



Introduction

Working Paper 4, 5, and 6 provides short-, mid-, and long-term recommendations for the Bullhead Area Transit, or Bullhead Transit, including recommendations on transit services and bus stop infrastructure. Short-term recommendations are projected to be implemented in the 1–2-year horizon, mid-term in 3-5 years, and long-term in 6-15 years. This paper describes potential changes in fare structure, operator procurement, vehicle fleet, funding, and marketing.

Route development was built upon data and analysis completed in previous working papers, feedback from Bullhead City staff, and community input. Key metrics that assisted in the development of potential service options included population, locations of key employment and activity centers, existing route characteristics, service performance and efficiency, and service opportunities. Additionally, during the study service evaluation, bus riders and drivers provided insight and assisted in the development of the recommendations. The goal for route development was to incorporate as much of the existing routes (illustrated in **Figure 1**) as possible while also making changes to make each route more efficient and cost effective.

Transit Service Alternatives

This section presents a range of service alternatives for Bullhead’s fixed route transit service. The alternatives were developed based on existing performance of the routes and feedback from the Bullhead Transit staff, drivers, passengers, and the public.





Figure 1: Existing Bullhead Area Transit System





Guiding Principles

The recommendations discussed in this chapter are based on a variety of transit planning principles. These principles, described below, serve as the foundation for all service improvements. For people to use transit, service should be designed so that it is easy to understand. Most of the guidelines in this section are aimed at making service intuitive, logical, and easy to understand. Simplicity is a key value in creating a route network that people can navigate easily to make many kinds of trips.

- **Service should be simple.** First and foremost, for people to use transit, service should be designed so that it is easy to use and intuitive to understand. This applies not only to the routing and scheduling of service, but also to the information presented to customers at the stop and on passenger information materials.
- **Service should serve high-density areas and key stops in Bullhead City.** Routes should be designed to operate as directly as possible to minimize travel time for passengers while maintaining access to key activity centers and residential areas.
- **Service should operate at regular intervals.** Service headways are one of the most important determinants of ridership. More frequent service attracts more passengers assuming a market is present. In general, people can easily remember repeating patterns; therefore, routes should operate at regular (i.e., 15-, 30-, or 60-minute) frequencies to the extent possible.
- **Service should be well coordinated.** At major transfer locations, schedules should be coordinated to the greatest extent possible to minimize connection times. On corridors with multiple routes, schedules should be strategically staggered to avoid bus bunching and to maximize the over-all service frequency in the corridor.
- **Riding Bullhead Area Transit should be safe, comfortable, and convenient.** To be attractive to current and future customers, Bullhead Area Transit service should be perceived to be a comfortable travel option relative to other travel options. Transit comfortability can range from vehicle cleanliness to seating availability, condition of bus stops and waiting areas, simplified fare payment, and other amenities.
- **Recommendations must be realistic and cost-effective.** A plan is only as good as its ability to be implemented. Service enhancements and recommendations should be financially responsible and achievable to make recommendations a reality.



Service Alternatives Development

Taking into consideration likely demand as indicated from the transit demand and the broad range of public and stakeholder support, there is a strong desire and need for public transportation within the Bullhead City area.

Key Service Locations

Development of the transit service alternatives began with identifying key destinations, high- and low-ridership stops, and potential future stop locations. **Figure 2** illustrates key Bullhead Area Transit stops today. Development of the transit service alternatives began with identifying key destinations, high- and low-ridership stops, and potential future stop locations.: To maximize ridership potential, key destinations were analyzed for the potential to access multiple locations/routes. To improve efficiency, stops were then classified into two tiers:

- **Key/Timed Stops** are predetermined locations that have designated stop locations and pick-up/drop-off timed schedules. At a minimum, timed stops are designated by signage; however, additional infrastructure (i.e. benches, shelters, etc.) help to create a more inviting rider experience.
- **Flag Stops/Zones** are areas along bus routes where passengers waiting at a safe and approved designated location can “flag” an approaching bus they wish to board. In these “Flag Zones”, passengers may also de-board by requesting the driver stop at any point in the Flag Zone. Flag Stops also provide a time point of reference for passengers who wish to hail the bus just beyond the station.

Over time, it is typical for stops to be revised based on ridership, both by adding or removing stops, or revising hours of service. Furthermore, local businesses can support the system through in-kind contribution by providing stop infrastructure, space, parking, etc. for use along the route.





Figure 2: Existing Bullhead Transit Key Destinations





Service Alternatives

Selection of potential route alignments was guided by information from previous working papers and from discussions with Bullhead Transit staff, the TAC, and members of the public. Results of the Transit Demand and Transit Propensity Index Model (from Working Paper 1) were also consulted to guide preliminary route development.

Service Option 1: Blue Line Modifications

Service Option 1 modifies the existing Blue Line to improve service efficiencies. Modifications include streamlining service to remove low ridership stops and to provide transfer locations between the Blue and Red lines.



Service Option 2: Green Line Modifications

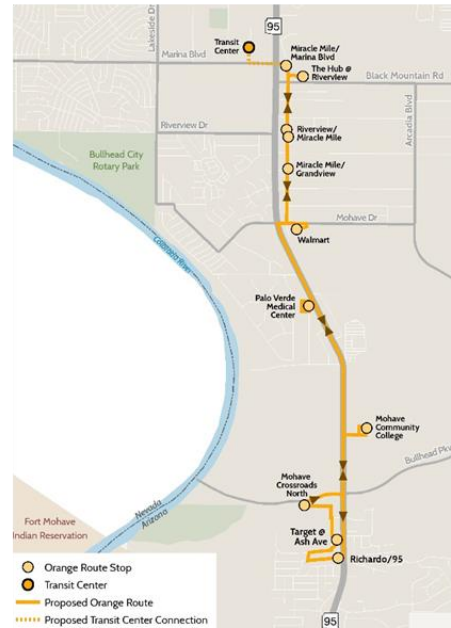
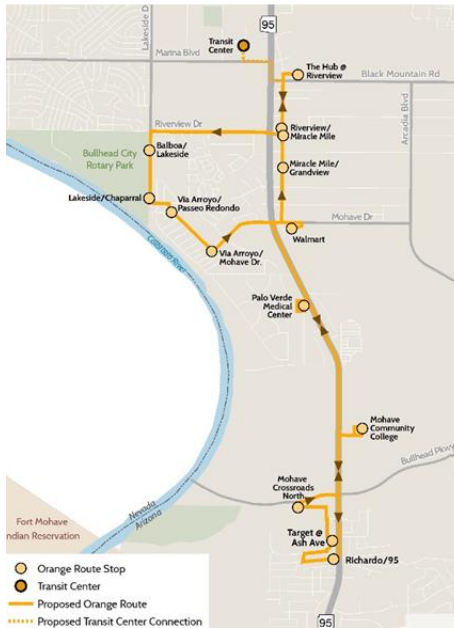
Service Option 2 converts the existing Green Line to a demand responsive service. With this service option, passengers located within the green area can be picked up at a location of their choosing and dropped off at any of the connection points. Connection points locations include: Boat dock, Safeway, Hub at Riverview, the New Transit Center, Goldrush Business Center, Western Arizona Regional Medical Center, Dialysis Center, and Target.





Service Option 3: Orange Line Modifications

Service Option 3 modifies the existing Orange Line to improve service efficiencies. Modifications include, streamlining service to remove low ridership stops and to provide transfer locations to the Blue and Red lines.



Service Option 4: Red Line Modifications

Service Option 4 includes minor route modifications to the Red Line, including removing the Wells Fargo stop by Safeway. Additional Red Line service options include improving service frequencies to 30-minutes.





Public Engagement and Outreach

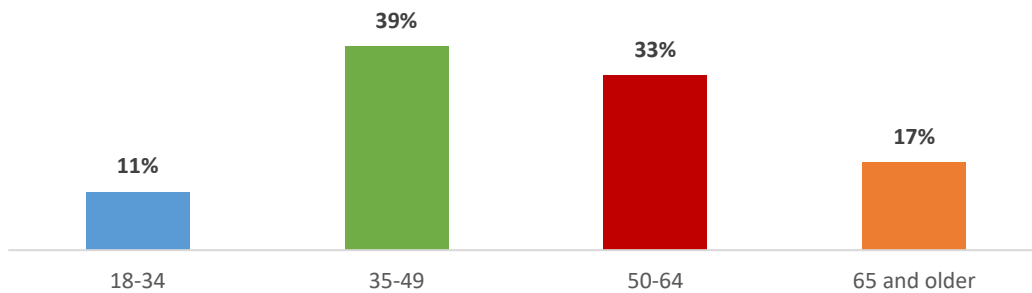
To engage with a wide range of Bullhead City area residents and gain their insights on preferred service modifications, a virtual public meeting was held on July 26th, 2022. The virtual meeting allowed members of the public to hear about potential service changes and provide feedback on the alternatives. In addition, the virtual public meeting was posted on the Bullhead City Facebook page and remains available for the public to watch and make comments. An online survey was also conducted to receive feedback on alternative service options. The online survey closed on August 31st. The online survey closed on August 31st. A total of 18 respondents filled out the online survey. In addition, the virtual public meeting, which was posted on Bullhead City social media, has had over 1,500 views, 22 shares, and 23 comments from the public.

Online Survey Results

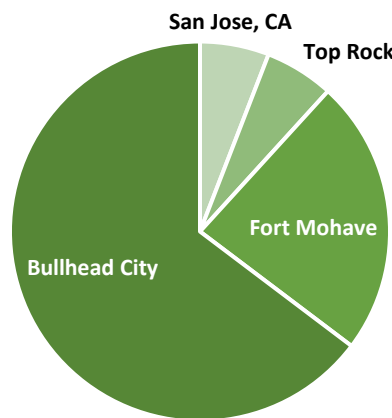
The following section provides demographic characteristics of participants, responses from question about each specific route, and service characteristics.

Demographic Characteristics

Age of Respondents

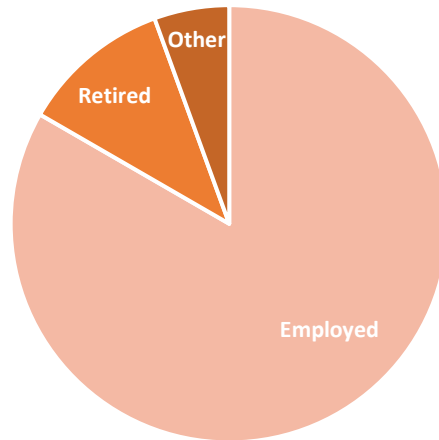


Where Do Respondents Live



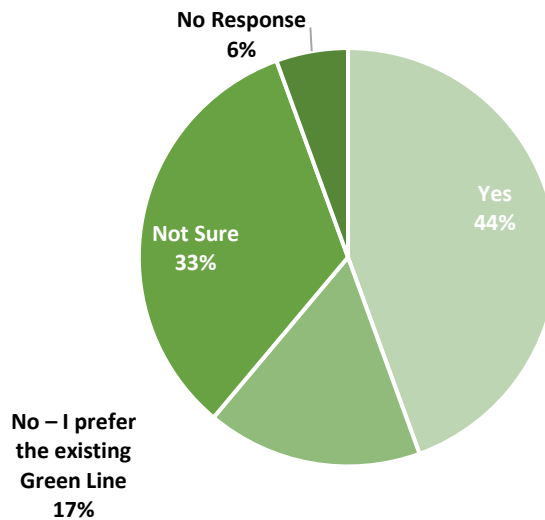


Employment Status



Green Zone

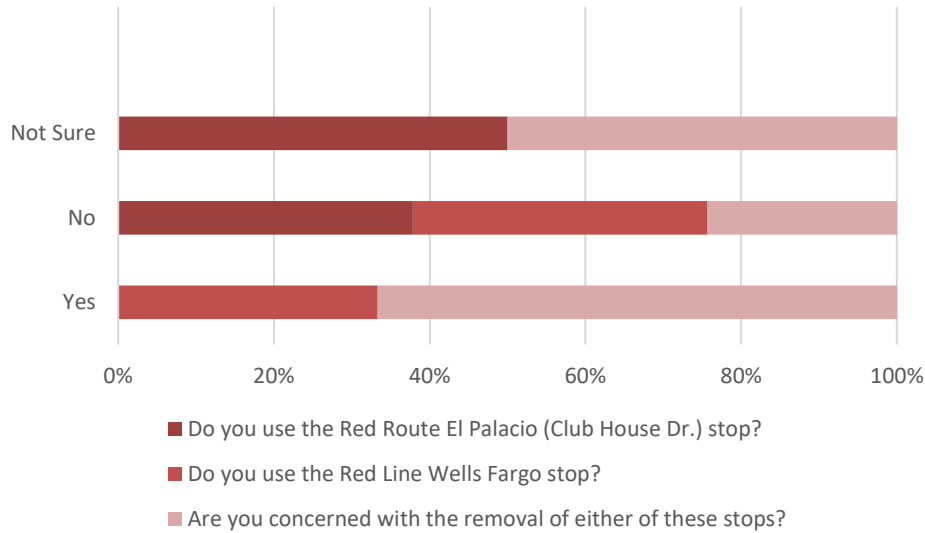
Are you more likely to use this service than the existing Green Line?



Our virtual public meeting and survey results indicate that there is acceptance of transitioning the Green Line route to a Zone service model. Our survey also indicates that with 1/3 of the respondents are “not sure” if they might use the service. This further identifies the need to develop a clear communication and outreach effort surrounding any change of the service delivery for the area.

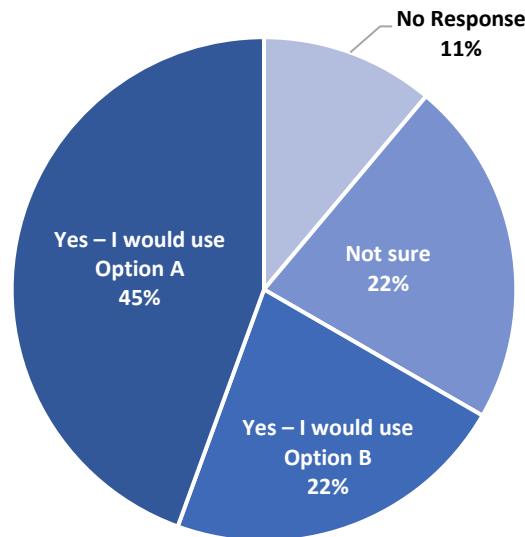


Red Line



Blue Line Questions

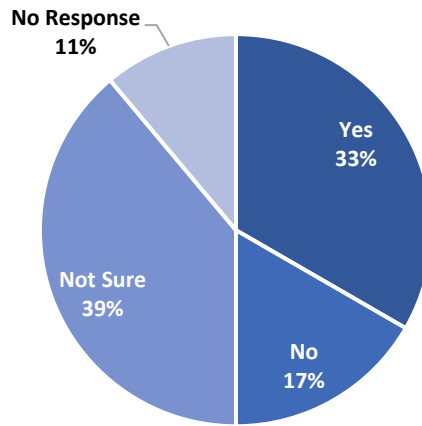
If the Blue Line was more streamlined, as displayed above in the two options, would you consider using it?



Our survey indicates that riders are more comfortable with Option A, which is most similar to the existing Blue Line routing and some minor routing efficiencies. This route serves the most diverse neighborhoods with a mix of single-family and multifamily neighborhoods.



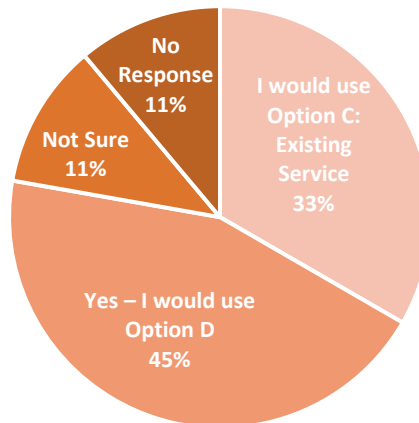
If the Blue Line had flag stopped service, would you use it?



Our survey indicates that many respondents were unclear about flag stops and how they might be beneficial. Prior to implementing flag stops, a clear and deliberate education effort will be needed to educate riders about what they are and how they can be used to access the transit system.

Orange Line

If the Orange Line was more streamlined, as displayed above in Option D, would you consider using it?

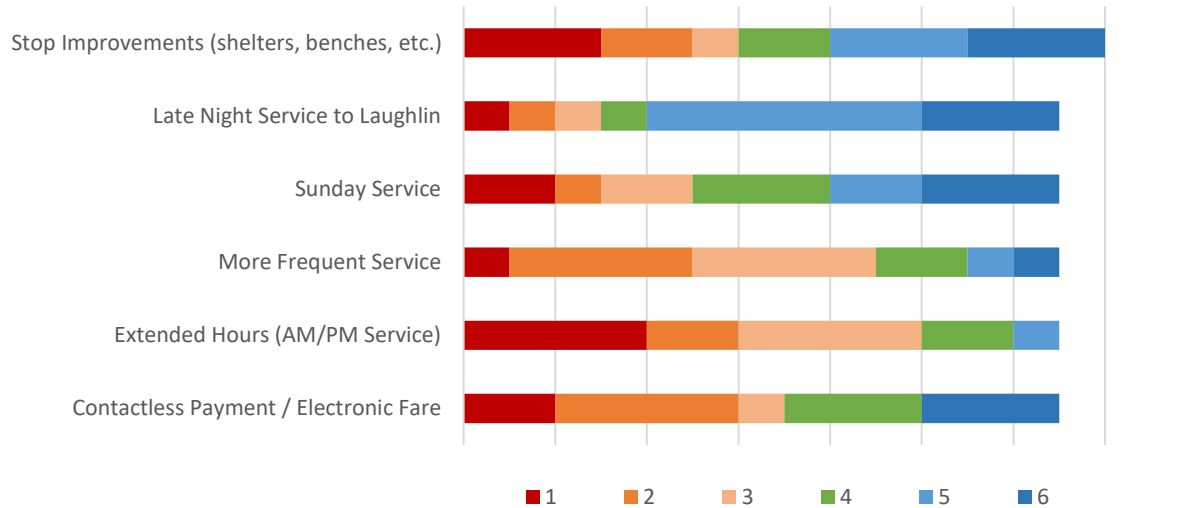


Our survey found a preference for streamlining the Orange Line providing faster service to commercial, retail, medical and educational destinations.



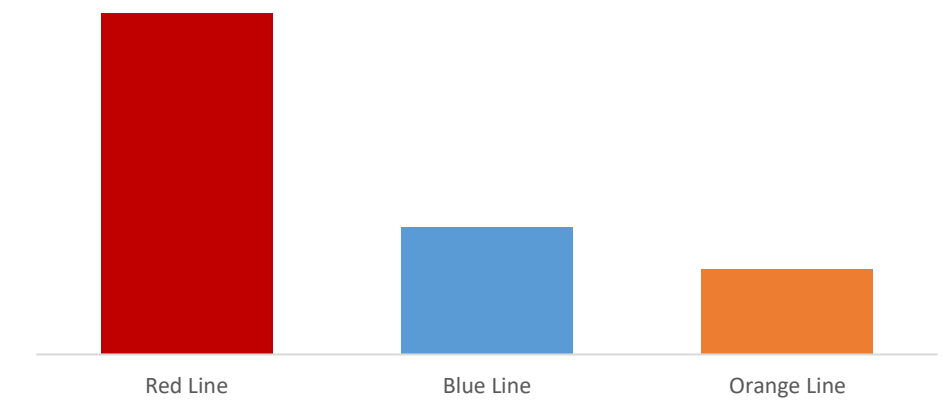
Service Characteristics

Service Improvement Priorities



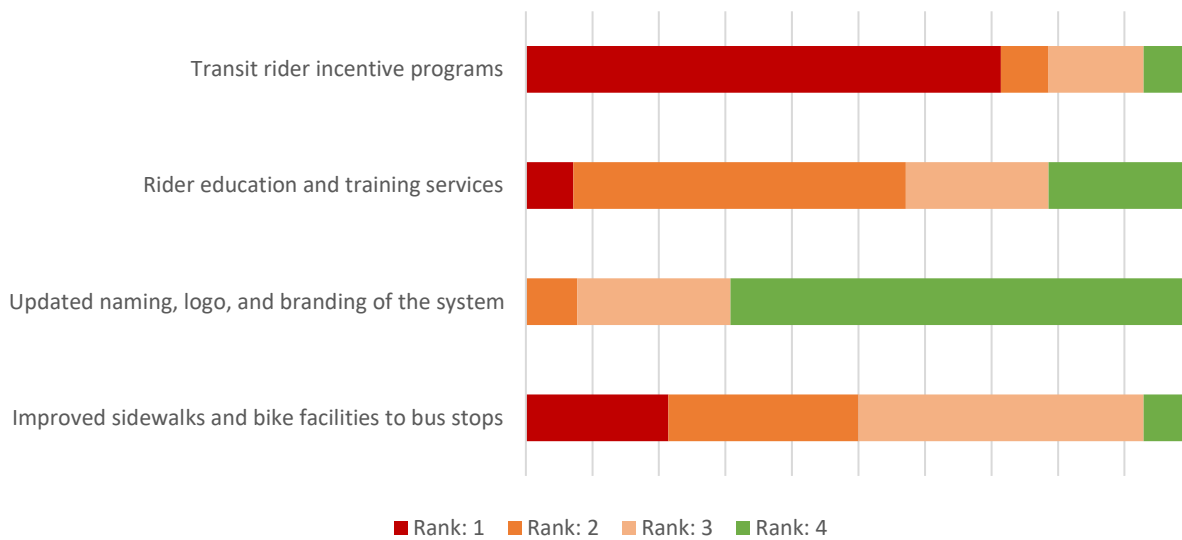
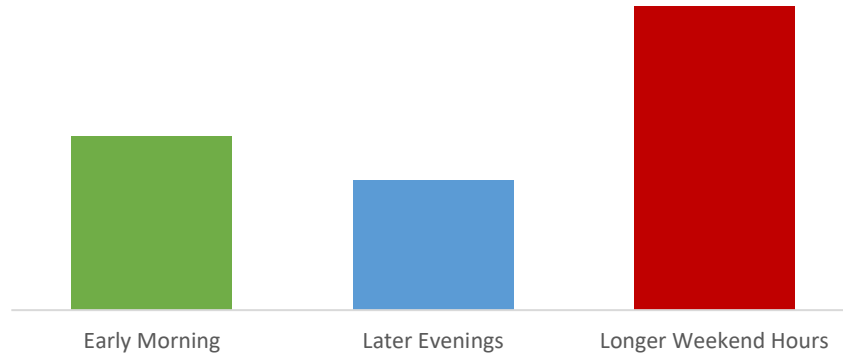
The service characteristics survey requested ranked responses with 1 being the highest priority and 5 being the least of the priorities. Considering the top three ranked items, extended service hours, more frequent service, and contactless and electronic fare payment systems were prioritized for consideration.

What route would you most like to see extended service?





What extended service hours would you most to see?



What other transit service options or amenities would you like to see?

- Better air conditioning
- Connections to Kingman and Lake Havasu
- More locations to purchase monthly passes
- More connections to Fort Mohave

Our survey found a high preference for a transit rider incentive program and providing longer service hours during the weekend. These are opportunities to explore in developing future transit marketing campaigns and service expansion. Conversely, there was little desire to develop updated system naming and branding of the system.



Service and Operations Plan

The following Service and Operations Plan identifies a series of recommendations designed to enhance the performance, efficiency, effectiveness, and productivity of the Bullhead Area Transit system. This section presents a phased five-year transition plan to redesign existing transit services to better respond to the mobility expectations and preferences of Bullhead City area residents, employees, and visitors. This section focuses solely on the base recommendations themselves; related funding and capital elements will be presented in the subsequent Capital and Financial Plans. This section is divided into three phasing strategies to maximize funding and to ultimately bring the Bullhead Area Transit preferred service network to reality. Service recommendations are broken down into:

- **Short-Term Service Plan.** This section presents the preferred short-term Bullhead Area service network, phasing, and service details. Short-term recommendations are projected to be implemented in the 1–2-year horizon
- **Mid-Term Service Plan.** This section presents the preferred mid-term Bullhead Area service network, phasing, and service details. Mid-term recommendations are projected to be implemented in the 3–5-year horizon
- **Long-Term Vision.** The long-term vision provides a vision of what transit service could look like in Bullhead City based on potential service and routing enhancements and expansions. Long-term recommendations are projected to be implemented in the 6-15 -year horizon.

Historically, the Bullhead Area Transit System has relied on 5311 funds, local funding, and fare revenues to operate the service. The implementation of the recommendations presented in this section are based on the assumption that similar funding sources and funding levels will continue to be available in the future years. Additional funding would be required for some service priorities. In the case that additional funding becomes available, service improvements planned for future years can be advanced. The Financial Plan section of this report discusses other potential funding sources and also presents strategies to generate additional revenues.





Green Zone

Figure 3 and Table 1 illustrate short-, mid-, and long-term route recommendations, which include:

- **Short-Term (1 to 2 years):** Transition fixed-route service to a General Demand Responsive Service, called the Green Zone, for all passengers Monday through Saturday. Continue senior/disabled transit service.
- **Mid-Term (3 to 5 years):** Continue Green Zone General Demand Responsive Service established in the short-term and provide Sunday service. Evaluate potential new service stop locations.
- **Long-Term (5 + years):** Continue Green Zone General Demand Responsive Service established in the short- and mid-term, with extended service hours.

Short-Term Recommendations

The Green Line will transition to a General Demand Response Service, now called the Green Zone, which covers the entire existing Green Line service area. The service will be available to all passengers and will not require eligibility approval needed for the existing demand response services. Existing senior & disabled transit and demand response service will still be provided. The Green Zone would cover 26 square miles, extending from SR-95 from just south of Mohave Drive to SR-68 and from SR-95 east to Laughlin Ranch Boulevard. The Green Zone would run from 6 AM to 7 PM on weekdays and 8 AM to 3 PM on Saturdays.

Passengers located within Green Zone can schedule rides within the Zone to key connection points. The connection points allow riders to quickly connect to key activity centers and s to transfer to fixed route bus service. Recommended connection points include: The Hub, Dialysis Center, Wal-Mart, and WARMC. Additional connect points should be continuously evaluated based on rider demand.

Mid-Term Recommendations

Building off the short-term, the Green Zone is recommended to be modified in the mid-term to incorporate one new connection point to the Transit Center at Alonas/Hoppas once completed. All other connection points from the short-term will be included in the mid-term. Additional connect points should be continuously evaluated based on rider demand. Weekday service hours will remain as the existing, 6 AM to 7 PM. Saturday service are recommended to be extended from 6 AM to 7 PM and a Sunday service will be added. Sunday service will operate from 8 AM to 3 PM.

Long-Term Recommendations

During the long-term, Green Zone is recommended to incorporate new connection points including Goldrush Business Center, Safeway, Target, and Home Depot. These new connection points should be based upon the need or desire from riders. Service hours are recommended to be extended for weekday, Saturday, and Sunday service. Weekday and Saturday service will operate from 6 AM to 8 PM and Sunday service will operate from 6 AM to 7 PM.



Table 1. Green Zone Recommended Service

Phase	Route Change Recommendations	Days	Service Span	Vehicles	Service Hours per Year
Short-Term	Transition to a General Demand Responsive Service with four connection points. See Figure 3 .	Weekdays	6:00 AM – 7:00 PM	1	3638
		Saturdays	8:00 AM – 3:00 PM		
Mid-Term	Extend service zone to include new Transit Center. See Figure 3 .	Weekdays	6:00 AM – 7:00 PM	1	4307
		Saturdays	6:00 AM – 7:00 PM		
		Sundays	8:00 AM – 3:00 PM		
Long-Term	Continue General Demand Responsive Service and evaluate need for additional connection stops. See Figure 3 .	Weekdays	6:00 AM – 8:00 PM	1	4916
		Saturdays	6:00 AM – 8:00 PM		
		Sundays	6:00 AM – 7:00 PM		

**Note: Major system changes to the Bullhead Area Transit system require on-going coordination with Bullhead City’s annual budget process and two-year grant cycles.*



Passengers can schedule trips to and from traditional bus stops in the Green Zone, such as this one at Walmart, to identified Connection Points.



Figure 3: Green Zone Service Option





Red Line

Figure 4 and Table 2 illustrate short-, mid-, and long-term route recommendations, which include:

- **Short-Term (1 to 2 years):** Route alignment, headways, and service spans remain as it is today. Minor modification includes removal of El Palacio and Wells Fargo stops.
- **Mid-Term (3 to 5 years):** Route modified to connect to new Transit Center. A reduced 30-minute headway is recommended for weekdays which doubles the number of trips per service day.
- **Long-Term (5 + years):** Continue Green Zone General Demand Responsive Service established in the short- and mid-term, with extended service hours.

Short-Term Recommendations

The Red Line is recommended to remain largely as it does today, with minor modifications for routing and adjustments to stops including the removal of El Palacio and Wells Fargo stops. Short-term service hours are recommended to remain as the existing service which include weekdays from 6 AM to 7 PM and Saturdays from 8 AM to 3 PM.

Mid-Term Recommendations

Minor route adjustments are recommended to accommodate the new Transit Center at Alonas/Hoppas. In addition, the Red Line is recommended to also transition to a 30-minute headway which would require two buses. Weekday service hours are recommended to remain as it is today, 6 AM to 7 PM. Saturday service hours are recommended to operate from 6 AM to 7 PM. A Sunday service is also recommended to be added and operate from 8 AM to 3 PM.

Long-Term Recommendations

Red Line routing and frequency is recommended remain the same as in the mid-term. Changes to the Red Line in the long-term are recommended to include extending services hours. Weekday and Saturday service will operate from 6 AM to 8 PM and Sunday service will operate from 6 AM to 7 PM.

Table 2. Red Line Recommended Service

Phase	Route Changes Recommendations	Days	Service Span	Vehicles	Frequency (minutes)	Service Hours per Year
Short-Term	Minor realignment of route. See Figure 4.	Weekdays	6:00 AM – 7:00 PM	1	60	3638
		Saturdays	8:00 AM – 3:00 PM			
Mid-Term	Minor realignment of route. See Figure 4.	Weekdays	6:00 AM – 7:00 PM	2	30 Weekdays; 60 Weekends	7570
		Saturdays	6:00 AM – 7:00 PM			
		Sunday	8:00 AM – 3:00 PM			
Long-Term	Minor realignment of route. See Figure 4.	Weekdays	6:00 AM – 8:00 PM	2	30 Weekdays; 60 Weekends	8430
		Saturdays	6:00 AM – 8:00 PM			
		Sunday	6:00 AM – 7:00 PM			

**Note: Major system changes to the Bullhead Area Transit system require on-going coordination with Bullhead City's annual budget process and two-year grant cycles.*



Figure 4: Red Line Service Option





Blue Line

Figure 5, Figure 6 and Table 3 illustrate short-, mid-, and long-term route recommendations, that include:

- **Short-Term (1 to 2 years):** Route alignment modifications pilot program recommended, as shown in Figure 5.
- **Mid-Term (3 to 5 years):** Route alignment modifications recommended to accommodate new Transit Center. Extended Saturday and new Sunday hours are also recommended.
- **Long-Term (5 + years):** Route alignment modifications pilot program recommended, as shown in Figure 6. Extended weekday and weekend service hours are also recommended.

Short-Term Recommendations

The Blue Line is recommended to be modified to a more streamlined service with flag stops along the route (See Figure 5). Flag stops are stop areas where a passenger can “flag” down the bus and can be dropped off at any stop along the route. The new route works to provide a quicker route with less turning movements.

The recommended short-term Blue Line will begin at the Hub and travel to the Ramar/Karen Way stop. From the Ramar/Karen Way stop the Blue Line will travel along Ramar Road to Baseline Road. The Blue Line continues from Palma Way to Trane Road and then connects back to the Hub. Two stops, Ramar/Yale and Citrus/Langford will be relocated to continue to provide service to these areas. The Ramar/Yale stop will be relocated to the south side of the street and the Citrus/Langford stop will be relocated to Ramar/Langford. In addition, as part of a one-year pilot program flag stops will be implemented at Rotary Park, Colorado/Riverwood, Ramar/Karen Way, Ramar/Langford, and Church Way/Baseline. See Figure 5 of page 22 for route map.

Short-term service hours are recommended to remain the same as the existing service which includes weekdays from 6 AM to 7 PM and Saturdays from 8 AM to 3 PM.

Mid-Term Recommendations

The Blue Line in the mid-term is recommended to be modified to accommodate the new Transit Center at Alonas/Hoppas. Based upon the results of the short-term pilot, flag stops should either continue or be return to regularly scheduled stops along the routes.

Weekday service hours remain as in the short-term, 6 AM to 7 PM. Saturday service hours are recommended to be extend and will operate from 6 AM to 7 PM. A Sunday service is also recommended to be added and will operate from 8 AM to 3 PM.

Long-Term Recommendations

Blue Line is recommended to be further modified to streamline the route and increase frequency (See Figure 6). The Blue Line is recommended begin at the Transit Center and travel north along Trane Road. From Trane Road the Blue Line would travel south along Riveria Boulevard to Rotary Park. From Riveria Boulevard the Blue Line will travel north along Clearwater Drive to Ramar Road. The Blue Line will then



travel north along Baseline Road and connect Palma Road. From Palma Way the Blue Line will travel south along SR 95 and exit off SR 95 at Alta Vista Road to connect to the Hub. From the Hub the Blue Line will travel along Marina Boulevard back to the Transit Center.

Additionally, service hours are recommended to be extended for weekdays, Saturday and Sunday service. Weekday and Saturday service are recommended to operate from 6 AM to 8 PM and Sunday service will operate from 6 AM to 7 PM.

Table 3. Blue Line Recommended Service

Phase	Route Changes Recommendations	Days	Service Span	Vehicles	Frequency (minutes)	Service Hours per Year
Short-Term	Minor realignment of route. See Figure 5 .	Weekdays	6:00 AM – 7:00 PM	1	60	3638
		Saturdays	8:00 AM – 3:00 PM			
Mid-Term	Minor realignment of route. See Figure 5 .	Weekdays	6:00 AM – 7:00 PM	1	60	4307
		Saturdays	6:00 AM – 7:00 PM			
		Sundays	8:00 AM – 3:00 PM			
Long-Term	Minor realignment of route. See Figure 6 .	Weekdays	6:00 AM – 8:00 PM	1	30	4916
		Saturdays	6:00 AM – 8:00 PM			
		Sundays	6:00 AM – 7:00 PM			

**Note: Major system changes to the Bullhead Area Transit system require on-going coordination with Bullhead City's annual budget process and two-year grant cycles.*



The Blue Line serves diverse neighborhoods and housing types, such as the Sun River apartments on Clearwater Drive.



Figure 5: Blue Line Short-and Mid-Term Service Option





Figure 6: Blue Line Long-Term Service Option





Orange Line

Figure 7 and Table 4 illustrate short-, mid-, and long-term route recommendations, which include:

- **Short-Term (1 to 2 years):** Route alignment, stops, headways, and weekday and weekend service spans remain as it is today.
- **Mid-Term (3 to 5 years):** Route modified to connect to new Transit Center.
- **Long-Term (5 + years):** Route modification and a reduced 30-minute headway is recommended for weekdays which doubles the number of trips per service day.

Short-Term Recommendations

The Orange Line is recommended to continue the same routing as the existing service. Service hours are also recommended to remain the same as the existing service, weekdays from 6 AM to 7 PM and Saturdays from 8 AM to 3 PM. No route or stops changes are proposed in the short-term.

Mid-Term Recommendations

Minor route modifications are recommended to accommodate the new Transit Center at Alonas/Hoppas. Weekday service hours are recommended to remain as in the short-term, 6 AM to 7 PM. Saturday service hours are recommended to be extended and will operate from 6 AM to 7 PM. A Sunday service is also recommended to be added and will operate from 8 AM to 3 PM.

Long-Term Recommendations

The Orange Line is recommended to be modified to streamline the route, including no longer serving Rotary Park. It is also recommended that a 30-minute headway pilot program be conducted to increase frequency along the route. Service hours are also recommended to be extended in the long-term. Weekdays and Saturday service will operate from 6 AM to 8 PM and Sunday service will operate from 6 AM to 7 PM.

Table 4. Orange Line Recommended Service

Phase	Route Changes Recommendations	Days	Service Span	Vehicles	Frequency (minutes)	Service Hours per Year
Short-Term	No change	Weekdays	6:00 AM – 7:00 PM	1	60	3638
		Saturdays	8:00 AM – 3:00 PM			
Mid-Term	Minor realignment of route. See Figure 7 .	Weekdays	6:00 AM – 7:00 PM	1	60	4307
		Saturdays	6:00 AM – 7:00 PM			
		Sundays	8:00 AM – 3:00 PM			
Long-Term	Minor realignment of route. See Figure 7 .	Weekdays	6:00 AM – 8:00 PM	2	30 Weekdays; 60 Weekends	8430
		Saturdays	6:00 AM – 8:00 PM			
		Sundays	6:00 AM – 7:00 PM			

**Note: Major system changes to the Bullhead Area Transit system require on-going coordination with Bullhead City's annual budget process and two-year grant cycles.*



Figure 7: Orange Line Long-Term Service Option





Summary of Service Recommendations

As shown the **Service Alternatives** the service recommendations consist of three fixed routes, new demand response service, and maintaining existing demand response and senior/disabled transit. Service recommendations includes:

- **Green Zone:** create new general demand response service that service current Green Line service area. Service would require passengers to call ahead to request a pick-up time and location and will be dropped at any of the designated connection points.
- **Red Line Modifications:** Red Line will have minor route and stop modifications. The Red Line in the mid- and long-term would operate with 30-minute frequency.
- **Blue Line Modifications:** Blue Line will have modifications to streamline the service but continue to serve major destinations along the Blue Line.
 - **Short & Mid Term:** Blue line will be a more streamlined service but will still serve all the major destinations along the current Blue Line.
 - **Long Term:** Blue Line will have more routing and stop modifications to streamline the service even further.
- **Orange Line Modifications:** Orange line will have no modifications to the service. In the long-term orange line will have route and stops modifications to streamline the service and would operate with 30-minute frequency.
 - **Short & Mid Term:** Orange Line will remain the same as the existing service and would have slight routing modifications to accommodate the new transit center.
 - **Long Term:** Orange Line will have routing and stop modifications to streamline the service and would no longer serve Rotary Park.

In addition to the recommended services listed above, **Table 5** displayed the total operating costs for the service recommendations. In comparison, Bullhead Area Transit’s current operating costs are near \$614,000 a year. It’s important to note that major system changes require on-going coordination with Bullhead City’s annual budget process and two-year grant cycles.

Table 5. Projected Operating Cost

Phase	Operating Costs	Net Change from Existing
Existing	\$614,000	
Red Line	\$70,000	
Orange Line	\$70,000	
Blue Line	\$70,000	
Green Line	\$70,000	
Paratransit	\$334,000	
Short-Term	\$787,000	+\$173,000
Red Line	\$70,000	
Orange Line	\$70,000	
Blue Line	\$70,000	
Green Zone	\$243,000	+\$173,000
Paratransit	\$334,000	



Phase	Operating Costs	Net Change from Existing
Mid-Term	\$946,000	+\$332,000
Red Line	\$146,000	+\$76,000
Orange Line	\$83,000	+\$13,000
Blue Line	\$83,000	+\$13,000
Green Zone	\$287,000	+\$217,000
Paratransit	\$334,000	
Long-Term	\$1,103,000	+\$489,000
Red Line	\$162,000	+\$92,000
Orange Line	\$162,000	+\$92,000
Blue Line	\$95,000	+\$25,000
Green Zone	\$328,000	+\$258,000
Paratransit	\$334,000	

Additional Long-Term Service Vision Recommendations

In addition to the long-range service enhancements previously identified, the vision of Bullhead Area Transit includes a variety of service, routing, operations, and communication improvements. If additional funding becomes available, some of these long-term priorities may be advanced for implementation.

Transitioning to FTA 5307

The Arizona Commerce Authority’s population projections estimate that Bullhead City is likely to have a population over 50,000 by 2035, and the potential inclusion of Laughlin in the next census would trigger the federal thresholds for the creation of a Metropolitan Planning Organization. Becoming an MPO has several impacts to transit operations for Bullhead Area Transit, as described below.

Funding Implications

The creation of a MPO in the greater Bullhead City area would transition Bullhead Area Transit funding from FTA 5311 to FTA 5307, which would ultimately require increased local match monies for transit services. To prepare Bullhead Area Transit and the City for this potential change, it’s imperative that Bullhead Area Transit lead early and often discussions with City staff and elected officials to educate them on the potential change in funding structure.

Upon transitioning to 5307, the primary challenges for Bullhead Area Transit will be how the City handles a significant decrease in the annual allocation for federal dollars and new matching requirements. Working with ADOT, FTA, and the City, a recommended path forward would include:

- Develop a transition plan that analyzes current revenues, expenditures, and local match to determine a road forward. The plan may consider service or operational modifications to address funding concerns.
- Gather community feedback and data on the transit demand and need to help build a case for maintaining and improving the Bullhead Area Transit system.



- Identify reliable, sustainable, and adequate funding for continued transit operations to minimize the impact of transitioning to 5307.
- Seek partnerships with Mohave County, Hualapai Indian Tribe, and the Laughlin Silver Rider Transit to help support Bullhead Area Transit and/or expand regional transit services.
- Continue developing strong relationships with the local business community to not only help to maintain current ridership but attract new riders by offering incentives to use the transit system.

Planning Programs and Governance Implications

MPOs are required to establish and manage a metropolitan planning area (MPA), identify transportation alternatives to address issues, establish regional transportation plans and transportation improvement programs, involve the public in the decision-making of these activities, and plan for air quality protection if in an air quality non-attainment area (unlikely, Mohave County currently has none). Bullhead Area Transit should be prepared to share their insights on transportation issues and inform MPO leadership of the key role of transit.

As part of these planning programs, MPOs may set priorities or policies that could promote transit service. These could be prioritization factors that affect recommendations in transportation plans and programs on the MPO side, or travel demand management (TDM) requirements for large employers and campuses such as medical centers and college campuses. Supporting management and marketing strategies are described in the next section.

Lastly, governance considerations should be taken into account for Laughlin and its transit system. Transit in Laughlin is currently provided through the Southern Nevada Transit Coalition, providing commuter bus, demand-response, and regular bus service. While Laughlin and Bullhead Area Transit can maintain separate transit systems under one MPO, lower levels of coordination such as shared maintenance agreements may be desirable to reduce cost and resources to both agencies. In the long-term, Bullhead Area Transit and Laughlin could explore the feasibility of a consolidated transit agency.

Regional Connections

In addition to expanding and improving existing transit services, as part of the planning for the Long-Range Transit Plan, regional connections to Kingman, Lake Havasu, and Fort Mohave could potentially be developed. Working in connection with the Western Arizona Council of Governments (WACOG), Kingman Area Regional Transit, Havasu Transit, Hualapai Transit, Camel Express, Fort Mohave, and Mohave County, Bullhead Area Transit should evaluate the potential needs and feasibility of an intercity transit service. With the development Western Arizona Intercity Regional Transit Plan from WACOG, this will identify a preferred transit plan for regional transit system. Figure 8 shows the existing regional transit services. In addition, coordination and connection to Laughlin should be evaluated as the Greater Bullhead MPO could potentially include Laughlin.

Evaluate Micro-transit

Microtransit is an emerging approach to connect riders to mainline service by bridging the first mile, last mile gap. Microtransit can be a door-to-door service, like using a taxi or a ride-hailing service, or it can



be point-to-point, which connects people to destinations such as employment centers, universities, or transit centers from other hubs. It can also offer first and last mile connections, meaning that the vehicle will operate from ‘door-to-point’ – this can be helpful for connecting people to traditional fixed route transit services The benefits of microtransit include:

- You can instantly request a ride via a phone call, online website, or your smart phone
- Provides direct connections to the fixed-route transit system
- Has specific Pick-Up / Drop-Off zones
- Is data-driven, allowing City staff to adjust service as needed
- Using algorithms and trip data, the vehicle routing software optimizes each vehicles route to accommodate the most people with the shortest waiting times
- Vehicles are typically larger than a private sedan and smaller than a traditional public transit bus
- Allows for multiple payment and booking options, such as smartphone application, online website browser, or call-in phone service

It is recommended that Bullhead Area Transit explore opportunities to integrate microtransit technology to improve rider experience. The service could be a system-wide or a Home to Hub system that connects riders within designated zone to nearest fixed route hub located along transit routes.



Development of the new transit center in the municipal complex at Alonas/Hoppas provides the opportunity incorporate new microtransit connections including bikeshare or electric scooter share programs to provide new first and last mile connections with the fixed route us lines.



Figure 8: Existing Regional Transit Services





Capital and Infrastructure Plan

Capital and infrastructure—like vehicles, bus stop shelters, and software—are necessary components of a transit system. Without them, transit cannot exist. The capital and infrastructure plan provides a programmatic approach to support Bullhead Area Transit’s transit operations with rider amenities and infrastructure that provides for the safe use and enjoyment of the transit system. This section summarizes capital needs required to maintain and expand bus service over the next five years, and flags longer-term needs for further analysis. This section includes four parts:

- **Transit stops.** This section provides guidance on bus stop design, and identifies places where additional stops are needed, or where existing stops require improvements.
- **Facilities and additional infrastructure improvements.** This section explains where new transit facilities may be necessary to support the changes listed in the Fixed-Route Operations Plan.
- **Vehicle Fleet.** This section estimates the vehicle needs associated with current service and the short-term priorities.
- **Technology.** The technology section touches on technological infrastructure.

Transit Stop Improvements and Access

New and enhanced bus stops and stop improvements are important for the success of the Service and Operations Plan. Bus stops that are well designed and conveniently located help to make transit useful and pleasant. For example, bus shelters provide cover from rain, route signage provides time and schedule information, and signalized crosswalks allow people to reach their stop safely. In places where no stops exist, additional stops can open up transit to new markets. The following section discusses types of transit stop improvements.

Bus Stop Design Guidelines

Based upon inventory and analysis of existing bus stops a range of design options to address the varied conditions and needs of the transit system were identified. The design options also reflect the opportunity to design new bus stop signs for flag stops, provide seating opportunities at lower use bus stops by way of a simmeseat, and consider more traditional bench and shelter amenities.

All options require an understanding of the existing right-of-way and the availability of sidewalks that may or may not be present at the bus stop location. Access to bus stops is best afforded where there is an available sidewalk that connects to a crosswalk at the nearest intersection. Where a sidewalk is not present, care must be taken to locate stops that provide a safe waiting space on a low-speed residential street that is clear of driveways and areas that have visual obstructions.

Shelters and benches are ideally located at locations with sidewalks and are higher ridership stops. Trash receptacles are also beneficial at these stops. When installing new shelters, it is suggested to include an 8’ x 5’ clear loading space for loading and debarking the transit vehicle. This is especially important for riders using a wheelchair or mobility device.



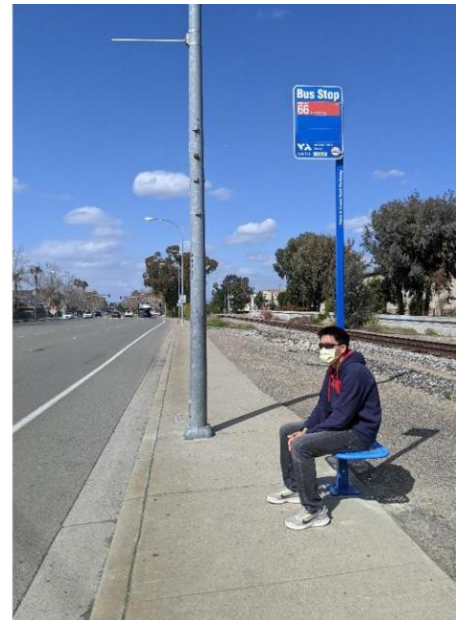
Flag Stop Place Card

For bus stops along the Blue Line that are recommended to be Flag Stops new place cards will be added to identify the stop. The signage will indicate that passengers will need flag down the bus. Implementing flag stops will also require a public education campaign to ensure that transit riders understand the changes and flexibility offered by the flag stop.



Simmeseat

A simmeseat provides a solution for lower ridership stops that may not trigger the need or have the space for a traditional bench and shelter. Several options exist for a simmeseat and can be implemented based upon the need for a specific stop. The simmeseat should be placed with a four-foot clear space from a curb or street surface to meet accessibility guidelines. Other features such as lighting could also be installed to provide security for passengers and more visibility for drivers. Simmeseat also provides options for ADA recommended boarding pads when a sidewalk is present. In areas where more right-of-way is available ADA boarding pads can be installed. Recommended guidelines suggest an 8' x 5' loading and deboarding area and a 17' x 9'-2" concrete pad accommodates a simmeseat with a 4' clear space for the seat and loading/deboarding space.





Bench

For bus stops that have more right-of-way and stops that have moderate to high ridership traditional benches can be installed. Benches will have a 4’ clear space for the seat and loading/deboarding space. Recommended design guidelines state that benches should be at least 43 inches long, and 20–24 inches wide, with the seat 17–19 inches above ground level.



Shelter with bench

For bus stops with high ridership, it is recommended to install a shelter with a bench. Shelters should be placed on a 23’x 11’ concrete pad. The design of the shelter should provide good shade and visibility. In addition, shelters and benches will have a 4’ clear space for the seat and loading/deboarding space. It is also recommended to include trash receptacles at high ridership stops that have shelters.



Accessibility Improvements

Improving access to bus stops is an ongoing effort that is coordinated with improvements and maintenance of the street transportation system. In some situations, accessible improvements may be recommended at existing facilities. As the city extends sidewalks, adds ADA curb ramps and crosswalks, there is an opportunity to better connect bus stops for passengers that may not be able to travel over unpaved conditions.



Transit Stop Recommendations

Bus stop improvements are recommended for all three fixed route services. Improvements include adding signage to flag stops and different options for seating and shelter. The recommended improvements build upon the information in Working Paper 3 including ridership and comments from public involvement efforts. **Table 6** displays the recommendations for bus stops along each fixed route.

Table 6. Stop Recommendations

Route	Stop	Proposed Infrastructure			
		Flag Stop Signage	Simmeseat	Bench	Shelter & Bench
Red	<i>Future Transit Center</i>				X
	Third Street/Moser		X		
	Suddenlink Community Ctr.				X
	<i>Miracle Mile/Marina Boulevard</i>			X	X
Orange	Mohave Crossroads North				
	Miracle Mile/Grandview (southbound)				X
	Walmart**				X
	Richardo/95			X	
	Mohave Crossroads North			X	
	Miracle Mile/Grandview (northbound)				X
Blue	Desert Oasis Medical Center				X
	Rotary Park	X			
	Malibu/Clearwater				X
	Marina/Colorado Boulevard		X		
	Colorado/Riverwood	X			
	Rio Grande Road/Hancock		X		
	Ramar/Karen Way	X			
	Ramar/Yale		X		
	Ramar/Langford	X			
	Church Way/Baseline	X			
	Lakeside Plaza		X		
	Trane Road/Hancock Road				X
Ken Forvargue Park		X			

*Stops that are italicized, multiple routes share the same shop

** A second bus shelter and bench are recommended at this stop, in addition to accessibility improvements providing a designated paved connection to the nearby sidewalk with connections to the retail destination.



Table 7 outlines potential capital improvements which include phasing and estimated costs for new bus stop infrastructure. This table can be used as guide for future improvements and implementation.

Table 7: Stop Improvement Cost Estimates

Phase	Capital Improvement	Unit Cost	Total Cost
Short-Term	5 flag stop signage along Blue Line	\$300	\$2,700
	3 new benches along Red and Orange Line	\$400	
Mid-Term	4 new shelters at priority stops: <ul style="list-style-type: none"> • Miracle Mile/Grandview (northbound) • Malibu/Clearwater • Trane Road/Hancock Road • Desert Oasis Medical Center 	\$5,370	\$21,480
Long-Term	6 new simmeseats	\$839	\$30,869
	4 new shelters	\$5,370	
	1 additional shelter at Walmart stop	\$4,355	

**Note: New bus shelters include: shelter, bench, concrete boarding pad, and trash receptacle*





Transit Administration and Operational Facilities

Bullhead City has initiated the design procurement process for the development of a transit administration center that includes administrative office space, customer service spaces, an indoor passenger transfer facility, a multi-hub transit center, and a maintenance and storage facility for transit vehicles. The city completed a site selection study in 2020 that identified a preferred location at the intersection of Alona’s Way and Hoppas Drive (illustrated in yellow hatching in the image below).

This location is centrally located near the municipal complex, Mojave High School and commercial and retail shopping just east of Mojave Valley Highway/AZ 95. Additional retail and commercial development located south of Marina Drive is currently in the entitlement process.

This facility provides the opportunity to provide efficient services with all transit functions being centrally located in a single facility. The multi-modal transit center will include bus bays, and passenger amenities for the local fixed bus route, connections with the on-demand paratransit, future regional routes, and any shared mobility transport options desired in the future such as e-scooters or bikeshare.



Transit Center & Transit Administration Building Site

With design initiated in late 2022 followed by construction in 2024, it is anticipated that the facility could open late in 2025.

The city has anticipated approximately \$350,000 for design and engineering, with a construction cost of approximately \$5 million. It is anticipated that 90% of the project costs will be from Federal Transit Administration sources and 10% of the cost will be locally funded.



Vehicle Fleet

Working Paper 3 summarized the number of existing revenue and non-revenue vehicles. Bullhead Area Transit currently operations six Arboc Cutaway Buses, with two in reserve and one awaiting disposal, five Dodge Vans, and four EZGo golf carts. As part of the FTA 5311 grant, Bullhead Area Transit applied for vehicle replacement and expansion for both 2020 and 2022 grant cycles but was not awarded any fund for vehicles for both grant cycles. **Table 8** summarizes recommended fleet needs in the short, mid, and long-term. As Bullhead Area Transit is working towards more innovative opportunities for transit services several options could be considered in the long-term including electric vehicles, auto fare counters, and a mobile app.

Table 8. Vehicle Fleet Recommendations

Funding Year	Vehicles	Cost
Existing	<ul style="list-style-type: none"> 6 vehicles for fixed route and 5 vans for demand response 	-
Short-Term (1-2 Years)	<ul style="list-style-type: none"> 2 bus replacements 1 van replacement 1 van expansion 	\$ 558,137
Mid-Term (3-5 Years)	<ul style="list-style-type: none"> 1 additional bus to increase Red Line frequency to 30 minutes *Addition of electronic fare technology to existing buses 1 additional bus to increase Orange Line frequency to 30 	\$145,000
Long-Term (5+ Years)	<ul style="list-style-type: none"> minutes Mobile application for both fixed route and demand response services* 	\$145,000

**Note: costs have not been included for these recommendations - costs will be incorporated in the subsequent Financial Plan*

Operator Procurement

Bullhead City currently operates the Bullhead Area Transit system including dispatch, transit service, operator/driver recruitment, employment and training, and operations administration. *Working Paper 3: System and Service Evaluation* summarized the existing number of staff, compensation, and peer agency comparison on staff composition. **Table 9** shows the number of new drivers needed to provide the service recommendations. In addition to these, Bullhead Area Transit needs the following staff to support service provisions:

- Conversion of the transit manager to a transit director
- Conversion of the existing office specialist to an administrative manager
- 1 more office specialist
- 1 more operations supervisor
- 2 additional dispatchers
- 1 new facility maintenance specialist
- 2 new fleet service technicians
- 1 new fleet service supervisor
- 1 new fleet office specialist



Working Paper 3: System and Service Evaluation also identified that Bullhead Area Transit compensation for transit system managers/directors, office specialists, and operations supervisors is lower than several of its peers. The salary for full-time drivers is comparable, though BATS leans toward the lower end of the ranges. Increasing staff wages can promote staff retention and increase staff satisfaction.

Senior and Disabled Transportation utilizes volunteer drivers for their services. In addition to lower costs, the volunteer service can be used as in-kind match for federal funding, allowing Bullhead Area Transit to cover other costs of operating the service. Recruiting and retaining volunteer drivers for this service is crucial to its continued operation.

Table 9. Staffing Recommendations

Funding Year	Staff	Change
Existing	10 FTE Drivers: <ul style="list-style-type: none"> • 2 Green Line Drivers • 2 Red Line Drivers • 2 Blue Line Drivers • 2 Orange Line Drivers • 2 Paratransit Drivers 	-
Short-Term (1-2 Years)	10 FTE Drivers: <ul style="list-style-type: none"> • 2 Green Zone Drivers • 2 Red Line Drivers • 2 Blue Line Drivers • 2 Orange Line Drivers • 2 Paratransit Drivers 	<ul style="list-style-type: none"> • Shifted Green Line Drivers to Green Zone Drivers
Mid-Term (3-5 Years)	13 FTE Drivers: <ul style="list-style-type: none"> • 2 Green Zone Drivers • 4 Red Line Drivers (2 more than short-term) • 2 Blue Line Drivers • 2 Orange Line Drivers • 2 Paratransit Drivers • 1-2 FTE Drivers for weekend service 	<ul style="list-style-type: none"> • Doubled frequency on Red Line on weekdays; • Additional 6 hours of Saturday service on fixed-routes and Complementary Paratransit • New 7 hours of Sunday service on fixed-routes and Complementary Paratransit
Long-Term (5+ Years)	16 FTE Drivers: <ul style="list-style-type: none"> • 2 Green Zone Drivers • 4 Red Line Drivers • 2 Blue Line Drivers • 4 Orange Line Drivers (2 more than mid-term) • 2 Paratransit Drivers • 3 FTE Drivers for later evening and weekend service (1-2 more than mid-term) 	<ul style="list-style-type: none"> • Doubled frequency on Orange Line on weekdays; • Additional 1 hour of weekday service and Saturday service on fixed-routes and Complementary Paratransit • Additional 6 hours of Sunday service on fixed-routes and Complementary Paratransit



Technology

This section explains four key technologies that Bullhead Area Transit should consider pursuing to improve the service efficiency, operations, and user experience.

Google Transit Integration through General Transit Feed Specification (GTFS)

The General Transit Feed Specification (GTFS) is a common format for public transportation. It is part of the information infrastructure of most transit agencies and allows platforms like Google Maps to show transit information to users. This in turn allows users to plan transit trips from third-party applications and websites. Bullhead Area Transit should compile and make its GTFS data available as soon as possible.

Electronic, Touchless Fare System

Electronic fares or “E-Fares” are gaining in popularity among summarily-size transit systems, particularly after the COVID pandemic. Unfortunately, electronic fare collection infrastructure is typically costly to implement. As such, a web- or smartphone-based payment system may be a relatively easy way to allow riders to pay for transit electronically, without needing expensive devices for reading farecards. Using a web- or smartphone-based pavement system allows residents to purchase tickets without going to a brick-and-mortar vendor, and purchase tickets online without worrying about farecards being mailed.

The simplest implementation of smartphone payment is to allow riders to use their phone as a “flash pass” that is visually validated by the bus operator when they board the bus. This strategy does not require any additional hardware to be installed and can be implemented with few other hurdles. The primary drawback is that this method requires additional attention of the operator to validate fare media. Benefits of implementing an electronic touchless fare system includes:

- Provides user convenience by easily being able to purchase transit fare on their phone
- Provides a touchless system that avoids paper tickets
- Speeds rider boarding and avoids close contact between the bus driver and rider
- A fare application can incorporate transit system information such as a trip planner

It is recommended that Bullhead Area Transit conduct a survey of available technology to identify available systems, technologies, and identify supporting infrastructure to integrate a new fare payment system into existing operations. Following the identification of potential systems and system features, Bullhead City can draft a Request for Proposals to seek qualified vendors and costs for the new system.

Microtransit

Microtransit operates similar to Transportation Network Companies (TNCs) such as Uber and Lyft. Riders typically request service using a smartphone app. Microtransit can provide door-to-door or curb-to curb trips within a specified service area. Rides are usually shared with others traveling in the same general direction. Microtransit works best for:

- Serving low-density areas.



- Completing the “first or last mile” of transit trips.
- Riders who prefer not to walk due to uncomfortable weather.
- Providing options for passengers who have limited mobility.

Bikeshare and electric-scooter share programs are also microtransit options that can be implemented using 3rd party vendors such as Bird, Lime, and Spin. These options are popular with riders seeking active transportation connections to the transit system. To be successful, these programs require active management and review to ensure that vehicles do not become a nuisance by blocking sidewalks and bus stop. GPS technology and geofencing can be used to ensure that parking these vehicles in unwanted areas is avoided.

It is recommended that Bullhead City evaluate the potential for integrating an on-demand service. This on-demand service can be designed in many ways, including different service delivery models and zone designs, including:

- A ride-hail partnership model in which Bullhead Area Transit provides subsidized rides with ride-hailing companies like Lyft, Uber, or local taxis, with a hybrid hub- and zone-based design which provides trips within a specific geographic zone and to specific identified connection points outside the zone, focused on providing first mile/last mile connections.
- A microtransit turnkey model in which a dedicated transit service provider, like Via, is contracted to provide software, vehicles, and service operations within a specific geographic area, focused on providing community connections anywhere within the zone.

Financial Plan

The funding scenarios describe existing funding sources, potential new sources, and different funding scenarios using these sources. Funding sources and opportunities are available to Bullhead Area Transit at the federal, state, and local level.

Potential Funding Sources

Federal Funding Sources

This section describes several federal funding opportunities. The primary federal operating funding sources is the Rural Area Formula Grant (Section 5311). The Bullhead area may become a Metropolitan Planning Organization (MPO) in the next census, transitioning from Rural Area Formula Grant to Urbanized Area Formula Grant. More about this transition and its considerations can be found in the 5307 section on page 41



State Funding Sources

In addition to administering federal transit grants, ADOT also oversees general roadway, biking, and walking funds. Bullhead Area Transit can work with other city departments and the state to improve infrastructure through a transit lens by coordinating improvements for walking and biking to connect with transit services and infrastructure.

Local

This section describes several local funding opportunities, which are necessary to meet local match requirements for federal funding sources.

City and County Contributions

Many operators, particularly districts providing transit service, generate local funding through dedicated taxes for transit service. Cities and counties can also support transit through dedicated fees and taxes, or through general fund revenue.

Fares

The fares collected by transit providers is an important source of revenue. Farebox recovery refers to the proportion of fare revenue to operating budget. Farebox recovery rates are generally lower for rural, lower-density areas and higher for urban, higher-density areas.

Local Taxes

Local tax revenues typically flow through general funds of cities and counties. In Arizona, counties are eligible to implement property taxes and cities are eligible to implement sales taxes. As an MPO, the Bullhead area would not have separate taxing authorities. However, both Nevada and Arizona allow for city sales taxes, which could be implemented in both municipalities to increase transit revenues and meet local match requirements in the area.

Community Partnership Opportunities:

A range of funding opportunities exist to contribute the City's local match portion of federal funding requirements. City portions of the local match can include in-kind funds such as utilizing City facilities for storage, maintenance yard usage, staff time to address transit-related activities, and volunteer drivers' time. Examples of potential partnerships include:

- Marketing and promotional arrangements with the Chamber of Commerce, local businesses, and hotels to support public awareness of the new service.
- Relationships with local schools, employers, the Fort Mojave Indian Tribe, and other organizations to coordinate service schedules.
- Agreements with local car dealerships and businesses to help fund vehicles. Cash contributions from local organizations and businesses. In-kind advertising is a great way to promote services locally through a mutually beneficial arrangement with a local business or organization. Example best practices for partnerships include:



- Exchanging Services: Southern Nevada Transit Coalition trades ad space on their vehicles for the radio station in exchange for radio spots. They also offer ads inside their vehicles to major employers in the area, in return for displaying their brochures at their facility (i.e. at hotel check-in and concierge) or providing cash or in-kind donations.
- Supporting a Free Day: Durango, Colorado works with local businesses to sponsor a Fare Free Day. The cost to the sponsor is more than the agency's normal fare revenue for the day, and Durango Transit keeps the difference. They do around 20 Free Fare days a year.

In addition to these, roadway facility owners (city or ADOT) can pursue walking and biking facility improvements through the following funds:

- Surface Transportation Block Grants
- State Highway Fund
- Road Fund Serial Levy
- Road Utility Fee
- Vehicle Registration Fee
- Local-Option Fuel Tax
- Immediate Opportunity Funds
- All Roads Transportation Safety (ARTS)
- General Fund
- Transportation Development Tax
- System Development Charges (SDC)
- Local Improvement District (LID)
- Tax Increment Financing
- Urban Renewal Districts
- Reconnecting Communities Pilot Discretionary Grant Program



Funding Scenarios

Future funding scenarios consider relatively stable as well as uncertain funding sources. Although the COVID-19 pandemic has reduced ridership and ridership-associated transit funding, other funding for transit has increased in recent years. This memorandum considers the following funding scenarios:

- Baseline Funding:** This funding scenario projects existing funding sources at the rates shown in **10**. The first year of federal formula funds reflect the one-time growth rate of 6%, while subsequent years for these funds are grown at 2%. All other funding sources (local match, fares) are grown at 2%.
- Baseline + Doubled Fares:** This scenario shows the funding impacts of fare increases systemwide. Considerations for fare increases should include the equity impacts, in particular to low-income populations, and ridership, as increased fares can deter use of the system. Increases to fares are grown at 2% annually.
- Baseline + Tax Revenue Increase:** The City currently implements a 2% sales tax, which generates approximately \$18 million per year in revenue. A sales tax increase of 0.1% would generate roughly \$900,000 more per year. This scenario assumes transit would get 20% of these revenues, and the revenues grow at 2%.
- Baseline + MPO** – This funding scenario assesses the impacts of the Bullhead area becoming an MPO. For comparison, the closest MPO in size (closest to 50,000 in population) is Lake Havasu. Lake Havasu receives approximately \$1.05 million per year in funds. As the pool for funds would increase some to account for Bullhead becoming an MPO but wouldn't substantially impact the amount shared among Arizona providers, the amount a Bullhead MPO would receive is likely to be lower than \$1.05 million. There are 7 other small, urbanized area MPOs in Arizona and an additional MPO would result in an approximate 1/7 reduction in funds for each provider, though the less dense MPOs would incur more of this decrease. At a similar population and population density as the Lake Havasu City area, Section 5307 dollars may be estimated near \$900,000 to \$1.0 million, or about \$300,000 to \$400,000 above Bullhead Area Transit's existing 5311 funds. This funding scenario includes other existing funding sources plus an additional \$300,000 in potential MPO funding sources. It projects this funding forward at the historic rate.

Table 10 and **Figure 9** show the resulting funding balances compared to service costs. All service costs include approximately \$75,000 per year for capital cost local match, the average spent in the last 4 years. All scenarios also assume approximately 5,000 Paratransit hours of service are provided per year, consistent with 2019 levels. The mid-term and long-term scenarios include the additional staff needs.

As shown, short-, mid-, and long-term recommendations will exceed existing funding sources at some point in the next ten years. The recommendations will need new funding to be implemented. Additionally, Bullhead Area Transit will need increases to local funding sources to capture the full allocation of 5307 funding when they become an MPO. Therefore, a new local tax revenue could be pursued alongside MPO status change. Additional local funding could be achieved at the same time through fare changes. **Table 11** shows the funding available should all funding sources (MPO change, tax



increase, and fares) be implemented. Bullhead Area Transit would be able to implement all scenarios and pursue other improvements, such as bus stop enhancements or additional service, with all funding sources in-place.

Table 10. Project Growth Rates for Funding and Costs

Growth Rates	
Typical Growth Rate	2.0%
2023 One-Time Growth Rate	6.0%
Service and Capital Cost	3.5%



Table 11. Projected Funding and Costs

Revenues	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Fares	\$77,009	\$79,000	\$80,000	\$82,000	\$83,000	\$85,000	\$86,000	\$88,000	\$89,000	\$91,000	\$92,000
Operating/Admin Local Share	\$285,069	\$291,000	\$296,000	\$302,000	\$308,000	\$314,000	\$319,000	\$325,000	\$331,000	\$336,000	\$342,000
Operating/Admin Federal Share (5311)	\$577,000	\$612,000	\$624,000	\$636,000	\$649,000	\$661,000	\$673,000	\$685,000	\$698,000	\$710,000	\$722,000
Capital Local Share	\$114,000	\$116,000	\$119,000	\$121,000	\$123,000	\$125,000	\$128,000	\$130,000	\$132,000	\$135,000	\$137,000
Capital Federal Share	\$456,000	\$483,000	\$493,000	\$502,000	\$512,000	\$522,000	\$531,000	\$541,000	\$551,000	\$560,000	\$570,000
General Fund Tax Increase	\$179,200	\$183,000	\$186,000	\$190,000	\$194,000	\$197,000	\$201,000	\$204,000	\$208,000	\$211,000	\$215,000
MPO Change	\$300,000	\$318,000	\$324,000	\$331,000	\$337,000	\$343,000	\$350,000	\$356,000	\$363,000	\$369,000	\$375,000
Costs	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Baseline Existing Service Operating Cost	\$614,000	\$636,000	\$659,000	\$683,000	\$707,000	\$732,000	\$758,000	\$785,000	\$813,000	\$842,000	\$872,000
Baseline Existing Capital Cost	\$75,000	\$78,000	\$81,000	\$84,000	\$87,000	\$90,000	\$93,000	\$96,000	\$99,000	\$102,000	\$106,000
Additional Staff Needs	\$632,000	\$645,000	\$658,000	\$672,000	\$686,000	\$700,000	\$714,000	\$729,000	\$744,000	\$759,000	\$775,000
Short-Term Recommendation	\$787,000	\$815,000	\$844,000	\$874,000	\$905,000	\$937,000	\$970,000	\$1,004,000	\$1,040,000	\$1,077,000	\$1,115,000
Mid-Term Recommendation	\$946,000	\$980,000	\$1,015,000	\$1,051,000	\$1,088,000	\$1,127,000	\$1,167,000	\$1,208,000	\$1,251,000	\$1,295,000	\$1,341,000
Long-Term Recommendation	\$1,103,000	\$1,142,000	\$1,182,000	\$1,224,000	\$1,267,000	\$1,312,000	\$1,358,000	\$1,406,000	\$1,456,000	\$1,507,000	\$1,560,000
Scenario	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Baseline Existing Operating and Capital	\$689,000	\$714,000	\$740,000	\$767,000	\$794,000	\$822,000	\$851,000	\$881,000	\$912,000	\$944,000	\$978,000
Short-Term Recommendations	\$862,000	\$893,000	\$925,000	\$958,000	\$992,000	\$1,027,000	\$1,063,000	\$1,100,000	\$1,139,000	\$1,179,000	\$1,221,000
Mid-Term Recommendations	\$1,653,000	\$1,703,000	\$1,754,000	\$1,807,000	\$1,861,000	\$1,917,000	\$1,974,000	\$2,033,000	\$2,094,000	\$2,156,000	\$2,222,000
Long-Term Recommendations	\$1,810,000	\$1,865,000	\$1,921,000	\$1,980,000	\$2,040,000	\$2,102,000	\$2,165,000	\$2,231,000	\$2,299,000	\$2,368,000	\$2,441,000
Baseline (Existing Funding Sources Only)	\$1,509,000	\$1,581,000	\$1,612,000	\$1,643,000	\$1,675,000	\$1,707,000	\$1,737,000	\$1,769,000	\$1,801,000	\$1,832,000	\$1,863,000
Baseline + Doubled Fares	\$1,586,000	\$1,660,000	\$1,692,000	\$1,725,000	\$1,758,000	\$1,792,000	\$1,823,000	\$1,857,000	\$1,890,000	\$1,923,000	\$1,955,000
Baseline + Tax Revenue Increase	\$1,688,000	\$1,764,000	\$1,798,000	\$1,833,000	\$1,869,000	\$1,904,000	\$1,938,000	\$1,973,000	\$2,009,000	\$2,043,000	\$2,078,000
Baseline + MPO	\$1,809,000	\$1,899,000	\$1,936,000	\$1,974,000	\$2,012,000	\$2,050,000	\$2,087,000	\$2,125,000	\$2,164,000	\$2,201,000	\$2,238,000



Figure 9: Projected Funding and Costs (stand-alone)

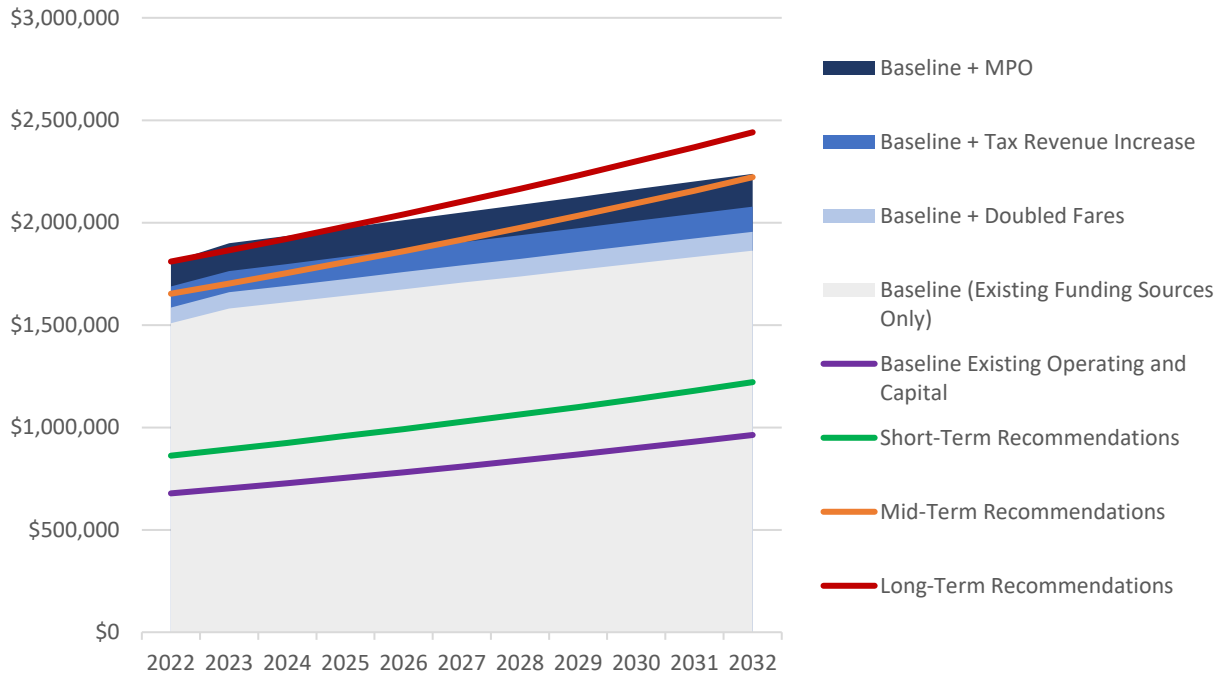
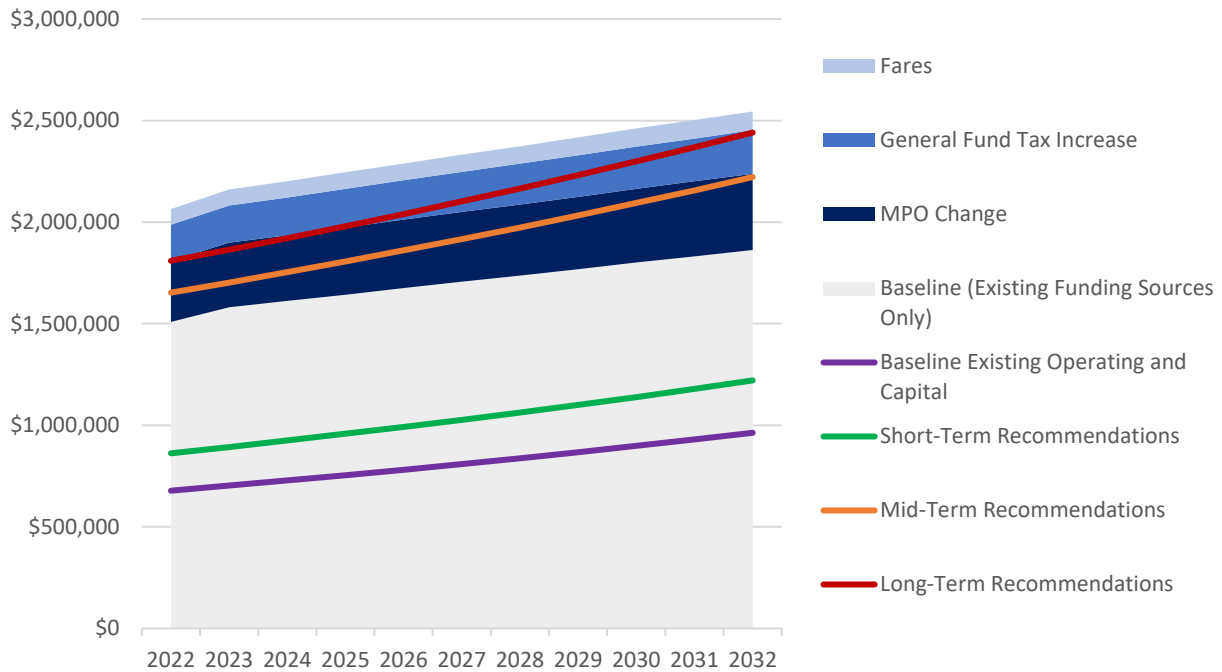


Figure 10: Projected Funding and Costs (cumulative)





Fare Structure

Another component of this plan included evaluating existing fare structure. For most rural transit providers, farebox revenues account for a very minor portion of the cost to operating the transit service. The current fare structure showed in **Table 12** shows the different services and associated fares.

Bullhead Area Transit’s reasonable fares have remained the same over the past few years and is one of the key factors for its ridership numbers. Fare increases could be implemented based upon future transit expenses and other needs. In the short-term with the addition of the Green Zone, fares for this service would be slightly higher than paratransit service and would be officially determined at the time of implementation. It is recommended that Bullhead Area Transit continue to evaluate their fare structure and determine if fare increases are needed to address:

- Increased costs associated with inflation and rising gas prices;
- Potential increased local match requirements if Bullhead City is designated as an urbanized area; or
- To enhance or implement service, operational, and capital improvements.

Table 12. Existing Fare Structure

Item	Fare
Fixed Route Fares	
One-Ride Cash Fare	\$1.00
All Day Pass	\$4.00
Discount Coupon Book	\$24.00
Fixed Route Monthly Pass	
Regular	\$48.00
Senior (60+)	\$30.00
Student	\$20.00
Paratransit	
Fare	\$2.00
Companion	\$2.00
Laughlin Connection Fee	\$1.00
Discount Coupon Book	\$24.00

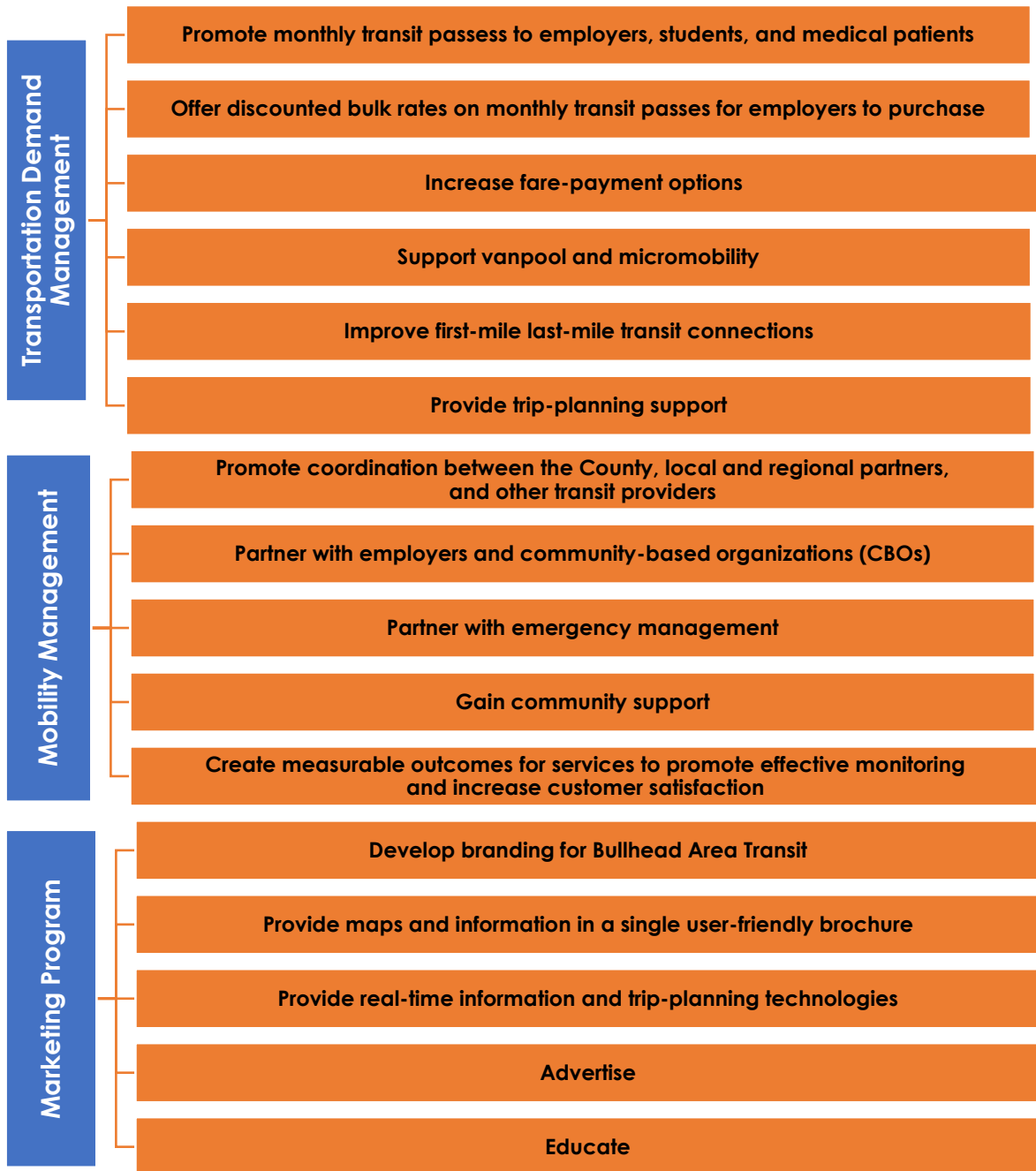
The simplicity of the current dollar fare is an attribute that is familiar and easy to accommodate for both rider and operator. It avoids the use of change and speeds passenger boarding, helping to keep the bus on time. It is recommended that when a fare change is needed due to changes in structural federal funding sources (moving to 5307), or desired service frequency improvements of the Red Line and Orange Line expanded service hours are implemented, that Bullhead Area Transit System consider a fare increase from \$1.00 to \$2.00 for one ride.



Marketing Plan

A coordinated, targeted, and effective public information and marketing campaign would help publicize and encourage people to use transit. This section provides transportation demand management, mobility management, and marketing program recommendations for Bullhead Area Transit, summarized in **Figure 11**.

Figure 11. Management and Marketing Recommendations





Transportation Demand Management Strategies

Transportation Demand Management (TDM) strategies aim to shift behavior towards more efficient use of transportation facilities. The following strategies and partnerships can help shift behavior towards transit use:

- **Promote the monthly transit passes to employers, employees, students, and medical patients.** Offering incentives to employees, students, and medical patients to take transit can increase awareness and decrease the cost of transit for routine trips. In turn, the number of single-occupancy vehicle trips and the number of parking spaces needed at employment centers, schools, medical centers and hospitals could be reduced.
- **Offer discounted bulk rates on monthly transit passes for employers to purchase.** Offering discounted bulk rates and buy-one give-one offers on the transit passes can encourage employers, schools, and hospitals to promote the transit passes to employees, students, and medical patients. The monthly transit passes are already discounted, and additional discounts may need to be limited. For example, a monthly transit pass could be offered at a discount for the first couple months for a rider, encouraging them to try transit and encouraging future purchase and use of the program.
- **Increase fare-payment options.** Provide additional fare payment options such as ability to use fare payment smart cards or phone applications.
- **Support Vanpool and Micromobility.** By encouraging vanpool and micromobility (such as bike share), Bullhead Transit can support connections to transit services. In particular, casino workers could benefit from vanpool programs. Casinos often employ substantial employees, making the ability to meet minimum vanpool numbers from different communities more likely and providing adequate transportation to groups difficult to serve through fixed-route or dial-a-ride services. Additionally, shared charging facilities could be used to support electric bikeshare or scootershare for first/last-mile connections.
- **Improve first-mile last-mile connections to transit.** Coordinate with the city, employers, and community-based organizations to establish conveniently located bus stops and enhance bicycle and pedestrian connections to bus stops. Provide park-and-rides with secure bicycle parking and expand on-bus bicycle storage based on demand. Consider employing a bikeshare or electric scooter share program in coordination with the opening of the new transit center.
- **Provide trip-planning support.** Create a multi-modal access guide including maps, schedules, contact numbers, and other information on how to reach a particular destination by public transit.



Mobility Management Strategies

Management strategies are those that Bullhead Area Transit can conduct behind-the-scenes to increase effective and efficient operations and improve service implementation.

- **Promote Coordination between the County, Local and Regional Partners, and other Transit Providers.** Coordination between Bullhead Area Transit, other city departments, the County and local partners will lead to a comprehensive and efficient system in which users can travel seamlessly inter- and intra-regionally. In particular, Bullhead Area Transit could look for ways to enhance partnerships with Section 5310 transportation providers, Laughlin transit services, and potential future regional connections with Lake Havasu Transit, Kingman Area Regional Transit (KART), Hualapai Transit, and Camel Express.
- **Partner with Employers and Community-Based Organizations (CBOs).** Continue to work with employers and community-based organizations to identify needs and leverage local match opportunities to increase transit funding in Bullhead. Market existing services through employers and CBOs to encourage information-sharing not only to employees and community members, but feedback from transit users back to Bullhead Area Transit.
- **Partner with Emergency Management.** Transportation is a critical component of responses to disasters, particularly for people without access to vehicles and who need mobility assistance or require other means to access essentials such as food and medical care. Join emergency operations team meetings to establish strategies for emergency response. Strategies to become a key stakeholder in emergency management planning, response, recovery, and mitigation activities include building relationships with the key emergency management officials, identifying capabilities and limitations of services and resources, inventorying residents and pockets of populations with special needs (physical disabilities, low income, LEP), and engaging the organizations who serve those people with emergency planning efforts.
- **Gain Community Support.** Gain community support by creating and supporting local programs, meeting the needs of many transit markets, promoting the service, and building consensus. Understanding not only the service needs, but how these populations would like to be engaged, can enhance relationships and build opportunities across Bullhead.
- **Create Measurable Outcomes for Services to Promote Effective Monitoring and Increase Customer Satisfaction.** Monitoring transit performance helps evaluate the outcomes of providing and expanding service. Engage community members to improve customer satisfaction, retain existing riders, and attract new riders.



Marketing and Information Strategy

The following describes actions to improve customer service and information that can be implemented in the short-term and that should be maintained on a long-term basis:

- **Provide Maps and Information in a Single User-Friendly Brochure.** Printed brochures and pamphlets can be designed and distributed to various target audiences to promote dial-a-ride and fixed-route services. The main element of this kind of promotion is to vary the communication style for distinct target groups while encouraging all to use the same transit service. A printed brochure or pamphlet should include one or more route maps showing all routes with deviation zones, bus stop locations, landmarks, and key destinations clearly depicted. How-to-ride information should also be included, including but not limited to fares, fare media, and how to request dial-a-ride. Contact information that includes a website address, telephone number, and reference to a trip planning app (when available) should be provided. This pamphlet can also include support for multi-modal trip planning and access to major destinations, as described in the “Transportation Demand Management Strategies” section.
- **Provide Real-Time Information and Trip-Planning Technologies.** Real-time bus arrival and route information helps improve the ridership experience by reducing passenger wait times at the stop (passengers know when they should leave for the stop) and provides confidence that a bus has not been missed. With the introduction of the Green Zone, bus arrival times at stops become more approximate, depending on whether or not a deviation was made earlier in the trip. With longer headways creating long waits if a bus is missed, real-time information helps reassure riders that their bus is on the way. Information on all transit routes could be provided via Bullhead Area Transit websites, smartphones, “push” technologies such as text messages, and telephone support.
- **Advertise.** Advertising via different media can help attract a range of riders. Display advertising of the dial-a-ride and fixed-route services in free weekday shopping papers and other local papers distributed in the community is a potential tool to introduce and promote service that can generate ridership. Other ways of promoting the service include radio spots, social media, and email blasts. With the introduction of the new transit center and administration building, Bullhead Area Transit could coordinate a community open house and free ride day to boost awareness and market services.
- **Educate.** Employ a Travel Training Program Manager that assists Bullhead Area Transit in teaching local, rural, and underserved populations how to use available public transit services. Develop programs to teach both agency staff and riders how to use public transit (travel training and travel ambassadors). These programs need bicultural messaging and need to be carefully designed to support veteran, tribes, older adults and elders, youth, and people with developmental disabilities. The programs could engage people from these groups who are already using the bus system as travel trainers.



- Expand Branding for Bullhead Area Transit System.** Branding is the foundation of the marketing strategy and provides an identity and image to potential customers. It helps create immediate recognition of all aspects of the service. Key elements of visible marketing tools include the name, logo, vehicle colors and graphics, and bus stop signage and facilities – especially the new transit administration building and transit center. It is important to be consistent with colors and graphics for maximum effect. A distinctive base color used consistently on transit vehicles and facilities becomes the “color of the bus” in the community. Vehicle graphics, bus stop signage, shelters, and benches enhance transit visibility throughout the community; their style, color, and quality should be consistent. Bus stops and shelters are a convenient place to provide additional information about routes, schedules, and deviation zones. Our survey and input during the development of this plan identified a strong preference for the existing orange branding used on the buses and incorporation of a bull image as the transit brand.

Implementation Plan

This section lays out the implementation plan for the recommended service, operational, capital, and marketing changes specified in previous chapters. Implementing the Plan is easier said than done. The timeline below helps to frame phasing for different parts of the plan. It is intended as a rough guideline only. Actual implementation will depend on available resources and opportunities.

Table 13. Recommended Implementation Timeline

Phase	Recommendations
Short-Term	
Service and Operations	<ul style="list-style-type: none"> • All Fixed Routes: two bus replacements • All Demand Response: one van replacement and one van enhancement • Green Zone: transition Green Line to Green Zone • Red Line: implement route and stops changes • Blue Line: implement route and stops changes <ul style="list-style-type: none"> ○ Perform new pilot program for flag stops • Orange Line: maintain current route alignment
Capital	<ul style="list-style-type: none"> • Two bus replacements • One van replacement, one van expansion • Coordinate with current providers to obtain GTFS data to integrate the Bullhead Area Transit into Google Maps • Identify potential electronic fare technology and pursue capital grant funding for implementation, develop a marketing program focused on ease of payment and access
Marketing	<ul style="list-style-type: none"> • Consider integrated branding and color strategies in the development of the new transit administration building and transit center
Mid-Term	
Service and Operations	<ul style="list-style-type: none"> • All Routes: implement new Sunday service



	<ul style="list-style-type: none"> • Green Zone: implement minor stops changes to accommodate New Transit Center • Red Line: add one bus and implement adjustments to frequency to 30 minutes • Blue Line: implement minor route and stops changes to accommodate New Transit Center • Orange Line: implement minor route and stops changes to accommodate New Transit Center
Capital	<ul style="list-style-type: none"> • One additional bus needed to operate Red Line • Two additional drivers needed to operate Red Line • One to two additional drivers need to operate Sunday service • Begin researching potential electronic, touchless fare systems
Marketing	<ul style="list-style-type: none"> • Develop specific trip planning materials (electronic and pamphlets) that explain new routing associated with the new transit center and the new system improvements and services offered at the new transit center • Develop a rider education and rider training program as a part of expanded customer service opportunities at the new transit administration building • Plan a community open house and free ride day in association with the opening of the new transit center and transit administration building
Long-Term	
Service and Operations	<ul style="list-style-type: none"> • All Routes: expand service hours for weekday and weekend services • Green Zone: implement stops changes • Red Line: maintain route changes • Blue Line: implement route and stops change • Orange Line: add one bus and implement adjustments to frequency to 30 minutes
Capital	<ul style="list-style-type: none"> • One additional bus needed to operate Orange Line • Two additional drivers needed to operate Orange Line • Ten additional drivers needed to operate extended service hours for weekdays and weekends • Work with regional partners to develop electronic marketing campaigns for inter-city connections and regional connections
Marketing	<ul style="list-style-type: none"> • Seek additional marketing and business partners for co-sponsoring rider events and rider incentive programs