INTRODUCTION

Valley Metro, in partnership with the city of Chandler, is evaluating transit service alternatives beyond traditional fixed route bus service within the Price Road Corridor, defined as the area generally bordered by Price Road and, a 1/2 mile east of Arizona Avenue between Chandler Boulevard and Chandler Heights Road. This study will build on current transportation planning in the city, as well as current transit offerings to provide flexible transit options that serve the unique layout and needs within the Price Road Corridor.

Chandler Flexible Transit Study Area
WHAT IS MICROTRANSIT?

Microtransit is a form of public transportation similar to rideshare services like Uber/Lyft, but instead uses vans, provides shared trips with other passengers, has fares similar to local bus fares and services specific areas. Service areas are established for moderate transit demand allowing routes to serve on-demand trips. Based on the existing conditions analysis and feedback from the public in early 2021, the project team has developed microtransit service concepts for public consideration.

The microtransit concepts from the study are designed to meet current community needs/priorities, and the regional transit standards where applicable.
SERVICE ZONE COVERAGE

One of the most fundamental elements of a microtransit service is the shape and location of its coverage area. This decision helps determine land uses and transit connections that are available to users. Several zone shapes were analyzed through this study.

Within the study area there were several locations of regional importance that were identified. These locations include:

- Downtown Chandler
- Chandler Fashion Center
- Price Road Corridor Businesses
- Chandler Regional Medical Center

Accessibility to these locations and the local transit routes played a key role in how potential zones were ranked in this analysis.

**Key Study Area Destinations**
SERVICE ZONE ALTERNATIVES

Alternative Zone 1

The tradeoffs of several zones were considered with the needs of the city and the input of the public in mind. These tradeoffs are reflected in the table below for Alternative Zone 1. This first alternative serves the western half of the study area.

<table>
<thead>
<tr>
<th>ALTERNATIVE ZONE 1 TRADEOFFS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BENEFITS</strong></td>
</tr>
<tr>
<td>• Affordable to implement</td>
</tr>
<tr>
<td>• Shorter wait times</td>
</tr>
<tr>
<td>• Includes Price Road Corridor and Chandler Fashion Square travel</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Alternative Zone 1 Map
SERVICE ZONE ALTERNATIVES

Alternative Zone 2

Alternative Zone 2 expands on Alternative Zone 1 to include downtown Chandler and Tumbleweed Park access. The tradeoffs for this alternative are reflected in the table below.

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>CONSTRAINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Includes Price Road Corridor and Chandler Fashion Square travel</td>
<td>• Increased cost to implement</td>
</tr>
<tr>
<td>• Expands access to downtown Chandler</td>
<td>• Longer wait times</td>
</tr>
<tr>
<td>• Connects with all available transit</td>
<td>• Lacks access to Hamilton High School and community resources in the southeast</td>
</tr>
<tr>
<td>• Extends access to residential areas</td>
<td></td>
</tr>
</tbody>
</table>

Alternative Zone 2 Map
SERVICE ZONE ALTERNATIVES

Alternative Zone 3

Alternative Zone 3 provides a condensed version of Alternative Zone 2, accessing a vast majority of key locations with minimal zone coverage. The tradeoffs of this alternative are reflected in the table below.

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>CONSTRAINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Affordable to implement&lt;br&gt;• Shorter wait times&lt;br&gt;• Includes Price Road Corridor, downtown Chandler and Chandler Fashion Square travel&lt;br&gt;• Connects to all local bus routes&lt;br&gt;• Concentrates on highest demand locations</td>
<td>• Lacks access to express route 542&lt;br&gt;• Minimal service for residential areas&lt;br&gt;• Lacks access to Hamilton High School, Tumbleweed Park and community resources in the southeast</td>
</tr>
</tbody>
</table>

Alternative Zone 3 Map
SERVICE ZONE ALTERNATIVES

Alternative Zone 4

Alternative Zone 4 encompasses the whole study area, which provides the greatest access to local residences and services. The tradeoffs of this zone are reflected in the table below.

<table>
<thead>
<tr>
<th>ALTERNATIVE ZONE 4 TRADEOFFS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENEFITS</td>
</tr>
<tr>
<td>• Provides access to all key locations and residents in the study area</td>
</tr>
<tr>
<td>• Provides access to all available transit routes</td>
</tr>
<tr>
<td>• Reduced frequency of transfers</td>
</tr>
</tbody>
</table>

Alternative Zone 4 Map

Our Recommendation

Our study recommends this alternative because of the importance of the noted locations reflected in public input and the desire to retain all possible transit connections.
SPAN OF SERVICE & DAYS OF OPERATION

Employee work hours, residential commute patterns and commercial traffic are just some factors affecting travel demand. Feedback from our business community in the area shows an increase in local commute traffic during the following times for those employed and/or living in the area:

- Morning peak hours: 5:00AM to 10:00AM
- Evening peak hours: 3:00PM to 7:00PM

Regional survey data from 2019 illustrates these windows (below). Feedback from outreach surveys and focus groups with stakeholders and the general public provided feedback to reinforce the importance of these times for local commuting.

Study Area Employee Start & End Work Hour (2019)

![Chart](chart-url)

Source: Maricopa County Travel Reduction Program Survey Data 2019

Beyond commuting peaks there are several essential trips midday and on weekends to consider:

- Commercial travel
- Non-work residential travel
- Special land use trips for schools and medical facilities

These trips occur at all times of the day and may increase on weekends.

Our Recommendation

We recommend a service span of 5:00AM to 8:00PM Monday-Saturday to accommodate a wide variety of trips while focusing on the most in demand portions of the day and week.
HAILING A RIDE

Accessing microtransit is simple. Microtransit service can be hailed directly to your location by phone, web browser or smartphone app.

Ride Hailing Methods

**Smart Phone App**

- Hail rides, check transit schedules, track vehicles and pay fares on the go with a smartphone app.

**Web Browser**

- Riders can also hail rides, check transit schedules, track vehicles and pay fares from any PC.

**Phone Call**

- Using a phone, riders can hail rides like a Traditional taxi service.

Our Recommendation

This study recommends providing three options for ride hailing to maximize access to the service for residents of different preferences and in different situations.
MICROTRANSIT VEHICLES

The flexibility of microtransit service requires a vehicle that is easy to operate and accommodate tight areas such as parking lots. Because of that, vehicles used for a microtransit service are typically smaller than the 40-foot bus that runs on a traditional bus route.

Microtransit Vehicle Examples

The type of vehicle varies based on the demand of the service area.

Our Recommendation

Our study recommends the use of passenger vans for prospective service. These vehicles are cost efficient, easy to operate and provide ample capacity for the level of activity anticipated considering a vast majority of rides are expected to have just one or two passengers at a time.
Our Recommendation

The study recommends a small fare for the microtransit service at a level equal to or below local bus service. While free fares would put the service in higher demand and match the fares of many neighborhood services, a small fare (up to that of a local bus ride) would make the service more financially sustainable and deter abuse of the service.
SMARTPHONE APPLICATION INTEGRATION

One major, modern convenience of any microtransit service is its complimentary smartphone application. Application capabilities and layouts vary, but several essential features are found in most. Riders can use the app to:

- Hail and track their rides quickly
- Pay their fares easily and touch-free
- Access broader regional transit system information (view nearby transit stops, transit schedules transit vehicle locations, etc.)
- Provide feedback, which helps improve service

Here are varying examples of microtransit apps being used to hail a ride, make fare purchases, plan transit travel, and leave feedback.

Our Recommendation

The study recommends future microtransit service feature a complimentary app with all the features mentioned above. Ride scheduling will also be available over the phone and the web for those without smartphone access.
SERVICE COSTS

By estimating demand and the required capacity, the study determined estimated costs for potential microtransit service. Below are estimated annual costs to run the service based on capacity:

- Low Demand: $850,000 to $1 Million/Year
- Medium Demand: $1 to $1.15 Million/Year
- High Demand: $1.15 to $1.30 Million/Year

The service team estimates the likely cost of the service will be between $850,000 to $1 Million per Year for the first few years with potential to rise above $1 Million per Year after that as demand grows. For comparison, here are costs for existing transit service running just within the study area.

Service characteristics are also shown to illustrate that increased service access equals higher costs. For reference, our recommendation includes:

- 500-feet average walk to service
- 15-20-minute average wait times
- Potential stop locations virtually anywhere

Study Area Transit Service Costs and Characteristics

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>PEAK HEADWAY (MIN)</th>
<th>OFF PEAK HEADWAY (MIN)</th>
<th>STOPS SERVED</th>
<th>ROUTE LENGTH WITHIN STUDY AREA (MI.)</th>
<th>ANNUAL OPERATING COST WITHIN STUDY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>72- Scottsdale Rd/Rural Rd</td>
<td>20</td>
<td>30</td>
<td>7</td>
<td>1.3</td>
<td>$260,000</td>
</tr>
<tr>
<td>81-McClintock Dr/Hayden Rd</td>
<td>30</td>
<td>30</td>
<td>7</td>
<td>1.3</td>
<td>$149,000</td>
</tr>
<tr>
<td>96-Dobson Rd</td>
<td>30</td>
<td>30</td>
<td>48</td>
<td>7.6</td>
<td>$524,00</td>
</tr>
<tr>
<td>104-Alma School Rd</td>
<td>30</td>
<td>30</td>
<td>18</td>
<td>3.0</td>
<td>$317,000</td>
</tr>
<tr>
<td>112-Arizona Ave/Country Club Rd</td>
<td>15</td>
<td>30</td>
<td>19</td>
<td>3.1</td>
<td>$779,000</td>
</tr>
<tr>
<td>156-Chandler Blvd/Williams Field Rd</td>
<td>30</td>
<td>30</td>
<td>34</td>
<td>4.7</td>
<td>$720,000</td>
</tr>
<tr>
<td>542-Chandler Express</td>
<td>8 TRIPS</td>
<td>N/A</td>
<td>1</td>
<td>5.5</td>
<td>$297,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>N/A</td>
<td>N/A</td>
<td>134</td>
<td>26.5</td>
<td>$2,825,000</td>
</tr>
</tbody>
</table>

Our Recommendation

Microtransit service can be used to cost effectively increase public transportation services in the study area in place of fixed route improvements. Additionally, this service could replace existing fixed route service on Route 96 - Dobson Rd south of Pecos Rd to provide better service while reducing costs.
### FINAL RECOMMENDATIONS

**Recommended Microtransit Service Aspects**

<table>
<thead>
<tr>
<th>SERVICE ASPECT</th>
<th>OPTIONS EXPLORED</th>
<th>RECOMMENDATION</th>
<th>REASONING</th>
</tr>
</thead>
</table>
| SPAN                            | • Weekday vs. Weekend  
• Peak hour service  
• All day service  
• Late night service | • 15-hour span 5AM-8PM  
• Weekdays and Saturdays | • Outreach and travel patterns show travel drops significantly on weekends but still important for commercial/recreational travel  
• Commuter travel and peak hours are also critical in those data sources  
• Midday service retains flexibility for commuters and residents |
| AMOUNT OF VEHICLES AND TYPE     | Vehicles:  
• Mini bus  
• Passenger van  
Fleet Size:  
• 4-8 vehicles | Passenger vans  
• 4-5 vehicles at peak  
• 1-2 vehicles pre-and post-peak | Vans are more maneuverable in tight lots  
Vans are more fuel efficient  
Vans provide adequate capacity for estimated demand  
4-5 vehicles estimated to provide average 15-minute waits while keeping costs low |
| SERVICE ZONE SHAPE              | Full study area  
• T shaped zone along Chandler Boulevard (DTC to CFC) and Price Road (Chandler Blvd to Intel)  
• East of Alma School Road | Full 18 square-mile coverage zone | Covers major land uses requested  
Provides several north/south, east/west transit connections  
Improves/creates transit access to tens of thousands of residents along Alma School Road |
| APP INTERGRATION                | • Real-time tracking  
• Fare payment via app  
• Transit trip planning  
• General information on operating characteristics, personal use reports, etc.  
• Phone dispatch | Implement app  
• Complimentary phone dispatch  
• Integrate with Transportation Network Company  
• Integrate with Valley Metro App | Facilitates quick and convenient system use  
Provides peace of mind and convenience with real-time tracking  
Microtransit services rarely rolled out with just phone dispatch  
Phone dispatch expands access to service |
| FEE STRUCTURE                   | • Match local bus fare ($2/trip)  
• Small boarding fare ($0.50)  
• Free fare | Piloted/initiated with nominal fare | Fare will defray cost of operation  
Fare will deter service abuse  
Fares can be used to manage demand |
| TRANSIT NETWORK SERVICE ADJUSTMENTS | • Lowest ridership segment replacement  
• Large end of route segments overlapping study area replacement | Remove section of Route 96 - Dobson Rd, south of Pecos Rd | Cost savings would defray cost of microtransit implementation  
Ridership currently low on existing segment  
Would provide better service availability to that corridor |
NEXT STEPS

The study team will incorporate the feedback provided by the public on these recommendations and refine them for inclusion in the study report. New alternatives will be developed and analyzed as needed based on feedback. The study will then present to representatives of the City of Chandler for comment and finalization.

PROJECT SCHEDULE

- **MID 2020**: Identify Current Conditions
- **LATE 2020 / EARLY 2021**: Develop and Analyze Options
- **EARLY/MID 2021**: Finalize Recommendations
HOW TO COMMENT

The study team is seeking further input from the public on the presented recommendations, and the prospect of local microtransit services. Thank you for participating in our online public meeting for the Price Road Flexible Transit Study. If you would like leave a comment, please use one of the comment options listed below. All comments will be accepted through June 4, 2021.

- Take our survey at www.valleymetro.org/price-road
- Leave a comment on the interactive map at www.valleymetro.org/price-road
- Send an email to kshepherd@valleymetro.org