

Ak-Chin Indian Community Transit and Nonmotorized Transportation Study

Task Assignment MPD 37-10



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I. INTRODUCTION

The Ak-Chin Indian Community (the Community) Transit and Nonmotorized Transportation Study (the Study) identifies a plan of improvements for transit and nonmotorized transportation and outlines the specific actions necessary to implement and sustain the plan.

The Study identifies projects that establish and improve the pedestrian and transit options for Community members. The development of these suggested projects includes consideration of evaluation criteria addressing such issues as safety and connection of multi-modal transportation modes throughout the Community and to the greater region.

This study was completed with the input of a Technical Advisory Committee (TAC), whose insight and opinions were integral to the preparation of the Study. In addition, the two rounds of public outreach helped to refine the recommendations and provide guidance for the Study. Finally, outreach was conducted through focus interviews with a number of stakeholders which included medical service providers, the Ak-Chin Farms, Harrah's Ak-Chin Casino Resort, the Industrial Park Board, the City of Maricopa, the Pinal County Public Works Department, Maricopa Schools, and the Ak-Chin Elder Center.

I.1. Community Outreach

As part of the First Phase of Public Involvement, a cognitive mapping exercise was prepared to develop an understanding of the locations Community members go to, the means by which they arrive there, and when they go. This exercise was first conducted as a youth presentation with the Youth Leadership and Peer Group on Monday, November 29, 2010 at the Ak-Chin Indian Community Library. This informal workshop with approximately 20 youth of the community was facilitated to elicit information on how they walk and bike in the community and travel to school. The second portion of the exercise conducted with the youth addressed regional travel and potential transit destinations within the community and beyond – the results of which are incorporated in the transit recommendations.

The Project team then presented an overview of the project and discussed the cognitive mapping exercise at the Ak-Chin Bi-Monthly Community Meeting the evening of November 29th at the Community Service Building.



Farrell Road

Display boards and additional copies of the study maps and a collection box remained at the Community Service building through the remainder of the Community meeting, and then moved to the Community library for a two-week period to allow for additional comment from Community members.

Confirming what we had heard previously, the Library was listed on almost every respondent's list of "places I go." Almost as frequently cited were the Vekol Market and Recreation Center. Other locations which were noted consistently included the Church, Antone Park, and the Clinic. The other repeatedly identified destinations included the Preschool, Museum, Service Center, and Casino.

When asked the means of travel to these destinations, most respondents noted they walk or drive, although bicycle and skateboard were also listed as means. Concerns raised by respondents included safety concerns related to children walking unsupervised and fear of stray dogs. Several of the youth replied that they would actually prefer not to have sidewalks in the Village, commenting that they liked walking on the dirt (roadway) shoulder and that sidewalks would cut into yards.

A second round of Community meetings was held April 25, 2011. This outreach, conducted as a series of focus group meetings, focused on specific elements of the trails and transit systems. The groups consisted of Community Elders, representatives of Community members, and the youth. During these meetings, participants were asked to comment on the overall plans and specific features identified in the Draft Plan for Improvements (Working Paper #2).

The information the Study team heard during these interactive sessions helped to refine our recommendations. The meetings provided guidance on the various options that were presented in the Plan for Improvements, such as path surfacing and preferences for amenities. In addition, several concepts presented in the Plan for Improvements were not advanced to the Plan as a result of the focus group discussions (for example, flag stops along Farrell Road). These concepts are documented in the Working Papers prepared as part of this Study.

This input was incorporated into the Transit Element and the Trails and Path System, discussed in the following pages.

On July 13, 2011, the Study team presented the Draft Plan (dated June 6) to the Tribal Council during a Council worksession. Following the presentation, the Council and Study team discussed several of the items. Comments on the Draft Plan from the TAC and Council are reflected in the final Study, dated August 1, 2011.



Excerpt from the worksheet developed for the focus group meetings on April 25, 2011.

2. TRANSIT ELEMENT

The transportation needs of Ak-Chin Indian Community members are similar to the needs of most people who live in rural areas. Transportation provides access to employment, education, public services and critical health services. In some instances, Community members find themselves dependent on friends and neighbors for transportation to medical services, to school, or work. The lack of transportation may result in some Community members being unable to access critical health care or long-term employment.

A public transit system in the Community would assist Community members by providing basic mobility to employment services, shopping, health centers, and social services; and overall improve the quality of life for members whom currently do not have access to a vehicle and the independence such transportation alternatives would afford them.

Specific goals of the Study include:

- ◆ Develop a public transportation system serving local activity centers
- ◆ Improve access to nearby urban areas and employment, health care, and retail destinations (Maricopa, Casa Grande)
- ◆ Install transit infrastructure to improve safety for passengers waiting at roadside bus stops
- ◆ Provide links to future regional transit services
- ◆ Serve the future industrial area on the southeast side of the Community



Public transportation serves a diverse range of needs.

2.1. Transit Today

Today, the Community provides transit service to Community members through various means. The Community has a number of Tribal departments providing vans for community transportation. In each instance, the service is provided to assist the Community in delivering service to its members, either through improving access to Community services, or by providing access to services outside of the Community (primarily health services).

In general, the existing transit services operate independently of each other. They provide limited access to destinations outside of the Community, and do not take advantage of any shared expenses or management responsibilities.

The City of Maricopa transit service includes regional public transportation (MaricopaXPRESS), providing limited daily service to Phoenix and Tempe, and two local circulators. The MaricopaXPRESS is scheduled to suspend service in September 2011. Vanpool service, operated by Valley Metro, will replace the MaricopaXPRESS. In addition to vanpool service, Maricopa will focus on Dial-a-Ride service to Chandler and Casa Grande. Both Dial-a-Ride and the vanpool service will operate from the Maricopa Transit Center.

Beginning in October 2010, Maricopa began operating the two circulator routes called COMET (City of Maricopa Express Transit). The closest COMET stop to the Community is at Harrah's Ak-Chin Casino Resort, and requires riders to transfer at the Maricopa Park-and-Ride, currently located at the northeast corner of SR 347 and Honeycutt Road (as shown in Figure 1).

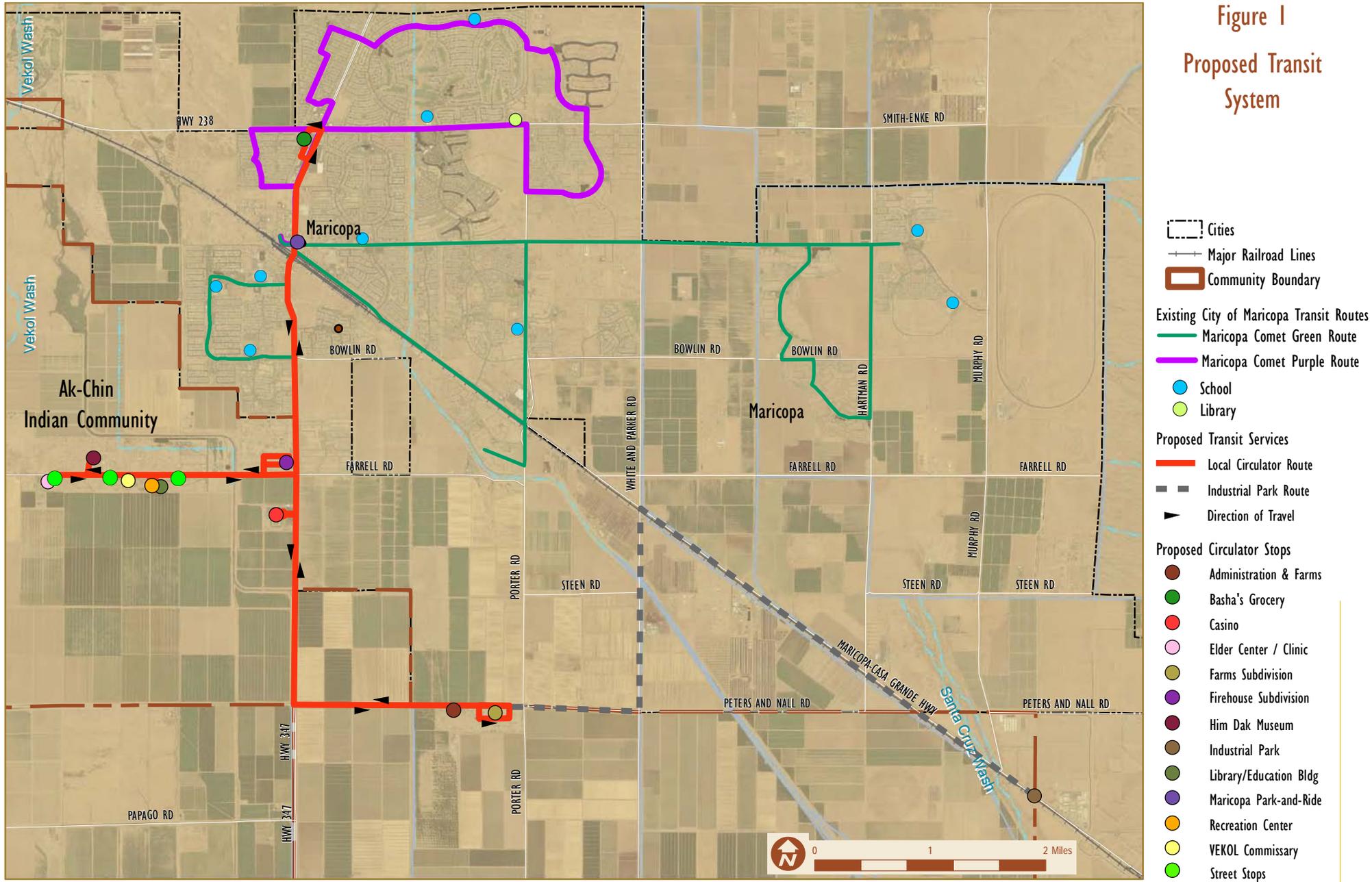
As a follow-up to the interviews conducted with the Harrah's Ak-Chin Casino Resort Employees, a survey was developed to solicit interest for transit and non-motorized transportation options for the Casino's 600 plus workers. The survey was distributed the week of May 23, 2011. Of the 277 respondents, nearly one-half reported living in the City of Maricopa, with the next largest group coming from the City of Casa Grande (17 percent). Eight percent of respondents reported that they regularly carpooled to work. Nearly three-quarters of respondents reported that they would, or at least would consider, using transit to travel to work if that option was available to them.

2.2. Transit Tomorrow

A local Community circulator would operate in addition to existing tribal transportation services, and would benefit the Community by providing fixed-route transit service to local activity centers, destinations within the City of Maricopa, and access to regional transit service. In addition, the Community circulator service would create opportunities to provide connections to planned Dial-a-Ride and vanpool service in Maricopa. To comply with federal funding requirements, the local circulator would need to be available to the general public.

To help determine transportation needs, the study team met with adult and youth members of the Community and requested travel pattern information (refer to Section 1.1 Community Outreach). Overall, many respondents identified the City of Maricopa as a common destination. Other destinations identified by Community members included Casa Grande, Tucson, Phoenix, and Sacaton. The information provided by Community members helped to develop the proposed local circulator route, shown in Figure 1.

To encourage Community ridership of a local transit system, a number of different incentives have been identified that the Community may wish to consider. These incentives are identified in Appendix A.



Phased implementation of the route would proceed as follows:

- ◆ Phase I – Ak-Chin Community and City of Maricopa
- ◆ Phase II – City of Maricopa commuter service
- ◆ Phase III – Industrial Park commuter service

Phase I transit service would operate five days a week, Monday through Friday, and provide transportation to activity centers in the Community and the City of Maricopa. Phase I of the local circulator route would make the following scheduled stops:

- | | |
|-------------------------|---------------------------------|
| ◆ Firehouse Subdivision | ◆ Recreation Center |
| ◆ Him Dak Museum | ◆ Library/Education Center |
| ◆ Elders Center | ◆ Harrah’s Casino |
| ◆ Tribal Headquarters | ◆ VEKOL Commissary |
| ◆ Farms Subdivision | ◆ Thomas Road |
| ◆ Church Road | ◆ Intersection to Elders Center |

Three times a day, during peak periods, the route would serve the Maricopa Park-and-Ride and commercial establishments in the City of Maricopa. Transportation to the City of Maricopa would provide opportunities for transfers to the Maricopa COMET service. The route would serve businesses in the City of Maricopa that were identified as desired destinations by Community members.

Phases II and III of the service would be implemented if the community gauges there is sufficient demand for commuter service to the City of Maricopa Park-and-Ride and the industrial park. Phase II peak hour commuter service would serve the Maricopa Park-and-Ride. Phase III service would provide peak-hour transportation to the industrial park.

2.3. Local Circulator Operating Characteristics

Based on the Arkansas Public Transportation Needs Assessment (APTNA) method, ridership projections provided in Working Paper #1: Existing and Future Conditions, the Community would have up to an estimated 5,489 one-way trips in 2012. The APTNA method is based on demographics including factors such as income, age, and disability. As such, it is important to recognize that it is a measure of transit propensity, not projected ridership.

Discussions with the Community included both marked and unmarked (flag) bus stops. Community members expressed safety concerns with the use of unmarked stops along Farrell Road thus the proposed circulator would use marked stops. A bus stop is a designated place where transit vehicles stop for passengers to board or leave the vehicle. These are normally positioned on the side of road and the level of construction tends to reflect the level of usage.

Marked stops would be located in areas with high demand or where they are in the interest of passenger safety. Several of these stops along Farrell Road are coincident with school bus stops.

The proposed service frequencies balance the high level of need for transportation with relatively low estimated ridership. Tables 1 and 2 provide a sample schedule for several of the proposed stops for Phase I and II service.

Table 1. Phase I Sample Schedule

| Firehouse Subdivision | Him Dak Museum | Elder Center | Recreation Center | Farms Subdivision | Maricopa Park-and-Ride | Basha's Grocery |
|-----------------------|----------------|--------------|-------------------|-------------------|------------------------|-----------------|
| 7:30 AM | 7:36 AM | 7:38 AM | 7:41 AM | 8:01 AM | | |
| 8:13 AM | 8:19 AM | 8:21 AM | 8:24 AM | 8:44 AM | | |
| 8:56 AM | 9:02 AM | 9:04 AM | 9:07 AM | 9:27 AM | | |
| 9:39 AM | 9:45 AM | 9:47 AM | 9:50 AM | 10:10 AM | 10:28 AM | 10:33 AM |
| 11:01 AM | 11:07 AM | 11:09 AM | 11:12 AM | 11:32 AM | | |
| 11:44 AM | 11:50 AM | 11:52 AM | 11:55 AM | 12:15 PM | | |
| 12:27 PM | 12:33 PM | 12:35 PM | 12:38 PM | 12:58 PM | | |
| 1:10 PM | 1:16 PM | 1:18 PM | 1:21 PM | 1:41 PM | 1:59 PM | 2:04 PM |
| 2:32 PM | 2:38 PM | 2:40 PM | 2:43 PM | 3:03 PM | | |
| 3:15 PM | 3:21 PM | 3:23 PM | 3:26 PM | 3:46 PM | | |
| 3:58 PM | 4:04 PM | 4:06 PM | 4:09 PM | 4:29 PM | | |
| 4:41 PM | 4:47 PM | 4:49 PM | 4:52 PM | 5:12 PM | 5:30 PM | 5:35 PM |
| 6:03 PM | 6:09 PM | 6:11 PM | 6:14 PM | 6:34 PM | | |
| 6:46 PM | 6:52 PM | 6:54 PM | 6:57 PM | 7:17 PM | | |

Schedule times are estimates and reflect three 18 minute layovers per day. This is an abbreviated list of activity centers for sample purposes only. This table factors in time for stops at all of the AK Chin activity centers identified in Section 2.2.

Table 2. Phase II Sample Schedule

| Farms Subdivision | Firehouse Subdivision | Maricopa Park-and-Ride |
|------------------------|-----------------------|------------------------|
| 5:10 AM | 5:22 AM | 5:28 AM |
| 6:00 AM | 6:12 AM | 6:18 AM |
| | | |
| Maricopa Park-and-Ride | Firehouse Subdivision | Farms Subdivision |
| 6:00 PM | 6:12 PM | 6:18 PM |
| 7:00 PM | 7:12 PM | 7:18 PM |

Schedule times are estimates.



A typical 12-passenger van

A vehicle fleet consisting of two Americans with Disabilities (ADA) accessible twelve passenger vans would be required to implement Phase I service. Phase II and III service would each require one additional vehicle to provide adequate back-up. It is recommended that the Community use existing passenger vans if the vehicles meet ADA requirements. The estimated basic unit cost for a new 12-passenger van is \$55,000. If two new transit vehicles are purchased and five new ADA accessible bus stops are installed for Phase I service, the total first year capital plus operating expenses would be approximately \$370,000.

Tables 3 and 4 show the proposed service operating characteristics and the estimated annual operating costs. For Phase I service, a minimum staff consisting of a full-time Transit Manager, two full-time Drivers, a part-time Assistant Driver, and a part-time transportation coordinator would be required. The Assistant Driver would fill in on Driver sick and vacation days. The part-time transportation coordinator would assist with ride reservations and other tasks associated with existing tribal transportation programs. To reduce costs, it is recommended that transit staff use existing office space.

Table 3. Operating Characteristics

| | Phase I | Phase II – Maricopa | Phase III – Industrial Park |
|------------------------|-------------------|---------------------|-----------------------------|
| Service Span (hours) | 7:30 AM – 7:17 PM | 5:00 AM – 7:30 PM | 7:00 AM – 5:30 PM |
| Headway (minutes) | 45 minutes | 1 hour | 1 hour |
| Daily Trips | 14 | 18 | 22 |
| Full Time Employees | 4.0 | 4.5 | 5.0 |
| Fleet | 2 | 3 | 4 |
| Revenue Miles per Year | 34,300 | 46,540 | 60,820 |
| Revenue Hours per Year | 1,721 | 2,200 | 2,608 |

Estimates only.

Table 4. Phase I Estimated Annual Operating Cost

| Phase I | |
|--------------------------------|---------------------------|
| Transit Staff (salary/benefit) | \$200,000 (4.0 FTE) |
| Fuel Cost | \$26,364 (\$3 per gallon) |
| Insurance and Maintenance | \$13,182 |
| Contingency | \$4,785 |
| Office Space/Vehicle Storage | \$0 |
| TOTAL | \$244,331 |

Existing vehicle storage space would be adequate for the new vehicles. Basic cell phone service would serve as a driver communication system. Additional guidance on capital procurement requirements for Section 5311 grant applicants is available in the Arizona Department of Transportation (ADOT) Rural Transportation Program’s Federal Transit Administration (FTA) Section 5311 Capital Procurement Handbook (see www.azdot.gov).

Table 5 shows an estimated Phase I budget breakdown with FTA Section 5311 program measurement data. Although this summary is a preliminary estimate, it provides a means of comparing the proposed Ak-Chin Community Circulator to other similar Section 5311 services. Section 5311 program applicants will be required to provide similar information. It is assumed that total operating revenues will equal the total administrative plus capital costs. To apply for Section 5311 funding, the Community would be required to provide detailed budget information. Additional information on the Section 5311 funding process may be found on the ADOT website: http://www.azdot.gov/mpd/Community_Grant_Services/ProgGuide.asp.

Table 5. Phase I Budget Summary Estimate

| | Total |
|--|------------------|
| 2012 Estimated Annual Ridership | 5,489 |
| Annual Miles | 52,729 miles |
| Annual Vehicle Service Hours | 3,003 hours |
| Total Operating Revenues ^a | \$244,331 |
| Total Non-Capital Costs (Administrative plus Operating Costs) | \$244,331 |
| Administration as % of non-capital costs | 20% ^b |
| Fare Revenue ^c | \$3,293.40 |
| Fare Revenues/Total Operating Revenues | 1% |
| Cost per Passenger Trip | \$44.51 |
| Cost per Mile | \$4.63 |
| Cost per Vehicle Service Hour | \$88.07 |
| Federal Cost per Passenger Trip | \$25.82 |
| Federal Cost per Mile | \$2.69 |

^a Operating revenues will consist of FTA grant and Ak-Chin Community General funds or other local funding source.

^b 1/2 FTE labor cost for program administration.

^c Fare revenues are calculated .6 x total projected ridership.

Source: Modified from the ADOT 2011 5311 Budget Worksheet.

2.4. Capital Infrastructure

The recommended Phase I capital improvements are five new bus stops, three to be located on the south side of Farrell Road at Church Road, Thomas Road, and at the road to the Elders Center and Service Center. The remaining two bus stops are located in the Firehouse and Farms subdivisions. The sample local circulator schedule provides for stops at all five bus stop locations. The stops must comply with the Americans with Disabilities Act of 1990 (ADA) guidelines to qualify for federal grant funding. Figure 2 shows diagrams of typical bus stops with ADA access and optional shelters. Table 6 (page 11) shows bus stop options and dimensions. Please note the dimensions are for bus stops only and do not include any ADA accessible sidewalks, curb, or gutter that may be required.

Transit pullouts are recommended at the five or ten-year planning horizon to accommodate future development in the Community. In general, bus pullouts are recommended for streets with speed limits greater than 35 mph. Due to the travel speeds on Peters and Nall Road, future development resulting in increased transit demand along this corridor may warrant placement of a bus pullout. Pullouts are also recommended for areas that may have slower traffic speeds but high demand for transit service. Development planned for Farrell Road near SR 347 may increase transit demand enough to generate the need for a pullout on the north side of the road, west of SR 347.

Figure 2 Transit Facility Options

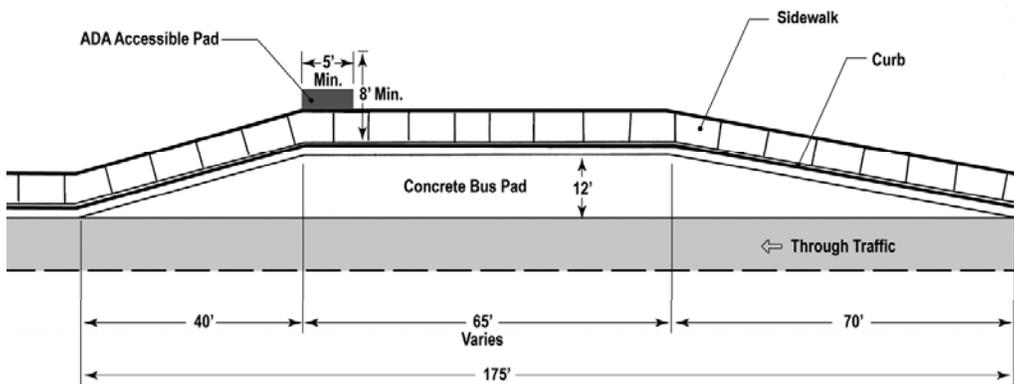
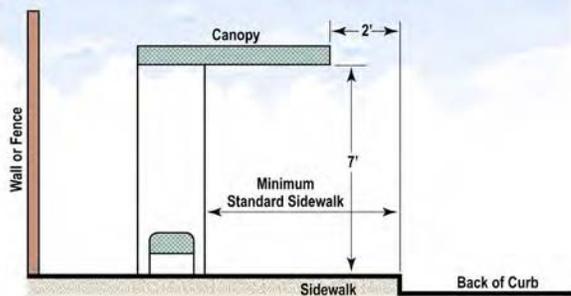
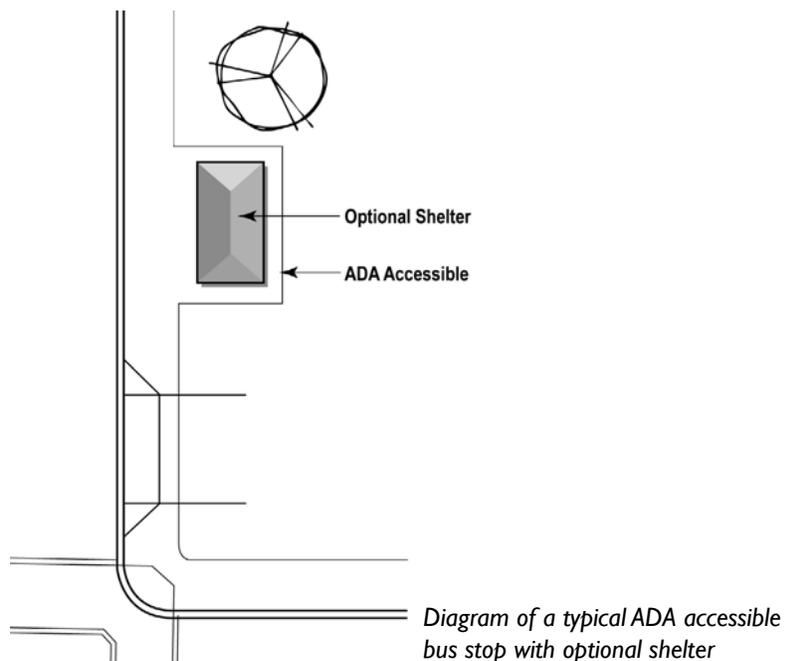


Table 6. Capital Infrastructure

| Unit | Estimated Cost ^a | Dimensions (ft.) | Sign | Pole | Concrete Pad | Bench | Shade Structure | Lighting |
|-------------------------------|-----------------------------|---------------------|------|------|--------------|-------|-----------------|----------|
| Basic Bus Stop | \$300 | Sign only | X | X | -- | -- | -- | -- |
| ADA Bus Stop ^b | \$3,000 | 5x40 ^b | X | X | X | X | -- | -- |
| Shelter Bus Stop ^b | \$5,000 | 5x40 ^b | X | X | X | X | X | X |
| Art Bus Shelter ^b | \$20,000+ | 5x40 ^b | X | X | X | X | X | X |
| Bus Pullout ^c | \$125,000 ^c | 12x180 ^d | -- | -- | -- | -- | -- | -- |

^a Unit costs, with the exception of the bus stop with shelter, include installation fees.

^b Dimensions do not include 5-ft. wide accessible sidewalk.

^c Bus pullout costs vary significantly according to land ownership and need for additional right-of-way.

^d Dimensions do not include 5-ft. wide accessible sidewalk or bus stop/shelter area requirements.

Source: Supplement to the MAG Uniform Standard, City of Phoenix, 2009; Transit Guidelines for Roadway Design and Construction, Pima County, 2009; HDR, Inc. 2011.

2.5. Fare Structure

Table 7 shows a possible fare structure for the Ak-Chin Community Circulator, which includes discounted rates for seniors and persons with disabilities. For reference, the Maricopa COMET charges a flat \$1.00 fee per one-way trip.

Table 7. Fare Structure

| | General | Seniors/Disabled |
|-------------------|---------|------------------|
| One-Way Trip Fare | \$0.75 | \$0.25 |

2.6. Coordination with Regional Transportation Plans

The Pinal County Transit Feasibility Study, Transit Briefing Book (October 2010), identifies potential long-range transportation concepts for Pinal County. The Transit Briefing Book includes plans to expand the Maricopa Park-and-Ride into a regional transit center, and to provide two regional bus routes in the Ak-Chin area. One of the regional routes will provide service from Maricopa to Casa Grande. A planned circulator bus service in Casa Grande would connect to the regional routes and provide service to local destinations. The proposed Phase I Ak-Chin Community Circulator would serve the Maricopa Transit Center and provide access to both future regional bus routes.

2.7. Coordination with Existing Ak-Chin Community Transportation Services

The proposed circulator would not necessarily replace existing transportation services provided by Tribal departments. Rather, over time, opportunities to consolidate transportation services should be considered. The first step toward consolidation of existing services is the establishment of a single phone number for Community members to call for transportation information and ride reservations. To facilitate this, a single employee should be designated as a transportation coordinator with the responsibility for answering phone calls and locating rides. The consolidation effort may focus on departments with one or two vehicles in service, while departments such as the Preschool might consider independent service. The second step is to consolidate existing vehicles and staff into a unified transportation system that continues to meet the tribe's programmed service needs (social services, recreation, elderly programs, etc.) and is expanded to meet general purpose trips.

2.8. Transit Revenue Sources

Transit projects undertaken through Title 49 Section 5310 Elderly and Persons with Disabilities Transportation Program and 5311 Rural Public Transportation Program are selected by the state in consultation with local officials. Federal Funds for the Section 5311 Program are apportioned to the states on a formula basis. In Arizona, the ADOT Multimodal Planning Division manages the Section 5311 Program and is responsible for the distribution of funds to qualified applicants. The Community will need to provide detailed funding information as part of the Section 5311 application process. Appendix B contains examples of the information required.

Additional funding sources are available beyond the 5310 and 5311 funding. Tribal transit funds can be pursued through the U.S. Department of Transportation, the U.S. Department of Agriculture, the U.S. Department of Housing and Urban Development, and the U.S. Department of Labor. Some federal sources include the FTA Tribal Transit Program and the Bureau of Indian Affairs (BIA) Indian Reservation Roads Program. Projects funded from Federal Transit Act funds will be selected by the state in cooperation with the appropriate affected local officials and transit operators.

Most funding entities require local matching funds. The local matching amount varies by funding source. For 5311 grants, the Federal share of eligible capital and project administrative expenses may not exceed 80 percent of the net cost of the project. For operating, the Federal share may not exceed 50 percent of the net operating cost of the project. For projects that meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, they may be funded at 90 percent Federal match.

Section 5304: Statewide Transportation Planning Program

This is the program that funds ADOT Multimodal Planning Division's technical assistance for rural public transportation planning and research. These funds support new system development and demonstration projects for eligible non-urbanized communities. 5304 funds support planning and technical assistance related to the ADOT PARA program, and program administration.

Section 5310: Elderly Individuals and Individuals with Disabilities Program

This program funds transportation programs that provide assistance to the elderly (age 60 and over) and to people with disabilities. The types of projects supported by this funding include capital assistance (primarily vehicles and communications equipment). Tribal governments have a strong participation in this program.

Section 5316 The Job Access and Reverse Commute (JARC) Program Funding

These funds help states and localities develop new or expanded transportation services that connect welfare recipients and other low income persons to jobs and other employment related services. ADOT implements the statewide JARC program for rural (less than 50,000 population) regions of the state. JARC funds provide capital, operating, and planning assistance for services, equipment, facilities, and associated capital maintenance items related to providing access to jobs.

Section 5317 New Freedom Program Funding

This program funds services and facility improvements to address the transportation needs of persons with disabilities. These funds support capital and operating expenses for new public transportation service targeted toward people with disabilities. ADOT implements the statewide New Freedom program for rural areas (less than 50,000 population).

IRR Construction Funds

IRR Construction Funds are available from the BIA for the construction and improvement of roads, bridges, and transit facilities, and for transportation planning projects/activities, under a P.L. 93-638 contract or grant.

FTA Tribal Transit Program

This program is a takedown from the Section 5311 – Non-Urbanized (Rural) Transit formula Program, for specific use by Indian Tribes. Funds from this program can be used for capital and operating assistance for rural public transit service and the acquisition of public transportation services, including service agreements with private providers of public transportation services. Funds received from this program must be expended within 3-years of receipt. Applications for these funds are made directly to Federal Transit Administration in Washington D.C. The Notice of Funding Availability is put out in the Federal Register in May of each fiscal year.

Surface Transportation Program (STP) Flexible Funding Federal Highway Funds

Surface Transportation Program (STP) Flexible Funding Federal Highway Funds, which can be “flexed” to support public transportation activities. Many of these programs provide a combination of capital and operating assistance. The ADOT website provides some documents that describe these potential transit funding sources (see www.azdot.gov).

2.9. Strategic Management Steps for Transit Start-up Operations

Implementing a new transit service start-up will require the establishment of several core elements. Developing a sound management plan that includes these operations will help the Community implement and operate a safe, efficient, and effective transit system. The core elements that should be considered by the community as part of their new transit service start-up includes: grants/funding, staffing, program administration, fleet procurement and maintenance, passenger facilities development, and planning and operations. Each of these elements are discussed briefly below.

Grants/Funding

Securing grants/funding is critical not only for implementing the proposed start-up transit service, but also for maintaining the continuous operation of services. All opportunities should be explored for potential funding, including tribal, state, and federal sources as well as direct revenues generated by the proposed transit services. It is recommended that a minimum three-year funding plan be established prior to service implementation. The plan will help ensure that the service is maintainable for a reasonable period in which to accurately assess the performance of the proposed transit services and determine long term viability.

Staffing

Second to funding, the identification and acquisition of staff is the most important element of starting up a new transit system. A capable and qualified staff is necessary to manage the other core elements necessary for start-up. Minimum transit staff requirements have been identified based on the proposed services in the Ak-Chin Transit and Non-motorized Transportation Plan.

Program Administration

Program administration can be divided into two categories: program capital facilities and program policies. Program capital facilities include the identification and acquisition of administrative/operations office space and transit vehicle storage and maintenance facilities. Program policies include passenger fare requirements, passenger codes of conduct, service standards, performance objectives, and reporting requirements.

Fleet Procurement and Maintenance

Procuring and maintaining appropriate transit fleet for the community's proposed service is essential for delivering safe and efficient transit. It is important to have an adequate number of ADA accessible vehicles to meet planned daily operations requirements and maintain a spare fleet to avoid significant service interruptions.

Passenger Facilities Development

The development of passenger facilities such as bus stops, prior to the initiation of operations, provides the community with safe boarding and alighting locations, and helps community members navigate the transit system. Addressing passenger facility needs early in the start-up process is recommended as the completion of engineering, design, and construction elements could be time consuming.

Planning and Operations

Planning and operations includes defining the final transit service plan and related operations details. These include defining route alignment, service schedules, hours, and days of operation. Additionally, a transit operator (driver) schedule or runcut will need to be developed to ensure coverage of all scheduled trips and vacation or other schedule/non-scheduled time-off requests.

3. TRAILS SYSTEM

The Community trails system is based on the need to provide a safe, efficient nonmotorized network of trails and paths. Today, there are few paved or unpaved paths or trails within the Community. The rural character of the Community, characterized by its narrow roads with no curb or gutter, requires pedestrians to walk along the edge of the road and, in some cases, where obstructions exist, pedestrians have to walk in the road.

Note: To adopt a growing consensus on terminology, paths are paved routes and trails are unpaved routes. Paved path material can be asphalt, concrete, or other similar material. Unpaved trails can be the native surface with large rocks removed, stabilized granite, or other similar material.

Sidewalks are present only in some of the newer developments, subdivisions such as Greasewood and Farms. Even with the sidewalks in place in the residential subdivisions, there is little connectivity with existing activity centers, and none to the elementary schools in Maricopa where many Community children attend school.

While an informal nonmotorized transportation network exists, a more formal, nonmotorized system is necessary to enhance the safety of Community members. Farrell Road has no pedestrian amenities, minimal lighting, and numerous driveways. This presents a dangerous situation for the students and others walking to and from the library and recreation center. Additionally, people are walking around the area's agricultural fields for recreation or exercise and these roads are often uneven or muddy.

A trails system linking schools, subdivisions, and other destinations would have numerous benefits for the Community. The trails system will provide dedicated routes for bicyclists, pedestrians, and horseback riders to connect safely between activity centers. Having these safe routes may lead to increased exercise that will benefit overall Community health.



A Community walk along Farrell Road. A trail system in the community would provide routes for recreation, and allow safe, nonmotorized access to important community destinations.

3.1. Trails and Paths System

The recommended Community trails system links subdivisions and other destinations important to Community members. It is not anticipated that this system will be built overnight; rather, this Plan lays out a framework for developing a system over time. Implementing the trails plan will provide dedicated routes for pedestrians, bicyclists, and equestrians to connect safely between activity centers. The recommended trail system for the Community is shown in Figures 3A-3D.

The major element of the trail system is a multiuse path along the north side of Farrell Road from SR 347 to the rodeo grounds at Santos Street. In addition, there are trails along Peters and Nall Road and several internal Community streets, and a replacement path around Antone Park, a popular walking loop. The proposed overall trail system relies on existing elements to complete loops and connections. For example, the sidewalks within the existing Farms, Firehouse, and Mesquite subdivisions help connect people to the proposed paths and trails. Widening the vehicular bridge to accommodate the desired number of vehicular travel lanes and the multiuse path or adding a pedestrian bridge over Smith Wash will become imperative as the system develops. Equestrian routes are shown in a few locations but with the understanding riders will travel mostly where they desire. The equestrian trails will only require signs, predominantly at crossings, as the native soil is a sufficient trail surface.

SR 347 is a unique condition because it is a state route and new facilities would best be coordinated with ADOT and the City of Maricopa. The city of Maricopa *Parks, Trails, and Open Space* plan shows a path along SR 347 both north and south of the Community's boundaries. This is coincident with this plan which shows a pedestrian and bicyclist connection from Honeycutt Avenue in Maricopa south to Peters and Nall Road to facilitate circulation between the Farrell Road area and Maricopa schools, between the Farrell Road and Peters and Nall Road areas, and to and from the Casino.

Figure 4 shows the recommended cross sections for paths and trails along the Community's major roads, Farrell and Peters and Nall, and a typical local street with a trail. Element features shown in the cross sections are described later in this report.

Bicycles

Bicycling was brought up as a concern during the outreach activities. Bicycles are an important consideration in the development of a multimodal system. For many routes within the Community where there are low traffic volumes, low speeds, and sufficient shoulder width, bicycles can comfortably share the road with vehicles. However, along Farrell Road, where traffic volumes are highest, safety for bicyclists was a noted concern.

Based on input from the Community, it is recommended that bicycles share a multiuse path with pedestrians, set back from the road, rather than a dedicated bicycle lane adjacent to the vehicular travel lane. The multiuse path should be a minimum of 10 feet wide (Figure 4), the recommended minimum per FHWA guidelines¹. The guidelines do note that multiuse paths can be as narrow as 8 feet under rare circumstances, some of which apply to this study area. If cost is a factor or the desire to reduce the amount of paving is strong, this could be revisited. However, the recommendation of this study is a 10-foot width, as this provides a generous dimension for multiple users to pass each other or walk several abreast.

¹ AASHTO Task Force on Geometric Design. *Guide for the Development of Bicycle Facilities*. Washington D.C.: FHWA, 1999.



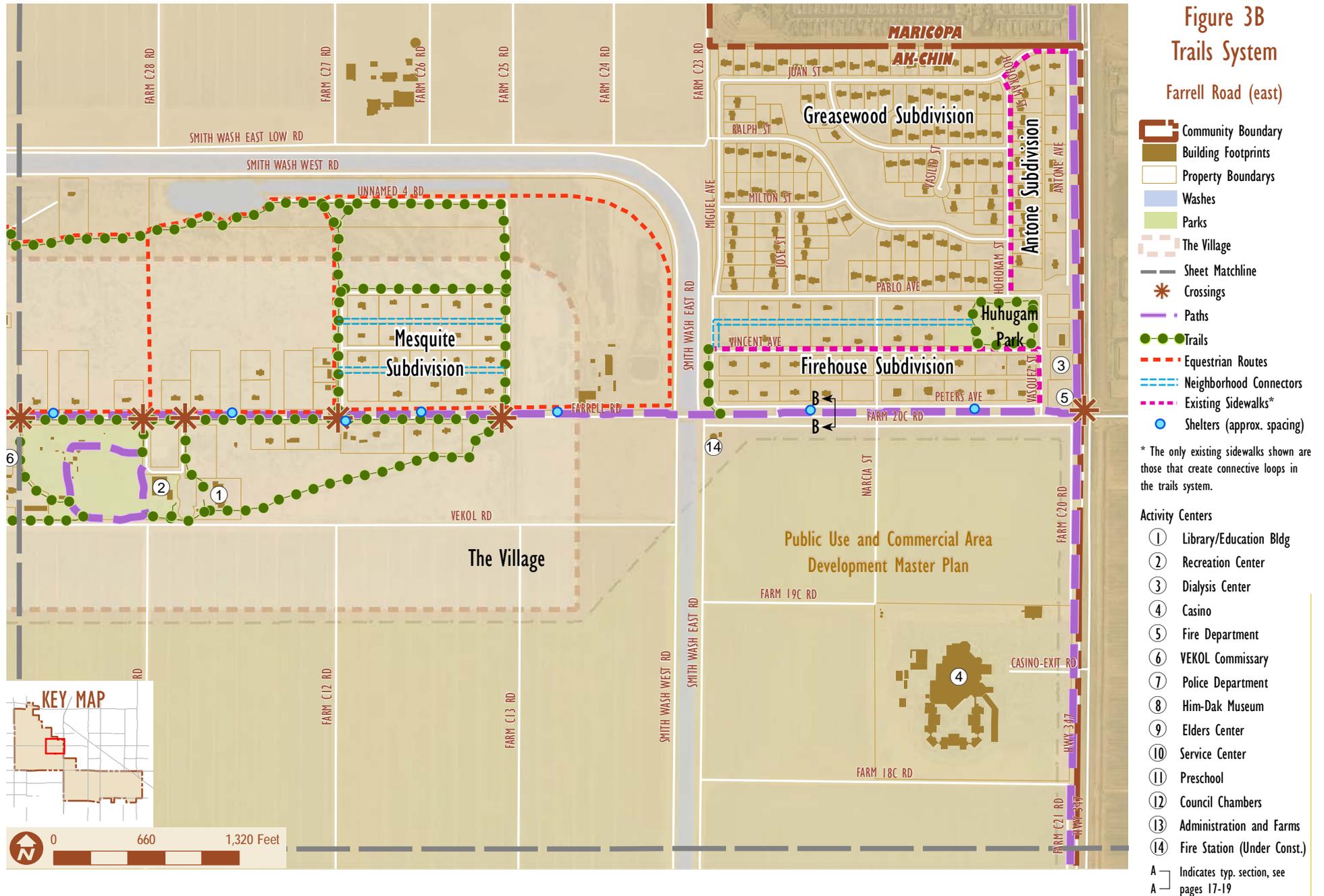
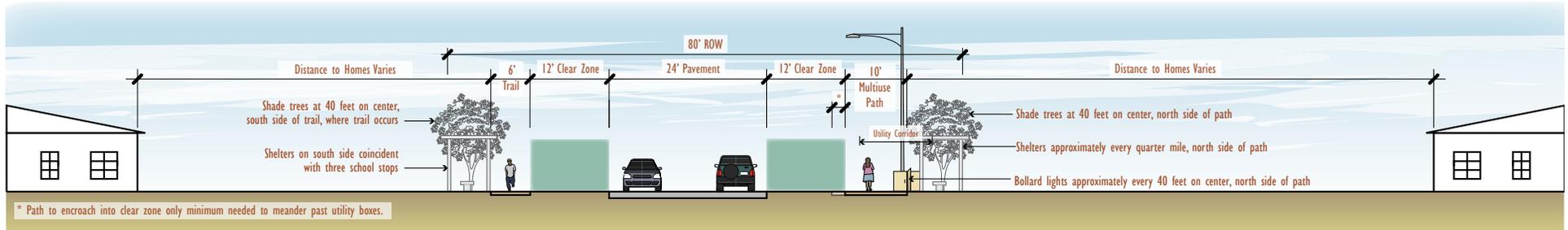




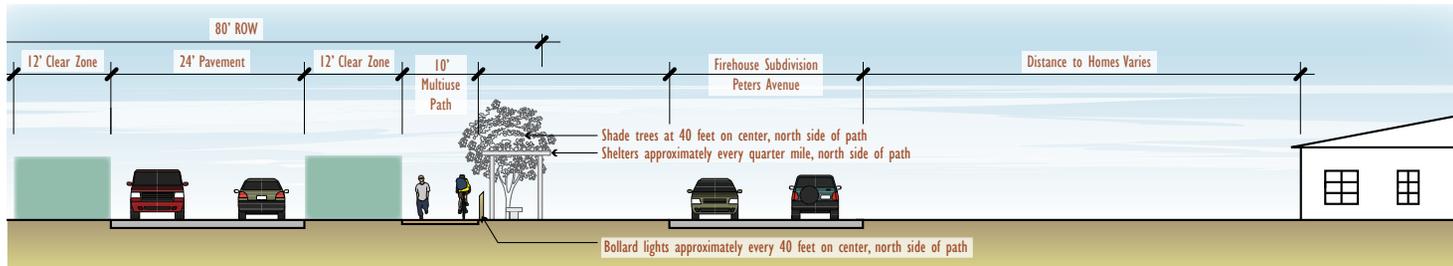
Figure 3D
Trails System



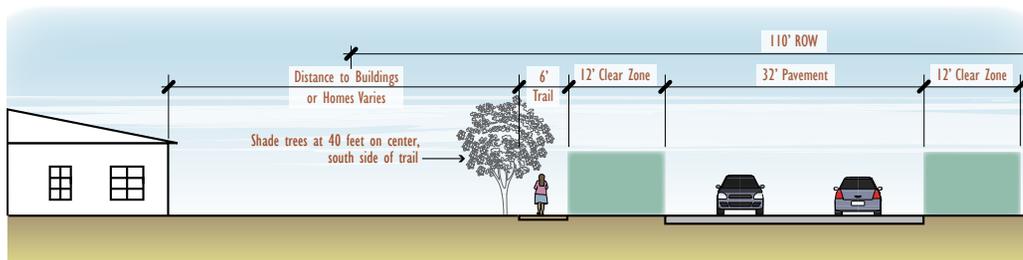
Figure 4
Recommended
Cross Sections



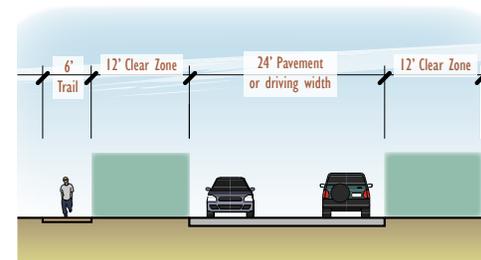
Typical Section A-A: FARRELL ROAD - west of Smith Wash, looking west



Typical Section B-B: FARRELL ROAD - east of Smith Wash, looking west



Typical Section C-C: PETERS AND NALL ROAD - looking west



Typical Section D-D: Local streets with trail

Path or Trail Alignment

The path or trail along Farrell Road or Peters and Nall Road, respectively, is situated just beyond the vehicular clear zone. This is not required but is highly recommended to increase comfort for pedestrians. On Farrell Road, west of Smith Wash, the path is predominantly within the utility corridor and only meanders closer to the road to avoid utility equipment. This keeps the path as far from the existing homes as possible. The path material, discussed later in this section, is recommended to be asphalt, a material that will be easier to replace than concrete should utility work need to be completed near or under it. The trail or path is shown on the north side of Farrell and the south side of Peters and Nall, respectively, because the majority of residents live on those sides of the road. Crossings of Farrell Road will be provided at multiple locations to reach the many destinations on the south side of the road. To supplement the path on the north side of Farrell Road, a secondary trail is recommended on the south side from Carlyle Road to Enos Road.

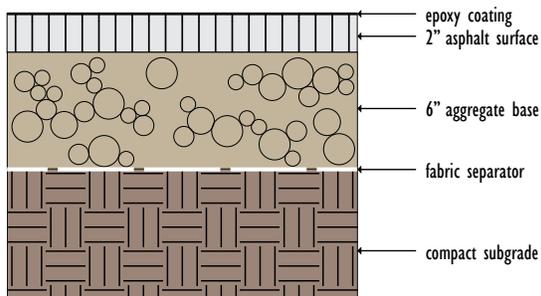
Surfaces

All the paths shown in Figure 3A-D are recommended to be asphalt. Comments received relative to paving suggested concrete was too permanent. Asphalt has fewer opportunities for customizing than concrete and requires more upkeep; however, there are no construction joints so a smooth walking and biking surface is created and it is easier to repair and replace. It is recommended that the asphalt surface be painted with an epoxy coating that will extend the life of the surface and can be installed with a light color to hide the black asphalt and blend better with the adjacent native soil. A detailed cross section is shown below.

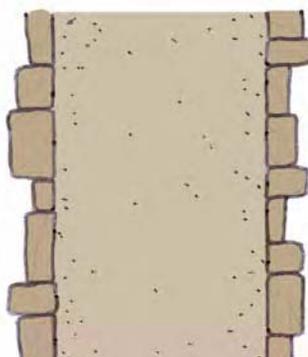
Trails are recommended to be stabilized decomposed granite. This provides a fairly even, stable surface for walking but has a softer, more natural appearance than asphalt. It is not, however, conducive to skating activities and is less desirable for strollers or wheelchairs. The granite color chosen should contrast somewhat from the surrounding native soil so it is clear where the trail alignment is. It is also recommended to edge the trail with irregular stones or pavers to help define, and protect, the edges of the granite. A detailed cross section is shown below.



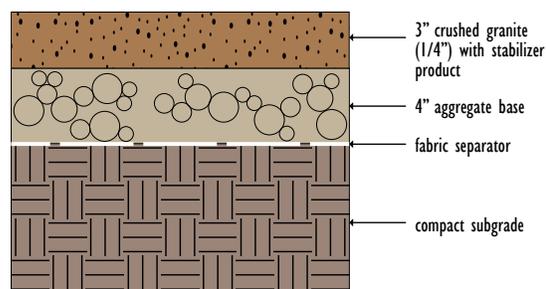
Path Concept



Path Detail



Trail Concept



Trail Detail

Shade Structures

In order to encourage walking in the Community, and to improve the comfort of transit users, shade structures with benches are recommended to be located along the Farrell Road path and at the three locations on the south side of Farrell Road where school buses stop (Thomas Road, Church Road, and the road to the Elders Center). It is recommended that shade structures be placed approximately every quarter mile along the north side of Farrell Road. The structure would be located on the north side of the path. The final locations would be determined on a case by case basis.

Based on Community input, the most desired material for a shade structure was either wood or metal or a combination. The final shade structure should be large enough (length and width) and located relative to the bench so the bench is in the shade as much as possible year round. A larger shelter will also provide more protection from the rain. Example ideas are shown below.



Metal

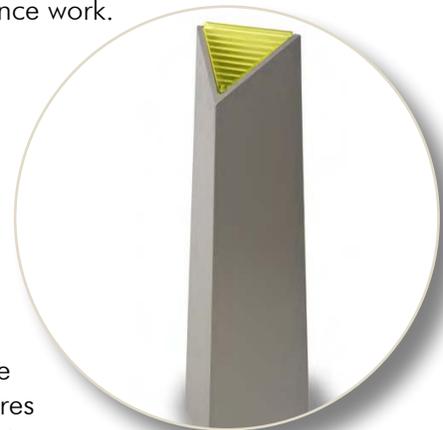


Wood

In addition to man-made shade structures, trees are recommended, both for shade and for their aesthetic appearance. It is recommended to plant them at approximately 40 feet on center, along the outside edge of the paths and trails along Farrell and Peters and Nall roads. The species selected should be a canopy tree from the Ak-Chin Indian Community Design Guidelines and Plant List for Commercial and Industrial Development and Public Use Area. Installation of trees will necessitate the installation of an irrigation system. While native trees can eventually be weaned off supplemental water, they look better and are healthier if provided with some irrigation. Other landscape (shrubs and groundcovers) is not recommended as they do not provide shade, are likely to be trampled, and would create extra maintenance work.

Lighting

Lighting is recommended along the Farrell Road path and trail as these are the most active circulation routes in the Community. There is some lighting from the existing street lights. However, some additional lighting, in the form of 2.5 to 3.5-foot bollards is recommended. The bollards should be located about 40 feet apart along the outside edge of the path and trail on Farrell Road. Within a 40-foot radius of the existing street lights bollard lighting may not be required. The final locations of the bollards will be dependent upon other features along the path or trail such as driveways, shade structures, and trees.



Bollard lighting example

Continuous light coverage of the entire path or trail is not required. Bollards should be the type that cast light predominantly in one direction, on to the path or trail. The Community may wish to consider preparing an overall electrical master plan for the pedestrian lights so that an electrical source is identified, a process is developed for providing power in project segments, and a main controller location is determined prior to the first phase beginning construction.

Crossings

Based on Community input, the most desired type of crossing for Farrell Road is a simple painted crosswalk as shown in the first example below (painted crosswalk). An alternative is a custom design and the options are endless. The consensus was, if used, it should be simpler in design than the one shown in the second example, and it could be a design reflective of the Community or Community designed.

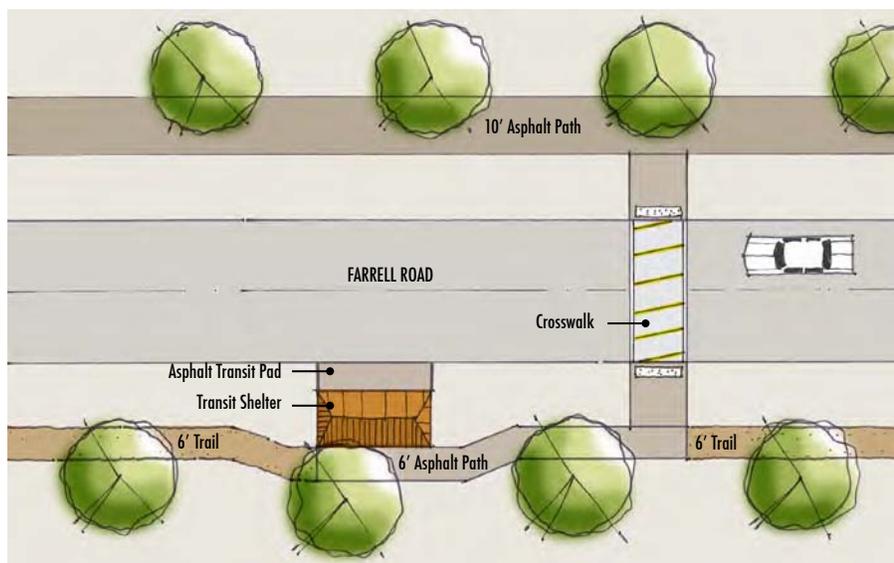


Painted Crosswalk



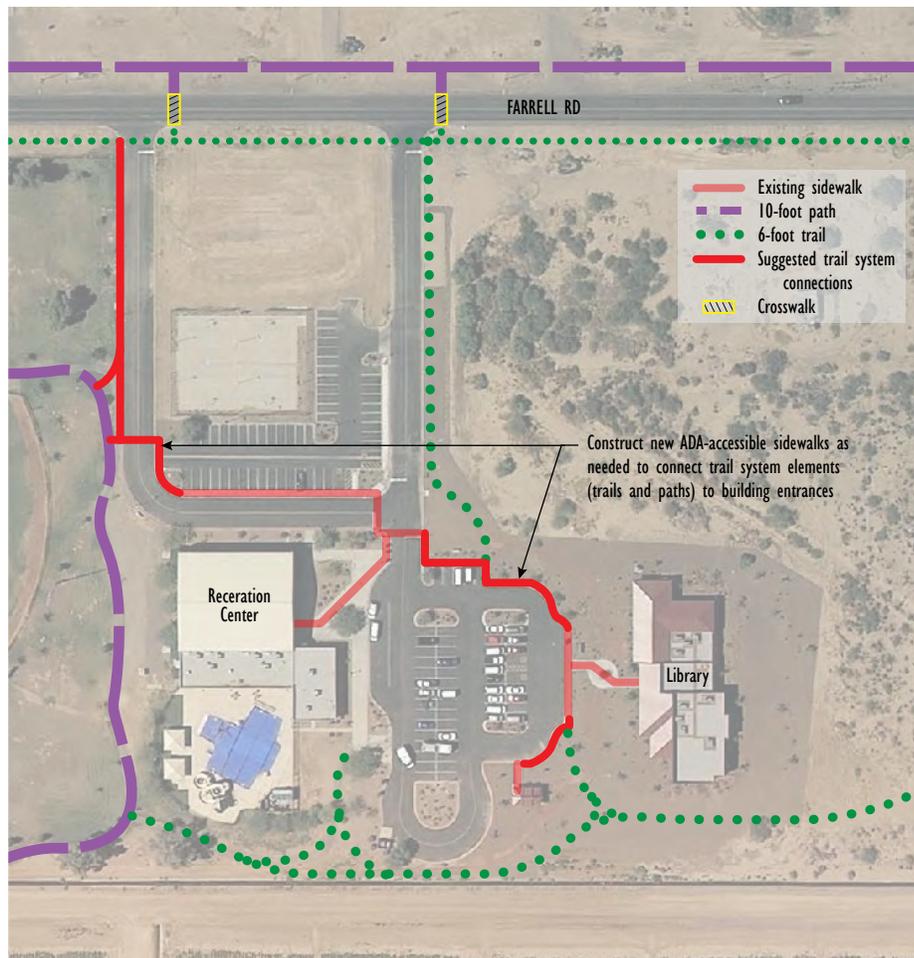
Custom Design

At the locations where a Farrell Road transit stop and school bus stop are coincident, they are located on the south side of the road, adjacent to the trail or, in the case of the stop at the entrance road to the Service and Elders center, no trail. While the trail, if well maintained, meets the requirements of ADA, it might be preferable to provide an accessible route to the path on the north side of the road, as diagrammed in the detail below.



Additional Connections

Several of the Tribal buildings have sidewalks from the parking areas to the building entrances but no sidewalk connections to Farrell or Peters and Nall roads. This plan recommends that these connections be made either as independent projects or in conjunction with other improvement projects. The detail below shows, as an example, the connections needed at the library and recreation center.



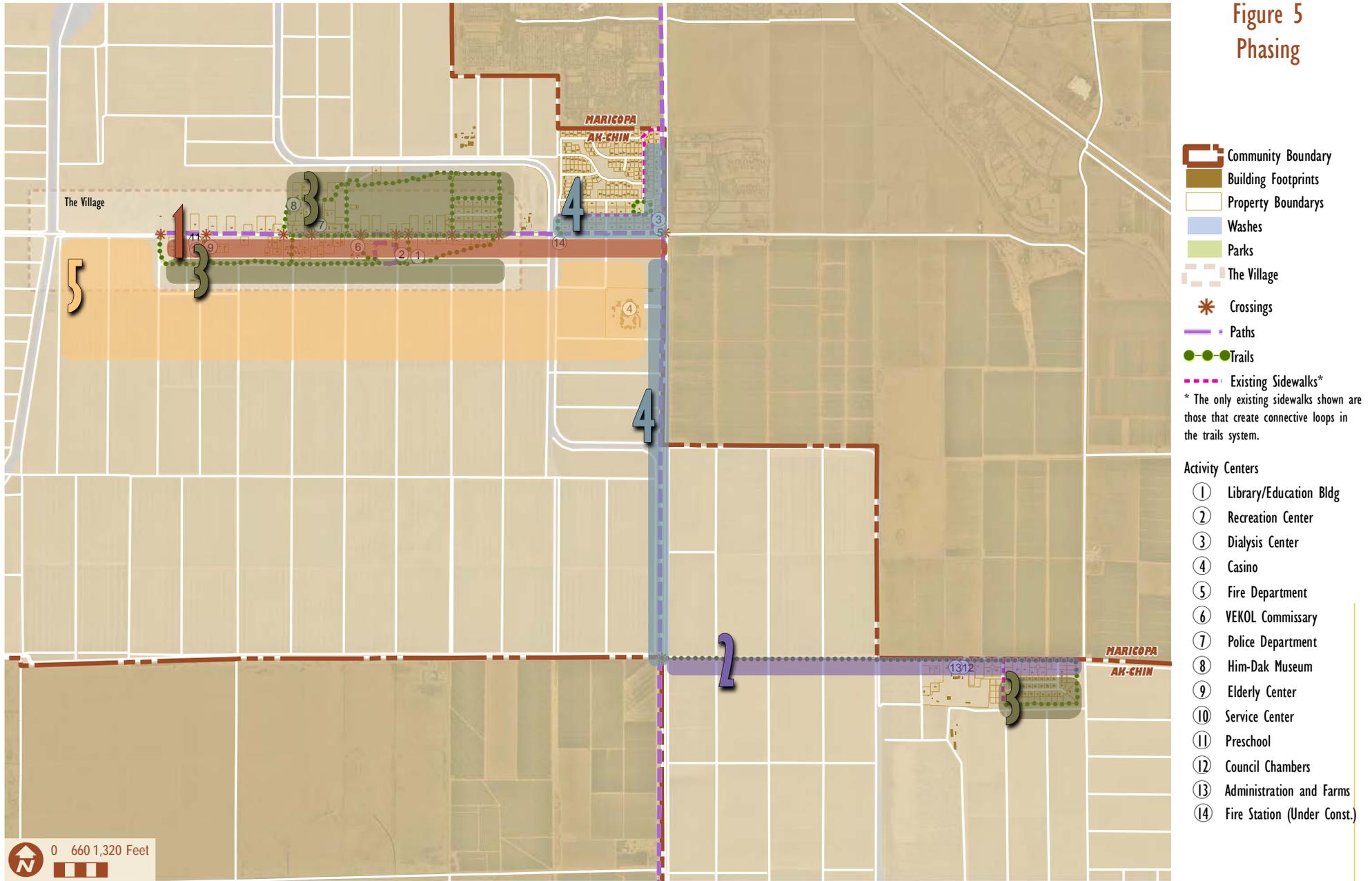
Drainage

The entire area within which these planned improvements will occur is very flat. Currently, it appears runoff sheet flows off the streets and over where the trails and paths will be built, which could result in various erosion and sediment problems. If possible, it would be beneficial to prepare an overall drainage study that would include recommendations for handling flows relative to the paths and trails. This could also be beneficial for minimizing future maintenance.

3.2. Phasing

The path and trail system was divided into five phases and then further subdivided into segments that could meet the monetary cap of some of the typical grant programs. The phases, shown in Figure 5, are 1) Farrell Road, 2) Peters and Nall Road, 3) the Village areas north and south of Farrell Road, west of Smith Wash, 4) the subdivisions east of Smith Wash and along SR 347, and 5) the Public Use and Commercial Area. The last phase, Phase 5, is currently under study by a separate consultant.

Figure 5
Phasing



3.3. Costs

Table 8. Path and Trail Costs

| | Item | Quantity | Unit Cost (per mile) | Total Cost |
|--|--|----------|-------------------------|------------|
| PHASE I | | | | |
| FARRELL RD (west edge of Mesquite subdivision west to VEKOL, 0.42 miles) | | | | |
| | | (miles) | | |
| | 10' asphalt path | 0.42 | \$211,200 | \$88,700 |
| | 6' stab. DG trail | 0.42 | \$47,500 | \$20,000 |
| | | (units) | | |
| | crosswalk | 4 | \$1,000 | \$4,000 |
| | ramadas w/ bench (premanufactured) | 3 | \$15,000 | \$45,000 |
| | trees (25/1000 ft) | 111 | \$500 | \$55,400 |
| | bollards (25/1000 ft) | 111 | \$2,500 | \$277,200 |
| | | | | \$490,300 |
| | Estimated cost with federal funding ¹ | | | \$789,400 |
| FARRELL RD (VEKOL west to Carlyl Rd, 0.36 miles) | | | | |
| | | (miles) | | |
| | 10' asphalt path | 0.36 | \$211,200 | \$76,000 |
| | 6' stab. DG trail | 0.36 | \$47,500 | \$17,100 |
| | | (units) | | |
| | crosswalk | 2 | \$1,000 | \$2,000 |
| | ramadas w/ bench (premanufactured) | 2 | \$15,000 | \$30,000 |
| | trees (25/1000 ft) | 95 | \$500 | \$55,400 |
| | bollards (25/1000 ft) | 95 | \$2,500 | \$277,200 |
| | | | | \$457,700 |
| | Estimated cost with federal funding ¹ | | | \$736,900 |

¹Path/trail costs include general signing. Costs also presume projects may be funded with federal dollars and several percentage of construction costs are added (3% topography survey + 15% PS&Es + 5% drainage report + 1% SWPP plan + 8% mobilization + 5% traffic control + 1% survey control + 18% administrative costs + 5% contingencies = 61%)

Table 8. Trail Costs (cont)

| | Item | Quantity | Unit Cost (per mile) | Total Cost |
|---|--|----------|-------------------------|------------|
| (Phase I con't) | | | | |
| FARRELL RD (Carlyle rd west to rodeo grounds, 0.58 miles) | | | | |
| | | (miles) | | |
| | 10' asphalt path | 0.58 | \$211,200 | \$122,500 |
| | | (units) | | |
| | crosswalk | 2 | \$1,000 | \$2,000 |
| | ramadas w/ bench (premanufactured) | 4 | \$15,000 | \$60,000 |
| | trees (25/1000 ft) | 77 | \$500 | \$55,400 |
| | bollards (25/1000 ft) | 77 | \$2,500 | \$277,200 |
| | | | | \$517,100 |
| | Estimated cost with federal funding ¹ | | | \$832,500 |
| FARRELL RD (Smith Wash west to west edge of Mesquite subdivision, 0.45 miles) | | | | |
| | | (miles) | | |
| | 10' asphalt path | 0.45 | \$211,200 | \$95,000 |
| | 6' stab. DG trail | 0.23 | \$47,500 | \$10,900 |
| | | (units) | | |
| | crosswalk | 1 | \$1,000 | \$1,000 |
| | ramadas w/ bench (premanufactured) | 2 | \$15,000 | \$30,000 |
| | trees (25/1000 ft) | 90 | \$500 | \$55,400 |
| | bollards (25/1000 ft) | 90 | \$2,500 | \$277,200 |
| | | | | \$469,500 |
| | Estimated cost with federal funding ¹ | | | \$755,900 |

¹Path/trail costs include general signing. Costs also presume projects may be funded with federal dollars and several percentage of construction costs are added (3% topography survey + 15% PS&Es + 5% drainage report + 1% SWPP plan + 8% mobilization + 5% traffic control + 1% survey control + 18% administrative costs + 5% contingencies = 61%)

Table 8. Trail Costs (cont)

| | Item | Quantity | Unit Cost (per mile) | Total Cost |
|--|--|----------|-------------------------|--------------------|
| (Phase I con't) | | | | |
| FARRELL RD (SR 347 west to Smith Wash [except bridge ²], 0.51 miles) | | | | |
| | | (miles) | | |
| | 10' asphalt path | 0.51 | \$211,200 | \$107,700 |
| | | (units) | | |
| | ramadas w/ bench (premanufactured) | 2 | \$15,000 | \$30,000 |
| | trees (25/1000 ft) | 67 | \$500 | \$55,400 |
| | bollards (25/1000 ft) | 67 | \$2,500 | \$277,200 |
| | | | | \$470,300 |
| | Estimated cost with federal funding ¹ | | | \$757,200 |
| | TOTAL PHASE I | | | \$3,871,900 |
| PHASE II | | | | |
| PETERS AND NALL RD (SR 347 to east end of Farms subdivision, 01.9 miles) | | | | |
| | | (miles) | | |
| | 6' stab. DG trail | 1.9 | \$47,500 | \$90,300 |
| | | (units) | | |
| | crosswalk | 1 | \$1,000 | \$1,000 |
| | trees (25/1000 ft) | 251 | \$500 | \$55,400 |
| | bollards (25/1000 ft) | 251 | \$2,500 | \$277,200 |
| | | | | \$423,900 |
| | PHASE II Estimated cost with federal funding¹ | | | \$682,500 |
| PHASE III and IV | | | | |
| Residential areas north and south of Farrell Rd | | | | |
| | | (miles) | | |
| | 10' asphalt path (Antone Park) | 0.36 | \$211,200 | \$76,000 |
| | 6' stab. DG trail | 5.06 | \$47,500 | \$240,500 |
| | | (units) | | |
| | crosswalk | 1 | \$1,000 | \$1,000 |
| | | | | \$317,500 |
| | PHASES III AND IV Estimated cost with federal funding¹ | | | \$511,200 |

¹Path/trail costs include general signing. Costs also presume projects may be funded with federal dollars and several percentage of construction costs are added (3% topography survey + 15% PS&Es + 5% drainage report + 1% SWPP plan + 8% mobilization + 5% traffic control + 1% survey control + 18% administrative costs + 5% contingencies = 61%)

²The type of bridge, whether it is widened, rebuilt or a pedestrian bridge is added, is unknown at this time. The minimum cost to widen the existing bridge to accommodate a 10-foot path is approximately \$500,000, in 2011 dollars. Adding a separate pedestrian-only bridge is approximately \$250,000.

3.4. Funding

There are several potential funding sources for the plan. This discussion will focus on “outside” funding mechanisms that require minimal preparation and are most likely to be awarded. The following criteria will assist in choosing the best funding mechanisms for the plan.

Recommendations of funding mechanisms must consider:

- ◆ Funding requirements (various “strings” that may be attached)
- ◆ Caps enforced on funds requested
- ◆ Likelihood of success
- ◆ Relative ease or difficulty in obtaining the necessary funds

Funding Requirements

There is an overall advantage to gain the necessary funding by partitioning the project into phases. Additionally, success of obtaining funding for the first phase will normally aid gaining funding for future phases. Most of the available funds for construction of paths and trails are under federal auspices. This means that federal requirements need to be followed throughout the process to gain funding.

Caps Enforced on Funds Requested

This criterion focuses on choosing mechanisms for the plan’s phases that fit the phase budget. Several mechanisms’ caps fall too short to construct even the smallest phase of the plan. Other mechanisms may have a floor that is too high for the phased project. For example, Transportation Enhancement funds for local projects are capped at \$750,000 per project; state projects are capped at \$943,000. Safe Routes to School infrastructure projects are capped at \$400,000.

Likelihood of Success

Applying for a multitude of funding sources can be time consuming and ineffective if not strategically approached. The key is to determine which source(s) are most likely to fund this plan and take the necessary steps to achieve success when going after them. In any given year, a single particular source may be earmarked for other projects and be a more likely source the following year. Hence, knowing what is in the queue on any specific funding cycle will save time and effort by not generating an application that won’t be approved.

Potential Funding Sources

Various phases of this project qualify for at least three federal funding programs. The programs fund annually which is beneficial for the applicant. If an application is rejected on the first attempt, updates to better qualify for funding in the next round are simpler than preparing a new application. As budget caps and application requirements change periodically, the Community should revisit the respective funding Web sites at such time as they desire to make an application.

Another option for the Community to consider is building the first segment of the project. This could achieve several things: getting the project started quickly so Community members see progress (going through the federal funding process is lengthy and the first built segment could be several years out); it shows the funding agencies that there is commitment by the Community to fulfill the full build out; and it gives the Community the chance to build the first segment the way they’d like it to be built, providing future phases with a ‘demonstration project’.

Transportation Enhancements Funds

Annually, some twenty projects statewide are awarded Transportation Enhancement funding. The cap for local projects is \$750,000 per project. The application process is moderately difficult but most of the data needed to complete the application is contained in this plan. This is a likely source of funding for at least part of the plan. The cap for State projects (those located on a minimum of 75 percent ADOT right-of-way) is \$943,000.

The TE Program is not a grant program, it is a reimbursement program. Project sponsors must be prepared to pay for all costs incurred and then request reimbursement for expenditures as specified in the required Joint Project Agreement. All projects require a minimum of 5.7 percent hard cash match. The selection process begins in the spring with submittal to the regional level, Central Arizona Association of Governments (CAAG), in this case. Projects are selected by CAAG and forwarded to ADOT where they are validated by staff and then approved by the Transportation Enhancement Review Committee in the fall. From application submittal to completion of construction, if the project is approved, can take two to three years.

Safe Routes to School

These funds can only be used to assist children in gaining safe, reliable pedestrian/bicycle routes to school from their residences. This particular funding could likely be obtained for improvements along SR 347 which is along a logical walking and biking route to Maricopa Elementary and Maricopa Well Middle schools. The funded project must be within 2 miles of at least one target school, in this case both these schools meet this requirement. The annual state funding for this program is \$2.5 million. The infrastructure cap per project is \$400,000. This is an annual source and very competitive.

Indian Reservation Roads Funds

These funds are only available to Tribal communities. The funds are available annually and the funding limitations are less strict than the two funding mechanisms discussed above.

Other Funds

This plan is phased over multiple years. There are numerous opportunities that present themselves annually such as the TIGER (Transportation Investment Generating Economic Recovery) grants which were originally part of the stimulus package and are now included as part of the annual DOT budget. For stimulus funding, much of the data contained in this report can be used for the application. Additional data such as employment and economic benefit are required for this application. It should be noted that constant vigilance of funding opportunities over the next several years is recommended to fully fund all the phases of the plan.

Strategic Implementation Recommendations

There are workshops for both Transportation Enhancement and Safe Routes to School funding. Attending these workshops and gaining knowledge about the process is vital. Learning what is in the queue and positioning to gain funding is crucial. Building relationships with key people involved with the funding is also important. These relationships will not in themselves gain funding, but understanding the nuances beyond the printed requirements is most beneficial.

The phasing shown in this plan is only a recommendation. It does not need to be followed in a linear fashion. If some portion of the overall plan can be constructed and funded as part of another improvement project, that should be done.

APPENDIX A - TRANSIT INCENTIVES

The following information is provided as examples of the type of incentives that may be considered to promote transit ridership.

Transit Incentives and Recommendations for Transit Promotions

TRANSIT AND RIDESHARE BENEFITS

Employers who offer and actively promote commute options can improve attendance, productivity, and morale in the workplace. Moreover, transportation choices improve communities and business environments by decreasing both traffic congestion and greenhouse gas emissions.

Employees who are transit riders can experience stress and frustration long before their work day officially begins. The cost of gasoline and the search for safe alternative modes is a constant concern. By promoting alternative forms of commuting such as transit, employers will have a less stressful work environment – and take huge strides in becoming a “greener” company and helping improve the region’s air quality. A list of employer and employee-commuter benefits are shown below.

| EMPLOYER Benefits | COMMUTER Benefits |
|---|--|
| Improve recruitment and retention rates | Freedom from traffic jams |
| Reduce the need for parking | Ability to work or relax during commute time and reduce stresses |
| Enhance company commuter benefits package | Use the new found time to read, talk with friends, or get ahead at work |
| Improve employee access to transit | Save hundreds of dollars a year in auto expenses (gas, insurance, wear & tear, maintenance, tolls, etc.) |
| Enhance community relations | Use pre-tax dollars to pay for public transportation expenses |
| Improve employee morale and productivity | Feel secure with free emergency ride home program |
| Alleviate employee stress and expense | Lower insurance premium on personal vehicle |
| No/low cost program for employer | Get to work and get home on time regardless of the weather, traffic accidents, breakdowns, etc. |
| Reduce traffic congestion | Help reduce environmental pollution and overcrowded roads |
| Access a larger employee base | |

Traveler Benefits

Transit programs can benefit travelers by increasing their travel options, reducing travel stress and by providing financial savings. Some studies show that many workers place a high value on having commute alternatives (Novaco and Collier, 1994). Even people who generally enjoy driving do not necessarily want to drive to work every day. Many commuters would probably prefer to drive somewhat less, provided that they had good mobility alternatives with adequate comfort, convenience, and prestige.

Employer Benefits

Transit programs also benefit employers by reducing their parking costs or freeing up parking for customers. Programs that improve travel choices or provide financial benefits tend to improve employee morale and recruitment, and reduce employee turnover. Surveys have found that telecommuting reduces

employee turnover by 16 percent (U.S. Environmental Protection Agency, 2001). A study of the Business Benefits of TDM (Winters and Hendricks, 2001) identified the following benefits that commuter and transit programs can provide to employers:

- ◆ Enhanced Employee Recruitment and Retention. A shrinking labor force has increased competition for qualified applicants. Similarly, the cost of replacing an employee in productivity and direct costs can be very expensive.
- ◆ Expanded Employee Benefits at Low/No Cost. Employers can take advantage of changes in the federal tax treatment of commute-to-work fringe benefits to benefit employees and reduce costs. Employers can now provide employees with a tax-free benefit and/or offer to subtract the cost of transit or vanpool as a pre-tax payroll deduction option.
- ◆ Expanded service hours. Work hour schedules such as flextime, staggered work hour programs, compressed work week programs enable organizations to provide additional coverage with the same total number of employees
- ◆ Lower absenteeism and tardiness. Employees may need earlier time commitments to accommodate their carpool partner or to meet the bus.
- ◆ Reduced employee stress. Employee health is significantly related to the distance and duration of the trip. People who are exposed to high levels of traffic congestion arrive at work with higher blood pressure than people who are not exposed. The more sensitive long distance commuters are to the effects of commuting on family life, the greater the inclination to try alternatives to solo driving.

Transit incentives are designed to encourage participation in new and “greener” modes of transportation. Below is a list of incentives and promotions that can be incorporated into transit programs.

Transit Incentives List

- Transit “encouragement” by community leaders, employers, etc.
- Lead the way. If you absolutely cannot participate, it will be a hard sell for your managers. You needn’t take mass transit every day to set a good example; just enough to show you are serious about it.
- Subsidized transit fare
- Provide “Emergency Ride Home” program
- Turnouts for transit buses
- Transit shelters at public bus stops near work sites
- Provide transit benches
- Sidewalks/ paths to transit hubs
- Lighting at public bus stops
- On-site/worksite or community sites transit pass sales (e.g., grocery stores, retail outlets, town hall, etc.)
- Online transit pass sales
- Free Introductory (trial) Transit Pass
- Cash Incentives
- Transit Subsidy Program (Commuter Check)
- Prize giveaways

- Flexible Work Schedule Policy
- Pre-Tax options – see more information below
- Consider ECO Pass or Universal Pass program (annual pass at discount rates) – see more information below
- Traveler information system – next bus technology
- Transit Amenities - provide on-board refreshments services and wireless Internet access
- Park and Ride Facilities

Transit Promotions

- Provide a Transit Coordinator/Outreach Coordinator
- Public Involvement Plan/Public Workshops
- Install Transit Kiosks/Information Boards
- Host a Transit Kick-off Event/Fair (or “Bus Riding 101”)
- Prepare Transit Fliers and Posters
- Create a Transit Planning Website or page on the Official Website of the Ak-Chin Indian Community
- Identify and state a Transit ridership goal
- Transit Agency to Partner with Business, Chambers, Government Departments, Harrah’s Ak-Chin Casino, Ak-Chin O’odham Runner Newspaper, etc.
- Co-host/participate in annual community events (e.g., Earth Day, Annual Him-Dak Celebration, Native American Recognition Day, and Masik Tash, etc.)
- Commuter-of-the-month recognition
- Restaurant/gift vouchers
- Incentives created with partnerships (other employers, retails, etc.)
- Local business discount coupons
- Monthly/quarterly/yearly drawings
- Earned incentive for trip tracking
- Commuter cups or tee shirts

Sample Transit Incentives

- Free Ak-Chin Transit Pass: First time riders are eligible to receive a free 1-month bus pass. Submit a Transit Subsidy Application to Ak-Chin-TRIP by the 20th of the month and you’ll receive a 1-month bus pass by the first day of the following month. One free trial 1-month transit pass per person.
- Cash Rewards: Earn a one-time \$50 reward from Ak-Chin Transit after logging the first 50 bus rides in the “myAk-Chin-TRIP” calendar. Participants can select their choice of a \$50 Amazon.com Gift Card or contribute their reward to buying a Carbonfund.org carbon offset.
- Ak-Chin-TRIP Drawings: Participate in monthly Ak-Chin-TRIP drawings through myAk-Chin-TRIP where you could win prizes such as gift cards to local restaurants, retailers, entertainment venues, and more.
- Bus Pass Rebate: Ak-Chin Transit offers community members a 20 percent rebate on monthly or ten-trip passes.

- Loyalty Rewards Program: Save your used monthly transit passes to receive an additional FREE month annually.
- Discounts: Other discount incentives are available for regular riders that recruit new transit passengers.
- Buy 2, Get 1 Free: ...

Emergency Ride Home Program

It should be noted that a strong and well-marketed Emergency Ride Home (ERH) program will be important as a supporting element for all on-site employee commuter and transit programs. It is recommended that all employer or commute programs implement a free guaranteed ERH program for their employees who use alternative forms of transportation. This program will provide employees who commute to work using transit, bicycle, carpool or vanpool, a guaranteed free ride home in case of a personal, midday emergency, or when they unexpectedly have to work late, thereby missing the last bus or their normal carpool home. An ERH program will provide employees with peace of mind that comes from knowing that if a child or loved one becomes ill or injured during the day, the employee can get to them quickly. ERH programs have proven very successful, as it removes one of the major objections employees have to giving up their private automobile, especially those with young families.

Tax Advantages and Business Savings

Commuter Choice — Pre-Tax Options (transit, vanpool, and bicycle)

As of February 2009, the Commuter Choice option increased the tax-free salary payroll deduction to up to \$230 per month per employee for vanpool and rail transit pass fares through a voucher program (Commuter Check). Employees can now deduct up to \$2,760 a year from their salary as a pre-tax payroll deduction. This program encourages non-drive-alone commute trips. Employers also receive a tax savings as a benefit of this program.

The law also allows employers to give employees the option to use payroll deductions to avoid paying taxes on up to \$230 a month in commuting costs. Alternatively, employers can share these costs with their workers by paying part of their monthly commuting costs and allowing workers to pay the balance using pre-tax dollars. Either way, both employers and their employees save money by participating in this simple plan.

Direct transit or commute subsidies can be a set dollar amount or a percentage of the monthly costs of transportation. Employment sites that offer transit or commute subsidies generally tend to have higher levels of alternative mode-use. Subsidies can be provided in tandem with the pre-tax option.

A \$20 per month tax-free payroll deduction is now available to bicycle commuters. Bicycle commuters can deduct up to \$240 per year in pre-tax bicycle expenses.

This information can be found in the Internal Revenue Code Section 132 (F), as amended by TEA-21, Title IX, Section 910.

Eco Or Universal Pass Programs

Transit agencies may be able to increase ridership by residents of transit-rich neighborhoods and transit-oriented developments by selling discounted transit passes to housing developers for distribution to their residents.

While many transit authorities offer monthly or annual pass programs to large employers, a few also offer pass programs to residential developments such as apartments, condominiums or homeowner associations. The Santa Clara Valley Transportation Authority (VTA) offers a residential version of its Eco Pass at a deep discount to housing developers in order to increase ridership and expose people to public transit. The residential Eco Pass provides unlimited rides on VTA bus and light rail seven days a week.

Performance Measurements

SHORT TERM PERFORMANCES

- Conduct Baseline Transit Survey to determine existing uses and future opportunities. Baseline “employee” transit survey at all participating employer sites or to entire community to determine current transit activities, needs and desires.
- Track increases in transit ridership (e.g., monthly boarding counts)

MEDIUM TERM PERFORMANCES

- Conduct annual monitoring and transit rider survey (e.g., level of use, destinations, unmet needs, and satisfaction, etc.)
- Review Return on Investments (transit programs spending = increase in transit ridership, use, activities & decreases in auto trips)

APPENDIX B - EXAMPLES OF INFORMATION REQUIRED FOR THE SECTION 5311 APPLICATION PROCESS

Applicant Name: _____

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APPLICATION SECTION 3: BUDGET FOR ADMINISTRATION AND OPERATING ASSISTANCE

(Attach any support documents/materials following Section 3)

Administrative and Operating budgets **MUST** be completed by applicants for the 5311 Rural Public Transportation and Intercity Bus Transportation program. **Complete data is required to assist in evaluating fiscal and managerial capability and the efficiency of your proposed service. Applicants must report the full cost of operations, regardless of who pays the cost.** For example, if a county donates office space, the market value of the donated space must be included on the appropriate line. Volunteer labor needs to be accounted for in a similar way.

All budget information is to be completed in Excel file format provided.

The match ratio for the 5311 program is 80% / 20% for administration and 58%/42% for operating.

DEFINITIONS: Expense Line Items

| | |
|---|--|
| Labor: | Wages and or salaries for drivers, dispatchers, mechanics, clerical, administrative staff, etc. |
| Fringe Benefits: | Social security match, retirement, health insurance etc. |
| Services: | Professional/technical services, maintenance, custodial services, management services, advertising fees, other services. |
| Utilities: | Gas, water, electricity, telephone. |
| Insurance: | Vehicle insurance, general liability, etc. |
| License Fees and Taxes: | Taxes and fees paid. |
| Material and Supplies: | Vehicle costs such as fuel, oil, parts, tires, etc. |
| Purchased Transportation Services: | Trips purchased from taxi operators. |

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| | |
|--|---|
| Lease and Rentals: | Leased-rental vehicles, office space, radios, garage equipment, etc. |
| Depreciation: | This non-cash item indicates the amount of depreciation on vehicles and other equipment, per the accounting practices of each organization. Most organizations depreciate vehicles on a five-year basis. Therefore, if you have vehicles less than five years of age, you would report depreciation in this line item. For details refer to the audit worksheet or your accountant. |
| Other: | Dues, subscriptions, travel. |
| Administrative Expenses: | Include overhead costs such as office supplies, salaries and fringe benefits of the administrative staff, vehicle insurance, marketing, office insurance, etc. |
| Operating Expenses: | Are those directly related to vehicle operations, such as fuel, oil, driver and dispatcher salaries and fringe benefits, tires, vehicle maintenance, etc. There are a number of expenses such as utilities, rent and labor costs which can often be split between administrative and operating, per their functional distribution, for example, if two thirds of an agency's office space is used by the operations staff and one third is used by administrative staff, utilities and rental costs should be split between administrative and operating in the same proportion |
| Expenses Which Cannot Be Claimed For Reimbursement Include: | Fines and penalties, bad debts, entertainment, interest, expenses associated with providing services in urbanized areas; expenses for charter services, and expenses paid by other funding sources and for which no FTA funding is requested. |

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| | |
|------------------------------------|--|
| Passenger/Farebox Revenues: | Farebox revenues are fares paid by the riders. Amounts listed here are the anticipated farebox revenues and must be used to offset the cost of system operation. (Farebox revenues cannot be used to satisfy match requirements. Farebox, other operating revenues, and donations reduce the overall project operating costs eligible for Federal funding.) |
| Other Operating Revenues: | Are those cash funds received from other non-federal sources (i.e., private donations/contributions, dedicated tax revenues, state or local appropriations and net income generated from advertising and concessions? |
| Donations: | Those funds donated in lieu of passenger fares. |

| | |
|---------------------------|--|
| DEFINITIONS: Other | |
| Ridership: | The number of one-way passenger trips for the periods requested. A one way passenger trip occurs each time a passenger boards a vehicle. For example, transporting a person to and from a doctor's office constitutes two trips. |
| Mileage: | Refers to the total number of miles you expect vehicle(s) to be driven |
| Vehicle Hours: | Refers to the number of hours vehicles are in revenue service. To calculate the number, multiply your hours of daily operation times the days per week the system will operate, times the weeks of service per year times the number of vehicles to be used. For example, if the service will be available from 8AM-5PM, Monday-Friday, for 50 weeks during the year, and operating 3 vehicles that whole time, total annual vehicle hours would be 6,750 (9 hours x 50 weeks x 3 vehicles). |

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ADMINISTRATIVE BUDGET

(Whole \$ Only)

| A. EXPENSES | | | FY 2011 Budget |
|--|------------------|---------------|-----------------------|
| Personnel | Annual \$ | % Time | |
| Transit Manager / Coordinator | | | \$0 |
| Other Salaries: (specify below) | | | \$0 |
| Administrative Assistant | | | \$0 |
| Financial Assistant | | | \$0 |
| Human Resources Assistant | | | \$0 |
| Fringe Benefits for Admin. Personnel | | | \$0 |
| SUBTOTAL PERSONNEL | | | \$0 |
| Other Administrative Expenses | | | |
| Space Rental | | | \$0 |
| Program Audit | | | \$0 |
| Utilities | | | \$0 |
| Marketing / Advertising | | | \$0 |
| Printing | | | \$0 |
| Rental Equipment | | | \$0 |
| Admin. Supplies | | | \$0 |
| Office Phone/Cell Phone | | | \$0 |
| Other (specify below) | | | \$0 |
| | | | \$0 |
| | | | \$0 |
| SUBTOTAL OTHER ADMIN | | | \$0 |
| Substance Abuse Program | | | |
| Collection Site(s) | | | \$0 |
| Medical Review Officer | | | \$0 |
| Laboratory Testing | | | \$0 |
| Related Travel | | | \$0 |
| SUBTOTAL SUBSTANCE ABUSE | | | \$0 |
| B. ADMINISTRATIVE SUBTOTAL | | | \$0 |
| The Administrative Budget, divided by the Federal share of Administrative Budget plus the Federal share of Operating Budget, cannot exceed a ratio of 40%. | | | #DIV/0! |
| C. LOCAL SHARE (at least 20% of subtotal) | | | \$0 |
| D. FEDERAL SHARE* (No more than 80% of subtotal) | | | \$0 |
| E. LOCAL SHARE SOURCE: | | | |
| List each source and amount. All in-kind contributions used as part of local match must be listed as cost items in the Administrative expenses above. | | | |
| 1 | | | \$0 |
| 2 | | | \$0 |
| 3 | | | \$0 |
| 4 | | | \$0 |
| 5 | | | \$0 |
| SUBTOTAL LOCAL SHARE | | | \$0 |

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OPERATING BUDGET

(Whole \$ Only)

| A. OPERATING EXPENSES | | | FY 2011 Budget |
|---|-----------|-----------|---------------------------|
| Personnel | FT | PT | |
| Driver Salaries | | | \$0 |
| Other Salaries (specify below) | | | \$0 |
| Dispatcher | | | \$0 |
| Driver/Maint. Supervisor | | | \$0 |
| Mechanic | | | \$0 |
| Total Fringe Benefits | | | \$0 |
| SUBTOTAL PERSONNEL | | | \$0 |
| Other Operating Expenses | | | |
| Fuel and Oil | | | \$0 |
| Tires, Parts, Maintenance | | | \$0 |
| Vehicle Licenses | | | \$0 |
| Vehicle Insurance | | | \$0 |
| Uniform/Purchase | | | \$0 |
| Uniform/Cleaning | | | \$0 |
| Vehicle Radio/Cell Phone Service | | | \$0 |
| Operating Supplies | | | \$0 |
| Other Expenses (specify below) | | | \$0 |
| | | | \$0 |
| SUBTOTAL OTHER OPERATING EXPENSE | | | \$0 |
| OPERATING EXPENSE SUBTOTAL | | | \$0 |
| B. OPERATING REVENUES | | | |
| Fare Revenues | | | \$0 |
| Other Operating Revenues (includes advertising) | | | \$0 |
| OPERATING REVENUE SUBTOTAL | | | \$0 |
| C. NET OPERATING COSTS | | | \$0 |
| (Subtract Operating Revenue Subtotal from Operating Expense Subtotal) | | | |
| D. LOCAL SHARE (at least 42% of "C") | | | \$0 |
| E. FEDERAL SHARE (no more than 58% of "C") | | | \$0 |
| F. LOCAL SHARE SOURCE | | | |
| List each source and amount. All in-kind contributions used as part of local match must be listed as cost items in the Administrative expenses above. | | | |
| 1 | | | \$0 |
| 2 | | | \$0 |
| 3 | | | \$0 |
| 4 | | | \$0 |
| 5 | | | \$0 |
| SUBTOTAL LOCAL SHARE | | | \$0 |

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BUDGET SUMMARY

| | As Available | | 5311 Application Total | | | |
|--------------------------|------------------|-------------------|------------------------|----------------|----------|-------|
| | Capital - 93 / 7 | Capital - 80 / 20 | Operating | Administration | Training | Total |
| Fare Revenues | | | \$0 | | | \$0 |
| Other Operating Revenues | | | \$0 | | | \$0 |
| Local Share | \$0 | \$0 | \$0 | \$0 | | \$0 |
| Federal Share | \$0 | \$0 | \$0 | \$0 | | \$0 |
| TOTAL | \$0 | \$0 | \$0 | \$0 | | \$0 |

PROJECT SUMMARY STATISTICS

| | Total Expected | Line Number |
|---|----------------|-------------|
| Annual Ridership | 0 | (1) |
| Annual Miles | 0 | (2) |
| Annual Vehicle Service Hours | 0 | (3) |
| Total Operating Revenues | \$0 | (4) |
| Total Non-Capital Costs (Administrative plus Operating Costs) | \$0 | (5) |
| Administration as a percent of non-capital costs | #DIV/0! | (6) |
| Fare Revenues / Total Operating Revenues | #DIV/0! | (7) |
| Cost per Passenger Trip | #DIV/0! | (8) |
| Cost per Mile | #DIV/0! | (9) |
| Cost per Vehicle Service Hour | #DIV/0! | (10) |
| Federal Share of Non-capital costs | \$0 | (11) |
| Federal Cost per Passenger Trip | #DIV/0! | (12) |
| Federal Cost per Mile | #DIV/0! | (13) |
| Federal Cost per Vehicle Service Hour | #DIV/0! | (14) |