TRANSIT SERVICE PLAN FOR GRAHAM COUNTY

August 2023 | First Draft

Graham County Arizona

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EXECUTIVE SUMMARY

1. INTRODUCTION

1.1 BACKGROUND

In 2015, a Feasibility Study was completed to determine if a 5311 fixed route service in Safford and nearby communities of Thatcher and Pima could be developed and would be sustainable. While the Study showed positive outcomes, no entity was prepared to establish the service and provide the matching funds required to utilize 5311 FTA funding. The proposed service was shelved. In the ensuing years, elected officials changed, and non-profit organizations recognized the value to the community that a fixed route service would bring to the workforce, clients needing services, and low-income families and individuals with disabilities who lacked the ability to seek medical and human services and struggled to gain access to food shopping and other basic human needs.

The Graham Greenlee Coordination Council continued to discuss the matter with some limited interest among government entities and non-profits to take the lead in establishing service.

In 2021, SouthEastern Arizona Governments Organization (SEAGO)S determined that to move forward, an update of the 2015 Feasibility Study would need to be developed. A PARA grant was awarded through the Federal Transit Administration to conduct a Feasibility Study. The purpose of the study was to reevaluate the feasibility of a public bus service that would serve Graham County and, possibly, the communities of Duncan and Clifton in Greenlee County.

The Feasibility Study update was expected to be conducted in 2 phases, the first was the identification of needs and transit alternatives (Appendix A), and the second was to identify a preferred service option and create an implementation plan. SEAGO contracted with the National Association of Development Organizations to conduct the first phase of the Study while SEAGO staff conducted the second phase and developed the final report.

The goal of the Feasibility Study update was to address the following questions:

Is there community support and adequate potential ridership for a viable public transit system in Graham County and communities in Greenlee County?

Does sufficient local or other financial support exist to provide necessary matching funds for federal funding to financially sustain transit services over time?

1. Is there the potential to leverage existing transportation services to further develop a public transit service?
2. Do the benefits of providing a public transit system outweigh the costs of service delivery?

COVID conditions protracted the forward movement of the study as government entities and non-profit organizations were focused on addressing the immediate medical needs of the population and making sure that life sustaining client-based needs were met in terms of health care, mental health care, food and nutrition services, and other basic needs.

In November 2022, National Association of Development Organizations (NADO) and its partners completed a draft Transit Alternatives Study with three system model alternatives: Fixed Route Service, Fixed Route with Feeder Service, and On-Demand with Technology. Their study and report are located in Appendix D.

By 2023 with COVID conditions waning, both the San Carlos Nnee Bich'o Nii transit service and the Easter Seals Blake Foundation (ESBF) agreed that they should be considered in the development of a preferred service model. Survey data was analyzed to determine areas of need, possible originations and destinations, and the level of service required to be effective and sustainable.

In reviewing the transit alternatives described in the first-phase study, stakeholders determined that a fixed route – feeder system would best serve riders from the immediate area of Safford as well as riders coming into Safford from San Carlos and Greenlee County. ADOT funding for new service is extremely limited for both 5311 and 5310 programs, **it was determined that transit service that included the expansion of the San Carlos Nnee Bich'o Nii 5311 Transit service to include a circular fixed route in the Safford community and an expansion of existing dial-a-ride services provided by Easterseals Blake Foundation to act as a feeder service to the fixed route would be the most cost efficient, effective means to create transit service in the area. Each organization will maintain autonomy and governance in the provision of their transit services.**

1.2 LOCATION AND POPULATION

Figure 1 Graham County Map

Graham County is located in south-eastern Arizona north of Interstate 10 between Greenlee County to the east, and Pinal County to the west. Cochise County borders to the South. Highway 191 (a former federal highway which runs from the Mexican border to the Canadian border) crosses the county north and into Greenlee County. US Highway 70 runs northwest from Safford to the San Carlos Apache reservation and on to Globe.

Graham County, adjacent to Pima County at the southwest corner, crosses 131 miles between their county seats; Safford and Tucson. Tucson is a common destination for Graham County residents seeking medical care and expanded shopping opportunities. Globe is 78 miles to the northwest on Highway 70, crossing the San Carlos Apache Reservation and its communities of Bylas and Peridot (51 miles from Safford). Nnee Bich'o Nii Apache Transit provides services to Globe and Safford from its central Peridot office. Located in neighboring Greenlee County the communities of Clifton and Morenci – northeast via Highway 191 (44 miles from Safford), and Duncan – east on Highway 70 (40 miles) use Safford for shopping and medical care as well as other human services and recreation. Clifton and Morenci are communities that were established in support of the mining industry that was established in the 1870s and remains an active copper mine.

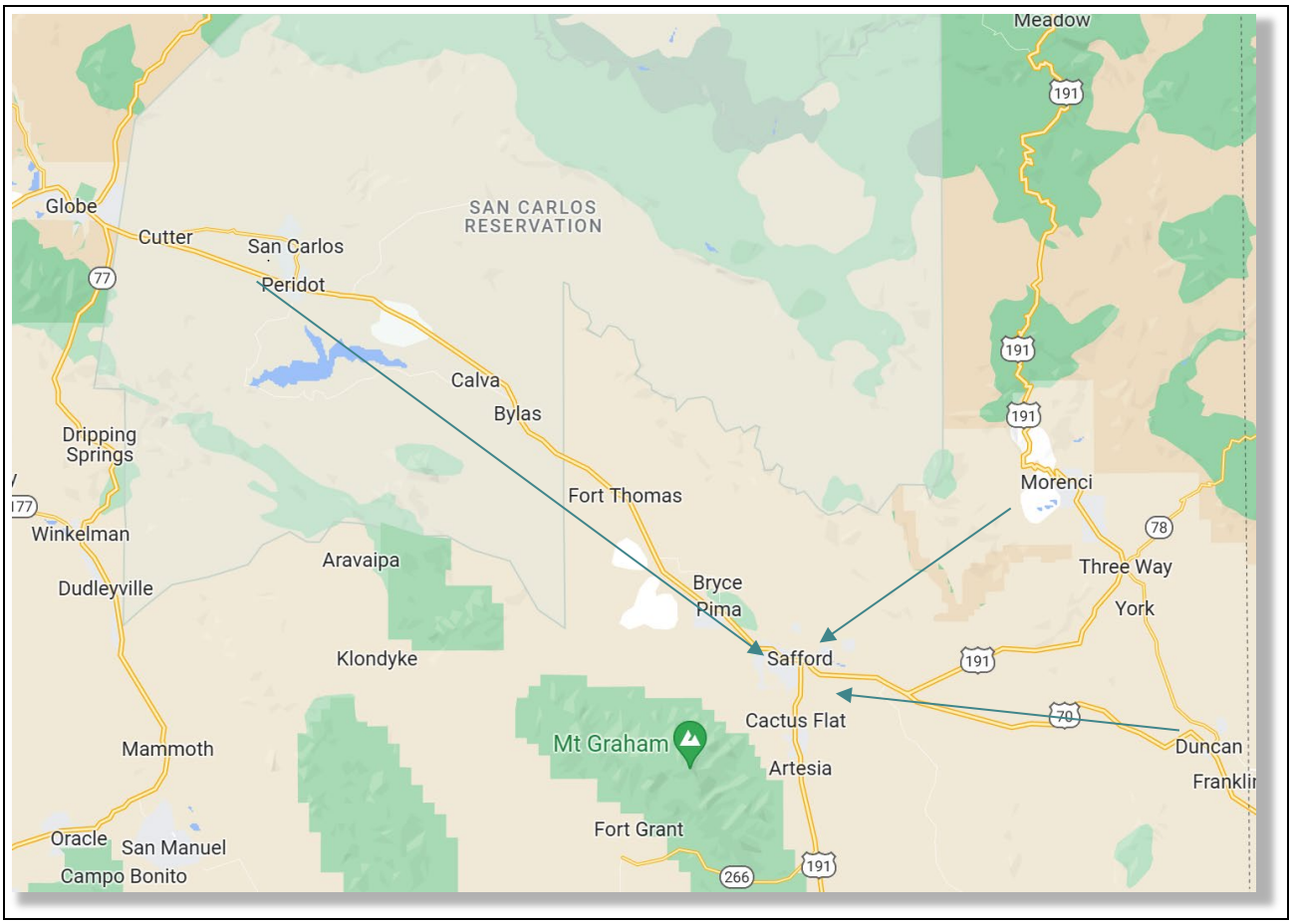
The communities of Thatcher (3 miles) and Pima (8 miles), located northwest of Safford on Highway 70 are primarily agricultural communities that depend on Safford for access to shopping, medical care, human services, and recreation.

Table 1 Community populations

Graham County	39,050	2021
Safford	10,269	2021
Thatcher	5,310	2021
Pima	2,905	2021
Peridot	1,416	2020
Bylas	1,290	2020
Duncan	677	2021
Morenci	1,494	2020
Clifton	3,847	2021

In 2021, the Census Bureau reported Graham County's population at 39,050 with 33.5% reporting to be Hispanic or Latino and 21.1% reporting a language other than English being spoken in the home. 9.1% reported a household member under the age of 65 with a disability. The county-wide poverty rate is 20.4%. Safford is the County seat with a population of 10, 269 (2021). The service area population is just over 27,000.

Figure 2 Outer origination communities



2. CONSIDERATIONS

Because this plan proposes an expansion of two existing and independent transit providers; San Carlos Bich'o Nii Transit and EasterSeals Blake Foundation (ESBF), it is important to note that both organizations will plan for an expansion of its existing service. San Carlos Bich'o Nii is proposed to expand its existing fixed route system operating from Globe to Safford to include a fixed-route loop in the City of Safford. ESBF is proposed to expand its existing dial-a-ride program to provide feeder service to the fixed-route loop, providing connecting rides to residents within one mile of the fixed-route loop as well as providing connecting rides to resident in its service area which includes portions of Graham and Greenlee Counties. **Each organization will continue to operate its service independently and autonomously.** This chapter describes legal, contractual, coordination, employee, and facility considerations in developing a transit system for the City of Graham County.

2.1 GOVERNING BODIES

Within the service area are a number of incorporated and unincorporated communities within both Graham and Greenlee counties. The City of Safford is the County Seat for Graham County. The Town of Clifton is the County Seat for Greenlee County. Both Graham County and Greenlee County governments

are supportive of expanding transit opportunities in the region though neither indicated a willingness to be the lead agency in its development. The communities of Thatcher, Pima, Duncan, and Clifton, all incorporated towns, have been supportive of transit services, but like Safford, none have indicated a willingness to be the lead agency in its development.

The San Carlos Bich'o Nii Transit currently operates a public transit system with direct funding from FTA through the Arizona Department of Transportation (ADOT). The 5311 system provides service to and from its Cutter transit center located at 1080 Hwy 70 and includes a regular schedule to Globe, Apache Gold Casino, a local San Carlos route, Bylas, Ft. Thomas, Eastern Arizona College (Thatcher), and Safford.

San Carlos' Nnee Bich'o Nii transit program will seek Tribal Council approval to expand their existing service to include a fixed-route loop in Safford as part of its existing ADOT/FTA 5311 system that will integrate its morning and afternoon runs to Safford. This Tribal Council approval will be sought in January 2024 with an ADOT 5311 application submitted in February 2024 for a two-year cycle. The first year will be primarily start up activities for the expansion that will include gaining commitments from in-kind contributors such as the City of Safford and Graham County to cover match requirements. The second year will include actual operations of the system. **Both organizations will operate independently as they have been and govern their portion of the expansion transit system autonomously; each seeking out the resources needed to provide their respective services separately.**

The program will rely on EasterSeals Blake Foundation to provide feeder rides to the fixed route through its existing 5310 dial-a-ride and paratransit services. ESBF's service area includes Greenlee County communities of Clifton and Duncan.

This collaborative effort relies on each organization, while governed autonomously, to collaborate to provide the transit services. Because these two transit providers are already in place with robust ridership, they are already familiar with and are working in compliance with ADOT and FTA regulations and guidelines.

2.2 LOCAL AND STATE GOVERNMENTS

While some transit communities prefer to forego relationships with nearby local governments and the State, others have found these relationships to be extremely advantageous in the design and implementation of a transit program. The proposed service area includes a sizable unincorporated area governed by Graham, Greenlee, and Gila Counties and has future potential to connect to other transit systems including Globe/Miami and Willcox.

Developing and maintaining working relationships with these local government entities can enhance the reach of a Graham County-based transit program; thereby, reducing costs in providing services to the largest number of riders. It is feasible to expect that both Graham and Greenlee County supervisors could set aside discretionary funding in support of their constituents' access to the fixed route via ESBF and San Carlos Nnee Bich'o Nii transit.

Developing and maintaining relationships with State level department heads and program management staff can be extremely beneficial when introducing or growing programs. Inviting representatives of

state and federal departments to local TAC meetings, celebrations, and planning sessions keeps decision makers aware of the program and invested in its success. The lead entities are currently active members of the Coordination Council as are representatives of ADOT.

2.3 COORDINATION WITH OTHER ORGANIZATIONS

Federal transit funding requires that grantees coordinate with other transportation providers to assure the maximum amount of service possible while reducing costs by utilizing shared or coordinated resources. SEAGO is the Mobility Manager for the region and responsible for coordination activities. Continued participation in the SEAGO coordination group will help assure success and create an environment of mutual aid and assistance that will be beneficial to an expanding transit program.

Attending these coordination meetings also brings additional resources, training, and operational strategies to participants. By networking with other members, transit managers can identify methods and means which can be utilized to create sustainability for transit programs.

2.4 COORDINATION WITH OTHER TRANSPORTATION PROVIDERS

The successful development of a public transit program based in Graham County will require that the transportation program and its stakeholders promote the coordination of existing transportation providers in the design of a public transportation program. ESBF (5310), San Carlos Nnee Bich'o Nii (5311), Graham County Rehabilitation Center, HOPE Inc., and Mt. Graham Safe House) each provide transportation within the service area and can provide riders access to the proposed fixed-route system. Though these organizations offer transportation primarily to their client base, there are opportunities whereby schedules can be adopted that promote cross-county transportation that can connect riders to destinations outside the service area. Working toward a highly coordinated system is recommended to maximize rider satisfaction and operational efficiency.

2.5 FUNDING OPPORTUNITIES

Reliable funding sources that can be sustained over a period of years are a significant challenge. Developing a range of funding sources cannot be overemphasized. Nearly every successful transit program has been established using a variety of funding sources so that, should funding from one source be reduced, the entire program is not severely affected as funding may be tapped from another source to make up for the loss.

Because the proposed transit program serves a significant portion of Graham and Greenlee counties, Both San Carlos Nnee Bich'o Nii and ESBF may be positioned to collaborate with County Supervisors to have funds dedicated to the system in support of County residents in Clifton, Duncan, Morenci, Solomon, and other village communities in the service area along Highways 70 and 191. Additionally, the towns of Pima and Thatcher Councils can be provided data on residents currently using the 5311 and 5310 systems with cost per ride data that can help justify an annual allocation of funds in support of these riders. Negotiating a multi-year commitment will leverage other funding sources and provide essential match funds needed for FTA support. Additionally, ESBF can apply for additional Agency on Aging (AAA – Federal funding) funds that are provided through a multi-year contract and support elderly riders. SEAGO oversees the AAA funding and accepts requests for additional funding on a case-by-case

basis. These collaborative agreements will need to be finalized before operations can begin so that match requirements can be met. It is expected that both San Carlos Nnee Bich'o Nii and ESBF will use the first year (2024) as a start-up year and focus on solidifying these supporters.

In addition to federal and state transit resources, San Carlos Nnee Bich'o Nii may wish to consider outside funding sources including partners, grants, and fee for service contracts. Other agreements that can produce matching funds include Eastern Arizona College, Veterans Health Services (Tucson), Freeport McMoRan and its subsidiary Foundation, and non-emergency medical transportation providers.

Safford is the hub of a regional mining industry that has grown significantly in the last ten years. Freeport McMoRan can provide both discretionary (the local mine manager) and Foundation support for transportation services that serve the communities where there are working mines. These may provide a source of additional funding in the provision of transportation service contracts for employee transportation, local events, and package/parcel delivery between mining operations. Other partners in this category may include event and festival producers and visitor centers who may include the transit systems in their planning and budgeting.

Eastern Arizona College (EAC) provides higher education opportunities for students across Graham, Greenlee, and Gila counties. The campus in Thatcher may be a source of additional funding resources through the scheduled transportation of students and employees.

The expansion of each organization's transit programs can substantially improve their system's success and sustainability prospects by identifying and developing a wide range of potential partners who may provide additional funding through contracts, fee-for-service agreements, intergovernmental agreements (IGA), and memorandums of understanding (MOU).

2.6 QUALIFIED EMPLOYEES

Finding and maintaining qualified transit employees is difficult for nearly all rural based transit programs. It is expected that the San Carlos Nnee Bich'o Nii, which will be running the Safford Loop fixed route, will utilize a vehicle that does not require Commercial Drivers Licenses (CDLs) during the first year or two of the expansion. CDL drivers are difficult to find and retain as the mining industry also utilizes CDL holders in its operations and pays significantly more than the transit system can pay. If CDL drivers are required, San Carlos Nnee Bich'o Nii may wish to work with FMI to identify recently retired workers who may wish to remain employed on a part time basis with the transit program.

The Graham County transit program will be initiated as expansion programs for both the San Carlos Nnee Bich'o Nii – providing the fixed-route loop in Safford, and the ESBF – providing the feeder dial-a-ride service to the fixed route. San Carlos Nnee Bich'o Nii may wish to work with Safford-based organizations to advertise for and identify potential drivers from the Safford area as they continue to have difficulty hiring drivers for their system as a whole. ESBF does not require CDL drivers and may be able to attract volunteer drivers for use as backup or to supplement paid drivers.

ESBF will continue to require trained dispatchers to support the expanded dial-a-ride program that will be responding to general public requests for rides to the fixed-route system. While they will continue to prioritize elderly and disabled riders, scheduling of additional general public riders will require dispatching skills that can quickly determine the most efficient way to include the ride request while maintaining compliance with FTA regulations concerning dial-a-ride and paratransit systems. Additionally, the ESBF dispatcher will need to assist in training riders to utilize the fixed route system when possible. Transit program manager(s) will be well served to continue to engage in Transit Management Training offered through the ADOT Rural Transit Assistance Program (RTAP), regional conferences, and SEAGO training opportunities.

Holding employees to high standards (Commercial Drivers Licenses, Automotive Service Excellence Certificates, and Certified Transit Manager Certificates) will assure the successful development and growth of these established transit systems.

3. INVENTORY OF EXISTING SERVICES

Page 6 of the Graham County Transit Alternatives Study lists five transportation providers (not including non-emergency medical services) working in the service area.

3.1 EASTERSEALS BLAKE FOUNDATION (ESBF)

Service: ESBF is a 501 (c) (3) that provides Employment opportunities, community day programs, residential services, transportation, and behavioral health services throughout Southern Arizona. ESBF's mission is to enable each individual to discover and meet his/her maximum potential for independence, productive living, and developmental growth.
ESBF provides transportation that goes above and beyond ADA requirements and is based on the need of each individual through a dial-a-ride program that also serves the general public when seats are available through its Community Transportation Program that provides rides to elderly and disabled members of the general public outside of their client base.

Vehicles: ESBF has 21 vehicles available across its four-county service area.

Funding: ADOT 5310 AAA funding (SEAGO)

3.2 GRAHAM COUNTY REHABILITATION CENTER

Service: Graham County Rehabilitation Center (GCRC) promotes the welfare of individuals with developmental disabilities and/or physical limitations by supporting and teaching each individual so that they may have the opportunity to reach his/her full potential according to each one's unique abilities; that each person might be an integral part of home, family, and community, thereby giving purpose, meaning, and dignity to their life. Individuals ages 5 to seniors receive support in a variety of programs: Individual Designed Living Arrangements (IDLA) where they learn life skills and are transported to/from the grocery store, doctor, etc.; Adult and Children Day Programs and two supportive work sites where with the help of a job coach they learn job skills to secure local employment while earning a paycheck.

Transportation is provided for GCRC clients.

Vehicles: GCRC has 15 vehicles all over 5 years old with 4 still under lien.

Funding: GCRC does not presently receive FTA funds.

3.3 SAN CARLOS APACHE NNEE BICH'O NII

Services: San Carlos Apache Nnee Bich'o Nii Services operates ten scheduled routes with a variety of fixed routes, commuter routes, contract services, and intercity and intercity feeder routes in Gila and Graham counties.

Vehicles: San Carlos Nnee Bich'o Nii has 15 vehicles, with 5 under lien with ADOT

Funding: FTA Tribal Transit Program and ADOT 5311

3.4 MT. GRAHAM SAFE HOUSE

Services: Since 1995 The Mount Graham Safe House (MGSH) has provided crisis intervention, assessment, advocacy, and referral to women and men needing domestic violence response and prevention services. MGSH provides advocacy, emergency housing, transitional housing, clothing, food, school supplies, furniture, local transportation, self-help groups, parenting classes, job skills classes, a children's domestic violence education program to resident and non-resident clients and mobile advocacy (go to clients and provide service). MGSH provides transportation to and from the Safe House for job services, medical appointments, counseling, legal services, and other needs.

Vehicles: 4 Vehicles, with 3 under lien.

Funding: No FTA ADOT funding – vehicles still under ADOT lien.

3.5 PRIVATE TRANSPORTATION PROVIDERS

In 2021 there was one Lyft driver serving Safford. A recent check showed no active drivers. Drivers for Uber and Lyft typically are available during festivals and large events and are not a consistent source of transportation to the area. Gila Rides provides a taxi service but most of their business is meal and parcel delivery for restaurants and pharmacies. A non-emergency medical transportation service provider does provide services in several southeastern Arizona communities, including Safford.

4. TRANSPORTATION NEEDS ASSESSMENT

The Alternative Transit Study did not describe the Needs and Demands of the area as the needs were well established in previous studies. However, limited survey data was collected and analyzed and is described in Chapter 3 of the Alternative Transit Study (**Appendix D**). This chapter describes Needs and Demands using industry standard estimation formulas provided by the Transit Cooperative Research Program (TCRP) – a federally funded national organization that provides relevant research, protocols, and best practices to the public transit industry.

These estimates do not take into consideration those persons who have access to transportation but, because of the lengthy commute or drive times for shopping and appointments and high cost of travel, are seeking a more cost-efficient means of travel.

Survey data revealed a greater number of riders seeking access to shopping and services in the Safford area. Survey and Census-based data determined that while ride demand from outlying communities did not support a fixed route system, data from within Safford city limits supported a limited fixed route with feeder services. The fixed route would support stated desires for access to shopping, health and human services and food resources. Calculations and analysis indicated that a loop route within Safford, supported by a dial-a-ride feeder system already existing through ESBF would be more cost effective.

4.1 CALCULATED NEED AND DEMAND USING TCRP

4.1.1 NEED

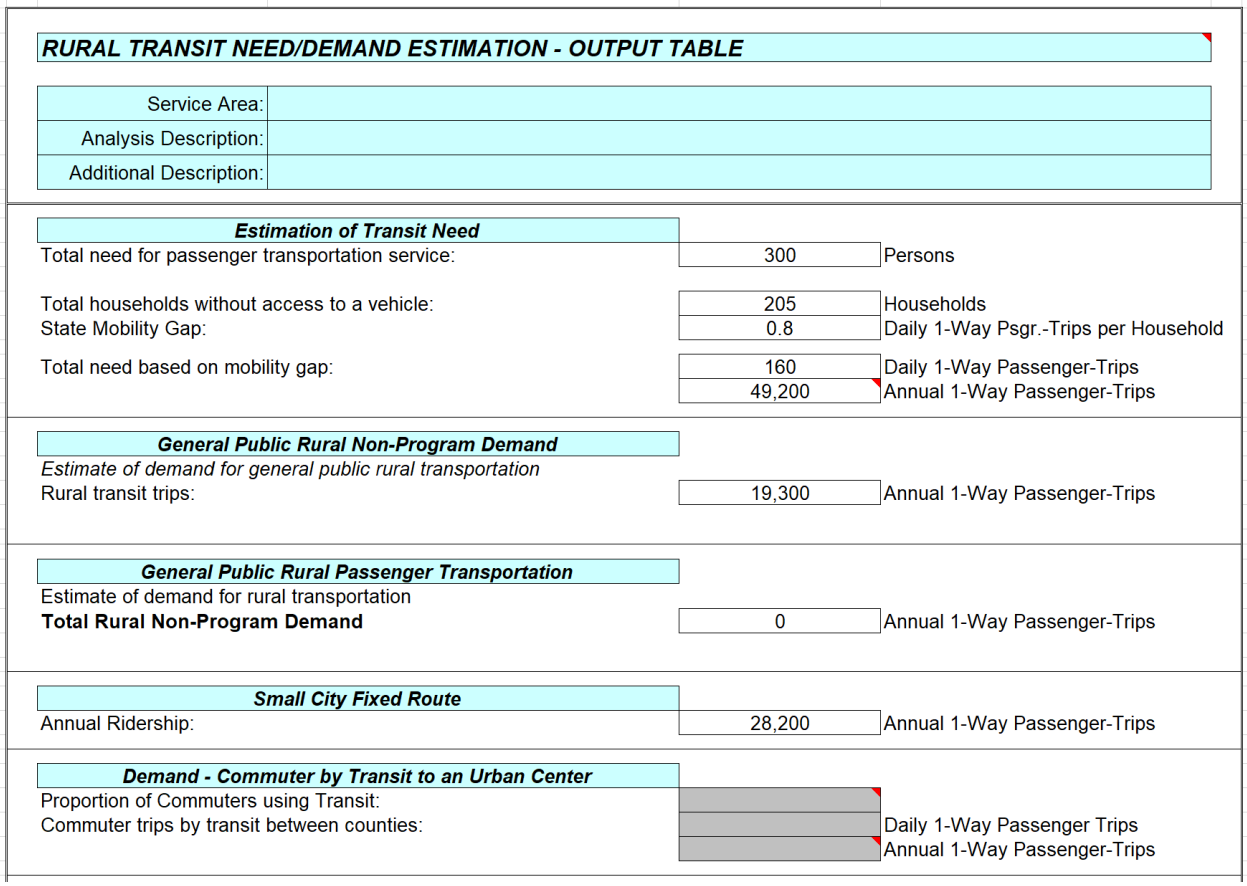
The total number of people estimated to need transit service is the sum of persons living in households with incomes below the poverty level and persons living in households without an automobile. For the Safford area transit needs this estimate is approximately 326 persons in need of transportation for lack of a vehicle. There are 1913 people living below the poverty level. **See Figure 3**. Among those, there are 374 persons aged 60 and older who live in poverty. It can be assumed that a portion of those without vehicles also live below the poverty line. The Safford area has seen a consistent increase in the population. Since 2000, the population has increased 11%. Between 2010 and 2020, the population increased by 6%, a slightly faster rate than the previous decade.

Figure 3 Safford area demographics

Transit Need Inputs		
Number of persons residing in households with income below the poverty level:	1,913	
Number of households residing in households owning no vehicles:	Households	Persons
1-Person households:	149	149
2-Person households:	21	42
3-Person households:	5	15
4-or-more-Person households:	30	120
Mobility Gap:		
Enter State (from drop-down list):	AZ	
General Public Rural Non-Program		American Community Survey Table Number
Population Age 60+	1,941	B01001
Population Age 18 - 64 with a Mobility Limitation	2,793	S1810
Persons Living in Households with No Vehicle Available	326	B08201
General Public Rural Passenger Transportation		
Need:	Referenced from Mobility Gap analysis	
Annual Vehicle-miles of Service:		Annual Revenue-Miles
Small City Fixed Route Inputs		
Population of City:	9,566	Persons
College and University Enrollment (Total):		Students
Annual Revenue-Hours of Service:	3,120	Annual Revenue-Hours

Transit needs and demands were estimated using procedures described in Transit Cooperative Research Program (TCRP) Report 161 – Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation. The formula is designed to determine the magnitude of need in a geographic area and estimate ridership for a potential transit system. Data is gathered from Census Tables: S0101; S0801; C17001, & C08201 as prescribed by the TCRP program and input into the demographic tables below.

Figure 4 TCRP Transit Need/Demand Output



RURAL TRANSIT NEED/DEMAND ESTIMATION - OUTPUT TABLE

Service Area:	
Analysis Description:	
Additional Description:	

Estimation of Transit Need		
Total need for passenger transportation service:	300	Persons
Total households without access to a vehicle:	205	Households
State Mobility Gap:	0.8	Daily 1-Way Psgr.-Trips per Household
Total need based on mobility gap:	160	Daily 1-Way Passenger-Trips
	49,200	Annual 1-Way Passenger-Trips

General Public Rural Non-Program Demand		
Estimate of demand for general public rural transportation		
Rural transit trips:	19,300	Annual 1-Way Passenger-Trips

General Public Rural Passenger Transportation		
Estimate of demand for rural transportation		
Total Rural Non-Program Demand	0	Annual 1-Way Passenger-Trips

Small City Fixed Route		
Annual Ridership:	28,200	Annual 1-Way Passenger-Trips

Demand - Commuter by Transit to an Urban Center		
Proportion of Commuters using Transit:		
Commuter trips by transit between counties:		Daily 1-Way Passenger Trips
		Annual 1-Way Passenger-Trips

TCRP Report 161 states that the estimate of need using the mobility gap method is typically greater than the number of trips actually observed on rural passenger transportation systems and at best, only about 20 percent of the mobility gap trip-based needs are typically met.

Based on analysis of data reported to the Rural National Transit Database for 2012, TCRP Report 161 developed the following equation to estimate passenger transportation demand in rural areas:

Demand = (2.20 × Population age 60+) + (5.21 × Mobility Limited Population age 18 to 64) + (1.52 × Residents of Households having No Vehicle)

Using input data from the Feasibility Study, passenger transportation demand was estimated to be 19,300 trips per year for "non-program passenger transportation" (i.e., transportation demand not resulting from participation in a particular social-service transportation such as Graham County Rehabilitation Center). **See Figure 4.**

Survey data was not sufficiently broad to estimate annual trips (30 respondents), however; ridership data from San Carlos Nnee Bich'o Nii and ESBF, demand on an annual basis, with a five-day per-week schedule could yield an annual ridership of approximately 15,000 rides for the fixed route portion of the system.

The actual ridership will be dependent on the service schedule, number of dial-a-ride feeds, and drivers available to provide rides.

4.1.3 COMMUTER NEED AND DEMAND

Commuter demand was not considered in ride estimates but can be considered in the growth of the transit system.

4.2 REVIEW OF PREVIOUS PLANS

Previous studies and plans were outlined in the Transit Alternative Study (2022) and included the analysis of the annual Transportation Coordination Plans (2017, 2018-19 update, & 2021) which determined an ongoing need for transportation within Safford with connections to Duncan, Clifton, and San Carlos. Transit Planning documents that were reviewed and analyzed included the 2007 Graham County Transit Feasibility Review, the 2015 Graham County Transit Study Feasibility Review, and the 2021-25 Economic Development Strategy (CEDS). Each study identified public transit as a critical community asset needed to support low-income, elderly, disabled, veteran, and employee populations.

Previous Plan reviews and summaries can be found in Chapter 2 of the Transit Alternative Study found in **Appendix D.**

5. GOALS AND OBJECTIVES

5.1 MISSION STATEMENT

The Graham & Greenlee Counties Transportation Coordination Council expressed a desire to create public transit services for area residents including those from the San Carlos Apache Reservation (a portion of which is located in Gila County). Understanding that nearby rural communities utilized Safford for health and human services, as well as shopping and recreation, the Coordination Council and two of its largest transit providers, San Carlos Nnee Bich'o Nii and ESBF, approved the development of a coordinated expansion of the San Carlos Apache Nnee Bich'o Nii system to include a fixed-route loop in Safford with feeder rides provided through its existing route from San Carlos, through Pima and Thatcher, and the Eastern Arizona College, along with the ESBF Community Transportation program which includes a dial-a-ride program serving Clifton, Duncan, and Solomon. Because the fixed route loop in Safford will be an expansion of a current San Carlos Apache Nnee Bich'o Nii 5311 program, and feeder rides will also come from an existing ESBF 5310 program, the need for a separate Mission Statement, Goals, and Objectives are not required as the proposed system is not a new or separate system. However, the Graham Greenlee Coordination Council may wish to consider including the following in the SEAGO Transportation Coordination Plan as a summary statement of the region's efforts to provide expanded transportation options in the area:

The mission of the Collaboration between San Carlos Apache Nnee Bich'o Nii and ESBF's Graham County transit collaboration program is to empower the area's general public to expand their opportunities for education and work and improve their quality of life by providing reliable, accessible, and affordable transit services to the Safford, Thatcher, Pima, Solomon, Duncan, & Clifton communities through the expansion of existing transit programs provided by the San Carlos Nnee Bich'o Nii and ESBF transit systems.

5.2 GOALS AND OBJECTIVES

5.2.1 GOAL 1

Expand existing services provided by the San Carlos Nnee Bich'o Nii and ESBF to provide a coordinated, professional, and customer-responsive transit program to help ensure that Graham County transit programs are recognized as the leading proponent and advocate for mobility in the Graham County area.

Objectives:

- Implement a destination-based fixed-route loop system beginning with a three-day-a-week service in the City of Safford operated by San Carlos Nnee Bich'o Nii and supported by origination feeder rides provided by the ESBF community transportation system.
- Design and maintain fixed routes and schedules that are most responsive to the unmet needs of the residents of Safford and the ridership from Clifton, Duncan, Solomon, Thatcher, Pima, and San Carlos.
- Review and revise existing policies and procedures to be responsive to potential riders; meet federal and state requirements and provide a safe and comfortable experience for riders and drivers.
- Assure the existing transit programs of San Carlos Nnee Bich'o Nii and ESBF are supported by the Coordination Council that assures long-term sustainability.
- Maintain professional staff to be aware of and responsive to riders, their needs, rights, and to their safety and comfort.

5.2.2 GOAL 2

Ensure that transit services are constituent and rider driven in design, management, and performance.

Objective:

Continue the use of entity specific Transit Advisory Committees of riders and stakeholders and the Graham and Greenlee Counties Transportation Coordination Council to provide support and guidance for this coordinated effort.

6. RECOMMENDED SERVICE PLAN

6.1 FEASIBILITY STUDY RECOMMENDATIONS

The following three transit service models were proposed: 1) fixed-route service, 2) fixed-route service with a feeder service from outlying communities, and 3) on-demand with technology. These models are described in this section. The primary goal of the proposed public transportation system is to improve mobility for residents in Graham County, focusing on the Safford area, by providing public transportation connections to residential areas, Eastern Arizona College, the hospital, and local shopping.

Beyond the need to provide improved mobility for residents, the following considerations were critical in determining which model best suited the political environment and the desire among stakeholders to take the lead on establishing new or expanded services:

- No single government or non-profit entity was prepared to develop and take financial responsibility for a separate service.
- San Carlos Nnee Bich'o Nii currently operates a weekday transit service from San Carlos to Safford with a stop at the Eastern Arizona College and Walmart.
- ESBF operates a Community Transportation program, available to the elderly and disabled, serving Clifton, Duncan, Solomon, and Safford.
- New vehicles are in short supply with wait times of nearly 2 years; both San Carlos Nnee Bich'o Nii and ESBF have vehicles in their inventory.
- The headway required to serve a broader community would be extended beyond toleration levels of riders when only one vehicle can be utilized due to cost prohibitions.
- Lack of ADOT funding for new transit system start-ups.
- Availability of AAA funding to support elderly and disabled riders who use the fixed route.
- Ability of San Carlos Nnee Bich'o Nii to seek additional 5311 funds from FTA TTP for an expansion that would not require additional matching funds.

With these, and other less critical considerations, members of the Graham & Greenlee Counties Transportation Coordination Council supported a hybrid system that was built around the expansion of the San Carlos Nnee Bich'o Nii to include a fixed route loop in Safford, supported by an expansion of the ESBF's Community Transportation program which would feed riders to the fixed-route through their dial-a-ride program which currently serves Safford and outlying areas in Graham and Greenlee counties.

San Carlos and ESBF agreed to pursue this expansion model.

6.2 RECOMMENDED SERVICE PLAN

After discussions with SEAGO staff, City of Safford officials, and regional stakeholders—including the college and services organizations, a route scenario was developed that serves locations primarily off Main Street, Hwy 70, and 8th Street (the main thoroughfares in Safford where many of the desired destinations are located. It is proposed that this route could begin at Walmart in Safford, where The San Carlos system, coming from San Carlos, stops after a stop at Eastern Arizona College. It could then travel to the hospital complex and return to W. 8th Street., continue on W. 8th Street to the Safford-Graham Library, and on to the Thriftee Food & Drug Store. For safety concerns, the loop continues from Thrifty to Hwy 70 allowing easy access to the right turn leading to St. Vincent De Paul Services on Gila. From St. Vincents, travelling westbound across 191, the route continues through downtown on Main. From there, it goes to the Government complex which includes the County Health Department, Employment office, and Pool. The route then heads to Hwy 70 and makes a safe right turn to the light with a left turn arrow, where it heads north (left) to the DES offices that include other state and federal offices. From DES the route returns to Hwy 70 and heads west to Bashes Grocery then Safeway and returning to Walmart. **See Figure 5**. Rides to and from the Eastern Arizona College would be part of the San Carlos system which has a morning and afternoon stop as part of their Safford/Globe route.

6.2.1. FIXED ROUTE MAP

This fixed route is developed on a destination-based model and depends on origination rides provided by ESBF and the San Carlos Globe/Safford route.

Figure 5 Proposed fixed route loop

All scheduled stops will be coordinated with the San Carlos Globe/Safford schedule to provide efficient transfer opportunities. ESBF will provide fixed-route deviation services within a 1-mile radius of the fixed route and dial-a-ride services feeding the fixed route from originations already established as part of the Community Transportation program. ESBF would deliver dial-a-ride transfer riders to the fixed

route destination that most closely coincides with the fixed-route schedule and schedule their dial-a-ride return ride with ESBF dispatcher at a location on the fixed route.

Travel times were estimated in three ways: 1) using the travel times generated by Google Maps – which provides an estimated travel time based on the speed limit and number of stop lights along a route; 2) using the widely accepted "rule-of-thumb" speed for transit planning of 12 miles per hour, which accounts for slower travel speeds as well as stopping for passengers to board or exit a transit vehicle; and 3) driving the route while timing each stop and providing time for boarding and alighting. In reality, the travel time along the proposed route would most likely fall somewhere within these travel time estimates depending on vehicular traffic, number of passengers (e.g., time it takes to board and alight the bus), and other factors like the time of day (i.e., potentially more delay during morning and evening "rush hours") and day of week. The times in Figure 7 are based on averages providing ample stopping time and a brief layover at each Walmart stop to allow for driver breaks and connections with the San Carlos/Safford route which arrives at 8:20, 12:20, and 1:20. The 8:20 and 1:20 stops return to San Carlos and on to the Apache Gold Casino as part of their route.

6.2.2. SERVICE SCHEDULE

Table 2 Service Providers

Schedule	Operator	Service Location	Service Type	Reservations
Monday through Wednesday for 3-month period to build ridership; then Monday throughThursday (if approved) for 3-month period. To determine viability of the route. Revenue Hours: 8:20am to 3:12pm	San Carlos Nnee Bich'o Nii	Safford Fixed-Route	Fixed-Route (expansion of existing service)	Not required. Rider alerts driver to or exit at flag stop. Riders must alert dispatcher of need to be picked up at flag stop outside the regular route.
Monday thru Friday 8:00am to 4:00 pm	ESBF	Serving Solomon, Duncan, Clifton, Thatcher, Pima and a 1 mile area around the fixed-route	Dial-a-Ride/ Paratransit feeder system (expansion of existing service)	24 hours in advance or as available.
Monday through Friday 6:30am to 5:30pm	San Carlos Nnee Bich'o Nii	Globe to Safford feeder-route Includes stops along Hwy 70, Eastern Arizona College, and Hospital	Existing 5311 Fixed-Route	Not required. Off route stops need to be arranged with dispatch 24 hours in advance

After a one-year start-up period, San Carlos Nnee Bich'o Nii will run a limited **three-day a week route for three months** to determine interest in the route. After 3 months, a review of the service feasibility will be determine the efficiency of the route, stop locations, and headway concerns. Any updates to the route or schedule will be marketed to existing and potential riders. The second three months will see an additional day, Thursday, added to the schedule. At the end of the second three months, the route will be evaluated to determine the viability of continuing the expansion. If continued, they will make updates and market any updates to the schedule. If continued, the system will operate four days per week until the end of the first-year of operations. Any additional days to the schedule or expansion of the revenue driving hours will be determined at that time with updates based on rider feedback, cost, and system capacity and implemented in Year 2 of the route.

Table 3 Fixed Route Schedule – 2nd year of two-year funding cycle

Route Stop	Location	Time Distance	Route #1	Route #2	Route #3	Route #4	Route #5	Route #6	Route #7
A	Walmart		8:20 a.m. *	9:20 a.m.	10:20 a.m.	11:20 a.m.	12:20 p.m.*	1:20 p.m.*	2:20 p.m.
B	Hospital Complex	6 min 1 mile	8:26 a.m.	9:26 a.m.	10:26 a.m.	11:26 a.m.	12:26 p.m.	1:26 p.m.	2:26 p.m.
C	Library	9 min 1.94 mile	8:35 a.m.	9:35 a.m.	10:35 a.m.	11:35 a.m.	12:35 p.m.	1:35 p.m.	2:35 p.m.
D	Thriftee Super Mkt	2 min .5 mile	8:37 a.m.	9:37 a.m.	10:37 a.m.	11:37 a.m.	12:37 p.m.	1:37 p.m.	2:37 p.m.
E	St. Vincent DePaul Services & Food Bank	5 min .66 mile	8:42 a.m.	9:42 a.m.	10:42 a.m.	11:42 a.m.	12:42 p.m.	1:42 p.m.	2:42 p.m.
F	AZMVD – Main Street Shopping	4 min .3 mile	8:46 a.m.	9:46 a.m.	10:46 a.m.	11:46 a.m.	12:46 p.m.	1:46 p.m.	2:46 p.m.
G	Main & 8th Streets	2 min .3 mile	8:48 a.m.	9:48 a.m.	10:48 a.m.	11:48 a.m.	12:48 p.m.	1:48 p.m.	2:48 p.m.
H	County Health, Employment, and Pool	5 min .25 mile	8:53 a.m.	9:53 a.m.	10:53 a.m.	11:53 a.m.	12:53 p.m.	1:53 p.m.	2:53 p.m.
I	Arizona DES	5 min .8 mile	8:58 a.m.	9:58 a.m.	10:58 a.m.	11:58 a.m.	12:58 p.m.	1:58 p.m.	2:58 p.m.
J	Bashas' Grocery	9 min 2 miles	9:07 a.m.	10:07 a.m.	11:07 a.m.	12:07 p.m.	1:07 p.m.	2:07 p.m.	3:07 p.m.
K	Safeway Grocery	3 min .4 mile	9:10 a.m.	10:10 a.m.	11:10 a.m.	12:10 p.m.	1:10 p.m.	2:10 p.m.	3:10 p.m.
L	Walmart	2 min .42 mile	9:12 a.m.	10:12 a.m.	11:12 a.m.	12:12 p.m.	1:12 p.m.	2:12 p.m.	3:12 p.m.

**** Connects with existing San Carlos Safford Route***

7. RECOMMENDED OPERATIONS PLAN

7.1 RECOMMENDED OPERATIONS PLAN

Because ADOT has a two-year funding cycle, San Carlos Nnee Bich'o Nii will use the first year of the funding cycle to develop the fixed-route loop expansion including marketing and guide materials, matching fund requirements, partnerships for in-kind and cash support, and finalizing new graphics and logo materials. **Operations will begin in year two of the two-year award cycle.**

7.1.1 OPERATIONS OVERVIEW

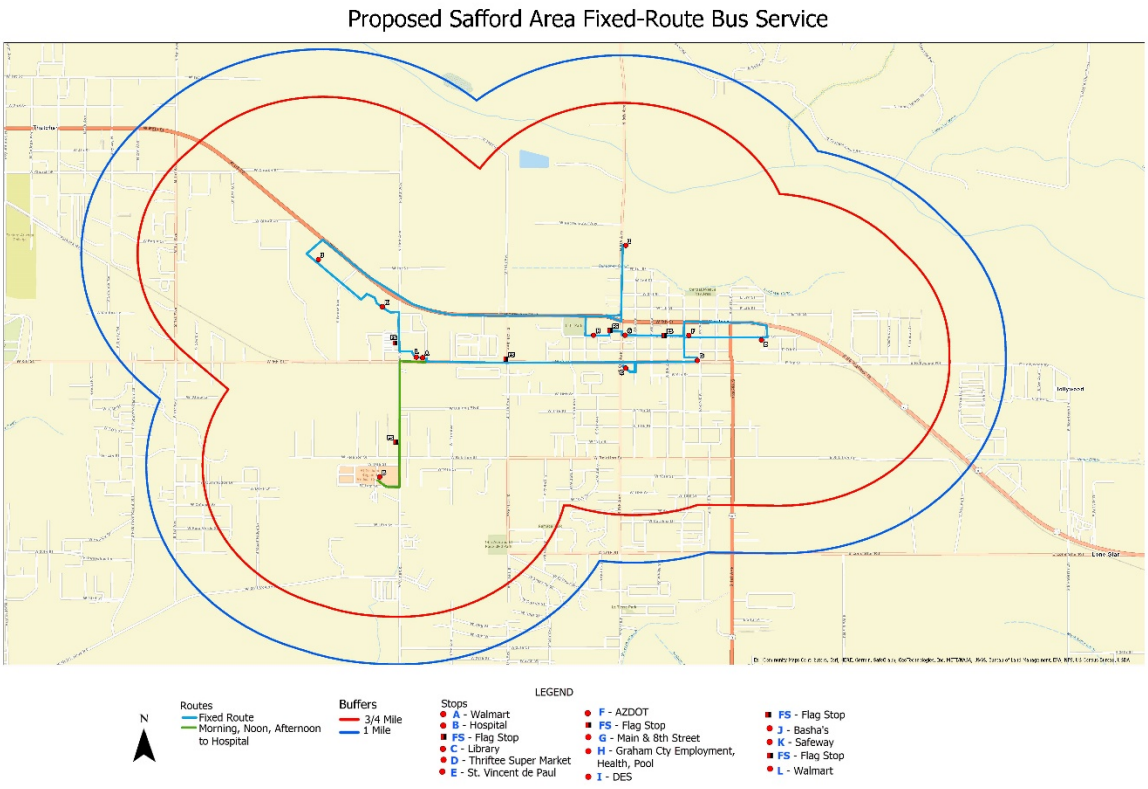
Dial-a-ride Service to and from Safford – connecting with the Safford fixed-route loop.

The Dial-a-ride feeder services provided by ESBF will serve as the route deviation and paratransit provider for the fixed route system providing rides from its established service area, as well as rides connecting to the fixed-route loop system from within the 1-mile deviation zone indicated in Figure 7. Service hours for the system will mirror the existing service and be available to the general public on a space available basis as allowed by FTA. Service hours are Monday through Friday from 8:00 a.m. until 4:00 p.m. Pre-scheduled, door-to-door service provided by ESBF within their service area will begin with first pick-up no earlier than 8:00 a.m. and last pick-up no later than 3:30 p.m., leaving time for drivers to conduct pre-and post-inspection of vehicles. This schedule is for feeder rides to and from the Safford fixed-route loop expansion which operates route service beginning at 8:20 a.m. with the last stop at 3:12 p.m. This will allow riders time to reach the fixed route for its first fixed-route loop and time to receive a return ride from ESBF before they cease operations for the day.

Rides must be scheduled 24 hours in advance through schedular/dispatcher. A voice recording device to take after-hours and weekend calls will be utilized to allow callers access to ride requests when the transit service is not open. The service may also wish to utilize an online ride-request option and may allow rides to be scheduled within 24 hours should the schedule allow and, on a case-by-case basis.

San Carlos Nnee Bich'o Nii will expand its current Globe Safford fixed route services to include a 5311 funded fixed-route loop in the City of Safford. This fixed-route focuses on desired destinations in a loop with a one-hour headway that reaches government and social services, shopping, and medical service destinations. The fixed-route loop system will receive riders from the ESBF dial-a-ride system which provides services to surrounding neighborhoods, and communities in Graham and Greenlee Counties. The service will operate from 7:00 a.m. until 5:00 p.m. with revenue route service beginning at 8:20 A.M. and finishing at 3:12 P.M. The operations hours allow for ample time to conduct pre- and post-inspections as well as the 1 hour and 15-minute dead-head time to bring the bus from San Carlos to Safford and the end-of-day return. This fixed-route loop schedule is designed to coincide with the arrival of the San Carlos Nnee Bich'o Nii Globe/Safford route (8:20 a.m., 12:20 p.m. and 1:20 p.m.) and also with the availability of the ESBF Dial-a-Ride service. San Carlos Nnee Bich'o Nii may consider identifying a bus storage space in Safford and delivering the driver to and from San Carlos on its Globe-Safford route.

Figure 6 Fixed route with deviation service area



7.1.2 YEAR 1 DEVELOPMENT AND OPERATIONS STRATEGIES

Preliminary efforts

San Carlos Nnee Bich'o Nii, as a well-established transit provider, existing program MOU templates and other agreements that can be utilized in furthering the collaboration with ESBF and outlining respective roles and responsibilities as well as their commitment in providing the service. SEAGO is available to assist in support of the expanded services on an as needed basis.

San Carlos Nnee Bich'o Nii applies for an expansion of service with ADOT 5311 and/or FTA's Tribal Transit program in the 2024 two-year cycle as well as obtaining approval for the expansion from the Tribal Council.

ESBF obtains Board approval for the expansion of service and MOU and seeks additional AAA funding from SEAGO.

Startup efforts

San Carlos Nnee Bich'o Nii works with City of Safford, Graham County, and City of Thatcher to determine availability of in-kind and cash contributions for the fixed-route loop.

San Carlos Nnee Bich'o Nii works with Eastern Arizona College and Freeport MacMoRan to determine levels of financial support for the fixed-route loop.

San Carlos Nnee Bich'o Nii, ESBF, and the Graham/Greenlee Coordination Council work together to draft ideas for fixed route logo, name, and other branding elements of the expanded route.

San Carlos Nnee Bich'o Nii advertises for non-CDL driver(s) to operate existing 14 passenger vehicle. Selected drivers receive training. San Carlos transit employees receive training on the new expansion and how it links to existing services.

ESBF determines the need for additional drivers, and trains both drivers and dispatchers on the fixed route, how riders will be connected to the fixed route, and any new policies on limiting DAR ride destinations that are on the fixed route. ESBF will begin training riders on any policy changes associated with the fixed route.

Both San Carlos Nnee Bich'o Nii and ESBF along with the Graham Greenlee Coordination Council, will participate in a public education campaign in the Safford service area.

Both San Carlos Nnee Bich'o Nii and ESBF will update rider guides, schedules, and ride request procedures and policies available to the public and announce service launch.

Graham/Greenlee Coordination Council and both organizations engage in marketing programs for the expanded fixed-route loop and service area and conduct rider training/awareness events.

Operations

Fixed-route loop operates in Safford for three months to assess scheduling and service hours and surveys ridership. San Carlos Nnee Bich'o Nii adjusts service as necessary while also informing the public of any changes, adding a Thursday service to the schedule should ridership support the expansion if needed and feasible.

The fixed route and feeder services are assessed in month eleven to determine viability for continuing the system. San Carlos Nnee Bich'o Nii develops an evaluation report to the Tribal Council with recommendations regarding continuation of the program. ESBF develops an evaluation report to its Board of Directors regarding continuation of the program. If both parties agree, the MOU is revised as needed and the agreement extended.

7.1.3 STRATEGY JUSTIFICATIONS

Because Graham County stakeholders have been attempting to create/expand services in the area for over a decade; and because no single entity, including government organizations, has been willing to organize and manage a new service in the area; the agreement to expand existing services to provide a more robust and accessible transit program for the area through the efforts of two existing

transportation programs is the only foreseeable solution and also the most practical and cost efficient means to meet stated goals.

ADOT's 5311 program is significantly over subscribed in terms of dollars available to existing 5311 programs. Applying for a "new" service, even when justified and needed may not sustainably garner the needed funds from ADOT for an expansion. For this reason, San Carlos Nnee Bich'o Nii should consider applying directly to FTA's Tribal Transit program to fund an expansion of their existing service to include a fixed-route loop in the Safford metropolitan area. This will allow San Carlos Nnee Bich'o Nii to utilize existing vehicle resources and to attract funding that will not be "match" burdened.

ESBF will work with SEAGO to increase AAA funding in support of expanded Dial-a-ride services that includes, not only the 1-mile paratransit buffer for the fixed route, but also provide feeder service to the fixed-route loop which could significantly reduce the number of individual rides for riders seeking to reach multiple destinations on the fixed route while still providing transportation to and from homes and destinations outside the fixed route service area.

7.2 RECOMMENDED SERVICE CHARACTERISTICS

Service characteristics describe the type of service to be provided, the number of vehicles needed to provide the service (including spares/backup vehicles), the number of miles expected to be driven, the number of hours in each day's service and the expected number of riders. **See Table 4. The estimates are based on month four of the initial service year – moving from a three-day to a four-day service model.**

Table 4 Service Characteristics

Graham County Transit Services	Vehicles	Revenue Miles/Yr.	Revenue Hours/Yr.	Rides/Yr.
ESBF Dial-a-ride pre-scheduled door-to-door service using existing vehicle resources and backups. **Monday through Thursday** **Service hours 8:00 a.m. to 4:00 p.m.** **Revenue hours 8:00 a.m. to 4:00 p.m.**	One 8 passenger van with ramp	75 miles per day 15,600 revenue miles per year	8 hours per day 1,664 per year	21 passenger trips daily 4,368 trips annually
San Carlos Nnee Bich'o Nii Safford Fixed Route destination loop using existing vehicle resources and backups. **Monday through Thursday** **Service hours 7:00 a.m. to 5:00 p.m. (includes travel time to and from Safford from San Carlos)** **Revenue service hours 8:20 a.m. to 3:12 p.m.**	One 14 passenger cutaway with lift	60 miles per day 12,480 revenue miles per year	7 hours per day 1,456 per year	56 passenger trips daily 11,648 passenger trips annually

7.3 RECOMMENDED FARE STRUCTURE

Table 5 Fare Structure

Recommended Fares All fares are one-way	Within Safford Fixed Route loop service area	Dial-a-Ride from within 1 mile of fixed route service area	Dial-a-Ride from outside Fixed Route paratransit area
Cash Fares			
Children 4 and under	Free	Free	Free
Youth to age 17	.50	1.00	1.50
Adult	1.00	1.50	2.50
Senior/Disabled	.50	1.00 or Free with AAA pass	1.50 or free with AAA pass

Annual fare revenue for non-AAA pass users is estimated to be $6,000 per year for fixed-route loop riders.

7.4 RECOMMENDED GOVERNANCE STRUCTURE

San Carlos Nnee Bich'o Nii will maintain ownership and governance of the fixed-route loop system. As the governing body, the Tribal Council is responsible for approving all policy, financial, and planning activities.

San Carlos Nnee Bich'o Nii will be responsible for the management of the fixed-route loop. Hiring of personnel and engagement of contractors will utilize established San Carlos Apache Tribe hiring and contracting policies and procedures.

The Transit Director will direct all fixed-route transit activities including all planning, policy development, performance, financial management, staff management, procurement, reporting, and day-to-day operations of the transit fixed route. The Transit Director will work with the Tribal Council to determine the best use of the Council's existing staff in assisting the Transit system and allocating approved and eligible expenses to the Transit system. The Transit Director also will maintain its existing Transit Advisory Committee made up of stakeholders, including riders, who will assure that the transit system is responsive to the needs of the public and remain a member of the Graham/Greenlee Transportation Coordination Council. The Transit Director will work directly with ESBF to coordinate feeder ride and connection matters for the system.

The ESBF (ESBF) will maintain ownership and governance of the ESBF Community Transportation program dial-a-ride system. As the governing body, the Executive Director and Board of Directors of the organization are responsible for approving all policy, financial, and planning activities.

ESBF will be responsible for the management of the dial-a-ride feeder rides as part of their Community Transportation Program which will serve as a paratransit service with rides for the General Public as room allows. The hiring of personnel and engagement of contractors will utilize established ESBF hiring and contracting policies and procedures.

The ESBF Transit Manager will direct all transit activities for the Community Transportation Program activities including all planning, policy development, performance, financial management staff management, procurement, reporting and day-to-day operations of the Dial-a-Ride system. The Transit Manager will work with the ESBC Executive Director to determine the best use of the organization's existing staff in assisting the Transit system and allocating approved and eligible expenses to the Transit system. The Transit Director will remain a member of the Graham/Greenlee Transportation Coordination Council. The ESBF Transit manager will work directly with the San Carlos Nnee Bich'o Nii Transit Director to coordinate feeder ride and connection matters for the system.

7.5 RECOMMENDED STAFFING

7.5.1 START UP OPERATIONS – YEAR 1 OCTOBER 2024 -SEPTEMBER 2025

This plan utilizes two existing, autonomous transit services organizations. Both will use existing staffing to complete the start-up activities in the development and implementation of this plan. Once operations begin San Carlos Nnee Bich'o Nii will add drivers as appropriate to the expansion.

7.5.2 OPERATIONS – YEAR 2 BEGINNING OCTOBER 202 T5HROUGH SEPTEMBER 2026

This plan utilizes two existing transit services organizations, both will use existing operations staffing for the operations of the expanded system. San Carlos Nnee Bich'o Nii may need to hire one to one and a half FTE driver(s) to meet the needs of the fixed route expansion. San Carlos Nnee Bich'o Nii has two appropriately sized vehicles in their inventory that will be utilized for this system.

7.6 RECOMMENDED FUNDING

7.6.1 FEDERAL FUNDING

As this plan utilizes two existing transportation organizations, funding of these program expansions will remain within the purview of each organization.

San Carlos Nnee Bich'o Nii utilizes ADOT 5311 Transit funds for its Globe/Safford route and will apply to ADOT for additional funds to support the Safford fixed route loop as part of its expansion. It is recommended that they also apply directly to FTA Tribal Transit for service programming as funds from this set aside do not require matching funds. Applying to FTA should be considered for the second year of service or sooner if ADOT does not adequately fund the expansion.

ESBF utilizes AZDOT 5310 funds for its Community Transportation program and will apply to AZDOT for additional funds to support the Safford fixed route feeder program as part of its expansion. Additionally, ESBF can, with ridership increases, request additional AAA funds in support of the paratransit service that will provide feeder rides to the fixed route loop.

Both systems may look to Freeport McMoRan's discretionary and Foundation programs as they support non-profit organizations in the Safford region through their community giving programs. Discretionary funds may be applied for through the Morenci and Globe/Miami operations managers' offices at any time. Foundation funds are made available through an application process noted on their website Freeport-McMoRan Foundation Investments | Freeport-McMoRan Copper & Gold (freeportinmycommunity.com)

Other funding sources that can provide additional resources include:

Coordinated Technology Implementation Program (CTIP)
FTA Bus and Bus Facilities
Planning Assistance for Rural Areas (PARA) Program
Rural Transit Assistance Program (RTAP)
(ADOT)Section 5309 Bus and Bus Facilities,
Ladders of Opportunity Program
TIGER Discretionary Grant Program
And other federal departments including HUD, VA, and Labor

7.6.2 LOCAL AND OTHER FUNDING SOURCE POTENTIAL

In addition to fare revenues, San Carlos Nnee Bich'o Nii and ESBF may wish to seek additional funding resources at the local level and through partnerships. Potential sources may include:

- Mt. Graham Regional Medical Center, The Safford VA Clinic, Copper Mountain Clinic, Gila Valley Clinic, Canyonlands Healthcare, Family Medical Center, and Optima Medical; all located in Safford, may want to assure patient follow up visits and reduced recidivism for discharged patients.
- Eastern Arizona College which may purchase student passes.
- Employers that may wish to purchase vouchers, rider passes, and transportation incentives for employees.
- Human and social service organizations that may wish to purchase rides for clients or vouchers, passes, and incentives for employees.
- Advertising revenue is received from sold advertisements on buses and at bus stops.
- County, DES, and Workforce offices which may wish to provide funding in support of rides for clients seeking jobs.
- Local hotels and vacation rentals.
- Graham, Greenlee, and Gila County Supervisors' discretionary funds in support of riders originating from unincorporated areas and in support of the overall system in Safford.
- The City of Safford, Town of Thatcher, Town of Pima, Town of Duncan, and Town of Clifton council members in support of riders in their area.

8. FINANCIAL PLAN

The Financial Plan includes a potential budget for San Carlos Nnee Bich'o Nii for Years 1 and 2 of the Service/Operations Plan as described in Chapter 7. The budget is established based on FTA 5311(c) and Arizona DOT 5311 program budget requirements and eligible expenses for these programs.

Wage and compensation rates are based on comparative transit programs as defined in *TCRP Report 127, Employee Compensation Guidelines for Transit Providers in Rural and Small Urban Areas*

San Carlos Nnee Bich'o Nii can apply directly to ADOT and/or FTA in 2023 with funding available in October 2024. AZDOT is on a two-year cycle for 5311 with applications being due in late 2023 or early 2024.

ESBF is currently receiving AZDOT 5310 funds which are also on a two-year cycle with applications being accepted in late 2024 or early 2025. In the interim, additional funding from AAA can be requested from SEAGO on an as needed basis when expansion is tied to an approved planning document.

Budget estimates have been modestly inflated from current year budgets to anticipate cost increases, particularly for fuel and oil in 2025.

8.1 ADMINISTRATIVE, OPERATIONS, AND CAPITAL BUDGET

Figure 7 2-Year Budget Projection

ORGANIZATION NAME	San Carlos Nnee Bich'o Nii			
DATE PREPARED	10/1/2024		For Fiscal Year 2024-25 and 25-26	
	Year 1 Total Budget		Year 2 Total Budget	Total Combined Year 1+2 Budgets
ADMINISTRATION				
Administrative Supplies	240.00	fixed	240.00	480.00
Administrative Equipment	1,600.00	fixed	-	1,600.00
Financial Staff	4,800.00	fixed	4,800.00	9,600.00
Fringe Benefits (Admin)	3,024.00	fixed	3,460.80	6,484.80
General Liability Insurance	-	fixed	5,000.00	5,000.00
HR / Employee Recruitment	1,200.00	fixed	1,600.00	2,800.00
Management Support	1,800.00	fixed	1,800.00	3,600.00
Marketing / Advertising (includes bus wrap	20,200.00	fixed	5,000.00	25,200.00
Phones / Internet	2,880.00	fixed	2,880.00	5,760.00
Postage	1,540.00	fixed	240.00	1,780.00
Program Audit (25% of total cost)	500.00	fixed	500.00	1,000.00
Rental Equipment (25% of total cost, copie	540.00	fixed	540.00	1,080.00
Transit Manager / Coordinator (25% of tot	6,000	fixed	7,560	13,560
Travel - non training	4,030	fixed	4,030	8,060
Utilities (25% of total costs)	1,020	fixed	1,020	2,040
Total Administration Costs	**49,374**		**38,671**	**88,045**
OPERATING				
Dispatcher(s) (25% of total costs	8,925	hours	9,371	18,296
Driver Training and Certifications	1,600	hours	1,000	2,600
Driver Salaries	6,587	hours	41,600	48,187
Fringe Benefits	1,897	hours	14,634	16,530
Fuel	900	miles	12,125	13,025
Operating Supplies	100	hours	1,200	1,300
Operations Management	1,000	hours	7,560	8,560
Radio Services / Equipment	400	fixed	2,400	2,800
Printing	2,720.00	fixed	360.00	3,080.00
Software Maintenance	400	fixed	2,400	2,800
Repairs	3,600	miles	2,800	6,400
Uniforms	800	fixed	800	1,600
Preventive Maintenance (tires & oil)	2,800	miles	5,800	8,600
Insurance Fleet	666	miles	3,996	4,662
Substance Abuse Program	160.00	fixed	960.00	1,120.00
Total Operating Costs	**32,554**		**107,006**	**139,560**
Deductions including Fares Earned	6,000		6,000	13,000
Net Operating Costs	**26,554**		**101,006**	**126,560**
Admin to Operating ratio	1.52		0.36	
CAPITAL				
	-		-	-
Total Capital Costs	**-**		**-**	**-**
PLANNING				
	-		-	-
	-		-	-
Total Planning Costs	**-**		**-**	**-**
TOTAL REQUEST	**75,928.33**		**139,676.81**	**214,605.14**

8.2 IN-KIND AND MATCHING FUNDS BUDGET

San Carlos Nnee Bich'o Nii utilizes ADOT funding under the 5311 Rural Transit section. With expansion of their current Globe/Safford route to include a fixed-route loop in Safford, standard matching fund requirements will apply.

Should San Carlos Nnee Bich'o Nii choose to utilize FTA Tribal Transit 5311 funds, match sources will not be required for capital, administrative, and operating costs.

ESBF utilizes ADOT 5310 funding which requires a 50% match for operating funds. Typically, ESBF uses AAA funding as match and would continue to do so. If ridership and expenses increase with the development of feeder rides for the fixed route loop, ESBF can apply for additional funds through AAA.

Both entities may access additional matching funds from potential stakeholders in the form of bus pass sales, grants, and advertising. The following represent potential sources for either entity.

It may also be possible for either entity to receive in-kind support from the City of Safford, City of Thatcher, and/or Graham County in the form of access to fuel stations (lower and more stable cost per gallon), maintenance/repair yards, bus storage and security, bus stop signage, ADA Accessibility at bus stops, and services such as marketing, printing, bus pass sales, etc. The value of this in-kind support can be utilized as a match through an IGA or MOU.

Table 6 Matching funds options

Source	Type	Entity applicant
AAA – SEAGO	Grant – based on rides	ESBF
Graham County	Grant- based on resident ridership	ESBF
Greenlee County	Grant – based on resident ridership	ESBF
City of Safford	Grant – based on resident ridership or in-kind access to fuel, office space, or other needed resource	San Carlos Nnee Bich'o Nii ESBF
City of Thatcher	Grant – based on resident ridership or in-kind access to fuel, maintenance bus storage, or other needed resource	San Carlos Nnee Bich'o Nii ESBF
Eastern AZ College	Grant – based on student bus pass sales	San Carlos Nnee Bich'o Nii ESBF
Freeport McMoRan	Foundation Grant and Discretionary Grant	San Carlos Nnee Bich'o Nii ESBF
DDD – State funds	Contract with State	ESBF
IHS funds	Contract with IHS	San Carlos Nnee Bich'o Nii

9. CAPITAL EQUIPMENT PLAN

Capital equipment generally is made up of three types of capital purchases:

- Vehicles and their accessories;
- Equipment and furnishings; and
- Facilities

Both San Carlos Nnee Bich'o Nii and ESBF have inventories of vehicles which are appropriate for use in the planned expansions of their programs. With significant delays in new vehicle delivery, both entities may wish to apply for replacement or new vehicles in support of this system at their first opportunity through the 5339 Bus and Bus Facilities program through FTA.

9.1 VEHICLES

Because the fixed-route loop is anticipated to run on a one-hour headway, it is expected that one vehicle running the loop will be sufficient as this is a common headway in rural communities. It is recommended that in the first year of operations, and while ridership is being developed, the largest vehicle required would be a 14-passenger cut-away with either a lift or a ramp for ADA qualified riders. Because larger vehicles require a CDL driver, and CDL driver retention is very difficult (FMI requires a CDL and offers a higher wage), a 14-passenger vehicle will relive the need for a CDL driver and provide sufficient seating, particularly in the first year of operations.

With any vehicle purchase, the following are recommended:

- Fare-boxes that accept bills and coins;
- Upgraded seats – may wish to consider large capacity seats;
- Upgraded air conditioning;
- Tinted side windows (keeps bus cooler); and
- Heavy duty wheelchair lift that can accommodate personal scooters.

Some new vehicles can be purchased with alternative fuel options including Hybrids, Natural Gas (CNG), Propane (LPG), Bi-Fuel, Diesel, and Gasoline. Because of the rural nature of Safford, access to alternative fuels may be difficult and more costly. However, it may be worthwhile to determine if the City of Safford has plans to move to an electric fleet and, if so, an agreement to allow electric fueling of a transit bus may be a determining factor in purchasing any vehicle.

9.2 EQUIPMENT AND FURNISHINGS

There are several different types of equipment used in a transit program. Electronic equipment can include phones, computers/software, printers, copiers, GPS tracking, etc. There also is equipment used in the maintenance and repair of vehicles such as upgrades or installation of heavy vehicle lifts, tire balancers and tire replacement equipment, specialized tools, etc. These equipment and furnishings needs would be in addition to existing equipment and furnishings already being utilized by San Carlos Nnee Bich'o Nii with Wireless Telematics Systems (WTS).

To keep costs at a minimum, it is recommended that both San Carlos Nnee Bich'o Nii and ESBF utilize their existing maintenance and repair policies unless either can acquire a commitment from City of Safford, Town of Thatcher, or Graham County to provide in-kind maintenance and repair services (labor only) in support of the system. In return San Carlos Nnee Bich'o Nii could work with any of these entities to include necessary equipment, tools, lifts, etc. needed to provide the service in their Capital requests from FTA TTP program.

Phone and communications equipment are included in the operating budget for San Carlos Nnee Bich'o Nii as its purchase price does not achieve the ADOT procurement thresholds for capital equipment ($5,000).

Purchases would be contingent on needs.

9.3 FACILITIES

San Carlos Nnee Bic'o Nii may wish to obtain an office in Safford to support its fixed-route loop drivers and bus storage if required.. This would require a small office space, furnishings, and secure vehicle storage space from which the driver would work. The space would require computer equipment, software, and peripherals for purposes of communication and training. This space would also be useful to San Carlos Nnee Bich'o Nii drivers running the Globe/Safford route as well as any periodic administrative functions carried out by the Transit Director when in Safford. ESBF has offices in Safford and may be able to provide such space if available. It may also be prudent to ascertain availability of office space at either of the Cities or the County buildings. This too would be a valuable in-kind contribution from stakeholders.

The City of Safford will be a required partner in developing a plan for bus stops and shelters on the fixed route loop during the start-up phase in year one of funding. The Public Works Director will work with the San Carlos Nnee Bich'o Nii Transit Director to identify ADA accessible locations for stops and create a list of needed shelters, transit stop poles, signage, and ramp requirements. San Carlos Nnee Bich'o Nii will apply for capital funds needed to purchase these items or they can be provided by the City as an in-kind contribution for the fixed-route loop. If funding is provided through the ADOT 5311 application submitted by San Carlos Nnee Bich'o Nii, the City of Safford would be asked to provide matching funds needed and installation and maintenance as an in-kind contribution to support the system which would also serve as any necessary match for capital funding through the 5311 or 5399 funding programs. Additionally, stops on private property (Walmart, Safeway, Bashas, and others) may require written agreements for the installation of stops and/or shelters while signage typically only requires written approval.

10. PERFORMANCE MEASURES

Performance measures and objectives are based on the projected Year 2 ridership, revenue miles, and budgets, Year 2 was used for performance measure purposes because Year 1 includes startup costs that will not be repeated in Year 2 and the first year has three months at 3-days a week of service and 9 months at four-days a week. Using the Administration and Operations budget total, **Table 7** shows that costs are within range of other small, fixed route systems in rural areas of the state. To bring costs down in the second year will require the system to carefully monitor the first-year budget for accuracy of need and adjust accordingly. Increasing ridership will also reduce the cost per ride and may be achieved with a concerted marketing effort.

Table 7 Performance Measures

Annual Performance Measures for Fixed Route Loop Operations			
Total Revenue Miles	Total Revenue Hours	Total Rides	Year 2 Budget
12,480	1,456	12,376	195,731
Cost per mile	Cost per hour	Cost per ride	
$15.68	134.43	15.81	

This data can also be used in determining the value of contracting out services or selling rides to other organizations using true costs as seen in **Figure 8**. San Carlos Nnee Bich'o Nii will report data each year to the National Transit Data Base and can monitor performance measures each year for possible system changes that would increase efficiency.

Figure 8 Unit Costs for Fixed Route Loop

Safford Fixed Route Loop	Program Data Inputs	Variable Cost Inputs	Outputs
	Operating Statistics	Unit Cost	Cost
# Program Hours	1456	51.76	75,364.85
# Program Miles	12376	1.99	24,721.16
	Total Variable Cost	53.75	100,096.01
	Overhead Rate	.46	45,590.80
	Total Cost to Program		145,676.81

Rider estimates are low for the first year of operations and numbers should rise as the fixed-route loop continues to operate and residents become confident in using the transit system.

There are any number of performance measures that can be utilized in a rural system. TCRP Report 88 – *A Guidebook for Developing a Transit Performance Measurement System* outlines a number of these measures and offers case studies of how changes were made based on performance assessment. Below is an example table for tracking performance measures from year to year. **See Table 8.**

There are five major sources of information for which compliance is required with FTA funded transit systems.

Table 8 Performance Measures form

Other performance measures	2024-25	2025-26	2026-27	2027-28
On-Time Rate				
No Show rider Rate				
Complaint Rate				
Number of Marketing/Guide and ticket outlets				
Customer Satisfaction				
Accident Rate				
Workdays lost				
Employers and Partners who participate in marketing and ridership building efforts				

11. COMPLIANCE GUIDES

2 CFR 200 Super-circular replacing A-87 and A-122

This is the umbrella super-circular that replaced the A87 Circular which provided guidance to local governments.

FTA Circular 9040.1G

This circular provides guidance for the 5311 Rural Transit program including the Tribal Transit Program

ADOT 5311 Guide

This document provides guidance and application instruction for the 5311 Rural Transit program

ADOT 5310 Guide

This document provides guidance and application instruction for the 5310 Rural Transit program

FTA Master Agreement for Transit

The FTA Master Agreement associated with the 5311 Rural Transit programs (the most common funding sources for public transit and recommended in this plan) is updated each year.

FTA Circular 5010.1 D = Guidance for Grant Management

This circular provides guidance for grant management.

12. MARKETING PLAN

12.1 OBJECTIVES

Key objectives for the transit system marketing plan are:

- Build a strong identity for a sustainable public transit system that serves the needs of San Carlos Apache Tribal Members, Graham County and the City of Safford communities along with the communities of Thatcher, Pima, Duncan, & Clifton and the General Public at large.
- Develop easily understood transit system information that is available in several formats; that is accessible to those with disabilities, and those who do not speak English; and explains how one can use the system or seek additional information.
- Develop the region's transit leadership by providing recommendations regarding transit-system marketing for the purposes of enhancing the value of the service to the community.

12.2 TARGET AUDIENCES

Target audiences for the marketing materials are:

- Current and prospective transit riders.
- General Public – particularly elderly, disabled, low-income, and those with few or no transportation options.
- Persons coming from outlying communities via the San Carlos Nnee Bich'o Nii Globe/Safford Route and the Community Transportation Program of ESBF.
- Partners - Employers, retailers, health and human services organizations, transit service area communities, and other transportation providers.

12.3 TARGET MARKETING AGENTS

In addition to targeting potential riders, Agents, with direct access to potential riders, may assist in marketing efforts. Examples of transit agents are listed below:

Employers

San Carlos Apache Tribal Council
Cities of Safford, Thatcher, Pima, Duncan, Clifton
Health Care organizations & Regional Medical Center
County and State Government offices
Retail Stores (Safeway, Bashas, Family and General Dollar Stores, Hardware, Main Street retailers, Walmart, etc.)

Education

Eastern Arizona College
Area School Districts
Charter Schools
Head Start

Housing

Public Housing offices
Utility companies
Subdivision or Apartment Complex offices

Human Services

Department of Economic Security
Workforce offices
Food Banks
Regional Hospital, clinics, and medical facilities

Government

Federal and state offices (USDA, Bureau of Land Management, Fish & Game Department, ADOT)
Local City and County offices
State and Federal Congressional offices

Recreational & Cultural

Sports Leagues
RV and Campground Facilities
Festival and event organizers

12.4 STRATEGIES

TCRP Report 122, Understanding How to Motivate Communities to Support and Ride Public Transportation (2008) **TCRP Link** identifies a number of ways in which riders may be persuaded to use public transit. While the report focuses a great deal on urban travel, much of the information is transferable to rural systems.

Early marketing for the nature of the system (a collaboration between the San Carlos Nnee Bich'o Nii and ESBF Community Transportation programs) is critical to the sustainability of the program as new riders will need to be attracted to the system. Understanding what may motivate a person to choose public transit will be key in marketing efforts. Issues like cost savings, lack of transportation options, and ease in arranging a ride are three of the more significant reasons potential riders might choose to use transit services. Marketing strategies need to be rider-focused using diverse media outlets including social networking.

Because the targeted audience is primarily people conducting personal business (shopping, health services and other appointments), using agents to help market the service may attract riders. Additionally, agents representing employers and visitor destinations may use the transit system to attract workers and visitors.

There are several rider types that belong to unique subsets, each having specific transportation needs or requirements. These include existing riders of either the San Carlos Nnee Bich'o Nii or ESBF programs, residents of outlying communities not currently using either transit program, persons seeking medical services and other appointment related destinations.

An overall marketing plan should be revised with implementation scheduled well in advance of the system's start date. Advance work on implementing the marketing plan can and should begin as soon as soon as it is determined that San Carlos Nnee Bich'o Nii will receive FTA TT or ADOT funding to implement the expansion of the Globe/Safford expansion fixed-route loop. Strategies will vary for target audiences and communities within the service area.

12.4.1 STRATEGIES FOR TRANSIT RIDERS

The target audience for this community, the hub of the transit system, includes the general public, particularly persons who are elderly, students, disabled, and low-income. These will be persons seeking transportation to and from the Safford area, originating in San Carlos and other tribal communities.

The existing Globe/Safford route provided by the San Carlos Nnee Bich'o Nii program, runs its route along State Highway 70 (roughly east/west) to destinations at and between Globe and Safford, a distance of 77 miles. Existing ridership is approximately 39,939 per year. Of these, 25% have Safford as their destination.

The ESBF provides over 20,000 rides per year serving Graham and Greenlee Counties. As a partner organization providing feeder rides, ESBF will provide its riders with information on the Safford Fixed Route Loop and direct its riders to utilize the loop for destinations within the service area, thus freeing up its Dial-a-Ride services to reach further into the neighboring communities to provide rides into the Safford area. ESBF will coordinate with San Carlos Nnee Bich'o Nii to provide rider guides and maps for its riders ahead of the fixed-route loop opening.

60 days Prior to the start date for the fixed route loop, riders of the San Carlos Nnee Bich'o Nii Globe/Safford route and riders of the ESBF Public Transportation Program can receive printed information (Western Apache, English, and Spanish languages) on the fixed-route loop, its schedule, and route map; as well as information on the expected start date, fares, and sources for more information.

30 days prior to the start date for the fixed route loop these same riders should receive printed information that includes a route map and schedule, rider guide, and connection locations.

The San Carlos Apache Tribe produces a monthly newsletter and ESBF also produces electronic newsletters for subscribers. A front-page article promoting the expansion of a fixed-route loop in Safford can alert all readers to the extended service prior to and after the service has started.

Graham County Public Health operates several services whose participants would benefit from a fixed route public transit service. Each of these departments should receive printed materials to share with their clients. Departments include Children & Youth with Special Health Care Needs, Emergency Preparedness, Food and Sanitation, Mental Health, Public Fiduciary, Public Health, Women, Infants, & Children, Youth Health Programs, and Senior Services.

The Department of Economic Services (DES) has a number of clients who could benefit from public transit. Their offices are on the fixed route and should be supplied with rider guides and maps for their waiting areas.

Working with retailers (grocery, essential needs, pharmacy, and others) to identify transit needs for both workers and customers will guide marketing efforts with these agents. Employers may post notices in breakrooms and utilize other forms of communications providing information including service guides, maps, and ride scheduling instructions in Western Apache, English, and Spanish. Employers also may provide bus passes or discount coupons for future rides. Retailers may provide notices to customers in partnership with the transit service using pre-printed bags. Information on receipts, and coupons or discount passes.

Safford hosts two major festivals each year as part of their cultural schedule along with other events that attract residents and visitors. The Spring Festival and the SalsaFest bring significant numbers of visitors to the area. The transit service can work with the organizers of these events to coordinate transit services for volunteers, workers, and participants; keeping the transit system brand in the public eye and encouraging regional residents to become familiar with the service. The transit system, when possible, shall provide access to information for event participants through information tables, flyer boxes, banners, and other media.

Working with health and other appointment-dependent organizations, the transit service can encourage use of the system by training appointment schedulers and key customer-service personnel to recommend the transit service and assist potential riders in scheduling rides for follow up appointments.

Community organizations, including the Senior Center can offer rider training opportunities that introduce potential riders to drivers, dispatchers, vehicles, and scheduling strategies. These training courses can provide written flyers, rider guides, phone numbers, and promotional materials along with discounts and coupons to encourage future ridership.

Print and social media along with radio spots are mainstays of a successful marketing effort. The Eastern Arizona Courier, The Gila Valley Tribune, and the Gila Herald are daily news outlets serving the region. There are a number of group/public/community sites on Facebook and Instagram where transit information can be shared. These outlets have followers that range from 50 to over 1,000. If marketing

agents (as described above) were tasked with sharing information on their websites and social media, the combined impact could reach several thousand residents of the region. There are 5 local radio stations whose signal reaches Safford and other long-broadcast AM and FM stations that are located outside the region but whose signal can be picked up within the region. Many offer paid advertising.

All marketing materials for each strategy, both print and electronic, should be provided in Western Apache, English, and Spanish with electronic versions created for computer-based accessibility and applications designed to aid persons with disabilities, e.g., text-to-voice.

12.5 RIDER GUIDE

Once a transit name and brand have been established, a Rider Guide must be developed specific to the proposed route and feeder ride services. The Rider Guide, which includes service areas, ride reservation instructions, and schedules, is developed in conjunction with transit policy information guides. Historically, ADOT has provided marketing assistance through an on-call consultant that specializes in transit marketing and print material. This expense can be included in both an ADOT 5311 and FTA 5311(c) application.

The Rider Guide typically contains a color map showing the service area, information on how dial-a-ride services operate, schedules, policies, and rider responsibilities. The guide also explains how to arrange a ride, cancellation policies, and civil rights assurances and complaint procedures. The guide also can include information on other transit or transportation services in the area. Additional information that should appear on a Rider Guide includes:

- Website address
- Where to purchase passes and tickets
- Phone numbers
- How to ride information
- Fares
- How to schedule a ride
- Service days and holidays with no service

The Rider Guide should be available in Western Apache, English, and Spanish as appropriate, and for those who are blind. The latter can be accommodated with information by phone, or the system can keep one or two Braille guides available for those requesting service.

Rider Guides should be posted on websites and social media. It may be useful to develop a smart-phone application that also provides scheduling and stop locations.

12.6 RIDER TRAINING

San Carlos Nnee Bich'o Nii and ESBF may wish to conduct various rider training sessions with employers, the Senior Center, Mt. Graham Regional Medical Center, and others. Any opportunity to introduce potential riders to the system and, thereby, reduce fear and uncertainty will be well received and

increase ridership for the program. Simply parking a van at the Safeway and Bashes parking lots, posting signs welcoming people to explore the bus, and distributing rider guides and passes can create interest in the service.

Rider Training can include information on the service area, how to arrange a ride, rider's rights and responsibilities, using the lift, safety, and fare information.

12.7 HOSPITAL AND CLINIC PERSONNEL TRAINING

As a collaborative dial-a-ride (ESBF) and fixed-route loop (San Carlos Nnee Bich'o Nii) system, many riders may seek rides to health care destinations. A strong partnership with healthcare providers will assure that patients can be transported in a timely manner and help assure patients return for follow-up visits. Limited-service schedules to the Medical Center with Flag stops available to other nearby health care offices will necessitate a clear understanding among health-care workers to limit appointments to times when transit services are available to the patient, when transportation is a critical concern for patients. To best serve riders using the hospital and other medical facilities, it will be useful to hold training sessions at Mt. Graham Medical Center, Gila Valley Clinic, and Copper Mountain Clinic to acquaint social workers and discharge agents with information, schedules, and destinations that can be accommodated.

12.8 PARTNERS – REGIONAL MOBILITY MANAGEMENT

The Mobility Management Coordination group, hosted by SEAGO, is another important partner available in marketing and delivering transit services. Beyond the coordination opportunities, Coordination Group members can share the transit system information on their own websites, social media, and marketing efforts. In addition, they can provide rider guides to their riders who may wish to connect to or utilize the fixed-route loop and ESBF dial-a-ride systems.

12.9 ADVERTISING

Advertising the expanded services is essential to the success of the program particularly to residents of San Carlos, Bylas, Thatcher, Pima, Clifton, Duncan, and Safford. Press releases are a common and inexpensive way to have information in print format and Public Service Announcements are generally free (though not always a good time slot) through radio stations. Paid advertisements in local and regional newspapers can develop good will and may result in free public interest stories. Paid advertising also may be considered on local radio stations. These can be especially useful when promoting an incentive program or giveaways. Paid advertisements in county fair programs, sports programs, and other event media opportunities can reach target markets and support regional community good will.

While billboard advertising is expensive, there may be partners or employers who will run transit promotions on their digital marquis. Billboards between Safford and Globe are very limited due to scenic highway restrictions, however; use of signage on Federal Hwy 191 and Business 70 as one leaves Safford to the east and west may serve as reminders to elderly and disabled riders that transportation to multiple destinations is available and accessible.

Press releases can be sent to all print and electronic media including newspapers, magazines, weeklies, and employer newsletters can be used to promote the transit service and are excellent supplements to paid advertising. Inviting the media to transit events like rider training, employer recognitions, and rides on the bus to interview riders provides much needed human-interest stories for media outlets.

Other methods of advertising may include:

- Stickers that can be placed on shopping bags, utility bill envelopes, and shopping ad flyers.
- Public service announcements to all area radio stations – may want to include pass giveaways.
- Call to artists for logo ideas – using all media outlets to promote the request.
- Bulk mail piece to select census tracts for outlying areas and low-income neighborhoods.
- Billboard sponsored by major employer(s).
- Bus wraps and other exterior graphics that include logo, system name, phone number and website. If the system will be selling advertising on bus exteriors, consideration should be given to the use of wraps.

12.10 SOCIAL MEDIA

It is recommended that the San Carlos Nnee Bich'o Nii and ESBF establish and maintain a presence on social media outlets like Facebook and Instagram. Posting pictures of buses and riders (with permission) and sharing schedule information are good ways to let people have ready access to transit information.

Establishing a business Facebook page and encouraging riders to "like" or "follow" the site will create an avenue for outreach to a large population and can act as an outlet for announcements, give-away items, and further marketing of the program. Schedules, maps, and fare information can be shared here as well.

The difficulty with this type of advertising is that it must be regularly maintained to be effective. System managers may want to consider having high school or college interns be responsible for social media management.

12.11 WEBSITE – SMART PHONE APPLICATION

While websites are not necessarily effective for promoting a service, they are still especially useful for people seeking specific information and as a platform for keeping information timely. Smart Phone applications can be particularly useful for people checking schedules or making ride arrangements on the go. A website that is readily displayed on a smart phone should be standalone (even though it may be linked) rather than part of any of its partner websites.

Website content must be sure to include visuals of the buses, a service area map, a schedule, and policy information for the transit system. It also should include rider rights and responsibilities as well as methods for persons with disabilities to get more information (TDDY number, phone number for those with visual impairments, etc.)

The website should include information on intercity services with partners and how transfers can be made. Information on fares, passes, and how to obtain them should be prominent on the website. Promotions, rider training opportunities, and other events can be posted there as well. All information also should be in Western Apache, English, and Spanish.

Both San Carlos Nnee Bich'o Nii and ESBF have existing websites for their transit services. These should promote the expanded services with a fresh appeal that can include drawings, contests, etc.

12.12 PROMOTIONS

Promotions can generate interest and help motivate potential riders to use the service. Promotions should be developed with rider criteria in mind and should be well advertised with a beginning and ending date. Promotions generally include a free or discounted ride or can provide special services to groups and organizations. There are a significant number of promotion ideas posted on various websites. A simple Google search for "transit promotion ideas" included the following:

- SummerDime rides – All rider fares are ten cents during a summer month
- Buddy fare – Two people ride for the price of one.
- National recognition promotions i.e., National Library month. All riders with a Library Card ride free on a certain day. This can be adapted to any national recognition day.
- School calendar promotions – free rides for students the first week of school, free rides for students during spring break, etc. Partner with schools to promote the rides.
- Senior's Yard Sale Tour. Have an off-schedule bus do yard sale tour in partnership with Senior Centers. This is a good way to acquaint riders with using the bus.
- Punch card passes. Have riders get a card punched at various stops (grocery, clinic). Once a card is filled, the rider qualifies for a free pass. This encourages riders to schedule rides, become more familiar with the system, and helps promote local businesses. No purchases should be required to receive a card punch at a participating merchant or service office.
- While making a school visit, take pictures of kids in the driver's seat and post them on the bus.
- Design ideas for bus stops and shelters – this could be a promotion where a business supports an artist to design (with criteria) and then build a bus shelter or bus stop sign.
- Rider Surveys that include a prize drawing for people who participate.
- Connecting transportation to the road – Install, in the bus interior, historic photographs of places or buildings that you see along the route with a short note of the place's historic significance.
- Call to artists for a moving gallery – ask artists to submit two-dimensional works of art that can be mounted on the buses interior ceiling or side walls. The "show" can be up for a specific length of time and done once or twice a year.
- "Dump the Pump" or "Gas Pains" campaigns that focus on fuel savings for the rider.
- "It's easier than…" A campaign that points out that riding the bus is easier than a lot of things. Making this cute and unexpected is the key to success, i.e. Riding the bus is easier than making a tight curve at 100 mph in a nifty little sports car – unless you're a Grand Prix driver. These can be part of an overall campaign or just a one-time promotion.

- Ask members of the public to submit ideas for a radio commercial encouraging the use of public transportation, and then invite them to be the star.
- Attend festivals, fairs, and events with a bus and passes to promote the service.

12.13 MARKETING SCHEDULE AND BUDGET

The following schedule, **See Figure 9**, is a guide to implementing a marketing plan. The schedule can be expanded to include activities required for each element. The schedule should be updated with each plan revision. The budget for startup and Year 1 (October 1, 2024, to September 30, 2025) marketing activities is $20,200 and the budget for Year 2 (October 1, 2025, to September 30, 2026) marketing activities is $5,000. These budget figures are reflected in the 2-year budget in **Table 7.**

Figure 9 Marketing Schedule and Budget

Objective/Strategy/Activity	2024 3rd Qtr.	2024 4th Qtr.	2025 1st Qtr.	2025 2nd Qtr.	2025 3rd Qtr.	2025 4th Qtr.	2026 1st Qtr.	2026 2nd Qtr.	2026 3rd Qtr.
Update marketing plan									
Acquire Tribal Council and ESBF Board approvals if needed									
Identity									
Design logo and establish name		$1,000							
Finalize service plan									
Design signage, bus pass and incentive tickets		$1,000							
Information & Education									
Develop Rider Guide and Service Area Map		4,000							
Translate materials into Western Apache and Spanish		$300							
Identify and develop methods to provide information to people who are blind or deaf		$300							
Identify distribution points and provide racks & copies			$550						
Identify and meet with potential partners and agents regarding vouchers and incentives									
Create loyalty awards for riders				$500					
Update website				$500					
Update social media sites			$500						
Arrange and hold public meetings to promote system, show bus					$1,200				
Arrange vehicle wrap installation (2 busses)		$10,000							

Objective/Strategy/Activity	2024 3rd Qtr.	2024 4th Qtr.	2025 1st Qtr.	2025 2nd Qtr.	2025 3rd Qtr.	2025 4th Qtr.	2026 1st Qtr.	2026 2nd Qtr.	2026 3rd Qtr.
Arrange rider training at agent centers				$600					
Implement advertising campaign			$2,000						
Develop and disseminate press packages to print, radio, and television									
Design and initiate incentives (giveaways)						$1,500			
Promote bus pass sales									
Develop and send direct mail inviting people to use the system. Develop addresses by census blocks in service areas						$600			
Develop smart phone app scheduler			$3,000* not budgeted						
Initiate web based direct advertising (Facebook, Google Search, etc.)								$500	
Data Creates Value									
Develop data showing value of transit vs. using a car									
Develop data showing benefit to retailers									
Develop and present information package identifying value of transit to residents and employees									
Survey riders								$150	

13. IMPLEMENTATION ACTIVITIES

The following tables include major implementation tasks in the following areas:

Governance
Finance
Capital
Service
Plans and Policies

The tables indicate activities to be completed either PRIOR to system launch, AFTER launch, or on an ongoing basis. Responsible Parties are listed first by those who initiate the activity, then those who are involved in the activity.

13.1 GOVERNANCE

Figure 10 Implementation Activities – Governance for both partner organizations

Activity	Responsible Party	Time Frame
San Carlos Apache Council and ESBF Board approval of plan and preliminary Budget	Transit Managers	6-12 months prior to system operations launch
Develop Goals, Objectives, & Tasks for Transit Strategic Plan with Council/Board approvals	Transit Managers	
Review assurances and certifications regarding Federal and State funding sources	Transit Managers	

13.2 FINANCE

These implementation activities include those for both organizations expanding their services.

Figure 11 Implementation Activities – Finance

Activity	Responsible Party	Time Frame
Establish Transit expansion accounts in budget	Transit Managers/Finance Directors	Beginning of Fiscal year prior to October 1 of start year
Confirm and finalize initial budget	Transit Managers/Finance Directors	3-5 months prior to funding application date
Review assurances and certifications regarding finance	Transit Managers/Finance Directors	
Compare procurement procedures with Federal and State funding requirements and update as required	Transit Managers/Finance Directors	
Identify and schedule funding applications	Transit Managers/Grant Writers	6 months prior to application deadline
Meet with federal and state funding agency personnel to determine funding potential	Transit Managers/Grant Writers	
Apply for Federal and State funding	Transit Managers/Grant Writers	Published deadlines
Alert Auditor to expansion program	Finance Managers	

Activity	Responsible Party	Time Frame
Alert Insurance to expansion program	Finance Managers	Upon approval to institute transit system

13.3 CAPITAL

Figure 12 Implementation Activities – Capital

Activity	Responsible Party	Time Frame
Determine vehicle needs and develop specifications	Transit Managers/TAC	6 months prior to application date
Determine Equipment & Furnishings needs and develop specifications	Transit Managers	
Determine Facilities needs and develop specifications	Transit Managers/Fleet Managers/Public Services Managers	
TAC review of capital purchase requirements	Transit Managers/TAC	3 months prior to application date
Identify potential “piggy-back” contracts through which any of the above items can be purchased, including vehicle purchases through ADOT	Transit Managers/Finance Managers	
If not “piggybacking” on existing contract, develop bid package	Transit Managers/Finance Managers	1 month after funding award
Council/Board Approval to go out to bid for any required purchases meeting bid threshold	Transit Managers	
Solicit bids, evaluate, select	Transit Managers	1 month after announcing bid opportunity
Negotiate voucher pricing with partners (price that San Carlos Nnee Bich’o Nii and ESBF will charge for transportation services to other organizations	Transit Manager/other transportation providers, employers, human services organizations	3-4 months prior to application data

Activity	Responsible Party	Time Frame
Take Delivery of procured Buses, conduct inspection and formally accept. Enter into vehicle inventory.	Transit Managers	18 months after award
Take delivery of Equipment and Furnishings and enter into equipment inventory	Transit Managers	2 months after award
Take delivery of Facilities materials and enter into facilities inventory	Transit Managers	2 months after award – unless construction
Schedule installation of facilities equipment	Transit Managers/ Public Services Managers, Fleet Managers	2 months after award – unless construction

13.4 SERVICE

Figure 13 Implementation Activities – Service

Activity	Responsible Party	Time Frame
Establish office space if required, in Safford	Transit Managers	1 week prior to establishing service
Meet with TAC to review service structure, provide orientation, and identify efforts for upcoming year	Transit Manager/TAC	1 month prior to establishing service
Meet with 5310 transit providers to determine coordination options and establish voucher value when sharing rides	Transit Managers/ SEAGO Coordination Council members	1-2 months after establishing service
Meet with employers to promote service, determine interest in rider incentives and purchased rides	Transit Managers/Employers	1-3 months prior to establishing service
Meet with Fleet Manager to review maintenance plan	Transit Managers/Fleet Manager	

Activity	Responsible Party	Time Frame
Meet with SEAGO Coordination Council	Transit Managers/SEAGO Mobility Manager	
Develop logo and system name	Transit Manager/Members of the Public, TAC, Stakeholder	
Update policies, procedures, and operations handbook to include expansion service	Transit Managers	1 month prior to start date
Assemble training materials	Transit Managers	
Finalize fixed route schedule and feeder route connection points	Transit Managers	
Develop Rider Guide and update Dial-a-Ride guide	Transit Managers	
Develop rider passes and vouchers	Transit Managers	
Distribute Rider Guides	Transit Managers/TAC	
Train dispatchers	Transit Managers	2-3 months prior to start date
Establish call and scheduling policies and procedures	Transit Managers/Dispatchers	2-3 months prior to start date
Carry out Marketing Plan	Transit Managers/TAC	
Hire and train Drivers	Transit Managers/HR	3-4 weeks prior to start date
Review and schedule vehicle maintenance plan	Transit Managers/Fleet mechanics	
Finalize recordkeeping procedures	Transit Managers/Admin. Assts.	2 weeks prior to start date
Hold public meetings to launch program	Transit Managers/Admin. Assts., TAC	1 month prior to start date
Survey riders at three-month intervals for first year	Transit Managers/Admin. Asst./Drivers/TAC	2-3 months prior to start date

Activity	Responsible Party	Time Frame
Revise or make changes to system on an as needed basis	Transit Managers	1 month and 2 weeks prior to start date
Meet with TAC at least quarterly	Transit Managers/TAC	1 month after start date
Establish financial need with Transportation TAC (Roads and Streets) and include in TTIP	Transit Managers /Finance Directors	1-3 months after start date

13.5 PLANS AND POLICIES

Figure 14 Implementation Activities - Plans and Policies

Activity	Responsible Party	Time Frame
Establish grant management systems for expansion	Transit Managers/Finance Managers	3-4 months prior to start date
Establish reporting schedules and data collection methods for National Transit Database, State, and Federal funding sources	Transit Managers	
Establish Safety plan and policies	Transit Managers	
Establish Training plan	Transit Managers	
Establish Civil Rights and ADA policies and make public notices	Transit Managers	3-4 months prior to start date
Establish Drug & Alcohol policies and procedures	Transit Managers	
Establish Maintenance plan, policies, and procedures	Transit Managers	
Attend SEAGO Coordination meetings	Transit Managers	
Acquire Council/Board approval for all new plans, policies, and procedures for expansion	Transit Managers	

Conduct staff and driver training on all plans, policies, and procedures	Transit Managers	1-2 weeks prior to start date
Submit monthly/quarterly/annual reports to Council, Board, TAC, and funding sources	Transit Managers/Admin. Assts.	Ongoing
Submit DBE Reports to State if required	Transit Managers/Admin. Assts.	Ongoing

APPENDIX A TCRP RESOURCES

The Transit Cooperative Research Program provides free publications on several transit topics. The following are guidebooks and reports that were used in the development of this plan and that would be useful to a Transit Manager.

TCRP Report 54 Managing Rural Transit Systems	TCRP Docs\TCRP_RPT_54_Managing Rural systems.pdf
TCRP Report 135 Controlling System Costs: Basic and Advanced Scheduling Manuals and Contemporary Issues in Transit Scheduling	TCRP Docs\TCRP_RPT_135.pdf
TCRP WebDoc 49 Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation	TCRP Docs\tcrp_webdoc_49-1.pdf
TCRP Report 147 Toolkit for Estimating Demand for Rural Intercity Bus Services	TCRP Docs\tcrp_rpt_147.pdf
TCRP Synthesis 94 Innovative Rural Transit Services	TCRP Docs\tsyn94.pdf
TCRP Report 101 Toolkit for Rural Community Coordination Services	TCRP Docs\TCRP_RPT_101-1.pdf
Guidebook for Rural Demand-Response Transportation: Measuring, Assessing, and Improving Performance (2009)	https://www.nap.edu/catalog/14330/guidebook-for-rural-demand-response-transportation-measuring-assessing-and-improving-performance
Microtransit or General Public Demand–Response Transit Services: State of the Practice (2019)	https://www.nap.edu/catalog/25414/microtransit-or-general-public-demand-response-transit-services-state-of-the-practice
TCRP Report 205 Social and Economic Sustainability Performance Measures for Public Transportation: Final Guidance Document	http://www.trb.org/Publications/Blurbs/179093.aspx
Guidance for Developing a Transit Asset Management Plan (2014)	https://www.nap.edu/catalog/22306/guidance-for-developing-a-transit-asset-management-plan
Travel Training for Older Adults Part II: Research Report and Case Studies (2014)	https://www.nap.edu/catalog/22298/travel-training-for-older-adults-part-ii-research-report-and-case-studies
Uses of social media in Public Transportation (2012)	https://www.nap.edu/catalog/14666/uses-of-social-media-in-public-transportation

Managing the Transit Scheduling Workforce (2019)	https://www.nap.edu/catalog/25457/managing-the-transit-scheduling-workforce
Practices in the Development and Deployment of Downtown Circulators (2011)	https://www.nap.edu/catalog/14499/practices-in-the-development-and-deployment-of-downtown-circulators
Understanding How to Motivate Communities to Support and Ride Public Transportation (2008)	

APPENDIX B TITLE VI PLAN

The San Carlos Nnee Bich'o Nii and the ESBF each have existing, ADOT approved Title VI Plans which will be implemented for the expansion of each organizations transit services.

Both organizations are responsible for reviewing and updating their existing Title VI Plans to assure compliance with federal and state regulations as well as training staff to implement Title VI policies as described in the Plans.

APPENDIX C RIDER HANDBOOKS

Each organization has an existing rider guide and handbook detailing rider responsibilities, service descriptions, Title VI policies, schedules, guides, ride requests, and fare information. These Rider Handbooks will be reviewed by the partner organizations and updated to include expansion service information in English, Spanish, and Western Apache.

APPENDIX D TRANSIT STUDY UPDATE 2022-23

SEAGO GRAHAM COUNTY TRANSIT ALTERNATIVES STUDY

2023

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EXECUTIVE SUMMARY

Graham County is located within the SouthEastern Arizona Governments Organization (SEAGO). The objective of this project was to evaluate the feasibility of public transportation services for Safford, Thatcher, Pima, and the unincorporated communities of Graham County. Stakeholder outreach was conducted to better understand where service may be needed within this area. Through stakeholder discussions, a potentially unmet need of addressing youth mobility was identified. Also identified was a gap in addressing the mobility of low-income individuals who were not currently served by the ESBF service that focuses on the elderly and individuals with disabilities. A review of prior transit planning studies (2007,2015) revealed that public transportation has been needed for some time. Previously identified challenges that prevented implementation were the recommended management style (i.e. a proposed intergovernmental agency) and matching funds. For the latter, while funding for a system can be publicly provided to some level, the entity sponsoring the service and receiving public funding often has to "front" this money for a period of time before receiving reimbursement. This can be a significant upfront investment. Recent interest in supporting a public transportation system that could improve mobility for the general public in the region has increased, leading to this technical assistance partnership.

Three public transportation models were proposed for further analysis: 1) fixed route, 2) fixed route with feeder service, and 3) on-demand service with technology. Each option has unique strengths and weaknesses.

Fixed route public transportation is the most common model of service. A user can expect a vehicle to be at predetermined stops at a known point in time. Therefore, it can provide residents with a simple, reliable schedule of service. However, when population densities are low, the service levels when considering the broader population are limited. When fixed transit is designed in a loop, origins and destinations at the far ends of the loop can result in long rides for the user. When service is designed along a line, the transit service gets closer to fewer potential users and travels to fewer destinations. A fixed route public transportation system designed with a single route would only be able to serve residents in Safford and maintain service with a desirable headway (less than one hour).

A second option is offered, a fixed route with feeder service public transportation model. In this scenario the feeder routes are utilized to access more of the population. The feeder routes would provide limited service on specific days and during specific times to additional potential riders in the outlying neighborhoods south of Safford (Cactus Flats/Tangelo Park) and the communities of Pima, Thatcher, and Solomon. However, limited service is not practical for many people, particularly those with reoccurring travel needs, whether for a variety of different trip purposes and locations, or travel often to the same location (i.e., those traveling to a job or school).

The final proposed model, on-demand transportation with technology (Figure 1), would attempt to address challenges related to the large geographic scale while also providing same-day, curb-to-curb responses to ride requests. One vehicle is needed for the zone illustrated in figure 1. If the service model is successful and ridership increases, the service could be expanded to two additional zones and a larger service area. Such an expansion would require two vehicles. This approach will also identify common pick-up and drop-off points.

Figure 15. Potential On-Demand with Technology Service Zones (24)

An important concern for on-demand with technology solutions as proposed in this report is the status of broadband connectivity within the proposed service region may hinder such a deployment. On-demand with technology public transportation relies on scheduling software which can dynamically process ride requests; however, if a driver is in an area with no cellular service, requests for rides will not show up until they travel back to an area with adequate connectivity. To date, on-demand with technology public transportation services have been provided in large and small urban areas or rural areas that are in proximity to larger urban areas (i.e., Wilson, North Carolina). Consequently, while the authors recommend on-demand with technology as being the best service option to fit the needs of the area, they recommend doing so as a pilot project in cooperation with the Federal Transit Administration (FTA) and the Arizona Department of Transportation. Information gathered from such a deployment in rural Arizona could result in service options offered in other very rural areas throughout the U.S., where there is significant need and similar challenges.

Introduction

In 2020, the SouthEastern Arizona Governments Organization (SEAGO) and area stakeholders compiled information from previous efforts to offer public transit service in Graham County with a technical assistance team consisting of the National Association of Development Organizations Research Foundation (NADO RF), the Western Transportation Institute (WTI) at Montana State University, and the National Rural Transit Assistance Program (NRTAP). This team is operating with support from the U.S. Department of Agriculture (USDA) Rural Development.

SEAGO is a council of governments that provides several planning, economic development, and human services programs to member communities and local governments within Cochise, Graham, Greenlee, and Santa Cruz Counties.

The objective of this project is to evaluate the feasibility of public transportation service for Safford, Thatcher, Pima, and the unincorporated communities within Graham County (Figure 2). Graham County has 25,290 residents (1). Safford, Thatcher, and Pima have been described as “three nearly contiguous incorporated cities” (1), highlighting the interplay between these communities. This project examined existing public transportation services within Graham County and identified potential public transportation service options that could improve mobility options for residents in Safford and the surrounding area.

Figure 16: Pima, Safford and Thatcher within Graham County, Arizona

Graham County is approximately one hundred and sixty miles from Phoenix and one hundred and thirty miles from Tucson (1). A significant economic driver of Graham County

is the mining industry. Historically, agriculture has been the dominant economic engine, with cotton serving as the primary commodity; hay and small grains are also produced (1). The Gila River is a major contributor to the agricultural presence of the area, enabling more than forty thousand acres of land to be irrigated (1).

Table 1 summarizes key points and the major private and public employers for the Town of Pima, City of Safford, and Town of Thatcher (1).

Table 9: Key Points and Major Private & Public Employers for Pima, Safford, and Thatcher.

Community	Key Points	Major Private Employers	Major Public Employers
Town of Pima	• Agricultural center • Popular retirement community	• Ace Aviation • Minit Mart • Glen Bar Gin	• Graham County Coop • Pima Public Schools • Pima Town Government
City of Safford	• County seat • Retail and government center	• Mt. Graham Regional Medical Center • Mt. Graham International Observatory • Impressive Labels • Walmart Super Center	• Safford Unified School District • City of Safford • Graham County
Town of Thatcher	• Previously, 68% of land was used for agriculture	• Home Depot • Phelps Dodge Mining Company • Basha's • Safeway	• Eastern Arizona College • Thatcher Public Schools • Thatcher Town Government

The Gila Valley Trail System, located along Discovery Park Boulevard, provides some connectivity for those walking and biking in Graham County (1); however, the arid environment can make walking and biking dangerous due to the extreme heat during some seasons.

To better understand mobility needs in the region, previous planning documents were reviewed and multiple outreach activities were completed. Information gathered during these efforts were used to develop three public transportation models that could improve mobility in the region.

The following sections describe prior planning documents completed in the region, outreach activities, proposed public transportation models, benefits and drawbacks of each option, and potential funding and match opportunities that could be utilized to implement public transportation for Graham County.

Graham County Planning & Background Information

This section provides information on existing transportation providers in the region and highlights from prior plans, including regional coordination plans and other individual plans that considered public transportation for the region. Also included in this section is a short summary of anticipated impacts as a result of the provision or lack thereof of public transit.

Existing Transportation Providers in the Region

Currently, Graham County is served by the following agencies that provide transportation: ESBF (EBF); Graham County Rehabilitation Center (GCRC); HOPE, Incorporated; Mt. Graham Safe House; and Nnee Bich'o Nii Public Transit.

Easterseals Blake Foundation

Transportation is available 24/7 for individuals with disabilities, older adults, and veterans. EBF has a total of 19 vehicles and an annual ridership (in the four counties) of 19,900. Funding is provided through the Federal Transit Administration's (FTA) section 5310 program (https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310), Arizona Division of Developmental Disabilities (DDD), and the SEAGO Area Agency on Aging. Programs provided to Graham, Greenlee, Santa Cruz, and Cochise Counties include transportation, employment opportunities, community day programs, residential services, and behavioral health services (2).

Graham County Rehabilitation Center (GCRC)

Transportation is available for individuals with developmental or physical disabilities on weekdays, 9:00 a.m. – 6:00 p.m. In addition, through their Individual Designed Living Arrangements (IDLA) program, transportation is provided 3:30 p.m. – 8:00 p.m., daily. GCRC has 12 vehicles and an annual ridership of 7,607. The Arizona DDD provides funding. The transportation model used for GCRC's programs (Adult and Child Day Programs, supportive work sites, and the IDLA program) are on-demand.

HOPE, Incorporated

HOPE Inc. is a non-profit specializing in supporting adults with mental health disabilities, including substance use disorders. Transportation is available weekdays, 8:00 a.m. – 4:00 p.m. HOPE Inc. has 16 vehicles and an annual ridership of 14,912. Funding is provided through FTA section 5310. Services include counseling, peer support, health groups, life skills, pre-vocational training, job coaching, transportation assistance, and re-entry support through coordination with Mental Health Care Court and Probation in Graham County.

Mt. Graham Safe House

Transportation is available 24/7 to resident and non-resident participants in its programs and services. Mt. Graham Safe House uses its 4 vehicles to provide 2,744 rides per year for trips such as job services, medical appointments, counseling, and legal services. Mt. Graham Safe House's programs are targeted toward victims of domestic violence and sexual assault, including short-term/long term and transitional housing, food, parenting and job skills classes, and advocacy.

Nnee Bich'o Nii Public Transit

The San Carlos Apache Tribe provides public transportation services under the name, Nnee Bich'o Nii Public Transit, where Nnee Bich'o Nii means "Helping the People" (3). There are 10 scheduled routes, including fixed route, commuter routes, contract services, intercity, and intercity feeder routes. Nnee Bich'o Nii Public Transit operates seven days per week, 5:30 a.m. – 2:30 a.m. A fleet of 18 vehicles is used to serve an annual ridership of 71,802. Funding from FTA section 5311 Tribal Transit Program and ADOT Rural Transit Program 5311 program supports the services (2). Nnee Bich'o Nii Public Transit provides general public transportation for reservation residents and for the neighboring communities of Globe and Safford. The service is especially beneficial for elders, individuals with disabilities, temporary assistance for needy families (TANF) clients (TANF is also operated by the Nnee Bich'o Nii Public Transit), and other transportation-disadvantaged individuals (4). One-way fares range from $1.00 to $3.50 depending on the distance traveled. The routes provide access to employment, education, healthcare, shopping, and human service opportunities. In addition, the service provides connections to other transportation providers in the area (Greyhound, Cobre Valley Transit). Service within the City of Safford is considered underutilized by students at Eastern Arizona College because of the long headways necessary to provide service both within the San Carlos Reservation and in Safford, nearly 69 miles away (4).

Table 2 summarizes the existing transit service in Graham County.

Table 10: Summary of Existing Transit Services in and Connecting to Graham County.

	EBF	GCRC	HOPE, Incorporated	Mt. Graham Safe House	Nnee Bich'o Nii Public Transit
Who is served?	Individuals with disabilities, older adults, and veterans	Individuals with developmental or physical disabilities	Adults with mental health disabilities, including those with substance use disorders	Resident and non-resident participants who are typically victims of domestic violence and sexual assault	Focused on serving elders, individuals with disabilities, TANF clients, and other transportation disadvantaged individuals
When is service provided?	24 hours a day, 365 days a year	Weekdays, 9-6pm; those within IDLA, 3:30-8pm	Weekdays, 8-4pm	Seven days a week, 24 hours a day.	Seven days a week, 24 hours except from 2:30am-5:30am
What is the service model?	-	On-demand	-	-	Fixed routes, commuter routes, contract services, intercity, and intercity feeder routes
Where does the service go?	-	-	-	Job services, medical appointments, counseling, legal services	Employment, education, health care, shopping and human services trips
Ridership	19,900	7,607	14,912	2,744	71,802
Funding	FTA 5310, Arizona DDD, and the SEAGO Area Agency on Aging	Arizona DDD	FTA 5310	-	FTA 5311 Tribal Transit Program and ADOT Rural Transit Program 5311

Table 2 shows that the existing public transit options in Graham County best serve individuals with disabilities. The general public, particularly youth and low-income individuals, currently do not have transit services that meet their needs. The transportation disadvantaged population that does not own a vehicle or possess a driver's license must depend on a ride from someone else; walk or bike although safe facilities to do so may not be available; or forego the trip all together. The last could potentially impact the social and emotional well-being, economic well-being, health, and overall quality of life for the individual. In turn, when community members are transportation limited, it can also impact the broader economic well-being of a community.

Regional Transportation Coordination Plans

The following sections discuss the evolution of the Regional Transportation Coordination Plan over time.

2017

In 2017, SEAGO developed the *Regional Transportation Coordination Plan Update: 2018-2019* (5). It was intended to serve as a "catalog of transit and transportation services available in the region." SEAGO indicated that the reason for the development of the Coordination Plan was to enable information sharing among smaller agencies and large agencies to better address (or ideally eliminate) service gaps. Every quarter, coordination meetings were held. Those attending included public and human service transportation providers, elected officials, local government representatives, the general public, social service and faith-based agencies representing the elderly, individuals with disabilities, veterans, low-income individuals, domestic abuse survivors, and programs representing youth. The plan identified three groups as being "transit dependent": 1) elderly, 2) individuals with disabilities, and 3) those living below the poverty level. The plan noted that there is no public transportation in Graham, Greenlee or Santa Cruz Counties. In addition, while there is public transportation (fixed routes) in Benson, Bisbee, and Douglas, there is not a system that connects them; hence, intercity public transportation is still a gap in the region. It also identified transportation to healthcare as the primary use of FTA section 5310 funding. Additional trip purposes were identified as shopping, appointments, food/nutrition, and jobs.

One strategy identified within the plan that is particularly relevant to this technical assistance project is to pursue an FTA section 5311 program in the Safford area. It notes that while there is currently an FTA section 5310 provider, its service is limited to the purpose of the funding program, with a focus on people with disabilities and older adults. Adding an FTA section 5311 program would address the mobility needs of low-income populations and the general public. The document noted that SEAGO was working with Easterseals Blake Foundation to transition from FTA section 5310 to FTA section 5311 funding. Working with Nnee Bich'o Nii Public Transit to expand services in Graham County was also identified. At the end of the plan, there is information about vehicle inventory and availability. In the post-pandemic environment, where orders for transit

vehicles are significantly backlogged, this information may be utilized to better understand if there is an ability to leverage under or unused vehicles, possibly for a pilot project.

2021

SEAGO completed a *Regional Transportation Coordination Plan* in March 2021 (2). A category to include individuals who do not own a vehicle was added to the "transit dependent" groups identified in the previous plan. The plan provides an estimate of the transit dependent population for each county. The estimates identified for Graham County are noted in Table 3. All transit dependent populations were expected to increase over time. The number of people living below the poverty level is expected to grow from 7,679 in 2019 to 7,991 in 2023, making it the largest group of the transit dependent population.

Table 11: Changes in Population Over Time by Transit Dependent Groups.

Population Type	2019	2020	2021	2022	2023
Over Age 65	5,202	5,254	5,307	5,360	5,414
Disabled	5,015	5,065	5,116	5,167	5,219
Below Poverty Level	7,679	7,756	7,834	7,912	7,991
No Vehicle Available	2,031	2,051	2,072	2,093	2,114
Graham County Totals	19,927	20,126	20,329	20,532	20,738
Unduplicated Totals	12,468	12,592	12,718	12,845	12,973

The coordination plan shows that the percentage of the transit dependent population for Graham County is 33%, which is on par with that of Cochise County (35%); Cochise County has public transportation. The plan highlights again the challenges regarding limited connections between communities in the region (Safford to San Carlos Reservation; Safford to Duncan to Clifton to Morenci) and identifies a need for fixed route service in Safford. As noted in previous years' plans, there continues to be an interest in starting an FTA section 5311 program in the Safford area. Another community in SEAGO, Huachuca City, received a $50,000 grant from the Legacy Foundation of Southeast Arizona. There is a potential that a funding source like this could be considered to help implement the proposed system in Graham County, although alternative funding sources would have to be identified for on-going operation.

Within the Mobility Management Planning Priorities and Coordination Strategies, ridership tracking was identified as a need. The plan notes a desire to track riders within a service area and those using services across service areas. Riders' satisfaction surveys were also identified as a priority. Within the plan, ESBF was identified as pursuing a Rural

Transportation Incubator grant to "build up ridership for older low-income adults throughout Greenlee County."

The need for transportation between Graham and Greenlee Counties is alluded to within this coordination plan, other plans, and from the survey findings for this study. Greyhound was identified as providing service between Phoenix, Globe, and Safford; the Greyhound service then continues on to Lordsburg, New Mexico, terminating in El Paso, Texas. Therefore, while earlier public transit plans identify intercity transit as a gap, some service now exists. Connectivity to Greyhound on any proposed service would enable greater regional mobility for users. Updated information on vehicle availability was also provided.

Using information collected from prior feasibility studies and numerous public meetings, the coordinated plan identified mobility needs in Graham and Greenlee Counties including:

- Fixed route service in Safford
- Connecting service between Safford, Duncan, Clifton, and Morenci
- Connecting service between Safford and the San Carlos Reservation

In addition, the *Regional Transportation Coordination Plan* called out pursuing FTA section 5311 funding for fixed route service in the Safford area as a priority strategy for closing transportation gaps. This service would supplement the existing FTA section 5310 funded program offered by ESBF to provide transportation for individuals with disabilities and older adults (2).

A five-year (2021 – 2025) estimate of transit program needs in Graham and Greenlee Counties includes $1,296,635 in FTA section 5310 funding, $305,255 in Mobility Management, and $671,561 in FTA section 5311 funding, for a total estimate of over $2.2 million (2).

Summary of Coordination Plans

As the coordination plans have been updated over time, the need for public transportation within Safford has remained constant. In addition, while some intercity service has been provided by private providers (i.e., Greyhound), limited connectivity between some communities (i.e., between Duncan and Safford) remains.

Over time, the coordination plans have added additional categories of transit dependent people (i.e., adding those without access to a vehicle). However, youth mobility needs might also exist. Another potential category to consider is determining the needs of households with an unreliable or inoperable vehicle, who might not be captured as those without access to a vehicle. However, one way that local stakeholders such as SEAGO and/or Graham County could work to address this is through a Vehicle Repair Loan Program, as occurs in Door County, Wisconsin (https://door-tran.org/vehicle-loan/). Households where the use of the vehicle by one member may limit other household members' ability to travel should also be considered.

Transit Planning

Two prior planning studies were conducted for transit systems in Graham County, one in 2007 and one in 2015. The following two sections discuss these studies.

Graham County Transit Feasibility Review

In 2007, Ostrander Consulting, Inc. and RAE Consultants, Inc. developed the *Graham County Transit Feasibility Review: Final Report* (1). Noted within the review was the value of using transit to address growth issues that may be experienced over time. The report indicated that 76 percent of the population within Graham County resides in Pima, Safford, Thatcher, and the unincorporated areas surrounding these communities. The consultants summarized that the elderly population tends to live within the cities and towns (i.e, Pima, Safford and Thatcher), the mobility limited population is spread throughout Graham County, the low-income population tends to reside in the unincorporated areas of Graham County, and Pima has a larger percentage of population who do not have access to a private vehicle.

The report provides two suggested approaches to determine the number of potential users of a public transit system: 1) survey research trip method, and 2) transit propensity method. The consultants also note that the frequency of service, the ease of using the service (i.e., Is it an easy walk from many people's residences? Is paying for the service easy?), and the community support will determine the success or failure of such a service.

The authors summarize service statistics for other public transit systems in Arizona (Cottonwood, Show Low, and Bisbee) and Idaho (Valley/Adams). They also noted that at the time, SouthEastern Arizona Community Action Program (SEACAP) was the only entity that provided transit service to everyone, and the service did so using only one vehicle. All other providers offered transportation only to specific clients. The review also provided eight institutional alternatives that could be used to manage any proposed transit services:

1) Department of local government
2) Intergovernmental transit agency
3) Metropolitan district
4) Regional service authority
5) Rural transportation authority
6) Public-private partnership
7) Private, non-profit corporation
8) Private, for-profit corporation

The study identified six potential service types/configurations:

1) Fixed route, fixed schedule
2) Commuter route, fixed schedule – subscription services
3) Fixed route, flexible schedule
4) Intercity fixed route, fixed schedule

5) Variable route, fixed schedule
6) Demand responsive

At the time of the 2007 transit study, the consultants highlighted, “no one government or organization is prepared to take on the task of administering a transit agency.” Identifying required matching funds was also identified as a significant issue, citing budgets overwhelmed by the rapid growth in the region resulting in only “mission critical” projects being implemented. However, the report concluded that there was “substantial demand” for public transit service. The following organizations were identified as being part of the Transit Advisory Committee contributing to the report:

1) Non-profit organizations (i.e., ESBF, Southeastern Arizona Behavioral Health Services, Inc.; SEACUS; SouthEastern Arizona Community Action Program (SEACAP))
2) Department of Economic Security (DES) (Adult Protective Service; Vocational Rehabilitation; Child Support Enforcement; Job Services; Division of Developmental Disabilities (DDD))
3) Eastern Arizona College
4) Grace Community Church NT
5) Graham County Chamber of Commerce
6) Graham County
7) Graham County Rehabilitation Center
8) Mt. Graham Regional Medical Center
9) Mt. Graham Safe House
10) San Carlos Apache Tribe
11) Senior Citizen Center
12) Southeastern Arizona Children’s Rehabilitative Services (CRS)
13) Communities (Town of Pima; City of Safford; Town of Thatcher)
14) Housing
15) Private businesses (Walmart; Home Depot; Phelps Dodge Mining Company)
16) Private citizens

Graham County Transit Feasibility Study

In 2015, seven years after the *Graham County Transit Study Feasibility Review* (1), the *Graham County Transit Feasibility Study* was developed for SEAGO (6). Its intent was to update the prior study. The study was envisioned to have multiple phases and reported an interest in answering the following questions:

- Is there community support and adequate potential ridership for a viable public transit system in Graham County?
- Does sufficient local or other financial support exist to provide necessary matching funds for federal funding to financially sustain transit services over time?

- Does a viable governance structure exist, or can one be created to govern, manage, and comply with federal funding legislation?
- Is there the potential to leverage existing funding for transportation in Graham County, and coordinate and add value to existing social service agency transportation services with a public transit service?
- Do the benefits of providing a public transit system outweigh the costs of service delivery?

The report suggested a five-year funding commitment by localities (Safford, Thatcher, Pima) desiring transportation services.

The study convened a Technical Advisory Committee (TAC) and attendance included: the Arizona Department of Transportation, Graham County, Graham County Health Department, SEAGO, City of Safford, Town of Thatcher, Town of Pima, ESBF, Mt. Graham Regional Medical Center, Eastern Arizona College, and SouthEastern Arizona Community Action Program (SEACAP). Additional stakeholders that were identified included: United Way, SEACUS, Freeport-McMoRan Inc. (current owner of the mines previously owned by the Phelps Dodge Mining Company), the County Board of Supervisors, and the Chamber of Commerce.

The report provided information regarding five service providers within Graham County: 1) Nnee Bich'o Nii Public Transit, 2) the SouthEastern Arizona Community Action Program (SEACAP) service, 3) the ESBF service, 4) Greyhound, and 5) private transportation providers.

The report noted that Graham County residents were unaware that the Nnee Bich'o Nii Public Transit service was open to the public. The reported reason for this perception is that the buses have tribal images and do not state "public transit" on their exterior.

SEACAP was identified as providing a dial-a-ride service to meet the needs of approximately one hundred and twenty elderly and individuals with disabilities. However, if there is space available, they will provide a ride to the general public. SEACAP typically provided about 15-16 daily trips between the hours of 8:00 a.m. - 12:30 p.m. and 1:30 p.m. - 5 p.m. and requires advanced reservation. There is no cost for the service, although a donation box is provided. The primary purposes of the trips provided by SEACAP at the time are for travel to "congregate meal sites, doctor visits, dialysis, grocery shopping" (6), and Department of Economic Security (DES) visits.

ESBF is a 501(c)3 non-profit corporation, which has been in operation in the region since 1950. The mission of the foundation is to "enable each individual served to discover and meet his or her maximum potential for independent, productive living and developmental growth" (6). Transportation is provided for individuals with developmental disabilities to and from day programs, residential programs, and individual homes. One day a month, transportation is also provided for seniors to travel to and from the nearby casino. They also provided back-up transportation when SEACAP was unable to meet mobility needs due to limited vehicle availability, drivers on vacation, or drivers that were out sick. At the

time of the 2015 report, they made use of nine vehicles, operating with FTA section 5310 funding. In 2014, they provided 29,252 trips.

At the time of the 2015 report, Greyhound did not provide transportation in the region. However, it was proposed to connect Phoenix, Arizona with El Paso, Texas, stopping within the Arizona communities of Mesa, Superior, Miami, Globe, Peridot, Bylas, Safford, and Duncan, and the New Mexico communities of Lordsburg and Las Cruces.

A local taxi service was identified as providing on-demand trips. In addition, a limousine and shuttle service were identified as providing intercity trips to Phoenix and Tucson. A non-emergency medical transportation (NEMT) service was also identified as serving the region.

The plan identified four groups as needing public transportation in the region:

- Low-income people who do not have a driver's license or access to a private automobile
- Eastern Arizona College students without access to a private automobile
- Older adults, as demand was expected to surpass that available via SEACAP
- Individuals with disabilities, including those receiving behavioral health services

Those serving women, infants, and children (WIC) recipients noted a need for transportation to access health care, to go grocery shopping and for other travel needs.

DES was identified as serving approximately 5,000 clients. A challenge of people receiving such services is that they often live where housing is more affordable, which is outside of community centers. Ensuring that a public transportation system can address their mobility needs is important.

Over 400 Eastern Arizona College students were identified as living on campus; eighty percent of these students did not have a private automobile. The students desire access to stores and transportation in the evenings. Students are also responsible for their own transportation to and from campus, as identified on Eastern Arizona College's website (https://www.eac.edu/Campus_Life/Transportation/) (7).

The Workforce Connection noted that many access their services by biking, walking, or by someone else providing a ride. An individual who lived in Daily Estates, which was a ninety-minute walk to Workforce Connection, attended a focus group to share that she owned a vehicle, but that the cost of repairs is beyond her means. In addition, Workforce Connection also identified prison release clients that had no driver's license or vehicle access but who were looking for work opportunities.

The Southeastern Arizona Behavioral Health Services (SEABHS) were only able to provide "clinically justifiable" trips, where previously they were also able to provide quality of life trips, like accessing a grocery store. SEABHS identified three hundred clients, approximately half of whom do not have access to an automobile or a driver's license.

Furthermore, SEABHS noted that the extreme heat of Graham County does not mix well with the medications that clients need.

An important point made in the report is “Obtaining and sustaining community support is an important part of developing and growing an effective rural public transit system” (6).

The report also noted the many challenges of funding, including that whichever agency is the lead must have a sufficient amount of existing funding in order to pay expenses up front before being reimbursed.

The document identified five potential service models: 1) fixed route with a fixed schedule, 2) community service route, 3) dial-a-ride service with advanced reservation from origin to destination, 4) flex-route or similar hybrid of fixed route and dial-a-ride services, and 5) taxi services. The report presents a suggested dial-a-ride boundary.

The plan highlighted the lack of an intra-county public transportation system connecting Pima, Thatcher, Safford, and Solomon. Those in the county who did not own an automobile or possess a driver’s license were identified as limited in making trips for work, education, medical, social services, and shopping. However, it noted that seniors and people with disability had some level of public transportation service via social service agencies. The plan recommended developing an Intergovernmental Public Transportation Authority to serve as the primary application for federal funds to support a public transportation system.

Summary of Previous Transit Plans

Both transit plans (2007 and 2015) discuss the SEACAP service; however, more recent coordination plans (2017 and 2021) make no mention of the SEACAP service. Therefore, what was once the only system that would provide service to the general population no longer exists. Furthermore, as SEACAP was identified in prior plans as working collaboratively with ESBF to provide service when they could not meet demand, it suggests that at present, demand could significantly outstrip the service that is available. No information was provided regarding whether a taxi service still serves the region.

While the 2015 transit plan discussed Greyhound, it noted that it had not provided public transit to the region. However, in the more recent coordination plans, Greyhound is identified as operating some service in the region.

The second plan discusses the challenges of an administering agency for FTA funding. However, it does not discuss other aspects including reporting, fulfilling the auditing requirements and other related items. These challenges can be insurmountable for many small agencies which already have limited staff.

Overall, while some service has concluded (SEACAP), others have begun (Greyhound). However, since the service that provided mobility within the community no longer exists, day-to-day transportation would be limited for those that relied on it.

Economic Development Strategy & Public Transportation

The SEAGO *Comprehensive Economic Development Strategy (CEDS) 2021-2025* (8) identifies limited public transportation as a weakness for Graham County. The plan notes that, "Public transportation, also a steady-state economic resilience initiative due to its importance in the ability to build a resilient workforce, is in the process of being improved."

In the *Comprehensive Economic Development Strategy (CEDS) 2021-2025*, Graham County is attributed as the second largest county in the SEAGO region, encompassing approximately 4,630 square miles of the region's 13,000 plus square mile area. This expansive physical footprint creates challenges for transportation as communities and amenities are generally disconnected and distant. To exemplify this point, the SEAGO CEDS describes the northernmost community in the SEAGO region, Clifton, as being 194 miles from the southernmost community in the region, Nogales. This translates to a nearly three-hour drive between these destinations.

Research provided in the CEDS conducted by the Arizona Department of Commerce (now the Arizona Commerce Authority) describes the southeastern region of Arizona as remote with little proximity to major metropolitan areas or markets. With access to nearby communities and markets limited, Graham County must rely on the key identified private economic sectors of mining and agriculture. A major producer of natural resources including copper, a single mine operator in Safford employs approximately 1,200 individuals. Outside of these private enterprises, nearly thirty percent of workers in Graham County are employed in the government sector. Other strategies such as rural wealth creation might identify sectors for growth of wealth through small business ownership, rather than relying on existing larger firms to create new jobs.

U.S. Census Bureau LEHD

Considering these employment conditions, it is possible to examine the inflow and outflow of residents and workers of Graham County to help better understand the transportation demand created. According to U.S. Census Bureau estimates provided via the Longitudinal Employer-Household Dynamics (LEHD) OnTheMap tool (9), of the 6,094 individuals who worked in Graham County during 2019, 2,009 (33%) commuted into the county. Of the 8,420 people living in the county during the same period, 4,335 (51.5%) commuted outside of the county for employment; 4,085 lived and worked within the county.

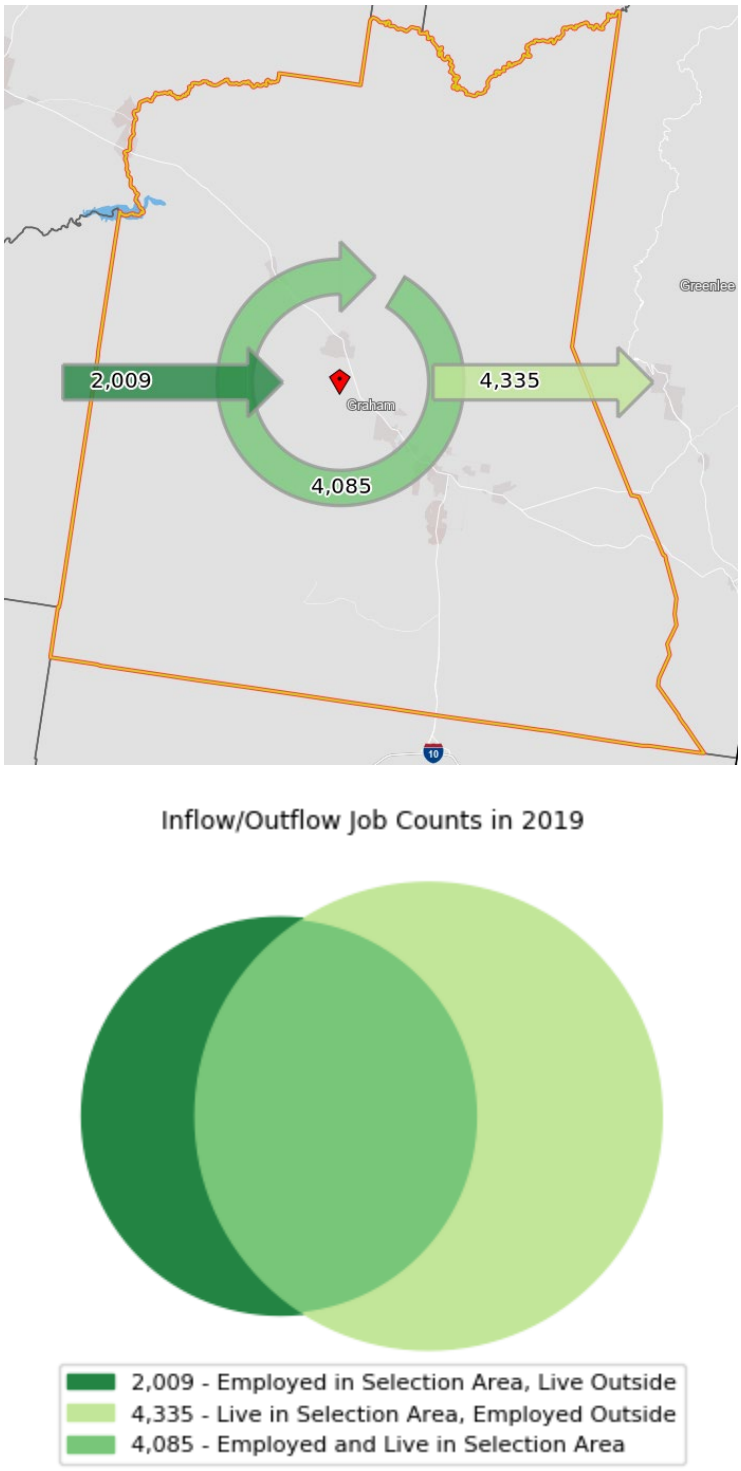

Figure 17: U.S. Census LEHD Inflow/Outflow of Workers

Substance Use Disorder

Graham County had 15 non-fatal opioid overdose events in 2021 (10), and a drug overdose mortality rate of 32.7 deaths per 100,000 people from 2015-2019 (11).

Rural communities can face greater barriers to health care, including access to behavioral health providers and services which can have serious impacts on substance use disorder treatment and recovery (12). Providing public transportation may improve access to resources that those in recovery need; along with other types of supports, reliable and affordable transportation can be an effective part of “Recovery Capital” that can improve recovery results for individuals with substance use disorders. The Safford area has five behavioral health facilities where individuals may seek treatment.

Stakeholder Outreach

The following sections discuss stakeholder meetings as well as outreach targeting individuals in Graham County who work with youth. Information discussed within the larger stakeholder meetings suggested that there was limited knowledge regarding the mobility needs of youth. In addition, a summary of findings from a survey shared with the general public is presented.

Stakeholder Meetings

Stakeholder meetings were held throughout 2021 and early 2022. In addition to SEAGO staff and the technical assistance team, area staff and stakeholders invited to serve on an advisory group included:

- Eastern Arizona College
- Graham County
- Mt. Graham Safe House
- ESBF
- Nnee Bich'o Nii Public Transit
- United Way
- Southeastern Arizona Consumer-Run Services
- Elected officials
- A private transit consultant

The following sections highlight key discussions or ideas exchanged during these meetings.

February 2021

Regarding the project scope of work (SOW), SEAGO would lead the public involvement plan based on their previous similar work, with the technical assistance team providing support. SEAGO identified a survey instrument that they had utilized in the past and identified mechanisms for distributing the survey. The technical assistance team offered to provide feedback on the survey instrument.

When discussing the assessment of existing conditions portion of the SOW, the previous planning efforts were outlined. A key point made during this discussion was that Safford possesses the greatest need for improvements when considering transportation in the area. A discussion ensued about determining ridership. Ultimately, the recommendation was to provide a range of ridership levels that may be expected. In addition, comparison to other systems was suggested. However, another key point of consideration was that the level of use could be expected to vary over time, particularly as the impacts related to COVID-19 fluctuate. Consequently, recommendations were that the system's performance be evaluated over a period of several years; this is similar to what was recommended in the 2015 transit planning study (6). Furthermore, stakeholders agreed that ridership may not be the best and only metric to evaluate a public transit system;

instead defining a metric that identifies the amount of access that a public transportation system may provide was suggested as an example.

During this meeting, Nnee Bich'o Nii Public Transit detailed their operations in response to the COVID-19 pandemic and highlighted their challenges with retaining employees with commercial driver licenses (CDLs) as a result of competition with the mines. However, in response to this need, the transit agency identified a ninety-day training program. They also noted that they must be one hundred percent self-sufficient—no match is provided by the tribe.

A discussion then proceeded to address ways Nnee Bich'o Nii Public Transit could coordinate with the public entities to offer public transportation. The transit agency indicated their requirement to retain control over their operations and transit buses, with an agreement with the outside agencies to provide service. This would eliminate the possibility of a duplication of service. Logos included on the bus could demonstrate the cooperation between the public agencies and the transit agency.

The similarities and differences between Nnee Bich'o Nii Public Transit's role and the existing ESBF transportation were discussed. The latter would focus on paratransit and the former on providing public transportation for the general public.

Regarding service models, the Nnee Bich'o Nii Public Transit described how they have an agreement with Google to utilize their trip planner service. Nnee Bich'o Nii Public Transit suggested that a fixed route, operating two days a week, would be a good start. Vanpool options were also identified as an option. On-demand service using technology was identified as a potential contemporary alternative; SEAGO expressed an interest in learning more.

A stakeholder with the San Carlos Apache Tribe expressed a need for transportation for elders in Safford and Pima.

SEAGO expressed an interest in using much of the technical assistance resource to assist with the implementation of a public transportation system.

May 2021

Based on experience from previous planning efforts, the recommended approach was to present the community and county officials with a plan for public transportation service. Stakeholders also expressed an interest in retaining current programs (i.e. ESBF dial-a-ride and San Carlos Nnee Bich'o Nii Public Transit's service). EBF's program was described as focusing on individuals with disabilities and those who cannot use "traditional transit." Furthermore, EBF's program was identified as serving Graham and Greenlee County. Leadership within EBF indicated that they were the only transit service available in the area, and residents who do not meet their criteria also contact them for transportation assistance. In some cases, EBF has expressed that they can accommodate requests (i.e. transportation to government offices).

Providing transit for Graham County was identified as a strategic priority for the Executive Board of SEAGO as well as a growth priority for the Arizona Department of Transportation.

During the meeting, stakeholders indicated that a previously offered and utilized program had concluded and was no longer available. In addition, a transportation company that operated in the region, MedStart, was also identified as recently terminating service.

An additional need highlighted during the discussion was to serve individuals residing in the unincorporated areas needing to fulfill prescriptions. Due to the limited public transportation service offerings in the region, residents were described in some cases as having to wait weeks for transportation service. There were suggestions that these delays in services resulted in life or death concerns for some individuals. As an example, insulin, was identified as one medication that was not always accessible by those living in the unincorporated areas of Graham County. Gaps in the availability of this life saving medicine for people that need it can be life threatening.

Nnee Bich'o Nii Public Transit indicated that while they prefer to focus on general transit service, they acknowledge that with the termination of another non-emergency medical transportation (NEMT) provider, they see a need for such service. In addition, it was suggested that some of the services from the previous NEMT provider left users unsatisfied. For example, the former NEMT reportedly left one user in Phoenix.

There was discussion regarding a need to leverage data to understand demand. However, some expressed concern that surveys, which may provide some measure of demand, may not accurately reflect use.

Throughout conversations with stakeholders, data was identified as being potentially available through Easterseals Blake Foundation's service or Nnee Bich'o Nii Public Transit's service.

Stakeholders also identified concerns regarding outreach activities being conducted exclusively during evening meetings. It was expressed that these meeting times prevented some individuals from being able to participate and express their concerns. Stakeholders identified a need to engage community members that could not access transportation. Recommended future focus groups were those "out in the country" and the college.

September 2021

The September stakeholder meeting engaged elected officials and the Eastern Arizona College.

A significant portion of the discussion was focused on the dissemination of surveys. Three surveys were distributed: to the general public, to social services agencies, and to employers.

Overall, input was limited. The local newspaper was engaged and shared information regarding the project. The business community was engaged via the chamber of commerce. Safford's economic department was engaged. The Area on Aging, with more than thirty providers, was engaged. The Transportation Coordination Group assisted with distribution of the survey. SEAGO utilized sponsored Facebook posts to boost promotion of the survey. All of the aforementioned avenues were digital, reflecting concerns regarding collecting hard copies during the COVID-19 pandemic. However, hard copies were provided to the hospital and others providing direct services to clients who might need transportation.

Other means of dissemination were discussed including local libraries, the community pantry, monthly newsletters from local schools (distributed to approximately eight school districts), and at apartments for low-income residents.

The discussion then focused on origins and destinations that could be the core of a proposed transit system. With no available data regarding current users, stakeholder input was imperative to identify potential service locations. Stakeholders suggested the following destinations: grocery stores (Thriftee Food & Drug), pharmacies, a focus on the 20th Avenue corridor, hospitals, clinics, Eastern Arizona College, the Pepsi-Cola Bottling Company, the DES Office, the Graham County Electric Co-op, and other general facilities. Stakeholders suggested the following origins: senior mobile home communities (Lexington Pines Resort, Safford Ranch, Spring Sing); and the Eastern Arizona College.

Anecdotes regarding employees quitting over the lack of transportation were provided.

November 2021

The November meeting began with a discussion about information received via the surveys. Thirty surveys were received from the general public; two were received from social service agencies. Related to the general public, half of the survey respondents reported having a disability. Less than half (eleven) reported not owning or having access to a vehicle. Some indicated that they could not afford a vehicle, gas, and/or insurance.

Previous conversations suggested that high school students could access additional learning opportunities if transportation was available. This led to a concern that their input was not captured or reflected in the survey responses.

The conversation then turned to potential service options. Nnee Bich'o Nii Public Transit indicated that their vehicle remains idle at Walmart for approximately one hour. It was suggested that during this time period when the vehicle was not in use, an individual from the Safford area could run a route. Initial recommendations were that such a service be provided two times per week.

An additional issue identified during this discussion was that new buses could not be acquired for more than two years as a result of COVID-related shortages/supply chain challenges. There were also identified issues with obtaining parts to ensure vehicle

repairs were conducted in a timely manner. However, Nnee Bich'o Nii Public Transit indicated that they currently have a bus that could be used. It is a fourteen-passenger vehicle, which does not require a driver to have a commercial driver's license (CDL).

The idea of on-demand with technology public transportation was discussed further. In particular, since the dynamic nature of on-demand with technology public transportation required connectivity to broadband, stakeholders were asked about their understanding regarding whether or not this could pose an issue with this service model. Feedback given suggested that the rural nature of the region could present problems for this service model.

January 2022

The January 2022 meeting included participation from Easterseals Blake Foundation (EBF). While EBF expressed an interest in applying to provide transit service for the region, they indicated that time was needed to engage leadership and obtain approval. Information that EBF requested included: information about the FTA section 5311 program, funding and requirements; an explanation of the budget process and matching funds; the availability of buses; and the application process. In addition, the plan detailing the feasibility of transit for Graham County was requested.

EBF also indicated that they could provide data regarding the amount of time it takes to pick-up a client once the bus arrived at a client's residence. EBF also indicated that they would provide recommendations for additional stops.

During the meeting, there was discussion about a system that used a core route with three feeder routes. The feeder routes would originate in Pima, Solomon, and Tangelo/Cactus Flats. The routes from Pima and Solomon would operate once a week (Tuesday and Thursday, respectively) and the feeder route from Tangelo Park and Cactus Flats would operate three days a week (Monday, Wednesday, and Friday). The core route would travel between Thatcher and Safford, along Hwy 70. Specific destinations included: Thriftee Foods, the library, Walmart, Bashas, Eastern Arizona College, and DES.

Summary of Stakeholder Outreach

Two transit services currently operate in the region: one through Easterseals Blake Foundation and one via the Nnee Bich'o Nii Public Transit. There was a distinctive interest to not diminish service or funding from these providers. Rather, observed unmet needs should be the focus of any future service offering. This would suggest that where demand outstrips availability of service for current providers, a service designed to address general population needs should be the focus.

Due to low response rates to the survey and challenges conducting public outreach due to the on-going COVID-19 pandemic, the technical assistance team relied on knowledge of the stakeholders to define origins and destinations for the purposes of this effort.

Youth Outreach

The NADORF team was able to speak with two groups of individuals that work with youth in Graham County. In addition, the NADORF team reached out multiple times to counselors and principals at schools within Safford, Thatcher, Pima, and Solomon. Unfortunately, the technical assistance team was not able to engage with school representatives to obtain their input for the purposes of this project.

As part of the outreach process, the NADORF team reached out to several youth services agencies in the area. It was noted during these transactions that high school students struggle to find transportation for employment. For those fortunate enough to find a ride or have access to a vehicle, area high school students are currently traveling into Safford from Artesia, Pima, and Solomon to work at various fast-food locations, grocery stores, and the movie theater (Figure 4). However, those without access to transportation are excluded from these employment opportunities that could assist them in building jobs skills and saving money for the future. Furthermore, the lack of transportation options for youth limits their ability to participate in after-school activities and in enrichment programs offered at the college.

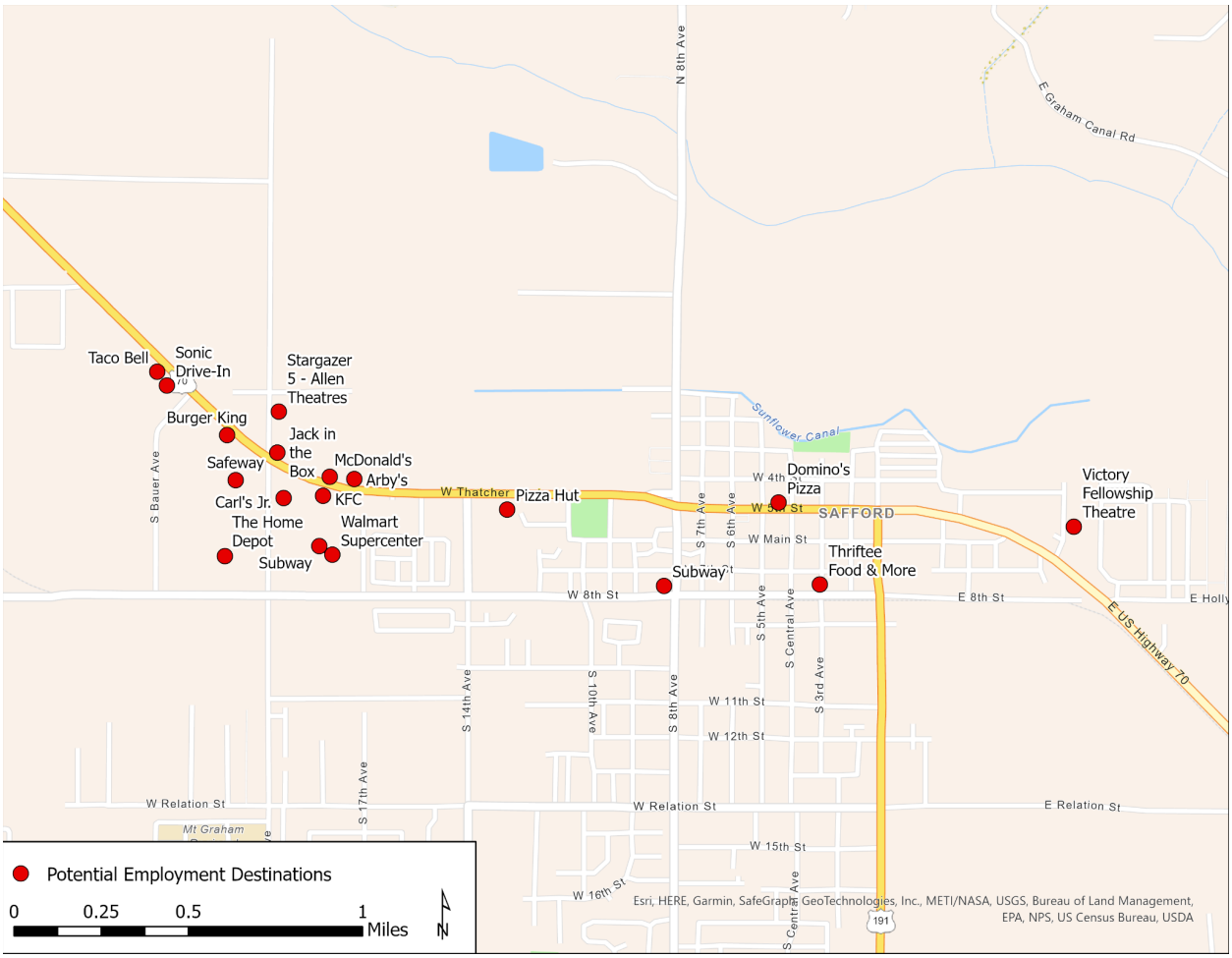

Figure 18: Potential Youth Employers (15)

Providing options for public transportation can improve accessibility to resources and opportunities for a community's youth. This can include access to education, employment, after-school programs, and more. After-school programs generally provided between the hours of 3 pm to 6 pm can provide students with access to academic opportunities, life skills, workforce development, and mentorship. These programs benefit not only school-aged children but provide parents with peace of mind that their child is in a safe environment after school hours while they are still at work. However, a survey of households in the US found that lack of transportation is a key barrier to accessing these types of programs (13). A recent report found that teenagers and young adults from lower socioeconomic backgrounds and/or rural communities tend to have less access to public transportation and face additional barriers to resources and opportunities, especially for those that cannot drive or lack access to a private automobile.

Survey Analysis

The following section describes general population survey data collected as a part of the effort. The survey was distributed to the public, social service workers, and employers.

General Population Survey Summary

General population survey data was collected between September 16, 2021 and November 9, 2021. A total of thirty surveys were collected. All but three were received via the online interface. SEAGO provided incentives for participation in the survey, including two fifty-dollar VISA cards, to be awarded randomly.

General population survey respondents were asked the following questions:

1. Zip code where the survey respondent lives
2. Age (17 or under; 18-29; 30-49; 50-64; 65-79; and 80 and up)
3. Residency (year-round; seasonal)
4. Status (employed (including zip code); retired; disabled; unemployed; student (zip code of school)
5. If employed, what sector do you work in? (government; education; manufacturing; health care; retail; social services; field agriculture; other seasonal agriculture; other year-round agriculture; other)
6. How far do you drive to work? (less than 30 miles; 4-10 miles; 11-20 miles; more than 20 miles)
7. What is the household size? (1, 2, 3, 4, 5, 6 or more)
8. What is the annual household income? (less than $18,000; $18,000-$24,999; $25,000-$30,999; $31,000-$37,999; $38,000-$43,999; $44,000-$49,999; $50,000-$54,999; more than $55,000)
9. Is anyone in your household disabled? (yes (how many?); no)
10. Are you a caregiver for someone with disabilities? (yes, no)
11. What is the primary language spoken in your household? (English; Spanish; A Native American language; other)
12. Are you or any member of your household a veteran? (yes, no)
13. What is your primary means of transportation? (personal vehicle; friend, relative, neighbor; volunteer driver; van or bus service; Medicaid transportation; employer vehicle; other)
14. If you don't drive a car, why not (check all that apply)? (no driver's license; can't afford a car; can't afford gas/insurance; Medical or physical condition; I prefer to walk or bike; other)
15. How many operable vehicles are available to you in your household? (1, 2, 3)
16. Did you know that there is a transportation service available in the Safford area for the elderly and disabled? (yes, no)

A section of the survey then asked questions regarding trip purposes (employment, grocery, local medical appointments, medical appointments in other communities, local shopping, shopping in other communities, school, and other services), how often they made such a trip (week, month), where it was to (Safford, Pima, Morenci, Tucson, other), and whether transportation to that destination was a concern.

While the majority of survey respondents were located within Graham County, three survey respondents reported locations within Greenlee County (Duncan and Clifton) (Figure 4). Background information and planning documents have also suggested that there is a relationship between Graham and Greenlee Counties.

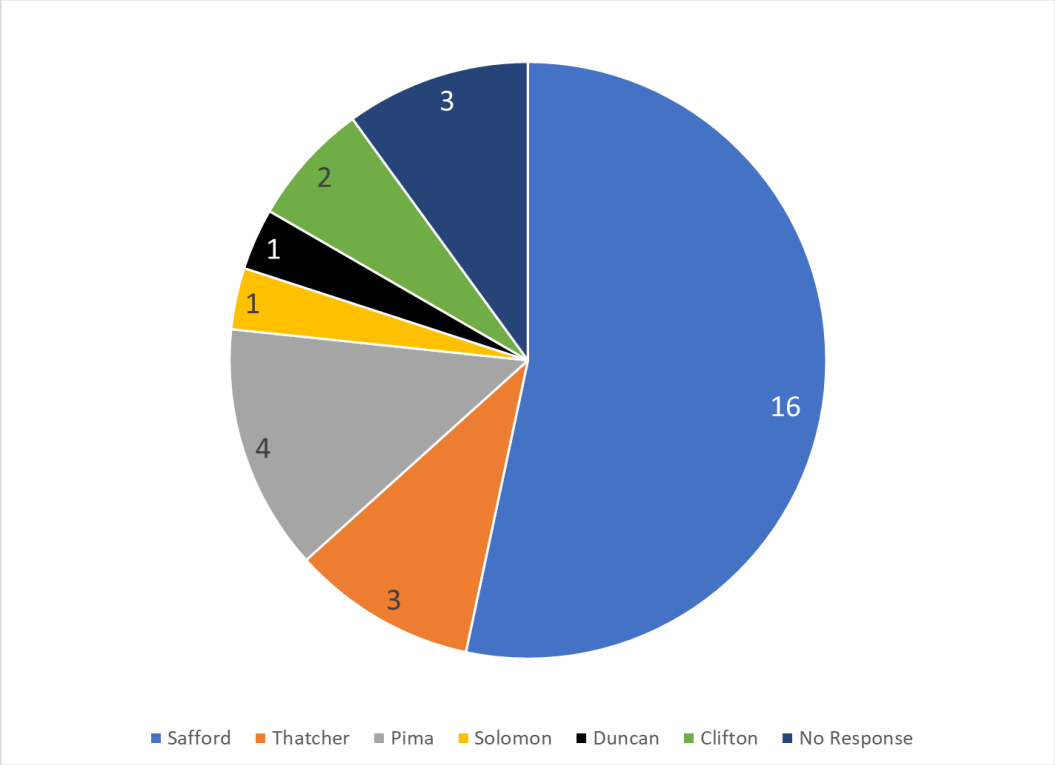

Figure 19: Zip Code of Residence

Residents in Duncan and Clifton are known to travel to Safford (more than twenty miles, one-way) for most shopping and medical services. Because they are accessing services in the Graham County focus area, these survey respondents were retained for the remaining analysis.

All but one survey respondent indicated whether or not they were year-round or seasonal residents. For the twenty-nine survey respondents that provided information, all reported being year-round residents. Therefore, if there is an expectation that seasonal residents may make use of a transit service, no information was available about their needs as a result of the survey effort.

Age

The majority of survey respondents fell within the 50 to 79 age cohort (Figure 5).

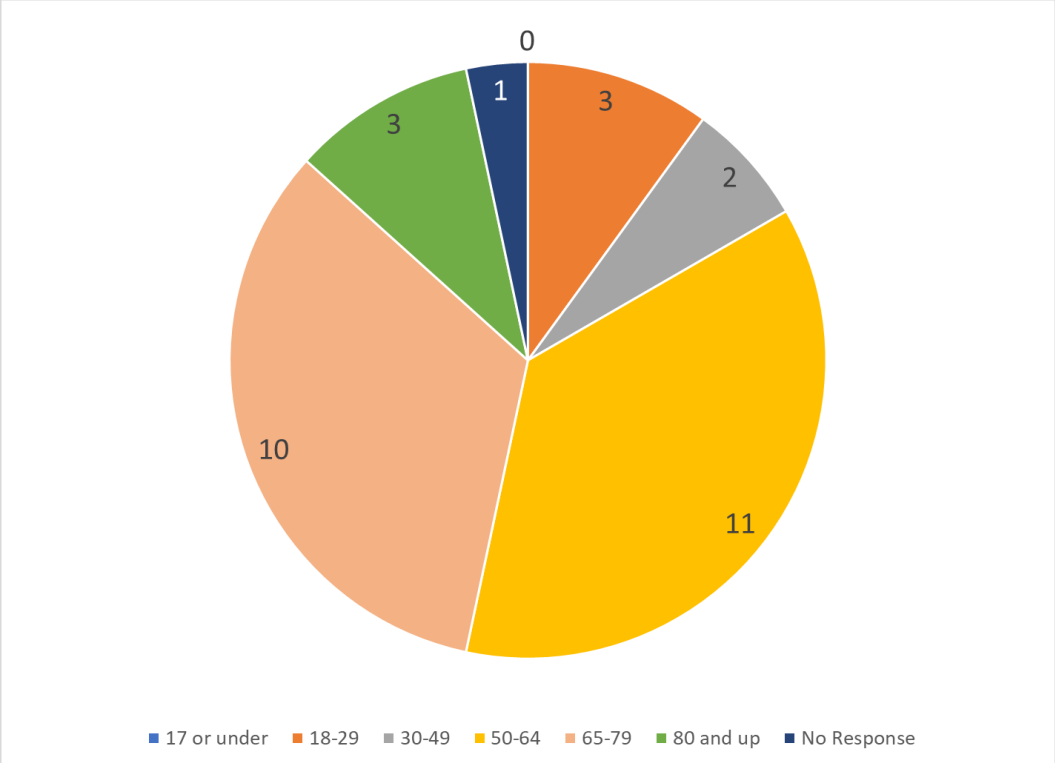

Figure 20: Survey Respondent Age

Compared with the Census Bureau data for Graham County, this age range falls well above the median age of 33.7 (14). Consequently, the discussions with those who work with youth to better understand their transportation needs provided some insight into this user group. However, the results also suggest that the survey may overlook the needs of middle-aged residents in Graham County.

Employment

The majority of survey respondents identified as being employed or retired (Figure 6).

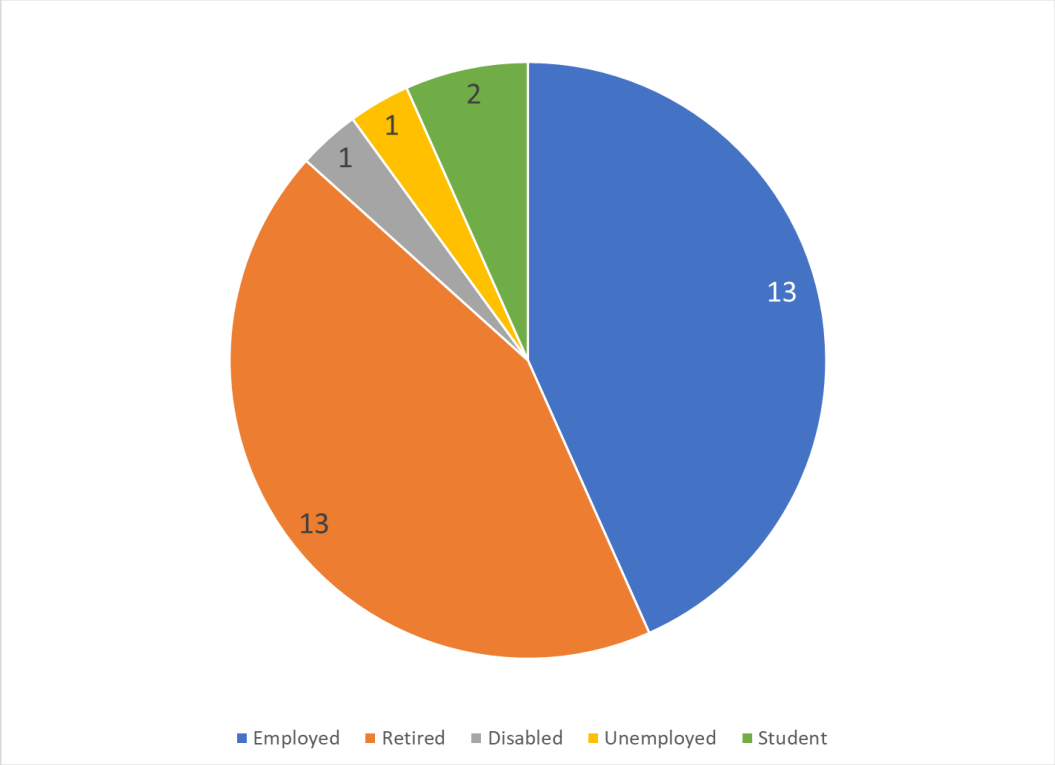

Figure 21: Employment Status or Other

Therefore, the results do not well describe the needs of students or those who are unemployed.

Households: Size, Children, Disabilities, & Veterans

The majority of survey respondents reported one or two-person households, although less than a quarter of the survey respondents provided no information about household size (Figure 7). Therefore, if additional information is available from these survey respondents, the representation of the sample could substantially change (i.e. if all of these survey respondents reported they were in a household of one, there may be an overrepresentation of one-person households represented in the sample).

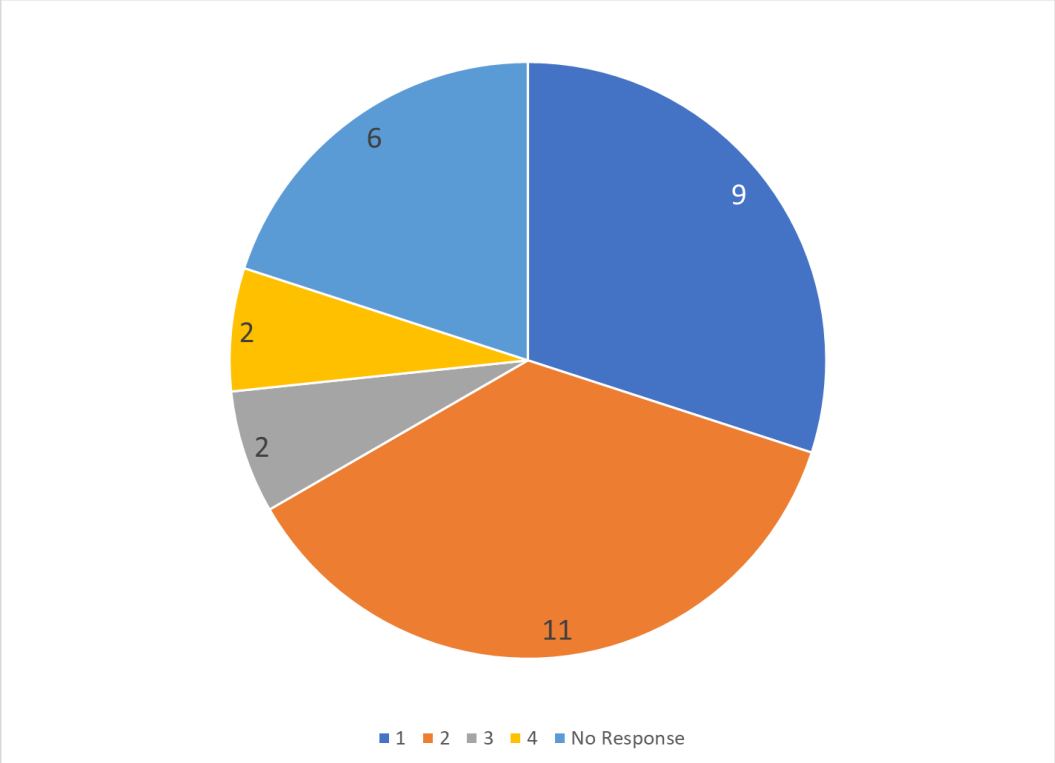

Figure 22: Household Size

Compared with the U.S. Census Bureau data, the survey results are skewed toward smaller household sizes (15). According to the U.S. Census Bureau, 4-or-more person households are the most common at 32.3 percent (Table 4).

Table 12. Graham County, Arizona, Household Size (15)

Household Size	Percent of Occupied Housing Units
1-person household	22.7%
2-person household	30.8%
3-person household	14.2%
4-or-more-person household	32.3%

There is more likely to be a need for public transportation in larger households, as the availability of a vehicle for every household member is likely to be limited. Therefore, the survey results do not well-describe the needs of these households.

Only five households (17%) reported that children were part of the household. Compared with U.S. Census Bureau data, where forty percent of households have one or more

people under the age of 18, there is an evident bias in the survey data representing those without children living in the household (15).

Over half (53%) of survey respondents indicated that someone within the household was disabled; a U.S. Census statistic specific to the number of households made up of people with disabilities was not available. However, compared to U.S. Census data for the percentage of the population represented by an individual with a disability, where Graham County has a value of 13.9 percent (16), the survey respondents seem to overrepresent this statistic. In addition, two of the survey respondents indicated that they were a caregiver for someone with disabilities. There is no U.S. Census statistic for comparison.

The majority of survey respondents (87%) indicated that English was the primary language spoken in their households. Of the four households that indicated another language was the primary language, survey respondents indicated it was Spanish. According to the U.S. Census Bureau, of the 11,348 households in Graham County, 2.1% are limited English speaking households with the majority of these households speaking Spanish (17). It is unclear if "limited English-speaking households" can be directly applied to those households whose primary language is a specific language. However, if this can be more directly compared, there seems to be an overrepresentation of households whose primary language spoken is Spanish.

Under seventeen percent of survey respondents (five) indicated that they or someone in their household was a veteran. According to the U.S. Census Bureau, 6.3% of the total population aged 18 and older in Graham County are Veterans (18); therefore, again, the percentage of veterans in the sample is overrepresented.

Annual Household Income

The majority of survey respondents earned less than $18,000 annually (Figure 9).

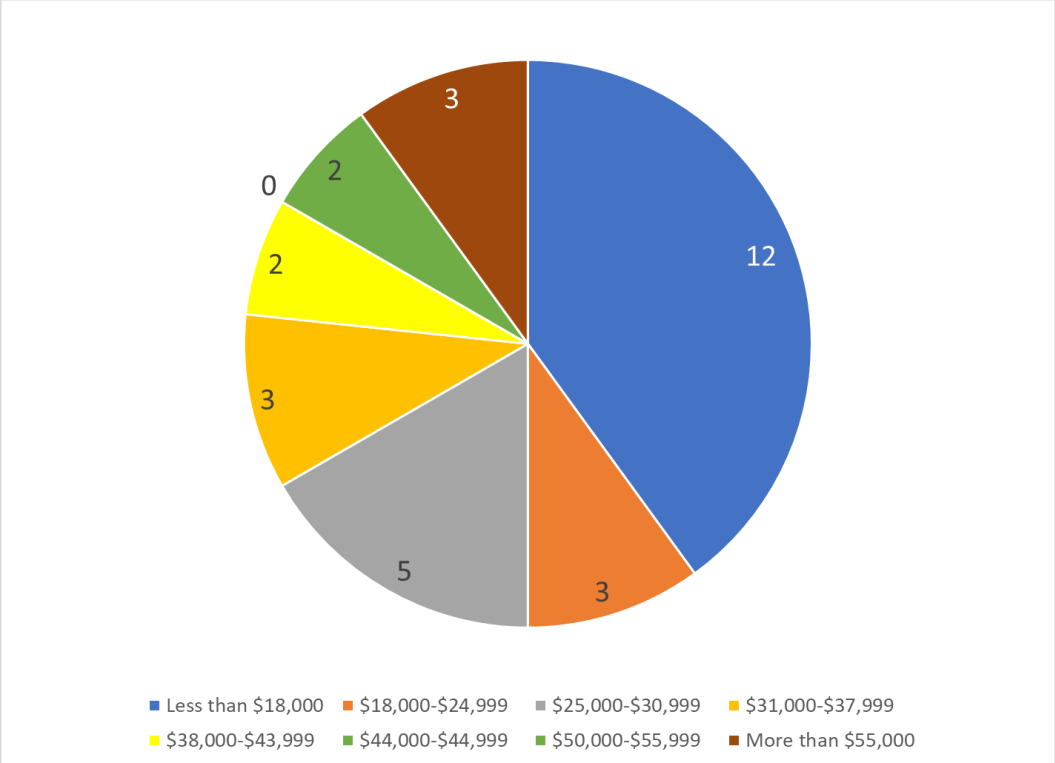

Figure 23: Household Income

Compared to the U.S. Census Bureau, which reports the median household income of Graham County as $55,693 (19), survey respondents had a third of the median household income. Consequently, one can expect that the survey data represents people that are in need of affordable mobility options. Nearly twenty-one percent of the population of Graham County is below the poverty level (20). The U.S. Census Bureau has defined the poverty level as $14,097 for individuals under the age of 65 or $12,996 for individuals over the age of 65 (21). These poverty thresholds follow the Office of Management and Budget's Statistical Policy Directive 14 and vary based on family size and composition (22).

Transportation

This section will discuss the primary means of transportation identified, and the number of operable vehicles identified in the household. It also identifies survey respondent's input regarding their reasons for not driving a vehicle.

The majority of survey respondents reported their primary source of transportation as their private vehicle (Figure 10); however, this is not surprising considering the limited availability of public transportation options in the region.

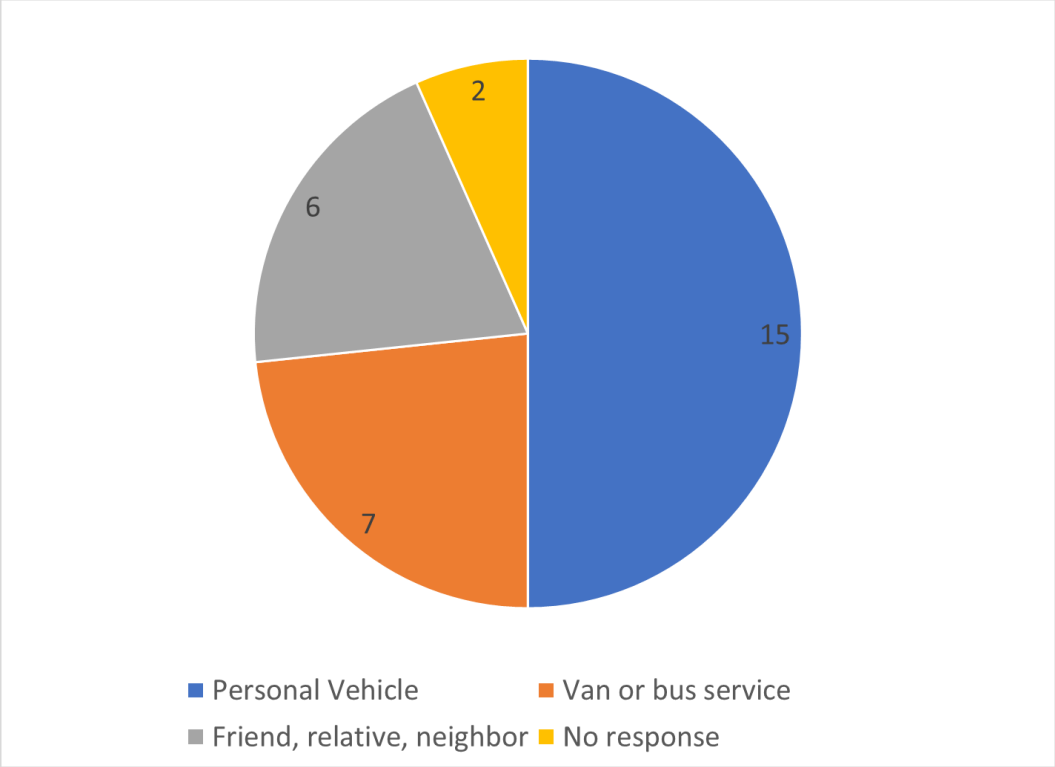

Figure 24: Primary Mode of Transportation

Fourteen survey respondents indicated that they do not drive a vehicle (Figure 10). The majority indicated that they cannot afford a vehicle or the cost of a driver's license/insurance, which are essentially the costs of entry for utilizing a private vehicle as a mobility option.

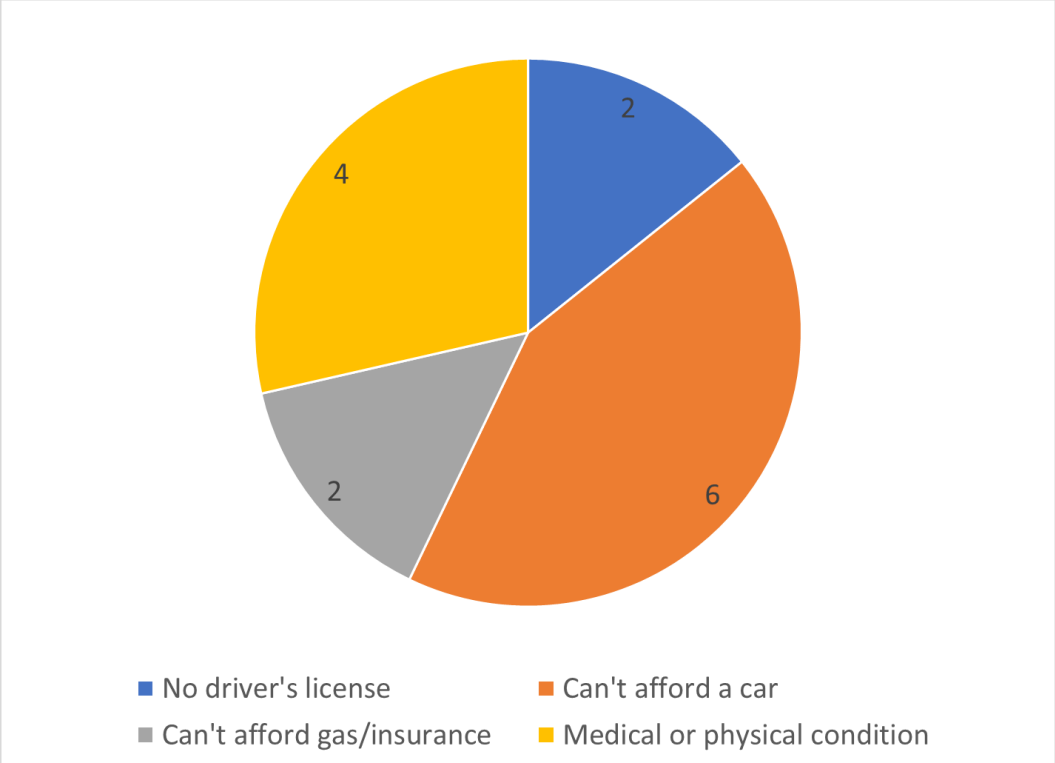

Figure 25: Input Regarding Why a Survey Respondent Does Not Drive

More than half of the survey sample does not have an operable vehicle within their household (Figure 11).

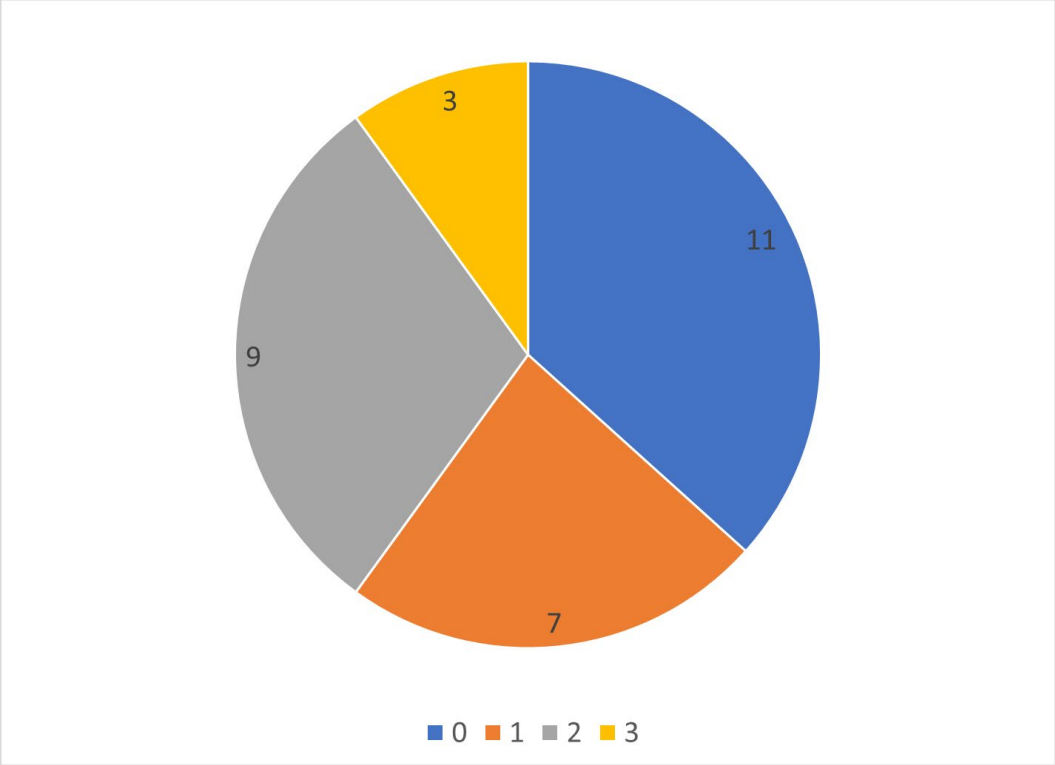

Figure 26: Reported Number of Operable Vehicles Within a Household

Under half (47%) of those who reported owning a vehicle were unaware of the available transportation services for the elderly and disabled in the Safford area.

Over forty percent (43%) of survey respondents reported that either they had used the service or someone they knew had used the service.

Trip Purposes

This section discusses the number, time frame, destination, and whether or not obtaining transportation to make a variety of trip purposes was challenging. Safford was one of the most commonly cited destinations, although Morenci and as far away as Tucson were identified. There were significant gaps in information provided in response to this question. However, the question provides some very valuable information if important points may be deduced from it.

Race & Ethnicity

Nine survey respondents reported identifying as White/Caucasian. Three survey respondents chose other. As survey respondents were allowed to identify multiple races, one survey respondent who identified as White/Caucasian also reported identifying as Latina. Another survey respondent who reported identifying as Other indicated that they were “American.” The third survey respondent who chose other provided no additional

information. Two indicated that they declined to answer. Seventeen did not provide a response. The majority of the sample was White/Caucasian. Compared to the U.S. Census Bureau, 36,046 residents of Graham County identify as a single race, of which 77.5% identify as white alone (23). For ethnicity, of the survey respondents that provided input, the results are split between being Hispanic or Latino and not (Figure 13); however, the majority of survey respondents either did not provide an answer or declined to answer the question.

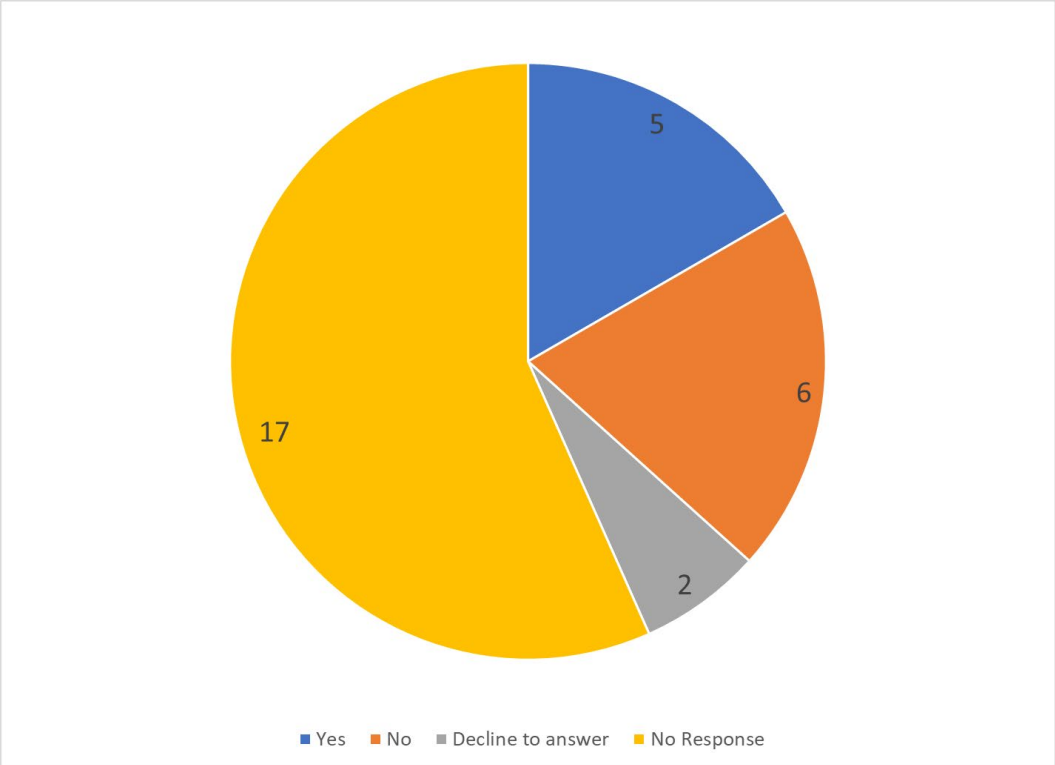

Figure 27: Ethnicity

Proposed Transit System Models

The primary goal of the proposed public transportation system is to improve mobility for residents in Graham County, focusing on the Safford area, by providing public transportation connections to residential areas, Eastern Arizona College, the hospital, and local shopping.

After discussions with SEAGO staff, City of Safford officials, and regional stakeholders—including the college and services organizations - the following destinations were chosen as potential key destinations that could serve as a stop in a transit system:

- The Church of Jesus Christ of Latter-Day Saints – Pima, AZ
- Eastern Arizona College – Thatcher, AZ
- Walmart – Safford, AZ
- Walgreens – Safford, AZ
- Lexington Pines Resort – Safford, AZ
- Alder Drive & 8th Street – Safford, AZ (would provide walking access for Lexington Pines)
- Mt. Graham Regional Medical Center – Safford, AZ
- Safford-Graham County Library – Safford, AZ
- Department of Economic Security (DES) Office – Safford, AZ
- Thriftee Food and Drug – Safford, AZ
- Firth Park – Safford, AZ (provides access to Graham County Health Department, Safford City Swimming Pool, Police Department, and Safford Main Street)
- Safford Ranch Mobile Home Park – Safford, AZ
- U.S. Post Office – Solomon, AZ
- The Church of Jesus Christ of Latter-Day Saints – Solomon, AZ

The locations of these stops are illustrated in Figure 13.

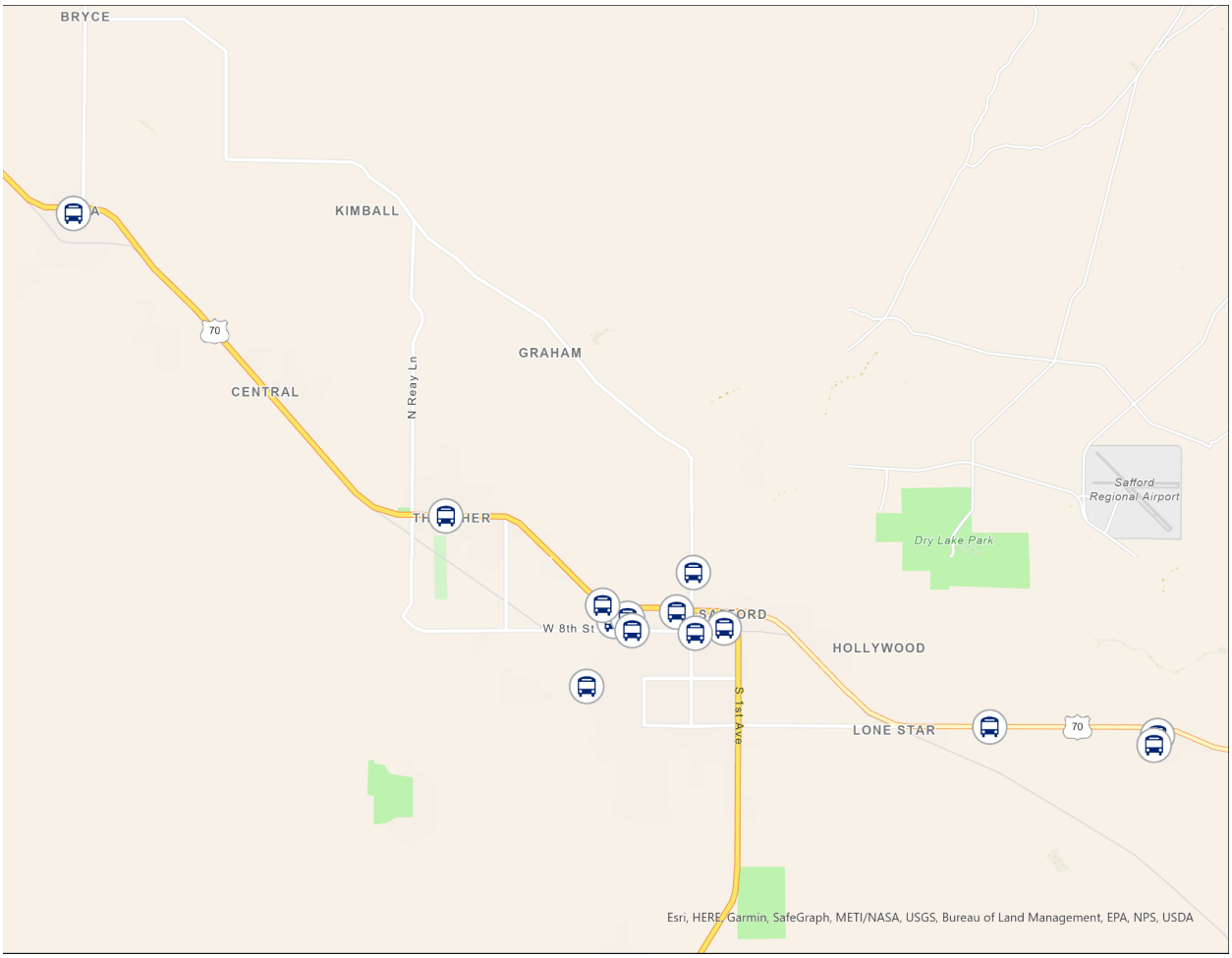

Figure 28: Initial Destinations Identified (24)

While the originally proposed origins and destinations were specific, as discussions progressed, additional locations and needs were identified. Consequently, it is a challenge to ensure providing efficient service to as many individuals as possible. A primary focus was serving the elderly and individuals with disabilities. However, these individuals are provided with some level of service by the Easterseals Blake Foundation. As outlined earlier, there is an observed gap in understanding youth mobility needs and low-income mobility needs of middle-aged residents. Ultimately, a transit system should be designed to provide the highest level of service and operate within the financial means of all potential users. Ultimately, an optimally designed transit system for the area should serve the elderly, individuals with disabilities, youth, middle-aged residents, and anyone else who needs additional mobility options in the Safford area.

The following three transit service models were proposed: 1) fixed route service, 2) fixed route service with a feeder service from outlying communities, and 3) on-demand with technology. These models are described in this section. Following these descriptions,

the costs of the proposed service models are discussed. Finally, the pros and cons of each service model are summarized.

Fixed Route Service

This section describes a fixed route transit scenario including a list of potential stops and estimated travel times. Travel times are an important consideration because they affect the headway of a bus (the frequency of service). Generally, the shorter the headway, the more desirable the service becomes. This scenario assumes the availability of only one vehicle to provide service.

A route scenario was developed that serves locations primarily off US Route 70. It is proposed that this route would travel in a loop starting at Eastern Arizona College heading into Safford for multiple stops which would provide access to shopping and necessary services, then return to the College (Figure 15). During times when the college does not require service, this loop could begin at Walgreens in Safford (Figure 16).

Travel times were estimated in two ways: 1) using the travel times generated by Google Maps – which provides an estimated travel time based on the speed limit and number of stop lights along a route, and 2) using the widely accepted “rule-of-thumb” speed for transit planning of 12 miles per hour, which accounts for slower travel speeds as well as stopping for passengers to board or exit a transit vehicle. In reality, the travel time along the proposed routes would most likely fall somewhere in between these two travel time estimates depending on vehicular traffic, number of passengers (e.g., time it takes to board and alight the bus), and other factors like the time of day (i.e. potentially more delay during morning and evening “rush hours”) and day of week.

An important point to note regarding the proposed fixed route scenario is that it best serves destinations. Origins, typically where people live, are not well served by this model. For maximum benefit, a user would have to either live in close proximity or the user would have to find a means to get to a location where they could access a fixed route.

Stop	Stop Name	Distance (mi)	Google Maps Travel Time (min)	Estimated Transit Travel Time (min)
A	Eastern Arizona College			
B	Bashas	2	3	10
C	Walgreens	0.66	2	3
D	Walmart	0.3	2	1
E	Mt. Graham Regional Medical Center	0.9	3	4
F	Alder Dr & 8th Ave	1.04	3	5
G	Safford-Graham Library	0.67	1	3
H	Thriftee Food & Drug	0.31	1	1
I	DES Office	1.24	3	6
J	Firth Park	0.57	1	3
K	Eastern Arizona College	2.86	5	14
Total Distance: 10.55 Miles				
Total Travel Time (Google Estimate): 26 Minutes				
Total Travel Time (12 mi/hr): 53 Minutes				

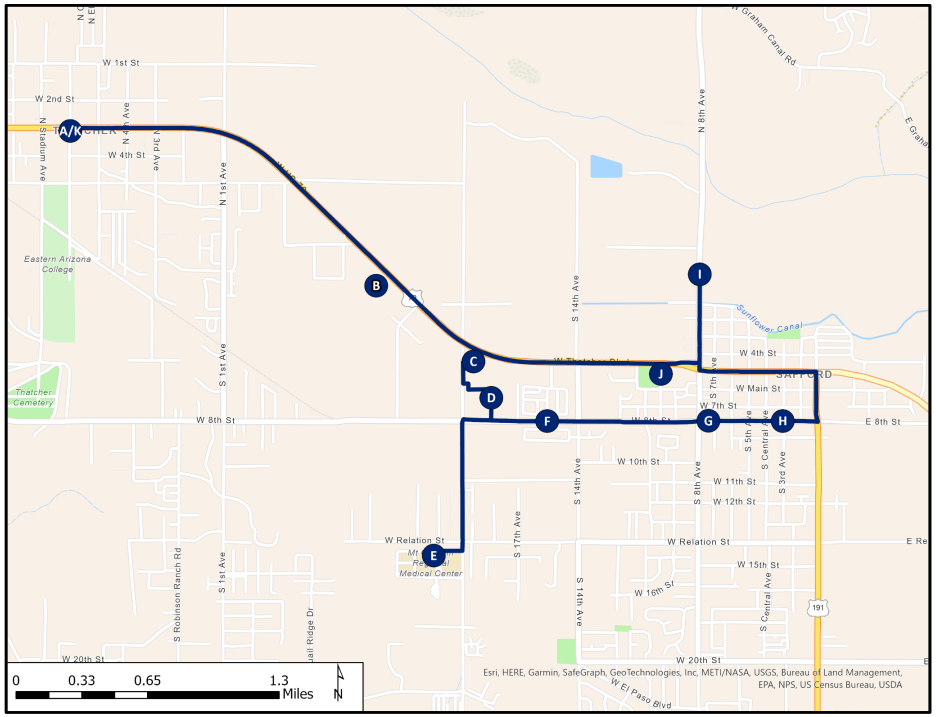

Figure 29: Full Loop (24)

Stop	Stop Name	Distance (mi)	Google Maps Travel Time (min)	Estimated Transit Travel Time (min)
A	Bashas			
B	Walgreens	0.66	2	3
C	Walmart	0.3	2	1
D	Mt. Graham Regional Medical Center	0.9	3	4
E	Alder Dr & 8th Ave	1.04	3	5
F	Safford-Graham Library	0.67	1	3
G	Thriftee Food & Drug	0.31	1	1
H	DES Office	1.24	3	6
I	Firth Park	0.57	1	3
J	Bashas	1	4	5
Total Distance: 6.69 Miles				
Total Travel Time (Google Estimate): 20 Minutes				
Total Travel Time (12 mi/hr): 33 Minutes				

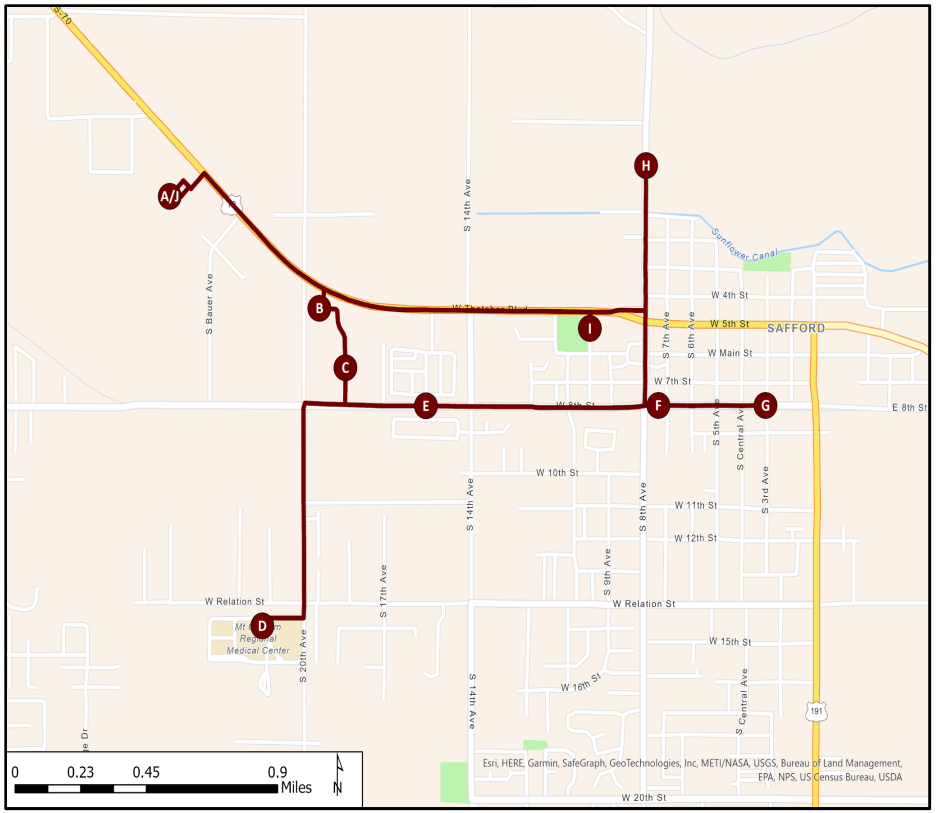

Figure 30: Shortened Loop (24)

Bicycle and Pedestrian Access

Bicycle and pedestrian access to bus stops, which inform the "catchment zone," was evaluated using a quarter-mile and half-mile buffer around each stop ((25), (26)). Figure 17 and Figure 18 show the catchment zone for the full-loop and shortened-loop, respectively.

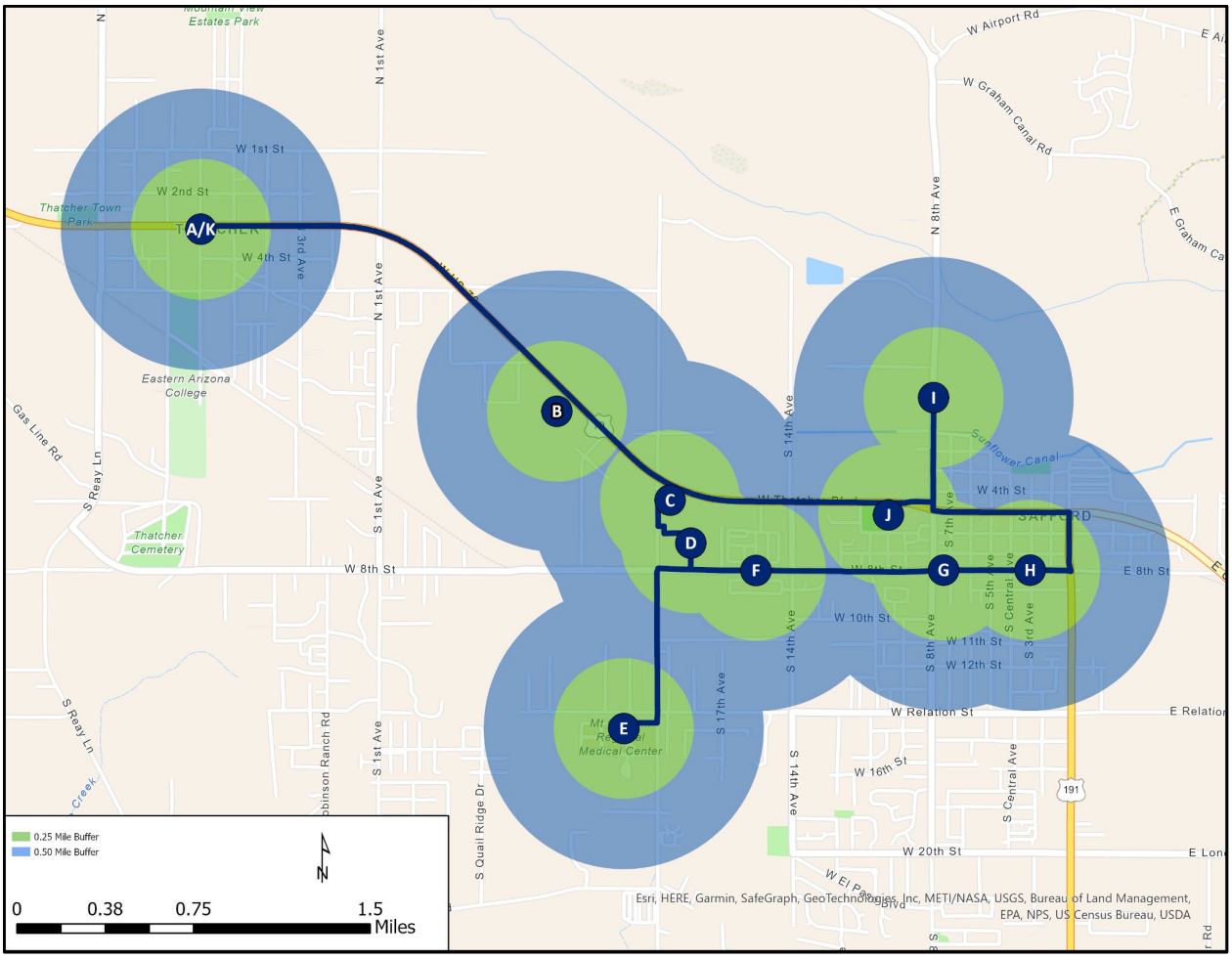

Figure 31: Full Loop with Quarter-Mile (Green) & Half-Mile (Blue) Buffers (24)

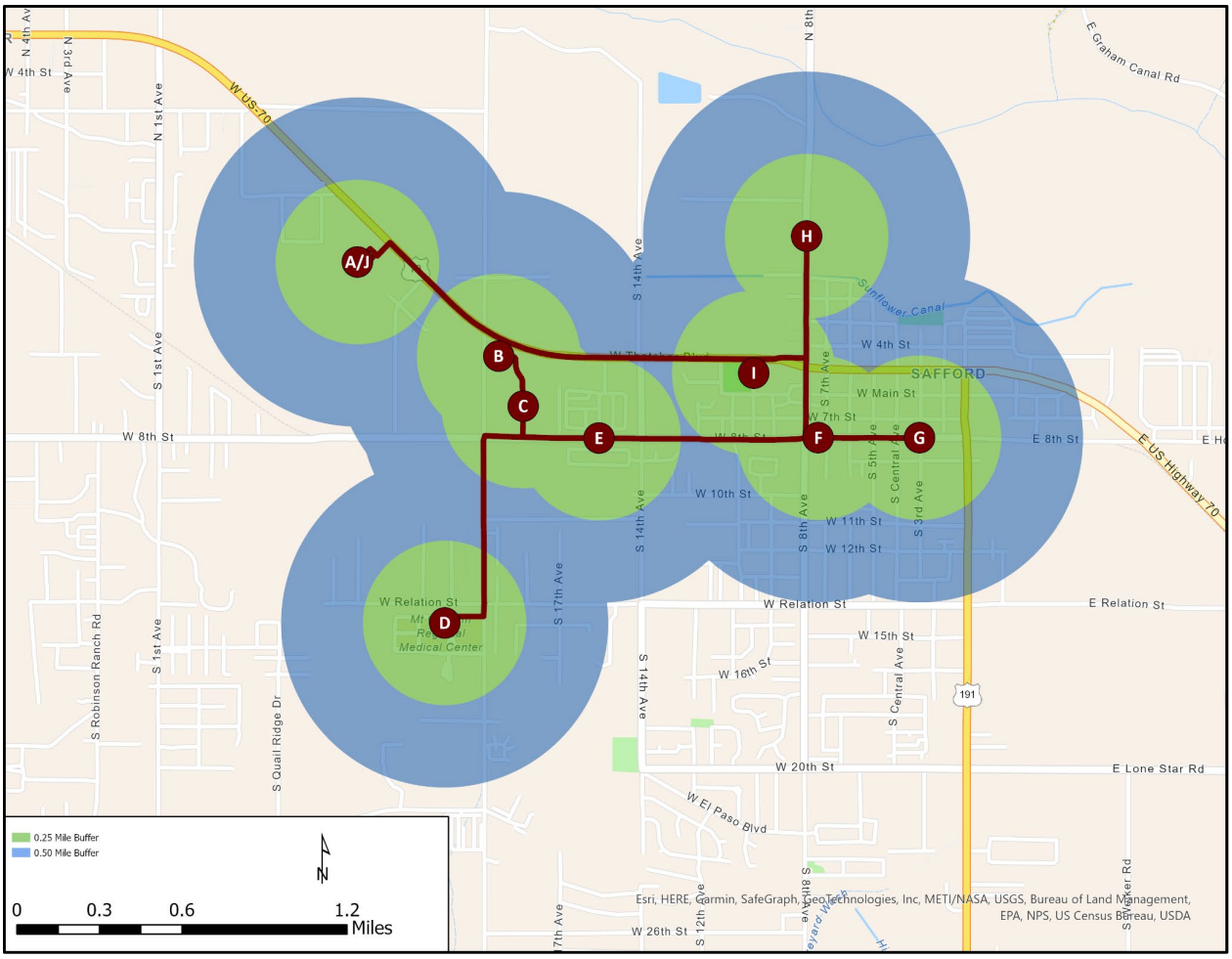

Figure 32: Shortened Loop with Quarter-Mile (Green) & Half-Mile (Blue) Buffers (24)

The catchment zone for the full and shortened loop best serves those between W. Relation Street and US 70. It misses those within W. Relation Street and 20th Street and those in proximity to S. First Avenue. While there is potential that some may be motivated to bike or walk further distances to access the service, these may not be safe places to walk or bike. Furthermore, those living in Cactus Flats and Tangelo Park would likely find little benefit for such a service.

Behavioral Health Facilities

The Safford area has five behavioral health facilities. All but one (SouthEastern Arizona Behavioral Health Services) would fall within walking distance of the proposed fixed route service (Figure 19).

Figure 33: Behavioral Health Facilities near Safford (24)

Paratransit Requirements

A public transportation system that provides a fixed route service must also provide complementary paratransit service for anyone who is unable to use the fixed route service under Section 223 of the Americans with Disabilities Act (27). The Federal Transit Administration requires that paratransit service be provided to origins and destinations within three-fourths of a mile on either side of a fixed route system. The following figures show an example of the paratransit service area that would be required for the Full Loop (Figure 20) and Shortened Loop (Figure 21) scenarios.

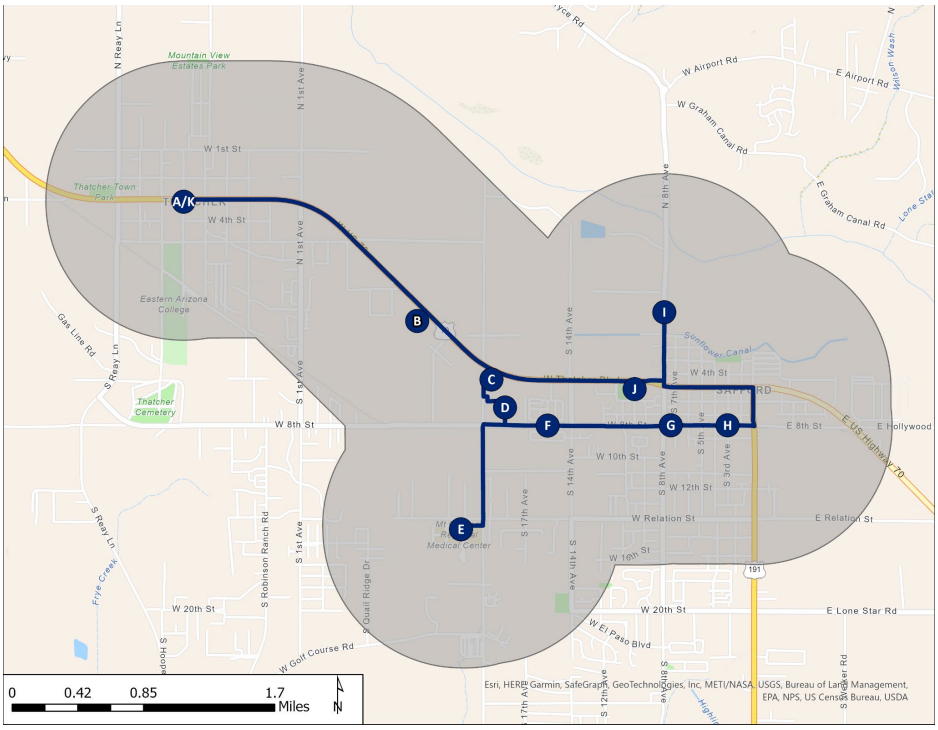

Figure 34: Paratransit Boundaries for Full Loop (24)

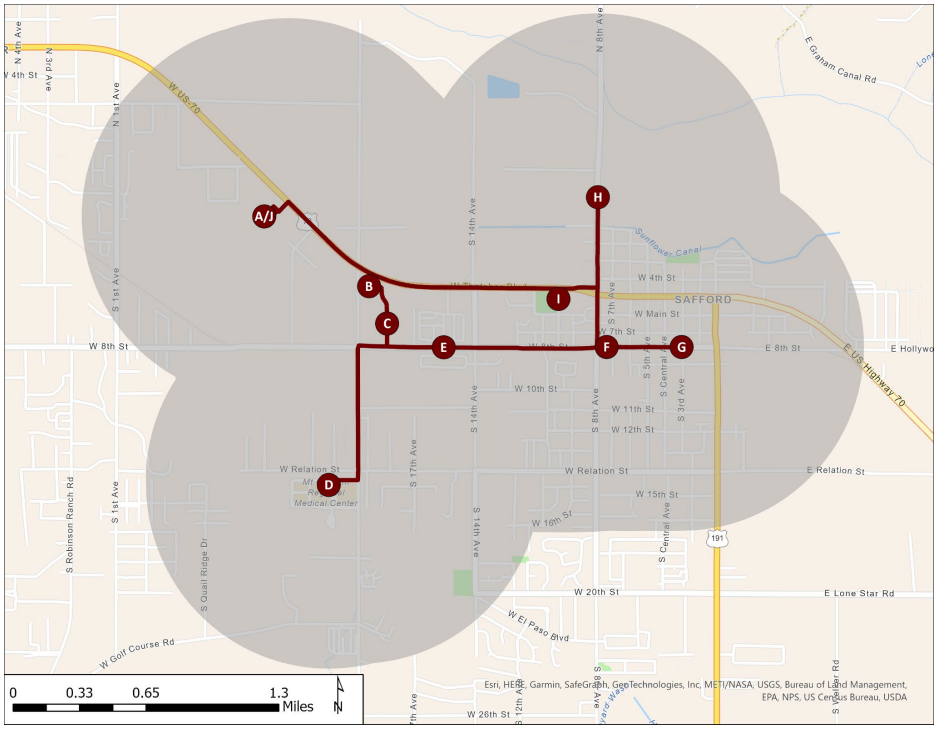

Figure 35: Paratransit Boundaries for Shortened Loop (24)

EBF has the potential to address paratransit service needs in these highlighted areas.

Fixed Route with a Feeder Service

The previous section discussed one potential fixed route service. This section describes another alternative for fixed route service that also draws in additional riders by providing a corresponding feeder service; this scenario was suggested during the January 2022 stakeholder meeting. This feeder service is offered only infrequently to specific locations (i.e. Pima, Solomon, and Tangelo Park/Cactus Flats) to assist with reducing the first-mile/last-mile challenges of public transportation. The fixed route service is considered the "CORE" service. It would run within the City of Safford throughout the day but would provide a feeder service to the outlying communities in the morning, afternoon, and evening so travelers could travel into and out of Safford. Currently, a suggested schedule would provide the feeder service as follows:

- Tangelo Park and Cactus Flats (south of Safford) – offered Monday, Wednesday, and Friday
- Pima – offered Tuesday
- Solomon – offered Thursday

Due to the constraint of only having one vehicle available, service could only be offered to the "feeder" service areas infrequently. If additional vehicles were available, or an on-demand system was coupled with the CORE system, the service levels would improve for those using the CORE route and those using the feeder route services.

The stops identified in Table 5 would serve as the CORE fixed route service.

Table 13: CORE Route.

Stop	Stop Name	Distance (mi)	Time (min)	Transit Time (min)
A	Thriftee Foods			

B	Safford-Graham Library	0.31	1	2
C	Walmart	1.00	3	5
D	Walgreens	0.25	2	1
E	Bashas	0.66	3	3
F	Eastern Arizona College	1.66	3	8
G	DES Office	3.39	6	17
H	Thriftee Foods	1.24	3	6
Total Distance: **9 Miles**				
Total Travel Time (Google Estimate): **24 Minutes**				
Total Travel Time (12 mi/hr): **42 Minutes**				

Feeder service from outlying communities would be provided three times a day. This feeder service could operate as a deviated fixed route service, allowing for a fixed stop within each community and accommodating a small number of pick-ups that would need to be pre-scheduled. Upon entering or exiting Safford, the service would stop at Mt. Graham Regional Medical Center.

Tangelo Park/Cactus Flats (served Monday, Wednesday, & Friday)

A roundtrip diversion to the Tangelo Park and Cactus Flats area will cover an estimated 16 miles and take approximately 40 minutes.

Table 14: Tangelo Park & Cactus Flats Feeder Stops.

Stop	Distance (mi)	Time (min)	Transit Time (min)
Dollar General (Cactus Flats)			
K & S Thrift Store (Tangelo Park)	2.72	3	13
Mt. Graham Regional Medical Center	3.42	6	17

Thriftee Foods	2.02	6	10
Total Distance: **8 Miles**			
Total Travel Time (Google Estimate): **16 Minutes**			
Total Travel Time (12 mi/hr): **40 Minutes**			

Pima (served Tuesdays)

A roundtrip diversion to the Pima area will cover an estimated 20 miles and take approximately 40 minutes.

Table 15: Pima Feeder Stops.

Stop	Distance (mi)	Time (min)	Transit Time (min)
Speedway (Pima)			
Mt. Graham Regional Medical Center	7.75	12	38
Thriftee Foods	2.02	6	10
Total Distance: **10 Miles**			
Total Travel Time (Google Estimate): **18 Minutes**			
Total Travel Time (12 mi/hr): **48 Minutes**			

Solomon (served Thursdays)

A roundtrip diversion to the Solomon area will cover an estimated 18 miles and take approximately 40 minutes.

Table 16: Solomon Feeder Stops.

Stop	Distance (mi)	Time (min)	Transit Time (min)
USPS (Solomon)			
Mt. Graham Regional Medical Center	6.73	12	33

Thriftee Foods	2.02	6	10
Total Distance: **9 Miles**			
Total Travel Time (Google Estimate): **18 Minutes**			
Total Travel Time (12 mi/hr): **43 Minutes**			

The feeder routes take an estimated 40-60 minutes, roundtrip. Conservatively assuming the longer options, a potential schedule for the CORE and feeder routes is described in Table 9. An overview of the route is shown in Figure 22: CORE & Feeder Routes.

Table 17: Proposed Schedule, CORE & Feeder Routes.

Stop	Estimated Time
Scheduled Stop at Originator Community	8:30 AM
Mt Graham Regional Medical Center	8:50 AM
CORE Route	9:00 AM to 11:00 AM
Mt Graham Regional Medical Center	11:10 AM
Scheduled Stop at Originator Community	11:30 AM
Mt. Graham Regional Medical Center	11:50 AM
Lunch Break for Driver	12:00 PM to 1:00 PM

CORE Route	1:00 PM to 4:00 PM
Mt. Graham Regional Medical Center	4:10 PM
Scheduled Stop at Originator Community	4:30 PM

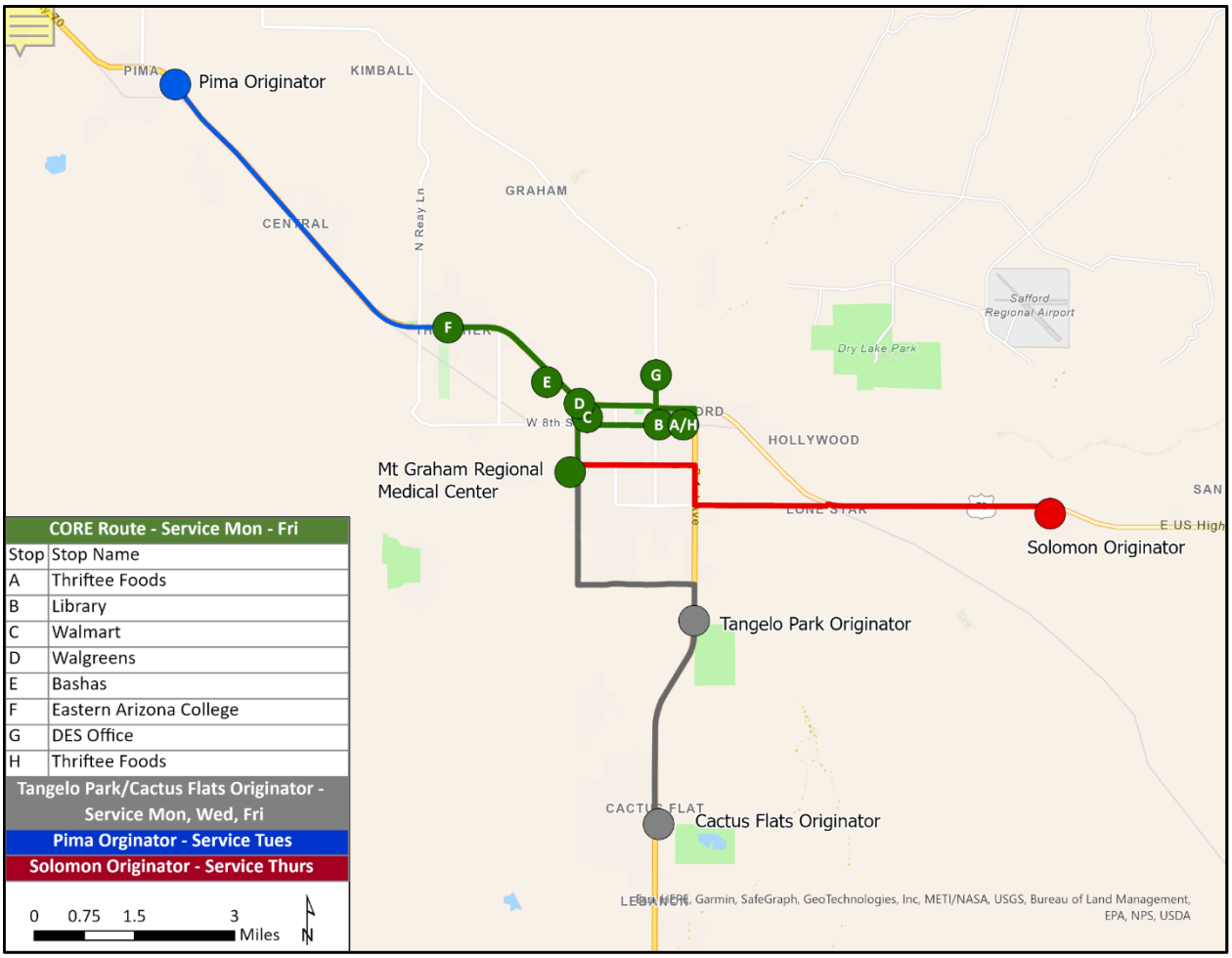

Figure 36: CORE & Feeder Routes (24)

This method of service brings benefits in that it reaches a broader population in the Safford area (i.e. Pima, Solomon, Tangelo Park, Cactus Flats); however, the service limits the usefulness to those who may want to utilize the service for commuting purposes.

Bicycle and Pedestrian Access

Similar to the previously described scenario, this section details quarter-mile and half-mile buffers around each stop to better understand the catchment area for pedestrians and cyclists (Figure 23).

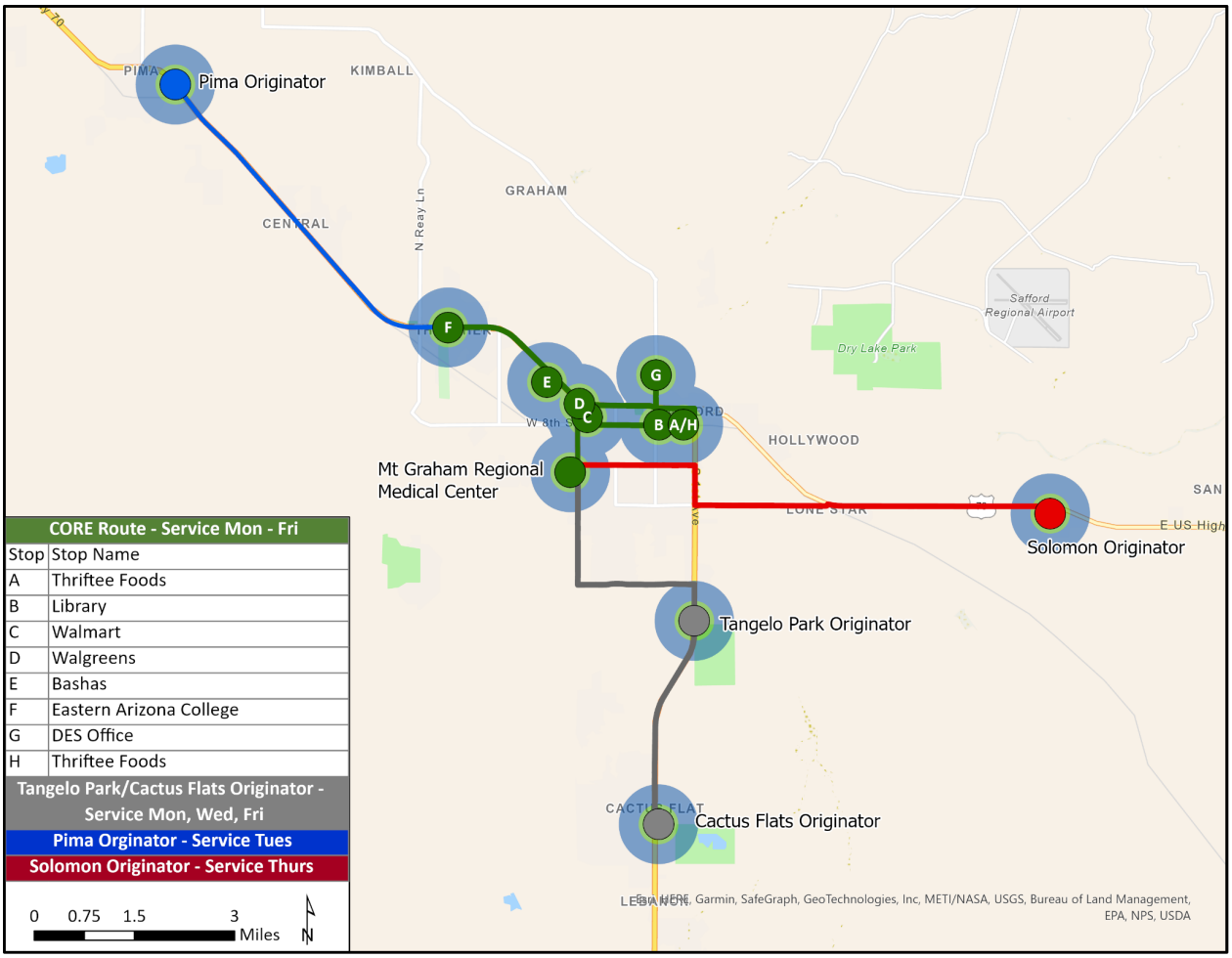

Figure 37: CORE & Feeder Service with Quarter and Half-Mile Buffers (24)

Behavioral Health Facilities

The Safford area has five behavioral health facilities. All but one (SouthEastern Arizona Behavioral Health Services) are located within walking distance of the proposed fixed route with feeder service (Figure 19).

On-Demand with Technology

On-demand with technology is a shared transportation service that provides a dynamic, demand-response model which can better serve lower population density areas (28). On-demand with technology may provide a feasible alternative to a traditional fixed route transit system for the Safford area. As the use of technology to enable more flexible service is a relatively new approach, particularly for rural areas, this section will highlight the findings from two recent on-demand with technology reports and present three rural case studies, including one featured in a webinar. Following this, since technology is a central component of the on-demand with technology service model, a discussion related to the connectivity of Graham County compared with counties that currently have such

service will be presented. Finally, two on-demand with technology options for the Safford area will be described.

Information about On-Demand with Technology

The following sections detail some contemporary information about on-demand with technology systems, starting with a 2018 report by The Eno Center for Transportation, a 2019 report by the Transit Cooperative Research Program (TCRP) and rural on-demand with technology case studies, including that from a 2020 webinar by the National Rural Transit Assistance Program (NRTAP).

UpRouted

In 2018, The Eno Center for Transportation produced the report *UpRouted* (29). Within the document, the efforts of three, large transit providers to offer on-demand with technology transit are described.

This paradigm was highlighted as a means with which to prioritize customer needs. To prioritize the needs of the customer, one must look beyond the typical performance measures (i.e. ridership and farebox recovery) to include metrics like improved mobility, increased safety, and an enhanced customer experience.

Contracting mechanisms that can enable quick changes to be made during the pilot stage in response to issues identified (i.e. concurrently minimizing passenger ride time while balancing the number of riders) was noted as a key recommendation.

Some of the pilot projects discussed within performed poorly. However, the pilots suffered from several issues. Limited marketing was identified as one issue. In addition, for one service, the need for an AM and PM peak commuter service was overlooked as a key need for riders – many reported in surveys that the service time frames were too limited and that the operation area was too linear. Pilots also inadvertently limited the potential user pool in two ways. In one case a call center was not provided even though the transit agency reported that approximately twenty percent of their ridership was arranged via the call center (essentially eliminating one-fifth of potential riders). Second, a pilot program only allowed payment via a debit or credit card even though a transit agency reported that approximately half of their ridership had annual incomes of less than $24,000. Individuals earning less than $24,000 annually often do not utilize debit or credit cards.

The report also shared findings regarding considerations for those serving as drivers. First, drivers who formerly operated fixed-route vehicles had difficulty transitioning to the on-demand system. Interestingly, they found that drivers who operated paratransit vehicles made a more seamless transition to the on-demand system. In addition, tablet training was recommended for all drivers.

Another significant issue with the early on-demand with technology pilot programs was related to the algorithm that ultimately provided the directions and schedule for drivers. One algorithm was originally told to pick-up as many passengers as possible, yet the capacity of the vehicle (a.k.a. load factor) was not integrated as a factor in the algorithm; this oversight resulted in long ride times for users. Because the contracting environment did not allow a quick-response change to be made, the system continued to operate with the original algorithm until a change was approved by the board. Consequently, a significant recommendation within the document was to enable quick decisions to be made locally when aspects of the program are not working.

The report provided additional design details of interest. One service reported expanding their on-demand service area from 3.25 square miles to 5.5 square miles. Another service utilized sidewalk decals to mark stops where vehicles could safely and legally stop. Compared to fixed transit, on-demand with technology vehicles are often smaller, leading to the operation and maintenance costs often being less. At least one agency reported challenges with the onboard navigation tablets.

The report provided several suggestions with respect to marketing activities. A very effective marketing tool identified was “in-person education” for the system and its methods of ride reservation. User unfamiliarity with an on-demand with technology system was identified as a substantial barrier to use and adoption. Several systems required a potential user to essentially “self-educate” in order to effectively utilize the system. An introductory period with free rides as well as direct mail marketing to businesses and residences within the quarter mile of the service was also an identified marketing approach.

Not all of the on-demand with technology software systems operated similarly. At least one allowed subscription-type services (i.e. requesting a ride every Monday morning). One also enabled an individual to schedule service for someone else; this might be useful for a more tech-savvy individual to schedule service for a relative that is not as familiar with technology (i.e. a grandchild for a grandparent). Another service allowed customers to board at scheduled times and verbally request their drop off location, which would be entered into the system by the driver manually. This approach provides additional flexibility to those who may not be as digitally connected. A challenge encountered by a pilot program was the inability to concurrently allow on-demand and advanced reservations to be made through the software.

One system noted surprise to find that for a connection (i.e. a light rail station), the on-demand service was not being used to access it, but rather to travel from the station to their final destination.

The findings also recommended, “robust vendor and design research prior to RFP development and release,” including conducting “a series of outreach meetings to potential vendors.”

Thoughts in Response to Uprouted

One question that has not been answered is with respect to the algorithms that make on-demand with technology possible. It is clear that decisions made within the algorithms impact the overall performance of the system. Yet, little guidance to date seems to fully discuss this issue. There may be some issues with "proprietary knowledge;" however, this highlights the value of meeting with several potential vendors prior to selection as suggested in the previous section.

The document suggested surprise that people were using the on-demand service for the last-mile more than the first mile. Yet, for the first-mile, it is more likely that someone can get dropped off in a personal vehicle (and then the person dropping them off can take their own vehicle to their final destination), they can use a bike and feel safe about parking it (as they are likely more familiar with the area), or they can walk (again, they are likely are more familiar with the area).

There continues to be an ongoing expectation that potential users can and will educate themselves on how to effectively utilize the systems. Something as novel as on-demand with technology transportation service, while it has the potential to provide significantly higher quality and more efficient service compared to traditional fixed route services in rural areas, there is a need to teach users how to make use of it. This is likely a need for any rural transit service, as providing robust service in rural areas is still evolving.

TCRP Report

In 2019, a Transit Cooperative Research Program (TCRP) report (28) reviewed the experiences of more than twenty transit agencies with on-demand with technology applications, with case studies developed for five. The majority of the examples can be described as being more urban/suburban examples. The report indicates that on-demand with technology service is "more efficient than fixed route service in areas of lower density or demand." The report suggests that on-demand with technology strikes a balance between the individual-based efficiency found via transportation network companies (TNCs) and that of fixed-route service. Algorithms within the technology are used to "optimize the vehicle's route in real time to serve the most amount of people as efficiently as possible." On-demand with technology has been described as a paradigm in which the transit vehicle finds the person, as compared with the more traditional scenario where the person finds the transit vehicle. An on-demand with technology system that has point deviation is a system in which there are a small number of fixed stops but no defined route between them. While the report suggests that in rural areas, the on-demand with technology service is often combined with paratransit, a very limited number of rural examples were considered.

Several reasons were identified regarding why transit agencies moved to an on-demand with technology system. One transit manager reported that the value of on-demand with technology was out of a "genuine concern for those who are socio-economically

disadvantaged and a desire to assist them with access to opportunities" including jobs, education, and social services. Others reported that the service could best accommodate a growing elderly population and provide them with a level of mobility that would enable the elderly to age in place. A benefit of on-demand with technology services is the ability to expand "economic opportunities" by enhancing mobility. On-demand with technology was also identified as a solution where there was limited infrastructure to safely support someone walking and bicycling, including the presence of hills. It was also identified as a method that could be used to identify a market for fixed route transit services.

On-demand with technology has found a niche in serving lower transit demand areas, lower densities of population, and areas with lower densities of employment. Suburban and rural areas are specifically identified as being good applications of this service model. The report identifies that it may often be a good fit where fixed transit services have failed to achieve the "standards of ridership performance." On-demand with technology has also been identified as a good solution to enabling mobility to the largest number of people when considering lower density areas. The report notes that on-demand with technology is now possible because of "advances in technology" and a corresponding reduction in the costs of this technology.

An on-demand with technology system can be designed to allow a user to access the service via all or some of the following methods: 1) smartphones, 2) computing devices, 3) reservation lines, and 4) at identified pick-up points (i.e. a Walmart/Bashas/hospital) (aka checkpoints/time points). Major generators of trips (i.e. schools, shopping centers, office parks) may be good locations for checkpoints; one service identified Walmart as their top destination. Users may be notified by a telephone call or by text that the vehicle is in transit to pick them up. A challenge noted is that when a single vehicle is used, there is a capacity limit for when the vehicle can pick-up and drop-off users, particularly for larger service areas.

The document also details service findings to date, although as mentioned earlier, this information originates from primarily urban/suburban applications. On-demand with technology services have been identified as being able to carry 2.4 to 4.7 passengers per vehicle service hour; however, the greater number of passengers per vehicle service hour reflects systems that are designed with time points and higher frequency cycles. They were also associated with higher levels of employment density and greater populations. Therefore, it is more likely that rural applications would be closer to 2.4 passengers per vehicle service hour. Zones were reported as spanning between 2 and 30 square miles; however, one provider recommended keeping the zones closer to five to seven square miles. One agency estimates that for a zone between five and seven square miles, one vehicle could accommodate up to six passenger trips per hour. Fares ranged from as low as $1.00 to as high as $10.00, with the latter representing long-distance, more regional service (i.e. a 19-mile long trip). Farebox recovery ratios ranged from five percent to twelve percent. Providers reported that if a passenger that reserved service was a no-show, they were precluded from using the service for a period of time following the no-

show. At least one service allowed for a trip to be denied if the on-demand with technology vehicle was at capacity.

Service hours varied from as early as 5:30 a.m. to as late as 10:30 p.m., and typically at least provided service during the week (Table 10).

Table 18: On-Demand with Technology Reported Service Hours.

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
6am-10:30pm	✓	✓	✓	✓	✓	✓	✓
6am-9pm	✓	✓	✓	✓	✓		
5:30am-7:30pm	✓	✓	✓	✓	✓	✓	
5:30am-9pm	✓	✓	✓	✓	✓		

To enable an agency to properly analyze the effectiveness of such a service, it is recommended that the agency is provided with control of the mobile application as well as a dashboard that shares administrative system data.

It is also noted a tendency for the on-demand with technology systems to utilize smaller vehicles. Several benefits were reported as being associated with the smaller vehicles for on-demand with technology, including that they are easier to maneuver, are more fuel efficient, and do not require drivers to possess a commercial driver license.

In addition, as the data recorded by the software provides origin and destination data, no automatic passenger counters are necessary. This information can, in turn, be used to analyze if a fixed route, or a fixed route deviated service may be a good service model for the area in the future.

An agency noted that their performance metric for on-demand with technology was not the amount of time it took to get to a single request for service, but instead how close the vehicle arrived within the time that it had indicated to the passenger. Other performance indicators utilized by some service providers included missed trips, on-time performance, meeting connections, and cost.

One contractor ultimately discontinued service, which had an average cost of $21.70 per passenger; others reported a cost as high as $30 per passenger. However, this is likely resulting from maintaining a policy of “zero denials” for riders. Therefore, in some cases, an additional vehicle was brought in to service even while demand was minimal.

RTD, in Colorado, indicated that seventy percent of all trips are for commuting to work or school; they also add vehicles during peak-periods. RTD charges the same fees for their on-demand with technology service as they do for their fixed route transit service.

Houston's METRO had an unexpected market with their on-demand with technology service: school children. With limited sidewalks and lighting between apartments and schools, children were using the on-demand with technology service to safely travel between their origins and destinations.

A benefit reported by one transit provider was that a cancelled trip does not "negatively affect the operator or the remaining scheduled trips."

For some services, the transit agency recommended that during peak service periods, that a user book their ride an hour in advance. They also recommended that, if possible, users book their trips during non-peak service hours. In other words, there are ways to use marketing to try to spread out the demand for the service for those who may have more flexible schedules (i.e. the transit provider could work with medical providers to schedule appointments where someone needs transportation during periods when there is less demand).

One service reported using "ruggedized tablets" within their vehicles to display the trips to be served and the route; the next five pick-up and drop-offs were identified. A sound (chime) was used to communicate to the driver if a change had been made to the next pick-up or drop-off. The location of the vehicles updates every three to five seconds during operation. When a vehicle is en-route to pick-up a passenger, an "electronic 'honk'" is given to the passenger. A driver can override the route identified through the software if they are aware of a more efficient one; this might be particularly relevant for rural areas, although the transit provider should establish policies regarding when this is permitted.

Regarding the software, one agency reported replacing a "calendar-based" interface with a "task-based" interface with turn-by-turn directions. The agency reported that it allowed the driver to pay more attention to driving and providing customer service. Another agency reported that they instituted a mass cancellation-and-notification system, which could be activated for snow and ice events.

In order to be effective, the need to spend a significant amount of effort marketing the service, particularly because it is a new style of service, was reported. At least one agency reported sending direct mail marketing to every residence and business within the on-demand with technology zone. Agencies also reported purchasing radio spots and television commercial time on English and Spanish channels. Presentations at public meetings, public hearings, and presence in public spaces were also identified. Transit agencies also reached out via local newspapers, large senior living facilities, mobile home parks, conducted ribbon cutting ceremonies, press conferences, press releases, and generated television news coverage. In addition, agencies reported targeting significant

trip generators (colleges, hospitals, schools, apartment complexes, industrial complexes, office parks, entertainment venues) for additional marketing efforts. One unique marketing idea was via a movie theatre ad. Another entity marketed the service at a grocery store, coffee shop, provided geofenced mobile ads, and sent an email to high school students. One agency offered postcards that would allow a person to include their contact information if they wanted more information about the service. One on-demand with technology system, HART, had electric vehicles donated for their system. HART used this vehicle to market the system. Marketing should occur before, during and after the service is implemented. When considering what happens if significant marketing efforts are not undertaken, a transit agency example identified that community members were unaware that a limited number of free rides were provided to allow potential users to become familiar with the service. In addition, those that ultimately rode the system only realized it existed by seeing the vehicles drive past them.

Several transit agencies reported offering their on-demand with technology as a pilot first. Offering a pilot was also suggested as being a "wise" choice. Several agencies chose to implement a pilot transit service for a period of a year or less. Another service started with a one-year pilot and extended it into a second year. They also suggested that pilot projects are easier to launch when no service is currently available.

Most of the transit agencies to date that have utilized on-demand with technology systems have done so by contracting with a private entity to operate the system. However, this is not possible in every area, as responses to requests for proposals (RFPs) often result in zero bids being submitted. It has been suggested that when bids are not presented, it may reflect that entities may not have sufficient facilities and equipment available in the area to be served. To date, transit providers have reported that contractors provide on-demand with technology service at a more affordable price. A benefit of using contractors is that they have the ability to quickly scale services in response to observed conditions. Some services provide vehicles and fuel but not a garage, operators, or maintenance. Some have required the contractor to provide "reasonable wage structures," including "proposed salaries for contracted employees," and to ensure quality of service. Some transit agencies reported that when a project is a pilot, competitive bids are not required. One agency reported including a provision for liquidated damages if performance was unsatisfactory to the transit agency. RFPs also included on-time performance requirements and standards for safety. One transit agency selected a bidder, not based on the lowest cost bid, but instead on the experience of the company in providing on-demand with technology service. Transit agencies reported using secret shoppers that randomly accessed the service to evaluate the quality of service. Level 2 background checks and drug and alcohol testing were also requirements. A transit agency recommended that hiring a contractor with on-demand with technology experience is preferred. One transit agency noted a need to remind the contractor that they are "ambassadors and representatives of the public transit agency." All of the potential

provisions within an RFP should be considered to ensure quality of service as balanced with being attractive enough to contractors that at least one bid is submitted.

One transit agency reported issues with the tablets used for the system, citing lost connectivity or periods when it was out-of-service. The lack of connectivity results in trips being missed and presented anxiety to drivers. One transit provider conducted a "dry run testing in a live format" for an entire month before providing service to the public. This enabled that agency to address some significant changes in policy as well as some changes to the software.

One of the most significant challenges identified as being associated with on-demand with technology is "teaching people how to use the service." One service offered free travel training. At least one agency (LYNX) offered a YouTube video on how to use the service. One transit agency noted that they had challenges because the public perceived the on-demand with technology service to operate the same as a paratransit service.

Thoughts in Response to the TCRP Report

Much of the information contained within the TCRP report could inform an on-demand with technology system in the Safford area; however, as the Safford area system is much more rural than the examples in the TCRP report, caution should be taken in too directly mapping the results summarized in the TCRP report to the expected experience in the Safford area. For example, while the TCRP report identified as short as a six-month pilot to one that was extended for a second year, in rural areas, where adoption of public transportation systems may be slower, a longer pilot period is recommended to enable people to learn about the service and adopt it over time.

In addition, thinking about the site-specific experiences of the SEAGO area, in using similar approaches for marketing that were identified, it might be suggested to advertise the service at Bashas, Walmart, via ads within the Allen Theatres – Stargazer 5, and through emails to the high schools and the college.

Another challenge that the Safford area faces compared with those described in the TCRP report is that the systems described often had dedicated transit staff. This is not expected to be the case for the Safford area system. However, long-term, identifying at least one staff person that could oversee the transit system as part of their job responsibilities would ensure the viability of the system by allowing adjustments to be made over time. The most successful transit systems are those that adapt as a community changes.

As highlighted with the Houston example, the on-demand with technology model could benefit students. These could be high school students going to after-school activities or courses offered to them at Eastern Arizona College (i.e. advanced placement courses), allowing them to safely get home then after. It could also be Eastern Arizona College

students, who may need to get to the grocery store or work which could be enabled by the service.

A significant benefit of this approach as compared with fixed route or fixed route with feeder services, is that the flexible nature of the service allows for a better understanding of when someone may use the service and where they want to go. If after running the service for a period of a year, the data reviewed suggests a large majority of the origins and destinations are in a specific area, at a minimum, checkpoints could be used, and even potentially a fixed route system could be defined based on the collected data.

On-Demand with Technology, Case Studies

In November of 2020, a representative from the City of Wilson, North Carolina and a private contractor (Via) presented a webinar through NRTAP (30). The webinar started by defining on-demand with technology, noting that "'schedules' aren't really schedules at all, as they shift constantly based on rider demand." The City of Wilson identified starting with an existing, fixed route service that had sixty-minute headways. They identified the following objectives for their on-demand with technology service called RIDE:

- Drive economic growth by connecting Wilsonians with more jobs,
- Improve access to critical resources – healthcare, food, government, fixed route transit, etc.
- Grow ridership with convenient and tech-enabled experience
- Deliver a higher quality of service for comparable cost to today's fixed route
- Ability to experiment with minimal long term capital investment or risk.

The on-demand with technology service allowed for prepaid vouchers or prepaid debit cards to be utilized by unbanked individuals. The contractor also provided National Transit Database (NTD) reporting summaries. Daily rides with the new system, post-pandemic, were reported to have exceeded those of the pre-pandemic, fixed-route system (322 to 275).

The on-demand with technology service is operated by a private company (Via) using ten vans (31). Users book a ride via a smartphone application or by telephone. The service charges a flat fare of $1.50 for a trip within the City of Wilson. Since launching the service in September of 2022, RIDE has increased service coverage across the city and seen significant growth in ridership (averaging over 300 rides per day). In fact, on-demand with technology has become so popular that the North Carolina Department of Transportation is implementing it elsewhere throughout the state. According to a June 2022 presentation by Ryan Brumfield, NCDOT Director of the Integrated Mobility DIvision, there were 30 on-demand with technology projects underway in the state. Of these thirty projects 12 are in the exploration phase, 13 are in the planning phase, and 5 are operating and collecting revenue.

Another case study of on-demand with technology in a rural area is the Baldwin Regional Area Transit System (BRATS) in Baldwin County, Alabama. The service operates within a primarily rural county spanning 2,000 square miles. It is operated by a private company (Via). Rides can be scheduled using a smartphone application or by calling the BRATS scheduling team. Fares range from $2.00 to $5.00, one-way, depending upon the distance traveled.

Ben Franklin Transit in the Tri-Cities area of Washington State operates an on-demand with technology service called BFT CONNECT. It provides connections to Ben Franklin Transit's fixed route transit system. Operated by a private company (Via), the on-demand with technology service is designed around six service zones throughout the Tri-Cities (32). Each zone has a select number of predetermined destinations that a user can schedule a ride to (generally transit centers or Ben Franklin Transit bus stops). Rides can be scheduled via a smartphone application or phone.

Connectivity Challenges in Rural Areas

Connectivity is critical to the functionality of an on-demand with technology system. This allows riders to call in or utilize a smartphone application to request a ride and enables the system to dynamically schedule pick-ups and drop-offs. The aforementioned studies were perfomed in rural areas in proximity to larger, urban areas. In contrast, the focus area for this study is in a very rural part of the country where connectivity may be a concern. Therefore, while one potential solution identified is that a route is updated when a driver returns to an area that enables the system to reconnect, the question becomes whether or not this reduces the efficiency of the service in a very rural context. To date, no known example operating in a very rural environment exists.

To better inform whether this impact is perceived or real, the technical assistance team investigated what was known about connectivity in Graham County. The National Association of Counties (NACo) developed the TestIT smartphone application to collect data on how people across the country experience cellular and broadband internet. This app allows for an analysis of the true state of broadband and cellular connectivity and may be used to identify areas with poor or no connectivity. Table 11 compares fixed wireless and cellular speeds in Graham County to the aforementioned case study communities. A qualitative assessment is also used to demonstrate when the wireless and cellular speeds fall below (red) or meet the FCC definition of a minimum standard of service (green). Graham County, Arizona fell below FCC standards for all indicators (cellular and fixed broadband speed).

Table 19: Comparing Cellular and Fixed Wireless of Graham County to Case Study Communities (33).

Location	State	County Avg Cellular & Fixed Wireless Download Speeds vs. FCC Minimum Standard (mbps)	County Avg Cellular Speeds vs. FCC Minimum Standard (mbps)	County Avg Fixed-Wireless Download Speed vs. FCC Minimum Standard (mbps)	County Avg Fixed-Wireless Download Speed vs. Form 477 Data (mbps)
Graham County	AZ	-5	10	10	-5
Wilson County	NC	5	25	No Data	No Data
Franklin County	WA	-25	No Data	0	-15
Benton County	WA	-25	25	25	-15
Baldwin County	AL	-25	25	25	0.2
Norfolk	VA	No Data	No Data	No Data	No Data

The U.S. Census Bureau's American Community Survey is another data source that provides information about household access to computers, smartphones, and broadband internet. Nearly eighty-one percent of households in Graham County have a smartphone; 67.6 percent of households have a cellular data plan (Table 12). Having access to these tools enables a potential rider to access an on-demand with technology application when they are not at home. Consequently, understanding the access of potential riders in Graham County is important to understand their ability to utilize such a system.

Table 20: Comparing Graham County Households to Case Study Households When Considering Access to the Internet, Computing Devices, Smartphones, a Cellular Data Plan, and Computers (34).

Location	Households	% of Households With One or More Computing Device (Any Type)	% of Households with a Smartphone	% of Households with No Computer	% Households with No Internet Access	% Households with a Cellular Data Plan
Graham County	11,348	90%	81%	10%	20%	68%
Wilson County	31,968	83%	73%	17%	20%	66%
Franklin County	27,263	95%	88%	5%	9%	80%
Benton County	73,073	94%	86%	6%	8%	78%
Baldwin County	84,047	92%	85%	8%	12%	78%
Norfolk	89,398	92%	86%	8%	12%	79%

Table 21: Comparing Graham County Households to Case Study Households When Considering Internet Subscription, Dial-Up, Broadband of Any Type, and Internet without Subscription (34).

Location	Households with Internet Subscription	% of Households with Internet Subscription	% Households with Dial-Up	% Households with Broadband	% Households with Internet Access Without a Subscription
Graham County	8,964	79%	-	79%	1%

Wilson County	24,479	77%	0.2%	76%	3%
Franklin County	24,228	89%	0.1%	89%	2%
Benton County	64,510	88%	0.3%	88%	4%
Baldwin County	71,880	86%	0.5%	85%	3%
Norfolk	75,764	85%	0.1%	85%	3%

The Federal Communications Commission (FCC) mapped access to broadband at the county level for the entire United States. Graham County is the most rural of the communities considered and has the fewest number of broadband providers (seven), while under 67% of the population has access to fixed broadband service that meets the FCC standard or higher (Table 14).

Table 22: Rurality and Broadband Service Levels (35).

Location	% Rural	# of Broadband Providers	% of Population with Access to Fixed Broadband Service at 25/3 or Higher	% of Population with Access to Fixed Broadband Service at 25 mbps or Higher Advertised Download Speed	% of Population with Access to Fixed Broadband Service at 3 mbps or Highway Advertised Upload Speed	% of Households with Fixed Connections Over 200 kbps
Graham County	46.0 %	7	66.6%	66.6%	91.1%	60%-80%
Wilson County	38.0 %	9	97.5%	98.7%	100.0%	60%-80%
Franklin County	12.1 %	12	100.0%	100.0%	100.0%	60%-80%

Benton County	9.9%	12	100.0%	100.0%	100.0%	80%-100%
Baldwin County	41.9 %	11	23.1%	40.7%	100.0%	80%-100%
Norfolk	N/A	8	95.7%	95.7%	100.0%	60%-80%

Piloting an on-demand with technology service would provide service for the community and allow testing regarding whether connectivity is sufficient in the area. The lessons learned from such a pilot could be a significant resource for other rural communities looking to provide a higher level of transportation service in a more flexible, cost-effective manner. One potential option that could be considered is leveraging Federal Transit Administration's (FTA's) Enhancing Mobility Innovation grant: https://www.transit.dot.gov/research-innovation/enhancing-mobility-innovation-fy-2021-notice-funding-opportunity.

On-Demand with Technology Scenarios

First, a single zone, single vehicle system is described, as it would use one vehicle similar to the fixed-route and fixed-route feeder scenarios discussed previously. Then after, a two-zone, two vehicle system is described, as the smaller vehicles that may be used for on-demand with technology may make two vehicles financially attainable, particularly if operating expenses are reduced by making use of an electric vehicle.

One Zone, On-Demand with Technology

First, a one zone and consequently one vehicle system was considered. The intent was to enable a more direct comparison to the fixed route with one vehicle service described previously. A map of this service, which would encompass the fixed route area is provided below (Figure 24). This zone would span 7.4 square miles.

Figure 38: Single Zone, On-Demand with Technology System (24)

With zones identified as spanning from two to thirty square miles (30) in other projects, this zone would fit within this observed range; however, depending upon the number of rides requested, there is the potential that demand could quickly outstrip the supply provided by the single vehicle. Consequently, two smaller zones were identified in the next section.

Two Zone, On-Demand with Technology

Based on the descriptions provided by the stakeholders, a two-vehicle system and consequently two-zone system would likely better serve the needs of the Safford area:

- Zone 1: Safford/Cactus Falts/Tangelo Park
- Zone 2: Thacher/Pima

In the future, a third zone could integrate Solomon based on the performance of the two zone scenario.

Fares could be set depending on origins and destinations. Generally, fares within a core zone (in this case, Zone 1) are less expensive, whereas fares for those traveling between zones may be more expensive (i.e. $1.00 versus $1.25).

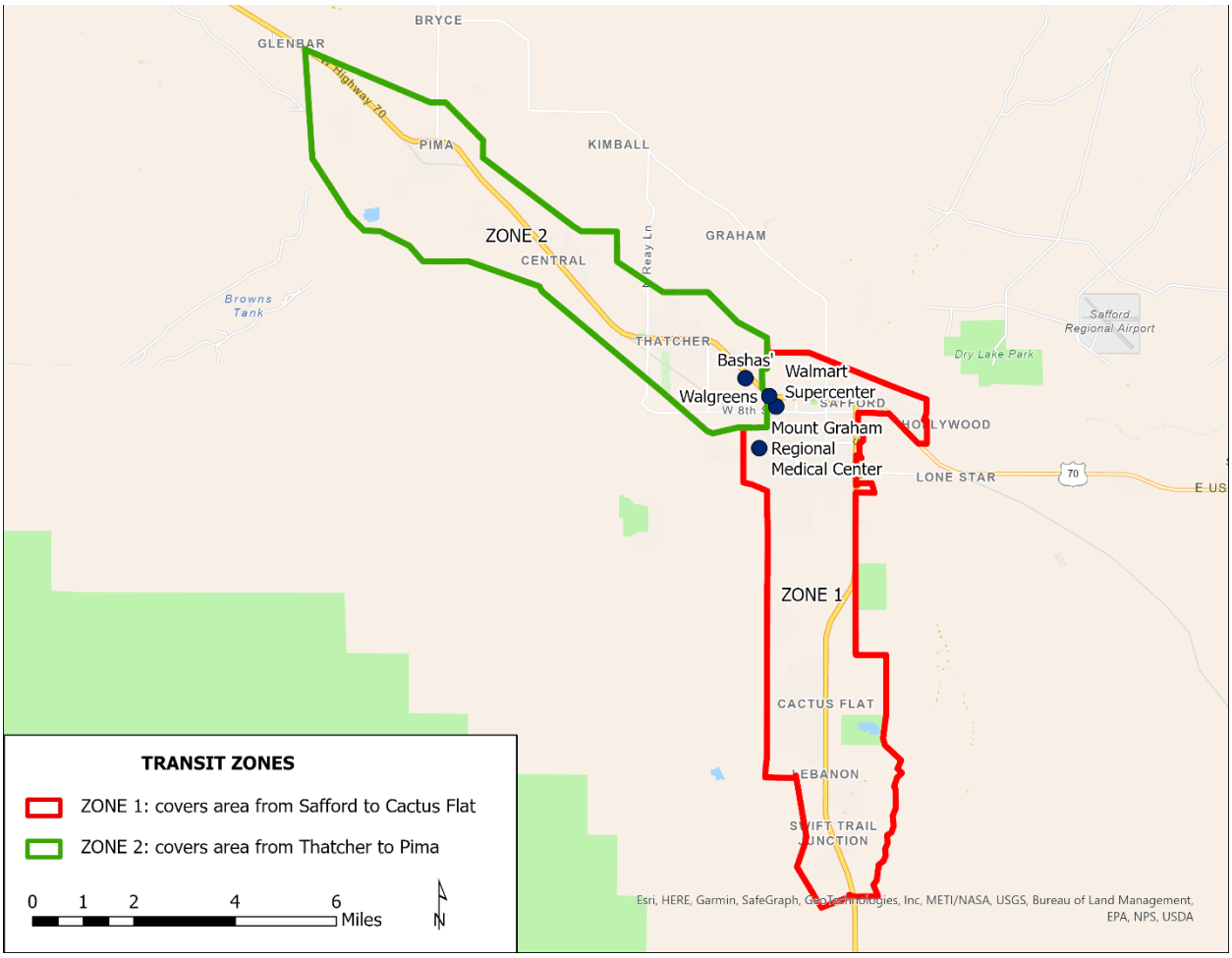

Figure 39. Two Zone, On-Demand with Technology System (24)

Estimated System Costs

Costs associated with a public transportation system include capital costs, operating costs, and maintenance costs. Public transportation costs are heavily influenced by the following factors: 1) type of vehicles, 2) the hours of service, 3) the days per week that service will be offered, and 4) the number of vehicles. However, there are additional costs including supporting infrastructure and staff to market, oversee, and administer FTA program requirements. These costs are detailed in the following sections.

Types of Vehicles

Table 15 identifies vehicle costs associated with various identified vehicles frequently utilized by providers. In particular, the Ford MobilityTRANS, are vehicles commonly utilized by on-demand with technology services, whereas the larger vehicles, shown in the first three rows, are more typical of fixed route or fixed route with feeder systems. As described above, another identified benefit of the on-demand with technology service systems are that they types of vehicles frequently utilized are often less cumbersome while driving (i.e. they more easily fit down roadways). In addition, with fewer passengers

in the vehicle, a commercial drivers license (CDL) is not required (36). This can enable a larger pool of potential driver candidates for employment by the provider.

While the initial cost of the vehicle acquisition may be more expensive for electric vehicles (EVs), the operation and maintenance costs, which can be steep for a service that is expected to run for many hours daily could easily account for these costs over time. There is also the potential that another funding source could be leveraged to purchase an EV.

Table 23: Costs and Capacity of Potential Vehicles ((37), (38), (39)).

Model	New or Used	Estimated Price	Capacity	Wheelchair Accessible	Fuel Type
2019 Chevrolet Arboc Spirit of Mobility	Used	$66,675	12 passengers + 2 wheelchairs or 16 passengers	x	Gasoline
2020 Startrans Senator 270	Used	$79,800	8 passengers, 6 wheelchairs	x	Gasoline
2023 Diamond VIP 2500	New	$92,800	21 passengers		Gasoline
2022 Ford	New	At least	14		Electric

MobilityTRANS		$55,000	passengers		
2022 Ford MobilityTRANS	New	At least $50,000	9 passengers, 1 wheelchair	x	Gasoline

Hours & Days of Service

For the purposes of this report, operating costs were estimated assuming transit service would operate Monday through Friday from 8am to 6pm. This service would operate for roughly 255 days per year, accounting for major holidays (e.g. Thanksgiving, Christmas, etc.) when the vehicle would not be in service.

Fixed Route and Fixed Route with Feeder Service

When considering the fixed route and the fixed route with feeder service, per hour operating costs were estimated using the average and median operating expense per vehicle revenue mile in Arizona provided by the Rural Transit Factbook (2021) (40).

- Average operating expense per vehicle revenue mile in Arizona: $3.97
- Median operating expense per vehicle revenue mile in Arizona: $4.26

Costs were estimated assuming a one-hour headway for the full loop fixed route transit scenario and a thirty-minute headway for the shortened loop fixed route transit scenario. In other words, a user would see the shortened loop more often, which also means that a vehicle serving the shortened loop would travel more miles in one day. Consequently, the costs for a shortened loop are greater. For the full loop transit scenario, the estimated operating expense would range between $101,235 to $108,630 per year (Table 16). For the shortened loop transit scenario, the estimated operating expense would range between $121,482 to $130,356 per year.

Table 24: Estimated Costs for Fixed Route.

Fixed Route Transit Scenario	Full Loop	Shortened Loop
Total Distance Traveled (mi)	10	6
Number of Vehicles	1	1
Total Times Traveled in 1 Day (operating 8am - 6pm)	10	20
Total Days Per Week	5	5

Total Days Per Year	255	255
Total Distance Traveled Per Day	100	120
Total Cost Per Day (Low)	$397.00	$476.40
Total Cost Per Day (High)	$426.00	$511.20
Total Distance Traveled Per Year	25,500.00	30,600.00
Total Cost Per Year (Low)	$101,235.00	$121,482.00
Total Cost Per Year (High)	$108,630.00	$130,356.00
Total Cost Per Year for Route Scenario	**$108,630.00**	**$130,356.00**

Costs for the fixed route with feeder service were estimated assuming a thirty-minute headway for the CORE route which would operate between 9:00 am to 11:00 am and 1:00 pm to 4:00 pm daily. The costs for the CORE route are based only on the defined route, not including any deviations that may be requested. Therefore, if it is decided that the CORE route may deviate, the operating and maintenance costs would increase.

For the fixed route with feeder service, one or all three feeder services may be added to the CORE Route. To serve, for example, only Tangelo Park/Cactus Flats, the total cost would be $99,684.00 + $31,898.88 = $131,582.88 (Table 17). To serve all feeder routes, the total costs would be $156,836.16. The service could also choose to serve only two of the feeder routes (i.e. Tangelo Park/Cactus Flats + Pima, Tangelo Park/Cactus Flats + Solomon, Pima + Solomon).

Table 25: Estimated Costs for Fixed Route with Feeder Service.

Fixed Route with Feeder Service				
	CORE Route	Tangelo Park/Cactus Flats	Pima	Solomon
Total Distance Traveled (mi)	9	16	20	18
Number of Vehicles	1	1	1	1
Total Times Traveled in 1 Day (operating 8am - 6pm)	10	3	3	3

Total Days Per Week	5	3	1	1
Total Distance Traveled Per Week	450	144	60	54
Total Cost Per Week (Low)	$1,786.50	$571.68	$238.20	$214.38
Total Cost Per Week (High)	$1,917.00	$613.44	$255.60	$230.04
Total Distance Traveled Per Year	23,400.00	7,488.00	3,120.00	2,808.00
Total Cost Per Year (Low)	$92,898.00	$29,727.36	$12,386.40	$11,147.76
Total Cost Per Year (High)	$99,684.00	$31,898.88	$13,291.20	$11,962.08
Total Cost Per Year for Route Scenario	$99,684.00	$31,898.88	$13,291.20	$11,962.08
TOTAL	$156,836.16			

On-Demand with Technology

From the TCRP report (28), the low, average, and high service hour costs were $34.69, $80.48, and $214.00, respectively. To provide service similar to that for fixed route and fixed route with feeder, where Monday through Friday, 8am to 6pm, for 255 days a year, the costs would range from $88,459.50 to $545,700.00, with an average of approximately $205,224.00 (Table 18).

Table 26: Estimated Costs for On-Demand with Technology Service.

On-Demand with Technology		
	Single Zone	Two Zone
Total Distance Traveled (mi)	Unknown	Unknown
Number of Vehicles	1	2
Total Times Traveled in 1 Day (operating 8am - 6pm)	Unknown	Unknown

Total Days Per Week	5	5
Total Distance Traveled Per Week	Unknown	Unknown
Total Cost Per Week (Low) ($34.69)	$1,734.50	$3,469.00
Total Cost Per Week (Average) ($80.48)	$4,024.00	$8,048.00
Total Cost Per Week (High) ($214.00)	$10,700.00	$21,400.00
Total Distance Traveled Per Year	Unknown	Unknown
Total Cost Per Year (Low) ($34.69)	$88,459.50	$176,919.00
Total Cost Per Year (Average) ($80.48)	$205,224.00	$410,448.00
Total Cost Per Year (High) ($214.00)	$545,700.00	$1,091,400.00

Capital, Staffing Costs

Fixed routes and fixed routes with feeder services will require bus stop signs, bus stop benches, lighting, and other infrastructure items. The on-demand with technology solution may not require such infrastructure, unless check points are used. However, as identified in *UpRouted* (29), decals on the sidewalks may be a simple, affordable solution.

Vehicle & Operations Cost Totals

For this section, the costs for a fixed route, for a fixed route with feeder service, and for a single zone on-demand with technology are identified (Table 19).

Paratransit costs related to required services, cost savings in comparison to fixed route service, etc.

Table 27: Capital & Operational Expenses and Other Considerations.

Summary of Capital and Operational Costs & Other Considerations

	Fixed Route (Long)	Fixed Route (Short)	Fixed Route with Feeder Service (All Feeders)	On-Demand with Technology, Single Zone	On-Demand with Technology, Two Zones
Estimated Annual Operational Costs	$108,630.00	$130,356.00	$156,836.16	$225,224.00	$410,448.00
Estimated Annual Vehicle Costs	$92,800.00	$92,800.00	$92,800.00	$55,000.00	$55,000.00
TOTAL	$201,430.00	$223,156.00	$249,636.16	$280,224.00	$465,448.00
Benches and signs at bus stops	Yes	Yes	Yes	No	No
Areas Served	Safford, Thatcher	Safford	Safford, Thatcher, Pima, Solomon, Cactus Flats, Tangelo Park	Safford, Thatcher	Safford, Thatcher, Pima, Cactus Flats, Tangelo Park
Supports Work Travel	Maybe	Unlikely	Unlikely	Yes	Yes
Convenient and Accessible?	Unlikely	Unlikely	Unlikely	Yes	Yes
CDL Required?	Yes	Yes	Yes	No	No

Note: All fixed route scenario costs outlined above do not include required ADA Paratransit service costs.

As one can see, when considering the costs associated with vehicle operation, the costs for the on-demand with technology system become more reasonable. However, as limited information is available for on-demand with technology applications in rural areas, the cost per service hour is an estimate. In addition, the operation costs (i.e. gasoline) could be reduced if electric vehicles were utilized. Another significant cost savings when

considering on-demand with technology as compared with more traditional service models is the ability to recruit from a wider pool of candidates for drivers, as for the on-demand with technology service, a CDL is not required. This is expected to be a significant consideration in the Safford area mining is a major employment sector and a CDL is credential highly sought by entities in this sector. Representatives from Nnee Bich'o Nii Public Transit identified competition with mining operations for qualified drivers as a challenge. There is potential that students from the nearby college could be interested in employment as drivers for any system that does not require a CDL.

In all scenarios, it is recommended that a staff person, whether at the local level or at SEAGO be hired to complete the required FTA paperwork, to support advertising of the service, and to provide necessary training (particularly if an on-demand with technology option is chosen).

It is important to note that the fixed route service costs outlined above do not include any costs for complimentary ADA paratransit service that would be required. These services would be available during the same days and hours as any fixed route service, with a comparable fare structure, to any riders with three-fourths of a mile of exiting routes or stops. With little existing ridership data to utilize as a baseline, the research team consulted 2020 National Transit Database (NTD) data for rural systems that reported offering demand response services in Arizona. On average these systems reported $144,218 in operating expenses. At a minimum this average value should be added to the estimated expenses for any fixed route operation that may be considered.

Pros and Cons of Proposed Transit Service Options

This section summarizes pros and cons of the identified transit service options (Table 20) outlined in this report.

Table 28: Pros and Cons of Proposed Transit Service Options

Transit Option	Pros	Cons
Fixed Route Service	• Provides service on a reliable schedule, no advanced reservation required	• No service to outlying communities • Paratransit must be provided with fixed route service; this can increase costs • Requires a larger vehicle • Requires additional infrastructure investments (i.e. bus stop signs and benches)

		• Requires the user to get to the service, which may include walking or biking in areas that are not well designed for these modes
Fixed Route Service with Feeder Service	• Provides service on a reliable schedule, no advanced reservation is required • Provides service to outlying communities	• Service would have to divert to pick up/drop off in outlying communities three times a day (no service in Safford during these diversions) • Not well-designed for reoccurring travel needs (i.e. work and school) • Requires a larger vehicle • Requires additional infrastructure investments (i.e. bus stop signs and benches) • Requires user to get to the service, which may include walking or biking in areas that are not well designed for these modes
On-demand with technology	• Flexible service that would not require advance notice • Brings service to the user • Drivers do not require a CDL	• There are unknown technological challenges (i.e. Can ride requests be sent and received by vehicles en route? Is connectivity sufficient?) • Will require riders to either use a smartphone application or call-in to schedule a ride (unless walk-ons are allowed at certain locations, i.e., Walmart) • Will likely need travel training

Potential Funding & Match Sources

As identified within the two previous transit feasibility studies undertaken in 2007 and 2015, matching funds required to secure additional public funding to establish transit services is a significant challenge. During the COVID-19 pandemic, the Federal Transit Administration received additional emergency funding allocations to support transit agencies. As an industry, transit across the United States suffered a precipitous decline in ridership that had not fully recovered after 18 months, and is still challenged. As a result, pandemic-specific relief funding was available to transit agencies at 100 percent federal share, with no match required. However, this no-match scenario is unlikely continue long-term, and local agencies will need matching funds in order to continue accessing federal funding in the future. For reference, two of the most frequently utilized transit programs referenced in this report, FTA section 5310 (seniors and individuals with disabilities) and section 5311 (rural areas below 50,000 population) require matching funds of 20 percent for capital expenses, and 50 percent for operating assistance.

Research completed by the National Cooperative Highway Research Program/Transportation Research Board (TRB) in February 2020 provides information on allowable in-kind and local match sources being utilized by local entities, as indicated through survey efforts conducted with 24 State Departments of Transportation, 10 FTA Regional Offices, and representatives from the Coordinating Council on Access and Mobility (CCAM). (41) The responses indicated the following sources of matching funds and in-kind support as being in use by respondents. (Respondents n=24)

Table 29: Matching Funds - Non-Farebox Operating Revenue

Non-Farebox Operating Revenue	
Source of Funds	States Reporting Use
Advertising	20
Contract or Purchase of Service Revenue	17
Concession Revenue	6
Long Term Lease of Existing Assets	1
Right of Way Leasing	0

Table 30: Matching Funds - Fees

Fees	
Source of Funds	States Reporting Use
Parking Fees	2
Long Term Leases of Existing Assets	1
Car Rental Fees	1
Utility Fees/Taxes	1

Vehicle Lease Taxes and Fees	1
Right of Way Leasing	0
Access Fees	0
Business License Fees	0
Community Facility Districts	0
Congestion and Cordon Pricing	0
Emissions Fees	0
Impact Fees	0
Mortgage or Real Estate Transfer Fees	0
Traffic Camera Fees	0
Vehicle Miles Traveled Fees	0

Table 31: Matching Funds - Taxes

Taxes	
Source of Funds	States Reporting Use
General Revenues	16
Property Taxes	11
Sales Taxes	8
General Sales Taxes	7
Local Option Taxes	5
Transportation Improvement District	3
Room/Occupancy Taxes	2
Special Assessment Districts	2
Casino/Lottery Tax	1
Cigarette Tax	1
Corporate Franchise Taxes	0
Mortgage Recording Tax	0

Oil Company Tax	0
Petroleum Business Tax	0
Payroll/Income Tax	0
Value Capture	0

Table 32: Matching Funds - Private Contributions

Private Contributions	
Source of Funds	States Reporting Use
Donations	18
Corporate Sponsorship	5
Employer Cont. for Oper. Costs	4
Public Private Partnership/ Joint Dev.	4

Table 33: Matching Funds - Federal Program Funds & In-Kind

Federal Program Funds & In-Kind	
Source of Funds	States Reporting Use
In-Kind Contributions	17
Non-USDOT Federal Funds	15
Volunteer Efforts	11
Transportation Development Credits	6
Tribal Transportation Program Funds	3
Federal Lands Transp. Prog. Funds	0

These tables are provided for reference of potential matching fund sources that could be considered as efforts in Graham County continue to develop. Of note, table 25 above lists 'Non-USDOT Federal Funds' as a potential matching source. This technique is called 'federal fund braiding' and describes situations where funding from specified federal programs can be used to meet the local match requirements for other designated federal

funding programs. To learn more about this, the Coordinating Council on Access and Mobility (CCAM) has produced a Federal Fund Braiding Guide to help guide stakeholders on the process of fund braiding. This report was last updated in June 2020, and is available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/2021-04/ccam-federal-fund-braiding-guide-june-2020.pdf. The contents include decision making support concepts, technical definitions, a listing of identified programs that allow federal fund braiding, and the circumstances of application. In many cases, multiple sources of concurrent matching funds are utilized to secure federal support necessary to effectively offer and operate transit services.

Table 25 above specifically covers in-kind contributions toward FTA or other federal funding. As indicated in the TRB report, the most frequently utilized form of in-kind was reported as real estate. An example is also provided outlining in-kind match for intercity bus services that include feeder services, as offered as one alternative in this report. The TRB report states the following:

> "Circular 9040.1G states that in the case of an intercity bus project that includes both feeder service and an unsubsidized segment of intercity bus service to which the feeder service connects, the match to FTA awards may be derived from the costs of a private operator for the unsubsidized segment of intercity bus service as an in-kind match for the operating costs of connecting rural intercity bus feeder service funded under 5311(f)."

This section is highlighted as a possible strategy for consideration and exploration as Graham County, SEAGO, and stakeholders work to establish a scenario for potential funding. As a complimentary product to the baseline match and in-kind report produced by TRB and referenced here, a guidebook for the use of in-kind as match for FTA awards was also produced, and can be accessed at https://onlinepubs.trb.org/onlinepubs/nchrp/2065/Task75InKindGuidebook.pdf. This report includes discussion on the use of labor, space, land/buildings, equipment, goods and services and other common assets that can be potentially considered as match for FTA awards.

Private funding from relevant organizations is also another option for exploration and will be dependent on stakeholders present and/or engaged in the local community. For example, smaller grants from entities like Walmart (https://walmart.org/how-we-give/local-community-grants) could be an option, especially considering that a stop at a Walmart was proposed as part of at least one transit option presented in this report. Other potential funding sources may include philanthropic health-related agencies operating in the area. The challenges with having additional varied funding sources are many including continued engagement of these sources and reporting required to sustain services over time, as well as attention to not cannibalize funding from other entities that are already receiving assistance from some of these targeted partners.

There is no realistic scenario identifiable by this team of researchers where a transit system can be established and operated without matching funds being generated and contributed for the purpose of the project.

Conclusions & Recommendations

There is a need for public transportation in the Safford area; this was demonstrated during the two previous public transportation studies as well as through input provided via the survey and stakeholders for this study. Providing public transportation would benefit the young, the old, those with disabilities, those with more modest means, and others who are looking for mobility options. It would improve the quality of life for many. It would also enable all community members to contribute to the economy by accessing employment and required services. The challenge to leadership within the Safford area is to implement a system that meets the varied needs of stakeholders. It should be expected that any public transportation system will need to be modified over time to reflect new information and changing conditions observed from operation as more individuals utilize the system.

Previous studies documented that local residents without access to a private vehicle and/or who lack the ability to drive a vehicle for any reason, were walking and biking in Graham County. Consequently, ensuring that residents have safe places to walk and bike should be a priority considered in tandem with the establishment of a public transportation system. Furthermore, as Graham County looks to implement a public transportation system within the region, bolstering walking and bicycling networks in the small communities and supporting connections between larger areas should be considered as well. Enhancing the ability to walk and bike to motorized public transportation locations effectively extends the reach of these systems.

The researchers recommend that a pilot of an on-demand with technology style system is conducted for the Safford area. An on-demand with technology system could provide flexible service that would efficiently cover larger geographic areas, making it a strong fit for the area based on the feedback received. A pilot test of this type of system would also enable testing of connectivity issues and broadly determine if such a service is feasible in a rural context. The anticipated high level of service, lack of advance reservation requirements and provision of regional connectivity, make the anticipated service adoption high. Making use of passenger vans would enable a larger pool of potential driver candidates, as this would remove the need for drivers to hold a commercial driver's license (CDL). With limited supply access to higher capacity shuttle vehicles at present, waiting on delivery of these vehicles will delay the establishment of service. Any utilized vehicles should have exterior signage that provides information about how to access the service (i.e. a telephone number and website). Significant marketing and public information efforts should completement any service offering initiated by stakeholders in Graham County. In order to accommodate a variety of users, trip reservations should be available via a smartphone application, by telephone, and by allowing walk-ons at select locations based on seat availability (i.e. Walmart, Bashas). A designated coordinator, whether at the community level or a regional partner like SEAGO, should be assigned job responsibilities to oversee the service. If no local entity can be agreed upon this position could potentially be filled via an AmeriCorps VISTA service member or similar individual with sufficient training and support. This individual should

track ridership and use data, while also soliciting feedback data from users to better understand the quality of service. The coordinator should also continuously engage in conversations to identify a diversity of funding options for ongoing system support. Facilitating dialogue among partners including Graham County, Thatcher, Pima, Safford, DES, WIC, Eastern Arizona College, Easterseals Blake Foundation, and others is an additional critical function. Providing office space and other administrative support for the coordinator while undertaking these outlined services on behalf of the organization can serve as federal funding match with proper documentation.

The conditions for success of implementing a well-organized on-demand with technology transit pilot service are present in Graham County based on the findings and actions of this research team.

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