



PEORIA MULTI-MODAL TRANSPORTATION PLAN

Executive Summary

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Prepared for:



Prepared by:



**NELSON
NYGAARD** Nelson\Nygaard Consulting Associates

In association with:

JACOBS Jacobs Engineering

**SHERMAN
GROUP INC** Sherman Group, Inc.

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EXECUTIVE SUMMARY

Peoria has grown rapidly from a small agricultural town located outside of Phoenix to a city of 154,000 residents that is now a part of the Phoenix metropolitan area. As growth continues, the city desires to grow “smarter,” to make growth more efficient and more productive, revitalize Old Town, protect natural resources and community character, and improve quality of life for the city’s residents. One important component will be the development of a much more balanced transportation system, and specifically the development of an attractive and effective transit system. This study addressed those issues and examined how to:

- Use transit to provide better links between Peoria and the rest of the Valley,
- Develop a more balanced transportation system, and
- Use transit to encourage smarter growth and improve the city’s character.

As described in detail in the full report, the study examined a number of transit issues and improvements:

- An analysis of current and future transit demand.
- A review of existing and currently programmed transit services in Peoria and its environs.
- A description of local service options with associated ridership, costs, and productivity estimates.
- An analysis of High Capacity Transit options that describes light rail and Bus Rapid Transit (BRT) alternatives, also along with associated ridership, costs, and productivity estimates, plus an analysis of issues related to the implementation of High Capacity Transit.
- A description of options for the development of an Old Town Transit Center, including a preliminary site plan for the preferred option.
- A review of bus stop facilities and practices in other communities, including the incorporation of artwork into major stops and the development of a preferred approach for Peoria.
- Recommendations for the short, mid, and long-term.

MARKET CONDITIONS

Peoria is a very large city geographically, and encompasses a planning area of approximately 233 square miles. The large majority of development is in the southern third of the city, south of Deer Valley Road. This area contains most of Peoria’s residential and commercial areas, including the Peoria Sports Complex (which is the spring training facility for the Seattle Mariners and San Diego Padres), and downtown (Old Town) Peoria. However, development is moving northward, and areas between Deer Valley Road and Happy Valley Road are rapidly

developing. North of Happy Valley Parkway, the city is still largely undeveloped, and Lake Pleasant, in the far northern part of the city, is a major recreational area.

At present, Peoria has approximately 154,000 residents. However, by 2028, it is projected that the city's population will grow by 95% to over 300,000 residents. At present, most residents live in parts of the city south of Union Hills Drive. Over the next 20 years, most population growth is projected for areas north of there, but even with that growth, most residents will still live in the southern portions of the city.

Similarly, most employment is also located in the southern areas of Peoria (see Figure 2). At present, 72% of all jobs are located south of Union Hills Drive, and 23% are located north of there. In total, there is only one job for every 3.6 residents, which means that many Peoria residents commute to other communities for work. However, employment is projected to increase even faster than population, by 130% through 2028. With this job growth, the proportion of jobs will increase to one job for every 2.7 residents. As with population, most of the job growth will occur north of Union Hills Drive, but even so, the largest proportions of jobs will continue to be in south of there.

EXISTING AND PLANNED TRANSIT SERVICES

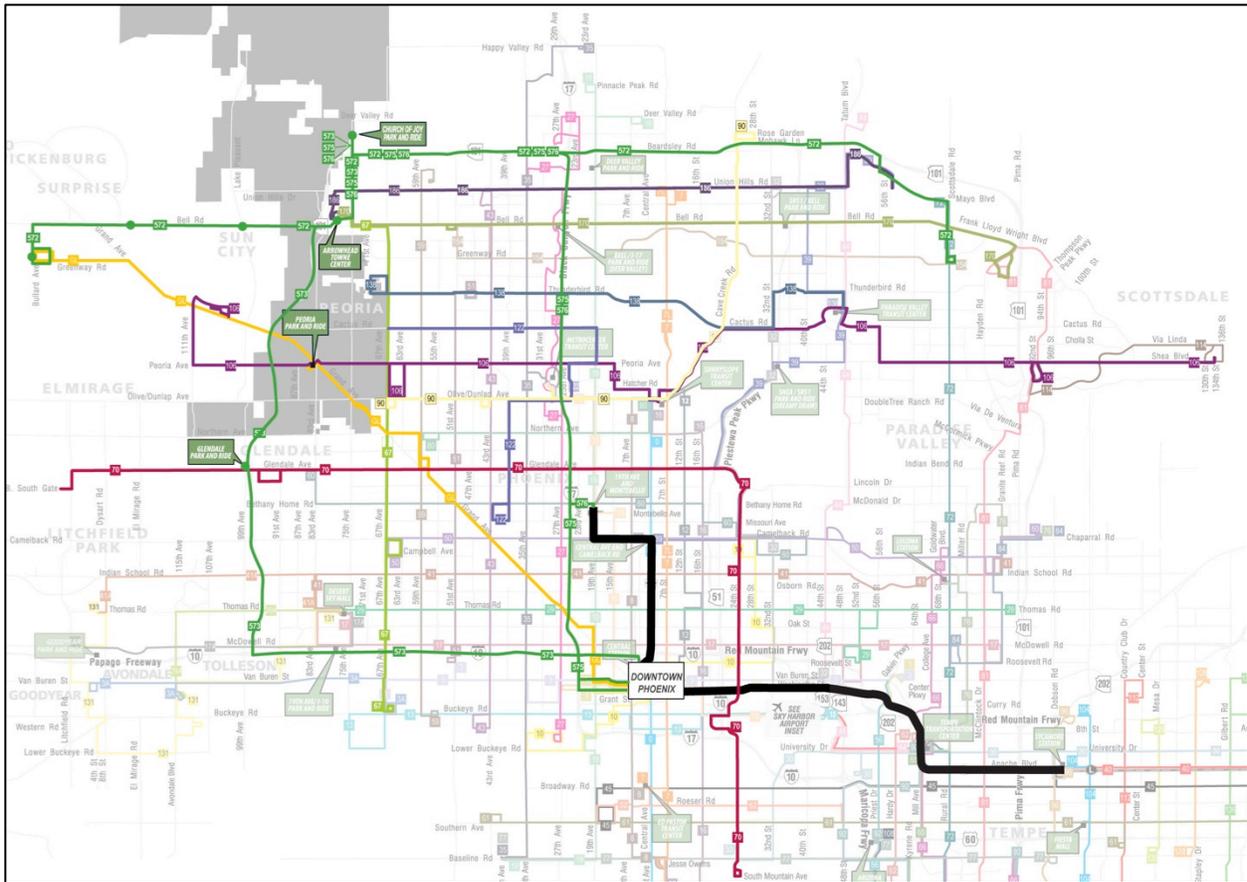
Because Peoria is located near the northwestern edge of Valley Metro's service area and the city is one of the Phoenix metro areas "newer" communities, general public transit service is still relatively limited (see Figure 1). Today, Peoria has a single park and ride lot, and is served by one local Valley Metro route (Route 106 Peoria/Shea) and one limited stop commuter route (Grand Avenue Limited). Peoria also operates a dial-a-ride service for elderly and disabled residents.

For the future, new services are programmed as part of the region's Prop 400 transit program, many of which would extend more Valley Metro service to Peoria, and provide new types of services. However, due to the recession, Prop 400 sales tax revenues have been significantly lower than projected, and as a result, many planned projects are now being delayed. Peoria projects include:

- The development of an **Old Town Transit Center**, in 2015.
- **Super Grid bus service** that would operate on many major arterials, including Bell Road, Thunderbird Road, Peoria Avenue, Olive Avenue, 83rd Avenue and 99th Avenue. However, most of Super Grid routes that would serve Peoria are planned for relatively far in the future, in 2023 and beyond.
- **Express service** improvements, but not until after 2026.

In addition, MAG's Commuter Rail Systems Study and the Grand Avenue Commuter Rail Corridor Development Plan recommends that commuter rail between Wittmann and Phoenix via Peoria be pursued. There are a large number of steps that will need to be accomplished

Figure 7: Peoria Area Fixed-Route Transit Services



before commuter rail can be implemented and the earliest that commuter rail service could begin would be in the late 2010s.

LOCAL SERVICE OPTIONS

The study examined a large number of ways to improve local transit service within Peoria and to provide better connections with the rest of the Valley. These included:

1. Local bus circulator services that would be similar to those that have been implemented in a number of other Valley communities.
2. Local flex services that would be a hybrid of fixed-route and dial-a-ride service.
3. An expansion of Valley Metro’s grid network into Peoria.
4. Combinations of the above.

Of the different options, the extension of the Valley Metro grid into Peoria was viewed the most favorably by project staff, stakeholders, and the public who attended the project open houses. The major reason for this was that connections to the rest of the Valley were considered to be extremely important. This view is substantiated by the market analysis that showed that very large volumes of trips are made between Peoria and other areas, particularly

Glendale and North Phoenix. The technical analysis also indicated that this approach would serve more riders and be more productive and cost-effective.

HIGH CAPACITY TRANSIT ALTERNATIVES

The study examined the feasibility of High Capacity Transit (HCT) in Peoria; specifically, six options that would either extend light rail to Peoria or develop new Bus Rapid Transit services:

- LRT from downtown Glendale via Grand Avenue
- LRT from Westgate Center via 91st Avenue
- BRT from 19th Street at Montebello Avenue via Grand Avenue
- BRT from Westgate Center via 91st Avenue
- BRT from the Northwest Extension via Dunlap Avenue
- BRT from the Northwest Extension via Peoria Avenue

All six alternatives would operate to Old Town Peoria from either a currently planned or potential LRT extension (the Northwest Extension or one of the potential Glendale extensions). From Old Town, all six alternatives would follow a common alignment to the planned Arrowhead Transit Center via 83rd Avenue and the Peoria Sports Complex.

However, the study found that none of the HCT alternatives would be feasible because projected ridership would be much too low to justify the associated costs. Ridership would be low largely because projected development patterns will not be dense enough to provide markets that would be large enough to support HCT.

OLD TOWN TRANSIT CENTER

With the redevelopment of Old Town, there will be an increased emphasis on transit, and to provide a focal point for local and regional transit services, a transit center will be developed in Old Town. Three alternative sites were identified and evaluated, all of which were in the vicinity of the intersections of Peoria Avenue and 83rd Avenue on the north side of Grand Avenue. These were:

- **Option A:** Peoria Avenue in front of current Zocalo Mall
- **Option B:** 83rd Avenue between Peoria and Grand Avenues.
- **Option C:** Market Street between Cotton Crossing and 83rd Avenue.

Overall, Options A (Peoria Avenue) and B (83rd Avenue) would have similar advantages and disadvantages, and both would be significantly better than Option C (Market Street). However, between Options A and B, Option B would provide better bus service through the heart of Old Town, and was determined to be the preferred location on that basis.

For the mid-term, the Old Town Transit Center would be developed to serve Route 106 Peoria/Shea, Grand Avenue Limited, a new Route 83 83rd Avenue local route, and to provide park and ride spaces for transit riders, carpoolers, and vanpoolers. Key elements of the plan include (see Figure 2):

Figure 2: Mid-Term Site Layout



- A transit center building on the west side of 83rd Avenue between Grand Avenue and Peoria Avenue.
- The conversion of 83rd Avenue between Grand Avenue and Peoria Avenue to transit-only use, with bus berths, passenger waiting areas, bicycle racks, water fountain, vending machines and public art.
- Passenger pick-up and drop-off areas behind the transit center building in the area where Taco Bell is currently located.
- Parking south of 83rd Avenue adjacent to the transit platforms with access from Peoria Avenue. Amenities would include covered parking, landscaped walkways and seating at the pedestrian way.
- Roadway improvements on Peoria Avenue that would include striping and island revisions from south of the Market Street intersection to south of the northern most Peoria Avenue/83rd Avenue intersection.

Over the longer-term, the transit center would be expanded to accommodate additional local and express bus service, and Grand Avenue commuter rail service. These increases in transit service would require that the transit center be expanded to accommodate increased transit usage, and to integrate it with Old Town as it redevelops (see Figure 3). To do this:

Figure 3: Long-Term Site Layout



- The transit platforms would be expanded to accommodate additional bus service and, as required, additional modes.
- Up to 200 commuter spaces would be needed, and to accommodate these, structured parking would be developed south of 83rd Avenue. This structure would include transit-oriented joint development along Peoria Avenue.
- The areas around the transit center would be redeveloped in a transit-oriented manner consistent with the Old Town Redevelopment Plan.

BUS STOP IMPROVEMENTS

Waiting for the bus is a significant part of nearly every bus rider's transit experience. If bus stops provide a comfortable waiting environment, people traveling to and from that area will be more likely to use transit. Conversely, if bus stops do not provide a comfortable environment, people will be less likely to use transit. In addition, well designed bus shelters can also help to provide a unifying design element for the city. Shelters created by artists can be used to create diversity and interest with designs specifically for unique locations.

Rather than determine the facilities and amenities should be developed on a stop-by-stop basis, a more systematic approach is to develop a hierarchy of stops based on relative importance. The level of amenities that would be provided would then be based upon that hierarchy. For example, basic stops that serve relatively few riders would consist simply of a bus stop sign with

bus route information, and if possible, a paved waiting area pad, lighting, and a trash receptacle. At the other end of the spectrum, major regional portals would be uniquely designed, and would include a full range of amenities including local area information and real-time passenger information.

At the present time, transit service in Peoria is limited, and thus a relatively small hierarchy would be appropriate. However, as the city, and its transit services grow, a larger hierarchy would be more apt. The recommended approach includes:

Short-Term

- **“Signature” Art Stops:** Stops in key high visibility locations where design is particularly important and/or can contribute to the vitality and character of the area. Examples would be at the Peoria Sports Complex and at the Peoria Performing Arts Center. These stops would have custom art installations.
- **“Standard” Art Stops:** Stops in prominent locations that would have artwork built into the design of the stop. These stops would be smaller in scale than the Signature Stops, with artwork incorporated into a standard design (as opposed to the custom designs for the Signature Stops).
- **Regular Stops:** Most stops—those that would not be Signature Stops, Standard Art Stops, or low volume stops. These stops would provide a basic set of amenities, including shelters. As in Tucson, artwork could be incorporated into the design of the standard shelter.
- **Low Volume Stops:** Stops that serve very few riders and that are provided largely to ensure comprehensive service coverage. These stops would have limited facilities.

Mid to Long-Term

- **Transit Centers:** Transit centers, such as the proposed Old Town Transit Center, can act as a focal point for local and regional transit services, and typically handle high volumes of passengers. These facilities would include similar elements as Signature Stops, plus additional passenger amenities.
- **HCT Stops:** High capacity transit stops would consist of specially designed “stations” that would be designed to be consistent with stations constructed for other Valley high capacity transit services such as commuter rail, and possibly light rail, BRT, and Rapid Bus.

RECOMMENDATIONS

As described above, this study examined a large number of improvements, and through this work, a number of priorities and conclusions emerged:

- Transit services in Peoria should be well integrated with the regional transit system, and to accomplish this, it is more important to extend Valley Metro services into Peoria than to develop purely local circulator services.

- For existing and new services, it is important to provide “full” rather than only limited service (at the present time, only half of existing Route 106 Peoria/Shea weekday service, and no Saturday or Sunday service, operates through Peoria).
- Peoria Dial-A-Ride service needs to be maintained, and to do this, local revenues should be used to offset cuts in state funding.
- Bus stop facilities should be improved, and artwork should be incorporated into major stops.
- An Old Town Transit Center should be developed north of Grand Avenue at the intersection of 83rd Avenue and Peoria Avenue.
- High Capacity Transit will not be feasible in the foreseeable future, as projected population and employment levels and densities will not be sufficient to support cost-effective service.

These priorities and conclusions, and available funding levels, were used to develop the project’s recommendations, which are presented for the short-term (2011 to 2015), the mid-term (2016 to 2026), and long-term (beyond 2026). Based on current funding projections, a combination of local transportation sales tax, Prop 400, and federal funding is available for the short and mid-term recommendations. Recommended long-term improvements, due to uncertainties about which areas of Peoria will develop at what rate, are more generalized. Also, because implementation of those projects will occur beyond the end of the Prop 400 program, funding for those projects will need to be identified at the time plans are being made for a successor to the Prop 400 program.

SUMMARY OF RECOMMENDATIONS

As described in more detail below, the following services and facilities are recommended:

Short-Term (2011 to 2016)

- Use local funding to maintain Peoria Dial-A-Ride service.
- Use local funding to maintain Grand Avenue Limited service.
- Improve Route 106 Peoria service.
- Improve bus stops.

Mid-Term (2016 to 2026)

- Develop Old Town Transit Center/Park and Ride.
- Extend Route 138 Thunderbird into Peoria.
- Implement new Route 83 83rd Avenue local route.
- Continue to improve bus stops.

Long-Term (Beyond 2026)

- Extend Valley Metro’s local bus grid service into much of Peoria.
- Extend service to northern areas.
- Develop new park and ride lots.
- Support development of Grand Ave commuter rail.

**SHORT-TERM RECOMMENDATIONS
(2011 – 2015)**

The project’s short-term recommendations are aimed at using available revenues to offset cuts in state and regional funding to maintain existing services, to provide a full level of service on the city’s only existing Valley Metro local route, and improve facilities (see Figure 4 and Table 1):

1. Maintain Peoria Dial-A-Ride Service.
2. Expand Route 106 Peoria/Shea service.
3. Maintain Grand Avenue Limited service.
4. Improve bus stop facilities.

Maintain Peoria-Dial-A-Ride Service

Peoria had been using state Local Transportation Assistance Fund II (LTAF II) revenues to fund most of the costs of its Dial-A-Ride service. This funding has been eliminated, and to continue service, the city should use local sales tax revenues to maintain service. The cost to maintain service will be \$1.0 million per year.

**Figure 4: Short-Term Recommendations:
Route 106 Peoria/Shea & Grand Ave**

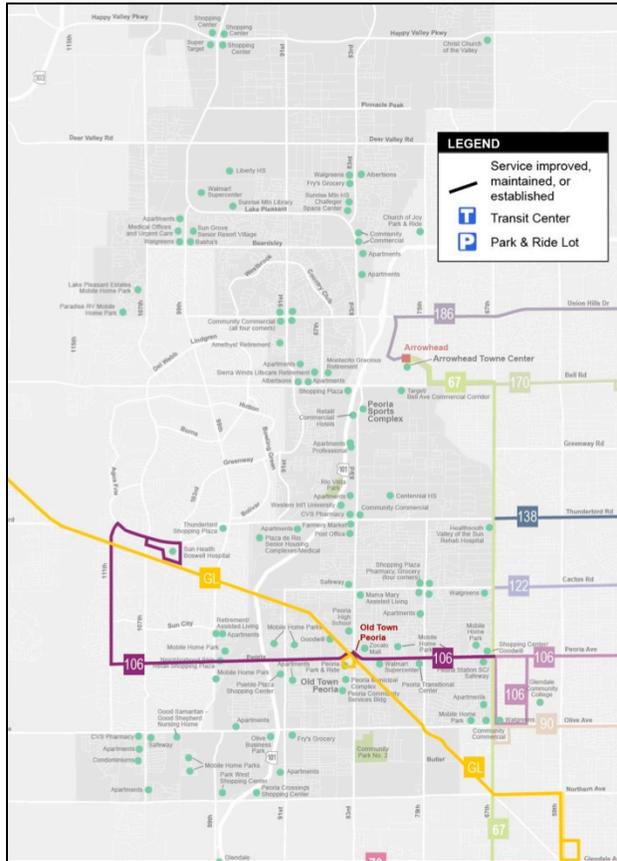


Table 1: Short-Term Recommendations: Ridership, Costs, and Funding Sources

Program	Ridership/ Month	Annual Operating Cost	Capital Cost	Funding Source
Maintain Dial-A-Ride	2,600	\$1.0 m	\$0.0	Peoria Sales Tax
Expand Route 106 Peoria Service	8,460	\$125,000	\$0.0	Prop 400
Maintain Grand Avenue Limited Service	800	\$12,500	\$0.0	Prop 400
Improve Bus Stops	--		\$100,000 - \$200,00/yr (over 2-3 yrs)	Peoria Sales Tax

Expand Route 106 Peoria/Shea Service

At the present time, approximately half of Route 106 Peoria/Shea weekday service, and all weekend service, terminates at Peoria Avenue at 67th Avenue, which means that only half of weekday service, and no weekend service, operates through Peoria. In the short-term, the city should use available Prop 400 revenues to extend all Route 106 service into Peoria. Because of recent reductions elsewhere, RPTA has available buses, and thus there will be no associated capital costs. Annual operating costs will be approximately \$125,000 per year.

Maintain Grand Avenue Limited Service

Valley Metro's Grand Avenue Limited provides limited stop commuter service between El Mirage and Phoenix, largely along Grand Avenue, with a stop in Old Town Peoria. The route is partially funded by the communities that it serves and some of that funding is being reduced. To preserve service at present levels, Peoria should allocate some of its available Prop 400 funding to maintain service at three AM inbound and three PM outbound trips. The cost to maintain this service will be approximately \$12,500 per year.

Improve Facilities at Higher Volume Bus Stops

Better bus stop facilities can make the use of transit much more comfortable, and improve the aesthetics and character of the areas in which they are located. The city should work over time to improve bus stops. It is recommended that over the next two to three years that the city spends \$100,000 to \$200,000 per year of local sales taxes revenues on bus stop improvements.

MID-TERM IMPROVEMENTS (2016 - 2026)

Over the mid-term, transit demand will grow, and mid-term recommendations are aimed at maintaining the short-term services, extending Valley Metro's Route 138 Thunderbird into Peoria, implementing new local service on 83rd Avenue, and developing a new Old Town Transit Center, and continuing the bus stop improvement program (see Figure 5 and Table 2).

Extend Route 138 Thunderbird through Peoria

Route 138 Thunderbird, which now operates between the Paradise Valley Mall and the Peoria/Glendale border at 67th Avenue, should be extended through Peoria along Thunderbird Road. Because of recent reductions elsewhere, RPTA has available buses, and there will be no associated capital costs. Annual operating costs will be approximately \$250,000 per year.

Develop New Route 83 83rd Avenue Route

The expansion and extension of Routes 106 Peoria/Shea and 138 Thunderbird will improve east-west service in Peoria and connections to the rest of the Valley. The development of a new Route 83 83rd Avenue route will provide north-south service through the core of Peoria from Arrowhead Mall to Phoenix via the Peoria Sports Center, Old Town, and Glendale. Annual operating costs will be approximately \$1.0 million per year for the Peoria portion of the route, and will be funded with programmed Prop 400 funds.

Develop Old Town Transit Center/Park and Ride Lot

To provide a focus for transit services in Peoria, to provide parking for carpoolers and vanpoolers, and to serve future Grand Avenue commuter rail service, a transit center should be developed in Old Town on 83rd Avenue. This transit center would be integrated with and support the city’s Old Town redevelopment plans, and should be located north of Grand Avenue at the intersection of 83rd Avenue and Peoria Avenue. The Old Town Transit Center would cost \$8.0 million to construct and would be funded with programmed Prop 400 funds and federal funds. Annual operating cost would be approximately \$70,000 and would be funded with local sales tax revenues.

Improve Bus Stop Facilities

As in the short term, the city should continue to improve bus stops. It is recommended that between 2016 and 2026 the city spend an average of \$80,000 per year of local sales taxes revenues to improve bus stops. Part of this spending will be for the development of new bus stops for the extension of Route 138 Thunderbird through Peoria and for the new Route 83 83rd Avenue.

Figure 5: Mid-Term Recommendations: Routes 83 & 138 and Old Town Transit

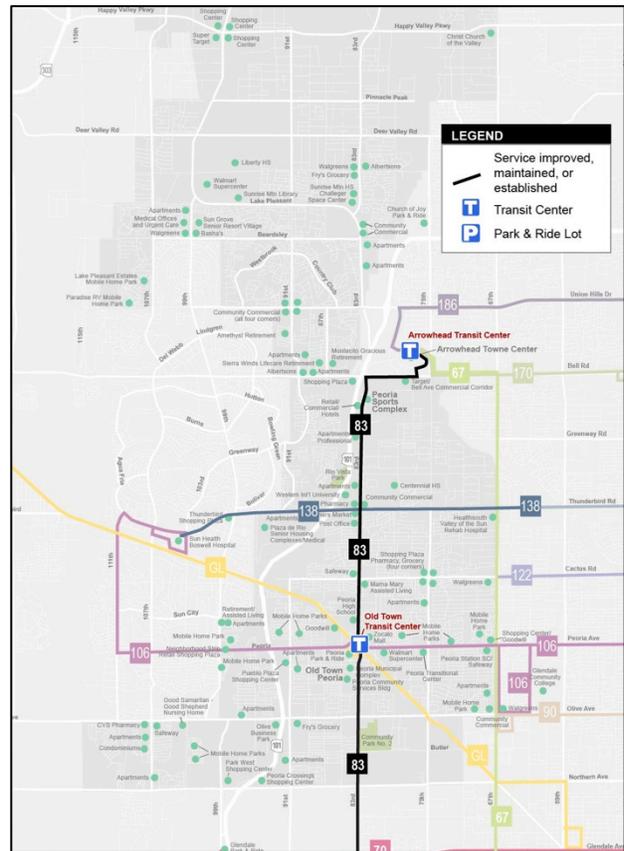


Table 2: Mid-Term Recommendations: Ridership, Costs, and Funding Sources

Program	Ridership/ Month	Annual Operating Cost	Capital Cost	Funding Source
Extend Route 138 Thunderbird through Peoria	6,200	\$250,000	\$0.0	Prop 400
Develop New Route 83 83 rd Ave Route	27,200	\$1,000,000 (Peoria service)	\$0.0	Prop 400
Old Town Transit Center	TBD	\$70,000	\$8.0 million	Prop 400 and federal funds
Continue to Improve Bus Stops	--		\$80,000/yr (average)	Peoria Sales Tax

LONG-TERM IMPROVEMENTS (BEYOND 2026)

Beyond 2026, as Peoria continues to develop and as development moves northward, transit services and facilities should also be extended northward. Given the uncertainties involved in how this development will occur—in terms of which areas will develop first and more intensely and potential funding availability—recommendations for beyond 2026 are necessarily more general than those through 2026. However, the following types of improvements will be desirable:

- Additional local bus service improvements to extend Valley Metro’s grid system into much of Peoria, including northern areas.
- New express routes from northern areas, with specific routes determined based on future growth patterns.
- New park and ride lots, at locations to be determined based on growth.
- Grand Avenue commuter rail between Wittmann and downtown Phoenix via Peoria in the Grand Avenue corridor.

Operating and capital costs would depend upon the specific services and facilities that would be developed, and funding will need to be identified for these services as they are developed.