47th Avenue, the LRT guideway would parallel the drainage channel to connect with the 79th Avenue park-and-ride. Preliminary analysis shows that the access road adjacent to the drainage channel could accommodate the light rail guideway.

### Staff Recommendation – Mainline

- LEGEND**
- Recommended Median of I-10 Alignment
  - Recommended North Side of I-10 Alignment
  - Park-and-Ride
  - Preliminary Median Station Sites
  - Preliminary North Side Station Sites
  - Study Area
  - Activity Center



Along the Phoenix West Mainline Section, the LRT Build Alternative would require crossing of several arterials along the north side of the freeway. METRO is working with ADOT, the City of Phoenix, and other stakeholders to identify appropriate crossing mechanisms including elevated trackway crossings and at-grade crossings.

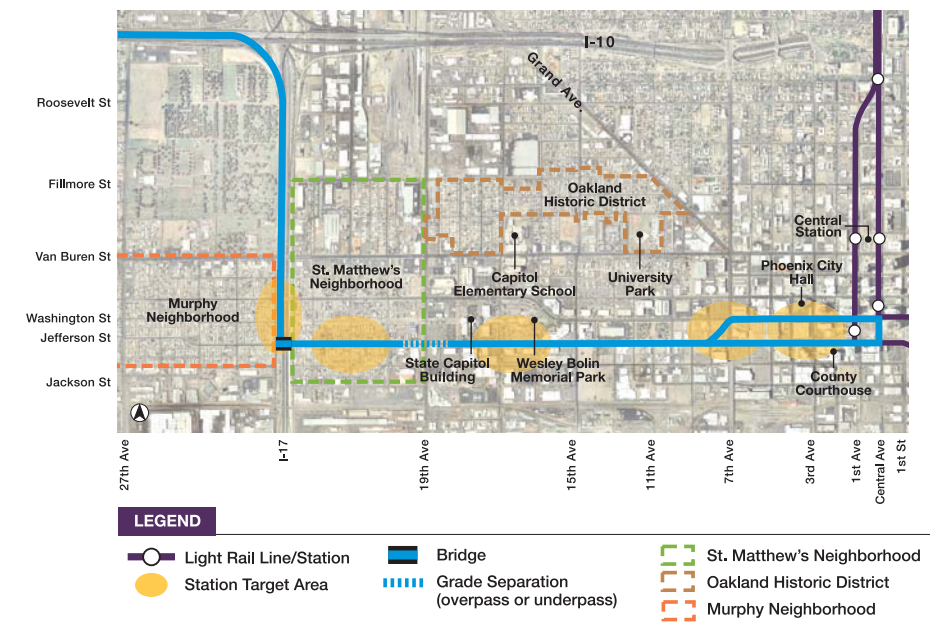
In an effort to strategically place stations along the Mainline Section, METRO selected arterial intersections that currently operate local buses, which tend to present favorable ridership conditions. A freeway median station is sited at 35th Avenue, with the remaining new stations at 51st, 59th, 67th, and 79th Avenues, located directly north of the I-10 westbound freeway lanes. A new park-and-ride facility is proposed at 59th Avenue to enhance high capacity transit mobility and ridership from the proposed South Mountain Freeway.

## RECOMMENDED ALIGNMENT – DOWNTOWN SECTION

The recommended north-south alignment for light rail transit is the **I-17 Southbound Frontage Road**. The benefits include:

- Minimal impacts compared to other alternatives in terms of property acquisition.
- Relatively low traffic volumes currently exist along the southbound frontage road and existing traffic is easily diverted to nearby parallel streets.
- Availability of existing right-of-way along the frontage road results in reduced costs in terms of property acquisition, structure demolition, utility relocation, and addition of new traffic lanes.
- Provides a high capacity transit option for residents of St. Matthew's Neighborhood and a direct connection to the State Capitol.

### Staff Recommendation – Downtown



The east-west alternative recommended by METRO is the **Jefferson Street option with a cross-over connection between 8th and 7th avenues to form a Washington/Jefferson couplet** due to the following:

- Greater existing traffic lane capacity compared to the other proposed downtown options including Monroe, Adams, and Jackson streets that can accommodate construction of an LRT guideway.
- Fewer direct (property acquisition) and indirect (property access) impacts compared to the other downtown alignments.
- Direct access to the State Capitol for a connection from the West Valley and METRO starter line.
- LRT along Jefferson Street provides an opportunity to serve the St. Matthew's Neighborhood with a high capacity transit option.
- Greater room for light rail construction compared to other downtown alignments.

As shown, the complete downtown LRT preferred alignment includes a north-south connection along the I-17 Southbound Frontage Road connecting to Jefferson Street with a connection to the light rail starter line.

## NEXT STEPS

Public Meeting	March 2, 2011
City of Phoenix Council Action	April 2011
MAG Regional Council Action	May 2011
Environmental Process	2011

