Bus Rapid Transit Program Analysis, Outreach and Initial Corridor Recommendation

This report provides the Transportation, Infrastructure and Planning Subcommittee a summary of the community engagement process held between February and December 2020 regarding the analysis conducted to develop recommendations for establishing Phoenix’s Bus Rapid Transit program. This report also requests the subcommittee recommend City Council approval of an initial Bus Rapid Transit corridor along 35th Avenue and Van Buren Street.

THIS ITEM IS FOR DISCUSSION AND POSSIBLE ACTION.

Summary

In 2015, Phoenix voters approved Proposition 104, creating the 35-year street and transit plan known as Transportation 2050 (T2050) which identified Bus Rapid Transit (BRT) as a key component to continue expanding the City’s high-capacity transit network. BRT is a high-capacity bus service that focuses on improved speed, reliability, convenience and the overall transit experience. There are common recurring elements found in successful BRT systems, such as: advanced fare collection; enhanced stations; dedicated lanes; custom buses; transit spot improvements; and unique branding.

In 2019, Phoenix BRT Program staff were tasked by Phoenix’s Citizens Transportation Commission (CTC) and City Council with reevaluating the BRT corridors as originally outlined in the T2050 plan. The reevaluation was sought as the result of the passage of time since the development of the T2050 plan, whereby Phoenix has experienced significant changes in residential and commercial developments, population growth and density, in addition to ongoing regional efforts to identify additional BRT corridors that may travel through Phoenix. The analysis considered various elements of transit propensity (population, employment, low-income households, minority populations, persons with disabilities, zero-automobile households, persons under 18 and over 64 years in age), historical transit performance and ridership forecasting models utilizing the Federal Transit Administration’s scenario-planning software. Using these data points and processes, six potential BRT corridors were identified and are shown below:

- Camelback Road/24th Street;
- Indian School Road/24th Street;
- Thomas Road/44th Street;
- McDowell Road/44th Street;
- 35th Avenue/Van Buren Street; and
- 19th Avenue/Van Buren Street.

The six corridors above were further evaluated to develop potential BRT network options. The network analysis used industry best practices of two-mile spacing between corridors, good connections to light rail and frequent local bus service, intersection with other BRT corridors, and end points with highly used origins and destinations. Based on this analysis, four potential BRT network scenarios are shown below:

- Camelback Road/24th Street, Thomas Road/44th Street and 35th Avenue/Van Buren Street;
- Camelback Road/24th Street, Thomas Road/44th Street and 19th Avenue/Van Buren Street;
- Indian School Road/24th Street, McDowell Road/44th Street and 35th Avenue/Van Buren Street; and
- Indian School Road/24th Street, McDowell Road/44th Street and 19th Avenue/Van Buren Street.

The Phoenix BRT Program facilitated multiple BRT workshops, including an in-depth technical workshop with multiple City departments, Valley Metro, Maricopa Association of Governments, Arizona Department of Transportation and the established program consultant teams. Two executive workshops were also held for CTC and Councilmembers. The purpose of the workshops was to review the six potential corridors based on the results of the transit technical analysis and to obtain input on the four potential BRT network scenarios.

The results of this data-driven process revealed Camelback Road/24th Street, Thomas Road/44th Street and 35th Avenue/Van Buren Street as the most productive corridors with the highest demand and need.

After the workshops, the focus transitioned to community education, engagement and input which is described under Public Outreach.

Regional Efforts
In addition to the Phoenix BRT Program, MAG is conducting a Regional Bus Rapid Transit Feasibility Study to document the potential for the implementation of BRT within the MAG region. Phoenix has been an integral part of this collaboration along
with six other member cities: Glendale, Tempe, Scottsdale, Mesa, Chandler, and Gilbert.

Through this study, MAG has identified potential BRT corridors which were evaluated based on quantitative and qualitative criteria. These corridors were identified for further study for a proposed new regional BRT program (Attachment A).

**Concurrence/Previous Council Action**
The Citizens Transportation Commission recommended approval of the initial Bus Rapid Transit corridor of 35th Avenue/Van Buren Street on May 27, 2021, by a vote of 10-0.

**Public Outreach**
**Community Education and Engagement**
From February to December 2020, the Phoenix BRT program launched an education and engagement campaign to provide continuous opportunities for the community to learn about the program and provide input on the six potential corridors and four potential networks. To best reach the community, BRT program staff employed both traditional in-person and virtual outreach methods and provided all materials in both English and Spanish. As a result of the COVID-19 pandemic, outreach efforts shifted to virtual platforms in March 2020. Below is a list of outreach tools and materials used to engage and educate the public and solicit feedback:

- Transit analysis maps;
- Social media;
- Program webpage (www.phoenix.gov/brt);
- Project fact sheet;
- Frequently Asked Questions;
- “BRT 101” videos;
- Online meeting webpage;
- In-person/virtual meetings with all 15 City of Phoenix Village Planning Committees;
- In-person/virtual meetings with community groups;
- News releases and television programs;
- Live virtual public meetings; and
- Shape Your BRT survey.

**Survey Results**
The Phoenix BRT program developed the Shape your BRT survey to garner community input on potential BRT elements, the six potential BRT corridors, and the four potential BRT network scenarios.
Based on the survey results, respondents’ most preferred BRT foundation network aligns with the technical analysis results and community feedback received during the community education and engagement efforts: Camelback Road/24th Street, Thomas Road/44th Street and 35th Avenue/Van Buren Street.

Community Engagement Summary
The Community Engagement Summary can be found in Attachment B. Highlights include:

- 474 survey responses;
- 26 in-person or virtual meetings;
- Connected with over 1,200 community members;
- Responded to nearly 600 questions and comments;
- 4,581 BRT webpage views;
- BRT 101 video views (1,040 English and 92 Spanish);
- 766 online meeting webpage views;
- Online meeting video views: 300 English and 89 Spanish;
- Residents’ input shows that the selected corridors are preferred because BRT could serve more transit riders; take riders to key locations; closer to home, school, or work; and may reduce commute times;
- Top themes for network modification suggestions were to extend networks further west, extend networks further north and south, and to limit overlap with light rail; and
- Key final comment themes are support for dedicated lanes, extending networks north, south, east, and west; and provide connections to surrounding/outlying areas and avoid overlapping services on 19th Avenue.

Location
Along 35th Avenue and Van Buren Street.
Council Districts: 1, 4, 5 and 7

Recommendation
The Public Transit Department requests the Transportation, Infrastructure, and Planning Subcommittee recommend City Council approval of an initial BRT corridor: 35th Avenue/Van Buren Street (Attachment C).

While the Camelback Road/24th Street and Thomas Road/44th Street corridors were also identified as most preferred during the technical analysis and the community education and engagement efforts, there is ongoing analysis of future high capacity transit planning in west Phoenix that may affect these corridors and the overall future BRT network. It is recommended that a final decision on these east-west BRT
corridors be deferred until there is further resolution on high capacity transit corridors in west Phoenix.

Upon approval of the initial BRT corridor, the next steps in the process for the 35th Avenue/Van Buren Street corridor include:

- Refining a BRT program schedule, including the phasing and implementation for the initial BRT corridor and future BRT network;
- Beginning corridor planning (operations and capital) and development of conceptual alternatives;
- Establishing corridor-specific outreach tools and techniques; and
- Identifying a funding plan and potential partners, including working to identify available grants.

**Responsible Department**
This item is submitted by Deputy City Manager Mario Paniagua and the Public Transit Department.
**MAG BRT Corridors**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corridor Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>35th Avenue/Van Buren Street (COP)</td>
</tr>
<tr>
<td>2</td>
<td>Camelback Road/24th Street (COP)</td>
</tr>
<tr>
<td>3</td>
<td>Thomas Road/44th Street (COP)</td>
</tr>
<tr>
<td>4</td>
<td>Scottsdale Road/Rural Road</td>
</tr>
<tr>
<td>5</td>
<td>Capitol/I-10</td>
</tr>
<tr>
<td>6</td>
<td>Country Club Drive/Arizona Avenue</td>
</tr>
<tr>
<td>7</td>
<td>Glendale Avenue</td>
</tr>
<tr>
<td>8</td>
<td>Baseline Road</td>
</tr>
</tbody>
</table>
BRT Community Engagement Summary

City of Phoenix Bus Rapid Transit Program

Community Engagement Summary
February 2020 – December 2020
In February 2020, the Phoenix Bus Rapid Transit (BRT) team launched the community outreach campaign to educate and engage the public on the Program. The outreach campaign focused on educating the public on the elements and characteristics of BRT, the transit analysis completed on potential BRT corridors, and the six potential corridors and four potential network scenarios that were identified through the program. Outreach efforts included traditional and virtual outreach methods, and developed all materials (printed and digital) in both English and Spanish.

Due to public health and safety concerns caused by COVID-19, outreach efforts shifted to virtual platforms in March 2020.

Below is a list of outreach tools and materials used to engage and educate the public and solicit feedback:

- Transit analysis maps
- Project fact sheet
- Frequently asked questions
- BRT 101 video
- Program webpage
- Online meeting webpage
- Social media
- Live virtual public meetings
- In-person/virtual meetings with community groups
- In-person/virtual meetings with community groups
- In-person/virtual meetings with community groups
- In-person/virtual meetings with community groups
- Live virtual public meetings
- Social media engagement
- Online meeting webpage
- In-person/virtual meetings with community groups
- In-person/virtual meetings with community groups
- Shape Your BRT survey

Between February and December 2020, the team successfully connected with over 1,200 people from community leaders and elected officials to neighborhood associations. The following pages highlight our outreach efforts and key feedback we received from the public.

Executive Summary

Appendix – Phoenix Bus Rapid Transit Survey
19
1. Shape Your BRT Survey
10
8. Village Planning Committees (VPC)
7. Phoenix Community Groups/Organizations
6. Live Virtual Public Meetings
4. Social Media Engagement
3. Online Meeting Webpage
2. Phoenix BRT Program Webpage
1. Executive Summary

1.200 people from community leaders and elected officials to neighborhood associations

The team successfully connected with over 1,200 people from community leaders and elected officials to neighborhood associations. Between February and December 2020, the team successfully connected with over 1,200 people from community leaders and elected officials to neighborhood associations. Between February and December 2020, the team successfully connected with over 1,200 people from community leaders and elected officials to neighborhood associations. Between February and December 2020, the team successfully connected with over 1,200 people from community leaders and elected officials to neighborhood associations.
On July 21, 2020, the Phoenix BRT team opened an online meeting at meetphoenixbrt.com, to provide information on the Phoenix BRT Program and to solicit input on the six potential BRT corridors and the four network scenarios.

By the numbers...

Location of visitors

- Phoenix: 300 online meeting attendees
- Scottsdale: 99
- Peoria: 96
- Avondale: 87
- Mesa: 64
- Gilbert: 63
- Flagstaff: 60
- Tucson: 46
- Coolidge: 42
- Chandler: 30
- Tempe: 15

Number of Online Attendees

- Phoenix: 66%
- Scottsdale: 17%
- Peoria: 11%
- Avondale: 9%
- Mesa: 6%
- Gilbert: 3%
- Flagstaff: 3%
- Tucson: 2%
- Coolidge: 2%
- Chandler: 2%
- Tempe: 2%

Percentage of Online Users

- Phoenix: 34%
- Scottsdale: 33%
- Peoria: 33%
- Avondale: 33%
- Mesa: 33%
- Gilbert: 33%
- Flagstaff: 33%
- Tucson: 33%
- Coolidge: 33%
- Chandler: 33%
- Tempe: 33%

Site visitors

- Online meeting video views: 669
- BRT 101 video views: 1040

Access by device

- Desktop: 63%
- Mobile: 34%
- Tablet: 3%

Site visitors

- New visitors: 91%
- Returning visitors: 9%

On February 27, 2020, the Phoenix BRT team launched the program webpage at Phoenix.gov/BRT. Designed to educate and engage the public, the webpage provides an educational video, facts sheets, and the four network scenarios. The BRT program includes information on the Phoenix BRT Program and 10 potential BRT corridors. The webpage is presented in online meetings at meetphoenixbrt.com.
Social Media Engagement

Community conversations by platform

2.8M reach
362 mentions
551 post interactions

What are they saying?

Top online themes:

#BusRapidTransit101
#meetphoenixbrt
#AllAboutThatBusLife
#BusRapidTransitProgram
#PHX
#PhoenixPublicTransit
#busrapidtransit
#PhoenixTransit

Top languages:

Spanish 92%
English 8%

Conversation sentiment:

85.6% positive
13.8% neutral
0.6% negative

Age:

28% 18-24
39% 25-34
27% 35-44
4% 45-54
3% 55-64

Who is the audience?

Top online hashtags:

#phoenixpublictransport
#phoenixbrt
#busrapidtransitprogram
#allaboutthatbuslife
#virtual
#btr
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Who is the audience?
The Phoenix BRT team held two live virtual meetings, one in English on November 10, 2020, and one in Spanish on November 17, 2020.

Meetings:

- Community Groups/Organizations
- Organizations
- Media Advisory
- Media advisories
- Meetings
- Meetings*
- PHXConnect newsletter
- Nextdoor
- PHXNews Community Advisory Committee
- Phoenix Community and Organizations
- Phoenix Metro Phoenix Chamber
- Phoenix Metro Phoenix Chamber
- Public Meetings
- WTS International Metro Phoenix Chapter

Key Question Topics:

- BRT options in South Phoenix
- Impacts of BRT
- RAPID vs. Express vs. local bus service
- BRT elements/characteristics

Notifications:

- Electronic mail
- Electronic mail
- Websites
- Social media
- Newsletter
- PHXConnect newsletter
- Library newsletter
- Media advisories
- Meeting Live

Number of meetings attended:

- 26
- 22
- 3
- 69
- 109
- 0
- 7
- 0
- 17
- 12
- 6
- 2
- 3
- 0
- 0

Number of questions answered:

- 40
Six key topics from comments and questions asked at the VPC meetings:

- Dedicated lanes
- Ridership
- Local bus and BRT
- Cost/Funding
- Community engagement
- BRT options in South and North Phoenix

Village Planning Committees (VPC)
In June 2020, the Phoenix BRT team launched the Shape your BRT survey. The purpose of this survey was to obtain input on the six potential BRT corridors and the four potential network scenarios. The survey results can be found on the following pages and a copy of the survey can be found at the end of this document.

The map shown at the right highlights the six potential BRT corridors, and the maps at the bottom of the page highlight the four potential network scenarios using the identified corridors from the analysis. These maps were used throughout the survey and can be referenced while reviewing survey results.

A corridor can be two or more streets coupled together: for example, Corridor A is made up of portions of Camelback Road, 24th Street and 75th Avenue. A network scenario differs from a corridor in that it includes different combinations of both north-south and east-west corridors to create a full network of BRT service.

Survey results:
Survey and can be referenced while reviewing these maps and used throughout the analysis performed in creating the maps. The survey was created and distributed to the public via social media and online. The survey included 13 BRT-related questions and five network scenarios. The Shape your BRT Survey and Potential BRT Corridors can be found on the following pages and a copy of the survey can be found at the end of this document.
Shape Your BRT Survey

**Preferred North–South Corridors for BRT**

Denotes most preferred

- 35th Avenue/Van Buren Street (E)
- 19th Avenue/Van Buren Street

Why are corridors A & C preferred?

- 13% of respondents chose corridor 3 (other)
- 19% of respondents chose corridor 4 (other)

Overall, 54% of respondents prefer the north–south corridor. For the north–south corridor, respondents selected their preferred corridor; below is the percent preferred.

- 46% of respondents selected 19th Ave./Van Buren St.
- 49% of respondents selected Thomas Rd./44th St.

**Preferred East–West Corridors for BRT**

Denotes most preferred

- Camelback Rd./24th St
- Indian School Rd./24th St
- Thomas Rd./44th St
- McDowell Rd./44th St

Why are corridors A & C preferred?

- 41% of respondents chose corridor 1 (other)
- 49% of respondents chose corridor 2 (other)

Overall, respondents ranked each corridor between 1 and 4, with 1 being the most preferred and 4 being the least preferred. Below are the average scores for each.

- Overall, respondents ranked Thomas Rd./44th St (C) and Camelback Rd./24th St (A) as their preferred east–west corridors.

**Top Themes for Corridor Modification Suggestions**

- Low commute time
- May reduce commute time
- Takes riders to key locations

Respondents ranked each corridor between 1 and 4, with 1 being the most preferred and 4 being the least preferred. Below are the average scores for each:

- Overall, 54% of respondents prefer 35th Avenue/Van Buren Street (E) for the north–south corridor.
Shape Your BRT Survey

Top Themes for Network Modification Suggestions

1. Minimal travel lane impacts
2. Amenities
3. Limited or no transfers
4. Transit speed and reliability

Preferred BRT Network

Respondents ranked the four network scenarios between 1 and 4; with 1 being the most preferred and 4 being the least preferred. Below are the average scores for each scenario.

- **Bus-only lanes (BRT operates in regular traffic lanes with other vehicles):** 2.5
- **Partial bus-only lanes (BRT operates in bus-only lanes for entire corridor):** 2.2
- **Partial bus-only lanes (BRT operates in bus-only lanes in some sections of the corridor):** 1.3
- **No bus-only lanes (BRT operates inregular traffic lanes with other vehicles):** 1.8

Amenities

1. **Amenities**
2. **Transit speed and reliability**
3. **Minimal travel lane impacts**
4. **Limited or no transfers**

Overall, respondents ranked the **Blue Network Scenario** (Camelback Road/24th Street, Thomas Road/44th Street) as their most preferred network.
1. What is your home zip code?

2. How often do you use public transit?
   - Daily
   - Several times a week
   - Several times a month
   - Several times a year
   - Never

3. How familiar are you with Bus Rapid Transit?
   - Not at all familiar
   - Slightly familiar
   - Somewhat familiar
   - Moderately familiar
   - Very familiar

Now, let's get your input on where BRT corridors should be established.

Potential East-West BRT Corridors
- Camelback Rd/24th St (A)
- Indian School Rd/24th St (B)
- Thomas Rd/44th St (C)
- McDowell Rd/44th St (D)

Potential North-South BRT Corridors
- 35th Ave/Van Buren St (E)
- 19th Ave/Van Buren St (F)

4. Potential East–West BRT Corridors (A, B, C, D)
   Take a look at the Potential East–West BRT Corridors map (right) and rank the potential east–west corridors from 1 to 4, with 1 being most preferred and 4 being least preferred:
   - Camelback Rd/24th St (A)
   - Indian School Rd/24th St (B)
   - Thomas Rd/44th St (C)
   - McDowell Rd/44th St (D)

5. Why do you like your most preferred east–west corridor? Select all that apply.
   - Close to my home/work/school
   - Takes me to key destinations
   - Could reduce my daily commute time
   - Serves more riders
   - Other (please specify)

6. Potential North–South BRT Corridors (E, F)
   Take a look at the Potential North–South BRT Corridors map (right) and select the preferred north–south corridor:
   - 35th Ave/Van Buren St (E)
   - 19th Ave/Van Buren St (F)

7. Why do you like your preferred north–south corridor? Select all that apply.
   - Close to my home/work/school
   - Takes me to key destinations
   - Could reduce my daily commute time
   - Serves more riders
   - Other (please specify)

8. If you have suggested modifications to any of the six potential corridors (A, B, C, D, E, F—reference maps from questions 4 and 6), please provide your ideas in the space below.
15. Specify your ethnicity:

- Native Hawaiian or other Pacific Islander
- Black or African American
- Asian or Asian American
- Hispanic or Latinx
- White
- Native American or Alaska Native
- Middle Eastern
- Female
- Other
- Non-binary or other

16. What is your gender?

- Male
- Female
- Other
- Non-binary or other

17. Please provide any additional thoughts or comments about the Phoenix Bus Rapid Transit Program:

- Amenities: enhanced stations, custom buses, mobile fare payment
- Limited or no transfers: transit rider avoids transfers between buses
- Faster service: optimizing travel time and reducing wait times
- Higher capacity: accommodating more riders on the bus
- Less congestion: reducing road traffic and improving flow

18. What is your age?

- Under 18
- 18–24
- 25–34
- 35–44
- 45–54
- 55–64
- 65+

19. What is your employment?

- Full-time
- Part-time
- Seasonal
- Temporary
- Full-time student
- Part-time student
- Unemployed
- Retired
- Other

20. If you have suggested modifications and 4 being the least preferred:

- Potential corridor
- Sky Train
- Park-and-Ride
- Light rail extension
- Freeway
- Transit center

- No bus-only lanes (BRT operates in regular traffic lanes with other vehicles)
- Bus-only lanes (BRT operates in bus-only lanes for entire corridor)
- Bus-only lanes (BRT operates in bus-only lanes except for certain locations)
- No bus-only lanes (BRT operates in regular traffic lanes with other vehicles)

As a potential rider of BRT, what would be most important to you? Rank the following from 1 to 4, with 1 being most important and 4 being the least preferred.
Initial BRT Corridor
35th Ave/Van Buren