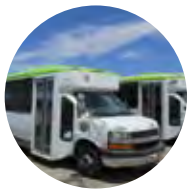


ARIZONA DEPARTMENT OF TRANSPORTATION
MULTIMODAL PLANNING DIVISION

BULLHEAD CITY SHORT RANGE TRANSIT PLAN
MPD-056-13

FINAL REPORT
JANUARY 2014

ADOT Multimodal Planning

moore & associates

This report was funded in part through grants from the Federal Highway Administration, U.S. Department of Transportation. The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data, and for the use or adaptation of previously published material, presented herein. The contents do not necessarily reflect the official views or policies of the Arizona Department of Transportation or the Federal Highway Administration, U.S. Department of Transportation. This report does not constitute a standard, specification, or regulation. Trade or manufacturers' names that may appear herein are cited only because they are considered essential to the objectives of the report. The U.S. government and the State of Arizona do not endorse products or manufacturers.

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

PROJECT OVERVIEW

In mid-2013, the Arizona Department of Transportation's Multimodal Planning Division selected Moore & Associates, Inc. to prepare a Short Range Transit Plan (SRTP) for the City of Bullhead City. The need for the SRTP arose due to recent changes in state funding availability as well as decreasing ridership.

In developing the SRTP, the consultant worked closely with Bullhead City and ADOT staff, which formed the Project Management Team (PMT). The PMT also worked with key local stakeholders, which formed the project's Technical Advisory Committee (TAC). Members of the TAC represented ADOT, the Southern Nevada Transit Coalition, Fort Mojave Indian Tribe, and Western Arizona Council of Governments.

The project followed a series of tasks, each which resulted in a Working Paper, which was reviewed by the PMT and TAC. These Working Papers have been incorporated into the final report.

The final report consists of the following sections:

- Chapter 1: System Overview
- Chapter 2: Goals and Objectives Evaluation
- Chapter 3: System Evaluation
- Chapter 4: Operations Plan
- Chapter 5: Financial and Capital Plans
- Chapter 6: Marketing Plan

It should be noted Chapters 4-6 were originally prepared as a single working paper (Working Paper 4). They have been separated into multiple chapters in the final report for ease of review.

SYSTEM OVERVIEW

The Bullhead Area Transit System (BATS) began as a demand-response service in December 2000. Due to increasing demand, BATS expanded its services to include fixed-route services in 2003, with the establishment of the Blue and Red Lines. In Fiscal Year 2004, BATS provided nearly 92,500 unlinked trips. Ridership steadily increased until Fiscal Year 2009, when more than 181,000 unlinked trips were provided.

BATS subsequently increased its coverage area in June 2009 with the addition of the Green Line, which operates in the eastern portion of Bullhead City. However, the BATS service suffered a significant setback due to cessation of Local Transit Assistance Funding (LTAF II) in 2010, forcing the City to reduce service hours which resulted in a significant drop in ridership.

In Fiscal Year 2013, the BATS fixed-route service provided more than 156,000 unlinked trips, covered nearly 215,000 service miles, and provided nearly 13,300 hours of revenue service. In terms of productivity, the Red Line has the greatest ridership, providing more than 92,000 unlinked trips (59 percent of system total). The Blue Line carried approximately one third of all BATS passengers, while the Green Line had the lowest ridership, providing fewer than 11,400 unlinked trips (seven percent of system total). Operating expenses for fixed-route services in Fiscal Year 2013 totaled $667,000.

During the same time period, Dial-A-BATS provided slightly more than 7,000 trips, amassed nearly 48,000 miles, and provided more than 3,800 hours of revenue service. During the same period, Dial-A-BATS services incurred just under $145,000 in operating expenses.

BATS operates two fixed-route bus lines within the City of Bullhead City (Red and Blue Lines), plus a deviated fixed-route service (Green Line) to the community of Katherine Heights, located approximately two miles east of Bullhead City's city limits along SR 68. Four bus stops have been designated to serve multiple lines to provide opportunities for passengers to transfer from one line to another in order to reach their destination.

Dial-A-BATS (DAB) is Bullhead City's shared-ride demand-response service and provides complementary curb-to-curb service within Bullhead City city limits and to Katherine Heights. This coverage exceeds the requirements of the Americans with Disabilities Act (ADA). The City also partners with the Bullhead City Senior Center, a recipient of federal Section 5310 funding, to operate additional demand-response service known as Senior Center Transportation.

GOALS AND OBJECTIVES EVALUATION

In assessing BATS' current goals and objectives, we reviewed the City's 2012 Five-Year Implementation Plan. The Plan does not include many general, overarching "goals"; rather, it describes multiple specific objectives related to information dissemination and marketing, service planning, operations, finance, and management.

Our update of goals and objectives did not seek to eliminate current objectives. Rather, it began by defining some goals for the transit program reflective of current market conditions as well as the City's

current political climate, which clarify reasons for why the service exists and what the Bullhead City community wishes to realize from the service. From these goals would arise specific objectives.

In order to fully develop goals and objectives for the City of Bullhead City's transit program, we sought input from the public and stakeholders as well as the City's Transit Commission. A visioning workshop was conducted on October 7, 2013 at which time Transit Commissioners were introduced to the project, prior transit goals were discussed, and potential priorities for the future were identified. During the workshop, Commissioners discussed a number of service and marketing priorities, including expansion of service, better coordination with shift changes at the casinos in Laughlin, unified branding, enhanced marketing and service information, sponsorships, and funding opportunities.

Following that workshop, we used the input from the City, ADOT, and the commissioners to develop the list of suggested goals and objectives presented below. (Strategies are included in the full discussion in Chapter 2.)

Goal 1: Provide a safe, effective, efficient, and accessible transportation option for residents of and visitors to Bullhead City.

- Objective: Meet or exceed established standards of performance.
- Objective: Maintain a level of service that is sustainable.
- Objective: Ensure the safety of the community with regard to transit service.
- Objective: Ensure the transit system is accessible to everyone regardless of disability.

Goal 2: Address the mobility needs of the Bullhead City community.

- Objective: Improve access to employment, healthcare, shopping, etc.
- Objective: Promote regional connectivity.

Goal 3: Promote the widespread use of Bullhead Area Transit within Bullhead City.

- Objective: Raise awareness of the service and where it travels.
- Objective: Improve accessibility of service information.

Goal 4: Maximize the efficiency of transit administration and operations.

- Objective: Implement new technology for data collection.
- Objective: Develop a dedicated facility to support transit operations and fleet maintenance.
- Objective: Implement new technology for fleet maintenance.
- Objective: Streamline administrative activities.

SYSTEM EVALUATION

In conducting an overview of the Bullhead Area Transit System, we examined operating data in order to evaluate both effectiveness and efficiency. Each mode (e.g., fixed-route and dial-a-ride) and route (i.e., Red, Blue, and Green lines) was assessed individually.

The qualitative assessment of the fixed-route service focused on how the service performed with respect to factors that could be measured. In addition to reviewing reported operating data, Moore & Associates completed 60 ride checks (onboard all fixed-routes, weekdays and Saturday) to document ridership and on-time performance by route, as well as boarding and alighting activity by stop. Chapter 3 includes the results of these ride checks as well as observations regarding on-time performance, ridership patterns, and performance measures.

The quantitative assessment of the fixed-route service focused on hours and days of operation, service frequency, and route. Chapter 3 offers descriptions of each route as well as extensive discussions regarding directness, travel time, loading time, service dependability, bus stop amenities, etc.

The Dial-A-BATS assessment focused primarily on qualitative data. Chapter 3 includes observations regarding ridership and performance measures, which were used to evaluate efficiency and effectiveness.

As part of our evaluation, we conducted a comparison with three "peer" operators: Show Low, Arizona; Josephine County, Oregon; and Delano, California. We also conducted a survey of BATS riders to gather primary data regarding travel patterns, customer demographics, and customer preferences, as well as a survey of the community at-large. In addition, we surveyed stakeholders and drivers in order to gain a comprehensive understanding of BATS operating environment.

OPERATIONS PLAN

The resulting Operations Plan looked at three scenarios: Optimization of Current Service (short-term), Reallocation of Resources (mid-term), and Service Growth and Expansion (long-term). Each scenario included multiple operating recommendations, which are discussed in detail in Chapter 4 and outlined below. Scenarios would build upon one another across the five-year planning horizon.

Scenario 1: Optimization of Current Service

- Recommendation 1: Implement timing adjustments to Red Line.
- Recommendation 2: Split the Red Line into two separate routes.
- Recommendation 3: Introduce low-cost transfers between all routes.
- Recommendation 4: On-call service to Katherine Heights.
- Recommendation 5: Implement timing adjustments to Green Line.
- Recommendation 6: Coordinate timed-transfer at key transfer points.
- Recommendation 7: Eliminate Red Line deviations from Highway 95.
- Recommendation 8: Introduce zone pricing for Dial-A-BATS service.
- Recommendation 9: Consider alternatives to traditional in-house Dial-A-Ride service to meet ADA requirements.

Scenario 2: Reallocation of Resources

- Recommendation 1: Realign all routes to transfer at Safeway.
- Recommendation 2: Eliminate the northernmost segment of the Green Line and incorporate the Blue Line East into the Green Line.
- Recommendation 3: Expand the Blue Line west of Highway 95.
- Recommendation 4: Realign the Red Line to serve Suddenlink Community Center and terminate at Safeway.
- Recommendation 5: Realign the Orange Line to terminate at Safeway.

Scenario 3: Service Growth and Expansion

- Recommendation 1: Extend weekday evening hours.
- Recommendation 2: Add Sunday service.
- Recommendation 3: Increase Saturday service hours.
- Recommendation 4: Implement limited-stop commuter service (Purple Line).
- Recommendation 5: Enhance connectivity with Silver Rider.
- Recommendation 6: Extend service south to Valley View Medical Center in Fort Mohave.

In addition to the operating scenarios, we developed administrative and capital recommendations deemed relevant across multiple scenarios. They are as follows:

- Administrative Recommendation 1: Establish standard criteria for service evaluation.
- Administrative Recommendation 2: Revise Personal Care Attendant eligibility criteria.
- Administrative Recommendation 3: Transit staffing.
- Administrative Recommendation 4: Negotiate a larger contribution from Katherine Heights to support current service level.
- Administrative Recommendation 5: Develop balanced policies regarding carry-on packages.
- Administrative Recommendation 6: Record and monitor all costs and revenues by mode.
- Administrative Recommendation 7: Assessment of demand for limited Shopper Shuttle.
- Capital Recommendation 1: Bus stop improvements at the Boat Dock.
- Capital Recommendation 2: Develop a transfer center at Safeway.
- Capital Recommendation 3: Make a final determination regarding development of a transit operations center.
- Capital Recommendation 4: Construct bus stops on Highway 95.

All recommendations presented within this plan, prior to implementation, should be discussed and refined through consultation between City of Bullhead City staff and the Technical Advisory Committee (TAC). All recommendations are supported by an Implementation Plan in Chapter 4.

FINANCIAL AND CAPITAL PLANS

Chapter 5 presents five-year operating budget projections required to support the City's public transit program (Financial Plan) as well as capital cost forecasts in support of the recommended scenarios (Capital Plan). Each Plan includes an overview of potential funding sources. The Capital Plan also includes a seven-year fleet replacement plan.

MARKETING PLAN

The Marketing Plan presented in Chapter 6 provides insight into the role and perception of transit with the City of Bullhead City while offering recommendations designed to increase awareness, increase ridership, and increase community support. We found the BATS service to be inconsistently branded with little to no active marketing. While a full menu of marketing strategies and tactics was identified, those activities with the highest priority include:

- Fixed-route service brochures (to be updated in Operations Plan Implementation Years 1, 2, and 3 to correspond with service changes; also Year 5 depending on service expansion).
- Dial-A-BATS service/informational brochure.
- Webpage redesign (including .pdf versions of service brochures and system map).
- Bus stop information (i.e., info-posts).
- Regular media releases.
- Vehicle branding (only as new vehicles are purchased).

1 CHAPTER 1: SYSTEM AND SERVICE OVERVIEW

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CHAPTER 1 – SYSTEM AND SERVICES OVERVIEW

HISTORY OF THE BULLHEAD AREA TRANSIT SYSTEM

History

The Bullhead Area Transit System (BATS) began as a demand-response service in December 2000. Due to increasing demand, BATS expanded its services to include fixed-route services in 2003, with the establishment of the Blue and Red Lines. In Fiscal Year 2004, BATS provided nearly 92,500 unlinked trips. Unlinked trips include any instance in which a person boarded a transit vehicle, so one person making a journey requiring them to transfer one time makes two unlinked trips to complete their journey. Ridership steadily increased until Fiscal Year 2009, when more than 181,000 unlinked trips were provided.

BATS subsequently increased its coverage area in June 2009 with the addition of the Green Line, which operates in the eastern portion of Bullhead City. However, the BATS service suffered a significant setback due to cessation of Local Transit Assistance Funding (LTAF II) in 2010, forcing the City to reduce service hours which resulted in a significant drop in ridership.

Current System

Presently, the three-route BATS system utilizes a fleet of seven buses for its fixed-route service and one Dodge Caravan for Dial-A-BATS service. Supplementing the BATS fleet are two non-revenue support vehicles, including a Dodge Caravan and a golf cart.

In Fiscal Year 2013, the BATS fixed-route service provided more than 156,000 unlinked trips, covered nearly 215,000 service miles, and provided nearly 13,300 hours of revenue service[1]. In terms of productivity, the Red Line has the greatest ridership, providing more than 92,000 unlinked trips (59 percent of system total). The Blue Line carried approximately one third of all BATS passengers, while the Green Line had the lowest ridership, providing fewer than 11,400 unlinked trips (seven percent of system total). Operating expenses for fixed-route services in Fiscal Year 2013 totaled $667,000.

During the same time period, Dial-A-BATS provided slightly more than 7,000 trips, amassed nearly 48,000 miles, and provided more than 3,800 hours of revenue service. During the same period, Dial-A-BATS services incurred just under $145,000 in operating expenses.

[1] Data on deadhead hours were not available for either fixed-route or Dial-A-BATS services. Deadhead miles not available for Dial-A-BATS services. Deadhead hours/miles describe any time or distance that a vehicle was operating but not available for customers (e.g., Green Line vehicles "dead head" when driving from the vehicle yard to their first stop at the Boat Dock).

GOVERNANCE

BATS is operated by the City of Bullhead City under the Human Services and Transit Department. Decisions related to service planning are made by the City Council based on recommendations made by the Transit Commission. The Transit Commission is comprised of five individuals who are appointed by the City Council and serve two-year staggered terms. They represent the transit-related interests of various components of the Bullhead City community including the general population, local business community, elderly and disabled populations, and youth. While non-binding, the Commission's recommendations are intended to guide the City Council in making decisions related to BATS service that best serve the community. Exhibit 1.1 provides a summary of the current Transit Commission members.

Exhibit 1.1 Transit Commission Membership

Commission Member	Term	Group(s) Represented
Heather Brennan, chair	2013 - 2015	Community at large, business community
Doug Bonate, vice-chair	2012 - 2014	Community at large
Jared Gift	2012 - 2014	Persons with disabilities
Russell MacFarlane	2013 - 2015	Community at large
Evelyn Schick	2013 - 2015	Seniors and persons with disabilities

In addition to the five members on the Transit Commission, a city councilmember currently serves as Commission liaison to the City Council, while the City's Director of Human Services and Transit functions as the Commission liaison to BATS staff.

ORGANIZATION

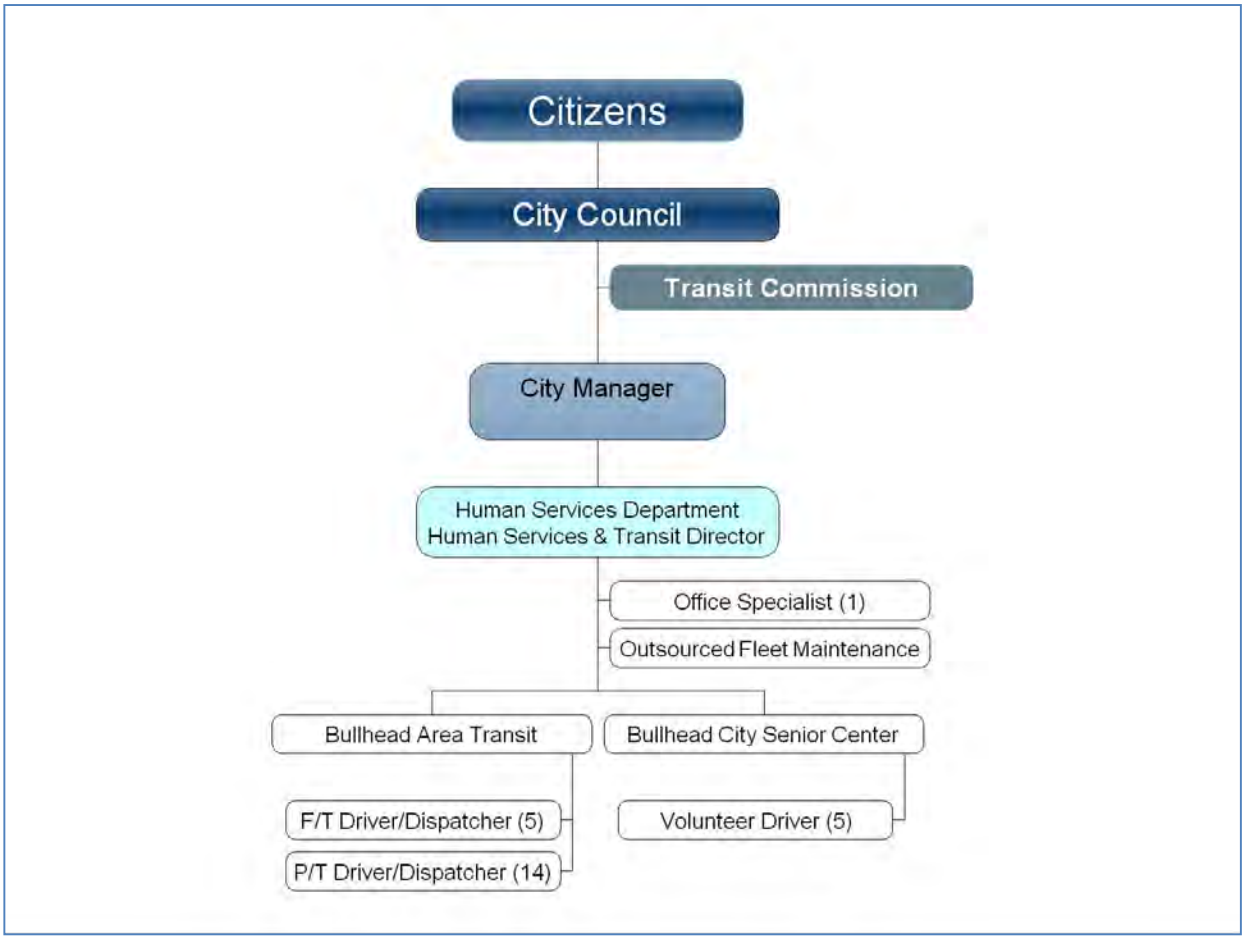
Organizational Structure

BATS is currently led by the Director of Human Services and Transit, who oversees operations, customer service, and acts as a liaison to the BATS Commission. Reporting to the Director are five full-time driver/dispatchers, 14 part-time driver/dispatchers, and one office specialist who handles calls for Dial-A-BATS and Senior Center Transportation demand-response services (described below). All personnel are non-unionized employees of the City of Bullhead City. Drivers clean vehicles at the end of their driving shifts. Vehicle washing is also performed by inmates on Mondays and Thursdays each week while they are participating in a work release program. An organizational chart illustrating the current staffing positions and reporting relationships is shown in Exhibit 1.2.

Presently, the Director of Human Services and Transit directly oversees all transit staff. However, the City is planning to hire a Transit operations supervisor in late 2013. The operations supervisor will report to the Human Services and Transit Director, while the driver/dispatchers would report to him/her.

Vehicle maintenance is contracted out to A-1 Fleet Smart, of which the owner and employees primarily perform work for the Silver Rider vehicle fleet in Laughlin, NV. For BATS vehicles, A-1 performs most minor maintenance and repair tasks at the City's Public Works yard, while more significant repairs are completed at the vendor's shop in North Bullhead City.

Exhibit 1.2 Bullhead City Transportation Program Organizational Structure



Staffing and Training

The five full-time drivers generally work eight-hour weekday morning shifts, while part-time drivers are assigned to weekday afternoon and Saturday shifts. Part-time driver work hours vary depending upon program need, and they will fill in for full-time drivers in the event of sickness or vacation. Driver shift assignments are based on a combination of seniority and work performance.

Dispatch duties are shared by the full-time driver team on a rotating basis.

Driver training is conducted by a senior driver and supplemented with training in defensive driving provided by the Bullhead City Police Department. The Transit Dept's office specialist provides orientation training and passenger assistance and safety (PASS) training, and maintains driver training records.

Evaluation and Promotion

BATS uses the City's established performance evaluation instrument and follows City Human Resources Rules and Regulations when hiring or promoting personnel.

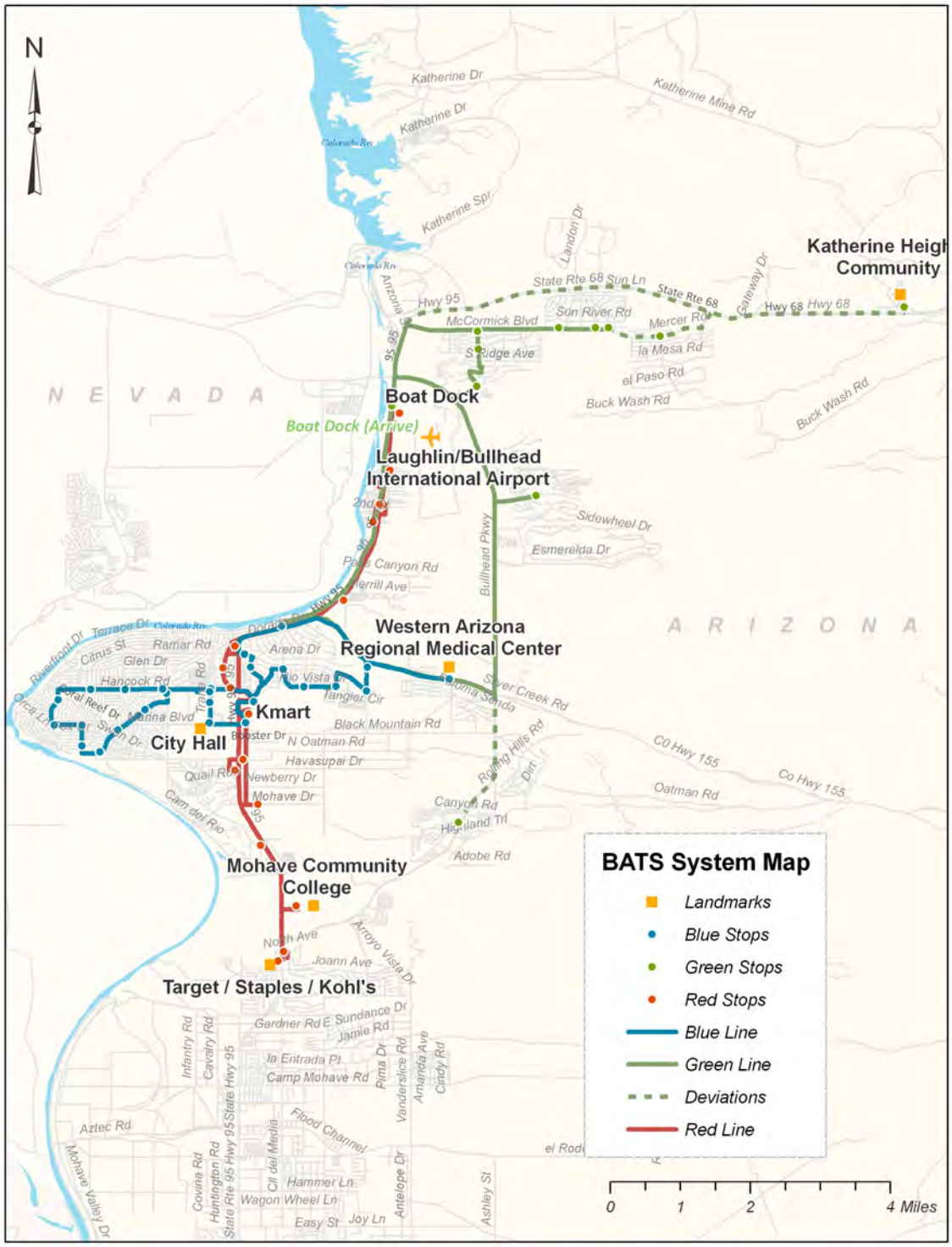
TRANSIT SERVICES PROVIDED

Fixed-Route Bus Lines

BATS operates two fixed-route bus lines within the City of Bullhead City (Red and Blue Lines), plus a deviated fixed-route service (Green Line) to the community of Katherine Heights, located approximately two miles east of Bullhead City's city limits along SR 68. Four bus stops have been designated to serve multiple lines to provide opportunities for passengers to transfer from one line to another in order to reach their destination. The Red, Blue and Green[2] lines stop at Safeway; the Red and Blue lines stop at Kmart; the Blue and Green lines stop at the hospital (WARMC); and the Red and Green lines stop at the Boat Dock. Exhibit 1.3 is a map of the entire BATS network. Following are more detailed descriptions of each BATS fixed-route line with accompanying maps showing a zoomed-in view of each route. Exhibit 1.7 summarizes the operating hours and frequencies of BATS services.

[2] Green Line service to Safeway began during the Gold Rush Road Construction project, which began in May 2013 and concluded in August 2013. Due to popular demand, the Transit and Human Services Director is planning to ask the Transit Commission to endorse continuing the service after construction activities have concluded.

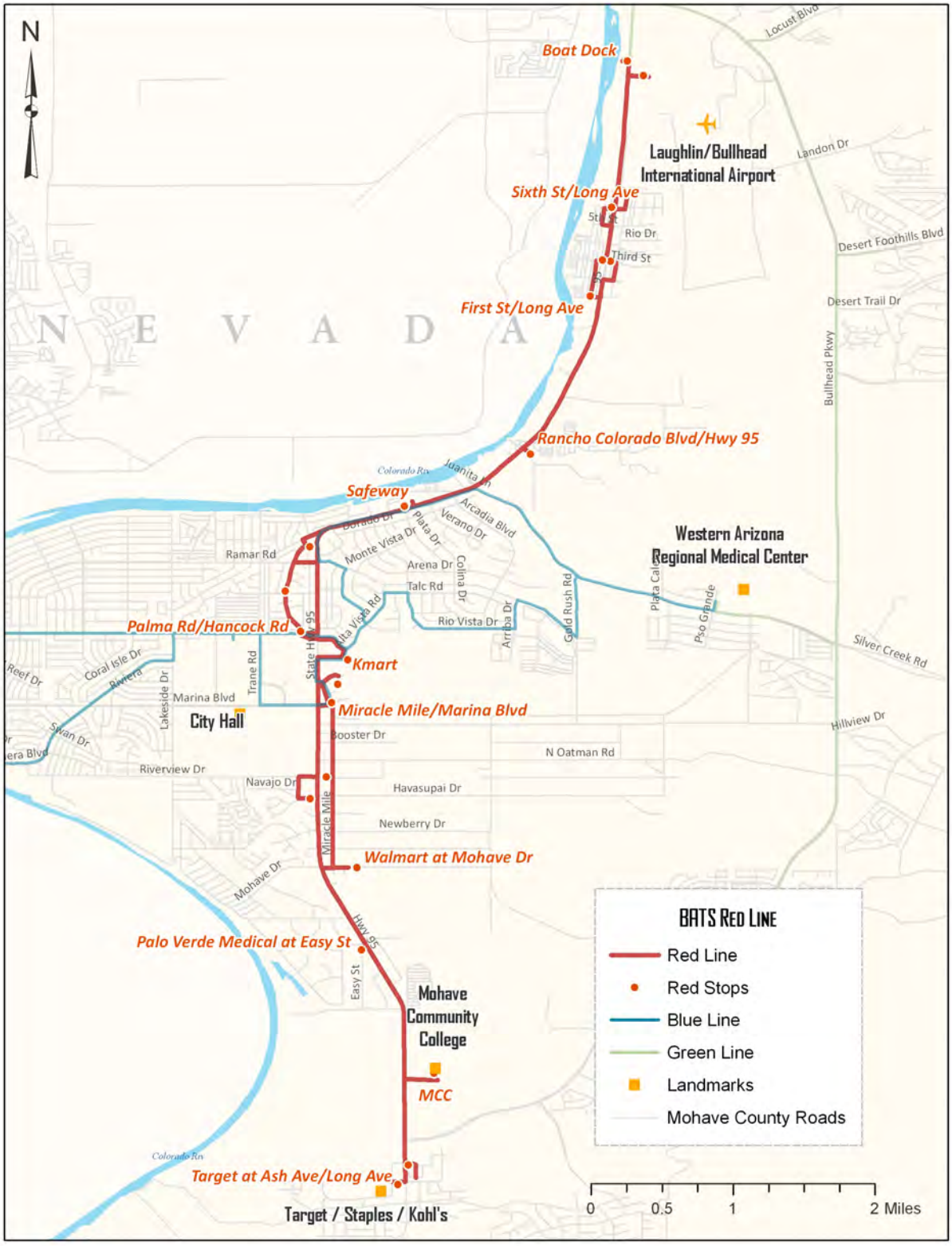
Exhibit 1.3 Current BATS System Map



Red Line

The Red Line, shown in Exhibit 1.4, is divided into two 60-minute segments, the Red Line North and the Red Line South, which operate along SR 95 and meet at the Kmart near SR 95's intersection with Hancock Road. The Red Line North provides primarily north-south service along SR 95, connecting the Boat Dock at its northern end to the Kmart. The Red Line South also ends at the Kmart served by the Red Line North, but serves the southern portions of Bullhead City, connecting the Kmart to the Target at the southern end of the city via SR 95.

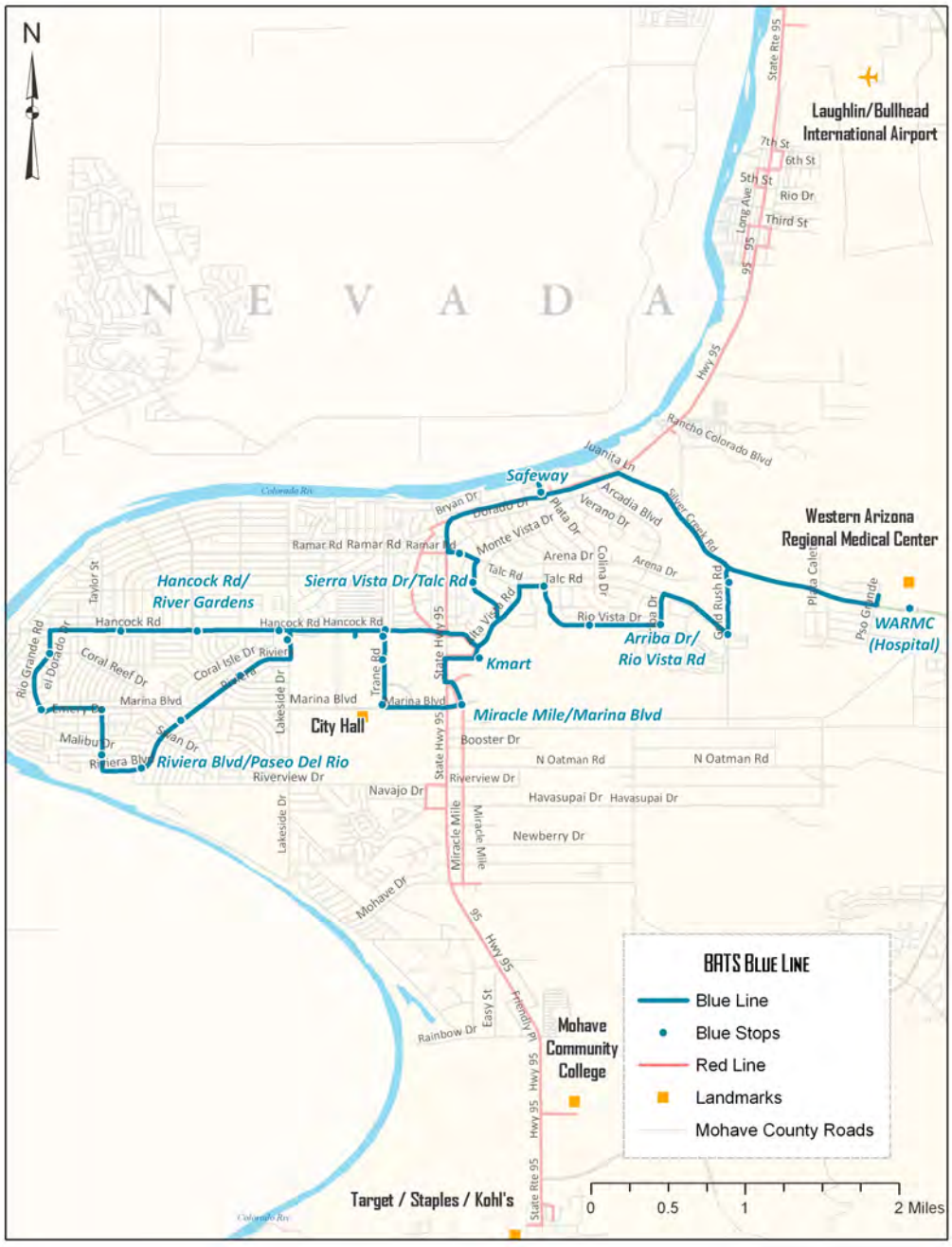
Exhibit 1.4 BATS Red Line



Blue Line

The Blue Line, in Exhibit 1.5, is comprised of two 30-minute segments, the Blue Line East and the Blue Line West, which meet at the Kmart along with the Red Line. The Blue Line East connects Kmart to the Western Arizona Regional Medical Center on Silver Creek Road. The Blue Line West serves destinations in the River Bend neighborhood of Bullhead City, including grocery and retail stores, banks, government facilities, and schools like Mohave High School and the Mohave Accelerated Learning Center.

Exhibit 1.5 BATS Blue Line

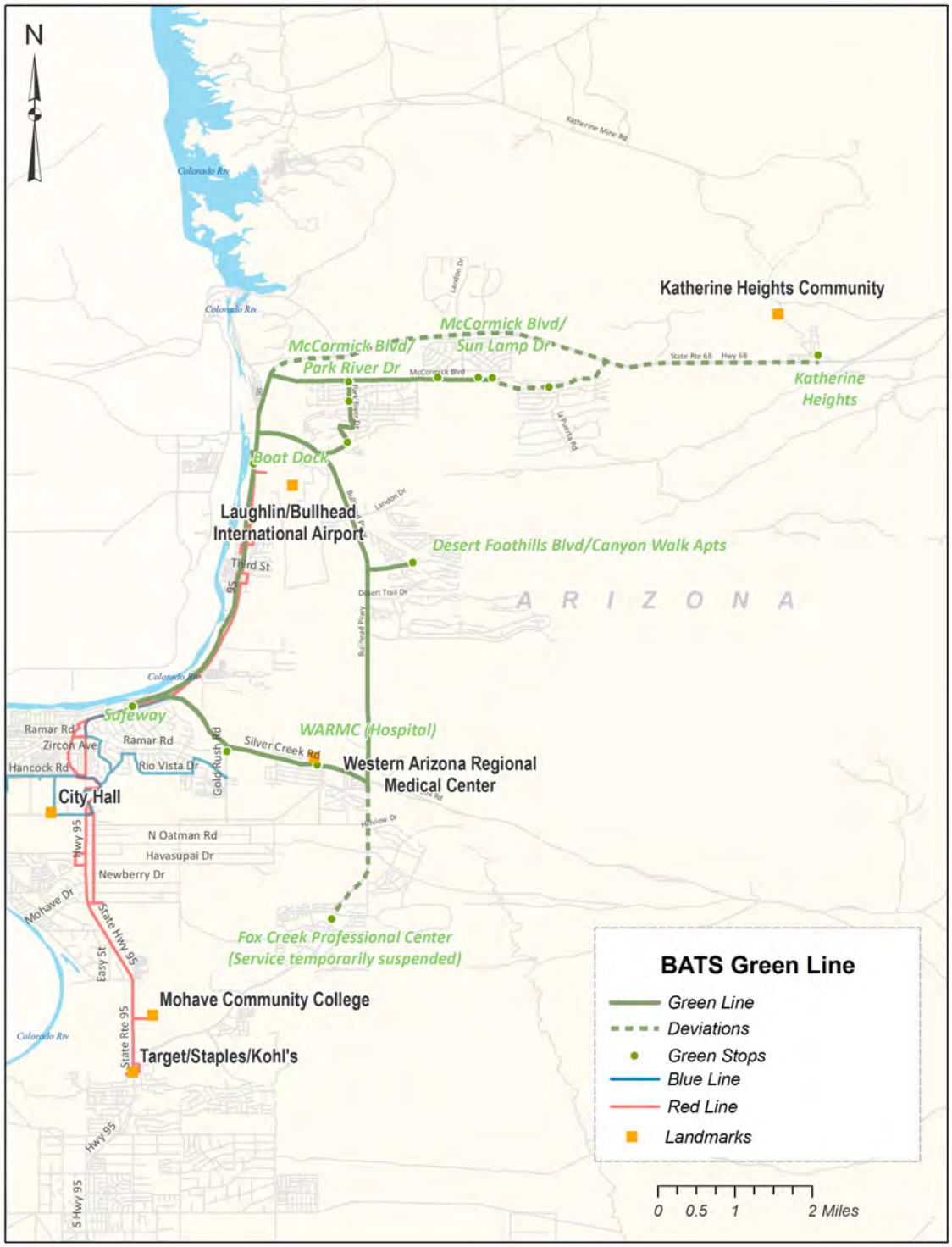


Green Line

The Green Line, shown in Exhibit 1.6, serves the eastern portions of Bullhead City and the community of Katherine Heights east of Bullhead City city limits. The Green Line is a 60-minute route that connects residents in eastern parts of the City with the Blue Line East at the Western Arizona Regional Medical Center (WARMC), with the Red Line North at the Boat Dock, and the Blue and Red Lines at Safeway.

Worth noting is that the Green Line only provides service to Katherine Heights six times per day during the week, and three times on Saturdays. While ridership is low on the Green Line, its service is supported by a financial contribution from the community of Katherine Heights, which provides $13,000 annually, and the WARMC, which contributes $60,000 annually. As a part of WARMC's agreement with the City, WARMC secured exclusive advertising rights on the exterior of BATS vehicles. The Green Line includes service to both the main WARMC complex on Silver Creek Road and the Fox Creek offices on Bullhead Parkway.

Exhibit 1.6 BATS Green Line



Service Hours and Frequency

BATS fixed-route services operate weekdays from 6:00 am until 8:00 pm, and on Saturday from 7:30 am until 3:30 pm (service span varies by route). Generally, fixed-route service is provided on an hourly basis, although a few bus stops on the Red Line are served every half hour. Dial-A-BATS service operates during the same hours as the City's fixed-route service as required by the Americans with Disabilities Act. Exhibit 1.7 summarizes the operating hours and frequency of each fixed-route Line and Dial-A-BATS service.

Exhibit 1.7 BATS Operating Hours and Frequency

Line Segment	Operating Hours	Frequency (minutes)
Red Line (Weekday)	Monday-Friday 6:30 am - 7:30 pm	60 minutes (until 5:30 pm); 120 minutes after 5:30 pm
Red Line (Saturday)	Saturday 8:30 am - 2:30 pm	120 minutes
Blue Line (Weekday)	Monday-Friday 6:00 am - 8:00 pm	60 minutes
Blue Line (Saturday)	Saturday 7:30 am - 3:30 pm	60 minutes
Green (Skips Katherine Heights)	Monday-Friday 6:00 am - 1:00 pm and 4:00 pm - 8:00 pm; Saturday 8:00 am - 2:00 pm	60 minutes
Green (Including Katherine Heights)	Monday - Friday 6:11 am - 12:11 pm and 4:11 pm - 7:11 pm; Saturday 8:11 am - 1:11pm	Three morning runs, one midday run, two evening runs on weekdays; two morning runs and one afternoon run on Saturday
Dial-A-BATS	Monday-Friday 6:00 am - 8:00 pm; Saturday 7:30 am-3:30 pm	Reservation-based

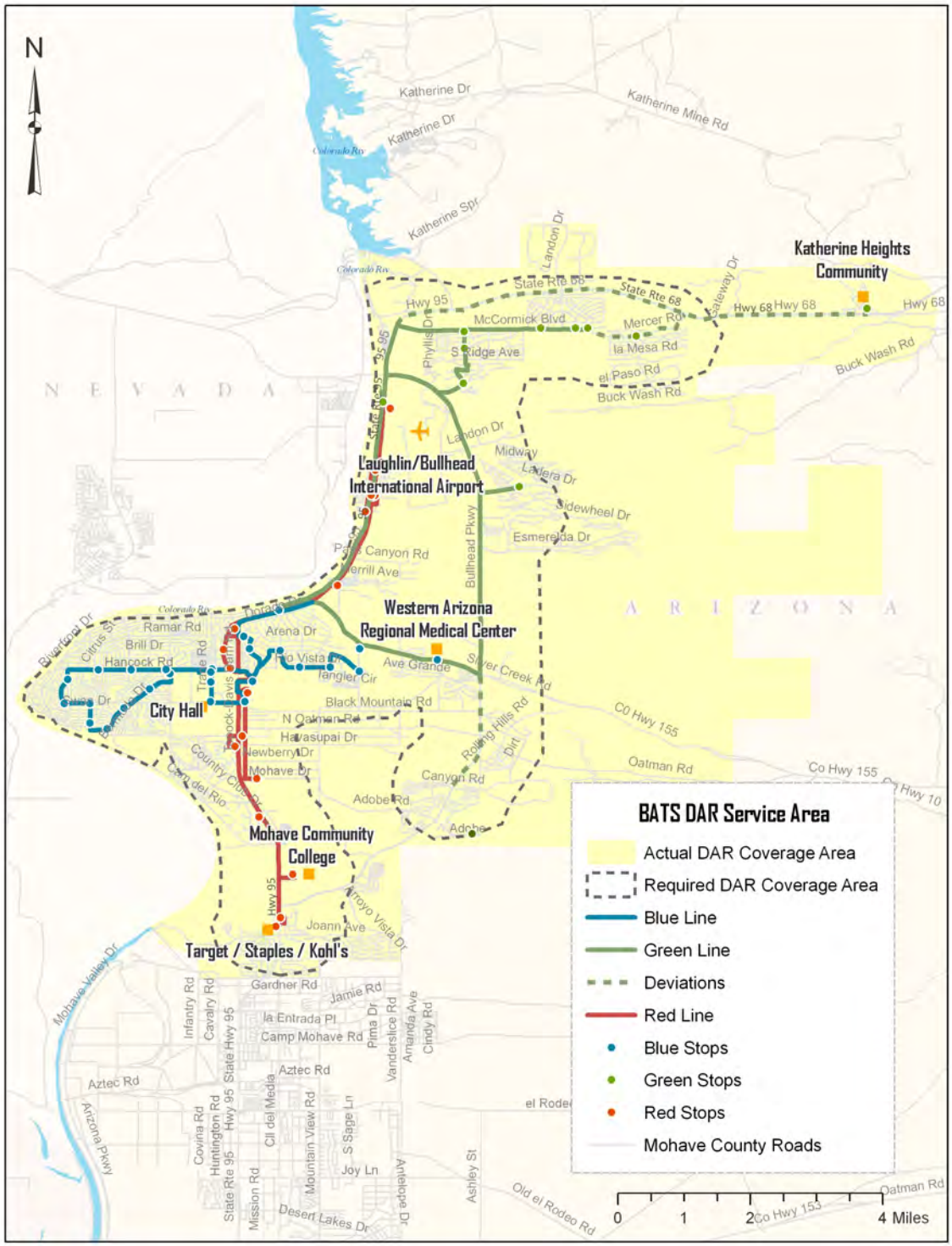
Demand-Response Services

Dial-A-BATS (DAB) is Bullhead City's shared-ride demand-response service and provides complementary curb-to-curb service within Bullhead City city limits and to Katherine Heights. This coverage, as shown in Exhibit 1.8, exceeds the requirements of the Americans with Disabilities Act (ADA), which require complementary paratransit service within a ¾-mile buffer around all fixed-route services. DAB services are available to individuals who are unable to use the City's fixed-route bus service due to a disability or mobility impairment. Rides for pre-approved passengers can be scheduled for next-day service or up to two weeks in advance.

As described below, BATS partners with the Bullhead City Senior Center, a recipient of federal Section 5310 funding, to operate additional demand-response service known as Senior Center Transportation. Senior Center Transportation's demand-response service is scheduled and dispatched by the BATS dispatcher and has two vans at its disposal. The service utilizes volunteer drivers from River Valley

Seniors, Incorporated, and program expenses such as vehicle purchases and maintenance are paid for with federal Section 5310 funds allocated to the City.

Exhibit 1.8 ADA-Required and Actual DAR Service Coverage



Service to Laughlin, Nevada

The City does not presently provide any direct fixed-route service to Laughlin. However, Dial-A-BATS service to the Silver Rider bus stop at the Laughlin Chamber of Commerce is available to pre-approved DAB customers and is priced at $3.00 (the standard $2.00 Dial-A-BATS fare plus a $1.00 fee to connect to Laughlin) and rides must be scheduled the day before the ride is to take place.

Fares

Exhibit 1.9 lists the current fare structure for the BATS system.

Exhibit 1.9 Fare Schedule for BATS

Fare Type	Price
Fixed Route One-Way Cash	$ 1.00
Paratransit Service One-Way	$ 2.00
Paratransit Service Laughlin Connection (add-on)	$ 1.00
All-day Pass for Fixed Route Service	$ 4.00
Adult Monthly Pass, Fixed-Route Service	$ 48.00
Senior Monthly Pass, Fixed-Route Service	$ 30.00
Student Monthly Pass, Fixed-Route Service	$ 20.00
Book of 30 One-Dollar Tickets for Fixed-Route or Paratransit	$ 24.00
Certified Personal Care Assistant, Children Age two and Younger	Free

Bicycle Accommodations

Presently, all BATS fixed-route vehicles are equipped with bicycle racks capable of accommodating up to two bicycles.

OTHER TRANSPORTATION SERVICE PROVIDERS

In addition to BATS transportation services, there are several other public and private transportation providers in and near Bullhead City, as described below and summarized in Exhibit 1.10.

Senior Center Transportation

The Bullhead City Senior Center provides beyond-the-curb transportation service in Bullhead City, Fort Mohave, and Mohave Valley. Service hours are Monday through Friday from 8:00 am to 1:00 pm for seniors age 65+ and individuals with disabilities. The program is financed primarily by Bullhead City with supplemental support from federal Section 5310 funds. Senior Center Transportation uses two vehicles and volunteer drivers, with scheduling and dispatching provided by the BATS dispatcher. Rides can be scheduled for next day service or up to two weeks in advance.

Ferries and Water Taxis

The Riverside Resort and Casino operates a free, 24-hour ferry service between the Boat Dock bus stop in Bullhead City and the Riverside Resort and Casino in Laughlin, NV. Given there is no direct fixed-route transit service connecting Laughlin and Bullhead City, this ferry service provides an important link for people who travel between the two cities. The Bureau of Reclamation controls the volume of water released at Davis Dam, which affects the level of the river. Ferry service may be interrupted if the river becomes too shallow. In those circumstances, the Riverside Casino will send a shuttle bus to the boat dock to transport people back and forth. Further, a private company called River Passage operates water taxi services between casinos along the Laughlin side of the Colorado River, but does not provide any service to Bullhead City. This service is similarly subject to interruptions due to water levels and weather conditions.

Silver Rider

Silver Rider, operated by the private, non-profit 501(c)3 Southern Nevada Transit Coalition, provides hourly fixed-route transit service 24 hours a day within the town of Laughlin, primarily between the residential area and business sector/casinos along the Colorado River. The adult fare for a one-way trip is $2.00; while reduced-fare rides for seniors, youth, and persons with disabilities cost $1.00. There is no direct fixed-route transit connection between Silver Rider and BATS at this time.

Private Taxis

Numerous taxi companies operate within Bullhead City, and serve as an important transportation option for casino workers whose shifts begin or end outside of the BATS service hours. Prices vary by company; however taxis generally charge two dollars per mile.

Exhibit 1.10 Transportation Providers In and Near Bullhead City

Agency Name	Type of Service	Hours of operation	Fare Structure	Key Passenger markets
Riverside Casino and Resort Ferry	Water taxi service between Bullhead City boat dock and Riverside Casino	24 hours	Free	General public, serves many casino employees
Greyhound	Intercity bus service	24 hours	Varies	General public
Silver Rider Transit	Local bus service in Laughlin, NV	Up to 24 hours, depending on route	$2.00 regular, $1.00 reduced	General public
Various taxi providers	Private taxi service	24 hours for most services	Approx. $2.00/mile	General public
Bullhead City Senior Center	Transportation for elderly and disabled persons	M-F 8 am - 1 pm	Requested donation of $2 within Bullhead City, $5 to Fort Mohave	Elderly and disabled persons
WestCare Arizona	Transportation for disabled persons and veterans; usually referral-based	M-F 7 am - 8 pm, with occasional after-hours and weekend trips	Free	Persons with disabilities, veterans with mobility needs

Financial Partnerships

In addition to organizations that directly provide transportation services within Bullhead City, the Western Arizona Medical Center and the community of Katherine Heights provide financial support to the City to operate its Green Line service.

Western Arizona Regional Medical Center

The Western Arizona Regional Medical Center (WARMC) contributes $60,000 annually to the City to support transit service. In exchange, WARMC also receives exclusive advertising rights on the exterior of BATS vehicles.

Katherine Heights

The community of Katherine Heights, located at milepost six approximately two miles east of Bullhead City city limits along SR 68, contributes $13,000 annually to the City's public transit program. This funding helps offset the cost of providing deviated fixed-route service to Katherine Heights. However, the actual cost of operating the "extended service" exceeds the annual contribution.

2 CHAPTER 2: GOALS AND OBJECTIVES EVALUATION

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CHAPTER 2 – GOALS AND OBJECTIVES EVALUATION

Transit providers employ clear goals and objectives to guide all aspects of transit provision from procurement to service planning to operations. By guiding a provider's essential processes, goals also provide both users and non-users with reasons to continue to support public transit service by defining the role the service plays in their community. As such, goals must reflect the values and needs of the community in which the service operates.

To assist the City in developing an effective set of goals and objectives for its public transit service, this chapter begins with a brief overview of what goals, objectives, measures, and standards are; and how they relate to one another. Next is an objective review of BATS' current goals and objectives. We seek to assess how well the goals align with current population and demographic characteristics of Bullhead City, using both American Community Survey data and input from the City's Transit Commission. This chapter concludes by advancing a new set of goals for the City's consideration; as well as accompanying objectives and strategies.

DEFINING GOALS, OBJECTIVES, MEASURES, AND STANDARDS

Goals, objectives, measures, and standards are hierarchically related to one another. Goals represent the general directions in which a transit provider wishes to head, such as "maximizing service productivity," "providing transit service to transportation-disadvantaged populations," or "ensuring service continuity."

Corresponding to each of these often abstract goals are one or more concrete objectives. A transit provider may seek to further a goal of maximizing service effectiveness, for example, by having an objective of increasing the number of people served per unit of service provided, or reducing the cost of providing service.

From each objective follow measures which the provider may take to determine the extent to which the service is meeting the objective. If our objective, for example, is to increase the number of people served, we will present metrics such as the number of people served per vehicle service mile, per vehicle service hour, etc.

Once concrete measures are identified, one can then set standards (or values) which the service or program can be expected to achieve. A transit provider, for example, can set a standard of 10 passengers per vehicle service hour. If the service meets or exceeds this standard, the provider can say it is meeting its objective of increasing the number of people served per unit of input and in turn satisfactorily furthering its broader goal of "maximizing service productivity."

CURRENT BATS GOALS AND OBJECTIVES

Current BATS Mission Statement

The Transit Division's mission statement is published in the 2012 Western Arizona Regional Transportation Coordination Plan. The mission is to "provide safe, efficient, and accessible transportation, enhancing the livability of the community, and serving as a vital component of the local economy."

Current Goals and Objectives

In assessing BATS' current goals and objectives, we reviewed the City's 2012 Five-Year Implementation Plan. The Plan does not include many general, overarching "goals" as defined and discussed in the previous section. Rather, it describes multiple specific objectives related to information dissemination and marketing, service planning, operations, finance, and management. In summary, the current objectives include:

Management Objectives:

- Maintain stability of management personnel.
- Comply with grant and reporting requirements.

Operations Objectives:

- Review service levels and analyze route productivity.
- Revise routes/service hours as appropriate.
- Award a contract for transit fleet maintenance and service.
- Improve dispatch and renewal procedures for paratransit services.

Capital Objectives:

- Update the vehicle replacement schedule based on vehicle use and maintenance data.
- Add bus shelters and benches to the system as funding allows.
- Plan acquisition of destination signs and logo/lettering on the buses that presently have none.

While these objectives are common to many transit providers, many lack an overall goal into which they can dovetail (i.e., a specific direction). For example, the objectives "review service levels and analyze route productivity" and "revise routes/service hours as appropriate" lend themselves to fitting into a broader goal of increasing service productivity. Similarly, the more specific objectives of "adding bus shelters and benches as funding allows" and "acquiring destination signs and logos/lettering on the buses that presently have none" can tie into a broader goal of "improving the customer experience."

In short, goals give *purpose* to objectives. For example, the City may have the objective of "complying with grant and reporting requirements," but this objective likely exists to further a broader goal of

ensuring service continuity by maintaining a funding source to allow the City's transit program to continue to operate. As such, our update of goals and objectives will not necessarily "toss out" current objectives. Rather, it starts by defining some goals for the transit program reflective of current market conditions as well as the City's current political climate, which clarify reasons for why the service exists and what the Bullhead City community wishes to realize from the service. From these goals come objectives. Many of the current objectives may still apply, yet will be connected to a broader goal. Some objectives, however, may be eliminated as they do not serve a particularly desired goal or have already been achieved, while new objectives may be added to reflect new goals.

POTENTIAL GOALS

With an understanding of the importance of goals for guiding all aspects of transit service provision, it is important to consider what types of goals the City may wish to adopt for its public transit program. In developing revised goals and objectives for the City's transit program, we first considered what areas and types of goals transit providers typically set for themselves. Specifically, we reviewed goals and objectives in place at other small Arizona transit providers as well as "industry standard" practices as described in *National Highway Cooperative Research Project Research Results Digest 358: Statewide Transit Goal Setting* and *Transit Cooperative Research Project Report 88: A Guidebook for Developing a Transit Performance Measurement System.*

Through our review of these sources, we identified several possible areas for which goals should be set, which are listed below. For each broader goal area (in blue text), we list one or more example goals that fit within that goal area. Each example goal, in turn, has several example objectives that can serve as more concrete actions the City could take that are in service of the goal.

Operations Performance

- Example goal: Strive for optimal service effectiveness
    - Objective: Increase service productivity
- Example goal: Optimize service efficiency
    - Objective 1: Reduce deadhead costs
    - Objective 2: Streamline operations, reporting, maintenance procedures

Customer Service and Experience

- Example goal: Optimize service reliability
    - Objective 1: Improve on-time performance
    - Objective 2: Improve vehicle reliability/reduce breakdowns
- Example goal: Provide quality, up-to-date service information
    - Objective 1: Ensure service information is readily accessible
    - Objective 2: Increase awareness of the City's public transit services

  - Objective 3: Make all information materials easy to understand, and in alternate formats as warranted

Service Coverage/Availability

- Example goal: Ensure equity in service provision
  - Objective 1: Ensure geographic equity
  - Objective 2: Ensure equity in level of service to all riders
- Example goal: Position transit as an attractive mobility option
- Example goal: Improve mobility for transportation-disadvantaged persons

Coordination of transit/transportation services

- Example goal: Enable various transportation services to better complement each other
  - Objective: Reduce duplication in services

Funding and Financing

- Example goal: Identify reliable and sufficient funding
  - Objective 1: Ensure continued eligibility for key funding opportunities and grants
  - Objective 2: Obtain greater community financial support to augment local match requirements for grants

CONSIDERATIONS WHEN DEVELOPING AND DETERMINING GOALS AND OBJECTIVES

In determining which goals could optimally guide the City's public transit program, it is important to consider the current market conditions, resident preferences and opinions, and funding realities. Therefore, in this section we provide an overview of Bullhead City's population characteristics, beginning with a focus on those populations most likely to use transit. We also provide an overview of jobs as well as demographic segments that may face barriers to using the system due to difficulties understanding or reading English. These three inputs helped us refine goals as well as inform more specific objectives related to fulfilling those goals. In this manner, the goals and objectives we recommend will serve as a guide for the City to optimally and sustainably serve the public transit needs of Bullhead City.

Bullhead City Population Characteristics[1]

Traditional mobility disadvantaged populations include youth, seniors, persons with disabilities, low-income individuals, and persons of limited English proficiency. All of these groups are present to some degree within every community. It is important to keep their needs in mind when developing goals and objectives, as they are the ones most dependent upon a well-functioning transit service.

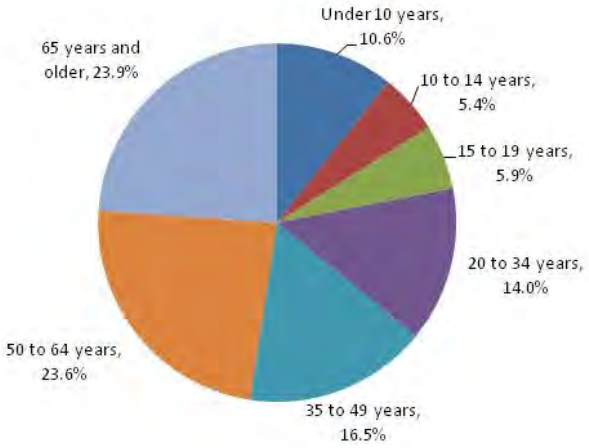
[1] Population and demographic data from the 2010 U.S. Census and 2011 American Community Survey.

Presented below are some basic demographics regarding mobility-disadvantaged populations within Bullhead City.

Age

Age helps to define two key historically mobility-disadvantaged groups – youth and seniors. Youth under 15 years of age make up 16 percent of the Bullhead City population, with another nearly six percent under the age of 19. Seniors represent a slightly larger group, making up nearly one-quarter of the city's population. With an equally large segment in the 50 to 64 age range, the percentage of seniors is expected to increase.

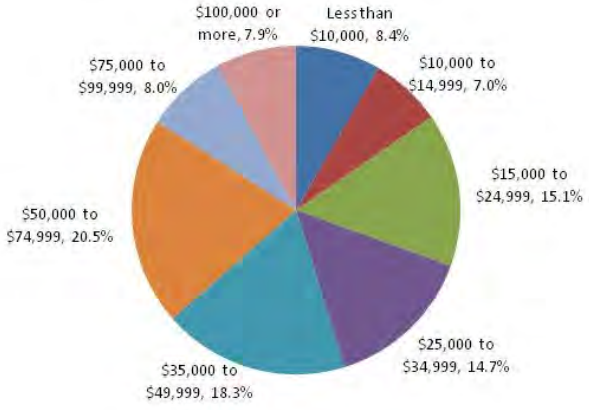
Exhibit 2.1 Age



Household Income

Many persons who depend on transit have limited economic resources, often exemplified by modest annual income. In Bullhead City, more than 15 percent of households have an income of less than $15,000 annually, with more than eight percent making less than $10,000 annually.

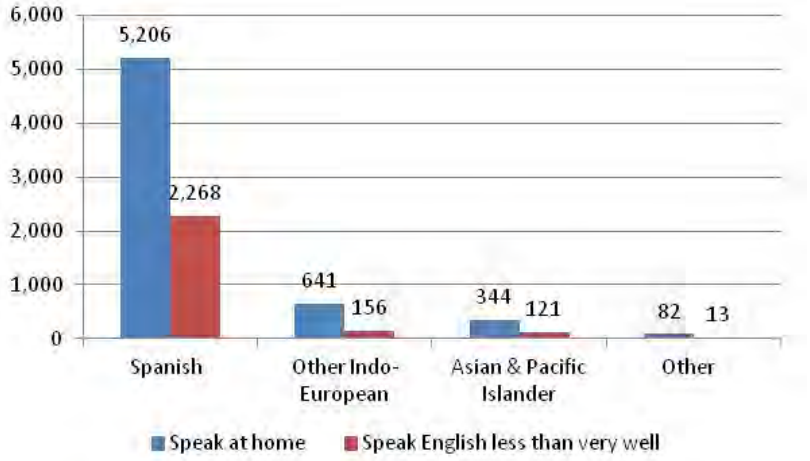
Exhibit 2.2 Annual Household Income



English Proficiency

While approximately 17 percent of Bullhead City residents speak a language other than English at home, this figure does not represent persons with limited English proficiency. In fact, fewer than seven percent of residents indicated speaking English "less than very well." The primary language spoken by those with limited English proficiency is Spanish.

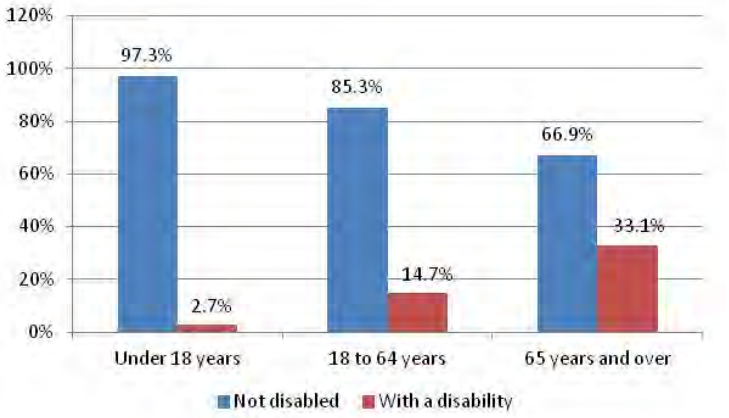
Exhibit 2.3 Home Language and English Proficiency



Disability

Not surprisingly, the incidence of disability rises with age. Consequently, there are considerably more seniors considered disabled than there are young people. This can have a significant impact on the provision of transit service, as not only are more people likely to rely on public transit as their primary mode of travel, but many will rely on more costly Dial-A-Ride services for their mobility needs.

Exhibit 2.4 Disability



Striking a balance with conflicting goals and objectives

Upon reviewing the list in the previous section, goals and objectives can often conflict with one another. One of the most common goal conflicts transit providers face is maximizing the area covered by transit service versus service productivity. Transit providers often need to consider whether to keep a low-ridership line that provides service to areas that otherwise would have no service (furthering a goal of "optimizing coverage") versus eliminating such a line and reallocating the service to busier routes (which would further the objective of increasing service productivity and goal of service effectiveness). Another such conflict faced by transit agencies is that of "geographic" equity, or serving all areas with an equal level of service, versus "individual" equity, which ensures all riders experience the same level of service.

Reconciling these and other potential conflicts in goals and objectives is often a matter of values rather than science. For example, in a tradeoff between continuing service on a low-ridership route versus reallocating the service to a higher-performing route, the City may wish to consider what matters to constituents throughout its public transit system and decide the "balance point" for resolving this conflict. This balance point may, for example, be one in which there is some weight given to providing coverage over providing ridership, but if a line serves fewer than some minimum number of riders per month, then the service would be discontinued. Similarly, such service could be discontinued if reallocating the service hours to a busier line provided a significant benefit, such as relieving overcrowding on some busier route. In short, making these decisions is primarily a "value-based," rather than scientific process, and City leaders and the community at-large should consider these tradeoffs.

2.4 RECOMMENDED REVISED GOALS FOR THE CITY TO ADOPT FOR BATS PROGRAM

In order to develop a series of goals and objectives for the City of Bullhead City's transit program, we sought input from the public and stakeholders[2] as well as the City's Transit Commission. A visioning workshop was conducted on October 7, 2013 at which time Transit Commissioners were introduced to the project, prior transit goals were discussed, and potential priorities for the future were identified. During the workshop, Commissioners discussed a number of service and marketing priorities, including expansion of service, better coordination with shift changes at the casinos in Laughlin, unified branding, enhanced marketing and service information, sponsorships, and funding opportunities.

Following that workshop, we used the input from the City, ADOT, and the commissioners to develop the list of suggested goals, objectives, and strategies presented below.

[2] These efforts are detailed in Working Paper 3.

Goal 1: Provide a safe, effective, efficient, and accessible transportation option for residents of and visitors to Bullhead City.

- Objective: Meet or exceed established standards of performance.
  - Strategy: Improve on-time performance.
  - Strategy: Increase ridership, particularly on the Green Line.
  - Strategy: Maintain or improve productivity at the route level.
- Objective: Maintain a level of service that is sustainable.
  - Strategy: Identify new funding sources, including grants, advertising revenue, and/or sponsorships.
  - Strategy: Maintain compliance with all funding requirements.
  - Strategy: Consider a fare increase to support service expansion.
- Objective: Ensure the safety of the community with regard to transit service.
  - Strategy: Replace and repair vehicles according to established standards.
  - Strategy: Provide bus stop amenities such as benches, shelters, and lighting.
- Objective: Ensure the transit system is accessible to everyone regardless of disability.
  - Strategy: Remove barriers by providing ADA-accessible vehicles and bus stops.
  - Strategy: Develop a plan to address geographic coverage against established standards and criteria.

Goal 2: Address the mobility needs of the Bullhead City community.

- Objective: Improve access to employment, healthcare, shopping, etc.
  - Strategy: Ensure intra-service connectivity.
  - Strategy: Introduce evening service hours.
  - Strategy: Introduce expanded Saturday service.
  - Strategy: Introduce Sunday service.
- Objective: Promote regional connectivity.
  - Strategy: Coordinate with other transit operators in the region.
  - Strategy: Implement service to areas outside of Bullhead City.

Goal 3: Promote the widespread use of Bullhead Area Transit within Bullhead City.

- Objective: Raise awareness of the service and where it travels.
  - Strategy: Implement a marketing plan.
  - Strategy: Develop a unified brand.
- Objective: Improve accessibility of service information.
  - Strategy: Provide access to service information at all bus stops.
  - Strategy: Rebuild the BATS website.

Goal 4: Maximize the efficiency of transit administration and operations.

- Objective: Implement new technology for data collection.
  - Strategy: Consider the purchase and installation of automatic passenger counters (APC) on transit vehicles.
  - Strategy: Consider the purchase and installation of Global Positioning System (GPS) hardware on transit vehicles to provide real-time tracking.
- Objective: Develop a dedicated facility to support transit operations and fleet maintenance.
- Objective: Implement new technology for fleet maintenance.
  - Strategy: Consider use of a fleet management platform to track preventive and critical fleet maintenance needs.
- Objective: Streamline administrative activities.
  - Strategy: Identify optimal staffing requirements.
  - Strategy: Consider use of technology to optimize administrative processes and improve the timeliness and accuracy of reporting.

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CHAPTER 3: SYSTEM AND SERVICES EVALUATION

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CHAPTER 3 – SYSTEM AND SERVICES EVALUATION

FIXED-ROUTE QUANTITATIVE OVERVIEW

Overview Statistics

Exhibit 3.1 provides a quantitative summary of the City's public transit program in City Fiscal Year 2012-2013. Vehicle Service Hours (VSH) is the total hours for all BATS vehicles during which they were serving riders. Vehicle Service Miles (VSM) reflects the total number of miles traveled by all BATS vehicles while in revenue service. Deadhead miles, by contrast, reflect total miles traveled by all BATS vehicles while en route from the bus yard to the first pickup point; and from the last pickup point to the bus yard. The Green Line was the only BATS line that accumulated deadhead miles, as the Red and Blue Lines begin and end revenue service in close proximity to the bus yard on Trane Road.

Exhibit 3.1 FY 2013 Operating Statistics

FY 2013 System Totals	
Unlinked Trips	156,312
Vehicle Service Hours (VSH)	13,291
Vehicle Service Miles (VSM)	214,588
Vehicle Deadhead Miles	6,667
Operating Cost	$637,357
Fare Revenue	$140,683

Performance Measurement

Utilizing the operations data in Exhibit 3.1[1], Exhibit 3.2 provides a snapshot of how efficiently and effectively the City's public transit program is functioning. *Efficiency* describes how much service the BATS program is providing based on program resources, and includes metrics such as Cost/VSH and Cost/VSM. Additionally, *effectiveness* measures BATS performance based on total VSH and VSM. The data in Exhibit 3.2 reflect City Fiscal Year 2012-2013 data. Given the wide range of variables involved in quantifying performances, it is difficult to provide a detailed comparison and/or national "standard." It should be noted, however, that when compared with similar programs (with respect to transit service area, population served, services offered, etc.) throughout the western United States, the City's program performs above average overall. A more detailed comparison between BATS and similar small, non-urbanized transit programs is provided on page 29.

[1] BATS fixed-route accounts for 77.7 percent of all Vehicle Service Hours. Total operating cost for FY 2013 was $820,393.22. Figures may not match due to rounding.

Exhibit 3.2 Fixed-Route System Performance

Fixed-route Performance	
Service Efficiency Indicators	
Cost/Vehicle Service Hour	$47.95
Cost/Vehicle Service Mile	$2.97
Deadhead Miles (Percent of Total Miles)	3.1%
Cost/Unlinked Trip	$4.08
Average Subsidy/Unlinked Trip	$3.18
Farebox Recovery	22.1%
Service Effectiveness Indicators	
Unlinked Trips/VSH	11.76
Unlinked Trips/VSM	0.73

Line-by-Line Evaluation

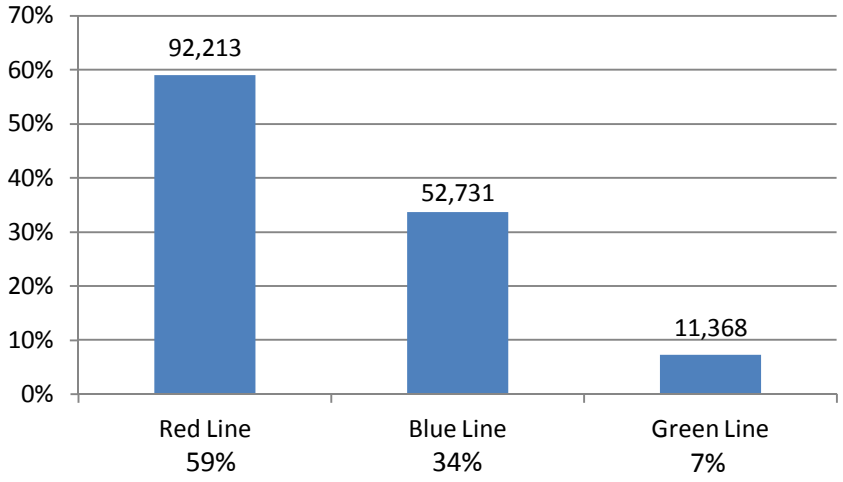
Moore & Associates completed 60 ride checks (onboard all fixed-routes, weekdays and Saturday). The ride checks were conducted September 4 through September 7, 2013. The primary focus of the ride check observations was to document ridership and on-time performance by route, as well as boarding and alighting activity by stop. Our fielding team completed checks during all day-parts where service was provided. During the onboard ride checks, several anomalies to regular operation were observed (i.e., new driver training, vehicle break-downs, etc.). However, the affected trips were re-evaluated to reduce impacts to the overall performance evaluation. As a result, all runs were assessed and some runs were surveyed more than once.

In addition to the ride check, Moore & Associates conducted a concurrent onboard customer survey. Dedicated surveyors presented every boarding customer with an opportunity to complete a survey inquiring on their travel patterns, use of the system and satisfaction. A total of 156 surveys were collected. See page 30 for information concerning the survey results.

Line-by-Line Ridership and Productivity

While the system performance measures presented in Exhibits 3.1 and 3.2 provide a snapshot of the scope and recent performance of the City's public transit program, there is considerable variation in these measures across individual routes. As Exhibit 3.3 shows, the Red Line is the most productive BATS line by a considerable margin, while the Green Line provides comparatively few trips.

Exhibit 3.3 City Fiscal Year 2013 Ridership Distribution by Line



Exhibits 3.4 and 3.5 complement Exhibit 3.3 by showing how each line ranks on measures of service effectiveness. As Exhibit 3.4 shows, the Red Line is the most productive route in the BATS system, providing nearly 15 rides/Vehicle Service Hour (VSH) and more than one ride/Vehicle Service Mile (VSM). The Blue Line, while carrying substantially fewer total passengers, nonetheless is nearly as productive as the Red Line as it provides almost as many rides/VSH and VSM. The Green Line's productivity, in contrast, is substantially lower, providing roughly one-quarter of the rides/VSH as either Red or Blue Lines.

The variation in productivity across each line is reflected in the differing Cost/Unlinked Trip for each line (Exhibit 3.5). As one would expect given its low productivity, the Green Line is also the most expensive line to operate on a per-trip basis, translating to more than $13 in operating cost (per unlinked trip). By contrast, each trip on the Red or Blue Line costs less than four dollars to provide.

Exhibit 3.4 Productivity by Line

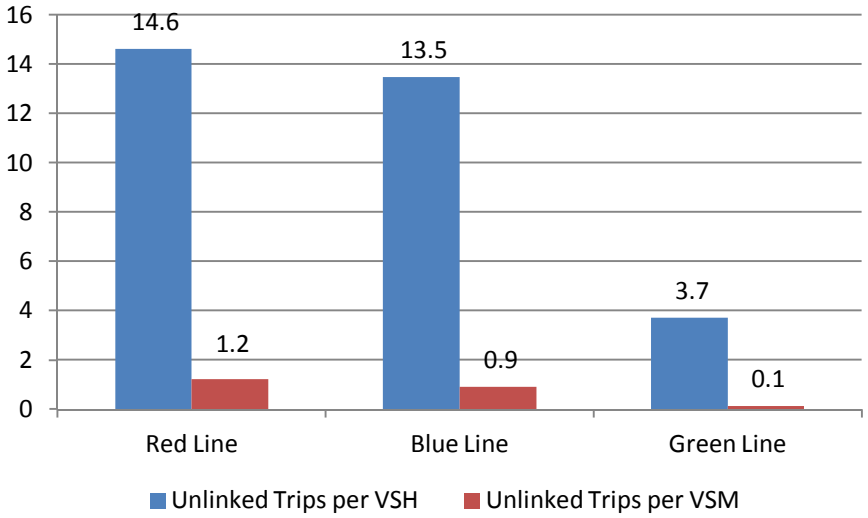
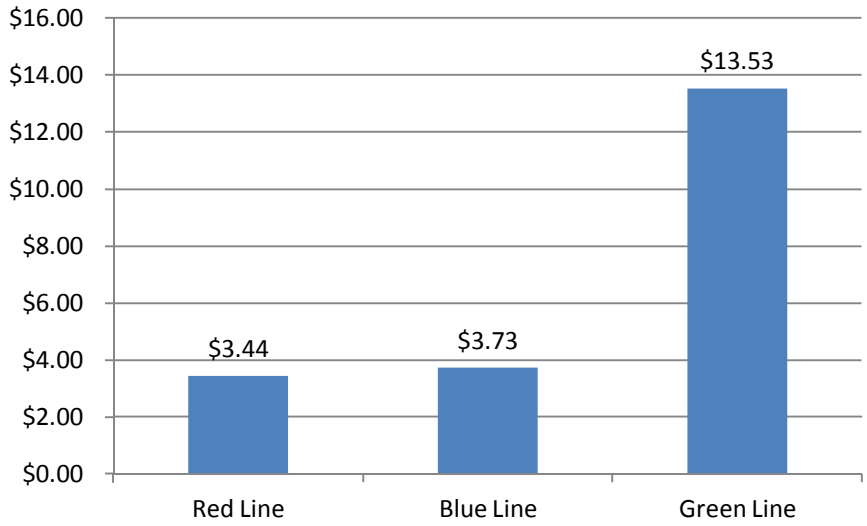


Exhibit 3.5 Cost/Unlinked Trip[2]



[2] Calculated by dividing total operating cost per line by total unlinked trips per line.

On-Time Performance

Exhibit 3.6 illustrates each line's on-time performance, or the percent of time that a bus departed a stop early, on-time, or late. To determine whether a bus departed[3] a stop early, on time, or late, we used the following parameters:

- *Early* departures included any in which the bus departed the stop before the scheduled departure time, regardless of how early it departed.
- *On-time* departures were recorded for all instances in which the bus departed the stop zero to five minutes after the scheduled departure time.
- *Late* departures describe occasions in which the bus departed from the stop six or more minutes after the scheduled departure time.

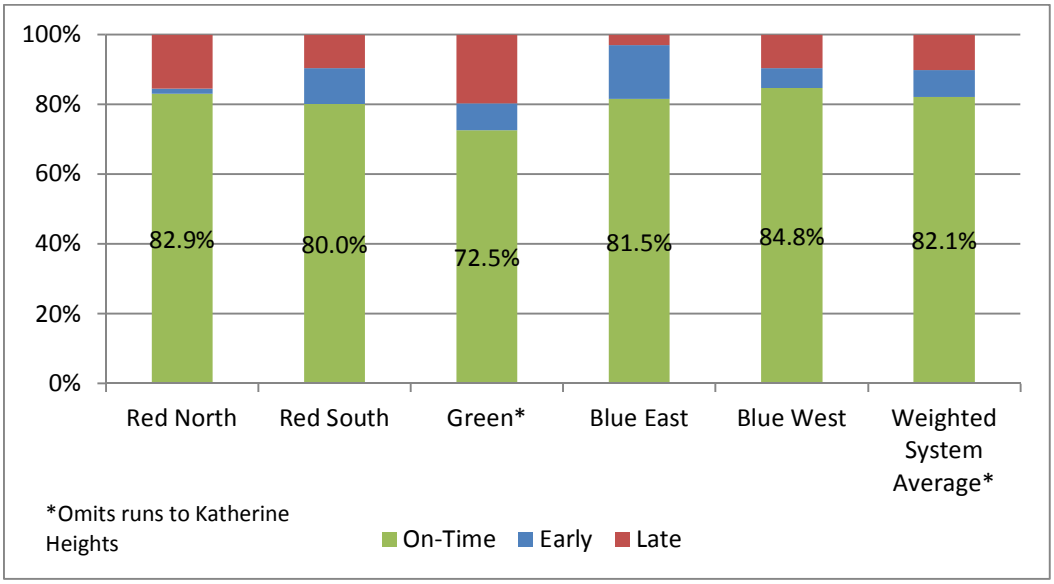
As Exhibit 3.6 shows, on-time performance is generally quite good, with 82 percent on-time performance system-wide[4]. Ten percent of departures were late, while eight percent departed early. In terms of improving on-time performance, the significant share of early departures suggests that on-time performance could be improved through stricter holding practices, or waiting at stops until the scheduled departure time.

Data for the Green Line, shown in Exhibit 3.6, do *not* factor in Green Line runs serving the Katherine Heights community. We omitted these runs because the scheduled departure times for all Green Line stops following Katherine Heights assume that Katherine Heights is not being served. In other words, when the bus travels to Katherine Heights, it will depart later than the scheduled time from all stops located subsequent to Katherine Heights. Because including these runs would make the Green Line appear to run late yet not be attributable to some specific problem (e.g., traffic congestion, long dwell times, etc.), we omitted them from our analysis of the Green Line's on-time performance.

[3] On-time performance was determined using both scheduled arrival and departure times at stops with layovers, which include Kmart, Boat Dock, and Mohave Community College. For stops without layovers, only the departure time was used as a basis for comparison.

[4] The "weighted system average" on-time performance of 82 percent means that 82 percent of all observed departures on all lines departed within zero to five minutes of their scheduled departure time.

Exhibit 3.6 On-Time Performance



Line-by-Line Ridership Patterns

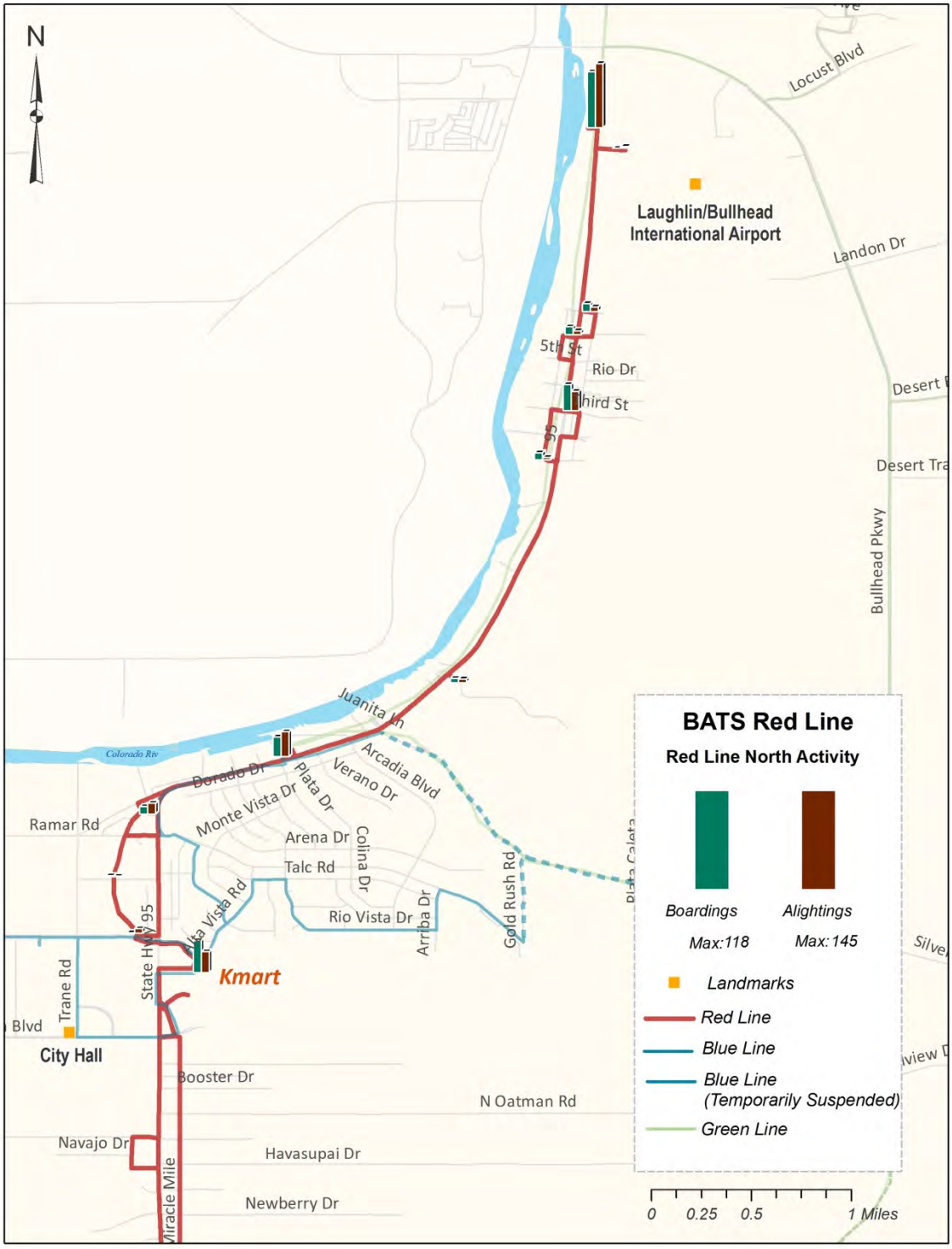
To provide a more nuanced look at where and when BATS customers travel, below are stop activity maps representing the total boardings and alightings at each stop along each line.

Red Line North

The northern half of the Red Line is the highest ridership route segment in the BATS system, reflecting 43 percent of total boardings counted during our ride check. Contributing to the Red Line North's high ridership is the Boat Dock stop, at which 118 boardings were observed during the ride check, making it the busiest stop in the BATS system by a significant margin. The second and third busiest stops were Kmart with 74 boardings and Safeway with 45 boardings.

The heavy stop activity at the Boat Dock stop, shown in Exhibit 3.7, is reflected by the load-by-stop data, shown in Appendix A. Passenger loads on the Red Line North generally hovered around 10 passengers on the vehicle at any given time, with a precipitous decline when the vehicle arrives at the Boat Dock. This drop is followed by an expected load increase, as those who alight at the Boat Dock are replaced by people waiting for the bus. After leaving the Boat Dock, passenger loads remain fairly stable (though ridership declines somewhat at the Kmart stop as riders alight to transfer to the Blue Line or access nearby businesses, restaurants, or the high school).

Exhibit 3.7 Red Line North Stop Activity

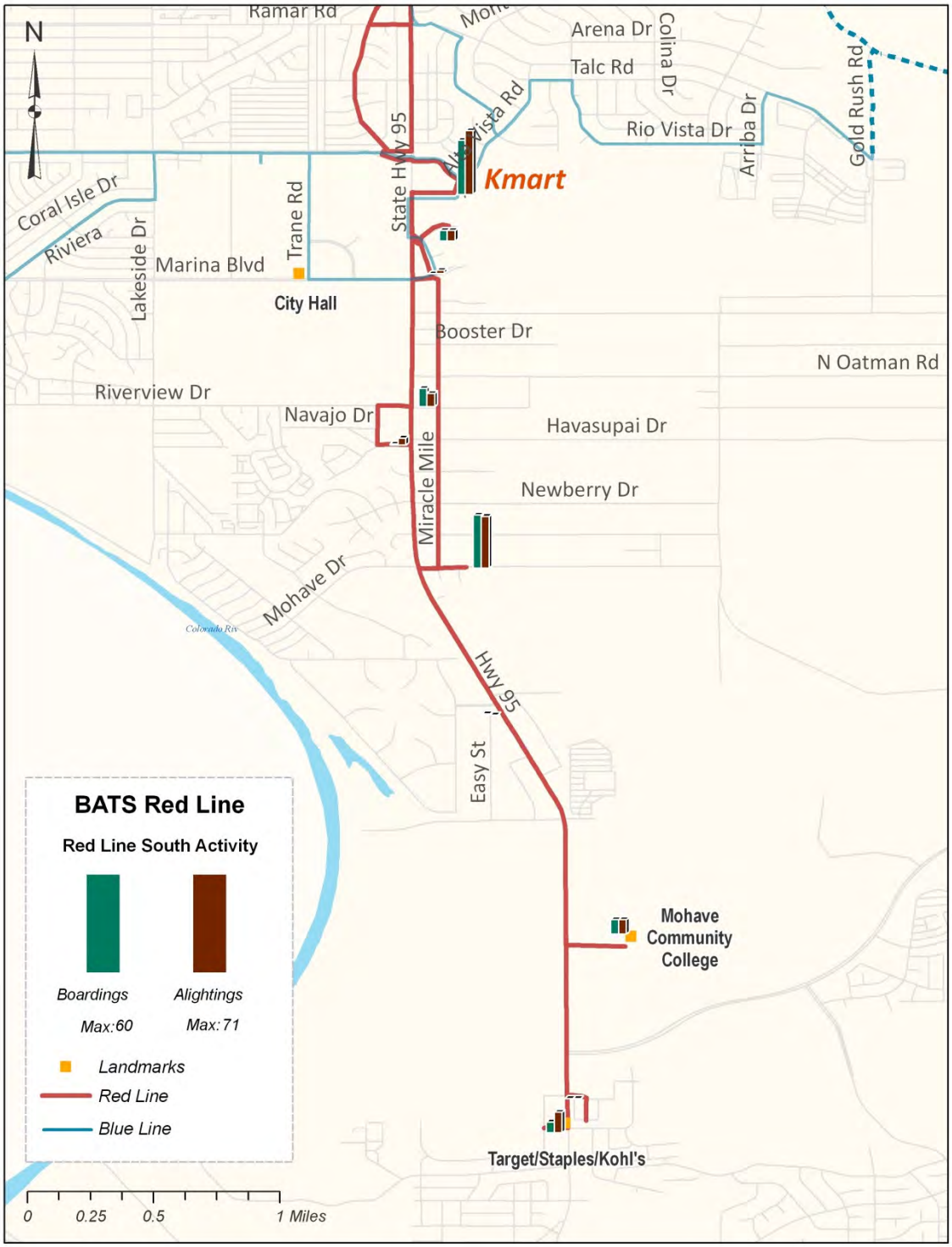


Red Line South

Kmart is the busiest stop on the southern portion of the Red Line (Exhibit 3.8), with 60 boardings observed during the ride check. The second-busiest stop on the Red Line South is the Walmart stop, at which 59 persons boarded. The importance of the Walmart and Kmart stops is highlighted in the Red Line South's load-by-stop chart (see Appendix A).

As the load data suggest, a substantial number of people use the Red Line South to travel between the Kmart and Walmart stops. This trend likely results in part from people transferring from the Blue Line to the Red Line South at Kmart in order to access Walmart. Also contributing to high traffic between these two stops are riders who board along the Red Line's northern segment and stay on the Red Line to travel to Walmart.

Exhibit 3.8 Red Line South Stop Activity



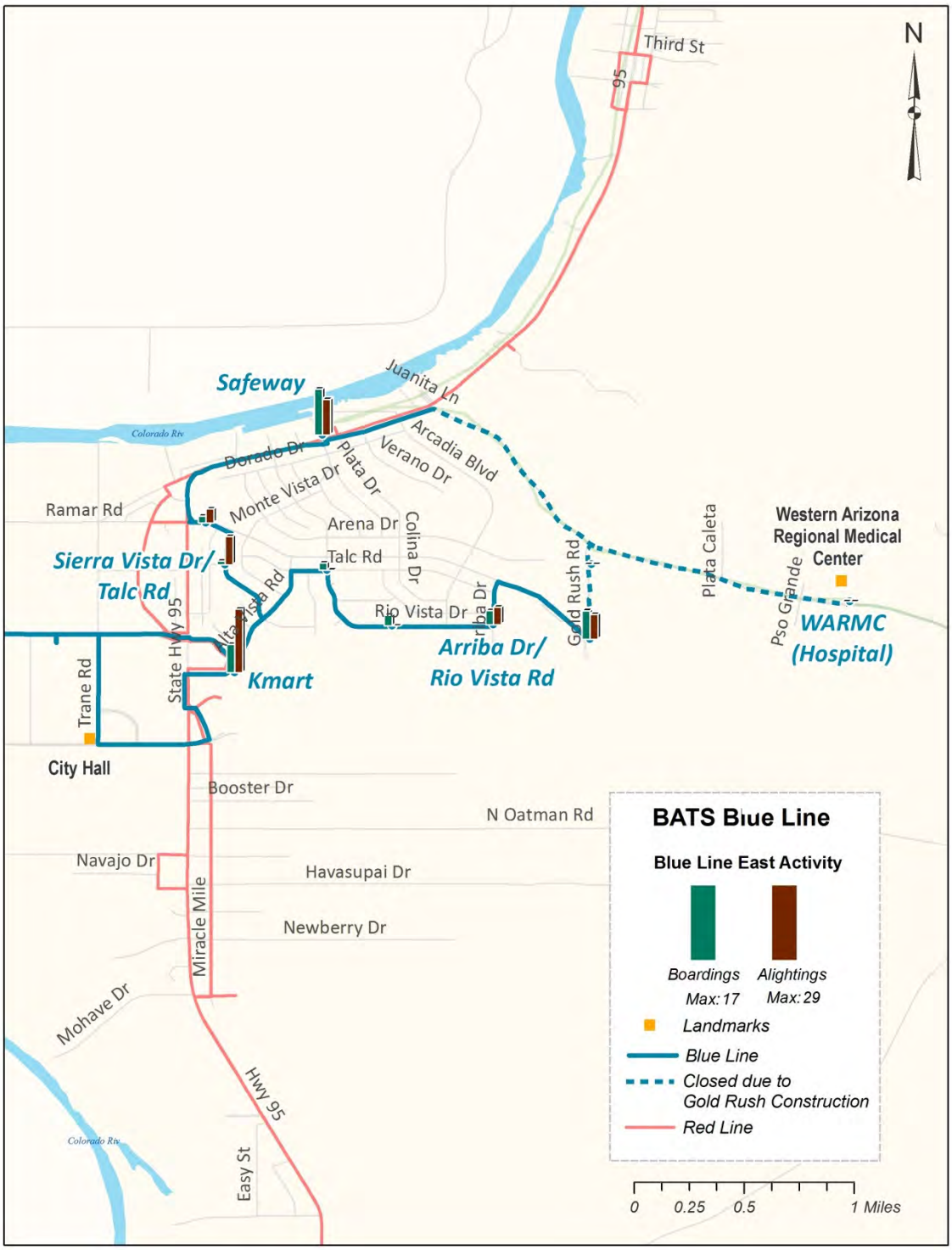
Blue Line East

During the ride check, the highest productivity stops on the eastern portion of the Blue Line were the Safeway stop (17 boardings) and Gold Rush Rd/Ramar Rd (10 boardings). As is the case with the high activity at the Safeway stop for both portions of the Red Line, the relatively high number of Blue Line East boardings at the Safeway stop likely is comprised of riders transferring from the Red Line to the Blue Line.

As the load data in Appendix A reveals, there are no points along the line that stand out as key destinations as the load remains fairly consistent along the length of the route.

Important to note regarding the Blue Line East is the temporary closure of Gold Rush Road between Ramar Road and Silver Creek Road. As a result of the road closure, the Blue Line East did not serve the Gold Rush Business Center or WARMC stops. Therefore, no boardings or alightings were recorded at these locations.

Exhibit 3.9 Blue Line East Stop Activity

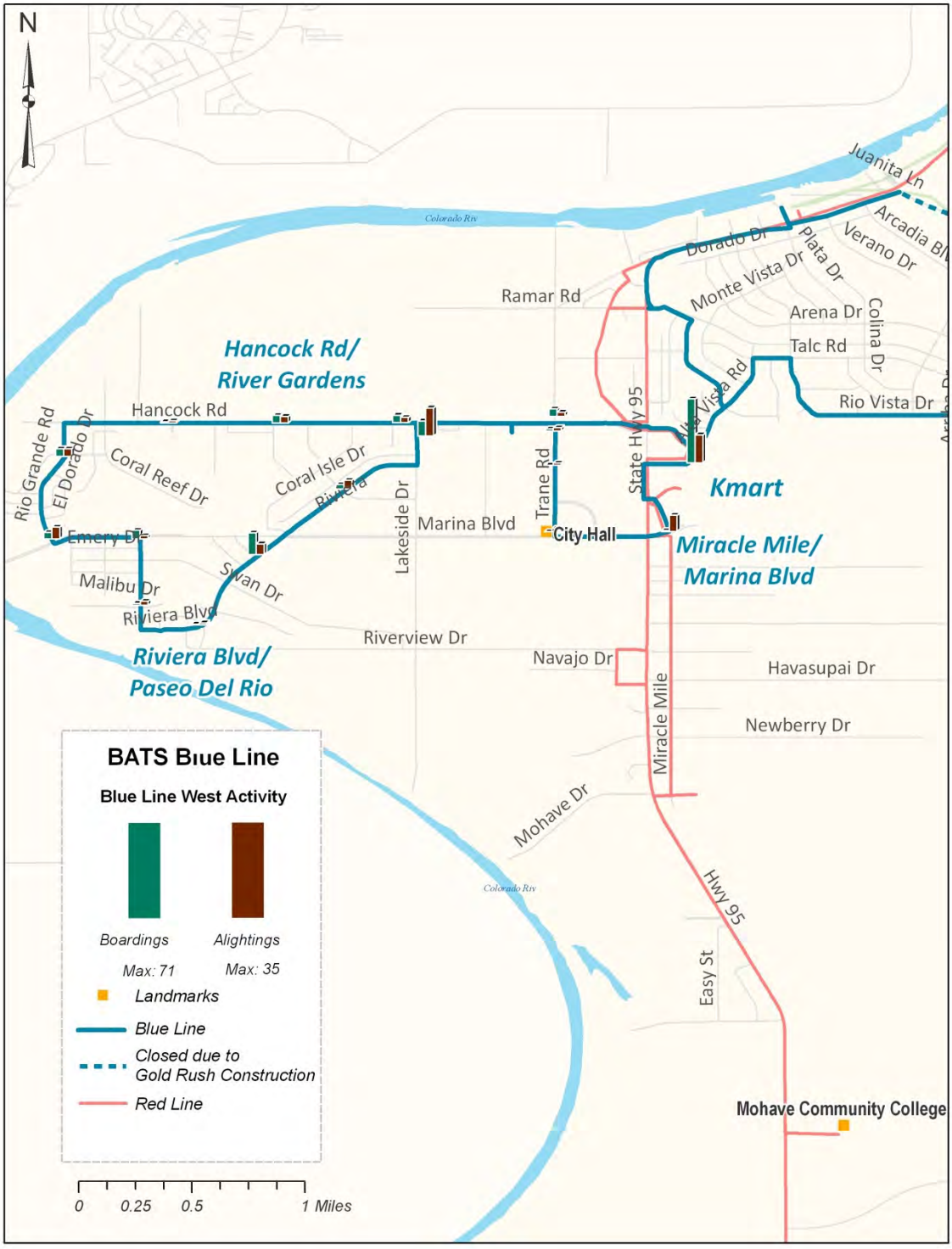


Blue Line West

The Blue Line West (Exhibit 3.10) serves the River Bend portion of Bullhead City and connects with the Blue Line East and the two Red Line segments at Kmart. As with the Red Line South segment, Kmart is the busiest stop on the Blue Line West, with 71 boardings observed during the ride check. Lakeside Drive at Smith's also proved to be a fairly busy stop, with 22 boardings. This stop's relatively high level of activity is likely due to the proximity of Bullhead City Junior High School and Mohave High School, which will likely increase usage by students. It should be noted that by combining the boardings of the two bus stops near Smith's (Lakeside/Smith's and Hancock/Lakeside), the sum of the boardings would equal 32 and thus have a higher overall level of activity than the Family Dollar stop at Riviera Blvd/Commercial Way with 26 boardings.

Load data in Appendix A show the Blue Line West as having a fairly consistent load over the length of the route.

Exhibit 3.10 Blue Line West Stop Activity



Green Line

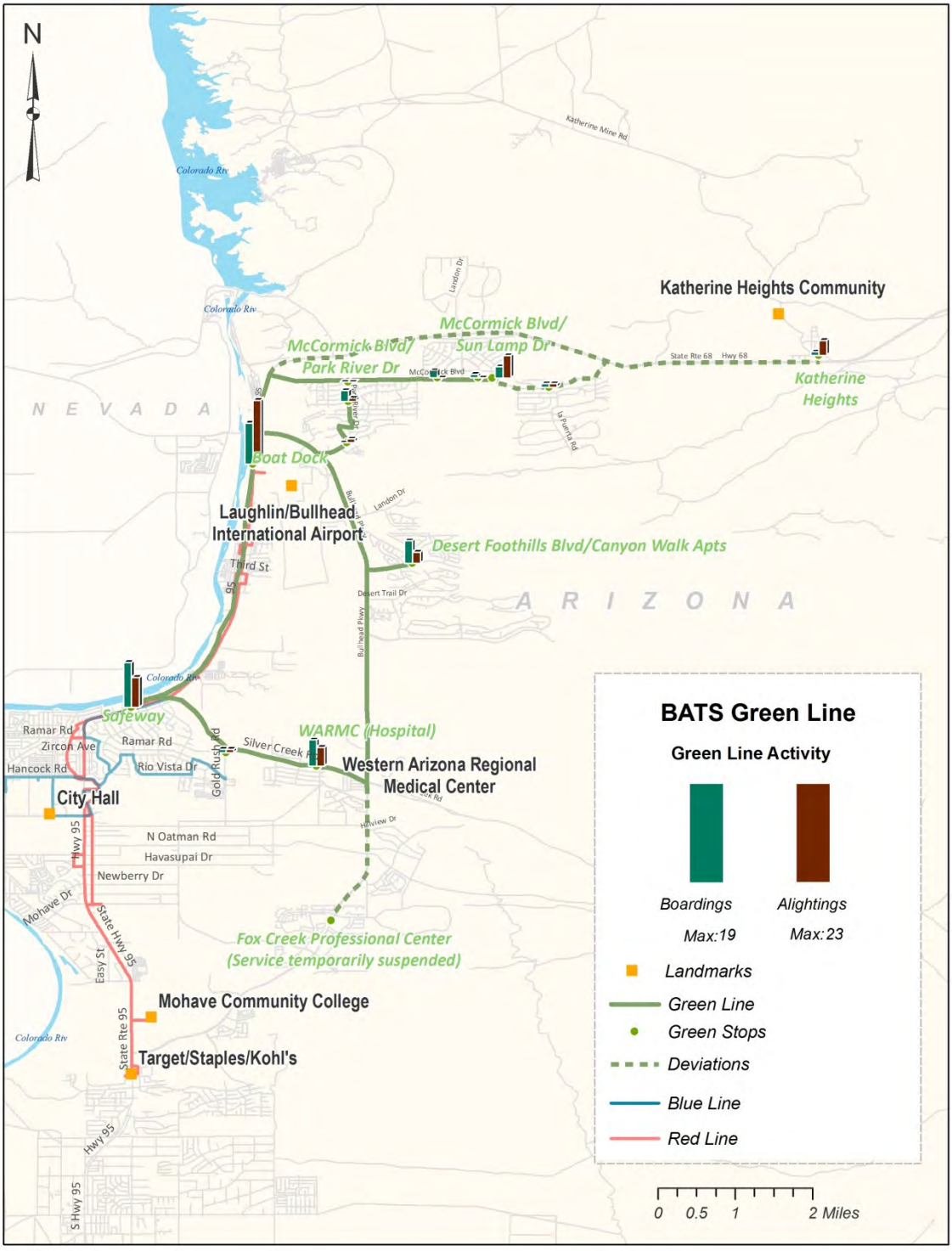
While the Green Line's overall ridership is significantly lower than other routes, the Boat Dock still stands out as the highest activity on the line, with 19 observed boardings during the ride check. The Boat Dock's relatively high use is likely due to Green Line riders using the stop to transfer to/from the Red Line as well as the connecting free water taxi to access employment and entertainment destinations in Laughlin.

Load data for the Green Line emphasize the significant boarding and alighting activity at the Boat Dock. The average passenger load is fairly high when the bus departs the Boat Dock, remains fairly level across the length, then drops sharply when returning to the Boat Dock. As described above, these load patterns suggest people use the Green Line as a means to access the Boat Dock from portions of Bullhead City not served by either the Red or Blue Lines.

During the ride check, Gold Rush Road between Ramar Road and Silver Creek Road was closed. As noted previously, this closure cut off Blue Line service to WARMC. In order to make up for this loss of Blue Line service, the Green Line routing was modified such that before returning from WARMC to the Boat Dock, it travels via Silver Creek Road and State Route 95, stopping at Safeway and connecting with the Blue Line and Red Line. In doing so, the Green Route ensured continued transit access to WARMC and the Gold Rush Business Center stops.

While modifying the Green Route to serve the Gold Rush Business Center and Safeway was primarily intended to mitigate the effects of the Gold Rush Road closure, the adjustment has proven popular among passengers. Evidence of this is the fact that the Safeway stop (albeit initially intended to be a temporary stop) was the second highest productivity stop on the Green Line, with 16 boardings recorded during the ride check. However, some of these boardings may be individuals who are using the Green Line to travel to WARMC and would normally use the Blue Line.

Exhibit 3.11 Green Line Stop Activity



FIXED-ROUTE QUALITATIVE OVERVIEW

As discussed in Chapter 1, the City operates two fixed-route bus lines within Bullhead city limits (Red and Blue Lines), plus a deviated fixed-route service (Green Line) to the community of Katherine Heights, located approximately two miles east of city limits along SR 68. Presented below is a profile of each BATS route, followed by an existing route map in Exhibit 3.12 and the table in Exhibit 3.13, which summarizes the operating hours and frequencies of BATS services.

Important to note is that the map in Exhibit 3.12 shows current BATS routes under normal conditions. During our ride checks, however, the portion of the Blue Line East serving WARMC was closed due to construction on Gold Rush Road. In addition, service was temporarily suspended at the Fox Creek Professional Center stop on the Green Line (south of the WARMC stop). These modifications are noted in the maps illustrating boarding and alighting data in the previous section.

Red Line North and Red Line South

The Red Line can be divided into two segments: the Red Line North and the Red Line South, which operate along SR 95 and meet at Kmart near SR 95's intersection with Hancock Road. The Red Line North provides primarily north-south service along SR 95, connecting Boat Dock at its northern end to Kmart. The Red Line South connects with the Red Line North at Kmart, and serves the southern portion of Bullhead City, connecting Kmart to Target at the southern end of Bullhead City via SR 95.

Blue Line East and Blue Line West

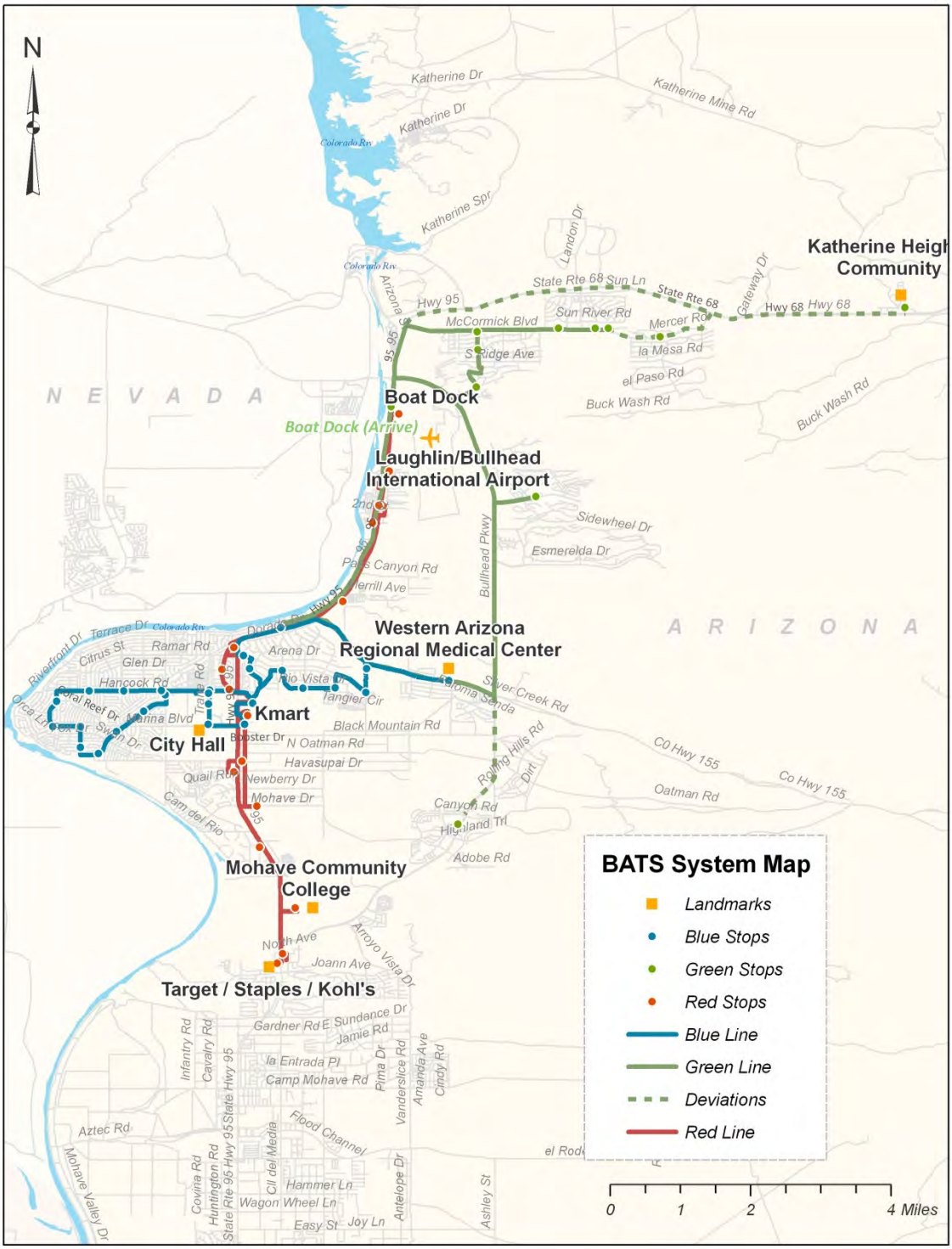
Similar to the Red Line, the Blue Line is comprised of two segments, the Blue Line East and the Blue Line West, which meet at the Kmart along with the two Red Line segments. The Blue Line also connects to the Red and Green Lines at Safeway. The Blue Line East connects Kmart with the Western Arizona Regional Medical Center on Silver Creek Road. The Blue Line West serves destinations in the River Bend neighborhood of Bullhead City, including grocery and retail stores, banks, government facilities, and schools like Mohave High School and the Mohave Accelerated Learning Center.

Green Line

The Green Line serves the eastern portions of Bullhead City and the community of Katherine Heights east of Bullhead City city limits. The Green Line connects residents in eastern parts of Bullhead City with the Blue Line East at the Western Arizona Regional Medical Center (WARMC) and Safeway, and with the Red Line North at the Boat Dock.

Worth noting is that the Green Line provides service to Katherine Heights six times per day during the week, and three times on Saturday. While ridership is low on the Green Line, its service is supported through contributions from the community of Katherine Heights, which provides approximately $13,000 annually, and WARMC, which contributes $60,000 annually to support the City's public transit service. As a part of the agreement the City provides WARMC exclusive medical-related advertising rights on BATS vehicles and bus shelters.

Exhibit 3.12 Current BATS Routes



Service Hours and Frequency

The City's fixed-route service operates weekdays from 6:00 am until 8:00 pm, and on Saturday from 7:30 am until 3:30 pm (service span varies by route). Dial-A-BATS service operates during the same hours as fixed-route service, as required by the Americans with Disabilities Act. Exhibit 3.13 summarizes the operating hours and frequency of each BATS route.

Exhibit 3.13 Operating Hours and Frequency

Line Segment	Operating Hours	Frequency (minutes)
Red Line (Weekday)	Monday-Friday 6:30 am - 7:30 pm	60 minutes (until 5:30 pm); 120 minutes after 5:30 pm
Red Line (Saturday)	Saturday 8:30 am - 2:30 pm	120 minutes
Blue Line (Weekday)	Monday-Friday 6:00 am - 8:00 pm	60 minutes
Blue Line (Saturday)	Saturday 7:30 am - 3:30 pm	60 minutes
Green (Skips Katherine Heights)	Monday-Friday 6:00 am - 1:00 pm and 4:00 pm - 8:00 pm; Saturday 8:00 am - 2:00 pm	60 minutes
Green (Including Katherine Heights)	Monday - Friday 6:11 am - 12:11 pm and 4:11 pm - 7:11 pm; Saturday 8:11 am - 1:11pm	Three morning runs, one midday run, two evening runs on weekdays; two morning runs and one afternoon run on Saturday
Dial-A-BATS	Monday-Friday 6:00 am - 8:00 pm; Saturday 7:30 am-3:30 pm	Reservation-based

Directness

Transfers Required

The number of transfers required is one common method to measure directness, so we asked riders in the 2013 onboard survey how many transfers their trip required. Approximately one-third indicated needing to make at least one transfer during their trip, indicating the majority of BATS riders are able to make a "direct" trip in the sense that they do not need to change vehicles at any point during the trip. See page 30 for additional detail on the 2013 Onboard Survey.

Deviation from Most Direct Path Between Route Termini

As described in *TCRP Report 88: A Guidebook for Developing A Transit Performance Measurement System*, service directness is also measured as the difference in time or distance between a route's start and end points following the route itself versus traveling the most direct route (i.e., shortest distance) between the two points. Although we did not have an opportunity to compare driving times versus

transit travel times, we compared the transit route distance to the most direct route distance between the start and end points of each BATS route using Google Maps. Exhibit 3.14 compares these two distances, as well as the ratio of the transit route distance versus the distance of the most direct path between the route's start- and end-points. For example, the route followed by the Red Line from Target to Kmart is 1.2 times longer than the most direct route between those two destinations.

Exhibit 3.14 BATS Route Directness

Route	Distance in Miles		Ratio
	Following Transit Vehicle Route	Following the Most Direct Route	
Red Line North (Round Trip)	12.1	10.4	1.2
Red Line South (Round Trip)	10.1	8.6	1.2
Blue Line East (Round Trip)	7.4	6.4	1.2
Blue Line West (Round Trip)	7.2	5.6	1.3
Green Line (to Fox Creek, skips Katherine Heights)	15.5	7.4	2.1
Green Line (to Fox Creek via Katherine Heights)	23.2	7.4	3.1
Green Line (Return to Boat Dock)	7.4	7.4	1.0

While the distance comparison shown in Exhibit 3.14 provides an approximate comparison of how "direct" each route is (i.e., the Blue Line is far more direct than the Green Line), it does not necessarily give an accurate idea of how much more *time* the transit route requires than the most direct route. While travel time is affected by distance, other factors such as congestion, signal delay, loading time, and road type also play a significant role. For example, while the Red Line North travels 1.2 times farther than the most direct possible path, it likely requires more than 1.2 times as much time because in numerous locations it deviates onto slower side streets and into parking lots, which reduce its speed in addition to increasing the distance it travels.

The "most direct" distance for the Green Line does not change even when passing through Katherine Heights because it measures the distance between the start- and end-points of the line. In other words, although buses may take a longer route when serving Katherine Heights, their start-point is still the Boat Dock and their end-point is still Canyon Road.

This distance-based method of determining directness should not be considered an evaluation of each line, but rather a description. That is, a routing that is very indirect because it traces a significantly longer path between its two end points should not necessarily be considered an "inferior" line that needs to be made more direct. Such an approach would assume that the purpose of the line is to move people between the two end-points and between points that lie along or near the most direct path, which is not always the case.

PATRON CONVENIENCE

Speed

Each BATS route's speed was calculated by dividing the distance it traveled between its first and last scheduled stops by the published scheduled time required to travel between those two stops. For instances in which there is a layover between the first and last stop, such as the Red Line's five-minute layover at the Boat Dock, the layover time was subtracted from the scheduled travel time. We subtracted layover time so that the average travel speed was not artificially lowered by the layover period. Exhibit 3.15 lists each line's average speed.

Exhibit 3.15 Average Operating Speeds

Route	Distance in Miles	Travel Time (Minutes, Without Layover)	Average Speed (MPH)
Red Line North (Round Trip)	12.1	49	14.8
Red Line South (Round Trip)	10.1	45	13.5
Blue Line East (Round Trip)	7.4	25	17.8
Blue Line West (Round Trip)	7.2	26	16.6
Green Line (Excluding Katherine Heights)	15.5	50	18.6

Loading Time

Loading or dwell time defines the time elapsed between when a bus comes to a complete stop at a bus stop and when it begins moving again to depart. Dwell time provides insight into how quickly and efficiently people are able to board and alight, pay their fare, etc. Given these parameters, dwell times were not calculated for stops at which there were layovers, such as the Boat Dock, Kmart, and Mohave Community College stops.

In most instances, dwell times were less than a minute, and longer dwell times tended to correlate with drivers assisting passengers with mobility impairments and/or mobility devices, and a greater number of boardings and alightings. Exhibit 3.16 lists those BATS stops with the longest dwell times measured during the ride check. The Walmart stop overall had the longest dwell time: two runs measured during the ride check had dwell times of less than a minute, eight runs had dwell times of one to two minutes, another eight runs had dwell times of two to three minutes, and on six occasions, buses loading at the Walmart stop had a dwell time of more than three minutes.

Exhibit 3.16 Stops with Longest Dwell Times

Stop	Dwell Time			
	Less than 1 Minute	1 to 2 minutes	2 to 3 Minutes	More than 3 Minutes
Walmart at Mohave Dr	2	8	8	6
Safeway	6	2	5	3
Target at Ash Ave/Long Ave	1	6	2	3
Third St/Hwy 95	8	14	3	1
Sixth St/Long Ave	5	5	2	1
Rancho Colorado Blvd/Hwy 95	14	10	1	1
McCormick Blvd/Sun Lamp Dr	5	4	1	1
Hancock Rd/River Gardens	16	1	1	1
Riverview Dr/Hwy95	13	10	0	1
Rio GrandeRd/Rio Grande Way	16	2	0	1

Bus Stop Locations

Sixty-one percent of onboard survey respondents indicated walking less than four blocks to access the bus stop from their starting location, while an additional 21 percent reported walking more than four blocks to access the stop. In addition, nearly 88 percent of riders believed safety at bus stops was either "very good" or "excellent."

Among community survey respondents who were not recent transit riders, 20 percent reported not using BATS services given the closest BATS stop was too distant from their home.

Service Dependability

Mechanical Dependability

Considering the relatively small size of the BATS system, as well as the relatively limited period during which we conducted the ride check, we encountered a fairly high number of mechanical issues that affected service dependability. During that time, one bus broke down on the Green Line and a replacement bus was dispatched to replace it. Five runs on the Blue Line East and six runs on the Blue Line West needed to have ride checks performed twice as a result of mechanical issues causing delays during the first ride checks. In addition, a ride checker reported that on one of the buses (Number 8114), a leaking air conditioner required five seats to be closed off.

The mechanical encounters experienced during the four-day ride check prompted a more extensive review of vehicle maintenance records to evaluate the general dependability of the fixed route fleet. During fiscal year 2013, the fleet mechanic responded to a service call to meet a bus while in route 15 times to address a variety of mechanical issues. Most of these road calls were for fairly simple issues like replacing a head light, fixing a door switch, or improving the air conditioning. One of these service calls

required a replacement bus be put into service. The data reflects an average of 1.25 road calls per month for issues that can be addressed in 10 minutes or less. More extensive mechanical malfunctions that require a bus to be taken out of service are far less frequent at the average rate of 0.08 times per month.

Another way to evaluate mechanical dependability is to measure the number of service miles between vehicle breakdowns[5]. BATS fixed route vehicle repair and maintenance records for fiscal year 2013 reflect very good performance. During that time period, the transit system operated 214,588 service miles, experiencing only one vehicle breakdown system-wide.

Gold Rush Road Closure

Also affecting service dependability was the closure of Gold Rush Road between Ramar Road and Silver Creek Road. While this closure was beyond the control of BATS and is very likely not the norm, it nonetheless negatively affected service, particularly patrons seeking to access WARMC from the Blue Line. Without the direct Blue Line connection, patrons traveling to WARMC found it necessary to transfer to the Green Line at Safeway in order to reach the hospital.

[5] Vehicle breakdowns defined as breakdowns causing significant impacts to published schedule adherence.

PASSENGER COMFORT

Bus Stop Amenities

Of the 56 bus stops in the current BATS system, all have at least identifying signage. Twenty-two feature benches, while 20 also have shelters. Upgrades such as benches and shelters are generally positioned at busier stops, such as Safeway, as well as at stops that are key transfer points in the system, such as Kmart (which has a bench, but no shelter).

Information Dissemination

Information about BATS services and service changes is available at the following locations:

- The City's website features a downloadable route map, schedules in both HTML and downloadable PDF formats, updates regarding service changes, fare information, and operating hours.
- BATS stops (on info-posts).
- Inside the BATS vehicles.
- Inside various public places such as the Chamber of Commerce's Visitor Center, County Library, City Hall, Senior Center, State Department of Economic Security (DES), businesses at or near bus stops such as WARMC, Southwest Behavioral Services, and WestCare of Arizona.

DIAL-A-BATS EVALUATION

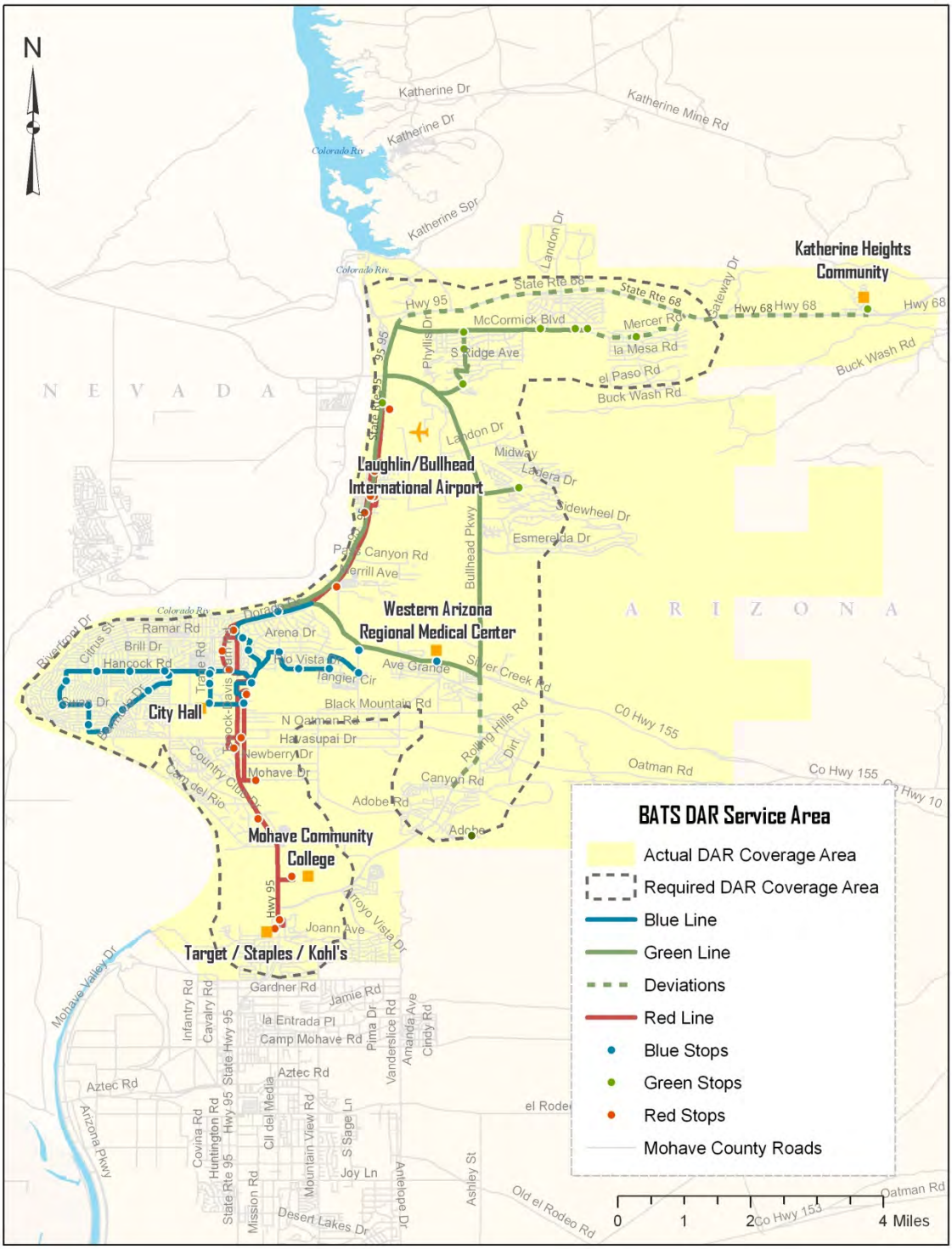
Overview

Dial-A-BATS (DAB) offers a curb-to-curb, shared-ride, reservation-based service and is open to pre-qualified persons who have a disability that prevents them from using BATS fixed-route services. DAB serves trips within Bullhead City city limits, as well as trips starting or ending in Katherine Heights. As the map in Exhibit 3.17 illustrates, the current DAB service area exceeds the current Americans with Disabilities Act (ADA) requirements that demand-response service be provided within ¾ mile of all fixed-route transit service.

Trips on Dial-A-BATS are reserved through either phone or email to the BATS Dispatch Office. Patrons are instructed to schedule their trip a day in advance and rides are arranged on a first-come, first-served basis. Upon confirming a pickup time, the DAB vehicle will arrive within 30 minutes of the scheduled pick-up.

DAB service is only available to approved riders who have a disability that prevents them from using fixed-route service. Prospective patrons seek approval by completing a DAB application and including documentation of their disability from a licensed medical professional.

Exhibit 3.17 Dial-A-BATS Service Area



Dial-A-BATS Operations Data

Exhibit 3.18 summarizes DAB operating statistics while Exhibit 3.19 presents DAB's performance on measures of efficiency and effectiveness. As Exhibit 3.18 shows, DAB provided just over 6,500 trips to customers and an additional 500 trips to Personal Care Attendants (PCAs). Providing these trips cost a little more than $183,000[6] in operating expenses in Fiscal Year 2013.

Exhibit 3.18 Dial-A-BATS Operating Statistics (FY 2013)

Dial-A-BATS Operating Statistics	
Unlinked Trips (Excluding PCAs)	6,504
Total PCA Trips	505
Total Unlinked Trips	7,009
No-Shows/Late Cancellations	1,218
Vehicle Service Hours	3,817
Vehicle Service Miles	47,944
Operating Expenses	$183,036
Fare Revenue	$4,837

Exhibit 3.19 Dial-A-BATS Performance Statistics (FY 2013)

Dial-A-BATS Performance	
Service Efficiency	
Cost/Vehicle Service Hour (VSH)	$47.95
Cost/Vehicle Service Mile (VSM)	$3.82
Cost/Unlinked Trip	$26.11
Average Collected Fare/Trip	$0.69
Average Subsidy per Unlinked Trip	$25.42
Farebox Recovery	2.6%
Service Effectiveness Measures	
Unlinked Trips/VSH	1.84
Unlinked Trips/VSM	0.15

[6] Dial-A-BATS accounts for 22.3 percent of all Vehicle Service Hours. Total operating cost for FY 2013 was $820,393.22. Figures may not match due to rounding.

FLEET EVALUATION

Current Fleet

Exhibit 3.20 presents information on all vehicles the City currently uses either for revenue service or that are exclusively used for program support.

Revenue Fleet

The City's fixed-route service currently uses seven revenue vehicles. Six of these vehicles are gas-powered cutaway vans, while one is a diesel-powered Freightliner bus. Given the City has as many as four vehicles in revenue service at any one time, the City has three spare vehicles at its disposal.

Dial-A-BATS relies primarily on one 2009 Dodge Grand Caravan with seating capacity for three passengers. Supplementing DAB service are two City-owned vehicles operated by the City's Senior Center Transportation program. While these two vehicles operate in support of DAB services, we did not include them in Exhibit 3.20 as they are not directly assigned to BATS.

Non-Revenue Fleet

Supporting the City's revenue transit fleet is an older (1998) Dodge Caravan, an electric Gatomoto cart, and three golf carts. These vehicles are used to provide transportation for BATS staff and equipment as needed.

Exhibit 3.20 City Transit Fleet

Make	Model	Year	Purchase Price	Seating Capacity	Condition
BATS Fixed-Route Vehicles					
Freightliner	Bus	2007	$124,868	34	Good
Chevy	Minibus	2010	$115,598	21	Good
Chevy	Minibus	2010	$115,598	23	Good
Chevy	Minibus	2010	$115,598	23	Good
Chevy	Minibus	2010	$115,598	23	Good
Chevy	Minibus	2012	$129,993	23	Excellent
Chevy	Minibus	2012	$129,993	23	Excellent
Dial-A-BATS Vehicle					
Dodge	Grand Caravan	2009	$38,987	3	Good
Non-Revenue Support Vehicles					
Gatomoto	Electric Cart	2010	$12,825	4	Good
Dodge	Caravan	1998	n/a	5	Good

PEER COMPARISON

We compared the City's public transit program with three other "peer" operators: Show Low, Arizona; Josephine County, Oregon; and Delano, California. Among communities in the western U.S., these peers are most similar to BATS in terms of their service area populations and number of annual unlinked trips. In addition, each of these communities' service areas is reasonably similar to Bullhead City in terms of population density and distribution.

Performance Comparison

Our comparison, summarized in Exhibit 3.21, looked at measures of efficiency and effectiveness including unlinked trips per service hour, cost per service hour, and farebox recovery for fixed route service. As Exhibit 3.21 presents a comparison of fixed-route services only, BATS' performance in comparison to its peers depends somewhat on the measurement considered. BATS' productivity as measured by unlinked trips per vehicle service hour is the lowest among the systems, though not by a significant margin. In contrast, the BATS service is fairly efficient, with the second lowest operating cost/vehicle service hour and vehicle service mile. One outcome of this relatively high efficiency is that BATS has higher farebox recovery than any of the peers, with fares covering approximately 21 percent of operating costs.[7]

Exhibit 3.21 Fixed-Route Peer Comparison

	Bullhead City	Show Low, AZ	Josephine County, OR	Delano, CA
Service Characteristics				
Service Area Population	39,571	50,000	43,000	52,005
Total Unlinked Trips	156,312	203,256	150,739	155,088
Total Operating Cost	$637,357	$510,172	$1,166,192	$1,350,942
Total Farebox Revenue	$140,683	$69,900	$55,262	$58,104
Performance Indicators				
Unlinked Trips/VSH	11.8	19.1	12.5	16.0
Operating Cost/VSH	$47.95	$47.94	$96.41	$139.23
Operating Cost/VSM	$2.97	$1.95	$7.31	$6.05
Operating Cost/Unlinked Trip	$4.08	$2.51	$7.74	$8.71
Average Fare/Rider	$0.90	$0.34	$0.37	$0.37
Farebox Recovery	22.1%	13.7%	4.7%	4.3%

Potential Factors Explaining Differences in Farebox Recovery and Productivity

Farebox recovery is a product of both expenses and revenue, and is affected by fares, ridership, service type, and operating costs. BATS' relatively high farebox recovery rate of 22.1 percent is a result of its comparatively low hourly operating cost of $47.95/VSH and comparatively high fare paid/passenger, which is more than double the average per-passenger fare of any of its peers. This relatively high average fare paid per passenger may also partly explain BATS' somewhat lower productivity, as higher prices will dissuade some people from using the service.

[7] Population data from 2011 five-year American Community Survey.

ONBOARD CUSTOMER SURVEY

The 2013 onboard survey provided data about who uses BATS services and the reasons for riding. We also gained valuable, first-hand insights from riders as to what they believe are the program's strengths as well as areas of potential improvement. We conducted the onboard survey from Wednesday, September 4 through Saturday, September 7, 2013, and collected 156 valid responses. In some instances, a respondent may not have answered every question. Therefore, in each exhibit showing the answers to each question, we provide the total number of respondents (*n*) for the specific question. Below are the results of our onboard survey, as well as insight gleaned from the data.

Questions 1 and 2: Where did you board the bus today (bus stop)?/where will you get off the bus today?

We asked riders to identify the intersections at which they boarded and where they planned to alight. To make it simpler for riders who may not have been familiar with the street names, we also asked them to write the name of the destination nearest the stop, such as "Canyon Walk Apartments" or "Kmart."

The goal of these questions was to gain a better understanding of where people are traveling to and from and determine whether there were any notable patterns that appeared. While no overwhelming patterns emerged, we found several popular origin-destination pairs, which are listed in Exhibit 3.22. Also important to note is that out of the 156 riders who completed a survey, only 104 indicated both their boarding origin and alighting destination. Only their responses were considered when creating Exhibit 3.22.

Bearing in mind the limitations of the data in Exhibit 3.22, it nonetheless highlights the Boat Dock as the busiest stop in the system, as it is either the origin or destination in 57 percent of the top 14 origin-destination pairings. Interestingly, four people indicated traveling between the Canyon Walk Apartments and Safeway. While only four people indicated this origin-destination pair, it is the second-most reported among stated pairs. This finding also corroborates the finding above showing the Safeway stop as the second busiest Green Line stop. The construction on Gold Rush Road was completed on October 1, 2013, and BATS has continued Green Line service to Safeway.

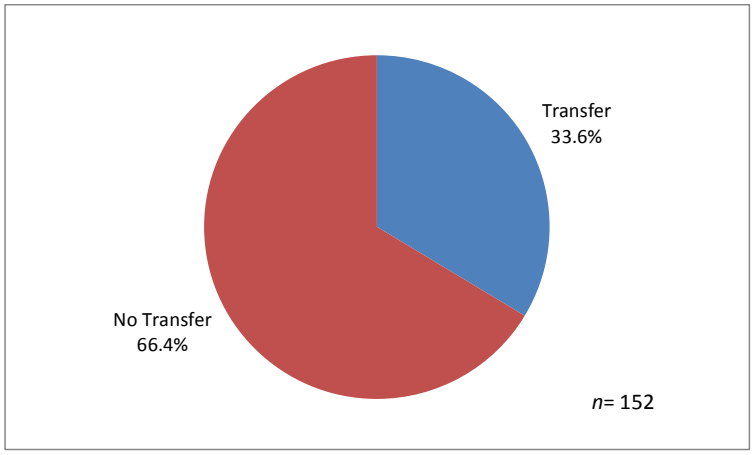
Exhibit 3.22 Top Origin-Destination Pairings: Fixed-Route

Origin	Destination	Respondents with This Origin/Destination Pair
Kmart	Boat Dock	6
Canyon Walk Apt	Safeway	4
Target	Boat Dock	3
Gold Rush Apartments	Kmart	2
Family Dollar	Safeway	2
Glenridge	Safeway	2
Safeway	Boat Dock	2
Katherine Heights	Boat Dock	2
Boat Dock	Safeway	2
Walmart	Boat Dock	2
Safeway	Kmart	2
WARMC	Boat Dock	2
Canyon Walk Apts	Boat Dock	2

Question 3: Does this trip include a transfer to another BATS bus?

Approximately one-third of those riders surveyed, as shown in Exhibit 3.23, reported needing to make at least one transfer to complete their journey.

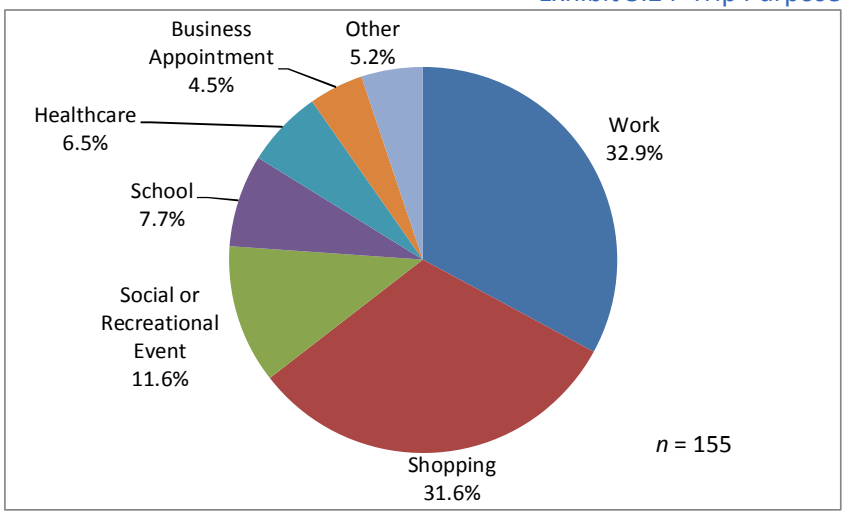
Exhibit 3.23 Incidence of Intra-Service Transfers



Question 4: What is the primary purpose for today's trip?

As shown in Exhibit 3.24, nearly two-thirds of respondents stated they were using BATS to travel to work or go shopping. These results suggest BATS plays an important role in the lives of riders as well as the Bullhead City economy by linking residents with employment and shopping opportunities.

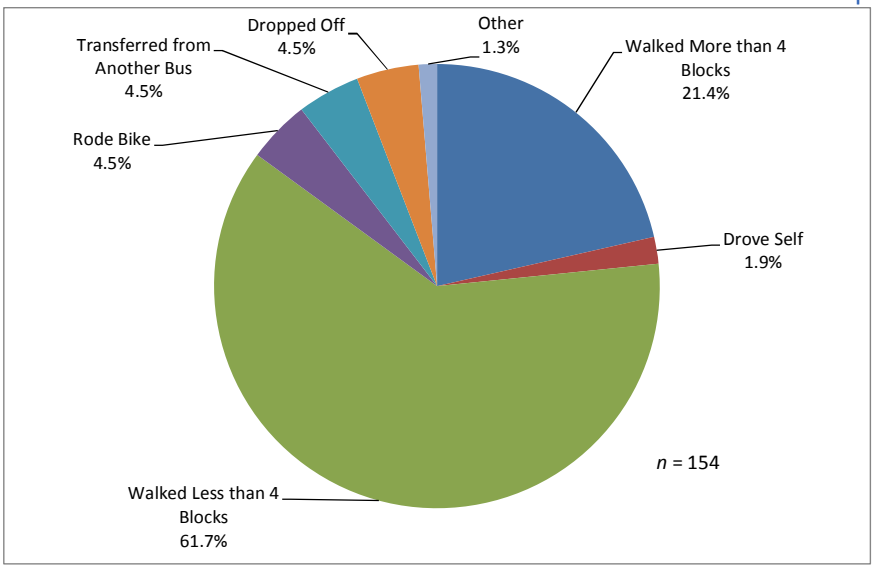
Exhibit 3.24 Trip Purpose



Question 5: How did you travel to the origin bus stop?

Approximately 83 percent of surveyed riders reported accessing the bus stop at which they boarded the bus by walking, with 62 percent stating they walked less than four blocks. The clear majority of people accessing transit service by walking suggests that geographic convenience plays a role in determining whether people will decide to use, or at least try, BATS services.

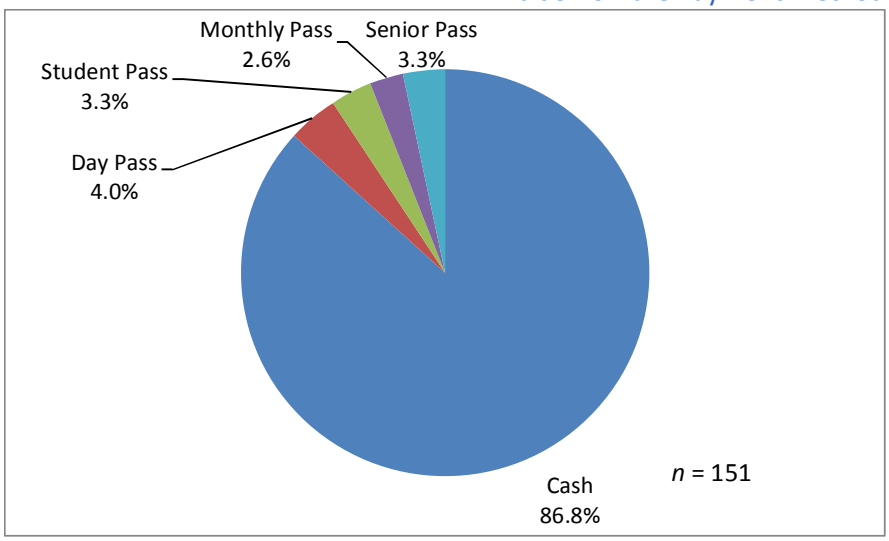
Exhibit 3.25 Access to Bus Stop



Question 6: How did you pay for this ride?

The vast majority of BATS riders (87 percent) paid their fare with cash. Although other methods such as a monthly pass are available, the relatively high cost of a monthly pass ($48) and relatively low cost of a single-ride cash fare (one dollar) likely encourages even regular riders to pay using cash. Additionally, even if a rider spends more over the course of a month by paying for single rides instead of purchasing a monthly pass, it may be difficult for many riders to make a single payment of $48 for the pass.

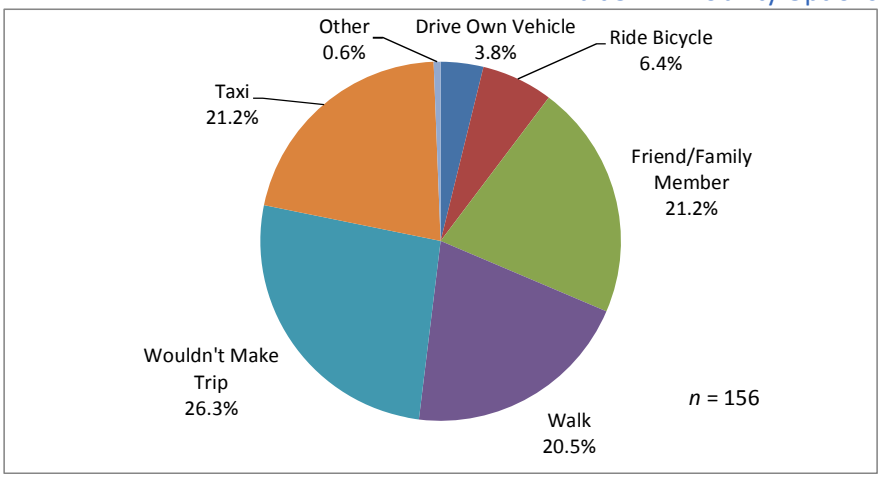
Exhibit 3.26 Fare Payment Method



Question 7: How would you have traveled if BATS service had not been available?

The results in Exhibit 3.27 illustrate the likely difficulties current transit riders would face if BATS service were not available. More than one quarter stated they would not make the trip, while more than 40 percent stated they would either take a taxi, which is expensive, or walk, which is time-consuming and potentially difficult in the hot Bullhead City climate.

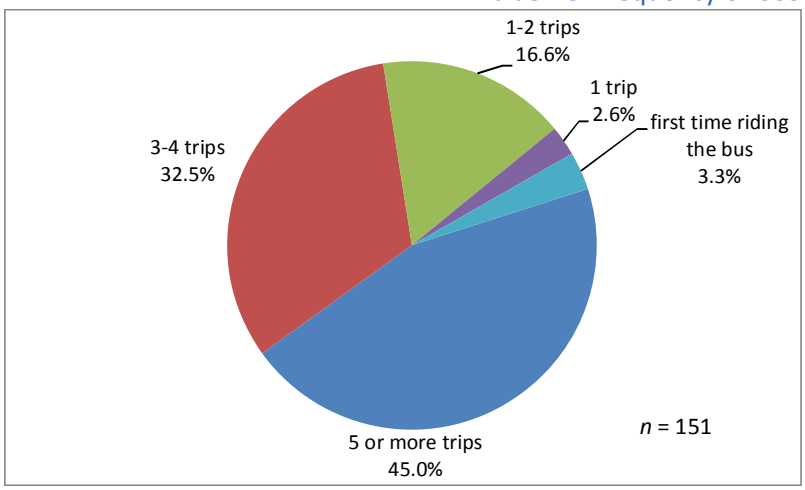
Exhibit 3.27 Mobility Options



Question 8: In a typical week, how many one-way trips do you make using the BATS service?

As Exhibit 3.28 shows, people who use BATS are generally frequent users, with approximately 45 percent making five or more trips per week on the service, and an additional 32 percent making three to four weekly trips. This relatively frequent use among surveyed riders likely connects with the results to Question 7, which indicate that people riding BATS do not have many easy alternatives to the service, thus causing them to be more frequent riders.

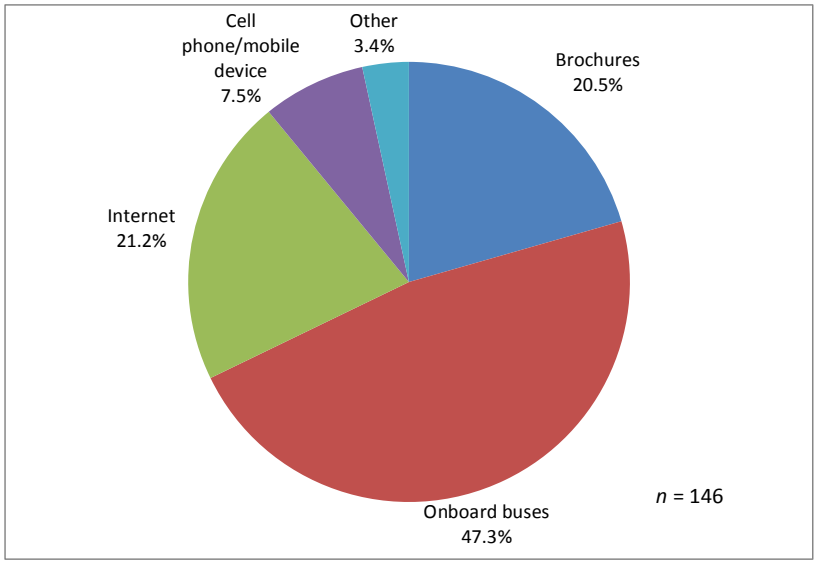
Exhibit 3.28 Frequency of Use



Question 9: What is your most common method for obtaining information regarding the BATS services?

Nearly half of surveyed riders indicated receiving service information onboard buses (e.g., asking drivers) most of the time. However, internet and service brochures were also common methods, collectively cited by 42 percent of respondents. These results suggest that ensuring clear, up-to-date information on the City's transit website and schedules is important in ensuring proper dissemination of transit service information.

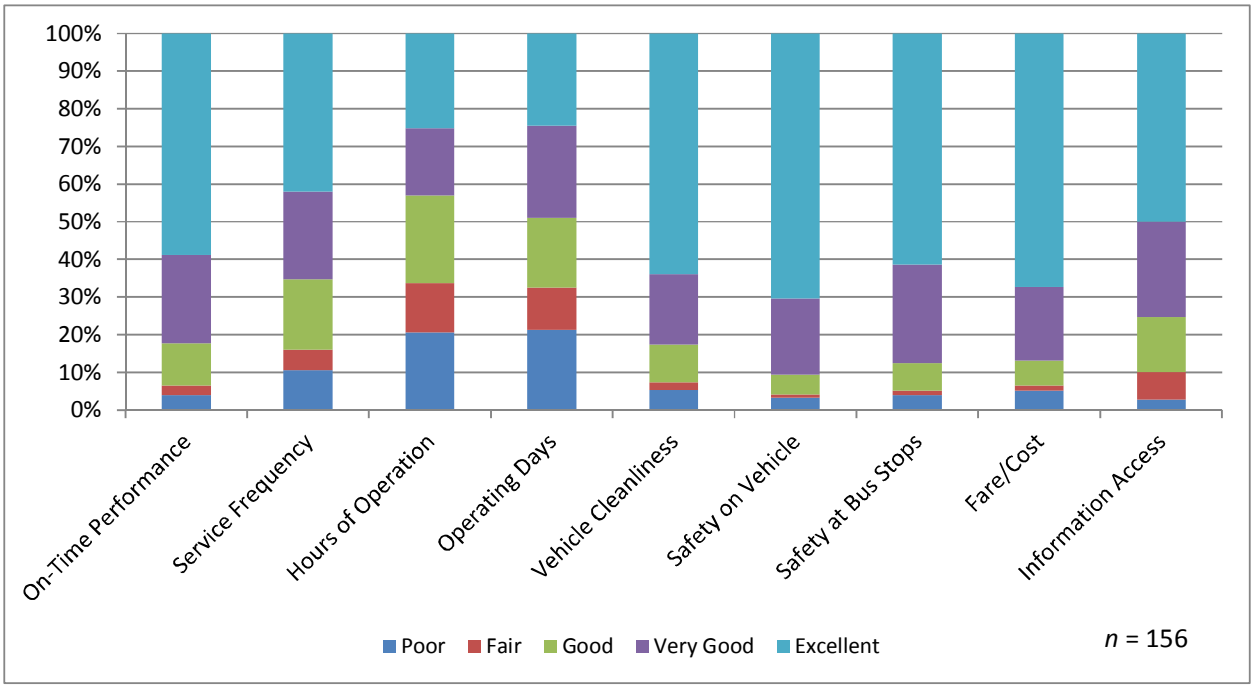
Exhibit 3.29 Access to Transit Information



Question 10: Please rate each of the following service characteristics on a scale of 1-5 (wherein 1=poor and 5=excellent).

Surveyed riders, whose responses are illustrated in Exhibit 3.30, had a very favorable opinion of most BATS service characteristics, particularly vehicle cleanliness, onboard safety, stop safety, and fares, giving these characteristics ratings of "very good" or "excellent." Passengers showed the least satisfaction with amount of service provided, particularly with the span of service and the fact that service does not operate on Sunday. In each of these areas, more than 30 percent of respondents rated these areas as either "fair" or "poor."

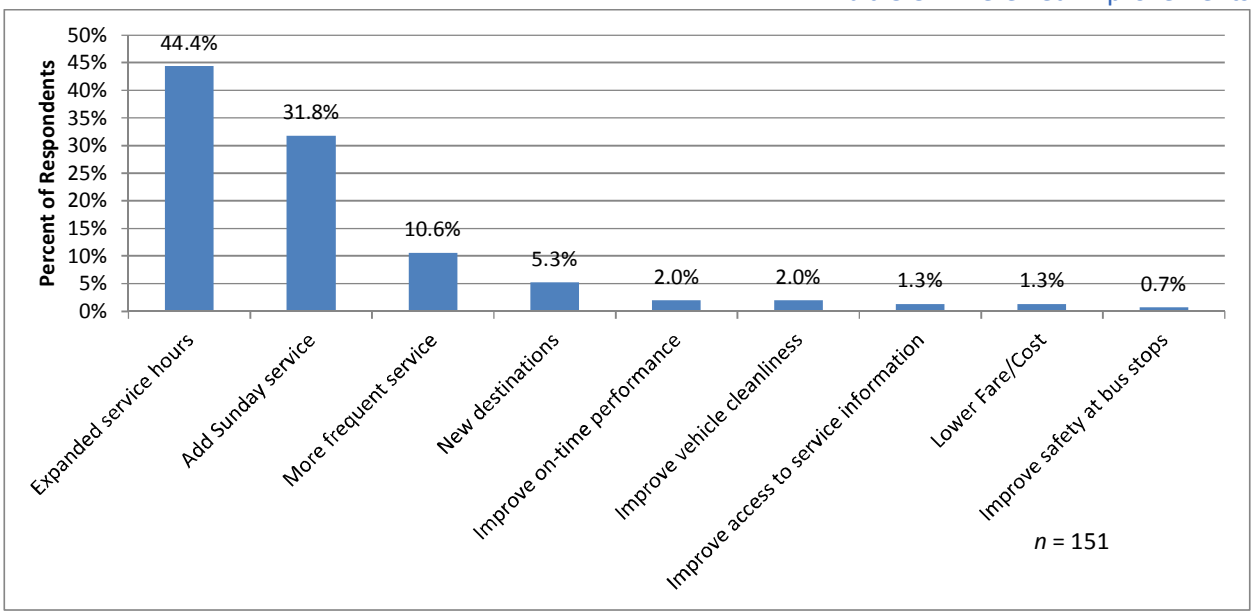
Exhibit 3.30 Service Characteristic Satisfaction



Question 11: Select the one service improvement which is most important to you.

Exhibit 3.31 indicates the improvements most desired by surveyed riders, with expanded service hours and Sunday service standing out as the most-preferred improvements by a majority of riders. Given the results of Question 7, which suggest many BATS riders lack a readily available mobility alternative, these many riders likely feel their ability to make appointments, work off hours, or carry out social activities on weekends is significantly constrained by current BATS operating hours.

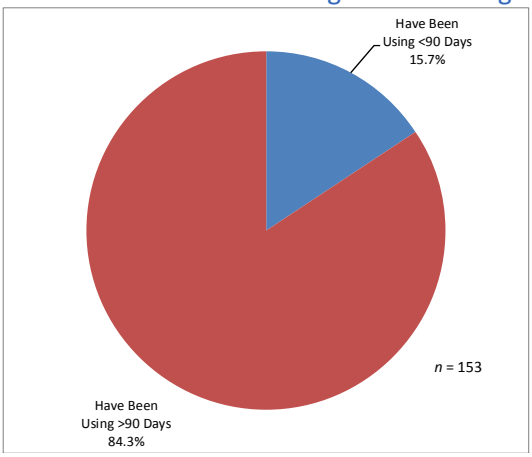
Exhibit 3.31 Preferred Improvements



Questions 12 and 13: Length of time using BATS service

As Exhibit 3.32 indicates, most BATS riders are not "new" riders, with 84 percent stating they began using the service more than 90 days ago. Question 13 of the survey caused confusion amongst respondents, and a discrepancy arose. We have removed Question 13 from survey analysis as it does not present any significant information. Regardless of any apparent discrepancy in survey responses between Questions 12 and 13, responses clearly indicate that the vast majority of BATS users have been using the service for a while.

Exhibit 3.32 Length of Patronage

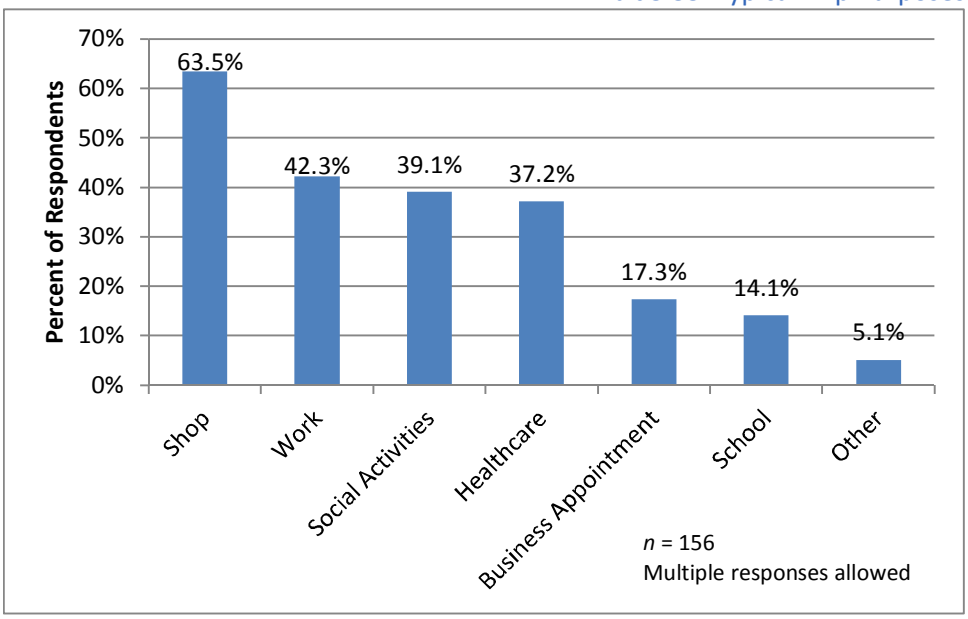


Question 14: When I ride the bus, it's usually because I'm going to… (choose all that apply)

While Question 4 asked riders why they were taking the specific trip during which they took the survey, Question 14 asked riders to describe more generally what trip types they tend to use BATS for, and were allowed to select multiple answers. Similar to the results for Question 4, shopping and work were the most commonly stated trip purposes, although when allowed to choose multiple answers, nearly 40 percent of respondents indicated social activities as a trip purpose.

Important to note is that because respondents were allowed to select multiple answers, the percentages in Exhibit 3.33 add up to more than 100 percent.

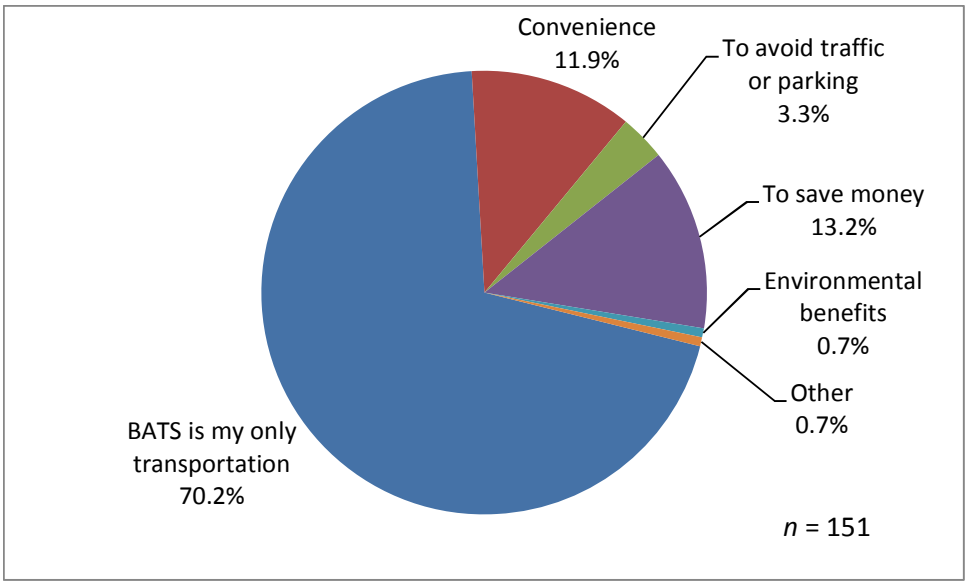
Exhibit 3.33 Typical Trip Purposes



Question 15: The main reason why I ride the bus is…

Seventy percent of surveyed riders use BATS because they lack an easily accessible and affordable travel alternative. This finding corroborates the responses to Question 7, which indicate that if BATS service was not available, many current transit riders would either not make the surveyed trip, they would walk, or take a taxi.

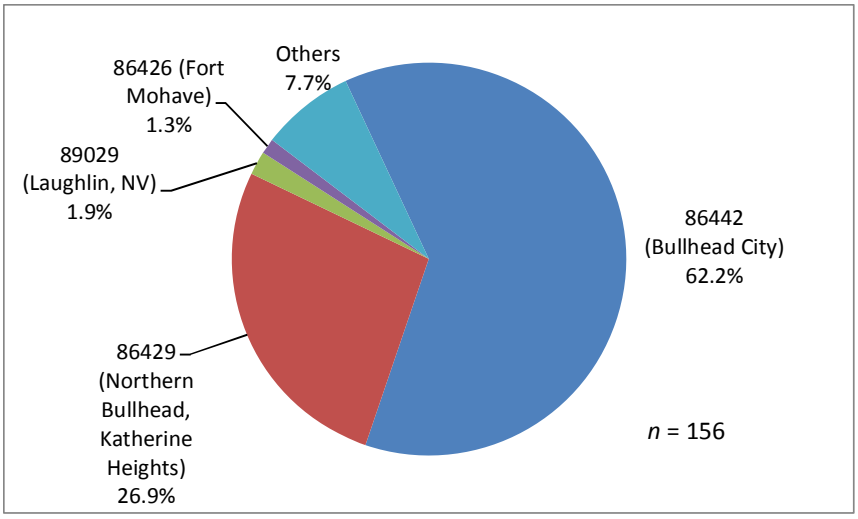
Exhibit 3.34 Motivators for Use



Question 16: What is your home ZIP code?

As Exhibit 3.35 shows, most surveyed riders live in or near Bullhead City. The eight percent of riders who live in "other" ZIP codes reside in Kingman or in rural, unincorporated areas between Bullhead City and Kingman. It is not surprising most survey respondents live within Bullhead City as the BATS service operates primarily within city limits and intercity transit service is generally limited.

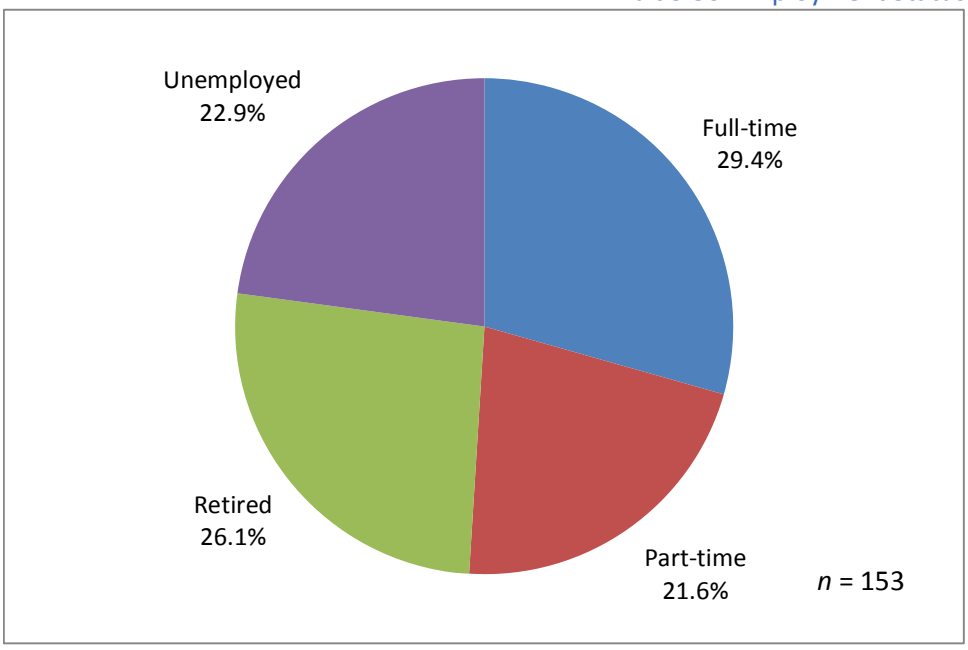
Exhibit 3.35 Residence Location



Question 17: What is your current employment status?

Nearly half of respondents reported being either unemployed or retired, while just over half were employed at least part time.

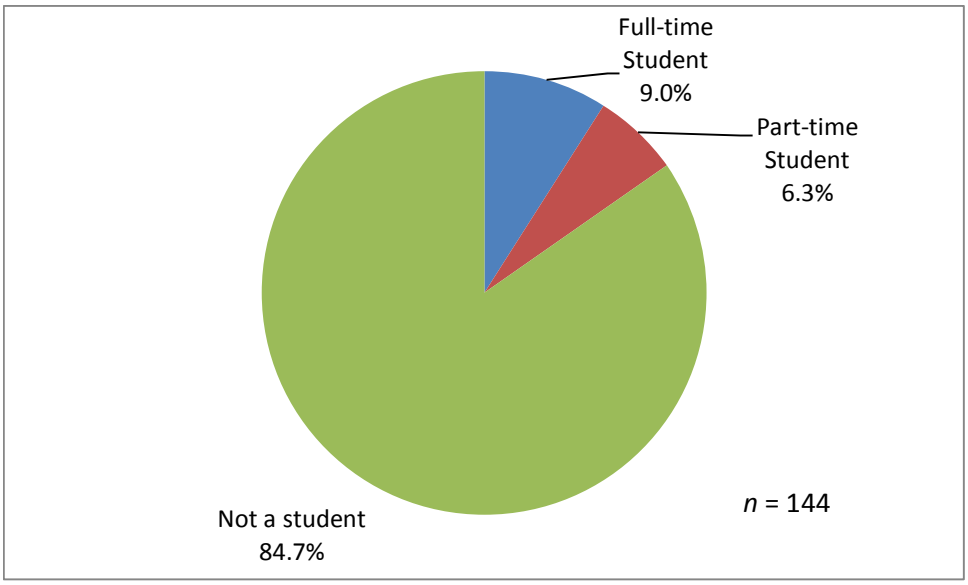
Exhibit 3.36 Employment Status



Question 18: Are You a Student?

Only 15 percent of surveyed riders reported being at least a part-time student. As we tried to survey riders who were approximately 14 years or older, our sample did not include riders who were younger grade school students.

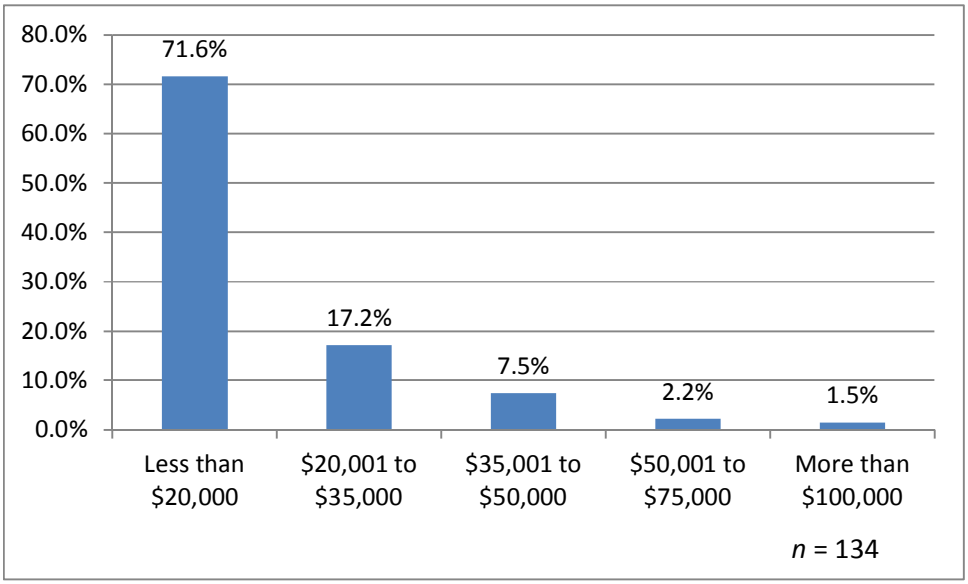
Exhibit 3.37 Student Status



Question 19: What is your approximate annual household income?

As Exhibit 3.38 shows, the majority of BATS riders are from relatively low-income households that earn less than $20,000 per year, with the proportion of riders decreasing as income increases.

Exhibit 3.38 Household Income



Questions 20 and 21: Driver License and Vehicle Access

A modest majority of respondents (56 percent) do not possess a driver license, while most (80 percent) lack access to a personal vehicle. Either one of these limitations makes traveling by personal vehicle a significantly less feasible option.

Exhibit 3.39 Driver License

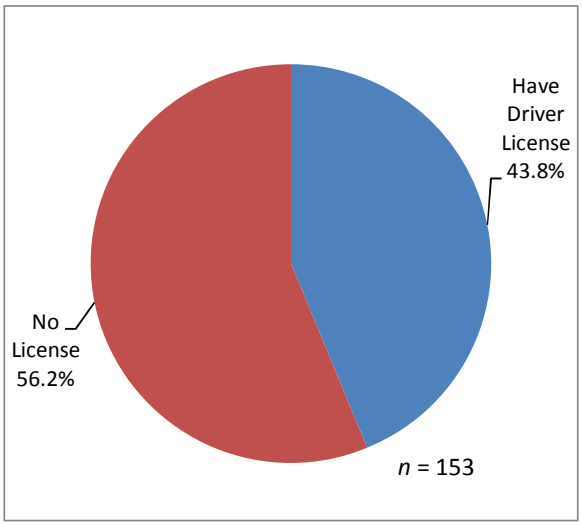
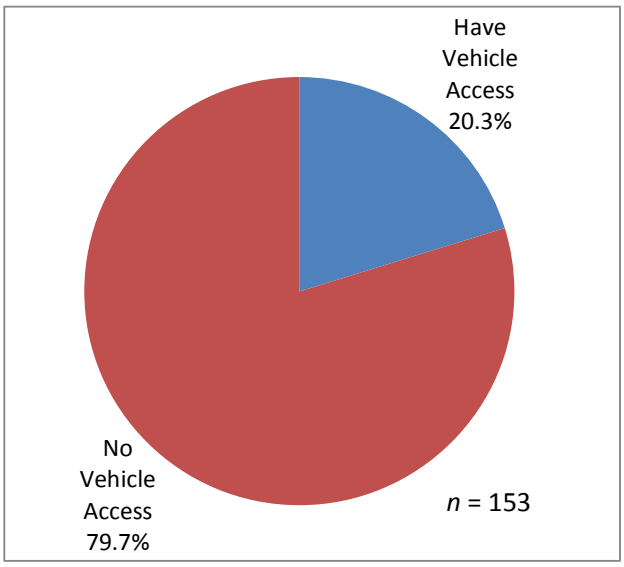
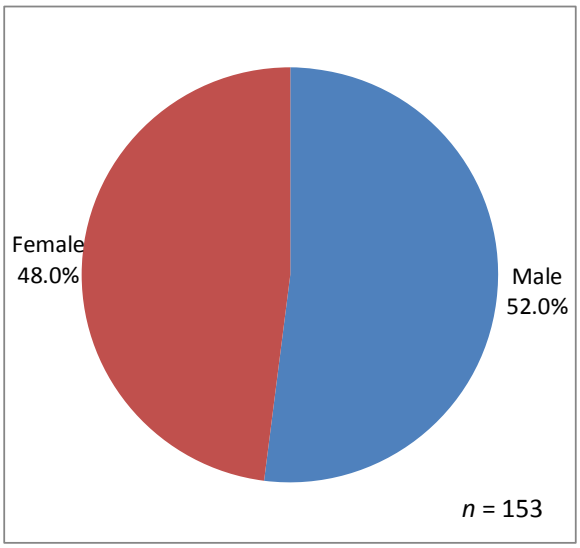


Exhibit 3.40 Access to Personal Vehicle



Question 22: What is your gender?

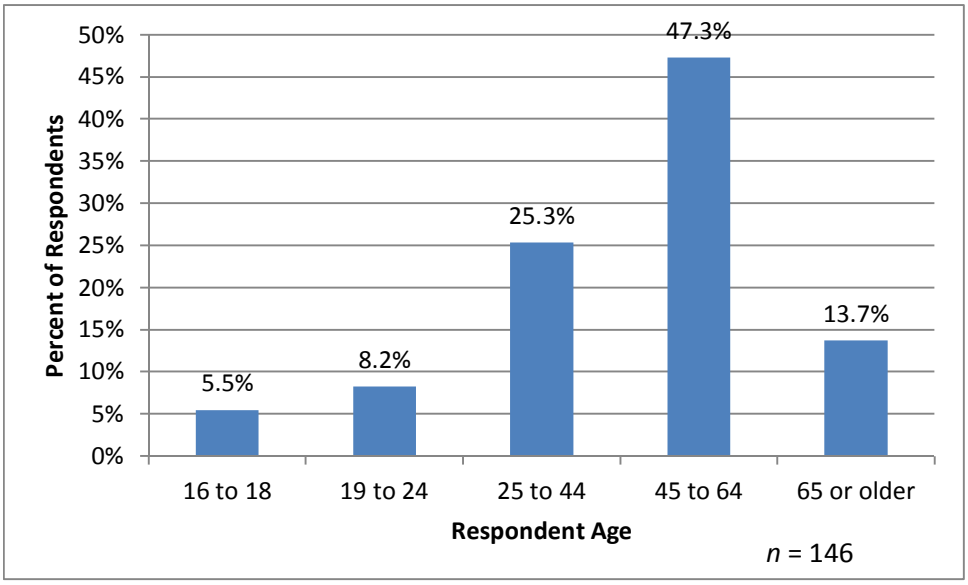
Exhibit 3.41 Gender



Question 23: What is your age?

The majority (72.5 percent) of surveyed riders were of adult age, between 25 and 64 years old. Exhibit 3.42 provides a break-down of reported BATS rider ages.

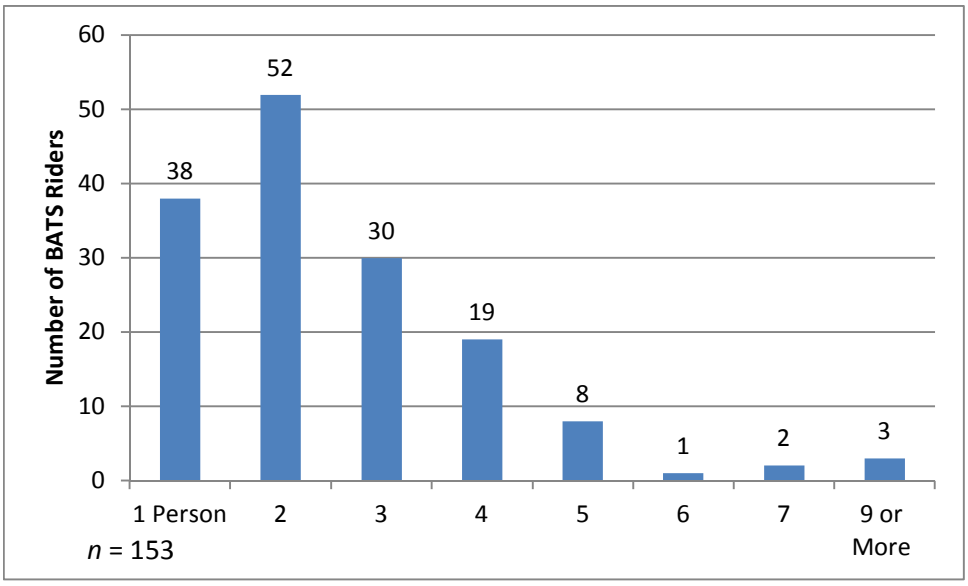
Exhibit 3.42 Age



Question 24: How many people live in your household?

The majority of survey participants reside in relatively small households, with nearly 80 percent living in a household with fewer than four persons.

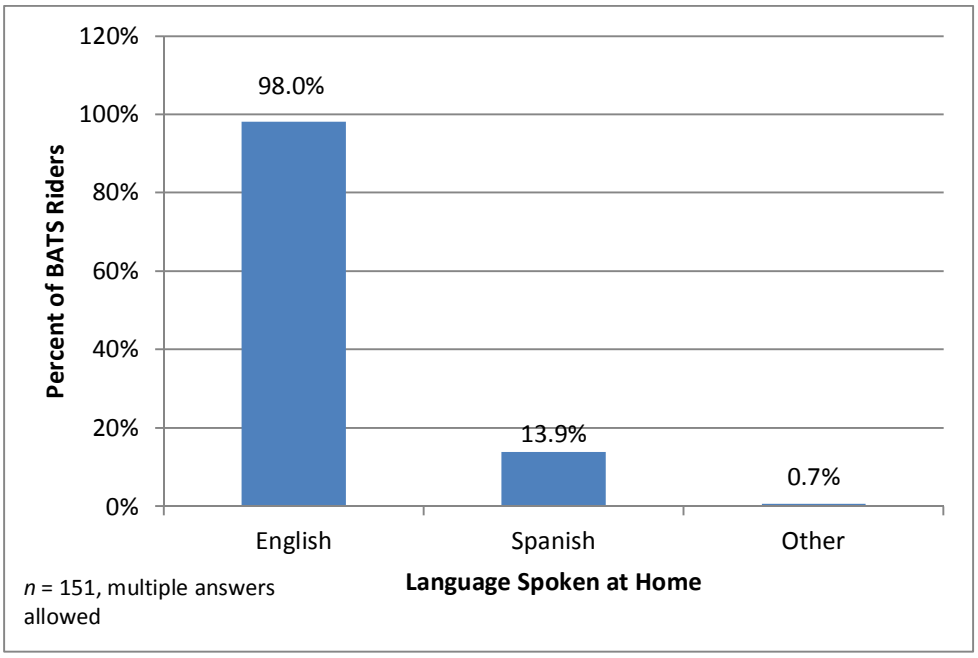
Exhibit 3.43 Household Size



Question 25: Please indicate which languages are spoken in your home:

Nearly all BATS riders reported living in a household in which English was spoken. However, the sum of all percents in Exhibit 3.44 add up to more than 100 percent, indicating that a significant number of respondents reported speaking multiple languages at home. The "other" language reported by one respondent was Navajo.

Exhibit 3.44 Language Spoken at Home

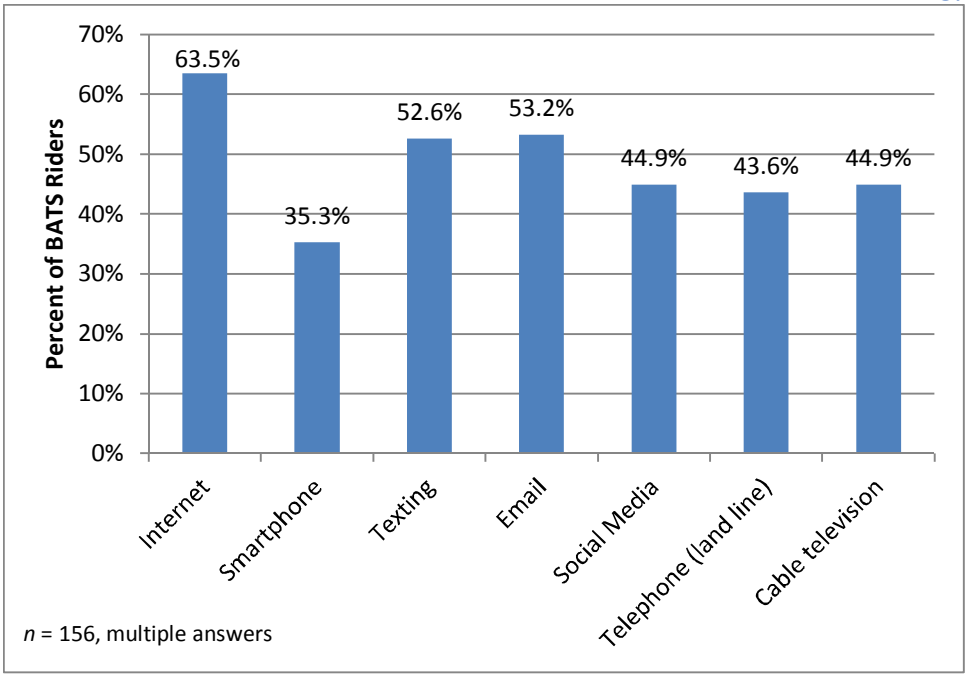


Question 26: Please indicate which of the following technologies you have access to.

Nearly two-thirds of surveyed BATS riders reported having access to Internet, while narrow majorities cited access to texting and email. These results, in conjunction with the answers given to Question 9 (how riders obtain service information), suggest that while providing web-based information is an important way to communicate service information to riders, traditional media including printed brochures will be an important means to disseminate information for the significant shares of transit riders (current and potential) who lack access to internet service.

Important to note in Exhibit 3.45 is that since respondents were allowed to select multiple answers, the sum of the percentages shown is greater than 100 percent.

Exhibit 3.45 Access to Technology



COMMUNITY SURVEY

The community survey had four key objectives: codify resident travel patterns; gain insight into resident opinions regarding the City's public transit program; identify barriers as well as opportunities for transit usage; and identify the best methods for promoting the City's public transit program among both current riders as well as potential riders.

The survey was distributed to 3,000 households via the City's monthly sewer bills in September 2013. In addition to the household mailer, residents could participate via an online version of the survey (which was open between September 2 and October 25, 2013). Availability of the survey was advertised to residents through a published press release, the BATS web page, the City's Facebook page and Twitter account, city manager periodic newsletters, postcards direct mailed to a number of Bullhead City USPS postal routes, reminder notice on October sewer bills, and via slides on the City's cable television public access channel.

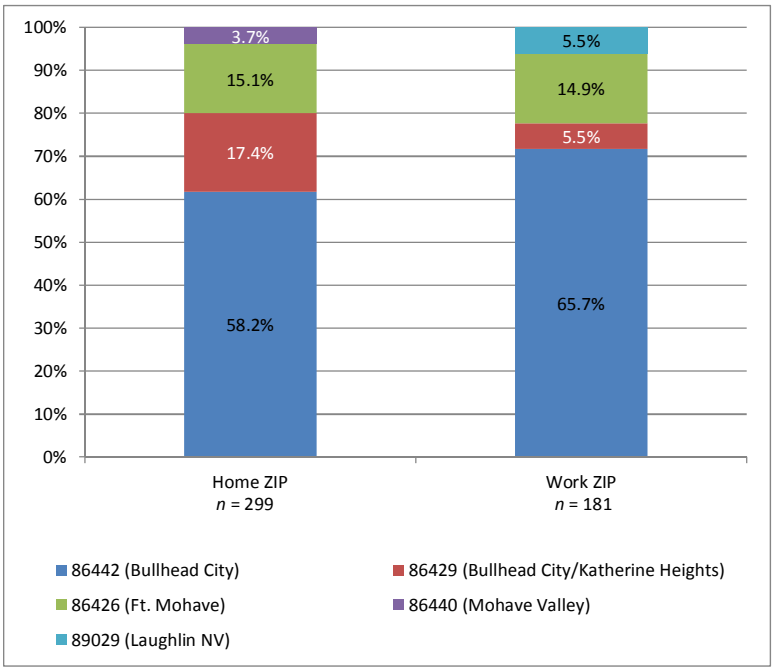
In undertaking this survey, the project team set a response goal (sample size) of no less than 500. Despite the variety of promotional efforts described above, a survey sample of 365 valid responses was achieved. Given Bullhead City's population of just under 40,000 residents, this sample size allows us to be 95-percent confident of the accuracy of the results with a margin of error of 5.1 percent.

Question 1: Please provide your home and work five-digit ZIP codes.

Fifty-eight percent of respondents reside in Bullhead City, while nearly two thirds are employed there. Other residential clusters include Katherine Heights, Fort Mohave, and Mohave Valley. While the majority of employed Bullhead City residents work within the city, some travel to nearby communities for employment. It should be noted zip code 86429 is a geographically large area which includes (but is not limited to) the Katherine Heights community.

Given mailers were only sent out to addresses within Bullhead City, it is interesting that nearly 19 percent of respondents indicated residing in Fort Mohave or Mohave Valley. These responses may be from online respondents who did not receive the mailer but nonetheless wished to participate in the survey. Another possibility is that mailers were completed by owners of rental property located in Bullhead City yet who reside in Fort Mohave or Mohave Valley.

Exhibit 3.46 Home and Work ZIP Codes

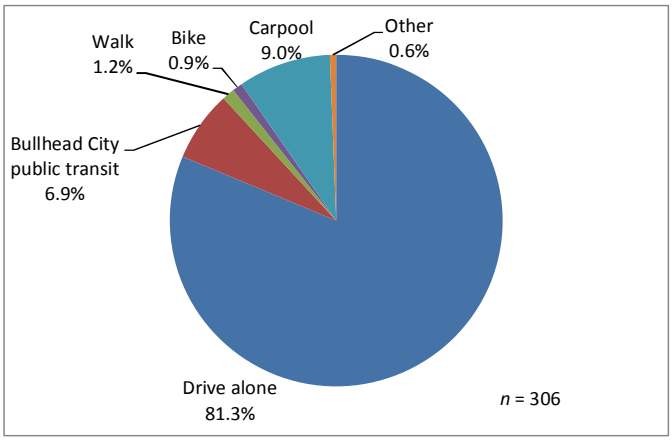


Question 2: What is your most common travel method for trips within and near Bullhead City?

Not unlike many small urbanized areas, reliance upon the private auto as the primary means of transport is commonplace in Bullhead City. This is likely due to the relatively low residential density as well as need to travel outside Bullhead City for a variety of personal and professional activities. Therefore, the personal auto is the primary competitor of public transit especially among more affluent populations.

Eighty-one percent of survey respondents cited “driving alone” as the most common means of travel. A further nine percent indicated some form of ride-sharing including securing rides from family and/or friends. Of greatest interest was the seven percent of respondents who indicated public transit as their most common means of travel in and around Bullhead City. This is a very significant finding given transit’s mode share in small communities is more typically three percent, which underscores the perceived value the City’s public transit service has within the community at-large.

Exhibit 3.47 Means of Travel



Question 3: What is the most common destination for your trips?

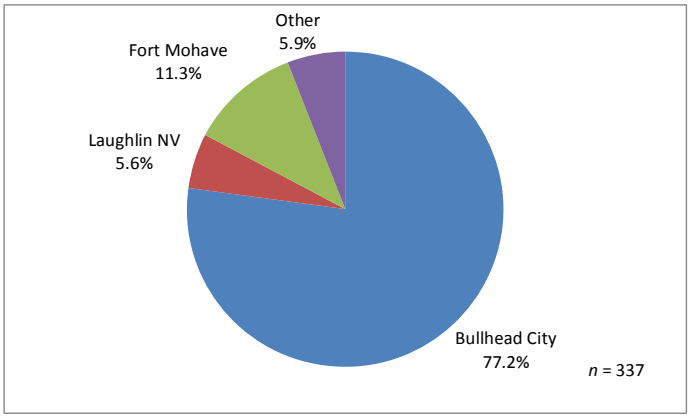
More than three-quarters of all respondents indicated that Bullhead City is the "most common" destination for their travel. In this instance we define "most common" as being reflective of day-to-day travel; be it work, social, or shopping.

Again this is not a particularly surprising finding given the respondent pool was comprised mainly of Bullhead City residents, and within Bullhead City can be found many of the "most common" daily lifestyle needs. Further, if we look at respondent employment status (Question 21), the results indicate approximately 44 percent of all respondents (transit riders and non-riders alike) are either retired or unemployed. Therefore a significant portion of the respondent pool would not be making one of the most common travels – home-to-work (which based on the survey data often requires travel outside Bullhead City). Eleven percent of respondents indicated Fort Mohave as their most common destination (which suggests home-to-work trips), while nearly six percent cited Laughlin as their destination. It should be noted City staff experience indicates many trips via the Senior Van to Fort Mohave are for medical/healthcare services, which may account for a portion of respondent's trip purpose to Fort Mohave.

On the surface, this suggests there is a potential market for direct (i.e., limited-stop) transit service linking Fort Mohave, Bullhead City, and Laughlin. Supporting this conclusion is the casino/lodging survey that revealed more than 300 Fort Mohave residents work in Laughlin.

Looking back at Question 1 (home and work location), we found that six percent of respondents reported working in Laughlin, while 15 percent cited Fort Mohave as their work location.

Exhibit 3.48 Most Common Destinations

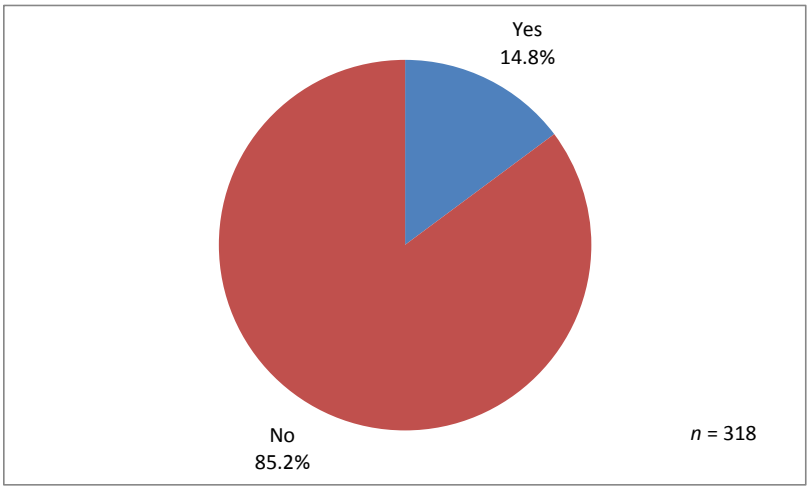


Question 4: Have you used the City's public transit services (fixed-route or Dial-A-BATS) within the last 90 days?

The majority (85 percent) of survey respondents reported no use of the City public transit service at any time within 90 days of the survey contact. At first blush this may appear to be discouraging. However, in looking at Question 13 (non-rider potential to use public transit), we learned that nearly 26 percent of respondents would consider riding public transit if their (subjective) primary barrier was removed. In some instances this barrier may be operational (i.e., service hours do not match the respondent's travel needs), while in other cases the barrier may be a perception (i.e., that it is too difficult to find service information or the respondent may not be aware of the service).

Taken in total, we believe the positive perception of the City's public transit service held by the community at-large suggests there is an opportunity for future ridership growth. While some of the operation barriers may not be resolved in the near-term, the marketing and service awareness challenges are certainly not beyond the City's current capability.

Exhibit 3.49 Public Transit Usage within Prior 90 Days

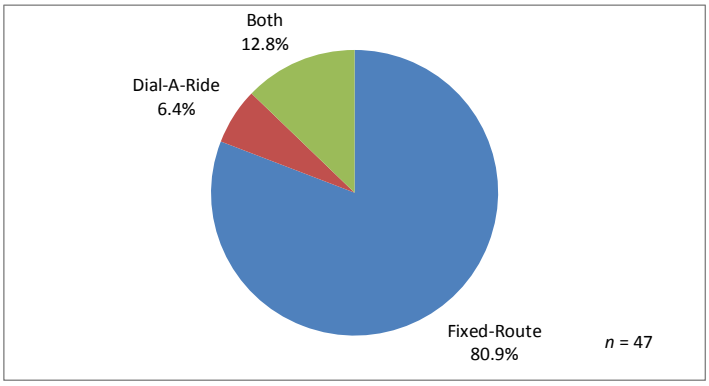


Questions 5 through 10 were asked of riders only. They supplement the onboard survey by providing further insight into who uses the City's public transit service, how they use the service, and their opinions regarding its strengths and weaknesses. These questions also capture information from less frequent riders who may not have been using BATS during our onboard survey.

Question 5: What BATS services do you use?

The majority (80 percent) of survey respondents who indicated some use of the City's public transit service within the 90 days prior to the survey contact cited use of the fixed-route service. This should not be a surprise given the fixed-route service transports the vast majority of persons using public transit in Bullhead City. What is interesting is the 13 percent who reported using both fixed-route and Dial-A-Ride services. This figure is considerably higher than cross-service usage patterns found in other small urban communities. In other words, it is common for most transit riders to be mode-specific. While further market research may be warranted, the finding suggests a potential for mode shifting of ambulatory riders from the more expensive Dial-A-Ride service to the more cost-effective fixed-route service.

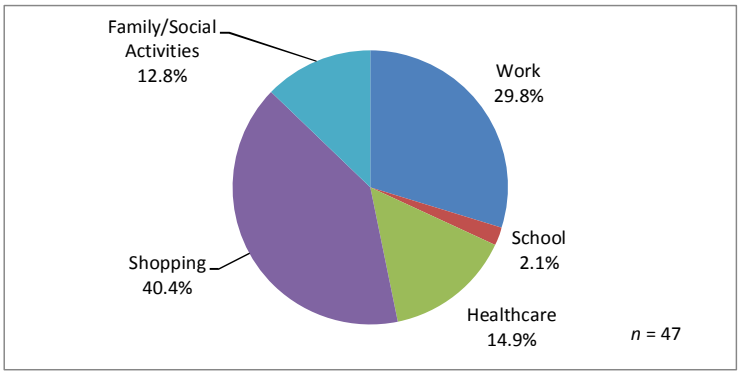
Exhibit 3.50 Service Used



Question 6: When riding the City's public transit services, what is your most common trip purpose?

As Exhibit 3.51 illustrates, public transit riders in Bullhead City use the service for a variety of reasons. "Shopping" and "work" comprised nearly 70 percent of the recurring trip purposes. "Shopping" alone accounts for over 40 percent of respondent's trip purpose. Providing enhanced service (for example more frequent, or more direct service) to local retail destinations should be considered a priority.

Exhibit 3.51 Most Common Trip Purpose on Transit

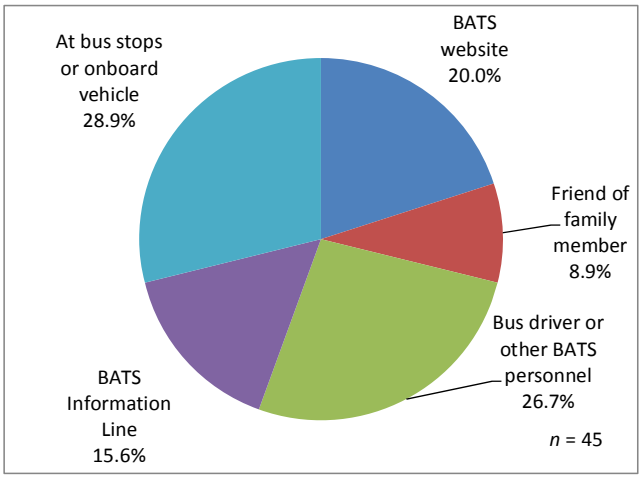


Question 7: How do you typically obtain information regarding the City's public transit services?

Local transit riders cited a variety of transit information sources. The two most common methods were "service brochures/information posted onboard" and "bus driver/other BATS personnel." Some observations:

- Given the critical role which bus drivers play in the customer service realm, it is imperative the City provide both initial and recurring customer service training.
- The current selection of printed transit materials (e.g., service brochures) needs to be upgraded to enhance both their appeal and utility to prospective transit riders.
- The City needs to realize greater value from its transit webpage (which as a marketing tool has a lower cost per impression than printed transit materials). This is borne out by the results of Question 23 which reveals that nearly 84 percent of respondents reported having access to the Internet (on par with having a home phone and greater access to cable television).
- The BATS customer information line was identified by 16 percent as the typical means of obtaining transit information. Given this, we recommend the City implement caller on-hold messaging as well as after-hours messaging (preferably directing callers to an improved transit website).

Exhibit 3.52 Access to Transit Information

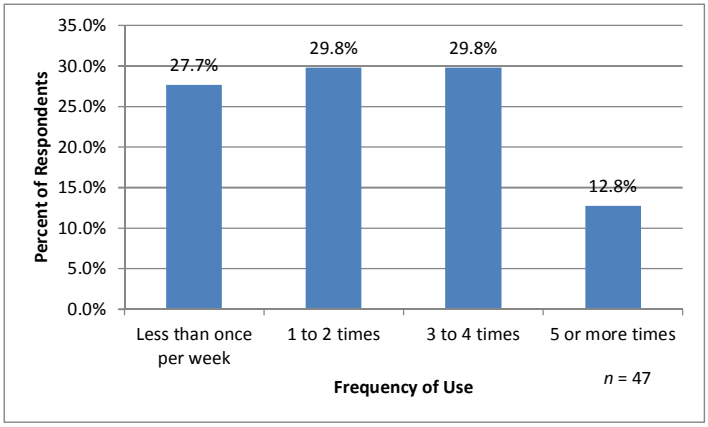


Question 8: How many times per week do you typically ride the City's transit services?

More than 40 percent of respondents indicated riding at least three times per week. (Note: In conducting similar surveys, we believe most respondents consider a roundtrip to be "one usage.") This suggests a relatively high degree of transit-dependency as well as overall service satisfaction (both of these points are borne out by the results of the 2013 onboard survey).

In terms of ridership growth opportunity, we recommend the City conduct further research into the specific travel patterns of respondents who cited only riding once or twice per week. On an aggregate basis this equates to 57 percent of all respondents. It is likely this group of riders is "location-specific" and may not be aware of the broad range of destinations served by the City's public transit services.

Exhibit 3.53 Frequency of Transit Use

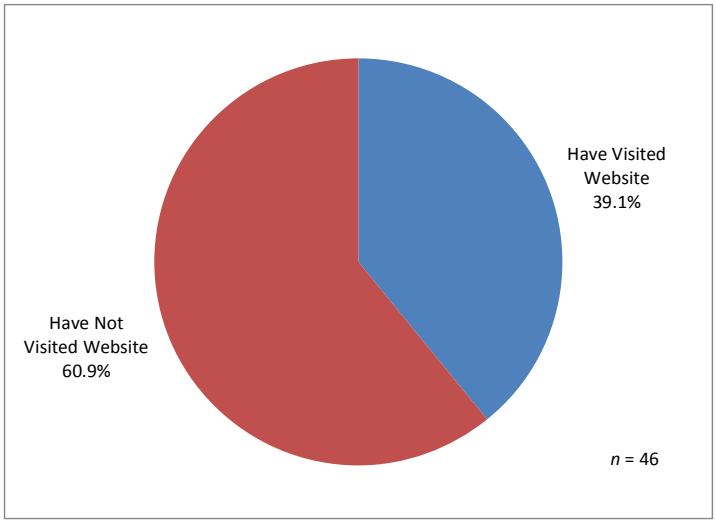


Question 9: Have you visited the City's transit website within the last 90 days?

Almost 40 percent of survey respondents considered to be current transit riders had accessed the City's transit website within 90 days prior to the survey contact. On one hand, it may suggest that current riders have "established" travel patterns, and therefore have little need to access "new" transit information. Potentially buttressing this conclusion is the fact the BATS route network is rather simple in design, including relatively easy inter-line transfers.

On the other hand, it suggests the City's transit website is not perceived as a valuable information resource. Question 11 (asked only of non-riders) reveals a lack of awareness regarding BATS service specifics (i.e., when service operates, locations of bus stops, etc.). Here again, the cost-benefit of overhauling the City's transit website is likely greater than any other possible transit marketing expenditure (although it would be necessary for the City to expend funds to promote the new website once it is launched).

Exhibit 3.54 Transit Website Usage

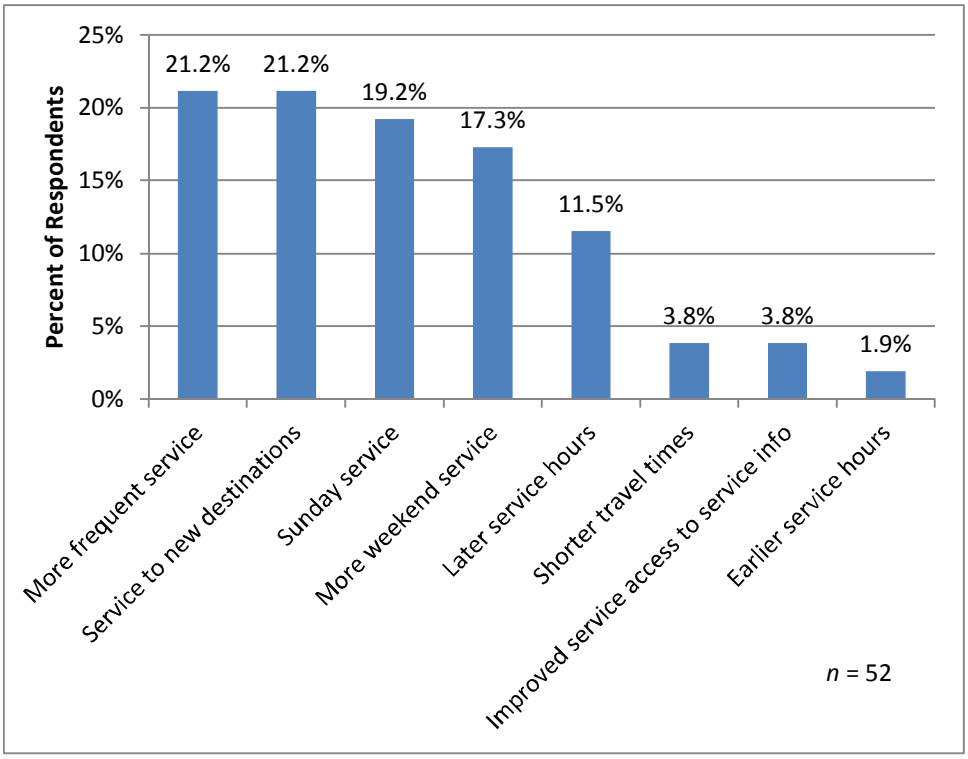


Question 10: What change would you most like to see in the City's public transit services?

Among current transit riders, the desire for more frequent service was the top-ranked service improvement. This should not be surprising given that the most patronized route (the Red Line) operates on a 60-minute headway. While any increase in service level translates to increased operating costs, we believe introducing additional service (i.e., increased frequency) during peak travel hours would result in both increased ridership and increased fare revenue. Also receiving 21.2 percent of respondents' preference was service to new destinations. The likeliest areas for additional service are direct service to Laughlin as well as a regular service to Fort Mohave.

The third-ranked service improvement (Sunday service) is also not surprising as this potential improvement was identified in both the onboard and stakeholder surveys as well. In total, Sunday service was identified by as many as 36 percent of respondents of the three surveys. Therefore, we believe it warrants thoughtful consideration by the City. (Note: In developing Sunday service introductions for our clients, we subscribe to a trial or demonstration approach, wherein the service is offered for a relatively limited period of time, supported by aggressive marketing.)

Exhibit 3.55 Preferred Service Changes



Questions 11 through 13 were only asked of non-riders, and sought to understand what potential barriers may prevent non-riders from using BATS services and how many non-riders are "potential" riders who may try BATS services given reasonable incentives to do so.

Question 11: What is the primary reason you do not use the City's public transit services?

In posing this question, several response options (i.e., forced choices) were offered. Despite this, 37 percent of all respondents selected "other." In analyzing the "other" responses, having "access to a personal vehicle" accounted for nearly 75 percent of all related responses. In other words, the respondent owns a car, and therefore perceives no need for other transportation alternatives.

Among persons who selected from among the "forced responses," the top three selections were "doesn't operate when I need to travel," "bus stop is too far away from my home," and "does not go where I need to travel." While some of these barriers may truly be operational in nature, it is quite likely some can be mitigated via increased service marketing (which could resolve questions regarding "lack of awareness," "difficult to find information," and "does not go where I need to go (within Bullhead City)."

Exhibit 3.56 Primary Barriers (Non-Riders Only)

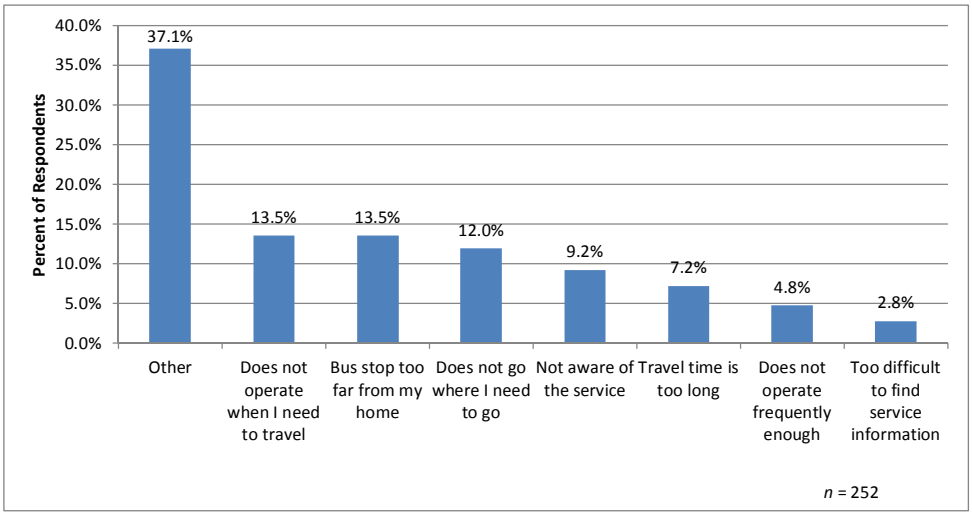
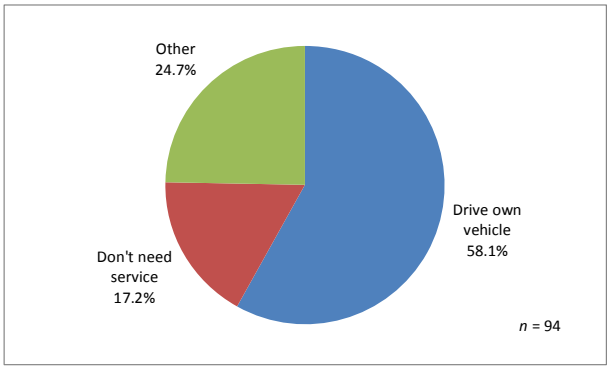


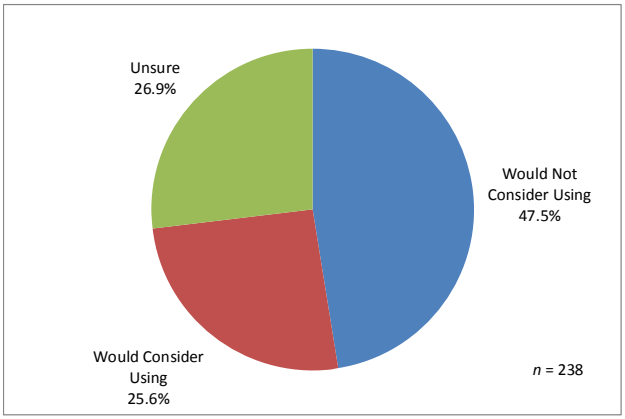
Exhibit 3.57 Primary Barriers: Other (Non-Riders Only)



Question 12: If the reason you identified in Question 11 were addressed, would you consider using the City's public transit services for some of your trips?

At least 25 percent of respondents indicated a willingness to use public transit if the concern they identified in the prior questions was addressed. Here again, we recommend the City focus on those service factors with the greatest cost-benefit (i.e., marketing, service promotion).

Exhibit 3.58 Non-Rider Potential to Use Transit



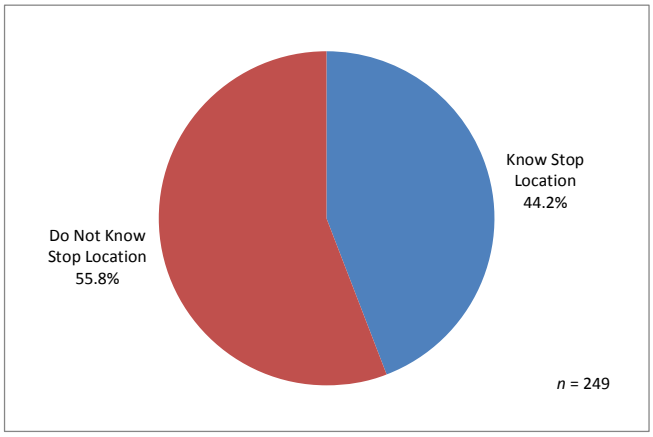
Question 13: Do you know the location of the bus stop nearest your home?

Fifty-six percent of "non-rider" respondents did not know the location of the BATS bus stop nearest their home. This is not surprising given the almost universal absence of effective bus stop signage along each BATS route.

Effective (e.g., visually-appealing) bus stop signage (and by extension, bus stop amenities) not only enhances the experience for current riders, it functions as a service awareness "raising" for non-riders. Effective bus stop signage is also a contributor to rider safety (as it defines where the bus will stop and the patron should stand).

Given 44 percent of non-riders indicated a positive awareness regarding the bus stop closest to their home, we recommend the City consider undertaking a marketing campaign targeting households (especially multi-family dwellings) within one-half mile of each BATS bus stop. Doing so could potentially convert "awareness" into "ridership."

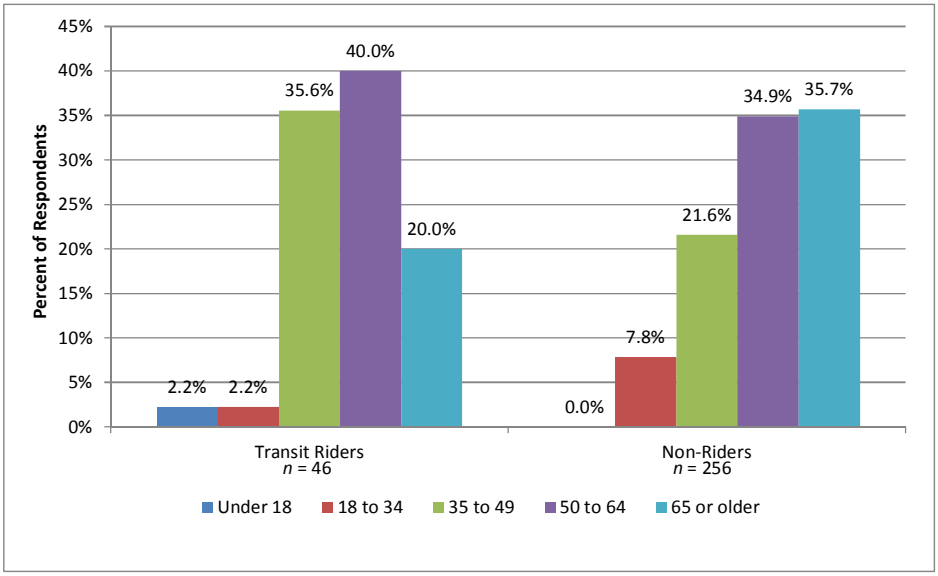
Exhibit 3.59 Non-Riders Stop Awareness



Questions 14 through 23 sought demographic information (e.g., age, income, etc.) from riders and non-riders alike. In collecting this data, we were able to compare each group and identify any variations that exist between them, such as differences in income, language spoken, vehicle access, etc. This comparison sheds light on those demographic factors influencing one's propensity to use public transit services, as well as which population segments provide the strongest current markets for the City's public transit services.

Question 14: What is your age?

Exhibit 3.60 Respondent Age

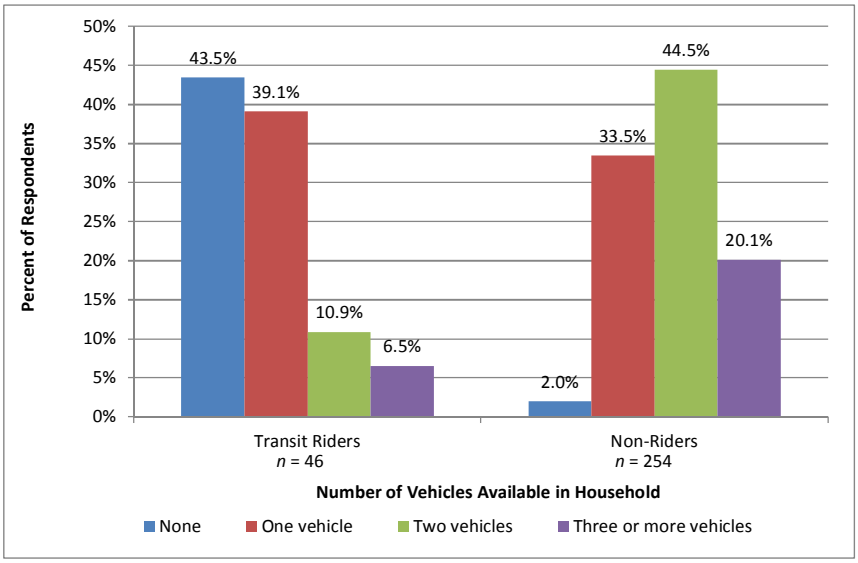


Question 15: How many vehicles does your household have access to?

Respondents identifying themselves as transit riders were far more likely not to have access to a personal vehicle, thereby increasing their reliance upon public transit for personal mobility. Data from this question closely mirror that from Question 11.

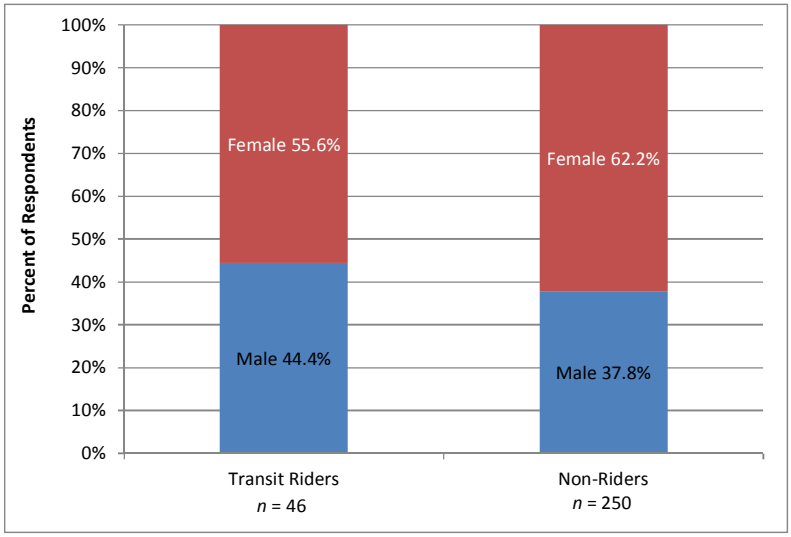
The incidence of zero-vehicle households among riders was nearly 44 percent, signifying high transit-dependency. When combined with data regarding household income, it is very likely that the lack of vehicle access/ownership can be tied to affordability rather than lifestyle choice (i.e., living without a car for environmental or non-monetary reasons).

Exhibit 3.61 Vehicle Access



Question 16: What is your gender?

Exhibit 3.62 Gender

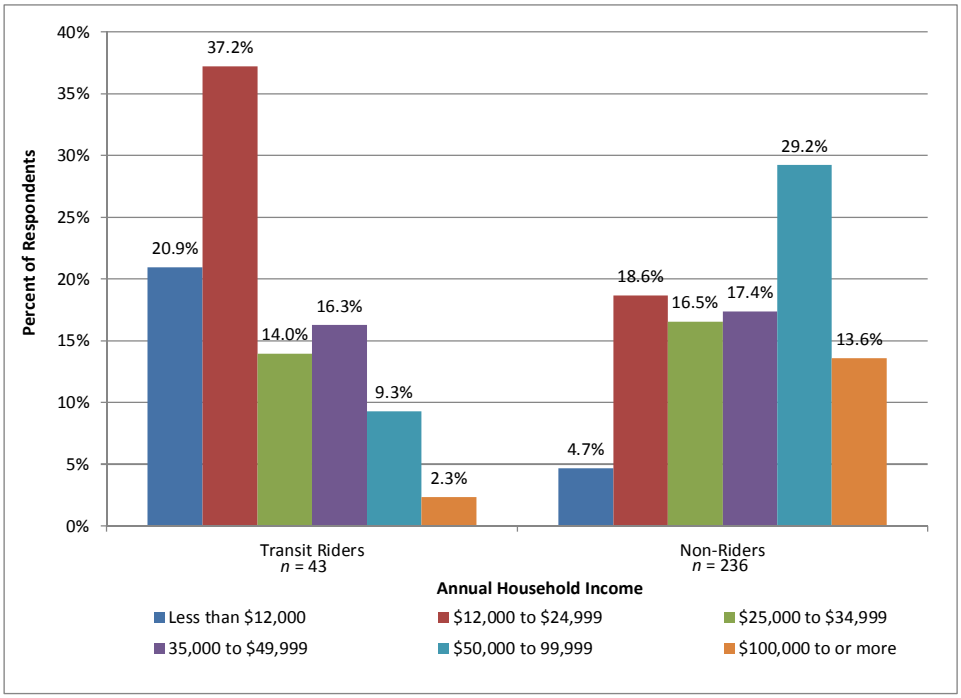


Question 17: What is your approximate annual household income?

It is clear non-riders have household incomes greater than their transit-riding counterparts. While one might assume this is tied to youth or student riders, in fact the number of survey participants identifying themselves as a student was relatively modest.

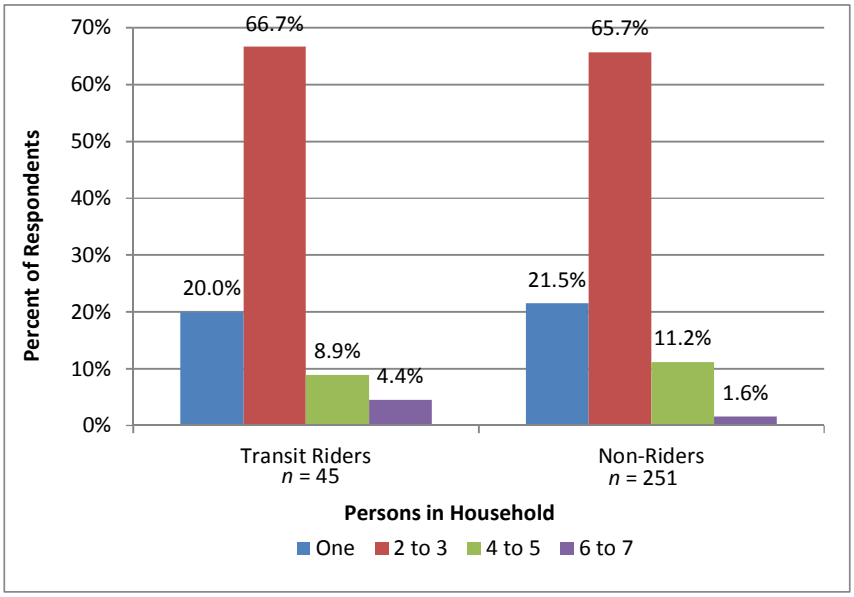
This finding provides further evidence of the high degree of transit dependency among current riders. Further, given 58 percent of current riders indicated an annual household income of less than $25,000 suggests employment in the service sector (i.e., blue collar). Therefore, expanding the fixed-route service span to include later night service would likely benefit this demographic. It is also likely this group would have jobs that include weekend assignments.

Exhibit 3.63 Household Income



Question 18: How many people live in your household?

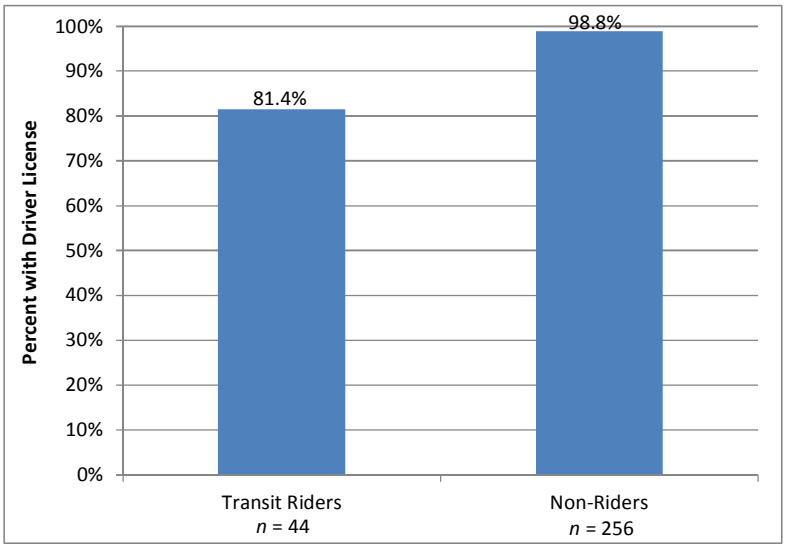
Exhibit 3.64 Household Size



Question 19: Do you have a valid driver license?

While the incidence of driver license possession was very high among both respondent groups, it doesn't necessarily translate to vehicle ownership or access. In fact, the results to Question 15 indicate otherwise. Further, in recent years there has been a significant move to issue a driver license as simply a readily accepted form of identity (regardless of the holder's likelihood of operating a vehicle).

Exhibit 3.65 Driver License Possession

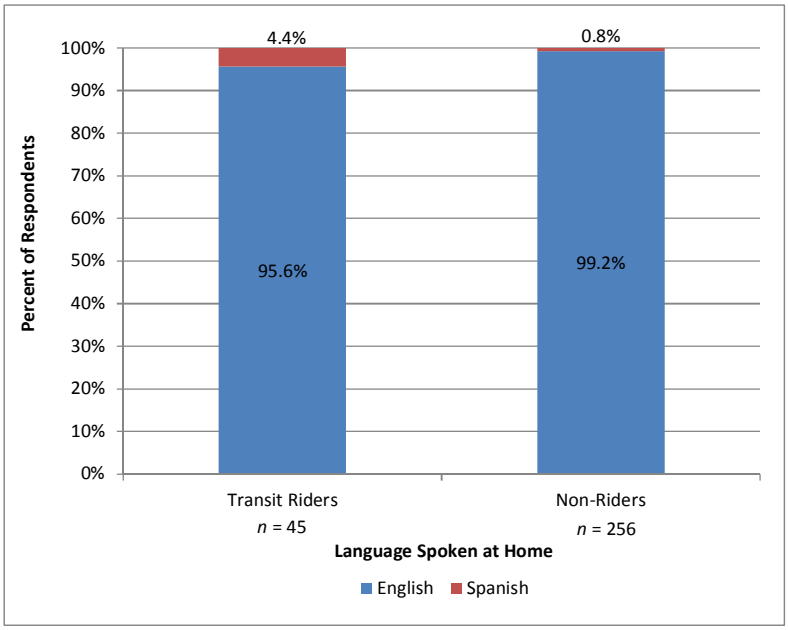


Question 20: What language do you typically speak at home?

Interestingly, less than five percent of the rider respondents indicated speaking a language other than English (in the course of their typical day-to-day activities). Further, review of the City's prior Transportation Development Plan as well as its FTA Title VI Plan failed to show evidence of a language-disadvantaged or isolated population.

While we encourage the City to recruit and retain bilingual bus drivers and customer service staff wherever practical (especially if there is no additional cost to do so), we do not believe it is important for the City to produce Spanish-language versions of its transit informational materials at this time.

Exhibit 3.66 Language Spoken at Home



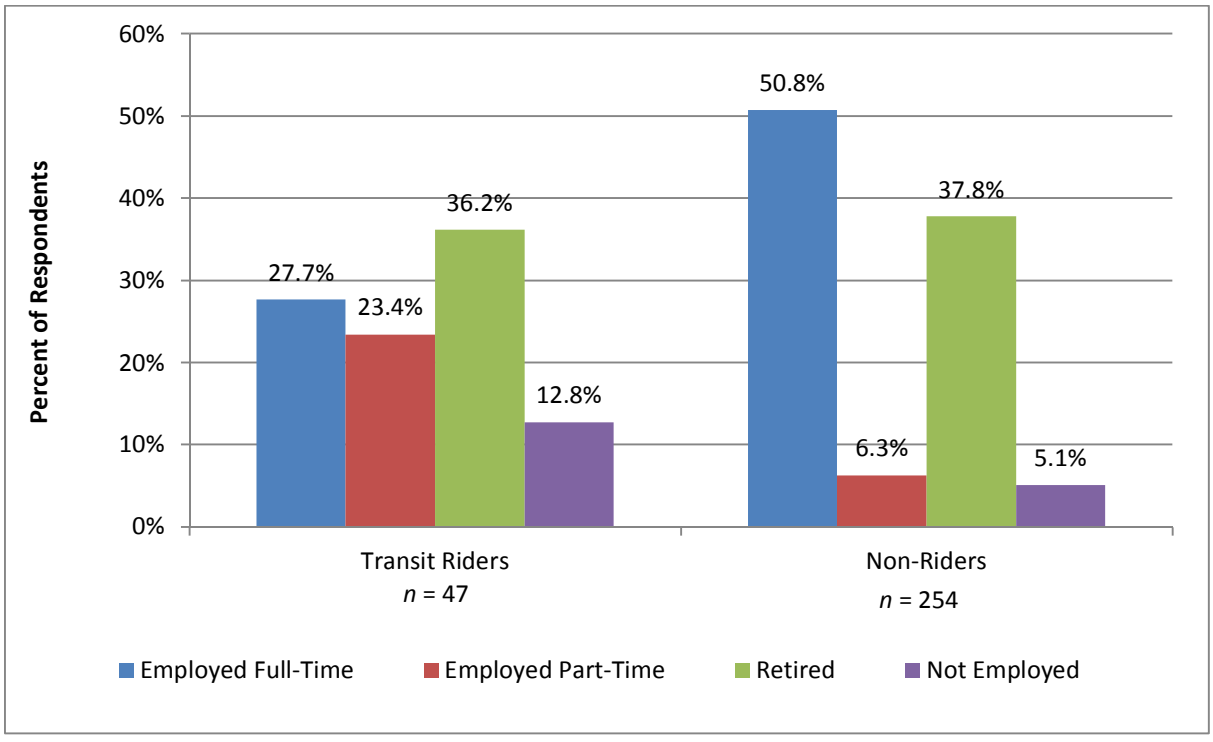
Question 21: What is your employment status?

Three interesting conclusions arose from responses to Question 21. First, current transit riders are less likely to be employed full-time (versus non-riders). While this could be attributable to a number of factors (such as education or training), we conclude the current absence of extended night service as well as limited weekend service could be factors. In communities with economies similar to Bullhead City, persons with limited education/training often face limited employment opportunities. In the Bullhead City/Laughlin sub-area, this is most likely apparent in the hospitality (i.e., casino and lodging) sector.

Second, non-riders are much more likely to be employed full-time (versus transit riders). While one might first assume this can be linked to out-of-city jobs, the data from Question 1 suggest otherwise. Rather, the incidence of employment of jobs in Bullhead City was quite similar for riders and non-riders alike (here again, we believe limited evening service and limited weekend service represent tangible barriers to accessing employment among persons of lower socio-economic status).

Third, the incidence of persons identifying themselves as "retired" was very similar among both riders and non-riders.

Exhibit 3.67 Employment Status

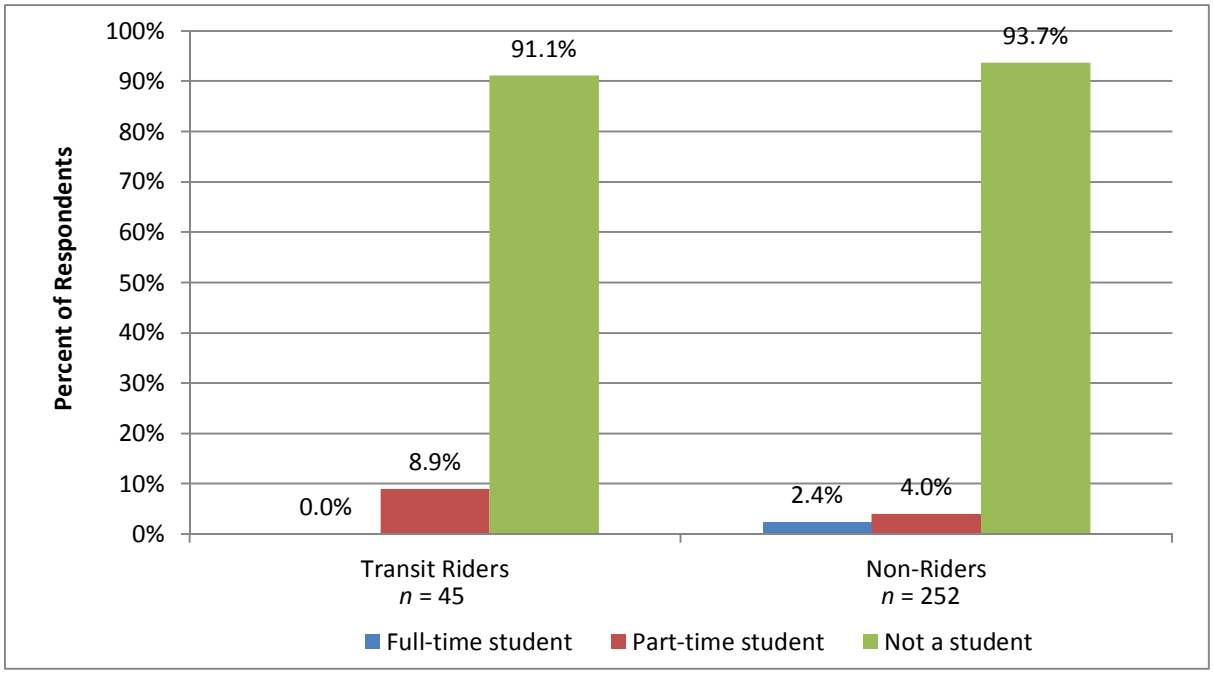


Question 22: Are you a student?

Although a somewhat higher percentage of riders reported being students (nine percent versus six percent for non-riders), a higher share of non-riders were full-time students.

In comparison to the community survey findings, our onboard survey revealed that 15 percent of surveyed riders were at least part-time students. In addition, the Mohave Community College stop was the third-busiest stop on the Red Line South, with 13 boardings noted during the ride check. This relatively high stop activity, combined with the percent of riders who report being part-time students, suggests Mohave Community College is a significant trip generator within the BATS system.

Exhibit 3.68 Student Status

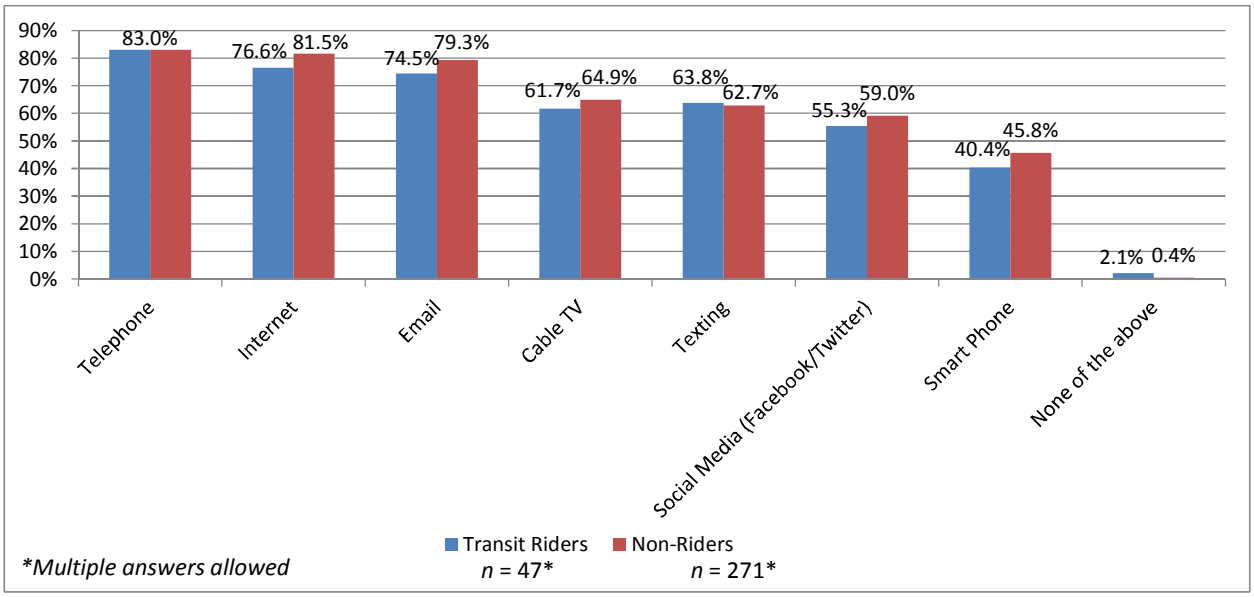


Question 23: To which of the following technologies you have access to? (Select all that apply)

Question 23 sought to identify and quantify survey participant access to a variety of "communications" technologies. While riders tended to have slightly lower rates of access to most technology types (except texting), the differences were typically less than four percentage points. As Exhibit 3.69 shows, most respondents reported having access to internet, email and telephone services (though a distinction between cell phone versus land-line service was not made). The high rate of access to internet suggests there is potential for the City to use its transit website as an effective way to communicate service information.

Fewer than half of respondents, both riders and non-riders alike, reported having access to a "smart phone," (i.e., a cell phone that provides mobile internet and email access).

Exhibit 3.69 Access to Technology



DRIVER SURVEY

As they are on the "front line" of BATS program and possess first-hand knowledge of passenger needs and concerns, we carried out a survey of BATS drivers to get their input on topics such as service offerings, routing, scheduling, staffing, and organizational structure.

We received completed surveys from four of 19 drivers. Although this is a small sample size, overarching comments among drivers include:

- Increasing the span of service later into the evening, particularly to accommodate the schedules of casino employees.
- Shifting the Red Line North schedule to depart from the Boat Dock at 20 or 30 minutes after the hour instead of on the hour, as many casino employees finish their shifts on the hour and need time to travel to the Boat Dock stop.
- Making more drivers full-time in order to reduce turnover and associated training costs.
- Increasing weekend service, including adding Sunday service.
- Providing on-site maintenance facilities to better accommodate vehicle service and heavy repairs at all times of day.

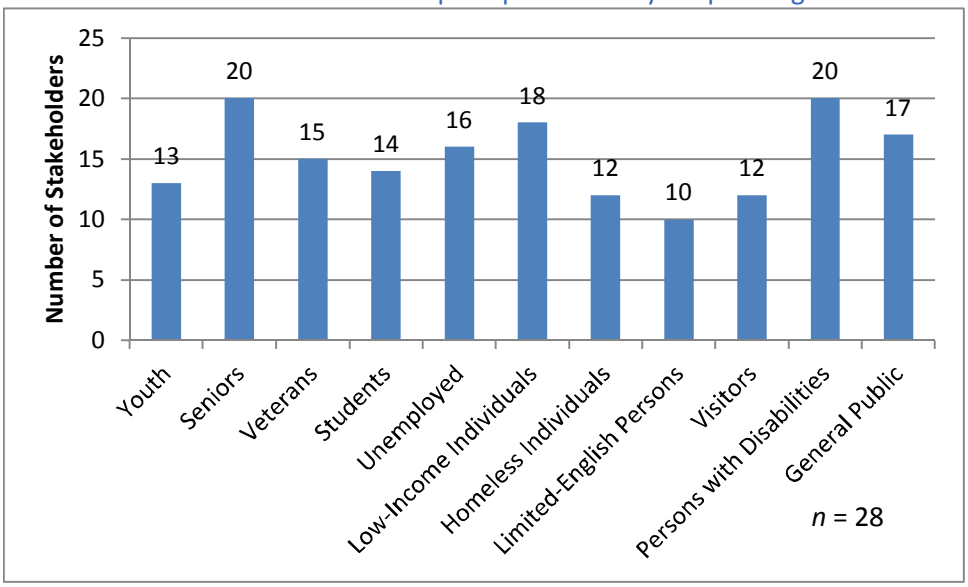
STAKEHOLDER/CASINO SURVEYS

Stakeholder Surveys

Stakeholders are persons within organizations representing populations that have a direct or indirect interest or "stake" in how transit service is provided in Bullhead City. They include organizations representing traditionally mobility-challenged populations, such as low-income individuals, the elderly, youth, and persons with disabilities. Stakeholders also include businesses or institutions that are major trip generators, such as WARMC, Target, Walmart, and educational institutions. The common link between all of these organizations is that they provide a "voice" for groups that traditionally are affected by transit service changes, but traditionally lack the ability to effectively communicate their needs.

We received feedback from a total of 29 organizations. Twenty responses were received from the 76 organizations we initially contacted and nine from organization we did not initially reach out to but that wanted to complete the survey. Among those who responded are WARMC, Bullhead Area Chamber of Commerce, Mohave Community College, and numerous churches throughout the city. Exhibit 3.70 shows the groups represented by the stakeholders who replied, while a complete list of contacted stakeholders is provided in Appendix D. Lastly, many stakeholder organizations serve multiple populations.

Exhibit 3.70 Groups Represented by Responding Stakeholders



Stakeholder Perceptions of BATS Service

When asked for their overall opinion or perception of BATS service, stakeholders were mostly positive, indicating BATS generally served the needs of their clients. However, several concerns were shared by multiple stakeholders:

- There is a need for service further south along State Route 95 into Fort Mohave, and particularly Valley View Medical Center.

- Current service span and operating days are not sufficient, particularly for casino employees whose shifts begin and end outside BATS current operating hours.

Opportunities for Collaboration between the City and Stakeholder Organizations

As Katherine Heights and WARMC currently provide financial support to the City in exchange for service and/or advertising rights, we asked stakeholders whether they would be interested in partnering with the City to provide financial support or coordinate services. Four respondents, including the Tri State Ace Hardware store, Mohave Accelerated Learning Center, St. John Lutheran Church, and the Silver View RV Resort expressed interest in providing financial support to BATS service in exchange for advertising space on BATS vehicles.

Casino Operator Surveys

According to the 2011 American Community Survey, more than 37 percent of employed Bullhead City residents work in Laughlin, Nevada, and specifically at the major casinos located along the Colorado River. Given the significant travel demand created by Bullhead City residents commuting to and from jobs in Laughlin, we cooperated with ADOT to complete a survey of major casino operators. The survey, whose results are summarized in Exhibit 3.71, sought to understand how many casino employees live in Bullhead City and gather comments as to how BATS may be able to improve travel options for casino employees.

Number of Employees and Shift Times

As Exhibit 3.71 shows, nearly 1,300 Bullhead City residents work in the casinos from which we received responses, with nearly 300 additional employees living in Fort Mohave. These high numbers corroborate with our ride check findings, which indicate the Boat Dock as the busiest stop in the BATS system. Shift start and end times, particularly at the larger casinos such as Aquarius and Harrah's, are spread throughout the day and night, with no significant cluster of shifts beginning or ending at a particular time of day.

This considerable staggering of shifts is likely behind some of the survey responses indicating that current BATS service does not adequately meet the needs of casino employees, whose 24-hour schedules frequently involve shifts that begin and end outside of BATS' current operating hours.

Exhibit 3.71 Casino Survey Summary

Casino Name	Employees residing in Bullhead City	Employees residing in Fort Mohave	Transportation Services for Employees	Employee Parking	Employer Comments
Aquarius Casino Resort	579	111	None	Yes	Provide low rates for residents according to their income and cover major streets; Highway 95, Hancock Rd., Ramar Rd, Marina Blvd., McCormick Bl.; provide service every 30 minutes
Harrah's Laughlin	481	123	None	Yes	
Pioneer Hotel and Gambling Hall	194	28	None	Yes	
Regency Casino	6	5	None	Yes	
TOTAL	1,260	267			

Summary of Evaluation

The Bullhead Area Transit System is performing well overall when compared to both similarly-sized peers and when compared to service programs throughout the west. Their fixed-route service is slightly above average in terms of fare recovery for rural operators, and their demand-response program is performing slightly below. When viewed as a system, there is little risk of BATS not meeting fare recovery requirements for funding as established by the FTA. Areas for improvement include optimizing route schedules and alignments, particularly along the Green Line, as well as the elimination of under-performing stops along existing route paths.

Onboard survey respondents indicate their most desired improvement is an expansion of service hours. The community survey respondents favor increased service frequency on existing fixed-routes, as well as expansion into new destinations (such as Laughlin or Fort Mohave). In addition, non-riders cite having access to and utilizing personal vehicles as the primary barrier to use of the BATS system. Stakeholders (including Laughlin casino representatives) desire BATS focus on expanding service areas into Fort Mohave and a modification of operating schedules to accommodate casino shift times.

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CHAPTER 4: OPERATIONS PLAN

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CHAPTER 4 – OPERATIONS PLAN

OPERATIONS PLAN

The following Operations Plan identifies a series of recommendations designed to enhance the performance, efficiency, effectiveness, and productivity of the Bullhead Area Transit System. In developing these recommendations, we remained mindful of the goals and objectives identified earlier in the Short Range Transit Plan process, the character and needs of the Bullhead City community, and the limited resources available for program development. This section focuses solely on the base recommendations themselves; related funding and capital elements will be presented in the subsequent Financial and Capital Plans.

Goals and Objectives

Underlying our recommendations are the goals developed through consultation with ADOT, the City, and the Bullhead City Transit Commission. Specifically, these goals are:

Goal 1: Provide a safe, effective, efficient, and accessible transportation option for residents of and visitors to Bullhead City.

- Objective: Meet or exceed established standards of performance.
  - Strategy: Improve on-time performance.
  - Strategy: Increase ridership, particularly on the Green Line.
  - Strategy: Maintain or improve productivity at the route level.
- Objective: Maintain a level of service that is sustainable.
  - Strategy: Identify new funding sources, including grants, advertising revenue, and/or sponsorships.
  - Strategy: Maintain compliance with all funding requirements.
  - Strategy: Consider a fare increase to support service expansion.
- Objective: Ensure the safety of the community with regard to transit service.
  - Strategy: Replace and repair vehicles according to established standards.
  - Strategy: Provide bus stop amenities such as benches, shelters, and lighting.
- Objective: Ensure the transit system is accessible to everyone regardless of disability.
  - Strategy: Remove barriers by providing ADA-accessible vehicles and bus stops.
  - Strategy: Develop a plan to address geographic coverage using established standards and criteria.

Goal 2: Address the mobility needs of the Bullhead City community.

- Objective: Improve access to employment, healthcare, shopping, etc.
  - Strategy: Ensure intra-service connectivity.
  - Strategy: Introduce evening service hours.
  - Strategy: Introduce expanded Saturday service.

  - Strategy: Introduce Sunday service.
- Objective: Promote regional connectivity.
  - Strategy: Coordinate with other transit operators in the region.
  - Strategy: Implement service to areas outside of Bullhead City.

Goal 3: Promote the widespread use of Bullhead Area Transit within Bullhead City.

- Objective: Raise awareness of the service and where it travels.
  - Strategy: Implement a marketing plan.
  - Strategy: Develop a unified brand.
- Objective: Improve accessibility of service information.
  - Strategy: Provide access to service information at all bus stops.
  - Strategy: Rebuild the BATS website.

Goal 4: Maximize the efficiency of transit administration and operations.

- Objective: Implement new technology for data collection.
  - Strategy: Consider the purchase and installation of automatic passenger counters (APC) on transit vehicles.
  - Strategy: Consider the purchase and installation of Global Positioning System (GPS) hardware on transit vehicles to provide real-time tracking.
- Objective: Develop a dedicated facility to support transit operations and fleet maintenance.
- Objective: Implement new technology for fleet maintenance.
  - Strategy: Consider use of a fleet management platform to track preventive and critical fleet maintenance needs.
- Objective: Streamline administrative activities.
  - Strategy: Identify optimal staffing requirements.
  - Strategy: Consider use of technology to optimize administrative processes and improve the timeliness and accuracy of reporting.

We kept these goals in mind as we developed our recommendations, which are described in the service scenarios below. We believe our recommendations offer the most practical and efficient means for the City to further the goals of its public transit program, within the framework of current and likely future resources.

Current Operational Conditions

While a full service evaluation was presented in Working Paper 3, this section serves to summarize the current[1] operational conditions for both the fixed-route and Dial-A-Ride services.

Exhibit 4.1 Operational Summary[2]

	BATS fixed-route	Dial-A-BATS
Operating Cost	$637,357	$183,036
Ridership (unlinked trips)	156,312	7,009
Vehicle Service Hours (VSH)	13,291	3,817
Vehicle Service Miles (VSM)	214,588	47,944
Farebox Recovery	22.1%	2.6%
Cost/VSH	$47.95	$47.95
Cost/VSM	$2.97	$3.82
Unlinked trips/VSH	11.76	1.84
Unlinked trips/VSM	0.73	0.15

The City's public transit service currently operates Monday through Friday (6:00 a.m. through 8:00 p.m.) and Saturday (from 7:30 a.m. to 3:30 p.m.). No Sunday service is provided. The Red Line attracts the highest ridership, with nearly 60 percent of unlinked trips, followed by the Blue Line (34 percent) and Green Line (7 percent). Service is provided using four fixed-route vehicles and two Dial-A-BATS vehicles.

[1] All data in this section reflects FY 2013 actual performance.
[2] See Chapter 3, System and Service Evaluation, for additional details regarding sources of operating data and the calculation of performance measures.

Scenario 1: Optimization of Current Service (Short-term)

The goal of Scenario 1 is to improve the efficiency and productivity of the BATS program, as well as its ability to serve the mobility needs of the community, while remaining within the constraints of available funding resources. We envision these primarily as short-term solutions which can be used as a stepping stone to the Reallocation Scenario that follows.

Optimization Recommendation 1: Implement timing adjustments to Red Line.

Re-time the Red Line North to more effectively serve the needs of Bullhead City residents, particularly residents who must travel from Laughlin to meet the BATS bus. This recommendation would result in the departure of the Red Line from the Boat Dock on the half-hour to facilitate travel on the water taxi from Laughlin at the end of a work shift. The Red Line South and the Green Line would be adjusted as well to maintain connectivity. Exhibit 4.2 illustrates that with this timing adjustment, transit service would begin and end each service day thirty minutes earlier than presently scheduled. The schedule as shown below adds one trip (Trip 12), which could be omitted so that the status quo regarding current Red Line service delivery (i.e., last two Red Line north and south trips being made with the same vehicle) can be maintained. (The Saturday schedule is presented in Exhibit 4.4 following Optimization Recommendation 2.)

Exhibit 4.2 Red Line (North) Schedule – Weekday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13
Depart K-Mart	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
Palma Way/Hwy 95	6:04 AM	7:04 AM	8:04 AM	9:04 AM	10:04 AM	11:04 AM	12:04 PM	1:04 PM	2:04 PM	3:04 PM	4:04 PM	5:04 PM	6:04 PM
Safeway	6:08 AM	7:08 AM	8:08 AM	9:08 AM	10:08 AM	11:08 AM	12:08 PM	1:08 PM	2:08 PM	3:08 PM	4:08 PM	5:08 PM	6:08 PM
Hwy 95/Rancho Colorado Blvd	6:12 AM	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM	6:12 PM
Hwy 95/Third St	6:15 AM	7:15 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM	4:15 PM	5:15 PM	6:15 PM
Hwy 95/Seventh St	6:16 AM	7:16 AM	8:16 AM	9:16 AM	10:16 AM	11:16 AM	12:16 PM	1:16 PM	2:16 PM	3:16 PM	4:16 PM	5:16 PM	6:16 PM
Hwy 95/Airport Center Dr	6:20 AM	7:20 AM	8:20 AM	9:20 AM	10:20 AM	11:20 AM	12:20 PM	1:20 PM	2:20 PM	3:20 PM	4:20 PM	5:20 PM	6:20 PM
Arrive Boat Dock	6:25 AM	7:25 AM	8:25 AM	9:25 AM	10:25 AM	11:25 AM	12:25 PM	1:25 PM	2:25 PM	3:25 PM	4:25 PM	5:25 PM	6:25 PM
Depart Boat Dock	6:30 AM	7:30 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM	2:30 PM	3:30 PM	4:30 PM	5:30 PM	6:30 PM
Hwy 95/Sixth St	6:35 AM	7:35 AM	8:35 AM	9:35 AM	10:35 AM	11:35 AM	12:35 PM	1:35 PM	2:35 PM	3:35 PM	4:35 PM	5:35 PM	6:35 PM
Hwy 95/Third St	6:38 AM	7:38 AM	8:38 AM	9:38 AM	10:38 AM	11:38 AM	12:38 PM	1:38 PM	2:38 PM	3:38 PM	4:38 PM	5:38 PM	6:38 PM
Hwy 95/First St	6:40 AM	7:40 AM	8:40 AM	9:40 AM	10:40 AM	11:40 AM	12:40 PM	1:40 PM	2:40 PM	3:40 PM	4:40 PM	5:40 PM	6:40 PM
Hwy 95/Rancho Colorado Blvd	6:43 AM	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM	6:43 PM
Safeway	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM	6:48 PM
Palma Way/Hwy 95	6:51 AM	7:51 AM	8:51 AM	9:51 AM	10:51 AM	11:51 AM	12:51 PM	1:51 PM	2:51 PM	3:51 PM	4:51 PM	5:51 PM	6:51 PM
Palma Rd/Hancock Rd	6:53 AM	7:53 AM	8:53 AM	9:53 AM	10:53 AM	11:53 AM	12:53 PM	1:53 PM	2:53 PM	3:53 PM	4:53 PM	5:53 PM	6:53 PM
Arrive K-Mart	6:55 AM	7:55 AM	8:55 AM	9:55 AM	10:55 AM	11:55 AM	12:55 PM	1:55 PM	2:55 PM	3:55 PM	4:55 PM	5:55 PM	6:55 PM

Optimization Recommendation 2: Split the Red Line into two separate routes.

We recommend the City split the Red Line into a new Red Line (formerly North) and an Orange Line (formerly South). Splitting the Red Line into two separate routes will help minimize delays that can arise due to the extremely long route resulting from the current practice of running the routes in a "figure-eight" pattern (wherein one vehicle makes a round trip on the northern portion of the route, then a round trip on the southern portion). The two routes would continue to offer seamless connections between southern and northern portions of the city via a transfer at K-Mart. The schedule presented below is timed to reflect the changes to the Red Line cited in Optimization Recommendation 1.

In order to facilitate connectivity with the Red Line, Orange Line service would begin and end each service day thirty minutes earlier than presently scheduled.

For Saturday service, the Red and Orange Lines would continue to interline (as the Red Line currently does) to provide three alternating trips on each route.

Exhibit 4.3 Orange Line Schedule – Weekday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12
Depart K-Mart	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Riverview Mall	6:02 AM	7:02 AM	8:02 AM	9:02 AM	10:02 AM	11:02 AM	12:02 PM	1:02 PM	2:02 PM	3:02 PM	4:02 PM	5:02 PM
Miracle Mile/Marina Blvd	6:03 AM	7:03 AM	8:03 AM	9:03 AM	10:03 AM	11:03 AM	12:03 PM	1:03 PM	2:03 PM	3:03 PM	4:03 PM	5:03 PM
Riverview Dr/Hwy 95	6:06 AM	7:06 AM	8:06 AM	9:06 AM	10:06 AM	11:06 AM	12:06 PM	1:06 PM	2:06 PM	3:06 PM	4:06 PM	5:06 PM
DES at Havasupai/Hwy 95	6:08 AM	7:08 AM	8:08 AM	9:08 AM	10:08 AM	11:08 AM	12:08 PM	1:08 PM	2:08 PM	3:08 PM	4:08 PM	5:08 PM
Walmart at Mohave Dr	6:12 AM	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM
Target at Ash Ave/Long Ave	6:20 AM	7:20 AM	8:20 AM	9:20 AM	10:20 AM	11:20 AM	12:20 PM	1:20 PM	2:20 PM	3:20 PM	4:20 PM	5:20 PM
North Ave/Frontage Road	6:22 AM	7:22 AM	8:22 AM	9:22 AM	10:22 AM	11:22 AM	12:22 PM	1:22 PM	2:22 PM	3:22 PM	4:22 PM	5:22 PM
Arrive MCC	6:25 AM	7:25 AM	8:25 AM	9:25 AM	10:25 AM	11:25 AM	12:25 PM	1:25 PM	2:25 PM	3:25 PM	4:25 PM	5:25 PM
Depart MCC	6:35 AM	7:35 AM	8:35 AM	9:35 AM	10:35 AM	11:35 AM	12:35 PM	1:35 PM	2:35 PM	3:35 PM	4:35 PM	5:35 PM
Palo Verde Medical at Easy St.	6:38 AM	7:38 AM	8:38 AM	9:38 AM	10:38 AM	11:38 AM	12:38 PM	1:38 PM	2:38 PM	3:38 PM	4:38 PM	5:38 PM
Walmart at Mohave Dr.	6:44 AM	7:44 AM	8:44 AM	9:44 AM	10:44 AM	11:44 AM	12:44 PM	1:44 PM	2:44 PM	3:44 PM	4:44 PM	5:44 PM
Riverview Dr/Hwy 95	6:46 AM	7:46 AM	8:46 AM	9:46 AM	10:46 AM	11:46 AM	12:46 PM	1:46 PM	2:46 PM	3:46 PM	4:46 PM	5:46 PM
Miracle Mile/Marina Blvd	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM
Riverview Mall	6:50 AM	7:50 AM	8:50 AM	9:50 AM	10:50 AM	11:50 AM	12:50 PM	1:50 PM	2:50 PM	3:50 PM	4:50 PM	5:50 PM
Arrive K-Mart	6:55 AM	7:55 AM	8:55 AM	9:55 AM	10:55 AM	11:55 AM	12:55 PM	1:55 PM	2:55 PM	3:55 PM	4:55 PM	5:55 PM

Exhibit 4.4 Red and Orange Line Schedule – Saturday

Stops	Trip 1	Trip 2	Trip 3
Depart K-Mart	8:00 AM	10:00 AM	12:00 PM
Riverview Mall	8:02 AM	10:02 AM	12:02 PM
Miracle Mile/Marina Blvd	8:03 AM	10:03 AM	12:03 PM
Riverview Dr/Hwy 95	8:06 AM	10:06 AM	12:06 PM
DES at Havasupai/Hwy 95	8:08 AM	10:08 AM	12:08 PM
Walmart at Mohave Dr	8:12 AM	10:12 AM	12:12 PM
Target at Ash Ave/Long Ave	8:20 AM	10:20 AM	12:20 PM
North Ave/Frontage Road	8:22 AM	10:22 AM	12:22 PM
Arrive MCC	8:25 AM	10:25 AM	12:25 PM
Depart MCC	8:35 AM	10:35 AM	12:35 PM
Palo Verde Medical at Easy St.	8:38 AM	10:38 AM	12:38 PM
Walmart at Mohave Dr.	8:44 AM	10:44 AM	12:44 PM
Riverview Dr/Hwy 95	8:46 AM	10:46 AM	12:46 PM
Miracle Mile/Marina Blvd	8:48 AM	10:48 AM	12:48 PM
Riverview Mall	8:50 AM	10:50 AM	12:50 PM
Arrive K-Mart	8:55 AM	10:55 AM	12:55 PM

Stops	Trip 1	Trip 2	Trip 3
Depart K-Mart	9:00 AM	11:00 AM	1:00 PM
Palma Way/Hwy 95	9:04 AM	11:04 AM	1:04 PM
Safeway	9:08 AM	11:08 AM	1:08 PM
Hwy 95/Rancho Colorado Blvd	9:12 AM	11:12 AM	1:12 PM
Hwy 95/Third St	9:15 AM	11:15 AM	1:15 PM
Hwy 95/Seventh St	9:16 AM	11:16 AM	1:16 PM
Hwy 95/Airport Center Dr	9:20 AM	11:20 AM	1:20 PM
Arrive Boat Dock	9:25 AM	11:25 AM	1:25 PM
Depart Boat Dock	9:30 AM	11:30 AM	1:30 PM
Hwy 95/Sixth St	9:35 AM	11:35 AM	1:35 PM
Hwy 95/Third St	9:38 AM	11:38 AM	1:38 PM
Hwy 95/First St	9:40 AM	11:40 AM	1:40 PM
Hwy 95/Rancho Colorado Blvd	9:43 AM	11:43 AM	1:43 PM
Safeway	9:48 AM	11:48 AM	1:48 PM
Palma Way/Hwy 95	9:51 AM	11:51 AM	1:51 PM
Palma Rd/Hancock Rd	9:53 AM	11:53 AM	1:53 PM
Arrive K-Mart	9:55 AM	11:55 AM	1:55 PM

Optimization Recommendation 3: Introduce low-cost transfers between all routes.
Should the recommendation to convert the Red Line into the Red Line and Orange Line be implemented, the issue of transfers could become problematic. Absent transfer policy, customers who can currently remain on the Red Line vehicle to travel from south Bullhead City to the Boat Dock for a single fare would be required to pay a second full fare to complete their trip using the Orange and Red Lines. However, allowing free transfers between the Red and Orange Lines would be difficult to enforce. As such, we recommend the introduction of paid transfers between routes.

Transfers would be priced at twenty-five cents and would be available upon request when boarding the initial vehicle. While this may be viewed as a fare increase by some customers, it may also be viewed as a fare decrease by others who no longer have to pay a second full fare to transfer between other routes, such as from the Blue Line to the Red Line.

Introduction of transfers would also require the development and production of transfer slips, which would be deposited in the farebox upon boarding the second bus. A sample of a transfer slip used by the City of Burbank (CA) is provided in Exhibit 4.5. This type of slip is simple to produce while also documenting the route transferred from as well as the day the transfer was requested. A more detailed transfer showing the time during which the transfer is valid is provided in Exhibit 4.6.

Driver training would also be a key element of enforcing the transfer policy. Not only do they need to be familiar with the transfer slip itself and how to mark/stamp/punch it, but also when and how it can be used. Teaching drivers not to accept passes for a return trip or outside the designated time period will be critical.

We also recommend reducing the cost of the BATS day pass from $4.00 to $3.00. This makes the pass more in line with industry standards (wherein a day pass typically costs between two and three times the cost of a one-way trip) as well as a more affordable exemption from the payment of transfers.

Exhibit 4.5 Sample Transfer Slip – BurbankBus

Exhibit 4.6 Sample Transfer Slip – VISTA

Optimization Recommendation 4: On-call service to Katherine Heights.

The time needed to travel to Katherine Heights is not adequate for the Green Line to remain on schedule. As such, we recommend the Green Line serve Katherine Heights during designated trips only on demand, rather than running empty on multiple trips. Customers requiring a pick-up or service to Katherine Heights would need to call in with their reservation the day before service is desired. This would allow the Green Line to bypass Katherine Heights on trips where no service is needed.

Optimization Recommendation 5: Implement timing adjustments to Green Line.

In order to facilitate connections with the Red Line, the Green Line would need to undergo a similar retiming to facilitate its departure from the Boat Dock on the half-hour. We also recommend starting and ending Green Line service at Safeway (rather than the Boat Dock) to reduce deadhead time. This will result in the addition of a "Trip 0" which would pick up at Safeway before traveling to the Boat Dock for the first Green Line trip of the day and would not return to the Boat Dock at the end of the final trip. All printed schedule materials should still include language notifying customers that Green Line service may include a diversion to Katherine Heights on certain trips, as well as what the alternate schedule is.

Exhibit 4.7 Green Line Schedule – Weekday

Stops	Trip 0	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7a	Trip 7	Trip 8	Trip 9	Trip 10
Depart Boat Dock		6:30 AM	7:30 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM		3:30 PM	4:30 PM	5:30 PM	6:30 PM
Katherine Heights Community		6:38 AM	7:38 AM				11:38 AM		3:38 PM			6:38 PM
Mercer Rd/Yucca St		6:42 AM	7:42 AM				11:42 AM		3:42 PM			6:42 PM
McCormick Blvd/Sun Lamp Dr		6:43 AM	7:43 AM	8:41 AM	9:41 AM	10:41 AM	11:43 AM		3:43 PM	4:41 PM	5:41 PM	6:43 PM
McCormick Blvd/Casa del Sol Apts		6:44 AM	7:44 AM	8:42 AM	9:42 AM	10:42 AM	11:44 AM		3:44 PM	4:42 PM	5:42 PM	6:44 PM
McCormick Blvd/Landon Dr West		6:45 AM	7:45 AM	8:43 AM	9:43 AM	10:43 AM	11:45 AM		3:45 PM	4:43 PM	5:43 PM	6:45 PM
McCormick Blvd/Park River Dr		6:47 AM	7:47 AM	8:45 AM	9:45 AM	10:45 AM	11:47 AM		3:47 PM	4:45 PM	5:45 PM	6:47 PM
Park River Dr/Park Ridge Dr		6:48 AM	7:48 AM	8:46 AM	9:46 AM	10:46 AM	11:48 AM		3:48 PM	4:46 PM	5:46 PM	6:48 PM
Oak Ave/Locust Blvd		6:50 AM	7:50 AM	8:48 AM	9:48 AM	10:48 AM	11:50 AM		3:50 PM	4:48 PM	5:48 PM	6:50 PM
Desert Foothills Blvd/Canyon Walk Apts		6:55 AM	7:55 AM	8:53 AM	9:53 AM	10:53 AM	11:55 AM		3:55 PM	4:53 PM	5:53 PM	6:55 PM
Canyon Rd/Bullhead Pkwy				9:05 AM	10:05 AM	11:05 AM				5:05 PM	6:05 PM	
WARMC		7:09 AM	8:09 AM	9:11 AM	10:11 AM	11:11 AM	12:09 PM		4:09 PM	5:11 PM	6:11 PM	7:09 PM
Safeway	6:15 AM	7:15 AM	8:15 AM	9:17 AM	10:17 AM	11:17 AM	12:15 PM	3:15 PM	4:15 PM	5:17 PM	6:17 PM	7:15 PM
Arrive Boat Dock	6:27 AM	7:27 AM	8:27 AM	9:29 AM	10:29 AM	11:29 AM		3:27 PM	4:27 PM	5:29 PM	6:29 PM	

Exhibit 4.8 Green Line Schedule – Saturday

Stops	Trip 0	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6
Depart Boat Dock		8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM
Katherine Heights Community		8:38 AM		10:38 AM			1:38 PM
Mercer Rd/Yucca St		8:42 AM		10:42 AM			1:42 PM
McCormick Blvd/Sun Lamp Dr		8:43 AM	9:41 AM	10:43 AM	11:41 AM	12:41 PM	1:43 PM
McCormick Blvd/Casa del Sol Apts		8:44 AM	9:42 AM	10:44 AM	11:42 AM	12:42 PM	1:44 PM
McCormick Blvd/Landon Dr West		8:45 AM	9:43 AM	10:45 AM	11:43 AM	12:43 PM	1:45 PM
McCormick Blvd/Park River Dr		8:47 AM	9:45 AM	10:47 AM	11:45 AM	12:45 PM	1:47 PM
Park River Dr/Park Ridge Dr		8:48 AM	9:46 AM	10:48 AM	11:46 AM	12:46 PM	1:48 PM
Oak Ave/Locust Blvd		8:50 AM	9:48 AM	10:50 AM	11:48 AM	12:48 PM	1:50 PM
Desert Foothills Blvd/Canyon Walk Apts		8:55 AM	9:53 AM	10:55 AM	11:53 AM	12:53 PM	1:55 PM
Canyon Rd/Bullhead Pkwy			10:05 AM		12:05 PM	1:05 PM	
WARMC		9:09 AM	10:11 AM	11:09 AM	12:11 PM	1:11 PM	2:09 PM
Safeway	8:15 AM	9:15 AM	10:17 AM	11:15 AM	12:17 PM	1:17 PM	2:15 PM
Arrive Boat Dock	8:27 AM	9:27 AM	10:29 AM	11:27 AM	12:29 PM	1:29 PM	

Optimization Recommendation 6: Coordinate timed-transfer at key transfer points.
Coordinate timed-transfer between routes at key transfer points (specifically, Safeway, K-Mart, and the Boat Dock) to enhance system-wide connectivity.

Exhibit 4.9 notes the arrival and departure times at each key transfer point. Aside from interline transfers from the Blue Line East to the Red or Orange Lines, or from the Red or Orange Lines to the Blue Line West, there is little excess wait time. The reason for the delays on these routes is the 30-minute headways of each Blue Line segment and the one-hour headways for the Red and Orange Lines. Red and Green Line buses depart the Boat Dock at 30 minutes past the hour, allowing sufficient transfer time from a BATS route or the water taxi from Laughlin.

Exhibit 4.9 Timed Transfers

Route	Boat Dock		K-Mart		WARMC	Safeway
	Arrive	Depart	Arrive	Depart		
Red	:25	:30	:55	:00	---	:08/:48
Orange	---	---	:55	:00	---	---
Blue East	---	---	:25	:00	:12	:16
Blue West	---	---	:56	:30	---	---
Green (with Fox Creek)	:29	:30	---	---	:11	:17
Green (with Katherine Heights)	:27	:30	---	---	:09	:15

Optimization Recommendation 7: Eliminate Red Line deviations from Highway 95.
Frequent deviations from Highway 95 in the vicinity of First Street through Seventh Street negatively impact the performance of the Red Line North. As such, we recommend keeping the path of travel (route alignment) on Highway 95 rather than diverting to Lee Avenue (northbound) and Long Avenue (southbound). This will not only improve the performance of the Red Line North but will also reduce the amount of turning while minimizing travel along side streets where the infrastructure was not designed for bus travel. We anticipate eliminating approximately 1.5 vehicle service miles per round trip, which translates to in excess of 95 miles per service week. While it is impossible to determine exactly how much time would be saved by eliminating these diversions, it would be likely to result in a net gain of 10 to 12 minutes per round trip.

However, this recommendation cannot be implemented within the current regulatory landscape. According to ADOT's Bus Stop Encroachment Permit Policies and Procedures, bus stops are allowed along state highways where the speed limit is less than 55 miles per hour. While Bullhead City meets this requirement, the construction of bus pull-out areas would also likely be required. ADOT is working toward the revision of some of these guidelines, yet as it stands (given the current roadway does not have three through lanes in the direction of travel and the posted speed limit is higher than 35 miles per hour), the City would have to construct pull-out areas in order to serve bus stops along Highway 95. As a result, this recommendation may need to be tabled until 1) it can be determined if bus pull-out areas are indeed required, and 2) if they are required, capital funds can be acquired to construct the bus pull-outs.

A list of the bus stops recommended for relocation is presented in Exhibit 4.10.

Exhibit 4.10 Red Line Bus Stops for Relocation

Current Location	New Location
Rancho Colorado (in front of Access RV, Boat, & Self Storage)	Hwy 95 north of Merrill Rd (existing pull-out area) (NB)
Third Street east of Hwy 95 (in front of Best Western)	Hwy 95 north of Third Street (adjacent to Best Western)
Seventh Street east of Hwy 95 (across from Oasis Park Apartments)	Hwy 95 north of Seventh Street (adjacent to Post Office)
Sixth Street west of Hwy 95 (across from Desert Rancho Motel)	Hwy 95 south of Sixth Street (adjacent to Desert Rancho Motel)
Third Street west of Hwy 95 (adjacent to Family Dollar)	Hwy 95 south of Third Street (adjacent to FasTrip Gas Station)
First Street west of Hwy 95 (adjacent to Triple-A Trailer Park)	Hwy 95 south of First Street (adjacent to baseball fields)

We also recommend elimination of the Home Depot/Sam's Club stop due to its low usage.

Optimization Recommendation 8: Introduce zone pricing for Dial-A-BATS service.

Pursuant to the Americans with Disabilities Act (ADA), the City is obligated to provide service to all areas within three-quarters of a mile of fixed-route service. Dial-A-BATS currently exceeds this requirement, providing service to Katherine Heights (where it is technically not required due to the deviated fixed-route nature of that service) as well as all areas within city limits, regardless of proximity to a transit route.

We do not recommend reducing Dial-A-BATS service at this time. Instead, we propose the introduction of a zone-based fare system, wherein trips within city limits (including the ADA-required zone) would cost the base fare, while trips outside of the base zone would be priced higher. This will allow the City to improve its farebox recovery with respect to the Dial-A-BATS service without reducing the level of service provided.

The City has already established a precedent for this through its additional charge for service to Laughlin. Zone pricing would expand this surcharge to include service to any area both outside of city limits and more than three-quarters of a mile from fixed-route service (specifically Katherine Heights). However, given Laughlin technically falls within the three-quarter-mile boundary and in light of the final guidance from the FTA which amends the jurisdictional boundary exception to service area criterion,[3] the City should consult with ADOT and the FTA to determine if the Laughlin surcharge is in compliance with the ADA.

Exhibit 4.11 Dial-A-BATS Zone Pricing

Fare Type	Cost
Base Fare (Zone 1)	$2.00
Additional Zone 2 charge (Laughlin/Katherine Heights)	$1.00

[3] Americans with Disabilities Act, Section §37.131 (a)(3) "*Jurisdictional boundaries.* Notwithstanding any other provision of this paragraph, an entity is not required to provide paratransit service in an area outside the boundaries of the jurisdiction(s) in which it operates, if the entity does not have legal authority to operate in that area. The entity shall take all practicable steps to provide paratransit service to any part of its service area." Amended in 2006 to read "This exception to the service area criterion does not automatically apply whenever there is a political boundary, only when there is a legal bar to the entity providing service on the other side of the boundary."

Optimization Recommendation 9: Consider alternatives to traditional in-house Dial-A-Ride service to meet ADA requirements.

Currently, the Dial-A-BATS program is much lower-performing that the fixed-route service. While it is not uncommon for a demand-response program to operate less than efficiently, particularly when compared to fixed-route, we recommend the City begin looking at alternatives to its ADA complementary paratransit service. This will enable the City to identify other service delivery options to determine how to continue meeting ADA requirements while maximizing efficiency and effectiveness.

There is still room to identify efficiencies in the current system, but efficiencies only offer the potential for single-digit improvement in performance. Transitioning to an alternative service delivery model could potentially reduce capital (vehicle) requirements, operating costs, and administrative costs while improving overall system performance.

While multiple options currently exist, we recommend the City explore the potential of each of the following types of programs:

- Continue providing Dial-A-BATS service in-house, but reduce the service area to only ¾-mile from fixed-route service.
- Contracting Dial-A-BATS service to a local social services provider, wherein the City would pay an annual fixed fee for them to provide ADA complementary paratransit service.
- Taxi voucher program, wherein ADA customers can purchase vouchers at the same price they would pay for a Dial-A-BATS trip, but the trip would be provided by a local taxi service. The City would be charged on a per-use basis rather than paying for service up-front.

Scenario 2: Reallocation of Resources (Mid-Term)

The goal of Scenario 2 is to reallocate existing resources in such a manner as to maximize their value. This scenario addresses a number of key operational issues (such as using Safeway as a key transfer point and Green Line performance) as well as several policy issues. It is important to note that the majority of the recommendations under this scenario will require public hearings and community input prior to their implementation due to the significant changes to the current system that would result. We view this scenario as a successor to the Optimization Scenario, as it involves a large-scale revision to the entire BATS system. See Exhibits 4.15 and 4.18 for maps of proposed route alignments.

While this scenario is not intended to be cost-neutral, it also does not introduce new or significantly expanded fixed-route service (two additional weekday hours and two Saturday hours added system wide) and largely remains within the current service delivery "footprint" both geographically and temporally.

Reallocation Recommendation 1: Realign all routes to transfer at Safeway.

This recommendation realigns all routes so that customers can transfer on the hour at Safeway. Since the recent Green Line routing change due to the closure of Gold Rush Rd, all three routes have served Safeway. Safeway is a more central transfer location than K-Mart, and customer feedback has been extremely positive since the Green Line began stopping there. As such, we recommend Safeway be established as the new transfer point. Each route is discussed individually in the recommendations below.

Exhibit 4.12 Timed Transfers at Safeway

Route	Safeway	
	Arrive	Depart
Red	:52	:00
Orange	:55	:00
Blue	:52	:00
Green	:47/:52	:00

Reallocation Recommendation 2: Eliminate the northernmost segment of the Green Line and incorporate the Blue Line East into the Green Line.

Elimination of Green Line north of the Canyon Walk Apartments will allow it to be merged with the Blue Line. By alternating service to Desert Foothills Blvd and south to Fox Creek, both areas can be served throughout the day while integrating service to central Bullhead City as well as continuing service to WARMC and Safeway. The revised Green Line includes additional service in the Fox Creek area (adding one stop at Adobe Rd and Bullhead Pkwy) as well as an additional stop at Rio Vista Dr and Monte Vista Dr. These two new stops will require only signage initially, with further development (benches and shelters) as usage warrants. The Green Line will operate during the same hours as the current Blue Line, from 6:00 a.m. to approximately 8:00 p.m. without a midday break in service. Service will start and end at Safeway (see Reallocation Recommendation 1 for additional details).

This will result in the elimination of service to Katherine Heights as well as portions of northern Bullhead City. We recommend the City discuss other options with Katherine Heights, such as the development by Katherine Heights of a volunteer or part-time driver shuttle program. The City could consider donating a van that is no longer being used for revenue service to Katherine Heights to support such a program.

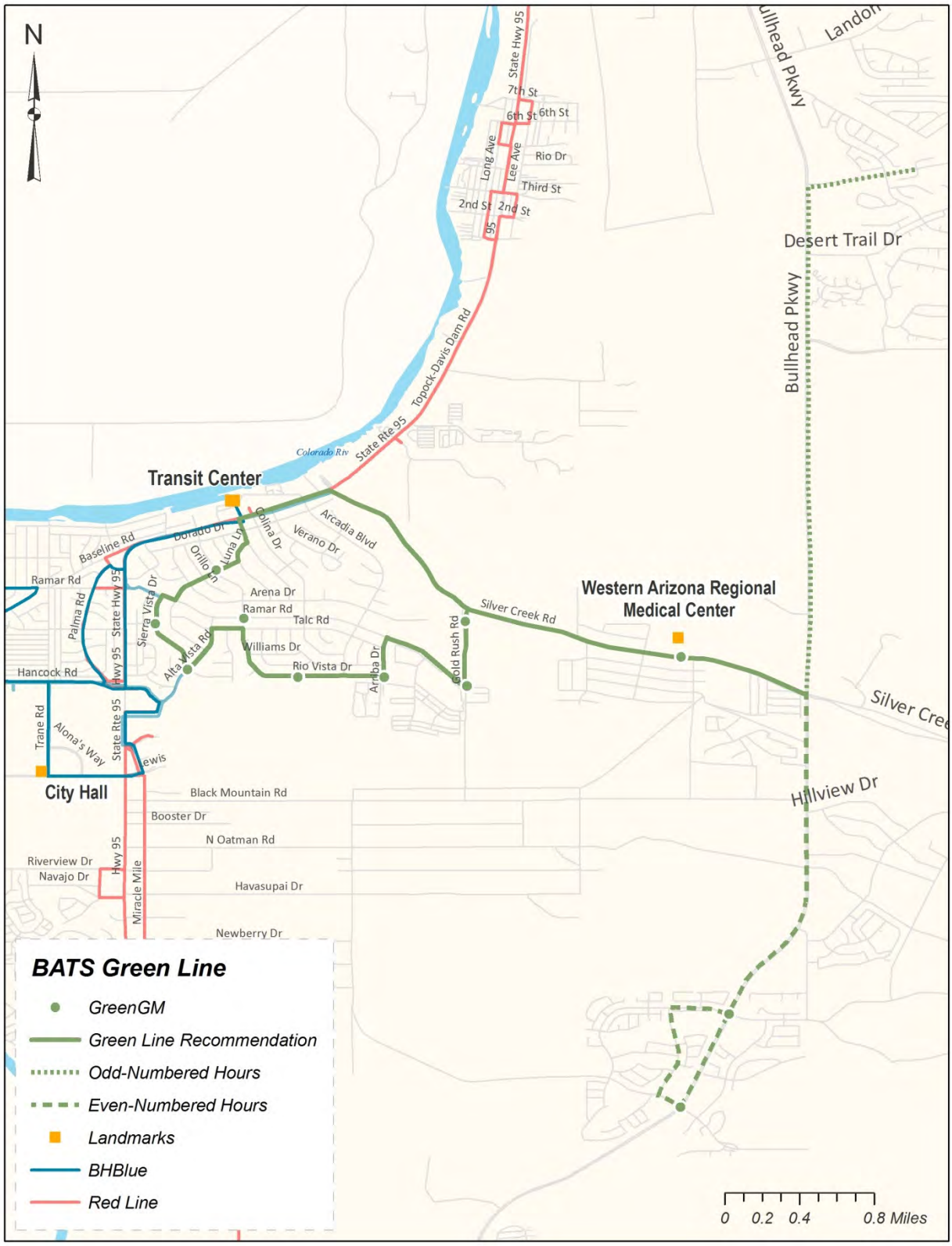
Exhibit 4.13 Proposed Green Line – Weekday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
Rio Vista Dr/Monte Vista Dr	6:02 AM	7:02 AM	8:02 AM	9:02 AM	10:02 AM	11:02 AM	12:02 PM	1:02 PM	2:02 PM	3:02 PM	4:02 PM	5:02 PM	6:02 PM
Sierra Vista Dr/Talc Dr	6:05 AM	7:05 AM	8:05 AM	9:05 AM	10:05 AM	11:05 AM	12:05 PM	1:05 PM	2:05 PM	3:05 PM	4:05 PM	5:05 PM	6:05 PM
Alta Vista Rd/Sierra Vista Dr	6:07 AM	7:07 AM	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM	4:07 PM	5:07 PM	6:07 PM
Rio Vista Rd/Talc Rd	6:09 AM	7:09 AM	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM	4:09 PM	5:09 PM	6:09 PM
Rio Vista Rd/Toro Way	6:10 AM	7:10 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM	4:10 PM	5:10 PM	6:10 PM
Arriba Dr/Rio Vista Rd	6:12 AM	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM	6:12 PM
Goldrush Rd/Ramar Rd	6:14 AM	7:14 AM	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM	4:14 PM	5:14 PM	6:14 PM
Gold Rush Business Center	6:15 AM	7:15 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM	4:15 PM	5:15 PM	6:15 PM
WARMC	6:19 AM	7:19 AM	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM	4:19 PM	5:19 PM	6:19 PM
Canyon Rd/Bullhead Pkwy	6:27 AM		8:27 AM		10:27 AM		12:27 PM		2:27 PM		4:27 PM		6:27 PM
Adobe Rd/Bullhead Pkwy	6:30 AM		8:30 AM		10:30 AM		12:30 PM		2:30 PM		4:30 PM		6:30 PM
Desert Foothills Blvd/Canyon Walk Apts		7:32 AM		9:32 AM		11:32 AM		1:32 PM		3:32 PM		5:32 PM	
WARMC	6:40 AM	7:45 AM	8:40 AM	9:45 AM	10:40 AM	11:45 AM	12:40 PM	1:45 PM	2:40 PM	3:45 PM	4:40 PM	5:45 PM	6:40 PM
Arrive Safeway	6:47 AM	7:52 AM	8:47 AM	9:52 AM	10:47 AM	11:52 AM	12:47 PM	1:52 PM	2:47 PM	3:52 PM	4:47 PM	5:52 PM	6:47 PM

Exhibit 4.14 Proposed Green Line – Saturday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8
Depart Safeway	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM
Rio Vista Dr/Monte Vista Dr	8:02 AM	9:02 AM	10:02 AM	11:02 AM	12:02 PM	1:02 PM	2:02 PM	3:02 PM
Sierra Vista Dr/Talc Dr	8:05 AM	9:05 AM	10:05 AM	11:05 AM	12:05 PM	1:05 PM	2:05 PM	3:05 PM
Alta Vista Rd/Sierra Vista Dr	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM
Rio Vista Rd/Talc Rd	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM
Rio Vista Rd/Toro Way	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM
Arriba Dr/Rio Vista Rd	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM
Goldrush Rd/Ramar Rd	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM
Gold Rush Business Center	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM
WARMC	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM
Desert Foothills Blvd/Canyon Walk Apts	8:32 AM	9:32 AM	10:32 AM	11:32 AM	12:32 PM	1:32 PM	2:32 PM	3:32 PM
WARMC	8:45 AM	9:45 AM	10:45 AM	11:45 AM	12:45 PM	1:45 PM	2:45 PM	3:45 PM
Arrive Safeway	8:52 AM	9:52 AM	10:52 AM	11:52 AM	12:52 PM	1:52 PM	2:52 PM	3:52 PM

Exhibit 4.15 Green Line Routing – Reallocation Scenario



Reallocation Recommendation 3: Expand the Blue Line west of Highway 95.

In addition to starting and ending the route at Safeway instead of K-Mart, the Blue Line is expanded to include additional service north of Hancock Rd. This brings transit service into areas not presently served while continuing to serve all stops served by the Blue Line West. Seven new stops will require signage initially, with further development (benches and shelters) as usage warrants.

The route will operate on 60-minute headways and absorbs portions of the Red Line no longer served. (See Reallocation Recommendation 4.) Given the proposed Red Line will no longer stop at K-Mart, the Blue Line will stop at K-Mart near both the beginning and end of the route to facilitate transfers to the Orange Line.

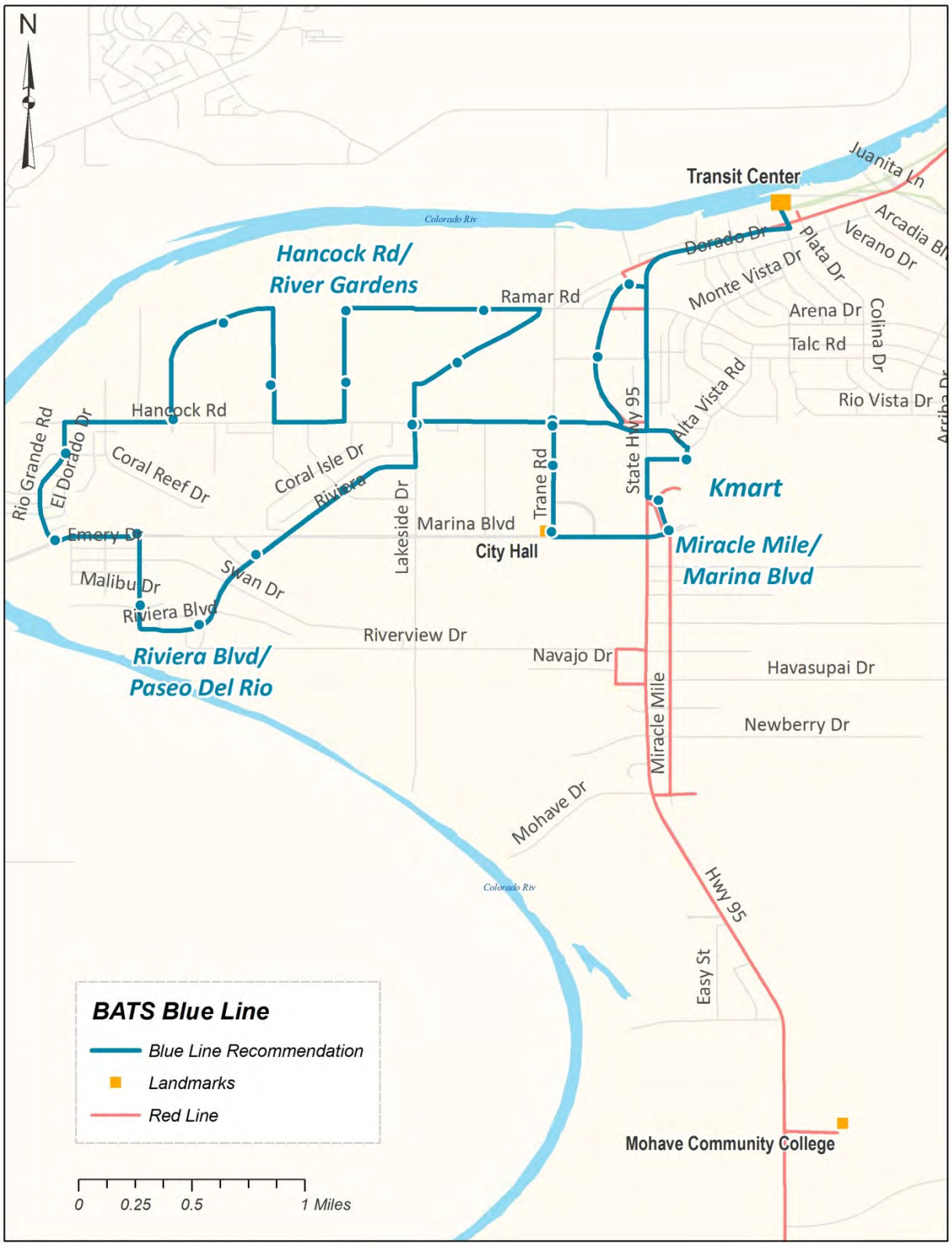
Exhibit 4.16 Proposed Blue Line – Weekday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13	Trip 14
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM
K-Mart	6:07 AM	7:07 AM	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM	4:07 PM	5:07 PM	6:07 PM	7:07 PM
Hancock Rd/Trane Rd	6:09 AM	7:09 AM	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM	4:09 PM	5:09 PM	6:09 PM	7:09 PM
Lakeside Dr/Smith's Grocery	6:11 AM	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM	6:11 PM	7:11 PM
Riviera Blvd/Surf Spray	6:13 AM	7:13 AM	8:13 AM	9:13 AM	10:13 AM	11:13 AM	12:13 PM	1:13 PM	2:13 PM	3:13 PM	4:13 PM	5:13 PM	6:13 PM	7:13 PM
Riviera Blvd/Commercial Way	6:14 AM	7:14 AM	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM	4:14 PM	5:14 PM	6:14 PM	7:14 PM
Riviera Blvd/Paseo Del Rio	6:15 AM	7:15 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM	4:15 PM	5:15 PM	6:15 PM	7:15 PM
Clearwater Dr/Malibu Dr	6:16 AM	7:16 AM	8:16 AM	9:16 AM	10:16 AM	11:16 AM	12:16 PM	1:16 PM	2:16 PM	3:16 PM	4:16 PM	5:16 PM	6:16 PM	7:16 PM
Clearwater Dr/Marina Blvd	6:17 AM	7:17 AM	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM	4:17 PM	5:17 PM	6:17 PM	7:17 PM
Rio Grande Rd/Marina Blvd	6:18 AM	7:18 AM	8:18 AM	9:18 AM	10:18 AM	11:18 AM	12:18 PM	1:18 PM	2:18 PM	3:18 PM	4:18 PM	5:18 PM	6:18 PM	7:18 PM
Rio Grande Rd/Rio Grande Way	6:19 AM	7:19 AM	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM	4:19 PM	5:19 PM	6:19 PM	7:19 PM
Hancock Rd/Ramar Rd	6:21 AM	7:21 AM	8:21 AM	9:21 AM	10:21 AM	11:21 AM	12:21 PM	1:21 PM	2:21 PM	3:21 PM	4:21 PM	5:21 PM	6:21 PM	7:21 PM
Ramar Rd/Yale St	6:23 AM	7:23 AM	8:23 AM	9:23 AM	10:23 AM	11:23 AM	12:23 PM	1:23 PM	2:23 PM	3:23 PM	4:23 PM	5:23 PM	6:23 PM	7:23 PM
River Gardens Dr/Church St	6:25 AM	7:25 AM	8:25 AM	9:25 AM	10:25 AM	11:25 AM	12:25 PM	1:25 PM	2:25 PM	3:25 PM	4:25 PM	5:25 PM	6:25 PM	7:25 PM
River Gardens Dr/Hancock Rd	6:26 AM	7:26 AM	8:26 AM	9:26 AM	10:26 AM	11:26 AM	12:26 PM	1:26 PM	2:26 PM	3:26 PM	4:26 PM	5:26 PM	6:26 PM	7:26 PM
Langford Dr/Baseline Rd	6:27 AM	7:27 AM	8:27 AM	9:27 AM	10:27 AM	11:27 AM	12:27 PM	1:27 PM	2:27 PM	3:27 PM	4:27 PM	5:27 PM	6:27 PM	7:27 PM
Langford Dr/Ramar Rd	6:29 AM	7:29 AM	8:29 AM	9:29 AM	10:29 AM	11:29 AM	12:29 PM	1:29 PM	2:29 PM	3:29 PM	4:29 PM	5:29 PM	6:29 PM	7:29 PM
Ramar Rd/Park Ln	6:31 AM	7:31 AM	8:31 AM	9:31 AM	10:31 AM	11:31 AM	12:31 PM	1:31 PM	2:31 PM	3:31 PM	4:31 PM	5:31 PM	6:31 PM	7:31 PM
Baseline Rd/Zircon Wy	6:33 AM	7:33 AM	8:33 AM	9:33 AM	10:33 AM	11:33 AM	12:33 PM	1:33 PM	2:33 PM	3:33 PM	4:33 PM	5:33 PM	6:33 PM	7:33 PM
Hancock Rd/Lakeside Dr	6:34 AM	7:34 AM	8:34 AM	9:34 AM	10:34 AM	11:34 AM	12:34 PM	1:34 PM	2:34 PM	3:34 PM	4:34 PM	5:34 PM	6:34 PM	7:34 PM
Trane Rd/Hancock Rd	6:36 AM	7:36 AM	8:36 AM	9:36 AM	10:36 AM	11:36 AM	12:36 PM	1:36 PM	2:36 PM	3:36 PM	4:36 PM	5:36 PM	6:36 PM	7:36 PM
Ken Forvargue Park/Trane Rd	6:37 AM	7:37 AM	8:37 AM	9:37 AM	10:37 AM	11:37 AM	12:37 PM	1:37 PM	2:37 PM	3:37 PM	4:37 PM	5:37 PM	6:37 PM	7:37 PM
Arrive City Hall on Trane Rd	6:38 AM	7:38 AM	8:38 AM	9:38 AM	10:38 AM	11:38 AM	12:38 PM	1:38 PM	2:38 PM	3:38 PM	4:38 PM	5:38 PM	6:38 PM	7:38 PM
Depart City Hall on Trane Rd	6:43 AM	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM	6:43 PM	7:43 PM
Miracle Mile/Marina Blvd	6:45 AM	7:45 AM	8:45 AM	9:45 AM	10:45 AM	11:45 AM	12:45 PM	1:45 PM	2:45 PM	3:45 PM	4:45 PM	5:45 PM	6:45 PM	7:45 PM
Riverview Mall	6:46 AM	7:46 AM	8:46 AM	9:46 AM	10:46 AM	11:46 AM	12:46 PM	1:46 PM	2:46 PM	3:46 PM	4:46 PM	5:46 PM	6:46 PM	7:46 PM
K-Mart	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM	6:48 PM	7:48 PM
Palma Rd/Hancock Rd	6:49 AM	7:49 AM	8:49 AM	9:49 AM	10:49 AM	11:49 AM	12:49 PM	1:49 PM	2:49 PM	3:49 PM	4:49 PM	5:49 PM	6:49 PM	7:49 PM
Palma Rd/Zircon Wy	6:50 AM	7:50 AM	8:50 AM	9:50 AM	10:50 AM	11:50 AM	12:50 PM	1:50 PM	2:50 PM	3:50 PM	4:50 PM	5:50 PM	6:50 PM	7:50 PM
Palma Rd/Palma Wy	6:51 AM	7:51 AM	8:51 AM	9:51 AM	10:51 AM	11:51 AM	12:51 PM	1:51 PM	2:51 PM	3:51 PM	4:51 PM	5:51 PM	6:51 PM	7:51 PM
Arrive Safeway	6:54 AM	7:54 AM	8:54 AM	9:54 AM	10:54 AM	11:54 AM	12:54 PM	1:54 PM	2:54 PM	3:54 PM	4:54 PM	5:54 PM	6:54 PM	7:54 PM

Exhibit 4.17 Proposed Blue Line – Saturday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8
Depart Safeway	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM
K-Mart	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM
Hancock Rd/Trane Rd	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM
Lakeside Dr/Smith's Grocery	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM
Riviera Blvd/Surf Spray	8:13 AM	9:13 AM	10:13 AM	11:13 AM	12:13 PM	1:13 PM	2:13 PM	3:13 PM
Riviera Blvd/Commercial Way	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM
Riviera Blvd/Paseo Del Rio	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM
Clearwater Dr/Malibu Dr	8:16 AM	9:16 AM	10:16 AM	11:16 AM	12:16 PM	1:16 PM	2:16 PM	3:16 PM
Clearwater Dr/Marina Blvd	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM
Rio Grande Rd/Marina Blvd	8:18 AM	9:18 AM	10:18 AM	11:18 AM	12:18 PM	1:18 PM	2:18 PM	3:18 PM
Rio Grande Rd/Rio Grande Way	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM
Hancock Rd/Ramar Rd	8:21 AM	9:21 AM	10:21 AM	11:21 AM	12:21 PM	1:21 PM	2:21 PM	3:21 PM
Ramar Rd/Yale St	8:23 AM	9:23 AM	10:23 AM	11:23 AM	12:23 PM	1:23 PM	2:23 PM	3:23 PM
River Gardens Dr/Church St	8:25 AM	9:25 AM	10:25 AM	11:25 AM	12:25 PM	1:25 PM	2:25 PM	3:25 PM
River Gardens Dr/Hancock Rd	8:26 AM	9:26 AM	10:26 AM	11:26 AM	12:26 PM	1:26 PM	2:26 PM	3:26 PM
Langford Dr/Baseline Rd	8:27 AM	9:27 AM	10:27 AM	11:27 AM	12:27 PM	1:27 PM	2:27 PM	3:27 PM
Langford Dr/Ramar Rd	8:29 AM	9:29 AM	10:29 AM	11:29 AM	12:29 PM	1:29 PM	2:29 PM	3:29 PM
Ramar Rd/Park Ln	8:31 AM	9:31 AM	10:31 AM	11:31 AM	12:31 PM	1:31 PM	2:31 PM	3:31 PM
Baseline Rd/Zircon Wy	8:33 AM	9:33 AM	10:33 AM	11:33 AM	12:33 PM	1:33 PM	2:33 PM	3:33 PM
Hancock Rd/Lakeside Dr	8:34 AM	9:34 AM	10:34 AM	11:34 AM	12:34 PM	1:34 PM	2:34 PM	3:34 PM
Trane Rd/Hancock Rd	8:36 AM	9:36 AM	10:36 AM	11:36 AM	12:36 PM	1:36 PM	2:36 PM	3:36 PM
Ken Forvargue Park/Trane Rd	8:37 AM	9:37 AM	10:37 AM	11:37 AM	12:37 PM	1:37 PM	2:37 PM	3:37 PM
Arrive City Hall on Trane Rd	8:38 AM	9:38 AM	10:38 AM	11:38 AM	12:38 PM	1:38 PM	2:38 PM	3:38 PM
Depart City Hall on Trane Rd	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM
Miracle Mile/Marina Blvd	8:45 AM	9:45 AM	10:45 AM	11:45 AM	12:45 PM	1:45 PM	2:45 PM	3:45 PM
Riverview Mall	8:46 AM	9:46 AM	10:46 AM	11:46 AM	12:46 PM	1:46 PM	2:46 PM	3:46 PM
K-Mart	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM
Palma Rd/Hancock Rd	8:49 AM	9:49 AM	10:49 AM	11:49 AM	12:49 PM	1:49 PM	2:49 PM	3:49 PM
Palma Rd/Zircon Wy	8:50 AM	9:50 AM	10:50 AM	11:50 AM	12:50 PM	1:50 PM	2:50 PM	3:50 PM
Palma Rd/Palma Wy	8:51 AM	9:51 AM	10:51 AM	11:51 AM	12:51 PM	1:51 PM	2:51 PM	3:51 PM
Arrive Safeway	8:54 AM	9:54 AM	10:54 AM	11:54 AM	12:54 PM	1:54 PM	2:54 PM	3:54 PM

Exhibit 4.18 Blue Line Routing – Reallocation Scenario



Reallocation Recommendation 4: Realign the Red Line to serve Suddenlink Community Center and terminate at Safeway.

Terminating the Red Line at Safeway would eliminate that portion of the route south of Safeway (which would be absorbed into the Blue Line). It would also free up time in the schedule which would allow two trips to the Suddenlink Community Center (both north- and southbound) as well as additional layover time at the Boat Dock. This additional layover time could be used to serve the Silver Rider terminal in Laughlin (see Service Expansion Recommendation 5 for a discussion of this option). (This scenario assumes that the eliminations of Red Line deviations recommended in Optimization Recommendation 7 have not been implemented.)

Exhibit 4.19 Proposed Red Line – Weekday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
Hwy 95/Merrill Ave	6:04 AM	7:04 AM	8:04 AM	9:04 AM	10:04 AM	11:04 AM	12:04 PM	1:04 PM	2:04 PM	3:04 PM	4:04 PM	5:04 PM	6:04 PM
Suddenlink Community Center	6:10 AM	7:10 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM	4:10 PM	5:10 PM	6:10 PM
Hwy 95/Third St	6:11 AM	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM	6:11 PM
Hwy 95/Seventh St	6:12 AM	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM	6:12 PM
Arrive Boat Dock	6:17 AM	7:17 AM	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM	4:17 PM	5:17 PM	6:17 PM
Depart Boat Dock	6:32 AM	7:32 AM	8:32 AM	9:32 AM	10:32 AM	11:32 AM	12:32 PM	1:32 PM	2:32 PM	3:32 PM	4:32 PM	5:32 PM	6:32 PM
Hwy 95/Sixth St	6:37 AM	7:37 AM	8:37 AM	9:37 AM	10:37 AM	11:37 AM	12:37 PM	1:37 PM	2:37 PM	3:37 PM	4:37 PM	5:37 PM	6:37 PM
Hwy 95/Third St	6:40 AM	7:40 AM	8:40 AM	9:40 AM	10:40 AM	11:40 AM	12:40 PM	1:40 PM	2:40 PM	3:40 PM	4:40 PM	5:40 PM	6:40 PM
Suddenlink Community Center	6:42 AM	7:42 AM	8:42 AM	9:42 AM	10:42 AM	11:42 AM	12:42 PM	1:42 PM	2:42 PM	3:42 PM	4:42 PM	5:42 PM	6:42 PM
Hwy 95/First St	6:44 AM	7:44 AM	8:44 AM	9:44 AM	10:44 AM	11:44 AM	12:44 PM	1:44 PM	2:44 PM	3:44 PM	4:44 PM	5:44 PM	6:44 PM
Hwy 95/Rancho Colorado Blvd	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM	6:48 PM
Arrive Safeway	6:52 AM	7:52 AM	8:52 AM	9:52 AM	10:52 AM	11:52 AM	12:52 PM	1:52 PM	2:52 PM	3:52 PM	4:52 PM	5:52 PM	6:52 PM

Reallocation Recommendation 5: Realign the Orange Line to terminate at Safeway.

Realigning the Orange Line to serve Safeway and coordinate with all other routes requires the elimination of three stops, specifically Riverview Mall, Miracle Mile, and North Avenue. Riverview Mall could be served on Saturday, however, as the Orange Line would not serve DES, Palo Verde Medical, or Mohave Community College on those days. The Saturday Orange Line route is designed to be run in concert with the Red Line using one bus operating in a figure-eight loop with two-hour headways.

Exhibit 4.20 Proposed Orange Line – Weekday

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Riverview Dr/Hwy 95	6:11 AM	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM
DES at Havasupai/Hwy 95	6:13 AM	7:13 AM	8:13 AM	9:13 AM	10:13 AM	11:13 AM	12:13 PM	1:13 PM	2:13 PM	3:13 PM	4:13 PM	5:13 PM
Walmart at Mohave Dr	6:17 AM	7:17 AM	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM	4:17 PM	5:17 PM
Palo Verde Medical at Easy St.	6:21 AM	7:21 AM	8:21 AM	9:21 AM	10:21 AM	11:21 AM	12:21 PM	1:21 PM	2:21 PM	3:21 PM	4:21 PM	5:21 PM
Target at Ash Ave/Long Ave	6:26 AM	7:26 AM	8:26 AM	9:26 AM	10:26 AM	11:26 AM	12:26 PM	1:26 PM	2:26 PM	3:26 PM	4:26 PM	5:26 PM
Arrive MCC	6:30 AM	7:30 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM	2:30 PM	3:30 PM	4:30 PM	5:30 PM
Depart MCC	6:33 AM	7:33 AM	8:33 AM	9:33 AM	10:33 AM	11:33 AM	12:33 PM	1:33 PM	2:33 PM	3:33 PM	4:33 PM	5:33 PM
Walmart at Mohave Dr.	6:41 AM	7:41 AM	8:41 AM	9:41 AM	10:41 AM	11:41 AM	12:41 PM	1:41 PM	2:41 PM	3:41 PM	4:41 PM	5:41 PM
Riverview Dr/Hwy 95	6:43 AM	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM
K-Mart	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM
Arrive Safeway	6:55 AM	7:55 AM	8:55 AM	9:55 AM	10:55 AM	11:55 AM	12:55 PM	1:55 PM	2:55 PM	3:55 PM	4:55 PM	5:55 PM

Exhibit 4.21 Proposed Red and Orange Line – Saturday

Stops	Trip 1	Trip 2	Trip 3
Depart Safeway	8:30 AM	10:30 AM	12:30 PM
Hwy 95/Merrill Ave	8:34 AM	10:34 AM	12:34 PM
Suddenlink Community Center	8:40 AM	10:40 AM	12:40 PM
Hwy 95/Third St	8:41 AM	10:41 AM	12:41 PM
Hwy 95/Seventh St	8:42 AM	10:42 AM	12:42 PM
Arrive Boat Dock	8:47 AM	10:47 AM	12:47 PM
Depart Boat Dock	9:02 AM	11:02 AM	1:02 PM
Hwy 95/Sixth St	9:07 AM	11:07 AM	1:07 PM
Hwy 95/Third St	9:10 AM	11:10 AM	1:10 PM
Suddenlink Community Center	9:12 AM	11:12 AM	1:12 PM
Hwy 95/First St	9:14 AM	11:14 AM	1:14 PM
Hwy 95/Rancho Colorado Blvd	9:18 AM	11:18 AM	1:18 PM
Arrive Safeway	9:22 AM	11:22 AM	1:22 PM

Stops	Trip 1	Trip 2	Trip 3
Depart Safeway	9:30 AM	11:30 AM	1:30 PM
Riverview Mall	9:39 AM	11:39 AM	1:39 PM
Riverview Dr/Hwy 95	9:43 AM	11:43 AM	1:43 PM
Walmart at Mohave Dr	9:49 AM	11:49 AM	1:49 PM
Arrive Target at Ash Ave/Long Ave	9:58 AM	11:58 AM	1:58 PM
Target at Ash Ave/Long Ave	10:03 AM	12:03 PM	2:03 PM
Walmart at Mohave Dr.	10:11 AM	12:11 PM	2:11 PM
Riverview Dr/Hwy 95	10:13 AM	12:13 PM	2:13 PM
K-Mart	10:18 AM	12:18 PM	2:18 PM
Arrive Safeway	10:25 AM	12:25 PM	2:25 PM

Scenario 3: Service Growth and Expansion (Long-Term)

The goal of Scenario 3 is to present several service growth and expansion options identified through outreach to riders, the community, stakeholders, drivers, and key employers. These expansion opportunities will require additional funding for implementation, which will be discussed in detail in the Financial Plan.

The growth and expansion scenario builds upon the recommendations made in Scenario 2 and is viewed as longer-term recommendations.

Service Expansion Recommendation 1: Extend weekday evening hours.

In response to rider input, we propose extending weekday evening service hours until 9:00 p.m. This would add one trip to the Blue Line, two trips each to the Green and Red Lines, and three trips to the Orange Line, resulting in an additional 2,016 Vehicle Service Hours (VSH) on fixed-route and 255 VSH on Dial-A-BATS (total additional 2,271 VSH/year). The financial impact of such an extension is discussed in the Financial Plan.

Exhibit 4.22 Proposed Extended Evening Schedules (All Routes)

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13	Trip 14	Trip 15
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Hwy 95/Merrill Ave	6:04 AM	7:04 AM	8:04 AM	9:04 AM	10:04 AM	11:04 AM	12:04 PM	1:04 PM	2:04 PM	3:04 PM	4:04 PM	5:04 PM	6:04 PM	7:04 PM	8:04 PM
Suddenlink Community Center	6:10 AM	7:10 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM	4:10 PM	5:10 PM	6:10 PM	7:10 PM	8:10 PM
Hwy 95/Third St	6:11 AM	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM	6:11 PM	7:11 PM	8:11 PM
Hwy 95/Seventh St	6:12 AM	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM	6:12 PM	7:12 PM	8:12 PM
Arrive Boat Dock	6:17 AM	7:17 AM	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM	4:17 PM	5:17 PM	6:17 PM	7:17 PM	8:17 PM
Depart Boat Dock	6:32 AM	7:32 AM	8:32 AM	9:32 AM	10:32 AM	11:32 AM	12:32 PM	1:32 PM	2:32 PM	3:32 PM	4:32 PM	5:32 PM	6:32 PM	7:32 PM	8:32 PM
Hwy 95/Sixth St	6:37 AM	7:37 AM	8:37 AM	9:37 AM	10:37 AM	11:37 AM	12:37 PM	1:37 PM	2:37 PM	3:37 PM	4:37 PM	5:37 PM	6:37 PM	7:37 PM	8:37 PM
Hwy 95/Third St	6:40 AM	7:40 AM	8:40 AM	9:40 AM	10:40 AM	11:40 AM	12:40 PM	1:40 PM	2:40 PM	3:40 PM	4:40 PM	5:40 PM	6:40 PM	7:40 PM	8:40 PM
Suddenlink Community Center	6:42 AM	7:42 AM	8:42 AM	9:42 AM	10:42 AM	11:42 AM	12:42 PM	1:42 PM	2:42 PM	3:42 PM	4:42 PM	5:42 PM	6:42 PM	7:42 PM	8:42 PM
Hwy 95/First St	6:44 AM	7:44 AM	8:44 AM	9:44 AM	10:44 AM	11:44 AM	12:44 PM	1:44 PM	2:44 PM	3:44 PM	4:44 PM	5:44 PM	6:44 PM	7:44 PM	8:44 PM
Hwy 95/Rancho Colorado Blvd	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM	6:48 PM	7:48 PM	8:48 PM
Arrive Safeway	6:52 AM	7:52 AM	8:52 AM	9:52 AM	10:52 AM	11:52 AM	12:52 PM	1:52 PM	2:52 PM	3:52 PM	4:52 PM	5:52 PM	6:52 PM	7:52 PM	8:52 PM

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13	Trip 14	Trip 15
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Riverview Dr/Hwy 95	6:11 AM	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM	6:11 PM	7:11 PM	8:11 PM
DES at Havasupai/Hwy 95	6:13 AM	7:13 AM	8:13 AM	9:13 AM	10:13 AM	11:13 AM	12:13 PM	1:13 PM	2:13 PM	3:13 PM	4:13 PM	5:13 PM	6:13 PM	7:13 PM	8:13 PM
Walmart at Mohave Dr	6:17 AM	7:17 AM	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM	4:17 PM	5:17 PM	6:17 PM	7:17 PM	8:17 PM
Palo Verde Medical at Easy St.	6:21 AM	7:21 AM	8:21 AM	9:21 AM	10:21 AM	11:21 AM	12:21 PM	1:21 PM	2:21 PM	3:21 PM	4:21 PM	5:21 PM	6:21 PM	7:21 PM	8:21 PM
Target at Ash Ave/Long Ave	6:26 AM	7:26 AM	8:26 AM	9:26 AM	10:26 AM	11:26 AM	12:26 PM	1:26 PM	2:26 PM	3:26 PM	4:26 PM	5:26 PM	6:26 PM	7:26 PM	8:26 PM
Arrive MCC	6:30 AM	7:30 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM	2:30 PM	3:30 PM	4:30 PM	5:30 PM	6:30 PM	7:30 PM	8:30 PM
Depart MCC	6:33 AM	7:33 AM	8:33 AM	9:33 AM	10:33 AM	11:33 AM	12:33 PM	1:33 PM	2:33 PM	3:33 PM	4:33 PM	5:33 PM	6:33 PM	7:33 PM	8:33 PM
Walmart at Mohave Dr.	6:41 AM	7:41 AM	8:41 AM	9:41 AM	10:41 AM	11:41 AM	12:41 PM	1:41 PM	2:41 PM	3:41 PM	4:41 PM	5:41 PM	6:41 PM	7:41 PM	8:41 PM
Riverview Dr/Hwy 95	6:43 AM	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM	6:43 PM	7:43 PM	8:43 PM
K-Mart	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM	6:48 PM	7:48 PM	8:48 PM
Arrive Safeway	6:55 AM	7:55 AM	8:55 AM	9:55 AM	10:55 AM	11:55 AM	12:55 PM	1:55 PM	2:55 PM	3:55 PM	4:55 PM	5:55 PM	6:55 PM	7:55 PM	8:55 PM

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13	Trip 14	Trip 15
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
K-Mart	6:07 AM	7:07 AM	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM	4:07 PM	5:07 PM	6:07 PM	7:07 PM	8:07 PM
Hancock Rd/Trane Rd	6:09 AM	7:09 AM	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM	4:09 PM	5:09 PM	6:09 PM	7:09 PM	8:09 PM
Lakeside Dr/Smith's Grocery	6:11 AM	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM	6:11 PM	7:11 PM	8:11 PM
Riviera Blvd/Surf Spray	6:13 AM	7:13 AM	8:13 AM	9:13 AM	10:13 AM	11:13 AM	12:13 PM	1:13 PM	2:13 PM	3:13 PM	4:13 PM	5:13 PM	6:13 PM	7:13 PM	8:13 PM
Riviera Blvd/Commercial Way	6:14 AM	7:14 AM	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM	4:14 PM	5:14 PM	6:14 PM	7:14 PM	8:14 PM
Riviera Blvd/Paseo Del Rio	6:15 AM	7:15 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM	4:15 PM	5:15 PM	6:15 PM	7:15 PM	8:15 PM
Clearwater Dr/Malibu Dr	6:16 AM	7:16 AM	8:16 AM	9:16 AM	10:16 AM	11:16 AM	12:16 PM	1:16 PM	2:16 PM	3:16 PM	4:16 PM	5:16 PM	6:16 PM	7:16 PM	8:16 PM
Clearwater Dr/Marina Blvd	6:17 AM	7:17 AM	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM	4:17 PM	5:17 PM	6:17 PM	7:17 PM	8:17 PM
Rio Grande Rd/Marina Blvd	6:18 AM	7:18 AM	8:18 AM	9:18 AM	10:18 AM	11:18 AM	12:18 PM	1:18 PM	2:18 PM	3:18 PM	4:18 PM	5:18 PM	6:18 PM	7:18 PM	8:18 PM
Rio Grande Rd/Rio Grande Way	6:19 AM	7:19 AM	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM	4:19 PM	5:19 PM	6:19 PM	7:19 PM	8:19 PM
Hancock Rd/Ramar Rd	6:21 AM	7:21 AM	8:21 AM	9:21 AM	10:21 AM	11:21 AM	12:21 PM	1:21 PM	2:21 PM	3:21 PM	4:21 PM	5:21 PM	6:21 PM	7:21 PM	8:21 PM
Ramar Rd/Yale St	6:23 AM	7:23 AM	8:23 AM	9:23 AM	10:23 AM	11:23 AM	12:23 PM	1:23 PM	2:23 PM	3:23 PM	4:23 PM	5:23 PM	6:23 PM	7:23 PM	8:23 PM
River Gardens Dr/Church St	6:25 AM	7:25 AM	8:25 AM	9:25 AM	10:25 AM	11:25 AM	12:25 PM	1:25 PM	2:25 PM	3:25 PM	4:25 PM	5:25 PM	6:25 PM	7:25 PM	8:25 PM
River Gardens Dr/Hancock Rd	6:26 AM	7:26 AM	8:26 AM	9:26 AM	10:26 AM	11:26 AM	12:26 PM	1:26 PM	2:26 PM	3:26 PM	4:26 PM	5:26 PM	6:26 PM	7:26 PM	8:26 PM
Langford Dr/Baseline Rd	6:27 AM	7:27 AM	8:27 AM	9:27 AM	10:27 AM	11:27 AM	12:27 PM	1:27 PM	2:27 PM	3:27 PM	4:27 PM	5:27 PM	6:27 PM	7:27 PM	8:27 PM
Langford Dr/Ramar Rd	6:29 AM	7:29 AM	8:29 AM	9:29 AM	10:29 AM	11:29 AM	12:29 PM	1:29 PM	2:29 PM	3:29 PM	4:29 PM	5:29 PM	6:29 PM	7:29 PM	8:29 PM
Ramar Rd/Park Ln	6:31 AM	7:31 AM	8:31 AM	9:31 AM	10:31 AM	11:31 AM	12:31 PM	1:31 PM	2:31 PM	3:31 PM	4:31 PM	5:31 PM	6:31 PM	7:31 PM	8:31 PM
Baseline Rd/Zircon Wy	6:33 AM	7:33 AM	8:33 AM	9:33 AM	10:33 AM	11:33 AM	12:33 PM	1:33 PM	2:33 PM	3:33 PM	4:33 PM	5:33 PM	6:33 PM	7:33 PM	8:33 PM
Hancock Rd/Lakeside Dr	6:34 AM	7:34 AM	8:34 AM	9:34 AM	10:34 AM	11:34 AM	12:34 PM	1:34 PM	2:34 PM	3:34 PM	4:34 PM	5:34 PM	6:34 PM	7:34 PM	8:34 PM
Trane Rd/Hancock Rd	6:36 AM	7:36 AM	8:36 AM	9:36 AM	10:36 AM	11:36 AM	12:36 PM	1:36 PM	2:36 PM	3:36 PM	4:36 PM	5:36 PM	6:36 PM	7:36 PM	8:36 PM
Ken Forvargue Park/Trane Rd	6:37 AM	7:37 AM	8:37 AM	9:37 AM	10:37 AM	11:37 AM	12:37 PM	1:37 PM	2:37 PM	3:37 PM	4:37 PM	5:37 PM	6:37 PM	7:37 PM	8:37 PM
Arrive City Hall on Trane Rd	6:38 AM	7:38 AM	8:38 AM	9:38 AM	10:38 AM	11:38 AM	12:38 PM	1:38 PM	2:38 PM	3:38 PM	4:38 PM	5:38 PM	6:38 PM	7:38 PM	8:38 PM
Depart City Hall on Trane Rd	6:43 AM	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM	6:43 PM	7:43 PM	8:43 PM
Miracle Mile/Marina Blvd	6:45 AM	7:45 AM	8:45 AM	9:45 AM	10:45 AM	11:45 AM	12:45 PM	1:45 PM	2:45 PM	3:45 PM	4:45 PM	5:45 PM	6:45 PM	7:45 PM	8:45 PM
Riverview Mall	6:46 AM	7:46 AM	8:46 AM	9:46 AM	10:46 AM	11:46 AM	12:46 PM	1:46 PM	2:46 PM	3:46 PM	4:46 PM	5:46 PM	6:46 PM	7:46 PM	8:46 PM
K-Mart	6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM	6:48 PM	7:48 PM	8:48 PM
Palma Rd/Hancock Rd	6:49 AM	7:49 AM	8:49 AM	9:49 AM	10:49 AM	11:49 AM	12:49 PM	1:49 PM	2:49 PM	3:49 PM	4:49 PM	5:49 PM	6:49 PM	7:49 PM	8:49 PM
Palma Rd/Zircon Wy	6:50 AM	7:50 AM	8:50 AM	9:50 AM	10:50 AM	11:50 AM	12:50 PM	1:50 PM	2:50 PM	3:50 PM	4:50 PM	5:50 PM	6:50 PM	7:50 PM	8:50 PM
Palma Rd/Palma Wy	6:51 AM	7:51 AM	8:51 AM	9:51 AM	10:51 AM	11:51 AM	12:51 PM	1:51 PM	2:51 PM	3:51 PM	4:51 PM	5:51 PM	6:51 PM	7:51 PM	8:51 PM
Arrive Safeway	6:54 AM	7:54 AM	8:54 AM	9:54 AM	10:54 AM	11:54 AM	12:54 PM	1:54 PM	2:54 PM	3:54 PM	4:54 PM	5:54 PM	6:54 PM	7:54 PM	8:54 PM

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13	Trip 14	Trip 15
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Rio Vista Dr/Monte Vista Dr	6:02 AM	7:02 AM	8:02 AM	9:02 AM	10:02 AM	11:02 AM	12:02 PM	1:02 PM	2:02 PM	3:02 PM	4:02 PM	5:02 PM	6:02 PM	7:02 PM	8:02 PM
Sierra Vista Dr/Talc Dr	6:05 AM	7:05 AM	8:05 AM	9:05 AM	10:05 AM	11:05 AM	12:05 PM	1:05 PM	2:05 PM	3:05 PM	4:05 PM	5:05 PM	6:05 PM	7:05 PM	8:05 PM
Alta Vista Rd/Sierra Vista Dr	6:07 AM	7:07 AM	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM	4:07 PM	5:07 PM	6:07 PM	7:07 PM	8:07 PM
Rio Vista Rd/Talc Rd	6:09 AM	7:09 AM	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM	4:09 PM	5:09 PM	6:09 PM	7:09 PM	8:09 PM
Rio Vista Rd/Toro Way	6:10 AM	7:10 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM	4:10 PM	5:10 PM	6:10 PM	7:10 PM	8:10 PM
Arriba Dr/Rio Vista Rd	6:12 AM	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM	6:12 PM	7:12 PM	8:12 PM
Goldrush Rd/Ramar Rd	6:14 AM	7:14 AM	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM	4:14 PM	5:14 PM	6:14 PM	7:14 PM	8:14 PM
Gold Rush Business Center	6:15 AM	7:15 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM	4:15 PM	5:15 PM	6:15 PM	7:15 PM	8:15 PM
WARMC	6:19 AM	7:19 AM	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM	4:19 PM	5:19 PM	6:19 PM	7:19 PM	8:19 PM
Canyon Rd/Bullhead Pkwy	6:27 AM		8:27 AM		10:27 AM		12:27 PM		2:27 PM		4:27 PM		6:27 PM		8:27 PM
Adobe Rd/Bullhead Pkwy	6:30 AM		8:30 AM		10:30 AM		12:30 PM		2:30 PM		4:30 PM		6:30 PM		8:30 PM
Desert Foothills Blvd/Canyon Walk Apts		7:32 AM		9:32 AM		11:32 AM		1:32 PM		3:32 PM		5:32 PM		7:32 PM	
WARMC	6:40 AM	7:45 AM	8:40 AM	9:45 AM	10:40 AM	11:45 AM	12:40 PM	1:45 PM	2:40 PM	3:45 PM	4:40 PM	5:45 PM	6:40 PM	7:45 PM	8:40 PM
Arrive Safeway	6:47 AM	7:52 AM	8:47 AM	9:52 AM	10:47 AM	11:52 AM	12:47 PM	1:52 PM	2:47 PM	3:52 PM	4:47 PM	5:52 PM	6:47 PM	7:52 PM	8:47 PM

Service Expansion Recommendation 2: Add Sunday service.

Sunday service was one of the most frequently requested service improvements indicated during public outreach. However, given it would be a new service, we recommend introducing Sunday service on a trial or demonstration basis. At the end of the trial period, the service should be evaluated for continued funding, at which time the City can elect to continue the service or cancel it due to lack of sufficient ridership and/or funding. Evaluation criteria for Sunday service should be tied to the following metrics: Rides/VSH (both fixed-route and Dial-A-BATS), and average fare collected/passenger. Sunday metrics should be no less than 75 percent of Saturday-specific service metrics, with regular monthly increases in ridership. It is difficult to estimate a rate of ridership increase at this time, though Sunday should see upward trends each month to be deemed successful.

We recommend Sunday service operate a set number of trips between 9:00 a.m. and 3:00 p.m., very similar to how Saturday service is currently being provided on the Red Line. By staggering trip times, Sunday service could be provided with two vehicles. Operating Sunday service as a deviated fixed-route service would also eliminate the need for separate ADA paratransit service.

The following represents a potential initial Sunday schedule for BATS service. Some stops at professional offices (such as the Palo Verde and Fox Creek medical offices) as well as Mohave Community College would not be served on Sunday.

We anticipate adding Sunday service in this manner would result in the addition of 312 VSH on fixed-route and 153 VSH on Dial-A-BATS (total additional 465 VSH across a six-month trial period; 232.5 VSH across a three-month trial period). The financial impact of this new service is discussed in the Financial Plan.

Exhibit 4.23 Proposed Sunday Schedules – Red and Orange Lines

Stops	Trip 1	Trip 2	Trip 3
Depart Safeway	9:00 AM	11:00 AM	1:00 PM
Hwy 95/Merrill Ave	9:04 AM	11:04 AM	1:04 PM
Suddenlink Community Center	9:10 AM	11:10 AM	1:10 PM
Hwy 95/Third St	9:11 AM	11:11 AM	1:11 PM
Hwy 95/Seventh St	9:12 AM	11:12 AM	1:12 PM
Arrive Boat Dock	9:17 AM	11:17 AM	1:17 PM
Depart Boat Dock	9:32 AM	11:32 AM	1:32 PM
Hwy 95/Sixth St	9:37 AM	11:37 AM	1:37 PM
Hwy 95/Third St	9:40 AM	11:40 AM	1:40 PM
Suddenlink Community Center	9:42 AM	11:42 AM	1:42 PM
Hwy 95/First St	9:44 AM	11:44 AM	1:44 PM
Hwy 95/Rancho Colorado Blvd	9:48 AM	11:48 AM	1:48 PM
Arrive Safeway	9:52 AM	11:52 AM	1:52 PM

Stops	Trip 1	Trip 2	Trip 3
Depart Safeway	10:00 AM	12:00 PM	2:00 PM
Riverview Mall	10:09 AM	12:09 PM	2:09 PM
Riverview Dr/Hwy 95	10:13 AM	12:13 PM	2:13 PM
Walmart at Mohave Dr	10:19 AM	12:19 PM	2:19 PM
Arrive Target at Ash Ave/Long Ave	10:28 AM	12:28 PM	2:28 PM
Target at Ash Ave/Long Ave	10:33 AM	12:33 PM	2:33 PM
Walmart at Mohave Dr.	10:41 AM	12:41 PM	2:41 PM
Riverview Dr/Hwy 95	10:43 AM	12:43 PM	2:43 PM
K-Mart	10:48 AM	12:48 PM	2:48 PM
Arrive Safeway	10:55 AM	12:55 PM	2:55 PM

Exhibit 4.24 Proposed Sunday Schedules – Blue and Green Lines

Stops	Trip 1	Trip 2	Trip 3
Depart Safeway	9:00 AM	11:00 AM	1:00 PM
K-Mart	9:07 AM	11:07 AM	1:07 PM
Hancock Rd/Trane Rd	9:09 AM	11:09 AM	1:09 PM
Lakeside Dr/Smith's Grocery	9:11 AM	11:11 AM	1:11 PM
Riviera Blvd/Surf Spray	9:13 AM	11:13 AM	1:13 PM
Riviera Blvd/Commercial Way	9:14 AM	11:14 AM	1:14 PM
Riviera Blvd/Paseo Del Rio	9:15 AM	11:15 AM	1:15 PM
Clearwater Dr/Malibu Dr	9:16 AM	11:16 AM	1:16 PM
Clearwater Dr/Marina Blvd	9:17 AM	11:17 AM	1:17 PM
Rio Grande Rd/Marina Blvd	9:18 AM	11:18 AM	1:18 PM
Rio Grande Rd/Rio Grande Way	9:19 AM	11:19 AM	1:19 PM
Hancock Rd/Ramar Rd	9:21 AM	11:21 AM	1:21 PM
Ramar Rd/Yale St	9:23 AM	11:23 AM	1:23 PM
River Gardens Dr/Church St	9:25 AM	11:25 AM	1:25 PM
River Gardens Dr/Hancock Rd	9:26 AM	11:26 AM	1:26 PM
Langford Dr/Baseline Rd	9:27 AM	11:27 AM	1:27 PM
Langford Dr/Ramar Rd	9:29 AM	11:29 AM	1:29 PM
Ramar Rd/Park Ln	9:31 AM	11:31 AM	1:31 PM
Baseline Rd/Zircon Wy	9:33 AM	11:33 AM	1:33 PM
Hancock Rd/Lakeside Dr	9:34 AM	11:34 AM	1:34 PM
Trane Rd/Hancock Rd	9:36 AM	11:36 AM	1:36 PM
Ken Forvargue Park/Trane Rd	9:37 AM	11:37 AM	1:37 PM
Arrive City Hall on Trane Rd	9:38 AM	11:38 AM	1:38 PM
Depart City Hall on Trane Rd	9:43 AM	11:43 AM	1:43 PM
Miracle Mile/Marina Blvd	9:45 AM	11:45 AM	1:45 PM
Riverview Mall	9:46 AM	11:46 AM	1:46 PM
K-Mart	9:48 AM	11:48 AM	1:48 PM
Palma Rd/Hancock Rd	9:49 AM	11:49 AM	1:49 PM
Palma Rd/Zircon Wy	9:50 AM	11:50 AM	1:50 PM
Palma Rd/Palma Wy	9:51 AM	11:51 AM	1:51 PM
Arrive Safeway	9:54 AM	11:54 AM	1:54 PM

Stops	Trip 1	Trip 2	Trip 3
Depart Safeway	10:00 AM	12:00 PM	2:00 PM
Rio Vista Dr/Monte Vista Dr	10:02 AM	12:02 PM	2:02 PM
Sierra Vista Dr/Talc Dr	10:05 AM	12:05 PM	2:05 PM
Alta Vista Rd/Sierra Vista Dr	10:07 AM	12:07 PM	2:07 PM
Rio Vista Rd/Talc Rd	10:09 AM	12:09 PM	2:09 PM
Rio Vista Rd/Toro Way	10:10 AM	12:10 PM	2:10 PM
Arriba Dr/Rio Vista Rd	10:12 AM	12:12 PM	2:12 PM
Goldrush Rd/Ramar Rd	10:14 AM	12:14 PM	2:14 PM
Gold Rush Business Center	10:15 AM	12:15 PM	2:15 PM
WARMC	10:19 AM	12:19 PM	2:19 PM
Desert Foothills Blvd/Canyon Walk Apts	10:32 AM	12:32 PM	2:32 PM
WARMC	10:45 AM	12:45 PM	2:45 PM
Arrive Safeway	10:52 AM	12:52 PM	2:52 PM

Service Expansion Recommendation 3: Increase Saturday service hours.

We recommend expanding Saturday service hours to be more reflective the current weekday level of service. Service would begin as early as 7:00 a.m., running through approximately 6:00 p.m. Introduction of this expanded service would retain the practice of interlining of the Red and Orange Lines yet increase the number of trips.

We anticipate expanding Saturday service in this manner would result in the addition of 728 fixed-route VSH and 153 VSH for Dial-A-BATS (total additional 881 VSH/year). The financial impact of this service expansion is discussed in the Financial Plan.

Exhibit 4.25 Proposed Extended Saturday Schedules (All Routes)

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6
Depart Safeway	7:30 AM	9:30 AM	11:30 AM	1:30 PM	3:30 PM	5:30 PM
Hwy 95/Merrill Ave	7:34 AM	9:34 AM	11:34 AM	1:34 PM	3:34 PM	5:34 PM
Suddenlink Community Center	7:40 AM	9:40 AM	11:40 AM	1:40 PM	3:40 PM	5:40 PM
Hwy 95/Third St	7:41 AM	9:41 AM	11:41 AM	1:41 PM	3:41 PM	5:41 PM
Hwy 95/Seventh St	7:42 AM	9:42 AM	11:42 AM	1:42 PM	3:42 PM	5:42 PM
Arrive Boat Dock	7:47 AM	9:47 AM	11:47 AM	1:47 PM	3:47 PM	5:47 PM
Depart Boat Dock	8:02 AM	10:02 AM	12:02 PM	2:02 PM	4:02 PM	6:02 PM
Hwy 95/Sixth St	8:07 AM	10:07 AM	12:07 PM	2:07 PM	4:07 PM	6:07 PM
Hwy 95/Third St	8:10 AM	10:10 AM	12:10 PM	2:10 PM	4:10 PM	6:10 PM
Suddenlink Community Center	8:12 AM	10:12 AM	12:12 PM	2:12 PM	4:12 PM	6:12 PM
Hwy 95/First St	8:14 AM	10:14 AM	12:14 PM	2:14 PM	4:14 PM	6:14 PM
Hwy 95/Rancho Colorado Blvd	8:18 AM	10:18 AM	12:18 PM	2:18 PM	4:18 PM	6:18 PM
Arrive Safeway	8:22 AM	10:22 AM	12:22 PM	2:22 PM	4:22 PM	6:22 PM

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5
Depart Safeway	8:30 AM	10:30 AM	12:30 PM	2:30 PM	4:30 PM
Riverview Mall	8:39 AM	10:39 AM	12:39 PM	2:39 PM	4:39 PM
Riverview Dr/Hwy 95	8:43 AM	10:43 AM	12:43 PM	2:43 PM	4:43 PM
Walmart at Mohave Dr	8:49 AM	10:49 AM	12:49 PM	2:49 PM	4:49 PM
Arrive Target at Ash Ave/Long Ave	8:58 AM	10:58 AM	12:58 PM	2:58 PM	4:58 PM
Target at Ash Ave/Long Ave	9:03 AM	11:03 AM	1:03 PM	3:03 PM	5:03 PM
Walmart at Mohave Dr.	9:11 AM	11:11 AM	1:11 PM	3:11 PM	5:11 PM
Riverview Dr/Hwy 95	9:13 AM	11:13 AM	1:13 PM	3:13 PM	5:13 PM
K-Mart	9:18 AM	11:18 AM	1:18 PM	3:18 PM	5:18 PM
Arrive Safeway	9:25 AM	11:25 AM	1:25 PM	3:25 PM	5:25 PM

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11
Depart Safeway	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
K-Mart	7:07 AM	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM	4:07 PM	5:07 PM
Hancock Rd/Trane Rd	7:09 AM	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM	4:09 PM	5:09 PM
Lakeside Dr/Smith's Grocery	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM
Riviera Blvd/Surf Spray	7:13 AM	8:13 AM	9:13 AM	10:13 AM	11:13 AM	12:13 PM	1:13 PM	2:13 PM	3:13 PM	4:13 PM	5:13 PM
Riviera Blvd/Commercial Way	7:14 AM	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM	4:14 PM	5:14 PM
Riviera Blvd/Paseo Del Rio	7:15 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM	4:15 PM	5:15 PM
Clearwater Dr/Malibu Dr	7:16 AM	8:16 AM	9:16 AM	10:16 AM	11:16 AM	12:16 PM	1:16 PM	2:16 PM	3:16 PM	4:16 PM	5:16 PM
Clearwater Dr/Marina Blvd	7:17 AM	8:17 AM	9:17 AM	10:17 AM	11:17 AM	12:17 PM	1:17 PM	2:17 PM	3:17 PM	4:17 PM	5:17 PM
Rio Grande Rd/Marina Blvd	7:18 AM	8:18 AM	9:18 AM	10:18 AM	11:18 AM	12:18 PM	1:18 PM	2:18 PM	3:18 PM	4:18 PM	5:18 PM
Rio Grande Rd/Rio Grande Way	7:19 AM	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM	4:19 PM	5:19 PM
Hancock Rd/Ramar Rd	7:21 AM	8:21 AM	9:21 AM	10:21 AM	11:21 AM	12:21 PM	1:21 PM	2:21 PM	3:21 PM	4:21 PM	5:21 PM
Ramar Rd/Yale St	7:23 AM	8:23 AM	9:23 AM	10:23 AM	11:23 AM	12:23 PM	1:23 PM	2:23 PM	3:23 PM	4:23 PM	5:23 PM
River Gardens Dr/Church St	7:25 AM	8:25 AM	9:25 AM	10:25 AM	11:25 AM	12:25 PM	1:25 PM	2:25 PM	3:25 PM	4:25 PM	5:25 PM
River Gardens Dr/Hancock Rd	7:26 AM	8:26 AM	9:26 AM	10:26 AM	11:26 AM	12:26 PM	1:26 PM	2:26 PM	3:26 PM	4:26 PM	5:26 PM
Langford Dr/Baseline Rd	7:27 AM	8:27 AM	9:27 AM	10:27 AM	11:27 AM	12:27 PM	1:27 PM	2:27 PM	3:27 PM	4:27 PM	5:27 PM
Langford Dr/Ramar Rd	7:29 AM	8:29 AM	9:29 AM	10:29 AM	11:29 AM	12:29 PM	1:29 PM	2:29 PM	3:29 PM	4:29 PM	5:29 PM
Ramar Rd/Park Ln	7:31 AM	8:31 AM	9:31 AM	10:31 AM	11:31 AM	12:31 PM	1:31 PM	2:31 PM	3:31 PM	4:31 PM	5:31 PM
Baseline Rd/Zircon Wy	7:33 AM	8:33 AM	9:33 AM	10:33 AM	11:33 AM	12:33 PM	1:33 PM	2:33 PM	3:33 PM	4:33 PM	5:33 PM
Hancock Rd/Lakeside Dr	7:34 AM	8:34 AM	9:34 AM	10:34 AM	11:34 AM	12:34 PM	1:34 PM	2:34 PM	3:34 PM	4:34 PM	5:34 PM
Trane Rd/Hancock Rd	7:36 AM	8:36 AM	9:36 AM	10:36 AM	11:36 AM	12:36 PM	1:36 PM	2:36 PM	3:36 PM	4:36 PM	5:36 PM
Ken Forvargue Park/Trane Rd	7:37 AM	8:37 AM	9:37 AM	10:37 AM	11:37 AM	12:37 PM	1:37 PM	2:37 PM	3:37 PM	4:37 PM	5:37 PM
Arrive City Hall on Trane Rd	7:38 AM	8:38 AM	9:38 AM	10:38 AM	11:38 AM	12:38 PM	1:38 PM	2:38 PM	3:38 PM	4:38 PM	5:38 PM
Depart City Hall on Trane Rd	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM
Miracle Mile/Marina Blvd	7:45 AM	8:45 AM	9:45 AM	10:45 AM	11:45 AM	12:45 PM	1:45 PM	2:45 PM	3:45 PM	4:45 PM	5:45 PM
Riverview Mall	7:46 AM	8:46 AM	9:46 AM	10:46 AM	11:46 AM	12:46 PM	1:46 PM	2:46 PM	3:46 PM	4:46 PM	5:46 PM
K-Mart	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM
Palma Rd/Hancock Rd	7:49 AM	8:49 AM	9:49 AM	10:49 AM	11:49 AM	12:49 PM	1:49 PM	2:49 PM	3:49 PM	4:49 PM	5:49 PM
Palma Rd/Zircon Wy	7:50 AM	8:50 AM	9:50 AM	10:50 AM	11:50 AM	12:50 PM	1:50 PM	2:50 PM	3:50 PM	4:50 PM	5:50 PM
Palma Rd/Palma Wy	7:51 AM	8:51 AM	9:51 AM	10:51 AM	11:51 AM	12:51 PM	1:51 PM	2:51 PM	3:51 PM	4:51 PM	5:51 PM
Arrive Safeway	7:54 AM	8:54 AM	9:54 AM	10:54 AM	11:54 AM	12:54 PM	1:54 PM	2:54 PM	3:54 PM	4:54 PM	5:54 PM

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11
Depart Safeway	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Rio Vista Dr/Monte Vista Dr	7:02 AM	8:02 AM	9:02 AM	10:02 AM	11:02 AM	12:02 PM	1:02 PM	2:02 PM	3:02 PM	4:02 PM	5:02 PM
Sierra Vista Dr/Talc Dr	7:05 AM	8:05 AM	9:05 AM	10:05 AM	11:05 AM	12:05 PM	1:05 PM	2:05 PM	3:05 PM	4:05 PM	5:05 PM
Alta Vista Rd/Sierra Vista Dr	7:07 AM	8:07 AM	9:07 AM	10:07 AM	11:07 AM	12:07 PM	1:07 PM	2:07 PM	3:07 PM	4:07 PM	5:07 PM
Rio Vista Rd/Talc Rd	7:09 AM	8:09 AM	9:09 AM	10:09 AM	11:09 AM	12:09 PM	1:09 PM	2:09 PM	3:09 PM	4:09 PM	5:09 PM
Rio Vista Rd/Toro Way	7:10 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM	4:10 PM	5:10 PM
Arriba Dr/Rio Vista Rd	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM
Goldrush Rd/Ramar Rd	7:14 AM	8:14 AM	9:14 AM	10:14 AM	11:14 AM	12:14 PM	1:14 PM	2:14 PM	3:14 PM	4:14 PM	5:14 PM
Gold Rush Business Center	7:15 AM	8:15 AM	9:15 AM	10:15 AM	11:15 AM	12:15 PM	1:15 PM	2:15 PM	3:15 PM	4:15 PM	5:15 PM
WARMC	7:19 AM	8:19 AM	9:19 AM	10:19 AM	11:19 AM	12:19 PM	1:19 PM	2:19 PM	3:19 PM	4:19 PM	5:19 PM
Desert Foothills Blvd/Canyon Walk Apts	7:32 AM	8:32 AM	9:32 AM	10:32 AM	11:32 AM	12:32 PM	1:32 PM	2:32 PM	3:32 PM	4:32 PM	5:32 PM
WARMC	7:45 AM	8:45 AM	9:45 AM	10:45 AM	11:45 AM	12:45 PM	1:45 PM	2:45 PM	3:45 PM	4:45 PM	5:45 PM
Arrive Safeway	7:52 AM	8:52 AM	9:52 AM	10:52 AM	11:52 AM	12:52 PM	1:52 PM	2:52 PM	3:52 PM	4:52 PM	5:52 PM

Service Expansion Recommendation 4: Implement limited-stop commuter service (Purple Line).
In order to reduce the travel time from the far south end of Bullhead City to the Boat Dock, we recommend the implementation of weekday-only peak-hour limited-stop commuter service from the Target stop (Ash Avenue and Long Avenue) to the Boat Dock. Service would begin and end at Safeway to facilitate transfers and minimize deadhead time. As a stand-alone line, we propose six full trips, with three in the morning (6:30 a.m. to 10:15 a.m.) and three in the afternoon (1:30 p.m. to 5:15 p.m.), plus a partial trip that would return the vehicle from its southernmost point to Safeway. The service would add approximately eight Vehicle Service Hours/day.

We also propose charging a premium fare of $2.00 for this route, with the option to purchase a premium day pass for $5.00. The day pass would also be valid on the regular fixed-route service but would be easily distinguished from the regular day pass by pass color, a sticker, or another type of marking. Transfers to the Purple Line from regular fixed-route service would cost fifty cents. Transfers from the Purple Line to regular fixed-route service would cost the standard twenty-five cents.

Alternately, this service could be implemented in conjunction with Service Expansion Recommendation 6, which would introduce service to Valley View Medical Center in Fort Mohave. Additional details are presented under Service Expansion Recommendation 6.

Exhibit 4.26 Proposed Purple Line Schedule

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7
Depart Safeway	6:30 AM	7:45 AM	9:00 AM	1:30 PM	2:45 PM	4:00 PM	5:15 PM
Arrive Target at Ash Ave/Long Ave	6:46 AM	8:01 AM	9:16 AM	1:46 PM	3:01 PM	4:16 PM	5:31 PM
Depart Target at Ash Ave/Long Ave	6:51 AM	8:06 AM	9:21 AM	1:51 PM	3:06 PM	4:21 PM	5:36 PM
Safeway	7:07 AM	8:22 AM	9:37 AM	2:07 PM	3:22 PM	4:37 PM	5:52 PM
Arrive Boat Dock	7:22 AM	8:37 AM	9:52 AM	2:22 PM	3:37 PM	4:52 PM	
Depart Boat Dock	7:26 AM	8:41 AM	9:56 AM	2:26 PM	3:41 PM	4:56 PM	
Arrive Safeway	7:41 AM	8:56 AM	10:11 AM	2:41 PM	3:56 PM	5:11 PM	

Exhibit 4.25 Proposed Purple Line Route

Service Expansion Recommendation 5: Enhance connectivity with Silver Rider.

Currently, the only connections between Bullhead City and Laughlin are the Riverside Casino water taxi and Dial-A-BATS service to Laughlin (for an additional charge). There is no true inter-agency connectivity or fare agreement which would streamline travel across the river.

One option would be to have the Red Line travel into Laughlin before arriving at the Boat Dock. Such a diversion would add approximately 1.5 miles to each trip/run and would facilitate connections with both Silver Rider routes at the Senator Harry Reid Transportation Center adjacent to the Silver Rider terminal. Realignment of the Red Line provides ample time for the route extension, as a 15-minute layover at the Boat Dock was built into the schedule to facilitate a timely arrival back at Safeway. There would be no additional Vehicle Service Hours required due to the layover time. It would add more than 7,200 Vehicle Service Miles annually if this option were implemented on weekdays only.

Should the City select this option, we also recommend development of a fare agreement that would allow for free or low-cost transfers between systems (Silver Rider currently charges a fare that is twice that charged by BATS). There is also potential for a small financial contribution from the Southern Nevada Transit Coalition.

Exhibit 4.27 Proposed Red Line Weekday Schedule with Laughlin Connection

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6	Trip 7	Trip 8	Trip 9	Trip 10	Trip 11	Trip 12	Trip 13
Depart Safeway	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
Hwy 95/Merrill Ave	6:04 AM	7:04 AM	8:04 AM	9:04 AM	10:04 AM	11:04 AM	12:04 PM	1:04 PM	2:04 PM	3:04 PM	4:04 PM	5:04 PM	6:04 PM
Suddenlink Community Center	6:10 AM	7:10 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM	4:10 PM	5:10 PM	6:10 PM
Hwy 95/Third St	6:11 AM	7:11 AM	8:11 AM	9:11 AM	10:11 AM	11:11 AM	12:11 PM	1:11 PM	2:11 PM	3:11 PM	4:11 PM	5:11 PM	6:11 PM
Hwy 95/Seventh St	6:12 AM	7:12 AM	8:12 AM	9:12 AM	10:12 AM	11:12 AM	12:12 PM	1:12 PM	2:12 PM	3:12 PM	4:12 PM	5:12 PM	6:12 PM
Arrive Silver Rider (Laughlin)	6:21 AM	7:21 AM	8:21 AM	9:21 AM	10:21 AM	11:21 AM	12:21 PM	1:21 PM	2:21 PM	3:21 PM	4:21 PM	5:21 PM	6:21 PM
Depart Silver Rider	6:26 AM	7:26 AM	8:26 AM	9:26 AM	10:26 AM	11:26 AM	12:26 PM	1:26 PM	2:26 PM	3:26 PM	4:26 PM	5:26 PM	6:26 PM
Arrive Boat Dock	6:30 AM	7:30 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM	2:30 PM	3:30 PM	4:30 PM	5:30 PM	6:30 PM
Depart Boat Dock	6:35 AM	7:35 AM	8:35 AM	9:35 AM	10:35 AM	11:35 AM	12:35 PM	1:35 PM	2:35 PM	3:35 PM	4:35 PM	5:35 PM	6:35 PM
Hwy 95/Sixth St	6:40 AM	7:40 AM	8:40 AM	9:40 AM	10:40 AM	11:40 AM	12:40 PM	1:40 PM	2:40 PM	3:40 PM	4:40 PM	5:40 PM	6:40 PM
Hwy 95/Third St	6:43 AM	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM	6:43 PM
Suddenlink Community Center	6:45 AM	7:45 AM	8:45 AM	9:45 AM	10:45 AM	11:45 AM	12:45 PM	1:45 PM	2:45 PM	3:45 PM	4:45 PM	5:45 PM	6:45 PM
Hwy 95/First St	6:47 AM	7:47 AM	8:47 AM	9:47 AM	10:47 AM	11:47 AM	12:47 PM	1:47 PM	2:47 PM	3:47 PM	4:47 PM	5:47 PM	6:47 PM
Hwy 95/Rancho Colorado Blvd	6:51 AM	7:51 AM	8:51 AM	9:51 AM	10:51 AM	11:51 AM	12:51 PM	1:51 PM	2:51 PM	3:51 PM	4:51 PM	5:51 PM	6:51 PM
Arrive Safeway	6:55 AM	7:55 AM	8:55 AM	9:55 AM	10:55 AM	11:55 AM	12:55 PM	1:55 PM	2:55 PM	3:55 PM	4:55 PM	5:55 PM	6:55 PM

Service Expansion Recommendation 6: Extend service south to Valley View Medical Center in Fort Mohave.

Valley View Medical Center (VVMC) lies approximately 3.5 miles south of the southern terminus of current BATS service. We propose extending service south to VVMC in conjunction with the introduction of the limited-stop commuter service (Service Expansion Recommendation 4), with a portion of the cost to be shared by the community of Fort Mohave (an unincorporated community within neighboring Mohave County). Dubbed the Silver Line, the VVMC service would offer four round trips each weekday as an extension of the Purple Line. This would also spread the Purple Line trips across the full day (service every two hours, with a break between trips three and four). The Silver Line would not be economical to operate as a stand-alone service, given we only recommend two trips each in the morning and afternoon.

Given a $2.00 premium fare is recommended for the Purple Line, we recommend the same fare for the Silver Line. The premium day pass would also be valid on the Silver Line. Customers transferring from the regular fixed-route service to the Silver or Purple Line would pay a higher transfer fee of fifty cents. Customers transferring from the Silver or Purple Line to the regular fixed-route service would pay the standard transfer fee of twenty-five cents.

Exhibit 4.28 Proposed Silver Line Route

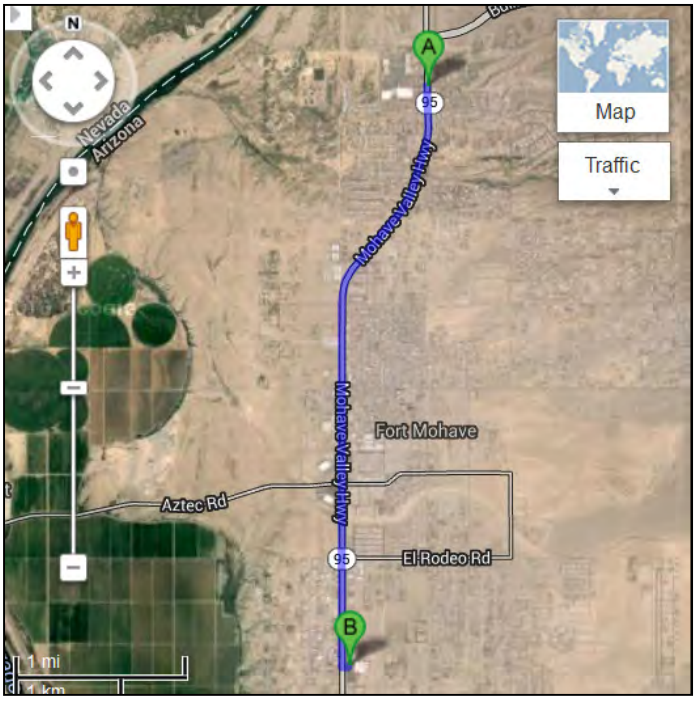


Exhibit 4.28 Proposed Purple and Silver Line Combined Schedule

Stops	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Trip 6
Depart Safeway	6:30 AM	8:30 AM	10:30 AM	1:30 PM	3:30 PM	5:30 PM
Arrive Target at Ash Ave/Long Ave	6:46 AM	8:46 AM	10:46 AM	1:46 PM	3:46 PM	5:46 PM
Depart Target at Ash Ave/Long Ave	6:51 AM	8:51 AM		1:51 PM	3:51 PM	
Valley View Medical Center	7:07 AM	9:07 AM		2:07 PM	4:07 PM	
Arrive Target at Ash Ave/Long Ave	7:23 AM	9:23 AM		2:23 PM	4:23 PM	
Depart Target at Ash Ave/Long Ave	7:28 AM	9:28 AM	10:51 AM	2:28 PM	4:28 PM	5:51 PM
Safeway	7:44 AM	9:44 AM	11:07 AM	2:44 PM	4:44 PM	6:07 PM
Arrive Boat Dock	7:59 AM	9:59 AM		2:59 PM	4:59 PM	6:22 PM
Depart Boat Dock	8:03 AM	10:03 AM		3:03 PM	5:03 PM	6:26 PM
Arrive Safeway	8:18 AM	10:18 AM		3:18 PM	5:18 PM	6:41 PM

ADOT is currently funding a transit study for the Fort Mojave Indian Tribe. Depending on the outcome of this study, other alternatives may be proposed to connect the two communities via public transit.

Other Recommendations

In addition to the three operational scenarios, we have developed a number of recommendations to be considered independently of any scenario. These are administrative and capital recommendations that are considered relevant regardless of which scenario may ultimately be implemented. All capital recommendations will be discussed in detail in the Capital Plan. Marketing recommendations are included within the Marketing Plan.

Administrative Recommendation 1: Establish standard criteria for service evaluation.

Standardized performance criteria are necessary for the effective provision of transit service as well as the implementation of future service enhancements. Without clear guidelines for performance or implementation, certain modifications or expansions of the transit program could result in unanticipated or undesired results such as significant impacts to ridership or revenues. Performance criteria or "triggers" should be tailored to each mode (fixed-route and demand-response). Our suggested criteria and reasoning are presented below.

Fixed-route

The following performance standards are founded upon analysis of current performance, adherence to program Goals and Objectives (as presented in Chapter 2) and industry standards for rural operators. The BATS fixed-route system should adhere to following performance standards annually (unless otherwise noted):

On-time performance:	95 percent of all trips departing on-time from first stop. 90 percent of all time points depart on-time.
Ridership:	160,000 unlinked trips, with growth of 2 percent annually. 12 unlinked trips per VSH (average).
Farebox Recovery:	$1.00 average fare collected per passenger. No less than 20 percent of fixed-route operating costs.
Complaints (System):	No more than 1 per month.
Complaints (Driver/staff):	No more than 1 per quarter.
Vehicle breakdowns[4]:	No more than 1 per 100,000 VSM (across all vehicles).
At-fault accidents:	No more than 1 per 50,000 VSM (across all vehicles).
Bus stop activity:	Minimum average activity of 10 visits per week (Boarding and/or Alighting).

[4] Vehicle breakdowns defined as breakdowns causing significant impacts to published schedule adherence.

Dial-A-BATS

On-time performance:	95 percent of all trips departing within pick-up window.
Ridership:	7,000 unlinked trips, with an effort to limit growth to no more than 2 percent annually.
	2.0 unlinked trips per VSH (average).
Trip Denials:	Zero trip denials due to capacity.
Farebox Recovery:	$1.00 average fare collected per passenger.
	No less than 5 percent of Dial-A-BATS operating costs.
Complaints (System):	No more than 1 per month.
Complaints (Driver/staff):	No more than 1 per quarter.
Vehicle breakdowns[5]:	No more than 1 per 25,000 VSM (across all vehicles).
At-fault accidents:	No more than 1 per 50,000 VSM (across all vehicles).

Administrative Recommendation 2: Revise Personal Care Attendant eligibility criteria.

Currently, ADA paratransit customers who require assistance may travel with a Personal Care Attendant (PCA) for no additional charge. Generally, a PCA is someone who accompanies a paratransit customer in a supporting manner. There are no standardized definitions for support of the paratransit customer; however PCAs typically assist persons who may be incapable of traveling alone, such as those with mental disabilities or challenges and those with visual impairments. The City is in full compliance with the Americans with Disabilities Act (ADA) regarding this matter. There are no formalized criteria as to who constitutes a PCA verses a traveling companion. ADA customers are required to state they will be traveling with a PCA so that adequate seating is available on the vehicle but cannot be, per ADA guidelines, required to identify who will be accompanying them. At no time does the City ask ADA customers to identify their PCAs when applying for ADA certification. We recommend the City amend its ADA policy to request each ADA customer to identify the PCA who will be assisting them, though service would not be denied if the customer chooses not to do so. The City should also clearly define the role of a PCA (versus simply a companion) so that there is no confusion between the two.

Administrative Recommendation 3: Transit staffing.

The City currently employs 20 drivers. Five drivers are full-time and 15 are temporary part-time. Full-time drivers are typically assigned to weekday morning shifts, while part-time drivers cover afternoon/evening and Saturday shifts.

Having only 25 percent of the driver workforce employed on a fulltime basis presents a variety of challenges. Wherein 75 percent of the drivers have temporary part-time work status, the sense of loyalty and commitment to the job is measurably less than that of full-time employees. During calendar years 2012 and 2013, the need to hire a full-time driver occurred only once. This represents a 20 percent turnover rate among full-time drivers. During the same time period, the City hired 11 temporary part-

[5] Vehicle breakdowns defined as breakdowns causing significant impacts to published schedule adherence.

time drivers. This represents a 73 percent turnover rate among temporary part-time drivers. The costs associated with new employees are considerable and go beyond monetary costs to include staff time commitments as well. The pre-employment process requires a background check, fingerprint check, and a physical exam. New employees generally need more extensive training, including new employee orientation and on-the-job driver training, passenger service and safety training, defensive driving, first aid/CPR, drug and alcohol, and dispatch training.

Use of full-time drivers as the primary workforce is preferable, as full-time employees typically represent a more stable workforce. Consequently, we recommend the City amend its current transit staffing to include full-time drivers to the greatest extent possible. We recommend at least 65 percent of the driver workforce be employed on a full-time basis, with no less than seven full-time employees. In the long run, we feel this will produce a more stable workforce with a lower turnover rate. An alternative would be to contract out operation of the BATS program, thereby relieving the City of responsibility for direct employment of drivers and instead relying on a third-party contractor engaged through a competitive bid process.

Administrative Recommendation 4: Negotiate a larger contribution from Katherine Heights to support current service level.

In the current sponsorship agreement, the City agrees to provide one year of transit service as well as several advertising opportunities in exchange for a $13,000 sponsorship. The level of service currently provided to Katherine Heights exceeds the level of their contribution by no less than 35 percent. This is calculated based on the fixed-route operating cost and the number of annual VSH required to provide service to Katherine Heights under the Optimization Scenario. During implementation of the Optimization Scenario, we recommend the City negotiate a higher level of sponsorship from Adams Construction & Management Company, Inc. (representing the Katherine Heights community) to cover a larger portion of the service to the community.

Once the Reallocation Scenario is implemented and service to Katherine Heights is discontinued, it is likely this contribution will disappear. We recommend the City investigate new sponsorship and/or advertising opportunities through its existing Sponsorship Coordinator.

Administrative Recommendation 5: Develop balanced policies regarding carry-on packages.

Currently, the City's policy regarding bringing packages on the bus simply states that the passenger must be able to hold their belongings or place them under the seat, and that "large and cumbersome packages requiring an unreasonable amount of space will not be allowed." This policy is likely sporadically enforced, depending on how many passengers are riding on the vehicle at a given time. However, if the ability to bring packages is curtailed too much, BATS will lose customers who currently ride to access shopping establishments. We recommend the City develop clearer guidance regarding packages, including the identification of circumstances under which larger packages might be allowed.

Administrative Recommendation 6: Record and monitor all costs and revenues by mode.
Currently the BATS program does an excellent job of recording revenues collected by fare type. We recommend implementing a further step by recording both revenues and relevant costs by mode. Doing so will provide additional information towards program performance, and will allow for more insightful modifications on the future. One immediate benefit to implementing this recommendation would be enhanced system analysis.

Administrative Recommendation 7: Assessment of Demand for Limited Shopper Shuttle.
Assessment of demand for a limited (i.e., twice weekly) "shopper shuttle" was discussed during project management team and advisory committee meetings. A shopper shuttle would initially link multiple-family dwellings with local retail centers. We recommend the actual implementation of any shopper shuttle should be contingent upon support (financial, promotional, possible bus stop enhancement, etc.) by the local private sector. Support from the private sector should be sought from those stores, retail centers, and businesses which would likely benefit directly from the service. Any implementation of a shopper shuttle should be conducted as a trial demonstration project with a defined set of performance criteria, timeframe, and goals.

Capital Recommendation 1: Bus stop improvements at the Boat Dock.
Given its role as a primary transfer point between the Red and Green Lines as well as the water taxi to Laughlin, we recommend the construction of a double shelter with shade, seating, and lighting at the Boat Dock. Currently, the BATS bus stop is located on state-owned land.

As the City has elected to not pursue options for upgrading the bus stop on state land because of the onerous processes and expense, we recommend relocating the bus stop to the east, where it can be served from the privately owned parking lot. This would place the bus stop improvements on land owned by the Riverside Casino rather than state-owned land. The City already has an approved bus stop agreement with the Riverside Casino to locate the shelter and benches on their property.

Exhibit 4.29 Current and Proposed Boat Dock Stop Locations

Capital Recommendation 2: Develop a transfer center at Safeway.

Work with Safeway to utilize their parking lot as a transfer center, which would feature – at a minimum – a double shelter and additional signage. It would most likely result in the elimination of multiple parking spaces in order to facilitate bringing multiple buses in for timed transfers as part of the Reallocation Scenario. This recommendation is discussed further in the Capital Plan.

Capital Recommendation 3: Make a final determination regarding development of a transit operations center.

The City has identified the likeliest site to be used as a transit operations center. The site is on a parcel of land in the City's possession near City Hall north of Marina Blvd and west of Highway 95. A number of options regarding a transit center are available to the City, including a rehabilitation of existing commercial space, a purpose-built facility, and the enhancement of the existing vehicle storage/maintenance areas within the public works yard. The pros and cons are discussed further within the Capital Plan, Chapter 5.

Capital Recommendation 4: Construct bus stops on Highway 95.

See Optimization Recommendation 7 for a discussion of this capital recommendation.

Implementation Timeline

We envision the three scenarios "stacking" upon one another – the City would first implement the recommendations of the Optimization Scenario, followed by the Reallocation Scenario, then any expansion or growth. An implementation timeline is provided below.

Implementation Year 1 (Optimization Scenario):

- Implement timing adjustments on the Red and Green Lines (Optimization Recommendations 1 and 5). (The Red Line South would reflect the Orange Line schedule presented in Optimization Recommendation 2.)
- Coordinate timed-transfers at key transfer points (Optimization Recommendation 6).
- Implement on-call service to Katherine Heights (Optimization Recommendation 4).
- Negotiate a higher contribution from Katherine Heights (Administrative Recommendation 4).
- Introduce zone pricing for Dial-A-BATS service (Optimization Recommendation 8).
- Establish standard criteria for service evaluation (Administrative Recommendation 1).
- Revise Personal Care Attendant eligibility criteria (Administrative Recommendation 2).
- Develop balanced policy regarding packages (Administrative Recommendation 5).
- Make bus stop improvements at the Boat Dock and Safeway (Capital Recommendations 1 and 2).
- Move forward with the determination of the site identified for the transit operations center (Capital Recommendation 3).
- Begin consideration of alternatives to traditional in-house Dial-A-Ride service to meet ADA requirements (Optimization Recommendation 9).
- Evaluate transit staffing (Administrative Recommendation 3).
- Begin monitoring program revenues and costs by mode (Administrative Recommendation 6).
- Assess the demand for limited shopper shuttle and support from private sector (Administrative Recommendation 7).

Implementation Year 2 (Optimization Scenario):

- Split the Red Line into the Red and Orange Lines (Optimization Recommendation 2).
- Add one full-time transit employee (Administrative Recommendation 3)
- Introduce low-cost transfers between all routes (Optimization Recommendation 3).
- Develop alternative to traditional in-house Dial-A-Ride service to meet ADA requirements (arising from Optimization Recommendation 9).
- Conduct public hearings in preparation for implementation of the changes arising from the Reallocation Scenario.

Implementation Year 3 (Reallocation Scenario):

- Launch realigned routes as outlined in the Reallocation Scenario (Reallocation Recommendations 1 – 5).
- Add one full-time transit employee (Administrative Recommendation 3).
- Install signage at new stops as necessitated by the route realignments.
- Implement alternative to Dial-A-BATS service as identified in Year 2.

Implementation Year 4 (Reallocation Scenario):

- Continue implementation of realigned routes.
- Evaluate efficiency and productivity of realigned routes (Administrative Recommendation 1).
- Evaluate service for potential expansion (Administrative Recommendation 1).
- Consider eliminating Red Line deviations from the Red Line (Optimization Recommendation 7 and Capital Recommendation 4).

Implementation Year 5 (Expansion/Growth Scenario):

- Begin implementing Service Expansion Recommendations as demand and funding are identified.

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CHAPTER 5: FINANCIAL AND CAPITAL PLANS

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CHAPTER 5 – FINANCIAL AND CAPITAL PLANS

5.1 FINANCIAL PLAN

This chapter presents the five-year operating budget projections required to support the City's public transit program within the parameters established in each of the scenarios detailed within the Operations Plan (Chapter 4). As Chapter 4 describes, we developed three distinct service scenarios – Optimization, Reallocation, and Expansion – based on input received from the community and discussions with Bullhead City staff, ADOT staff, and the project's Technical Advisory Committee.

Scenario 1: Optimization of Current Service (Short-term)

The Optimization Scenario assumes all current transit services would continue in their current form (i.e., fixed-route and complementary demand-response elements) and includes service enhancement and infrastructure improvements intended for introduction in the near future. The scenario also assumes the City would implement each of the proposed service and infrastructure enhancements, in addition to any changes which it may have already planned for the near-term.

Scenario 2: Reallocation of Resources (Mid-Term)

The Reallocation Scenario incorporates many of the same assumptions as the Optimization Scenario. In addition, this scenario assumes additional operating expenses will be incurred in the form of additional marketing and branding costs and increased VSH, and may potentially require additional capital costs in order to successfully implement.

Scenario 3: Service Growth and Expansion (Long-Term)

The Growth and Expansion Scenario is similar in its assumptions to the Optimization and Reallocation Scenarios. In addition to the Optimization assumptions, the Growth Scenario adjusts for an increase in revenue from annual donations. The service hour extensions proposed in this scenario will increase the total operating cost of both the fixed-routes and Dial-A-BATS and have been incorporated within the respective tables. Finally, this scenario includes the development of an enhanced transit operations and maintenance facility. Additional details on the facility are located within the Capital Plan (Chapter 5.2).

Overview of Current and Potential Funding Sources

Below is a summary of available funding sources for the operation of the City's public transit program. Additional sources of funding may become available within the SRTP horizon; however those below represent the primary sources of funding for the BATS program.

Federal

There are a number of available federal funding programs for which the City could apply. These are primarily grant programs with established eligibility and disbursement parameters. The primary federal sources of funding for the City's public transportation program are:

FTA Section 5304 Statewide Planning

This federal program provides funds which are apportioned to states by a formula that includes each state's urbanized area population in proportion to the total urbanized area population for the nation, as well as other factors. States can receive no less than .5 percent of the amount apportioned. These funds, in turn, are sub-allocated by states to Metropolitan Planning Organizations (MPO) by a formula that considers each MPO's urbanized area population, their individual planning needs, and a minimum distribution.

FTA Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities

This federal grant program will provide $258 million nationally during Fiscal Year 2014, allotted to individual recipients based on the number of seniors and persons with disabilities residing within the service area. Funds allocated to Arizona are currently distributed by ADOT. The City could potentially utilize these funds for replacement Dial-A-BATS vehicle purchases as needed. In addition, projects to enhance bus stop access, as well as increase bus stop amenities, may also be eligible for Section 5310 funding as such projects are designed to improve transit accessibility for seniors and persons with disabilities.

FTA Section 5311

These funds are apportioned to the state on a formula basis, providing funding to support the administrative, operating and capital costs of public transit services in un-urbanized areas. ADOT has the primary responsibility to provide for the fair and equitable distribution of funds to qualified applicants. In Arizona, the ADOT's Multimodal Planning Division manages the Section 5311 grant program[1].

Highway Safety Improvement Program (HSIP)

The specific purpose of the Highway Safety Improvement Program (HSIP) is to achieve a significant reduction in traffic fatalities and serious injuries on public roads. This is to be accomplished through the development and implementation of the state-wide coordinated plans, and local projects deemed eligible. On Interstate Highways (such as Highway 95) federal funding is available for up to 94.34 percent of the project cost with the balance to be provided by the project sponsor. Should all safety infrastructure needs be met, the state has the option of using up to ten percent of al available HSIP funding on non-infrastructure safety projects. ADOT is responsible for administering HSIP projects in Arizona.

[1] From ADOT website, http://www.azdot.gov/planning/TransitProgramsandGrants/rural-public-transportation-program accessed on November 7, 2013.

State

In years prior, Local Transportation Assistance Funds (LTAF II) were made available to public transit operators as a source of operating funding assistance, and a source for meeting required federal local matches for grants. The LTAF II funds have been suspended indefinitely since 2010[2], and therefore are not included as a source of revenue throughout the Plan's horizon. However, we recommend the City support efforts of the Arizona Transit Association (AzTA) and other advocates for the State Legislature to reinstate LTAF II or create a dedicated public funding source specifically for transit.

The ADOT Rural Transit Assistance Program (RTAP) offers training and training scholarships to qualified transit providers. This source provides reimbursement to the City for professional training and related expenses.

Local

The City's public transit program currently receives a significant portion of its revenue through transfers from the City's General Fund (approximately $188,996 for FY 2013)[3]. In our budget tables, we assume assistance through transfers from the General Fund would continue to increase no greater than an average rate of inflation of 2.5 percent.

Included within sources of local funding for BATS are the City General Funds, local sponsorships and donations, advertising revenue, and other similar discretionary sources. Current funding from local sources includes:

Advertising

The City's transit programs generate modest revenue from the sale of advertising space onboard the vehicles, both interior and exterior, as well as at shelters. Sales are managed by a Sponsorship Coordinator, who is a contracted employee of the City. The position is paid for primarily through commission of advertisement sales. The Sponsorship Coordinator is utilized by all City departments, with the majority of the position's time dedicated to large City events such as the annual River Regatta.

Sponsorships and Donations

Sponsorships provide a modest revenue source for the City's public transit program. These are relationships wherein an organization provides funding for services. At present, the largest single sponsorship is with the Western Arizona Regional Medical Center (WARMC). WARMC also receives a significant portion of available advertisement space for its sponsorship. The City

[2] ADOT Section 5311 Handbook FFY2013, page 22.
[3] Bullhead City Transit Study Report, Fiscal Year-to-Date June 30, 2013.

also receives a donation from the Katherine Heights community for actual transit service provisions.

The Sponsorship Coordinator also manages existing BATS sponsorships with WARMC and Katherine Heights, including solicitation of additional sponsorship funds.

Fare Policy

BATS current fare structure is detailed in Exhibit 5.1.1 below.

Exhibit 5.1.1 Bullhead Area Transit System Current Fare Structure

Fare Structure	General Public	Seniors	ADA Certified	Students	Children (age 2 and younger) and/or PCA
Fixed-routes (One-Way)	$1.00	$1.00	$1.00	$1.00	Free
All-day Pass	$4.00	$4.00	$4.00	$4.00	Free
Monthly Pass	$48.00	$30.00	$48.00	$20.00	Free
Coupon Book ($30-trip value)	$24.00	$24.00	$24.00	$24.00	Free
Demand-response (Dial-A-BATS)	N/A	N/A	$2.00	N/A	Free
Paratransit Laughlin Connection	N/A	N/A	additional $1.00	N/A	Free

Fares are collected and reconciled by City staff on a daily basis. Final deposit amounts are recorded and reconciled with the City's bank deposit records.

Overview of Revenue Projection

The changes brought to the funding environment by the establishment of the Moving Ahead for Progress in the 21st Century Act (MAP-21) may result in additional funds becoming available to the City of Bullhead City. MAP-21 effectively eliminated the Job Access and Reverse Commute (JARC – Section 5316) and New Freedom (Section 5317), while making those funds available to existing Section 5311 applicants. It is likely existing beneficiaries of Section 5316 and 5317 funds may seek to apply for rural operator designation, and thus qualify for Section 5311, which may again alter the available funding.

In addition, the designation of two former rural transit operators (Sierra Vista and Lake Havasu) into "Urbanized Areas" also increases the pool of available rural funding within the state.

The City of Bullhead City may be able to claim additional federal funding as the number of eligible rural applicants is reduced.

Fare elasticity models allow transit operators to estimate the impacts to farebox recovery based on fare increases. It is typical for a transit operator to experience ridership loss during the first year a fare increase is implemented. This negative ridership impact can be calculated by the fare elasticity formula

which attributes a 0.4 percent decrease in ridership for every one percent increase in fare. This is applicable to fare decreases as well, resulting in a potential increase in ridership[4].

Fare revenues for service expansions were calculated using historic fare revenues collected per VSH for both fixed-route and Dial-A-BATS.

The Optimization Scenario revenues are projected to remain fairly consistent from years prior. To elaborate, primary sources of funding will continue to be focused on local (transfers from City's General Fund) and federal (Section 5311) sources. Additional revenue streams such as those from advertisements and sponsorships are also anticipated to remain consistent. The following assumptions were utilized in development of the Optimized Scenario budget table presented in Exhibit 5.1.2.

Assumptions

- All Administrative Recommendations are implemented.[5]
  - Additional cost of one full-time employee has been estimated at $23,500.
- Ridership and respective fare revenues would increase at not less than two percent/annum.
- Cost to implement transfer passes and respective policies estimated at $5,000.00 annually.
- Transfer fee of $0.25 each is implemented and estimated at 50,000 transfers annually results in additional revenue ($12,500).
- Cost of Day Pass is reduced from $4.00 to $3.00 (nominal reduction in collected fares).
- Implementation of Zone Fare for Katherine Heights/Laughlin (nominal increase in collected fares).
- Anticipated fare recovery (by mode) is met in all years.
- A 2.5-percent rate of inflation[6] has been applied to all expenses except as specifically noted.
- Anticipated revenues from "Donations" and "Sponsorships" are realized in each budget year.
- Seven-year useful life for all medium-duty transit vehicles.
- Five-year useful life for all light-duty transit vehicles.
- Vehicle costs are calculated using a 2.5-percent/year rate of inflation from year of purchase. Details in Capital Plan (Chapter 5.2).
- Fuel cost is estimated to increase at a rate of three percent/year.
- Transfer from City's General Fund is used to balance revenue/expenditure variance.
- All revenue and expenditure figures based on City-provided data[7].

[4] McCollom, Brian E. and Richard H. Pratt. Transportation Research Board. *TCRP Report 95 Transit Pricing and Fares,* "Chapter 12, Traveler Response to Transportation System Changes." (Washington D.C., 2004)
[5] The Katherine Heights donation is targeted at not less than $13,000 annually, to increase 2.5% annually.
[6] Based on U.S. Department of Labor, Bureau of Labor Statistics.
[7] Transit Study Report Fiscal Year-to-Date June 30, 2013, and Transit Receipts FY2013.

The Reallocation Scenario assumptions differ from the Optimization Scenario primarily by the addition of costs associated with service expansion and marketing/collateral production required with the introduction of new route nomenclature and modified schedules. The following assumptions were utilized in development of the Reallocation Scenario budget table presented in Exhibit 5.1.3:

- All assumptions from Optimization Scenario remain in effect.
- Reallocation costs and revenues begin in FY 2017.
- Modifications to fixed-route service results in additional 1,112 VSH ($53,320).
- Modifications to the Dial-A-BATS results in additional 26 VSH ($1,247).
- Additional fare revenues for service expansion based on average fare collected per VSH ($10.58/VSH fixed-route, and $1.27/VSH for Dial-A-BATS).
- Additional marketing/promotional costs associated estimated at $25,000[8] annually.
- Additional cost for branding of vehicles ($2,000/vehicle) has been incorporated into capital purchase/replacement costs.

The Growth Scenario assumptions differ from the scenarios previously presented primarily through the likelihood of additional federal revenue (Section 5311), and additional funding for large capital projects from federal sources. The following assumptions were utilized in development of the Growth Scenario budget table presented in Exhibit 5.1.4:

- All Optimization and Reallocation assumptions remain in effect (unless noted below).
- Growth Scenario costs and revenues begin in FY 2019.
- Ridership and respective fare revenues are anticipated to increase at not less than four percent/annum.
- Extended weekday evening hours on fixed-routes result in additional costs ($96,667).
- Extended weekday evening hours on Dial-A-BATS results in additional costs ($12,228).
- Extended Saturday evening hours on fixed-routes result in additional costs ($34,908).
- Extended Saturday evening hours on Dial-A-BATS result in additional costs ($7,336).
- New Sunday fixed-route service results in additional costs ($29,921).
- New Sunday Dial-A-BATS service results in additional costs ($14,673).
- Implementation of the Purple Line Limited Stop results in additional costs ($106,017).
- Extend service south to Valley View Medical Center in Fort Mohave results in additional costs ($128,506).
- Purpose-built facility anticipated cost of $636,000, with a year of construction of FY 2020.
  - Associated costs are presented in the Capital Plan (Chapter 5.2).
  - Facility costs to be covered through federal grants and local match (80/20 split).

[8] This figure could vary significantly dependent upon the scope of marketing enhancements desired and the year implemented.

Exhibit 5.1.2 Optimization scenario budget

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenue									
Indirect federal grant	$651,666.98	$667,958.65	$712,257.63	$1,043,127.25	$503,100.65	$563,771.07	$696,409.86	$934,311.41	$1,001,390.14
Passenger fares - Fixed-route	$140,683.48	$143,497.15	$146,367.09	$149,294.43	$152,280.32	$155,325.93	$158,432.45	$161,601.10	$164,833.12
Passenger fares - Demand-response	$4,837.80	$4,934.56	$5,033.25	$5,133.91	$5,236.59	$5,341.32	$5,448.15	$5,557.11	$5,668.25
Advertising	$200.00	$205.00	$210.13	$215.38	$220.76	$226.28	$231.94	$237.74	$243.68
Donations	$13,000.08	$13,325.08	$13,658.21	$13,999.66	$14,349.66	$14,708.40	$15,076.11	$15,453.01	$15,839.34
Sponsorships	$60,000.00	$61,500.00	$63,037.50	$64,613.44	$66,228.77	$67,884.49	$69,581.61	$71,321.15	$73,104.17
Cash over/short	$36.19	$37.09	$38.02	$38.97	$39.95	$40.95	$41.97	$43.02	$44.09
Other revenue	$465.61	$477.25	$489.18	$501.41	$513.95	$526.79	$539.96	$553.46	$567.30
Revenues from Assumptions	- - -	$12,500.00	$12,750.00	$13,005.00	$13,265.10	$13,530.40	$13,801.01	$14,077.03	$14,358.57
Transfer from General Fund	$188,996.00	$117,764.28	$203,593.45	$225,000.11	$232,602.79	$140,942.77	$174,102.46	$216,795.34	$245,891.24
Total Revenue	**$1,059,886.14**	**$1,022,199.07**	**$1,157,434.46**	**$1,514,929.57**	**$987,838.54**	**$962,298.41**	**$1,133,665.51**	**$1,419,950.36**	**$1,521,939.91**
Expenses									
Operating Expenses									
Salaries and wages	$391,992.26	$401,792.07	$435,336.87	$446,220.29	$457,375.80	$468,810.19	$480,530.45	$492,543.71	$504,857.30
Employee-related expenditures	$136,505.31	$139,917.94	$143,415.89	$147,001.29	$150,676.32	$154,443.23	$158,304.31	$162,261.92	$166,318.47
Professional services	$1,375.00	$1,409.38	$1,444.61	$1,480.72	$1,517.74	$1,555.69	$1,594.58	$1,634.44	$1,675.30
Utilities and Communication	$11,652.16	$11,943.46	$12,242.05	$12,548.10	$12,861.80	$13,183.35	$13,512.93	$13,850.76	$14,197.03
Rentals & leases	$458.14	$469.59	$481.33	$493.37	$505.70	$518.34	$531.30	$544.58	$558.20
Insurance	$18,383.01	$18,842.59	$19,313.65	$19,796.49	$20,291.40	$20,798.69	$21,318.66	$21,851.62	$22,397.91
Advertising and Printing and Publishing	$2,178.59	$2,233.05	$2,288.88	$2,346.10	$2,404.76	$2,464.87	$2,526.50	$2,589.66	$2,654.40
Travel and Education	$5,519.80	$5,657.80	$5,799.24	$5,944.22	$6,092.83	$6,245.15	$6,401.28	$6,561.31	$6,725.34
General supplies and Uniforms	$3,008.73	$3,083.95	$3,161.05	$3,240.07	$3,321.07	$3,404.10	$3,489.20	$3,576.43	$3,665.85
Vehicle repairs/service and Equipment <$5,000	$123,650.51	$126,741.77	$129,910.32	$133,158.07	$136,487.03	$139,899.20	$143,396.68	$146,981.60	$150,656.14
Fuel[1]	$117,447.71	$120,971.14	$124,600.28	$128,338.28	$132,188.43	$136,154.09	$140,238.71	$144,445.87	$148,779.25
Costs from Assumptions	- - -	$5,000.00	$5,125.00	$5,253.13	$5,384.45	$5,519.06	$5,657.04	$5,798.47	$5,943.43
Other equipment	$8,222.00	$8,427.55	$8,638.24	$8,854.19	$9,075.55	$9,302.44	$9,535.00	$9,773.37	$10,017.71
Subtotal	*$820,393.22*	*$846,490.29*	*$891,757.40*	*$914,674.34*	*$938,182.89*	*$962,298.40*	*$987,036.63*	*$1,012,413.74*	*$1,038,446.32*
Capital Expenses									
Machinery and equipment	$259,986.00	$175,708.77	$265,677.05	$600,255.23	$49,655.66	$0.00	$146,628.88	$407,536.62	$483,493.60
Facilities	- - -	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Subtotal	*$259,986.00*	*$175,708.77*	*$265,677.05*	*$600,255.23*	*$49,655.66*	*$0.00*	*$146,628.88*	*$407,536.62*	*$483,493.60*
Total Expenses	**$1,080,379.22**	**$1,022,199.06**	**$1,157,434.46**	**$1,514,929.57**	**$987,838.54**	**$962,298.40**	**$1,133,665.51**	**$1,419,950.36**	**$1,521,939.91**

(1) Fuel pricing increase calculated at three percent/annum.

Exhibit 5.1.3 Optimization and Reallocation scenario budget

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenue									
Indirect federal grant	$651,666.98	$667,958.65	$712,257.63	$1,096,538.82	$627,286.44	$593,646.28	$756,729.14	$1,034,542.28	$1,127,867.31
Passenger fares - Fixed-route	$140,683.48	$143,497.15	$146,367.09	$149,294.43	$152,280.32	$155,325.93	$158,432.45	$161,601.10	$164,833.12
Passenger fares - Demand-response	$4,837.80	$4,934.56	$5,033.25	$5,133.91	$5,236.59	$5,341.32	$5,448.15	$5,557.11	$5,668.25
Advertising	$200.00	$205.00	$210.13	$215.38	$220.76	$226.28	$231.94	$237.74	$243.68
Donations	$13,000.08	$13,325.08	$13,658.21	$13,999.66	$14,349.66	$14,708.40	$15,076.11	$15,453.01	$15,839.34
Sponsorships	$60,000.00	$61,500.00	$63,037.50	$64,613.44	$66,228.77	$67,884.49	$69,581.61	$71,321.15	$73,104.17
Cash over/short	$36.19	$37.09	$38.02	$38.97	$39.95	$40.95	$41.97	$43.02	$44.09
Other revenue	$465.61	$477.25	$489.18	$501.41	$513.95	$526.79	$539.96	$553.46	$567.30
Revenues from Assumptions[1]	- - -	$12,500.00	$12,750.00	$13,005.00	$25,239.53	$25,744.32	$26,259.21	$26,784.39	$27,320.08
Transfer from General Fund	$188,996.00	$117,764.28	$203,593.45	$208,683.29	$213,900.37	$219,247.88	$224,729.07	$230,347.30	$236,105.98
Total Revenue	**$1,059,886.14**	**$1,022,199.07**	**$1,157,434.46**	**$1,552,024.32**	**$1,105,296.34**	**$1,082,692.64**	**$1,257,069.60**	**$1,546,440.56**	**$1,651,593.33**
Expenses									
Operating Expenses									
Salaries and wages	$391,992.26	$401,792.07	$435,336.87	$483,315.04	$495,397.92	$507,782.86	$520,477.44	$533,489.37	$546,826.61
Employee-related expenditures	$136,505.31	$139,917.94	$143,415.89	$147,001.29	$150,676.32	$154,443.23	$158,304.31	$162,261.92	$166,318.47
Professional services	$1,375.00	$1,409.38	$1,444.61	$1,480.72	$1,517.74	$1,555.69	$1,594.58	$1,634.44	$1,675.30
Utilities and Communication	$11,652.16	$11,943.46	$12,242.05	$12,548.10	$12,861.80	$13,183.35	$13,512.93	$13,850.76	$14,197.03
Rentals & leases	$458.14	$469.59	$481.33	$493.37	$505.70	$518.34	$531.30	$544.58	$558.20
Insurance	$18,383.01	$18,842.59	$19,313.65	$19,796.49	$20,291.40	$20,798.69	$21,318.66	$21,851.62	$22,397.91
Advertising and Printing and Publishing	$2,178.59	$2,233.05	$2,288.88	$2,346.10	$2,404.76	$2,464.87	$2,526.50	$2,589.66	$2,654.40
Travel and Education	$5,519.80	$5,657.80	$5,799.24	$5,944.22	$6,092.83	$6,245.15	$6,401.28	$6,561.31	$6,725.34
General supplies and Uniforms	$3,008.73	$3,083.95	$3,161.05	$3,240.07	$3,321.07	$3,404.10	$3,489.20	$3,576.43	$3,665.85
Vehicle repairs/service and Equipment <$5,000	$123,650.51	$126,741.77	$129,910.32	$133,158.07	$136,487.03	$139,899.20	$143,396.68	$146,981.60	$150,656.14
Fuel[2]	$117,447.71	$120,971.14	$124,600.28	$128,338.28	$132,188.43	$136,154.09	$140,238.71	$144,445.87	$148,779.25
Costs from Assumptions	- - -	$5,000.00	$5,125.00	$5,253.13	$84,820.13	$86,940.63	$89,114.14	$91,342.00	$93,625.55
Other equipment	$8,222.00	$8,427.55	$8,638.24	$8,854.19	$9,075.55	$9,302.44	$9,535.00	$9,773.37	$10,017.71
Subtotal	*$820,393.22*	*$846,490.29*	*$891,757.40*	*$951,769.09*	*$1,055,640.68*	*$1,082,692.64*	*$1,110,440.72*	*$1,138,902.94*	*$1,168,097.74*
Capital Expenses									
Machinery and equipment	$259,986.00	$175,708.77	$265,677.05	$600,255.23	$49,655.66	$0.00	$146,628.88	$407,536.62	$483,493.60
Facilities	- - -	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1.00	$2.00
Subtotal	*$259,986.00*	*$175,708.77*	*$265,677.05*	*$600,255.23*	*$49,655.66*	*$0.00*	*$146,628.88*	*$407,537.62*	*$483,495.60*
Total Expenses	**$1,080,379.22**	**$1,022,199.06**	**$1,157,434.46**	**$1,552,024.32**	**$1,105,296.33**	**$1,082,692.64**	**$1,257,069.60**	**$1,546,440.55**	**$1,651,593.33**

(1) Includes funds from federal capital source and additional local funds.
(2) Fuel pricing increase calculated at three percent/annum.

Exhibit 5.1.4 Optimization, Reallocation, and Growth scenario budget

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenue									
Indirect federal grant	$651,666.98	$667,958.65	$712,257.63	$1,096,538.82	$676,665.82	$690,806.50	$1,020,128.59	$1,429,191.33	$1,527,009.68
Passenger fares - Fixed-route	$140,683.48	$143,497.15	$146,367.09	$149,294.43	$152,280.32	$155,325.93	$161,538.97	$168,000.53	$174,720.55
Passenger fares - Demand-response	$4,837.80	$4,934.56	$5,033.25	$5,133.91	$5,236.59	$5,341.32	$5,554.97	$5,777.17	$6,008.26
Advertising	$200.00	$205.00	$210.13	$215.38	$220.76	$226.28	$231.94	$237.74	$243.68
Donations	$13,000.08	$13,325.08	$13,658.21	$13,999.66	$14,349.66	$14,708.40	$15,076.11	$15,453.01	$15,839.34
Sponsorships	$60,000.00	$61,500.00	$63,037.50	$64,613.44	$66,228.77	$67,884.49	$69,581.61	$71,321.15	$73,104.17
Cash over/short	$36.19	$37.09	$38.02	$38.97	$39.95	$40.95	$41.97	$43.02	$44.09
Other revenue	$465.61	$477.25	$489.18	$501.41	$513.95	$526.79	$539.96	$553.46	$567.30
Revenues from Assumptions[1]	- - -	$12,500.00	$12,750.00	$13,005.00	$25,239.53	$25,744.32	$751,099.47	$119,703.45	$124,491.58
Transfer from General Fund	$188,996.00	$117,764.28	$203,593.45	$208,683.29	$213,900.37	$172,701.52	$351,411.23	$230,347.30	$236,105.98
Total Revenue	**$1,059,886.14**	**$1,022,199.07**	**$1,157,434.46**	**$1,552,024.32**	**$1,154,675.72**	**$1,133,306.50**	**$2,375,204.81**	**$2,040,628.15**	**$2,158,134.64**
Expenses									
Operating Expenses									
Salaries and wages	$391,992.26	$401,792.07	$435,336.87	$483,315.04	$544,777.30	$558,396.73	$572,356.65	$586,665.56	$601,332.20
Employee-related expenditures	$136,505.31	$139,917.94	$143,415.89	$147,001.29	$150,676.32	$154,443.23	$158,304.31	$162,261.92	$166,318.47
Professional services	$1,375.00	$1,409.38	$1,444.61	$1,480.72	$1,517.74	$1,555.69	$1,594.58	$1,634.44	$1,675.30
Utilities and Communication	$11,652.16	$11,943.46	$12,242.05	$12,548.10	$12,861.80	$13,183.35	$13,512.93	$13,850.76	$14,197.03
Rentals & leases	$458.14	$469.59	$481.33	$493.37	$505.70	$518.34	$531.30	$544.58	$558.20
Insurance	$18,383.01	$18,842.59	$19,313.65	$19,796.49	$20,291.40	$20,798.69	$21,318.66	$21,851.62	$22,397.91
Advertising and Printing and Publishing	$2,178.59	$2,233.05	$2,288.88	$2,346.10	$2,404.76	$2,464.87	$2,526.50	$2,589.66	$2,654.40
Travel and Education	$5,519.80	$5,657.80	$5,799.24	$5,944.22	$6,092.83	$6,245.15	$6,401.28	$6,561.31	$6,725.34
General supplies and Uniforms	$3,008.73	$3,083.95	$3,161.05	$3,240.07	$3,321.07	$3,404.10	$3,489.20	$3,576.43	$3,665.85
Vehicle repairs/service and Equipment <$5,000	$123,650.51	$126,741.77	$129,910.32	$133,158.07	$136,487.03	$139,899.20	$143,396.68	$146,981.60	$150,656.14
Fuel[2]	$117,447.71	$120,971.14	$124,600.28	$128,338.28	$132,188.43	$136,154.09	$140,238.71	$144,445.87	$148,779.25
Costs from Assumptions	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$430,256.00	$441,012.40	$452,037.71
Other equipment	$8,222.00	$8,427.55	$8,638.24	$8,854.19	$9,075.55	$9,302.44	$9,535.00	$9,773.37	$10,017.71
Subtotal	*$820,393.22*	*$846,490.29*	*$891,757.40*	*$951,769.09*	*$1,105,020.06*	*$1,133,306.50*	*$1,592,575.94*	*$1,633,091.53*	*$1,674,641.04*
Capital Expenses									
Machinery and equipment	$259,986.00	$175,708.77	$265,677.05	$600,255.23	$49,655.66	$0.00	$146,628.88	$407,536.62	$483,493.60
Purpose-built Facility	- - -	$0.00	$0.00	$0.00	$0.00	$0.00	$636,000.00	$0.00	$0.00
Subtotal	*$259,986.00*	*$175,708.77*	*$265,677.05*	*$600,255.23*	*$49,655.66*	*$0.00*	*$782,628.88*	*$407,536.62*	*$483,493.60*
Total Expenses	**$1,080,379.22**	**$1,022,199.06**	**$1,157,434.46**	**$1,552,024.32**	**$1,154,675.71**	**$1,133,306.50**	**$2,375,204.81**	**$2,040,628.15**	**$2,158,134.64**

(1) Includes funds from federal capital source and additional local funds.
(2) Fuel pricing increase calculated at three percent/annum.

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5.2 CAPITAL PLAN

The following Capital Plan for the Bullhead Area Transit System (BATS) is segregated into two primary sections: funding sources for Capital projects and Capital cost forecasts. The Capital cost forecasts discussion is further divided into Optimization Scenario, Growth Scenario, Additional Capital, and Fleet Replacement.

5.2.1 FUNDING SOURCES FOR CAPITAL PROJECTS

As discussed in the Financial Plan, the City's public transit program is funded through a combination of federal, state, and local funds. The following discusses the most likely funding sources for qualifying transit capital projects.

Federal

Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities Grants will provide $258 million nationally during Fiscal Year 2014, allocated to eligible recipients based on the number of seniors and persons with disabilities residing within their service area. Funds allocated to Arizona are currently distributed by ADOT. The City could potentially utilize these funds for future replacement of dial-a-ride vehicles. In addition, projects to improve bus stop access, provide additional stop amenities, etc., may also be eligible for Section 5310 funding as such projects can enhance transit accessibility for seniors and persons with disabilities.

Section 5311 Rural Area Formula Grants are apportioned based on population size and density. These funds provide assistance to transit operations for planning activities and transit capital purchases, as well as transit operational costs (described in detail in Exhibit 5.2.1). Section 5311 is a primary source of funding for the City's public transit program, and through MAP-21 increased levels of funding may become available to the City. Additional information on the changes to this grant program brought about by MAP-21 are presented in the Financial Plan (Chapter 5.1).

Section 5339 Bus and Bus Facilities Grants provide capital funding to replace or rehabilitate facilities and/or rehabilitate buses and related equipment, as well as to construct new bus-related facilities. Section 5339 provides a federal share of up to 80 percent of total project cost, with the remaining cost to be covered by local match funding. Both the State of Arizona (ADOT) and sub-recipients are eligible to receive Section 5339 funds. Under the current federal funding structure (MAP-21), Section 5339 replaces Section 5309. In addition, states can request portions of their apportionment be transferred to supplement both Section 5307 and Section 5311 grant programs. A total of $1.25 million each year for two years is allocated to ADOT for disbursement to eligible projects. Eligible projects must be applied for and selected for funding by ADOT.

The Surface Transportation Fund (STP) is continued through MAP-21, providing an annual average of $10 billion in flexible funding that may be used by states and other localities for projects to preserve

or improve conditions and performance on any federally-funded highway, bridge projects on any public road, facilities for non-motorized transportation, transit capital projects and public bus terminals and facilities[9]. STP funds are considered "flex" funds, which allows each state to disburse up to 50-percent of the available funds throughout the state to eligible projects as deemed appropriate. In FY 2013 the Western Arizona Council of Government was allocated approximately $2.1 million in STP funds.

Congestion Mitigation and Air Quality (CMAQ) funds are disbursed to "non-attainment" areas where levels of certain pollution and particulate matter exceed federal standards. Non-attainment status is determined by the Environmental Protection Agency (EPA). CMAQ funds aim to help such non-attainment areas meet federal air quality standards by helping to finance transportation projects that reduce air pollution. At the time of this report, the state of Arizona has been allocated approximately $50 million in CMAQ funds in FY2014 for eligible projects. Currently, neither the City of Bullhead City, Mohave County, nor neighboring Laughlin/Clark County, Nevada have been designated as non-attainment areas. For this reason CMAQ funding is unlikely to become available for BATS capital projects through this report's planning horizon.

Highway Safety Improvement Program (HSIP) The specific purpose of the Highway Safety Improvement Program (HSIP) is to achieve a significant reduction in traffic fatalities and serious injuries on public roads. This is to be accomplished through the development and implementation of the state-wide coordinated plans, and local projects deemed eligible. On Interstate Highways (such as Highway 95) federal funding is available for up to 94.34 percent of the project cost with the balance to be provided by the project sponsor. Should all safety infrastructure needs be met, the state has the option of using up to ten percent of al available HSIP funding on non-infrastructure safety projects. ADOT is responsible for administering HSIP projects in Arizona.

State

While the Arizona Department of Transportation (ADOT) helps finance transit projects, including capital projects, the amount of funding available from the state level for transit is generally modest. In addition, the most recent state funding source (LTAF II) was discontinued in 2010, and there is no current plan for the state to reestablish the funding program. As such, we do not anticipate any potential state-level funding sources.

Local

The City's public transit program currently receives a significant portion of its funding through transfers from the City's General Fund (approximately $188,996 in FY 2013)[10]. Included within sources of local funding for the BATS program are City General Funds, local sponsorships and donations, advertising

[9] Federal Highway Administration website, http://www.fhwa.dot.gov/map21/summaryinfo.cfm, accessed November 11, 2013.
[10] Bullhead City Transit Study Report, Fiscal Year-to-Date June 30, 2013.

revenue, and other similar discretionary sources; which are detailed within the Financial Plan, Chapter 5.1.

Another source of local transportation funding could be a dedicated tax initiative (such as a local sales tax) which could be used to fund transit operations, capital projects, and meet federal "local match" requirements. Such an initiative would need to be sponsored by a local government (i.e., the City of Bullhead City or Mohave County), and passed by the required voter majority. No research or discussion on the possible success of such a dedicated tax measure is included in this report. Therefore no funding through this source has been programmed into the Short Range Transit Plan.

In addition, through discussions with City of Bullhead City staff, it is unlikely the City's General Fund would be able to absorb any significant increase in transit expense tied to capital expansion. Therefore, other sources of funding have been identified and discussed herein.

Exhibit 4.4.1 Capital Eligible Funding Sources

Program Name	Description/Purpose	Eligibility	Recipient	Funding Mechanism	FY 2014 Allotment
Federal					
Congestion Mitigation and Air Quality (CMAQ)	Funds for areas with poor air quality known as "non-attainment" areas. Funds can be utilized for capital projects aimed at improving air quality.	Project service area must be within a non-attainment area as determined by the EPA.	State	States receive allocation proportional to their share of 2009 CMAQ funds.	$2.2 billion nationally.
Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities	Funding for capital projects with a goal of increasing mobility to seniors and persons with disabilities.	Public and private non-profit transit providers, including Coordinated Human Services agencies.	State	Formula, based on population designated as senior or person with mobility impairment.	$258 million nationally.
Section 5311 Rural Area Formula	Funding for rural areas (population under 50,000). Can fund operating, capital, and planning activities.	State or local government, public transit agencies, non-profit organizations, operating in a rural area.	State (for areas with a population under 200,000)	Formula, based on population and system size.	$607.8 million nationally.
Section 5339 Bus and Bus Facilities	Capital funding to construct/replace/rehabilitate transit facilities and buses.	State or local government, public transit agencies, non-profit organizations.	State	Formula, based on population and system size.	$427.8 million nationally.
Surface Transportation Fund	Funding for transit capital, facilities, federal highway, and bridge projects. Considered flex funds and may be assigned by the state as deemed appropriate.	States. Funds are then disbursed to eligible MPO's for transit projects.	State	Formula, based on population.	$10.1 billion nationally.
Highway Safety Improvement Program	Funding for infrastructure and highway safety-improving projects throughout the state.	States. Funds are then disbursed to eligible MPO's for improvement projects.	State	Formula, based on population.	$42.8 Million in AZ in 2013.
State					
Local Transportation Assistance Fund	A dedicated state transit fund established in 1993, and amended in 1998 to add revenue from state Lottery funds. Funding was eliminated by the state legislature in 2010.	N/A	City of Bullhead City	State taxes, lottery fees.	N/A.
Local					
General Fund/Local Match	Funds from the City of Bullhead City General Fund account are collected from local sales tax, state-shared revenues, and revenue specific to transit sponsorships, donations, and advertising agreements. Local match may come from any available City revenues including sponsorships, donations, and advertisement revenues. Some grant programs allow for match-in-kind (i.e., staff hours/resources) as local match.	City of Bullhead City departments and agencies.	City of Bullhead City	City fees/fines, local sales tax (2%), state-shared revenues.	$186,204 (Transit only).
Dedicated Tax	A revenue stream which would need to be voted in by the local populace, whose collected revenues would be dedicated to public transit.	BATS (if enacted).	City of Bullhead City	Local initiative (if enacted).	N/A.

5.2.2 CAPITAL COST FORECASTS

Capital Cost Forecast – Optimization Scenario

The Optimization Scenario presented in Chapter 4 focuses primarily on operational and administrative enhancements to improve transit service efficiency. No specific Capital recommendations are proposed. It should be noted, however, that the Growth Scenario Capital Recommendations could be implemented independently of Growth Scenario Operational and Administrative recommendations. In other words, the below Growth Scenario recommendations may be planned for and implemented in any scenario, though the year of implementation should remain consistent. If any of the capital projects presented are implemented in the Optimization Scenario, we recommend they be budgeted and implemented in the same year as presented in the Capital Cost Forecast – Growth Scenario.

Capital Cost Forecast – Growth Scenario

The Operations Plan (Chapter 4) details four Capital recommendations. Recommendation 1 calls for the expansion of transit stop amenities at the Boat Dock, including the installation of a dual-wide pre-fabricated shelter with solar lighting, shade, and seating. No additional costs for procurement of permits or land-use fees have been included.

Recommendation 2 proposes the development of a transfer facility at the local Safeway, which is described on page 8 of this chapter. It would most likely result in the elimination of multiple parking spaces in order to facilitate bringing multiple buses in for timed transfers as part of the Reallocation Scenario. It is likely the City will need to negotiate with the property owner to waive parking space requirements and/or modify permits to allow for the removal of parking spaces. Costs associated with such negotiations are not included. No additional costs for procurement of permits or land-use fees have been included.

Recommendation 3 proposes making a final determination regarding development of a transit operations center. Multiple options exist for the City and each are presented in additional detail below.

Recommendation 4 proposes the development of six bus “cut outs” for transit vehicle use along Highway 95. These bus pull-outs would each provide approximately 100 feet of roadway for buses to safely pull off the highway thoroughfare, and pick up and drop off passengers without impacting the flow of traffic. The pull-outs were estimated utilizing recent cost-per-mile figures for the construction of rural highway widening costs. The estimated cost per-mile for widening highways is approximately $973,000, or $185.25 per foot. With the proposed total distance for six stops/pull-outs estimated at 840 feet (140 ft per pull-out), the total project cost is estimated at $154,770. The budgeted cost for the pull-outs has been amortized across three years to minimize impact on transit funding. No additional cost for right-of-way acquisitions or permits/fees is included.

Cost estimates for the procurement and installation of Capital recommendations are presented in Exhibit 5.2.2 below.

Exhibit 5.2.1 Growth Scenario Capital Cost Forecast

Capital Recommendations	Year One	Year Two	Year Three
1: Bus Stop improvements at Boat Dock	$12,000	---	---
2: Development of transfer center at local Safeway	$50,000		
3: Finalize development plan for transit operations center	N/A	---	---
4: Construct bus stops on Highway 95 (Total of six)	$51,590	$51,590	$51,590
Total	$113,590	$51,590	$51,590

Capital Cost Forecast – Additional Capital Projects

The Capital Plan provides information on the following proposed capital projects: installation of a maintenance "porte-cochere" or bus port, expanded/enhanced transfer facilities at the Safeway shopping center, and the development of a transit operations/maintenance facility (initially a re-purposing of an existing facility, and later a purpose-built facility) within Bullhead City city limits. These additional capital projects should be viewed as "a-la-carte" options. They may be implemented regardless of which service scenario is ultimately adopted by the City. Cost estimates are provided following description of each project.

Installation of Maintenance Shelter (Porte-cochere)

Currently the City's transit fleet maintenance is performed by an independent contractor. Minor repairs and maintenance tasks are performed at the City's Public Works Yard, while more extensive work is performed at the contractor's shop. Contractor staff is often required to perform routine tasks in inclement weather, without adequate shelter and lighting. To improve the conditions required for BATS vehicle maintenance, we propose the installation of a modified car port. The port would be a pre-fabricated structure which would be mounted to a concrete slab. A shelter designed for RV use would be sufficient given the current and likely near-term fleet.

Designed as a "drive-through" structure, maintenance would be completed utilizing the contractor's existing tools, though shelter and lighting would be provided. Additional environmental enhancement would also be realized, as the concrete floor would prevent spills of fluids into the ground. It is estimated the cover would have dimensions of 30' x 40' x 15', covering a total of 1,500 square feet with a similar-sized concrete pad. A smaller pre-fabricated structure could be procured to reduce cost, though it would likely be less effective. The structure would be installed at or near the City's Public Works Yard, the site where the transit fleet is stored each night. Exhibit 5.2.3 presents a model of a similar structure, while Exhibit 5.2.4 presents the cost estimates.

Exhibit 5.2.3 Example Porte-cochere

Exhibit 5.2.4 Porte-cochere Cost Estimates

Capital	Cost/unit	Units	Total
Porte-cochere	$12,000.00	1	$12,000
Square foot - concrete	$10.00	1,500	$15,000
		Total	$27,000

Development of Transfer Facility

Currently there is no dedicated transfer facility to support the City's fixed-route service. Multiple transfers were observed and recorded at the Safeway bus stop (see Chapter 3 for detailed ride check information), and the location has been deemed adequate for expansion (meaning sufficient space for proposed "foot-print" is available) into an interim transfer facility. The recommended facility would require an estimated 1,500 additional square feet of concrete to accommodate a customer service kiosk as well as supporting bus "staging" curbs.

We recommend such a facility include (at a minimum) an expansion of customer waiting area, five bus staging curbs (four for the maximum number of Bullhead transit vehicles during Growth Scenario implementation and timed-transfers, and one space for a Dial-A-BATS vehicle or regional service vehicle use) designed for vehicles to easily pull in and out, additional lighted shelters, and a customer service kiosk which could be staffed. We recommend a minimum 200 square foot structure to house customer service. Transit service information including service brochures, transit passes, trip planning, and connecting transit service information could be made available at the transfer facility.

In addition, adjoining services such as Silver Rider, as well as the proposed Bullhead City-Fort Mohave inter-community bus service could also utilize the proposed facility. One of the five proposed bus staging curbs could be allocated to such services, with the other four for BATS.

Appropriate signage would also be installed at each of the curbs along with a transit shelter, seating, and trash receptacles.

No costs for acquisition of property, permits, or fees have been included in cost estimates. Exhibit 5.2.5 lists cost estimates for the interim transfer facility.

Exhibit 5.2.5 Transfer Site Cost Estimates

Amenity	Cost/unit	Units	Total
Square foot - concrete	$10.00	1,500	$15,000
Square foot - new construction	$100.00	200	$20,000
Transit shelter (with signage, solar lighting, seating, and trash receptacle)	$7,500.00	2	$15,000
		Total	$50,000

An example of a similar facility and bus staging spaces is presented in Exhibit 5.2.6 below.

Exhibit 5.2.6 Sample Transfer Facility

Transit Maintenance and Operations Facility

The development of a dedicated transit operations and maintenance facility could be implemented in one of two ways: through the re-purposing of an existing facility within city limits (such as a gas station or truck repair facility) or the construction of a dedicated facility. Each option has its relative merits. The following is a discussion on each option and associated requirements to implement.

Re-purpose Existing Commercial Property

Within Bullhead City, the most likely locations for repurposing a current structure into a transit facility would be a former gas station or truck-repair facility. These types of commercial

structures would likely include the space and amenities needed to support the anticipated activities.

At a minimum, said facility would require office space for dispatching/program administration, driver break room, restrooms, and if possible, a dedicated customer service reception area. Minor rehabilitation and construction may be required to install partitions or construct walls to separate interior floor space. Existing office/communications equipment would be transferred from the City's existing transit operations facility. Given the available floor space of the previous operations facility (i.e., a 1,440 square foot modular building), a re-purposed gas station would likely meet the needs of BATS operations and administrative activities.

In addition, a re-purposed facility would likely already include dedicated repair/maintenance space which could be rehabilitated to suit the City's transit program needs. New lift equipment could be purchased to increase the immediate usefulness of available repair space and reduce overall maintenance costs. The City of Bullhead City may also be able to identify a suitable facility from existing properties which could significantly reduce the cost to develop the proposed transit facility. We recommend discussion with the City's Community Development Department to aid in locating suitable locations. No estimates for permits, or fees were included in our cost estimates. Exhibit 5.2.7 presents the cost estimates for a re-purposed facility.

Exhibit 5.2.7 Re-Purposed Facility Estimates

Re-purposed Facility Costs	Cost/Unit	Units	Total
Property Acquisition*	$500,000.00	1	$500,000
Maintenance Equipment - Four-post Lift	$13,000.00	2	$26,000
		Total	$526,000

*Based on similar retail listings for sale within Arizona.

Purpose-Built Facility

Costs associated with developing a purpose-built transit operations/maintenance facility vary based on fleet size, desired features, and location. However, many similar facilities constructed within the past five years (fleet size between 5 and 35 vehicles) ranged between $2 and $5 million, and the transit agencies secured much of the required funding through federal grants. Should the City choose to pursue this option we recommend the use of an outside construction manager to oversee building design and construction; and ensure all federal, state, and local requirements are met (thereby reducing the City's administrative burden).

Discussion on selecting a suitable location for a dedicated transit operations/maintenance facility is presented as Capital Recommendation 3 in Chapter 4. The remaining discussion (as it pertains to a purpose-built facility) is based on the development of the City-owned property located near Trane Road and Marina Boulevard.

The purpose-built facility should include the same minimum specifications as a re-purposed facility described earlier in this chapter. As the construction would take place on currently undeveloped property, anticipated construction costs would be higher due to required engineering and site plan development.

We recommend the administrative and operations space be increased from the recent 1,440 square feet to 2,000 square feet, to allow for a dedicated customer service area as well as a small conference room for staff meetings and training.

A minimum of two maintenance bays are recommended to allow the fleet maintenance contractor to conduct routine maintenance in one bay and non-routine repairs in the second. Doing so would likely reduce the time a vehicle remains out of service. Each bay would require approximately 800 square feet of space for tools and vehicle lifts. In addition, a separate limited-access storage space is recommended to house/inventory tires, lubricants, cleaning fluids and supplies, and other program supplies.

The proposed purpose-built facility would also provide additional paved surface for the overnight storage of all transit vehicles. We estimate requiring a minimum of 600 square feet per vehicle in addition to other allocated space. In total we estimate a purpose-built facility to encompass from 10,000 to 11,000 square feet, depending on the final designs/amenities desired. No costs for acquisition of property, permits, or fees were included in the cost estimates. Exhibit 5.2.8 presents a breakdown of the anticipated costs for a purpose-built facility along with the aforementioned amenities.

Exhibit 5.2.8 Purpose-Built Facility Estimates

Purpose-built Facility	Cost/Unit	Units	Total
Administrative/Office Space	$150.00	2,000	$300,000
Maintenance Bay - Square foot	$125.00	1,600	$200,000
Maintenance Storage - Square foot	$100.00	500	$50,000
Maintenance Equipment - Four-post Lift	$13,000.00	2	$26,000
Additional Paving	$10.00	6,000	$60,000
		Total	$636,000

Capital Plan – Fleet Replacement

Both the Optimization and Growth Scenarios rely upon the regular replacement of vehicles as they reach the end of their useful life (which varies by vehicle type). In each scenario the City's public transit program would require the same number of vehicles replaced during the same timeframe. Detailed cost assumptions are presented on page 7 within the Financial Plan, Chapter 5.1. Exhibit 5.2.9 presents the anticipated costs and recommended year of procurement for each vehicle. It should be noted some replacement years go beyond the minimum life to reduce the immediate financial impact to the City budget (i.e., a vehicle with a five-year useful life is replaced in the sixth year of operation).[11]

Exhibit 5.2.9 Fleet Replacement Schedule

Make	Type	Purchase Year	Purchase Price	Seating Capacity	Year of replacement	Price in: 2014	2015	2016	2017	2018	2019	2020	2021
Freightliner	Bus	2007	$124,868	34	2014	$150,428.81	$154,189.53	$158,044.27	$161,995.38	$166,045.26	$170,196.39	$174,451.30	$178,812.59
Chevy	Cut-away	2010	$115,598	23	2015	$129,598.56	$132,838.53	$136,159.49	$139,563.48	$143,052.56	$146,628.88	$150,294.60	$154,051.96
Chevy	Cut-away	2010	$115,598	23	2015	$129,598.56	$132,838.53	$136,159.49	$139,563.48	$143,052.56	$146,628.88	$150,294.60	$154,051.96
Chevy	Cut-away	2010	$115,598	23	2016	$129,598.56	$132,838.53	$136,159.49	$139,563.48	$143,052.56	$146,628.88	$150,294.60	$154,051.96
Chevy	Cut-away	2010	$115,598	23	2016	$129,598.56	$132,838.53	$136,159.49	$139,563.48	$143,052.56	$146,628.88	$150,294.60	$154,051.96
Chevy	Cut-away	2012	$129,993	23	2017	$138,573.90	$142,038.24	$145,589.20	$149,228.93	$152,959.65	$156,783.64	$160,703.23	$164,720.82
Chevy	Cut-away	2012	$129,993	23	2017	$138,573.90	$142,038.24	$145,589.20	$149,228.93	$152,959.65	$156,783.64	$160,703.23	$164,720.82
Dodge	Mini-van	1998	- - -	5	2014	$46,110.21	$47,262.97	$48,444.54	$49,655.66	$50,897.05	$52,169.47	$53,473.71	$54,810.55
Dodge	Mini-van	2009	$38,987	3	2014	$46,110.21	$47,262.97	$48,444.54	$49,655.66	$50,897.05	$52,169.47	$53,473.71	$54,810.55
Gatomoto	Golf-cart	2010	$12,825	4	2016	$14,156.40	$14,510.31	$14,873.07	$15,244.89	$15,626.02	$16,016.67	$16,417.08	$16,827.51

Note: Highlighted cells reflect anticipated cost in the year of recommended replacement.

[11] Replacement figures are primarily for budgeting purposes. The cost of a replacement vehicle should be budgeted, even if no vehicle is purchased that year. Year of replacement must follow FTA guidelines.

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CHAPTER 6: MARKETING PLAN

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CHAPTER 6 – MARKETING PLAN

MARKETING PLAN

What Is Marketing?

The term "marketing" means different things to different people and is often the subject of much confusion. Many assume marketing is simply a more glamorous name for sales, though in reality they are quite different. Others take marketing to mean the advertising, public relations, communications, and general promotional activities of an organization. Marketing is an umbrella function incorporating all of these types of activities and much more.

mar · ket · ing [mahr-ki-ting]

- noun

1. the act of buying or selling in a market.

2. the total of activities involved in the transfer of goods from the producer or seller to the consumer or buyer, including advertising, shipping, storing, and selling.

In its simplest form, marketing is everything an organization can do to create an exchange between itself and its prospects and current consumers; whether that exchange is services, money, knowledge, information, insight, or awareness.

Why Is Marketing Important?

Looking beyond the more obvious benefits of raising audience awareness and/or use of a product or service, marketing is important because it causes a business or organization to answer specific questions which can then be used to develop and implement services and programs that keep the customer's best interests in mind. These questions include:

- Does the City's public transit program (BATS) clearly understand its key market segments, their sizes and growth rates, and where they are headed over the longer term? Can it quantify and rank specific market segments by geographic region and by type of service?
- Can the City define those market areas that its current strengths allow it to best serve? Does it know what share of the alternative transportation market it currently holds in each of the definable market segments?
- Does the City regularly and formally review its service offerings and extend, augment, or refashion them? Does it ask its customers what they think of its services and programs, and how they can be improved?
- Does the City adequately anticipate and prepare for changes in external economic, political, regulatory, and technology developments; or is it frequently caught by surprise?

Message

Crafting an effective message is critical to the success of any marketing program. The message consists of both the written copy and the visual images. The impact of a creative message is often quantified by a multiple of the *frequency*, the number of times a marketing message reaches the target market within a given timeframe.

To develop an effective message it is vital to have a solid understanding of two things:

- Who are you trying to reach, and
- What is your ultimate goal.

By utilizing tools such as a SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis along with market segmentation to determine the "who and the "what," the marketing message can be refined to have optimal effect.

Target Markets

At its core, identifying target markets involve separating markets into groups of potential customers with similar needs who are likely to exhibit similar purchasing behaviors. As a publicly funded program, potential BATS "customers" include the community at-large as well as specific subsets of the general population. "Purchase behavior" refers to a willingness to patronize the BATS service.

While an effective Marketing Plan must promote programs and services to the entire customer base (in other words, all residents of and visitors to Bullhead City), we believe some marketing efforts should be directed toward specific subsets of this customer base (often referred to as "target markets"). By tailoring marketing efforts to these markets, each campaign will reflect a realistic understanding of the concerns, needs, attitudes, and behaviors of the target market.

For example, a marketing campaign could be undertaken to raise awareness of the City's public transit program. If the target market is the community at-large, the message would be in nature generic, providing an overview of BATS services without going into significant detail about any one aspect. However, if the campaign is intended to target the subset of persons with limited mobility options, emphasis could be placed on the affordability of BATS, since those individuals need the program for basic mobility. Bullhead City youth, on the other hand, may be more interested in where the service actually takes them (school, mall, to a friend's house, etc.) By focusing on specific, highly relevant aspects of BATS services, marketing messages have a greater impact on the intended audience.

Branding

Branding is of vital importance to an organization's marketing success. An effective brand can elicit product/service recognition without ever mentioning the company or organization. It differentiates one product of service from another. Branding emphasizes program/service attributes, communicated through image, style, tone, and culture to penetrate target markets/audiences. It is both the internal

and external perception of an organization by its employees, customers, and prospective customers. First impressions can hinge on the smallest branding decisions.

Situational Analysis

Bullhead Area Transit Service (BATS) serves a community of nearly 40,000 residents, and provides an important service by providing affordable and convenient transportation to destinations throughout the city. BATS ridership had grown steadily from its inception in 2000, peaking at over 180,000 in 2008. However, ridership has declined over the past five years due to a combination of downturn in local/regional economy and service reductions. There is a solid demand for quality, affordable transit service. In fact, transit market research suggests an increase in transit demand in times of economic downturn.

The City is in critical need of basic elements that are the foundation of any successful transit program. These elements include a well-designed, informative service brochure, user-friendly website, and ample access to service information in a variety of different media. By implementing several key changes to its marketing program and promoting the service consistently across the community, the City will portray BATS as an important community resource and the increase in ridership will confirm community support of stated changes.

Promotion of the system changes and the benefits of public transportation is vital for maintaining "top-of-mind" positioning of BATS as a convenient and affordable alternative. The marketing of BATS is an important element in accomplishing the primary goals and objectives of the system and are supported by the following marketing objectives:

- Increase ridership,
- Increase fare revenue,
- Enhance access to public transit, and
- Reduce reliance on City's general fund.

Target Markets

1. Transportation-disadvantaged individuals (Examples: youth and low-income persons).

Persons of this demographic are a target market because of their limited mobility options due to age, low income, or limited access to a personal vehicle. According to the 2007-2011 American Community Survey, 19.7 percent of the Bullhead City population is living below the federal poverty level[1]. This translates to more than 7,800 residents living in poverty. This population often uses the bus as its primary mode of transportation because other options are unavailable. Youth also fall into this category

[1]Defined as households of four or more with an annual income of less than $23,550, according to 2013 U.S. Department of Health and Human Services guidelines (aspe.hhs.gov/poverty/13poverty.cfm).

because many are not yet old enough to drive or do not have access to a personal vehicle. These individuals are a key target market because they make up a significant portion of current riders and their needs most closely align with the City's fixed-route service.

2. Seniors (Example: Persons age 60 and older).

- Seniors are a target market because of their potential limited mobility options due to low or fixed income, inability to drive due to physical or cognitive limitations, or limited access to a personal vehicle. They are a key target market because they make up a significant portion of non-current customers. The 2013 community survey revealed at least 35 percent of respondents were retired (see Chapter 3). Their participation in the survey indicates an interest in the future of the City's public transportation program.

3. Persons with disabilities.

- Disabled individuals are a target market because, in many cases, a physical or cognitive disability results in the inability to operate a personal vehicle. They are a key target market because of the freedom and independence BATS can provide for an affordable price.

4. Choice riders (classified as persons with mobility options that choose to use BATS)

- "Choice riders" are a target market because they offer the most opportunity for growth. Choice riders look at public transit as an alternative, in most cases, to driving alone in a personal vehicle. They choose BATS for a number of reasons, including environmental. The 2013 onboard survey revealed very few choice riders, as more than 70 percent cited limited transportation options. Therefore, this is a prime market for ridership growth. The more attractive and well-positioned BATS is within the community – along with the ready availability of service information – the greater the likelihood of attracting riders within this demographic.

5. Non-riders (classified as residents who have not used BATS within the last 90 days).

- Transit offers a number of benefits to those who do not use it, including an overall higher quality of life within the community, a "back-up plan" for when a vehicle is not available, and a reliable mobility option for other members of the community. More than 52 percent of 2013 community survey respondents indicated a potential willingness to use BATS if their primary barrier to use was addressed.

SWOT Analysis

Our approach to developing a Marketing Plan includes a SWOT analysis, which provides insight into a program or service's respective strengths, weaknesses, opportunities and threats. Strengths are internal attributes that can be used as a basis for developing a competitive advantage or work toward achievement of specified goals. Weaknesses are internal attributes

that may work against these objectives. Opportunities, on the other hand, represent external conditions that are helpful in achieving objectives, while threats are external conditions that work against the objectives. BATS has some control over its strengths and weaknesses, but not over opportunities and threats; however, can control how it reacts to or addresses them through marketing, outreach, and communications. By pairing strengths with opportunities, strategies can be developed that maximize the likelihood of success. Conversely, relating strengths to threats can result in advance preparation of strategies to address future challenges or potential problems. In addition, review of weaknesses and threats can often identify any disparity between an actual weakness and perceived weakness.

What follows is an overview of perceived strengths, weaknesses, opportunities and threats that should be considered for a BATS marketing plan.

Strengths:

- Price.
- Citywide service area.
- Offers independence for persons without access to a personal vehicle.

Weaknesses:

- Transit services may not go when or where potential users want/need.
- Limited weekday evening service.
- Limited Saturday service hours.
- Absence of Sunday service.

Opportunities:

- Large number of Bullhead City resident who have not used the service within the last 90 days.
- Cost of vehicle ownership and maintenance.
- Increasing cost of fuel.
- Trend toward sustainable and “green” alternatives.
- Continued economic doldrums.

Threats:

- Many households own or have access to at least one car.
- Perception of transit being for “someone else.”
- Perceived freedom of personal vehicle.

BATS already has some positive strengths including a very affordable fare and a broad service area. The listed weaknesses can be addressed by extending service hours throughout the week and on Saturday, as well as adding Sunday service, which, according to the current riders and the community, is a critical

need and would likely prove to be a huge success. Extended evening service, as well as introducing Sunday service, were the two highest service improvements identified in the onboard, community and stakeholder survey. If adding new service areas or days is not feasible, it is important that the City is transparent with the community on why these changes will not happen. Communicating with the community on issues important to them creates trust and a level of confidence that the City is listening and cares about their needs.

The personal vehicle is likely the greatest threat to the City's public transportation program. People enjoy the freedom and status associated with owning and operating their own personal vehicle. However, there are many opportunities for growth that outweigh the threats identified here. There are a high number of potential choice riders in Bullhead City, many of whom might be inclined to try the bus if provided with sufficient information.

Through a well-designed marketing plan, BATS can take advantage of its strengths and opportunities while mitigating the effects of threats and working to overcome weaknesses. BATS is in a good position to increase its ridership and elevate its image within the community.

Positioning

BATS has the advantage of being the sole publicly funded transportation provider serving Bullhead City. While a larger community may have multiple transit services competing for the same customer pool, BATS' primary competition is the personal vehicle.

As an alternative to the personal vehicle, BATS offers significant cost savings. Downsizing to one car can save a two-person household up to $10,000 per year[2]. By contrast, riding one roundtrip per day for one year would cost less than $1,000. This communicates value and savings to the current and potential customer base. In addition, since "choice riders" are the largest potential for growth, marketing and outreach should emphasize that BATS is good for the community and the environment. "Choice riders" can help reduce roadway congestion, contribute to a cleaner environment, and provide additional fare revenue. This communicates sustainability and community pride.

Therefore, we believe BATS should position itself as the transportation choice for Bullhead City. When people have a choice, they feel empowered. Whether customers ride BATS because they have no other options or because they choose to do so, they should feel good about it. They should feel as if it is their choice to ride the bus. By positioning itself as the preferred transportation choice, it takes away any stigma associated with "having" to ride the bus and turns it into "choosing" to ride the bus.

With a clear understanding of the goals and objectives of BATS and an understanding of the target markets and desired positioning, the following marketing solutions will aid in accomplishing and

[2] www.apta.com/members/memberprogramsandservices/advocacyandoutreachtools/dumpthepump/Pages/TransitFacts.aspx

surpassing those goals and objectives. By improving upon what has been done in the past and implementing innovative new strategies, BATS will continue to grow.

Recommendations

Branding

The BATS brand currently being utilized does not reflect the strength of the system or Bullhead City. With the introduction of a fresh, visually appealing logo/branding that represents the City and the community it serves, BATS can raise awareness in the community and increase top-of-mind positioning as a preferred transportation choice in Bullhead City.

The best way to maintain consistent and strong brand identity into the future is to have a Style Guide that clearly defines the brand attributes of image, style, tone, and culture.

Recommendations:

We recommend the City develop a Brand Style Guide. The Guide would ensure brand incorporation for every point of contact that BATS would/could have with the public as well as help guide the organization's ability to reach the right demographics. More branding strengthens the impact of BATS' message and creates a magnetic identity for customers. This supports both the goal of retaining current riders and creating a transportation program that appeals to non-riders.

The BATS logo should be consistently incorporated into all marketing collateral, on all buses, employee uniforms, and all communications to establish a strong brand identity. The brand image is defined by a visually appealing service logo and bright colors. Professional drivers help create a safe and positive environment for riding and the easy to identify stops make it "approachable" for those who might be traditionally intimidated by public transit.

The BATS brand should be carried through to all marketing efforts. Everything from direct mail to temporary rider alert signs in the buses will integrate the brand attributes. Marketing efforts should be designed, themed, and toned with the friendly and approachable attributes of BATS.

Service Branding

While each BATS vehicle features the service name and phone number, the color scheme varies by vehicle, and it is not clearly identifiable from a BATS branding or a marketing point-of-view. Vehicles are not easy to distinguish from other delivery truck or private shuttle services on the street. The BATS logo is not present on the vehicles. Headsigns, which are designed to let customers know where the bus is heading, are only present on two vehicles. However, some vehicles feature exterior advertisements.

Recommendations:

1. BATS vehicles should reflect the look and feel discussed in the Branding section of this document.

2. Headsigns should be present on all buses to let current and potential riders know the bus destination. The rider should not have to shoulder the responsibility of "knowing" where the bus is going as they could be new in town or visiting.
3. Easy-to-understand service brochures should be available on each vehicle.

Fixed-Route Brochures

Currently, the City's public transit program provides a two-page handout that includes a listing of fixed route bus stops and pick-up schedule, along with brief explanations of service hours, fares, rider rules of conduct, and customer service information for current and potential customers. Having attractive and easy-to-understand printed fixed-route brochure(s) as the primary source of information for the BATS fixed-route service is critical. This piece should be comprehensive, containing a map of the service area (route map), service schedule, list of stops, policies, and basic program information. This will serve as BATS' go-to-resource for providing its customers with service information.

In Chapter 3, it was stated that bilingual (Spanish) marketing materials were largely unnecessary given more than 95 percent of onboard and community survey respondents speak English. Therefore, it is not necessary to ensure the primary BATS marketing tool is bilingual.

Fixed-route brochures are usually found in key locations throughout the City, including tourist locations, community centers, Department of Economic Security (DES) locations, onboard buses, and at City Hall. It can also double as a promotional take-one piece in countertop displays and brochure racks at these locations.

Recommendations:

1. A simple, visually appealing and easy-to-understand three-panel fixed route brochure should be created for all three BATS lines. We are recommending three separate brochures so that if/when the City makes changes to one route/service, only the affected route/service brochure needs to be revised. Additionally, before the brochure(s) are produced, any service changes recommended in this Short Range Transit Plan that are implemented should be included in the first production run to prevent printing duplications and minimize design and production costs.
2. The brochure design should reflect the BATS logo (new or current) and remain consistent with all branding efforts.
3. The City should consider updating its current system map to reflect the "new look" of the brochure.
4. Include a QR code on the brochure to facilitate download of a .pdf version via smartphone. Doing so, empowers users, allowing them to check bus schedules and route information on the go.
5. Create a printable .pdf version of the brochure. It should contain all of the information available in the existing brochure, but be formatted for printing on a standard 8½ x 11-inch page. This version could also double as a large-print version by using larger fonts and additional white

space. The City should also consider making a Spanish version available for download, given a printed Spanish version is not recommended at this time.

6. Create a comprehensive distribution database inclusive of key locations throughout the city. This list should include locations such as libraries, Mohave Community College, Western Arizona Regional Medical Center, DES office, etc. Conduct quarterly monitoring to ensure a consistent supply of BATS service information.

Evaluation: QR code usage and webpage downloads of the .pdf brochure can be measured electronically. Demand for brochures can be tracked through documentation of refill requests as well as through the quarterly brochure distribution follow-up. Customer responses to the brochure can be measured through market research (onboard or community survey) as well as through questions asked of callers to the customer service line.

Dial-A-BATS (DAB) Brochure (and associated collateral)

Currently, the City does not have a printed DAB brochure available for current and potential customers. Having a printed brochure as the primary source of information for the DAB service is an important marketing step. The bilingual brochure should include information about how to register for DAR and how to use the service, as well as outlining DAB policies.

These brochures should be placed onboard service vehicles and at the BATS office, and also made available by request via mail. A DAB brochure should be given to all new DAB riders and periodically distributed to the entire registrant pool.

Should an alternative service delivery mode be identified (as recommended in the Operations Plan), the DAB brochure would need to be updated accordingly, regardless of whether service continued as Dial-A-BATS or was replaced by another program.

Recommendations:

1. The service brochure(s) should include the “new look and feel” of the branding and any service changes if any are implemented. The effective date should remain prominent on the cover to ensure circulation of the latest version.
2. Include a QR code to the brochure to facilitate download of a .pdf version via smartphone. While seniors may not utilize this technology, adult children or caregivers may find this form of access very appealing.
3. Create a printable .pdf version of the brochure. It should contain all of the information available in the brochure, but be formatted for printing on a standard 8½ x 11-inch page. This version could also double as a large-print version by using larger fonts and additional white space. The City should also consider making a Spanish version available for download, given a printed Spanish version is not recommended at this time.

4. Create a comprehensive distribution database inclusive of key locations throughout the City separate from the database used for fixed-route service, including senior centers, medical/healthcare facilities, and social services providers. Conduct quarterly monitoring to ensure a consistent supply of service/program information.

Evaluation: QR code usage and webpage downloads of the .pdf brochure can be measured electronically. Demand for brochures can be tracked through documentation of refill requests as well as through the quarterly brochure distribution follow-up. Customer response to the brochure can be measured through market research (customer survey) as well as through questions asked of callers to the customer service line and at senior outreach events.

Online Media

With the increase of computer use in the home, the BATS webpage is an important first point of contact for many of BATS' current and potential customers. Currently the webpage is located on the Bullhead City webpage and provides information about both the fixed-route and DAR services. It also provides information on travel tips and the City's Transit Commission.

While the webpage has an easy-to-remember URL (www.bullheadcity.com), the inconsistent colors and font makes it difficult to decipher what is what. At first glance there a more than four colors represented on the homepage. All messages posted are in a separate color. This is confusing to the end-user as there is no guide as to what each color denotes.

Recommendations:

1. Update the webpage to reflect the look and feel set forth in the proposed Style Guide.
2. Update the webpage to reflect any service or policy changes resulting from the Short Range Transit Plan. Ensure all information on the webpage, in the brochures, and distributed by the customer information center is accurate and consistent.
3. Improve the appeal of the webpage by adding photos and arranging the information in a clear way. Incorporate links to printable .pdf versions of each brochure.

Evaluation: Track webpage visits and document downloads, which can be compared with ridership figures to determine likely impact. Customer response to the webpage can be measured through market research (onboard or community survey) as well as through questions asked of callers to the customer service line.

Mobile Applications

According to the Pew Research Center[3], a Philadelphia-based non-profit organization which conducts market research on important issues, trends, and attitudes in the United States, 35 percent of

[3] Pew Research Center. pewresearch.org/pubs/2054/smartphone-ownership-demographics-iphone-blackberry-android.

Americans adults own a smartphone. Of this group, approximately one-quarter use the phone as their primary source for Internet access.

There is an informational opportunity present with mobile applications as well as one based on connectivity. Social networking apps rank third among those used by smartphone owners[4], based on the Nielsen Company market research. The City's transit program does not currently employ a mobile application or promote apps for related services.

Recommendations:

1. Develop a BATS-specific mobile application complete with schedules, important information and riding tips. The app would be available for download onto smartphones – iPhone and Android versions.
2. If the above recommendation is not feasible, recommend the addition of BATS to an existing mobile platform such as Nextbus that provides "real-time" information and is available for free download in the Apple App Store. Nextbus is not an app, per se, but does feature mobile-friendly access to information.
3. In lieu of or in addition to the above, recommend the promotion of related applications, such as Nextbus, on the City's transit webpage. The app includes rider alerts and schedules, and is available as a free download. Another option is the Google Maps app, which supports Google Transit data.

Evaluation: Tracking the number of downloads of a BATS-specific app would help quantify its use, as would ratings of the app through the App Store.

We see this as an exciting change in the perception of the BATS brand among the tech-savvy generation. Bullhead City residents and employees who actively engage in social media will see BATS as a "friend."

Bus Stops

BATS bus stops provide the most basic awareness of the transit system in the City. In some cases, observing a bus stop is the first indication to a resident or visitor that there is transit service in Bullhead City. Although some bus stops currently have display units (info-posts) that illustrate the route, service area and schedule, all bus stops should feature this information as well as benches, and/or shelters to accommodate customers while they are waiting for their buses.

The bus stops should be inviting and create a positive customer experience. Providing detailed service information at the bus stop level means a potential customer does not have to go elsewhere to learn about the service.

[4] Nielsen's "State of the Media: The Social Networking Report – Q3 2011."

Recommendations:

1. Provide info-posts at all 56 bus stops that clearly illustrate the route being serviced, the service area and bus schedule. If the City cannot afford to place info-posts at all stops, an opportunity to complete this measure is still available. Donations from other transit providers upgrading bus stop info-units is an option, as is purchasing used info-posts that can be refurbished at a modest cost.
2. The info-post inserts should always be up-to-date and reflect any service changes. An effective date should be prominently displayed on the info-post.
3. The City should consider updating the info-post design to reflect the new look and feel discussed in the Branding Recommendations discussed on pages 9-10 of this chapter and should be consistent with the fixed-route brochures, DAR brochure, as well as the webpage.
4. Should the City elect to update its system map to reflect the "new look" of the brochure, that same map should be utilized on the info-posts as well.
5. Implementation of a QR code into the info-post can allow customers and potential customers to download a .pdf version of the full brochure via smartphone while at the bus stop.
6. All BATS bus stops should be assessed regularly (twice yearly) to determine their condition, in addition to the informal assessments done by drivers on an ongoing basis. Info-post inserts that are sun-faded or otherwise damaged should be replaced, as should the display units themselves should they become damaged. The condition of each stop should be documented as well, noting any vandalism, excessively dirty conditions, or other attention needed. These assessments should, when possible, be timed to coincide with service changes so that updated info-post inserts can be installed as conditions are being evaluated.

Evaluation: QR code usage and webpage downloads of the .pdf brochure can be measured electronically. Customer response to the info-posts and bus stop amenities can be measured through market research (onboard or community survey) as well as through questions asked of riders to the bus drivers and callers to the customer service line.

Community Outreach

Each year, local and national events and promotions provide opportunities for the City to promote its public transit program as an important transportation alternative, its role as a valuable community partner, and its environmental and economic benefits. The Bullhead Area Chamber of Commerce, local service clubs, and the City have historically sponsored annual promotions and events such as Bullhead City Bike Fest, the Bullhead City River Regatta, recycling, and Annual Clean-Up Day, which allows BATS to piggy-back onto their promotions, thereby freeing up resources for other activities. The following recommendations will detail current efforts, identify partnership opportunities with Bullhead Area Chamber of Commerce, and offer other tactics that can augment the overall outreach effort.

Local Community Events

Six local community events stand out as key community participation opportunities:

- Annual Colorado River Bluegrass Music Festival (February),
- Annual Burro BBQ (April),
- Bullhead City River Regatta (August),
- Annual Halloween Festival (October)
- Movies in the Park series (six per year), and
- Boombox Parade & Winter Festival (December).

Recommendations:

1. The City should identify one local community event in which it wants to participate, whether by entering a vehicle in the parade, hosting a festival booth, or purchasing a sponsorship. The selected event should be one that draws local residents as well as visitors to the community. By enhancing BATS' position as a transportation choice through increased participation in community events, The City's transit program can reach more "choice riders" in its efforts to increase ridership.
2. All significant community events should be recognized by the BATS program, even if it is not directly participating. Posting a schedule of events and/or identifying when the service could be used to access them can tie BATS to the event as a community transportation choice.

Evaluation: The level of participation will determine what evaluation methods most effectively measure impact. If an event booth is hosted, track the number of giveaways distributed or the number of booth visitors. If an event sponsor, measure how many individuals the event's publicity is likely to reach. For general access to events, track ridership during the event itself and compare to the same period in previous years.

Customer Service

The customer experience is vital to BATS' ability to please and retain its customers. The goal of customer service goes beyond creating a positive experience that keeps customers coming back. It also fosters word-of-mouth marketing, thus creating further promotion of the service. Customers need to come away feeling respected, wanted, and valued, or they will start to look for other options. As transit staff maintains and builds its customer base, it is a top priority to continuously look of new ways to meet customer needs.

Five Dimensions to Quality Customer Service[5]

1. Tangibles: Having physical facilities that are visually appealing and modern-looking. Having employees who are neat in appearance.
2. Reliability: Being able to perform the promised service dependably and accurately, demonstrating a sincere interest in solving customer problems. Providing error-free service and doing things right the first time.
3. Responsiveness: Providing prompt service, never being too busy to respond to customer requests, and showing a willingness to help the customer.
4. Assurance: Instilling confidence in customers and making them feel safe with their transactions. Being knowledgeable and having the ability to answer customer questions. Being courteous with customers.
5. Empathy: Providing each customer individualized and personal attention, having the customer's best interests at heart, and understanding each customer's individual and specific needs.

With these dimensions guiding the systems and processes for the BATS customer experience, the vision is clear - maintain, improve, and increase customer service, which in turn will lead to more customers and increased customer loyalty. These relationships will create long-term benefits for both the City and the rider, supporting the goals of providing convenient and effective public transportation to a growing customer base and increasing farebox revenue.

Recommendations:

1. It is vital for the City to have more than one trained and qualified Customer Service agent available to answer questions from walk-in customers and/or via the phone.
2. Clear and concise training materials should be available as refreshers for current agents and a valuable learning tool for new agents or temporary employees.

Ride Checks

In order to fully understand the customer experience, ride checks should be conducted on a regular basis to evaluate actual conditions onboard BATS vehicles. Such ride checks track boarding activity, on-time performance, vehicle condition, and service quality.

Recommendations:

1. Conduct semi-annual ride checks onboard both fixed-route and Dial-A-Ride vehicles. Document all ride check data on a customized record sheet.

[5] *Dhruv Grewal and Michael Levy (2010), Marketing. 3rd Edition, McGraw-Hill.*

Evaluation: Maintain all ride check data in a Microsoft Excel database. Review data monthly or quarterly (depending on frequency) to identify trends or areas for improvement.

Public Relations/Communications

A public communications component is vital to any marketing plan, but public communications is more than simply generating publicity. While it is important to increase the number of communications and the amount of attention BATS receives from the media and within the community, the Public Relations Society of America defines the field a little bit differently:

> *Public relations is more than managing the flow of information between an organization and its publics. It is a communications discipline that engages and informs key audiences, builds important relationships and brings vital information back into an organization for analysis and action. It has real, measurable impact on the achievement of strategic organizational goals.* [6]

Therefore, it is important to foster effective communication channels, which is reflected in the following recommendations.

Media Releases (at least bimonthly)

Currently the City sends press releases to a variety of media outlets and community stakeholders on an as needed basis. While it is important not to "flood the market" with messaging, it is also important for the community to be kept aware of BATS happenings and opportunities, and to communicate progress and action.

Recommendations:

1. The City should plan to issue approximately one media release every other month. This keeps BATS accountable to the public while communicating progress and action. Sample media release topics could include:

    a. Free Ride Day,
    b. BATS participation in local community events,
    c. New brand rollout,
    d. Significant schedule/service changes (i.e. extended hours, Sunday service rollout),

    Media releases should also be issued in support of key marketing campaigns and promotions, as well as to report on successful grant or funding applications, key personnel changes, system improvements, and human interest stories.

[6] "Communicating Public Relations' Value." www.prsa.org.

2. A BATS media release database should be updated quarterly to ensure it reflects those organizations with ties to the BATS target audience.

Evaluation: Document which media release topics are reported on by local media.

Senior Outreach (quarterly)

Seniors represent a significant portion of the Dial-A-Ride customer base, and can be a vocal constituency. It is important to build a good rapport with seniors in Bullhead City by reaching out in person to existing and potential customers. By fostering a continuing relationship with seniors, minor issues can be defused before they become something bigger. Seniors can also gain a better understanding of how the transit system works and have more confidence that their needs are being taken into account.

Recommendations:

1. Conduct periodic site visits at the Bullhead City Senior and Nutrition Centers. These visits should be conducted by the same individual (or a team of no more than two individuals) each month to build an ongoing relationship with seniors.
2. Photos from senior outreach activities should be taken to document the visits and for potential use in marketing materials.
3. Senior outreach activities should be undertaken in conjunction with monthly operations meetings to keep the faces and times as consistent and familiar as possible.

Evaluation: Each visit should be documented with a written narrative outlining discussions and questions. Any follow-up required should be addressed within three business days of the visit.

Student/Youth Outreach (quarterly)

In order for today's transit riders to become tomorrow's transit-supporting adults, it is important they be introduced to BATS while still in school. If they see the bus as a viable transportation choice while young, it is likely they will continue to do so after other modes become available to them.

Recommendations:

1. Conduct outreach to Mohave High School twice annually – at the beginning of the school year (August or September) and shortly before the end of the school year (May or June). Service information could be distributed at a booth held during lunch periods.
2. Outreach at local community centers or youth clubs should be conducted during the other quarters of the year (i.e., January and October) to further reach out to youth.
3. Include schools and community centers on the poster distribution list for all marketing campaigns. Encourage them to display the posters in a readily accessible location.

Evaluation: Each visit should be documented with a written narrative outlining discussions and questions. Any follow-up required should be addressed within three business days of the visit.

Community Outreach (yearly)

Even residents who do not use transit can appreciate the benefits of a quality *transportation alternative* in their community. Therefore, it is important the City's public transit program maintains a fairly constant presence in the public eye through a variety of media and activities. A number of community outreach activities (such as participation in the local community events and monthly media releases) were suggested earlier in this chapter.

Recommendations:

At the end of each fiscal year, a BATS "report card" should be made available to the community. This could be done through a newspaper "advertorial" (purchased as space used for narrative), a direct mail piece, or a .pdf download on the BATS webpage (supported by a media release). This will keep the community apprised of the efforts and successes for BATS across the previous year. If a .pdf format is utilized, it should be visually appealing, with photographs from events and activities and samples of any artwork used in marketing campaigns throughout the year.

Evaluation: Evaluation tools will vary depending on the format selected. The most trackable would be the .pdf download and the BATS webpage, which would measure the number of times it was downloaded. Other evaluation tools could include media coverage and/or customer service calls.

Conclusion

While we consider marketing to be a critical element of any transit program, the recommendations presented herein are also highly scalable to reflect available funding. Of these recommendations, we would place the highest priority on the following (in priority order):

- Fixed-route service brochures (to be updated in Operations Plan Implementation Years 1, 2, and 3 to correspond with service changes; also Year 5 depending on service expansion).
- Dial-A-BATS service/informational brochure.
- Webpage redesign (including .pdf versions of service brochures and system map).
- Bus stop information (i.e., info-posts).
- Regular media releases.
- Vehicle branding (only as new vehicles are purchased).

Given the Operations Plan involves significant routing changes in the Reallocation Plan (scheduled for Implementation Year 3), the City should consider using that as an opportunity to relaunch the BATS service. This would be an ideal time (if not done prior) to roll out new or redesigned brochures, website, and bus stop information as well as unveil any new branding or vehicle design.

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APPENDIX A:
LOAD-BY-STOP CHARTS

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APPENDIX A – LOAD-BY-STOP CHARTS

Load-By Stop Charts for BATS Blue, Red, and Green Lines

The Load-by-stop charts in this section describe the average number of people on each bus as it departed each stop. While separate averages are displayed for weekdays and Saturdays, there can be considerable variation in loads throughout the day. In particular, the heaviest passenger loads on weekdays tended to occur during the midday periods, while the lightest loads were during morning hours.

Exhibit A.1 Red Line North Load-by-Stop

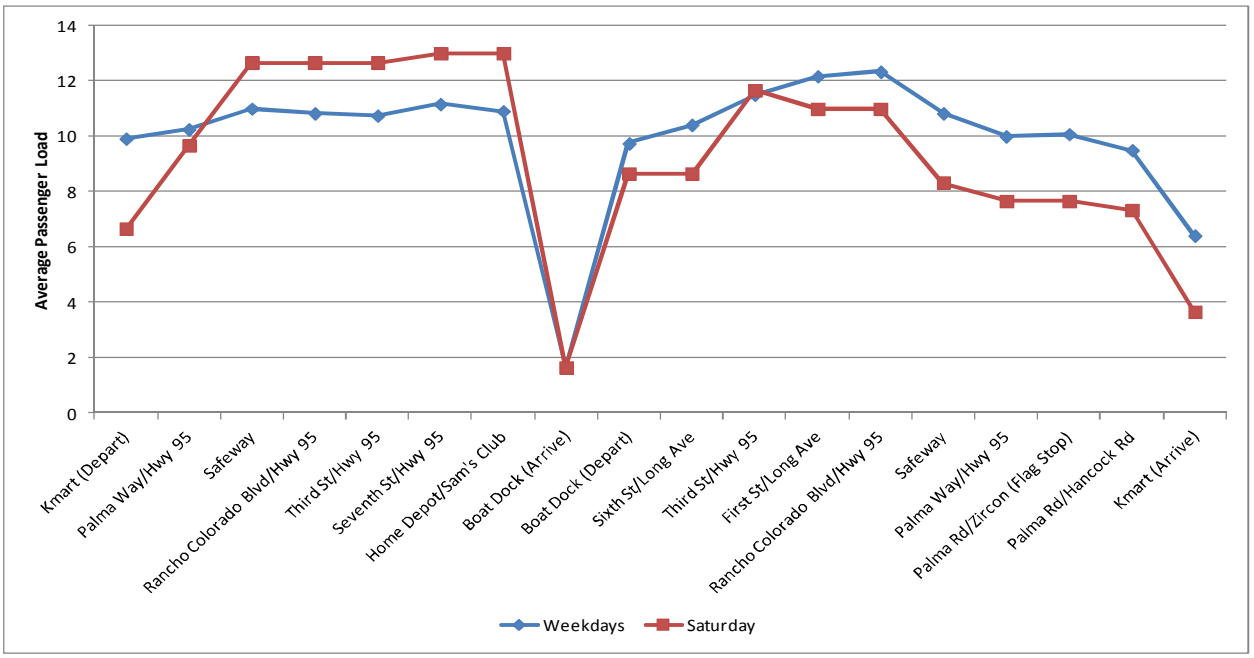


Exhibit A.2 Red Line South Load-By-Stop

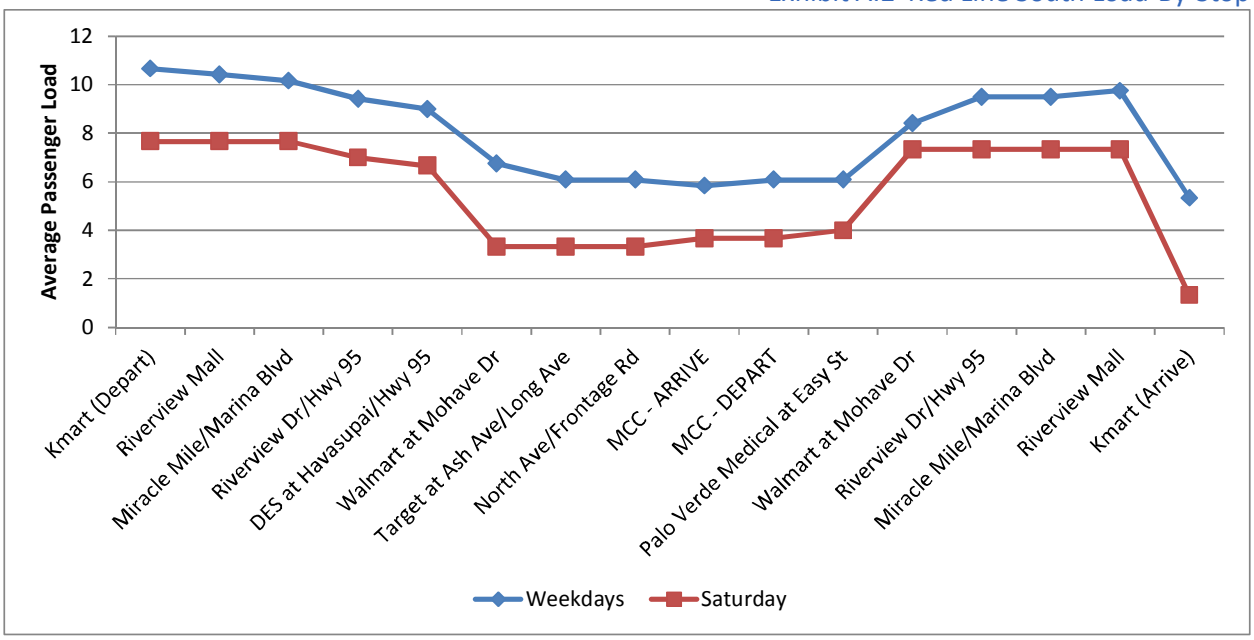


Exhibit A.3 Blue Line East Load-by-Stop

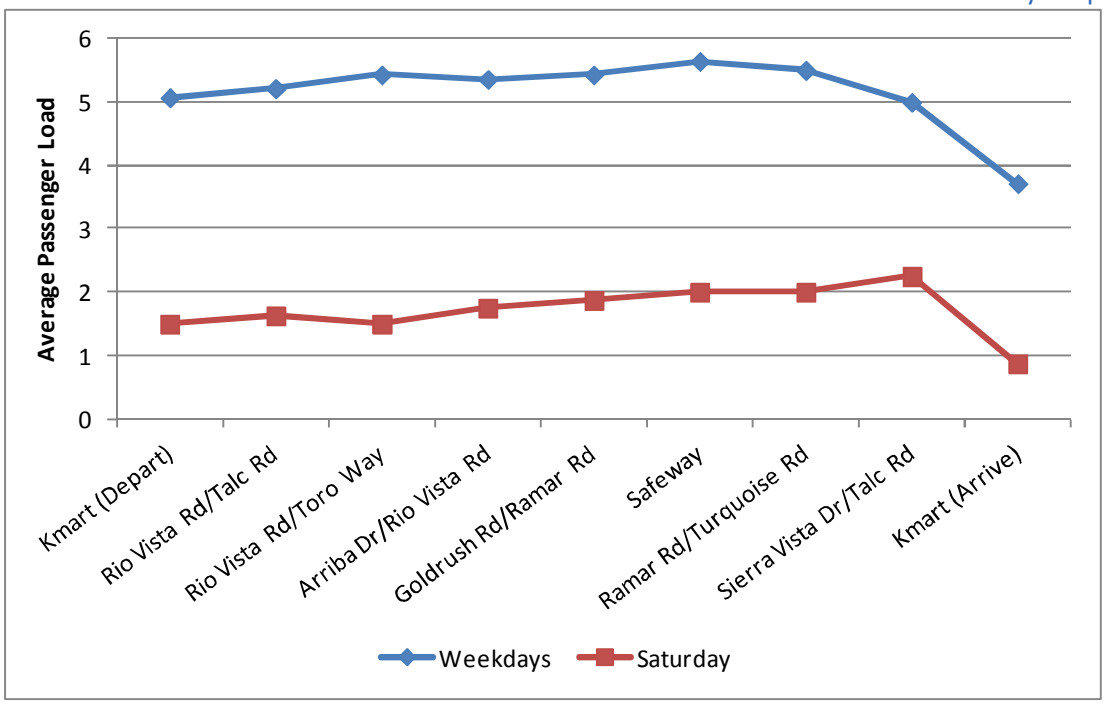


Exhibit A.4 Blue Line West Load-by-Stop

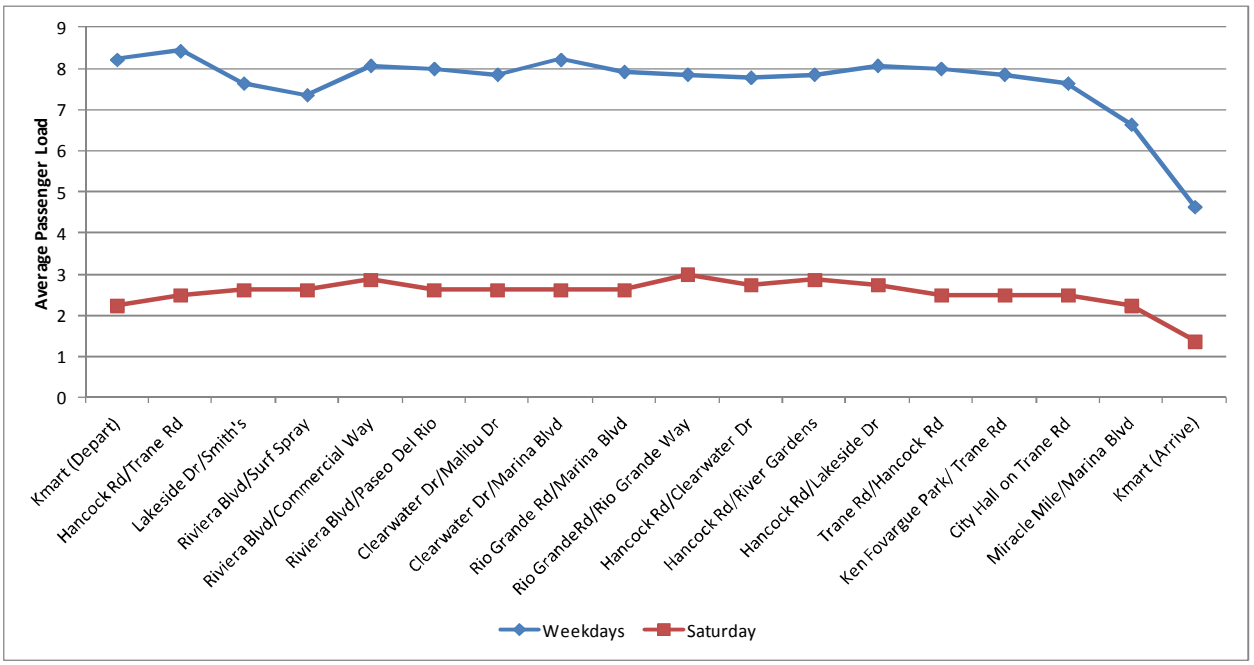
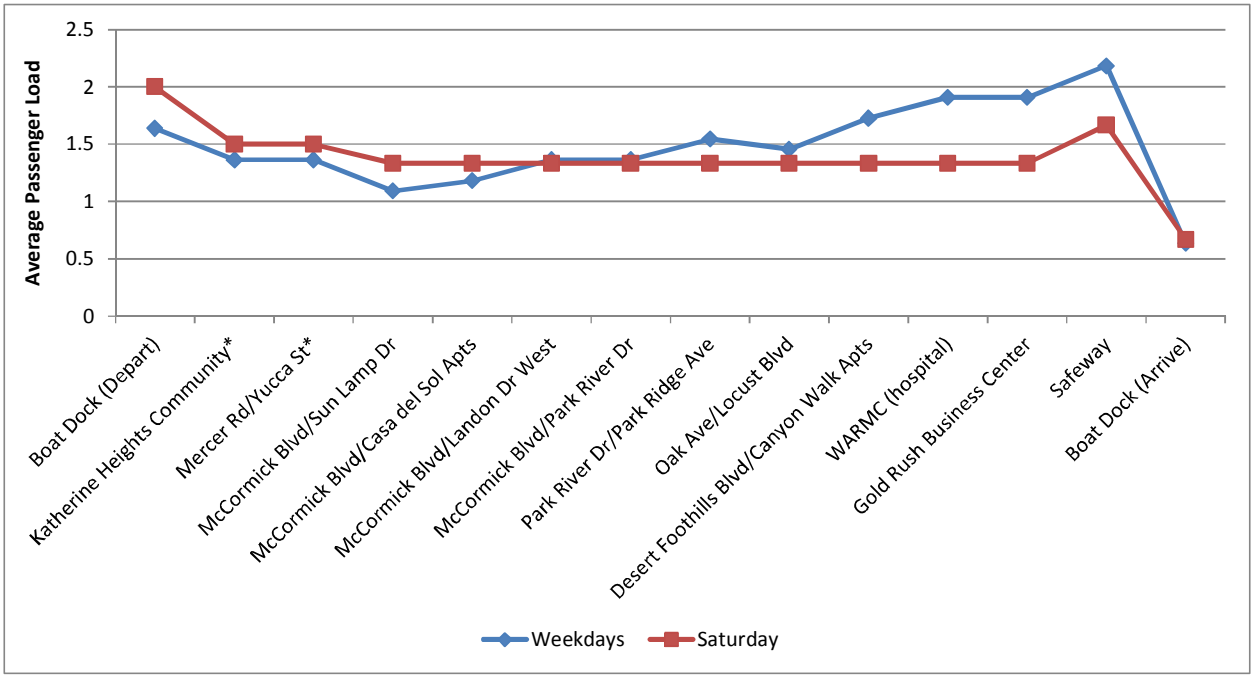


Exhibit A.5 Green Line Load-by-Stop



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APPENDIX B:
STOP ACTIVITY TABLES

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APPENDIX B – STOP ACTIVITY TABLES

The exhibits in this appendix present the total boardings and alightings counted at each stop for each line over the course of our ride check, which took place between Wednesday, September 4, and Saturday, September 7, 2013.

Exhibit B.1 Red Line North Boarding and Alighting

Red Line North Stops	Total Activity	
	ONS	OFFS
Kmart (Depart)	74	0
Palma Way/Hwy 95	19	6
Safeway	32	14
Rancho Colorado Blvd/Hwy 95	2	4
Third St/Hwy 95	31	32
Seventh St/Hwy 95	16	10
Home Depot/Sam's Club	0	3
Boat Dock (Arrive)	0	145
Boat Dock (Depart)	118	0
Sixth St/Long Ave	15	7
Third St/Hwy 95	29	7
First St/Long Ave	15	9
Rancho Colorado Blvd/Hwy 95	6	4
Safeway	13	39
Palma Way/Hwy 95	3	15
Palma Rd/Zircon (Flag Stop)	2	1
Palma Rd/Hancock Rd	1	9
Kmart (Arrive)	0	48
TOTAL	376	353

Exhibit B.2 Red Line South Boarding and Alighting

Red Line South Stops	Total Activity	
	ONS	OFFS
Kmart (Depart)	60	0
Riverview Mall	4	7
Miracle Mile/Marina Blvd	0	3
Riverview Dr/Hwy 95	2	13
DES at Havasupai/Hwy 95	1	7
Walmart/Mohave Dr	12	49
Target at Ash Ave/Long Ave	12	20
North Ave/Frontage Rd	0	0
Mohave Community College - ARRIVE	10	12
Mohave Community College - DEPART	3	0
Palo Verde Medical/Easy St	2	1
Walmart at Mohave Dr	47	9
Riverview Dr/Hwy 95	13	0
Miracle Mile/Marina Blvd	0	0
Riverview Mall	5	2
Kmart (Arrive)	0	71
TOTAL	171	194

Exhibit B.3 Blue Line East Boarding and Alighting

Blue Line East Stops	Total Activity	
	ONS	OFFS
Kmart (Depart)	9	0
Rio Vista Rd/Talc Rd	3	0
Rio Vista Rd/Toro Way	3	1
Arriba Dr/Rio Vista Rd	6	5
Goldrush Rd/Ramar Rd	10	8
Goldrush Business Center (service suspended)	0	0
WARMC (hospital) (service suspended)	0	0
Safeway	17	13
Ramar Rd/Turquoise Rd	2	4
Sierra Vista Dr/Talc Rd	4	9
Kmart (Arrive)	0	29
TOTAL	54	69

Exhibit B.4 Blue Line West Boarding and Alighting

Blue Line West Stops	Total Activity	
	ONS	OFFS
Kmart (Depart)	71	0
Hancock Rd/Trane Rd	10	5
Lakeside Dr/Smith's	22	32
Riviera Blvd/Surf Spray	6	10
Riviera Blvd/Commercial Way	26	14
Riviera Blvd/Paseo Del Rio	1	4
Clearwater Dr/Malibu Dr	2	4
Clearwater Dr/Marina Blvd	9	4
Rio Grande Rd/Marina Blvd	10	14
Rio GrandeRd/Rio Grande Way	14	11
Hancock Rd/Clearwater Dr	1	4
Hancock Rd/River Gardens	9	6
Hancock Rd/Lakeside Dr	10	9
Trane Rd/Hancock Rd	4	7
Ken Fovargue Park/ Trane Rd	0	2
City Hall on Trane Rd	0	3
Miracle Mile/Marina Blvd	1	17
Kmart (Arrive)	0	35
TOTAL	196	181

Exhibit B.5 Green Line Boarding and Alighting

Green Line Stops	Total Activity	
	ONS	OFFS
Boat Dock (Depart)	19	0
Katherine Heights	1	7
Mercer Rd/Yucca St	1	1
McCormick Blvd/Sun Lamp Dr	6	10
McCormick Blvd/Casa del Sol Apts	1	0
McCormick Blvd/Landon Dr West	2	0
McCormick Blvd/Park River Dr	0	0
Park River Dr/Park Ridge Ave	3	1
Oak Ave/Locust Blvd	0	1
Desert Foothills Blvd/Canyon Walk Apts	7	4
WARMC	11	9
Gold Rush Business Center	2	2
Safeway	16	11
Boat Dock (Arrive)	0	23
TOTAL	69	69

APPENDIX C: COMMUNITY AND ONBOARD SURVEY INSTRUMENTS

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APPENDIX C – COMMUNITY AND ONBOARD SURVEY INSTRUMENTS

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Exhibit C.1 Onboard Survey Instrument

Bullhead City 2013 Transit Rider Survey
(Español al revés)

Please complete & return this survey in the enclosed, prepaid envelope by **September 9th**. Provide contact information in order to be eligible to win one of multiple **$25 Visa Gift Cards!**

ADOT Multimodal Planning

Section 1: Tell us about your trip today.

1. Where did you board the bus today (bus stop)?
   Cross-streets: 1 _____ and 2 _____
   Location: 3 _____
2. Where will you get off the bus today (bus stop)?
   Cross-streets: 1 _____ and 2 _____
   Location: 3 _____
3. Does this trip include a transfer to another BATS bus?
   □1 Yes □2 No
4. What is the primary purpose for today's trip?
   □1 Work □2 Shopping □3 Social or recreational event
   □4 School □5 Healthcare □6 Business appointment
   □7 Other – specify: _____
5. How did you travel to the starting bus stop?
   □1 Walked more than 4 blocks □2 Drove self
   □3 Walked less than 4 blocks □4 Rode bike
   □5 Transferred from another bus □6 Dropped off
   □7 Other– specify _____
6. How did you pay for this ride?
   □1 Cash fare (single ride) □2 Day pass □3 Student pass
   □4 Monthly pass □5 Senior Pass
7. How would you have traveled if BATS service had not been available?
   □1 Drive own vehicle □2 Ride bicycle
   □3 Friend/family member □4 Walk
   □5 Wouldn't make trip □6 Taxi
   □7 Other – specify: _____

Section 2: Tell us about our service.

8. In a typical week, how many one-way trips do you make using the BATS service?
   □1 5 or trips □2 3-4 trips □3 1-2 trips
   □4 1 trip □5 First time riding the bus
9. What is your most common method for obtaining information regarding the BATS services?
   □1 Brochures □2 Onboard buses □3 Website/Internet
   □4 Cell phone/mobile device □5 Other: _____
10. Please rate each of the following service characteristics of BATS on a scale of 1-5 (where 1=poor and 5=excellent).

a.	On-time performance	□1 □2 □3 □4 □5
b.	Frequency of service	□1 □2 □3 □4 □5
c.	Service hours	□1 □2 □3 □4 □5
d.	Service days	□1 □2 □3 □4 □5
e.	Vehicle cleanliness	□1 □2 □3 □4 □5
f.	Safety onboard vehicle	□1 □2 □3 □4 □5
g.	Safety at bus stops	□1 □2 □3 □4 □5
h.	Fare or cost	□1 □2 □3 □4 □5
i.	Availability of service information	□1 □2 □3 □4 □5

11. Select the one service improvement which is most important to you. (choose only one)
    □1 Improve on-time performance □2 More frequent service
    □3 Expanded service hours □4 Add Sunday service
    □5 Improve onboard/vehicle cleanliness
    □6 Improve safety onboard vehicle
    □7 Improve safety at bus stops
    □8 Improve access to BATS service information
    □9 Reduce cost of riding BATS service
    □10 Additional/new destinations _____
    □11 Other– specify : _____

Section 3: Tell us about yourself.

12. How long have you been using BATS service?
    □1 Less than 90 days □2 More than 90 days
13. Have you recently started using BATS bus service (within the past 30 days)
    □1 Yes □2 No
14. When I ride the bus, it's usually because I'm going to (choose all that apply)
    □1 Work □2 Shopping □3 Social or recreational event
    □4 School □5 Healthcare □6 Business appointment
    □7 Other – specify: _____
15. The main reason why I ride the bus is (choose only one)
    □1 BATS is my only transportation □2 Convenience
    □3 To avoid traffic or parking □4 To save money
    □5 Environmental benefits
    □6 Other – specify: _____
16. What is your home ZIP code?
    _____
17. What is your current employment status?
    □1 Full-time □2 Part-time □3 Retired □4 Unemployed
18. Are you a student?
    □1 Full-time □2 Part-time □3 Not a student
19. What is your approximate annual household income?
    □1 Less than $20,000 □2 $20,001 to $35,000
    □3 $35,001 to $50,000 □4 $50,001 to $75,000
    □5 $75,001 to $100,000 □6 More than $100,000
    □7 Decline to respond
20. Do you have a valid driver's license?
    □1 Yes □2 No
21. Do you have access to a personal vehicle?
    □1 Yes □2 No
22. What is your gender?
    □1 Male □2 Female □3 Decline to respond
23. What is your age?
    □1 16 to 18 □2 19 to 24 □3 25 to 44
    □4 45 to 64 □5 65 or older
    □6 Decline to respond
24. How many people live in your house hold?
    □1 1 □2 2 □3 3 □4 4 □5 5 □6 6 □7 7 □8 8 □9 9 or more
25. Please indicate which languages are spoken in your home (select all that apply)
    □1 English □2 Spanish
    □3 Other – specify: _____
    □4 Decline to respond
26. Please indicate which of the following technologies you have access to (select all that apply)
    □1 Internet □2 Smartphone □3 Texting
    □4 Email □5 Social media (Facebook/Twitter)
    □6 Telephone (land line) □7 Cable television

Contact Information (for random drawing)

Name: _____

Phone: _____

Email: _____

The City of Bullhead City thanks you for completing this survey. Please return in the envelope provided, or deposit in the box at the front of the vehicle.

If you have any questions, contact us at 855.712.8530

Comments: _____

Exhibit C.2 Community Survey Instrument

Bullhead Area Transit System

ADOT

The Arizona Department of Transportation (ADOT) and City of Bullhead City are conducting a study regarding the future of public transit in Bullhead City, and we need your input! We invite you to complete the BATS Community Survey either by taking the survey online at www.research.net/s/BullheadCityTransit or returning this form by mail to the address at the bottom of the page. Thank you for taking the time to help us improve mobility for all residents of Bullhead City. If you require special assistance to take this survey, please contact projects@azdot.gov or 855.712.8530.

1. **Please provide your home and work five-digit ZIP codes.**
   Home: _____ Work: _____

2. **What is your most common travel method for trips within and near Bullhead City?**
   ☐ Drive alone ☐ Carpool ☐ Walk ☐ Bike
   ☐ Public transit (BATS fixed-route or Dial-A-BATS)
   ☐ Other (specify) _____

3. **What is the most common destination for your trips?**
   ☐ Bullhead City ☐ Laughlin, NV ☐ Fort Mohave
   ☐ Other (specify) _____

4. **Have you used BATS public transit services (fixed-route or Dial-A-BATS) within the last 90 days?** ☐ Yes ☐ No

STOP! If you answered "No" on Question 4, please skip to Question 11.

If you answered "Yes" on Question 4, please complete Questions 5 - 10.

5. **What BATS services do you use?**
   ☐ BATS fixed-route buses ☐ Dial-A-BATS
   ☐ Both

6. **When riding BATS, what is your most common trip purpose?**
   ☐ Work ☐ School ☐ Healthcare
   ☐ Meeting friends and family/social activities
   ☐ Shopping ☐ Other (specify) _____

7. **How do you typically obtain information regarding BATS services?**
   ☐ BATS website ☐ Friend or family member
   ☐ Bus driver or other BATS personnel
   ☐ By phone/calling customer service
   ☐ Informational materials at stops or onboard the vehicle
   ☐ Other (specify) _____

8. **How many times per week do you typically use BATS services?**
   ☐ Less than once per week ☐ 1 to 2 times
   ☐ 3 to 4 times ☐ 5 or more times

9. **Have you visited the BATS website within the last 90 days?**
   ☐ Yes ☐ No

10. **What change would you most like to see in BATS services?**
    ☐ More frequent service ☐ More weekend service
    ☐ Shorter travel times ☐ Later service hours
    ☐ Earlier service hours ☐ Sunday service
    ☐ More available service information
    ☐ Service to new destinations
    ☐ Other (specify) _____

STOP! Skip to Question 14. Do not answer Questions 11 through 13.

If you answered "No" on Question 4, please complete Questions 11 - 13.

11. **What is the primary reason you do not use BATS services?**
    ☐ Not aware of the service
    ☐ Does not go where I need to go
    ☐ Travel time is too long
    ☐ Does not operate when I need to travel
    ☐ Does not operate frequently enough
    ☐ Too difficult to find service information
    ☐ Bus stop too far from my home
    ☐ Other (specify) _____

12. **If the reason you selected in Question 11 were addressed, would you consider using BATS for some of your trips?**
    ☐ Yes ☐ No ☐ Unsure

13. **Do you know the location of the BATS bus stop nearest your home?**
    ☐ Yes ☐ No

Please continue to Question 14.

All respondents: Please answer the following questions about yourself and your household.
This information is used to better target programs and services to your needs.

14. **What is your age?**
    ☐ Under 18 ☐ 18 to 34 ☐ 35 to 49
    ☐ 50 to 64 ☐ 65 or older

15. **How many vehicles does your household have access to?**
    ☐ None ☐ One vehicle
    ☐ Two vehicles ☐ Three or more vehicles

16. **What is your gender?** ☐ Male ☐ Female

17. **What is your approximate annual household income?**
    ☐ Less than $12,000 ☐ $12,000 to $24,999
    ☐ $25,000 to $34,999 ☐ $35,000 to $49,999
    ☐ $50,000 to $99,999 ☐ $100,000 or more

18. **How many people live in your household?**
    ☐ One ☐ 2 to 3 ☐ 4 to 5
    ☐ 6 to 7 ☐ 8 or more

19. **Do you have a valid driver's license?** ☐ Yes ☐ No

20. **What language do you typically speak at home?**
    ☐ English ☐ Spanish
    ☐ Other (specify) _____

21. **What is your employment status?**
    ☐ Full-time ☐ Part-time ☐ Retired
    ☐ Not employed (homemaker, student, looking for work, etc.)

22. **Are you a student?**
    ☐ Yes, full-time ☐ Yes, part-time ☐ No

23. **Please indicate which of the following technologies you have access to. (select all that apply)**
    ☐ Internet ☐ Email ☐ Smart Phone
    ☐ Social Media (Facebook/Twitter) ☐ Texting
    ☐ Telephone ☐ Cable TV ☐ None of the above

Thank you for your participation.

Please mail your completed survey no later than October 1, 2013 to:
ADOT Community Relations, Attn: Tony Staffaroni
MD126F, 1655 W Jackson St.
Phoenix, AZ 85007

APPENDIX D: STAKEHOLDER LIST AND SURVEY INSTRUMENT

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APPENDIX D – STAKEHOLDER LIST AND SURVEY INSTRUMENT

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Exhibit D.1 Stakeholder Survey Instrument

City of Bullhead City 2013 Transit Stakeholder Survey

How can the Bullhead Area Transit System (BATS) best serve the people of Bullhead City? Do you have ideas for changes to existing routes or schedules? Or perhaps suggestions for new services? As a stakeholder, you provide a voice for Bullhead City residents who often face mobility or financial barriers to involvement in planning decisions that directly affect them. This survey is an opportunity for you to use your position as a representative for these populations to ensure their transit and transportation needs are known and included in the planning process, so please take a moment to answer the questions below.

Fax your completed survey to **928.763.0131** or **mail** your response back in the enclosed postage-paid envelope no later than **Wednesday, September 18, 2013**.

1	Please enter the name of your business or organization
2	Your name:
3	Your title:
4	Your phone number:
5	Please indicate which of the following best describes your business or organization (check all that apply): ❑ Government ❑ Private, non-profit ❑ Private, for profit ❑ Faith-based ❑ Other (specify)_____
6	Please indicate what services your business or organization provides (check all that apply): ❑ Health care ❑ Rehabilitation services ❑ Counseling ❑ Nutrition/meals ❑ Job/employment services ❑ Welfare/public assistance ❑ Veterans services ❑ Transportation ❑ Education ❑ Housing/Lodging ❑ Recreation ❑ Other (specify)_____
7	Please indicate which of the following best describes your members or clientele (check all that apply): ❑ Youth ❑ Seniors ❑ Veterans ❑ Students ❑ Unemployed ❑ Low-income individuals ❑ Homeless individuals ❑ Persons with limited English proficiency ❑ Visitors to the region ❑ Persons with disabilities ❑ General public ❑ Other (specify)_____
8	How do members or clientele of your organization typically travel (check all that apply)? ❑ Public bus ❑ Drive their own vehicle ❑ Ride with friends or family members ❑ School bus ❑ Taxi service ❑ Private transportation program or service (specify)_____ ❑ Walk or bicycle

City of Bullhead City 2013 Transit Stakeholder Survey

9	Does your business or organization provide any type of transportation service to your members or clientele? ❑ No ❑ Yes, carpooling, transportation program or service (specify)_____ ❑ Yes, public transit fare subsidy or payment (specify)_____
10	What is the most significant mobility need affecting your members or clientele?
11	What is the most significant mobility need you anticipate affecting your clientele across the next five years?
12	What do you believe to be the single greatest improvement which the City could make to Bullhead Area Transit?
13	Are there any new areas or destinations Bullhead Area Transit could serve that would be particularly beneficial to your organization's clientele?
14	Do you have any suggestions for how Bullhead Area Transit could more effectively provide information about their services?
15	Please describe your organization's potential interest in providing financial support to Bullhead Area Transit in one or more of the following ways: ❑ Sponsoring Bullhead Area Transit services that improve mobility for your clientele ❑ Purchasing advertising space on Bullhead Area Transit vehicles or bus benches ❑ Other (please describe)
16	Would your organization be interested in coordinating its own transportation services with City-operated services (such as Bullhead Area Transit or Dial-A-Ride), using real-time communications between City dispatchers and your organization's vehicles, facilitating connections between services, etc.? Please describe.
17	Please describe any other thoughts or opinions you may have regarding current Bullhead Area Transit service.

Exhibit D.2 Stakeholders Contacted and Responses Received

Stakholders Who Responded	Stakeholders Who Were Contacted but Did Not Respond
Senior Circle at WARMC	River Valley Seniors, Inc.
Mohave County Community Services Dept	Boy's and Girl's Club
Praise Chapel Food Bank	Arizona Department of Economic Security (DES)
River Fund Inc	Mohave County Housing Authority
BHHS Legacy Foundation	Mohave County Library
Silver Rider SNTC, Laughlin, NV	Bullhead City Senior Nutrition Center
Bullhead Area Chamber of Commerce	WestCare of Arizona
Bullhead Regional Economic Development Authority	Fort Mojave Indian Tribe
Silver View RV Resort	River Cities United Way
Labor Ready	Laughlin/Bullhead City Airport Authority
Mohave Community College	Disabled American Veterans
Mojave Accelerated Learning Center Charter School	Tri-State Super Shuttle
Bullhead City Elementary School District #15	Taxi Companies:
ACE Hardware	Bullhead City Taxi
Mohave Mental Health	Lucky Cab
Western Arizona Regional Medical Center	Contractors Association
St John Evangelical Lutheran	Canyon Walk Apartments
St Margaret Mary Catholic	Bullhead RV Park
Praise Chapel	Desert Rancho Motel
Valley Christian	Gretchen's Inn
Desert Palms Medical Association	Grand Vista
Vocational Rehabilitation Services	Best Western
Guard Force, LLC	Katherine Heights
Kathy Bruck	Goodwill Job Connection
Jack Hakim	Wal-Mart
City Bible Church Emergency Assistance Program	Mohave High School
Bullhead City Foursquare Church	WACOG Head Start
WACOG (branch to help seniors/persons with disabilities)	NAU BHC Campus
WACOG	Colorado River Union HS District
	Comm College of So Nevada
	Target
	K-Mart
	Sam's Club
	Safeway
	Smith's
	The Home Depot
	Lowe's Home Center
	WestCare Safe House
	WestCare Blossom House
	Southwest Behavioral Services
	Valley View Medical Center
	Fresenius Dialysis Center
	Dr. Aslam
	Dr. Malik
	Dr. Nayer
	Labcorp
	Pain Management Clinic - Dr. Sutera
	Riverview Vision
	Senora Quest Lab
	Western Eye Medical
	Spirit Life Church
	Calvary Chapel
	Hope United Methodist
	Bullhead City SDA
	Trinity Baptist

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APPENDIX E: DRIVER SURVEY INSTRUMENT

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APPENDIX E – DRIVER SURVEY INSTRUMENT

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Exhibit E.1 Driver Survey Instrument

Bullhead City Short Range Transit Plan Driver Survey

1. What are the greatest strengths of the current BATS program? (list up to two)
   a. _____
   b. _____
2. What are the greatest challenges of the current BATS program? (list up to two)
   a. _____
   b. _____
3. What are the most important improvements the City could make to BATS's day-to-day processes, such as opening/closing procedures, vehicle cleaning and maintenance, dispatching and communications, etc.? (list up to two)
   a. _____
   b. _____
4. What are the most important improvements the City could make to improve BATS' overall performance? (list up to two)
   a. _____
   b. _____
5. Is there anything you would like to change about current BATS vehicles (e.g., size, seating arrangement, design, etc.)? If so, what?
6. Please describe the training you received in order to become a BATS driver. Is there anything you would change about the training process to make it more effective?
7. Please describe the ongoing training you receive in order to maintain your qualifications. Is there anything you would change about the topics or timing of training that is provided? Is there any training you need that has not been provided?

Bullhead City Short Range Transit Plan Driver Survey

8. Do you have any thoughts or opinions about routing and/or stop locations? For example, are there any stops or route segments you would like change in order to improve on-time performance, make driving safer, make the stop more accessible, etc.?

9. How effectively does the current BATS service meet the mobility needs of the BHC community? (circle one)
   a. Does not meet mobility needs at all
   b. Does not meet needs very effectively
   c. Meets needs somewhat effectively
   d. Meets needs very effectively

10. What is the most frequent NEGATIVE comment you hear from BATS riders?

11. What is the most frequent POSITIVE comment you hear from BATS riders?

12. Of the current published Rider Rules of Conduct, are there any that you would change, add, or remove? If so, which would that be? How would your suggestion improve the BATS program?

13. What do you need as a driver to maintain order and civility on your bus? Are your needs being met in terms of maintaining order and civility on your bus? If not, please list up to two ideas for meeting your needs.

Bullhead City Short Range Transit Plan Driver Survey

14. Do you believe your comments and/or suggestions regarding the BATS program are given proper consideration by BATS management? If not, please suggest how BATS management can improve in this regard.

15. Do you believe the current marketing efforts/activities effectively promote the BATS program? If not, please list up to two ideas for improving these efforts.

16. Are there locations (specific places or overall neighborhoods) within Bullhead City that you believe are either "unserved" or "underserved" by public transit? If yes, please explain.

17. Are there locations (specific places or overall neighborhoods) within Bullhead City that you believe are "over served" by public transit? If yes, please explain.

18. In the past two years has your job satisfaction increased, decreased, or remained the same?

19. If you could do anything to improve the job satisfaction of BATS drivers, what would be the FIRST thing you would do?

Thank you for your participation. Please return your survey in the enclosed postage-paid envelope no later than September 13, 2013. Or if you prefer, you may email your scanned survey to kathy@moore-associates.net at your earliest convenience.

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