



# South Central Alternatives Analysis

MAG Transit Committee

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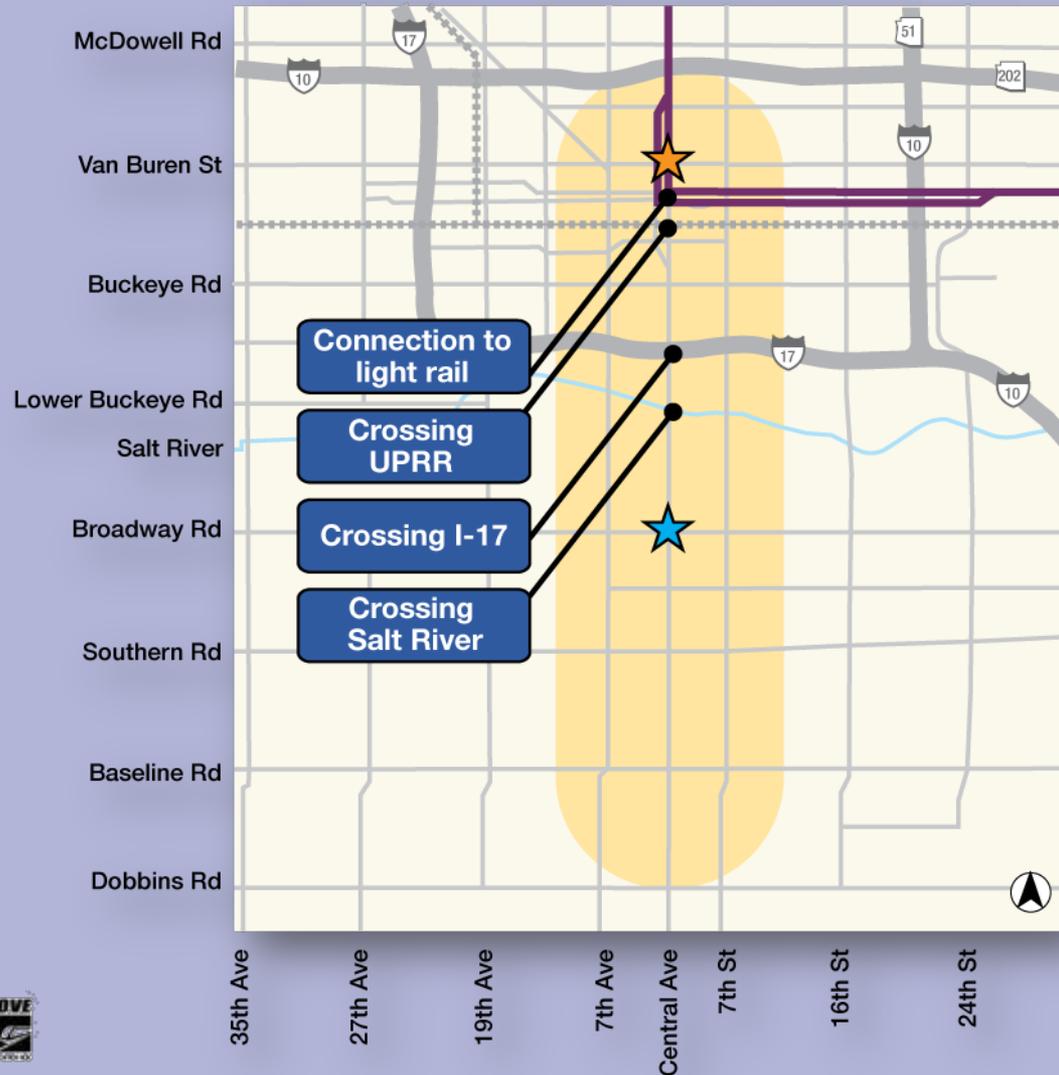
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# South Central Study Area



## LEGEND

- METRO Light Rail Line
- South Central Study Area
- Central Station
- Ed Pastor Transit Center



# Recent City of Phoenix Transit Investments

- Ed Pastor Transit Center
- Upgrade of Central Station
- New bus stop shelters and transit pads (ARRA funds – \$270,000)
- 27<sup>th</sup> Avenue/Baseline Park-and-Ride 2.5 miles west
- Planned 24<sup>th</sup> Street/Baseline Park-and-Ride 2.5 miles east





# Purpose and Need of the Proposed Major Transit Investment

- Purpose
  - Increase transit ridership
  - Improve access to employment and educational facilities
  - Expand the regional high capacity network
  - Support economic development/sustainable communities
- Need
  - Walking is the predominant mode of access to transit
  - Transit use is heavy in the study area
  - Local buses are often crowded on Central Avenue
  - Over half of all Route 0 boardings occur in the study area
  - Study area includes numerous clustered activity centers
  - Many transit and other trips are destined for areas served by existing LRT



# Related Goals in MAG RTP

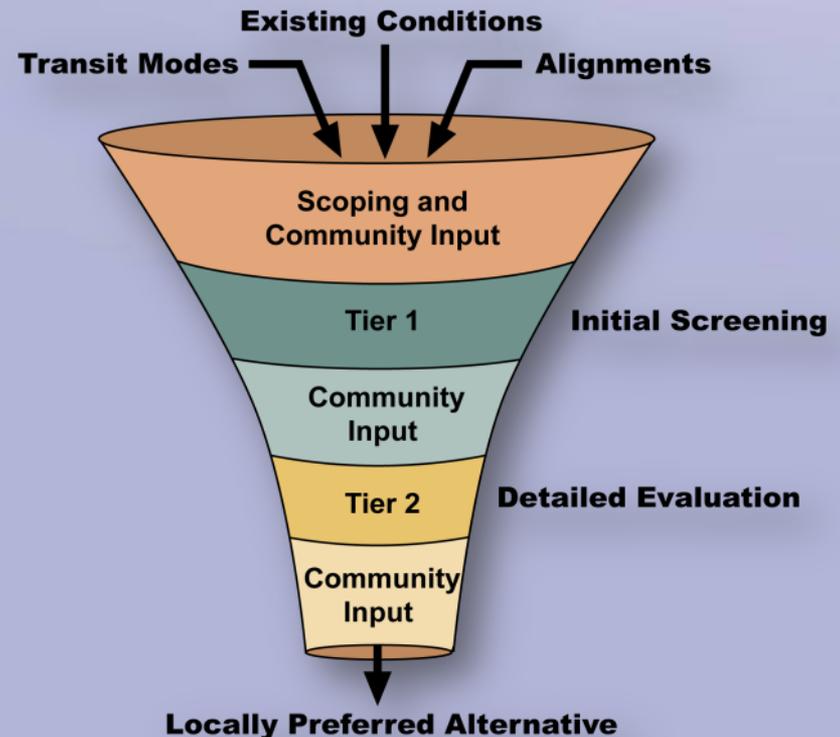
- ✓ Access and Mobility
- ✓ Sustaining the Environment
- ✓ Accountability and Planning





# Alternatives Analysis

- First step in the federal project development process
- Purpose of this study is to recommend high capacity transit improvements in the study area:
  - Technology – WHAT
  - Alignment – WHERE





# Tier 1 Mode Alternatives

	Light Rail Transit	Modern Streetcar	Bus Rapid Transit
<b>Purpose / Market Type</b>	Higher-speed, high-demand regional connections	Moderate-speed, moderate-demand local or regional connections	Higher-speed, high-demand local or regional connections
<b>Operating Environment</b>	Dedicated or semi-dedicated guideway	Semi-dedicated guideway or arterial streets mixed with traffic	Semi-dedicated guideway or arterial streets with mixed traffic
<b>Spacing of Stops</b>	Approximately every one-half to one mile or longer	Approximately every one-quarter to one-half mile	Approximately every one-half to one mile or longer
<b>Estimated Capital Cost per Mile</b>	\$60 - \$90 million per mile	\$40 - \$60 million per mile	\$1 - \$15 million per mile
<b>Estimated Operating Cost per Mile</b>	\$19.50-\$21.50 per mile	\$16.00-\$18.00 per mile	\$7.50-\$9.50 per mile
<b>Passenger Capacity per Vehicle</b>	Approximately 180-200 per car	Approximately 130-160 per car	Approximately 60-90 per bus
			



# Tier 1 Alignment Alternatives

## LEGEND

- METRO Light Rail
- - - Phoenix West Extension
- Central Ave Option 1
- Central Ave Option 2
- Central Ave Option 3
- 7th Ave Option 4
- 7th Ave Option 5
- 7th Ave Option 6
- 7th Ave Option 7
- 7th St Option 8
- 7th St Option 9
- 7th St Option 10
- 7th St Option 11

Central Avenue



7th Avenue



7th Street





# Tier 1 Screening Criteria

- Ridership potential
- Physical and engineering constraints
- Land use and economic development potential
- Transportation network effects
- Cost (operating and capital)





# Tier 2 Alignment Alternatives: Central/1<sup>st</sup> Avenue

## LEGEND

-  METRO Light Rail
-  Potential Alternative
-  Phoenix West Extension



- What: BRT
- Where: Central Ave / 1<sup>st</sup> Ave
- Uses existing couplet under UPRR and Jackson St
- Rail is not feasible under Central Ave underpasses



# Tier 2 Alignment Alternatives: Central/1<sup>st</sup> Avenue

## LEGEND

-  METRO Light Rail
-  Potential Alternative
-  Phoenix West Extension



- What: LRT, Modern Streetcar
- Where: Central Ave / 1<sup>st</sup> Ave
- Uses 1<sup>st</sup> Ave for two-way operation under UPRR
- Transitions to Central Ave via Madison St



# Tier 2 Alignment Alternatives: 7<sup>th</sup> Avenue/Central

## LEGEND

-  METRO Light Rail
-  Potential Alternative
-  Phoenix West Extension



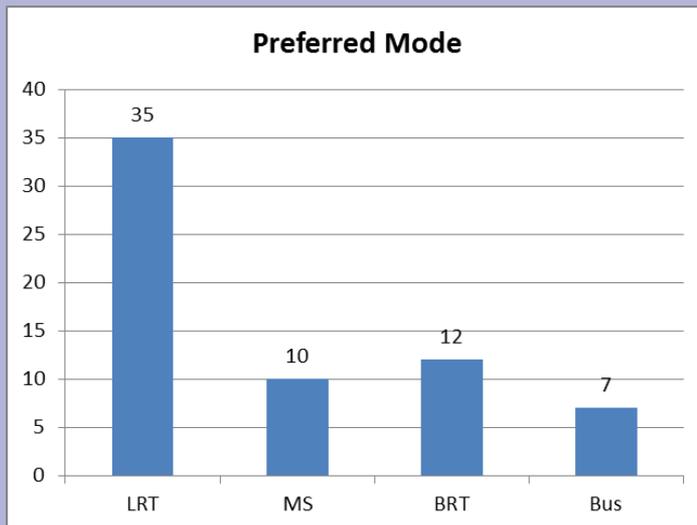
- What: LRT, BRT, Modern Streetcar
- Where: Central Ave / Buckeye Rd / 7<sup>th</sup> Ave
- Serves housing and medical center on 7<sup>th</sup> Ave
- Requires new bridge over UPRR for LRT and Modern Streetcar





# Feedback to Date

- 140 stakeholders in database
- 57 surveys returned





# Project Schedule





**METRO**

