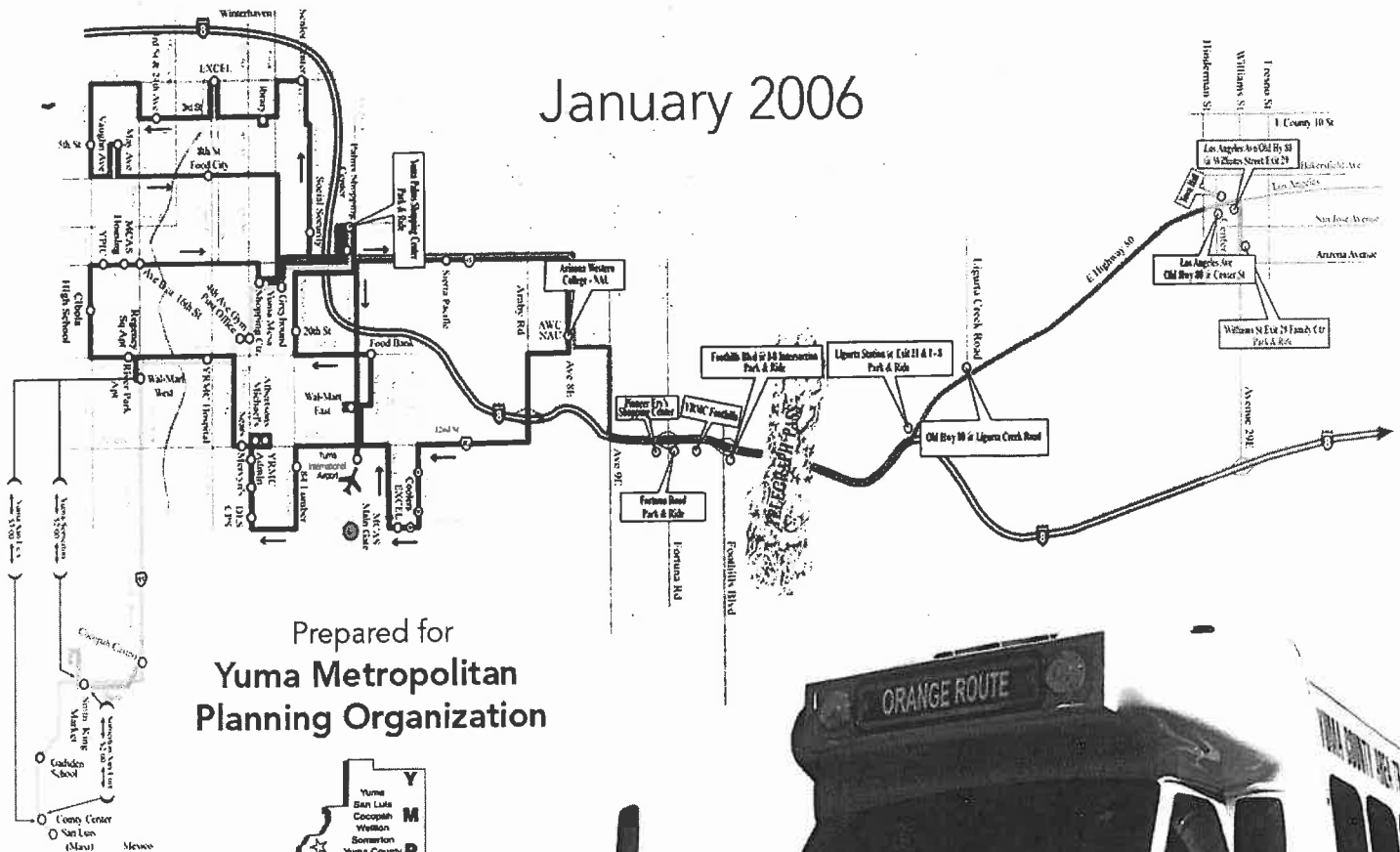


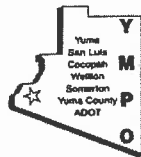


Wellton Regional Transit Connector Service FINAL REPORT Feasibility Review and Implementation Plan

January 2006



Prepared for
**Yuma Metropolitan
Planning Organization**



Prepared by



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A. INTRODUCTION

Transit plays an important role in rural mobility and rural economic development. A report by the Transportation Research Board on the economic impact of rural transit systems found that “the average net earnings growth differential between rural counties with transit and rural counties without transit systems was 11 percent.” This same report found that rural transit systems are successful when they are able to offer “significant levels of employment benefits to their riders” or when they “made important contributions to the ability of local residents to live independently and to access critical medical services.”

In the State of Arizona, the Arizona Department of Transportation (ADOT) administers over \$2.7 million annually to fund rural public transit systems to serve communities with populations under 50,000. ADOT distributes a percentage of funds to cities, towns, and Native American tribes to operate these systems at the local level. As part of this overall funding program, ADOT’s Public Transportation Division and the Yuma Metropolitan Planning Organization (YMPO) initiated a study to produce a feasibility review and implementation plan for a three-year pilot regional connector service between the City of Yuma and the Town of Wellton, Arizona. The intent of this pilot program is to assess the need for public transportation services between a rural community and an urbanized environment to provide rural community access to the urban environs for employment, medical appointments, shopping, education, and other services. This pilot regional transit connector service is one of four pilots currently established in the State of Arizona.

This study is funded by Section 5303, the Federal Transit Administration’s Metropolitan Planning Program. Section 5303 funding provides financial assistance to states and local public bodies to support planning efforts.

The importance of rural transit to community mobility and economic development, combined with the need to distribute public funding efficiently and equitably, leads to the following key questions for this feasibility study:

1. Is there latent demand for transit service in the Wellton area? (That is, if transit service were offered, would Wellton residents use it?)
2. If latent demand for transit does exist, how should bus operations be structured to provide optimal service? (In other words, how much service should be offered, how often should it run, and what should the price be?)
3. Once the pilot project is complete, what sources of funding might be available for permanent transit service?

This study will respond to those questions by analyzing socio-economic data, soliciting input from the community and key public stakeholders, and examining alternative structures for the transit program.

B. GOALS AND OBJECTIVES

Although transit in any location should meet certain basic requirements, service should be tailored to the specific locality it serves. Below are recommended goals and objectives for the Wellton transit service, along with means of measuring whether the goals are being met.

Effectiveness

To be effective, Wellton transit service should...

...provide transportation for Wellton residents to the destinations they need, at the times they need it

...serve different types of riders, from students to workers to retirees

Effectiveness can be measured through ridership surveys and complaint/comment forms.

Reliability

To be reliable, Wellton transit service should...

...arrive and depart at the times posted in schedules

Transit supervisors can measure reliability by randomly monitoring service.

Efficiency

To be efficient, Wellton transit service should...

...make the most of the public funds used to support it, while charging a price that Wellton residents can afford

To measure the efficiency of the system, transit managers can compare the YCAT lines with similar transit service in Yuma or in other locations around the state, in terms of farebox return ratio, load factor, and cost of contracting and management.

User-friendly

To be user-friendly, Wellton transit service should...

...be easy to use by multiple user groups, including people in wheelchairs, families with strollers, bicyclists, and those who may not read or speak English

...recognize that many people in Wellton have not used transit before, and provide ongoing marketing/education efforts, including instructions for use

Customer satisfaction surveys can measure whether the transit service is meeting this goal.

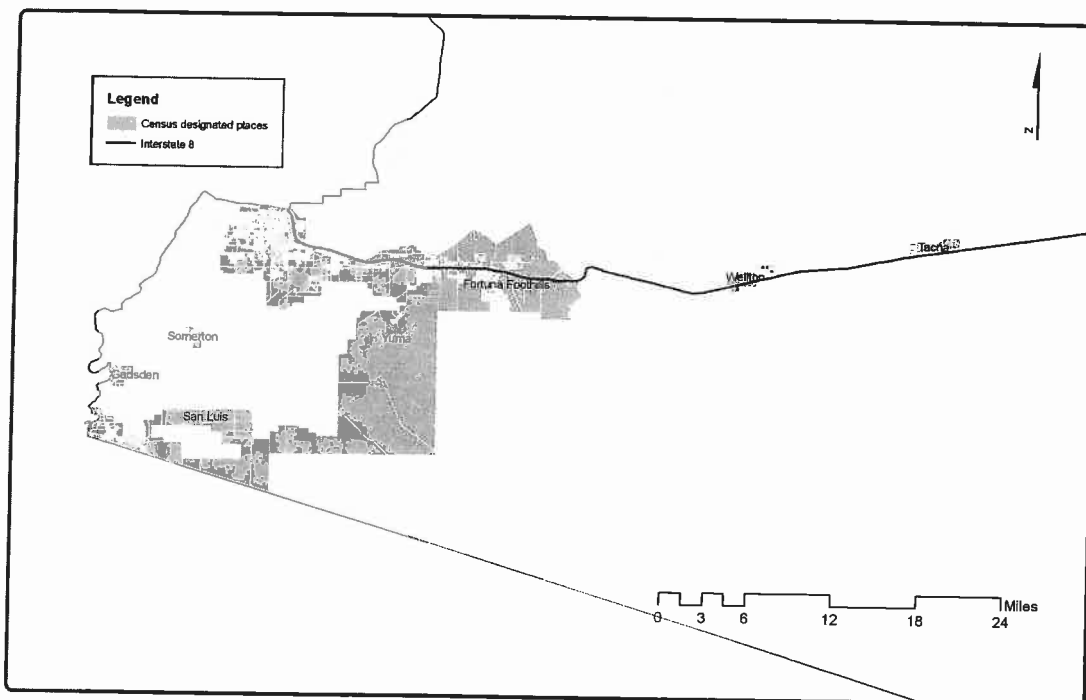
These goals will guide the development of transit service for the Wellton area.

C. EXISTING CONDITIONS

In order to understand the context in which any new service to Wellton would operate, this section describes existing conditions in the Wellton area as they pertain to transit.

1. General Description

The Town of Wellton is located in the southwestern corner of the state of Arizona. The Town straddles Interstate 8, with the bulk of town's existing development located to the north of the Interstate. Wellton's nearest large neighbor is the rapidly growing city of Yuma, 29 miles to the west, through Telegraph Pass in the Gila Mountains. Wellton is three hours from Phoenix to the east and San Diego to the west; 54 miles from San Luis (Arizona), Rio Colorado; Sonora, Mexico; and 320 miles from Las Vegas.



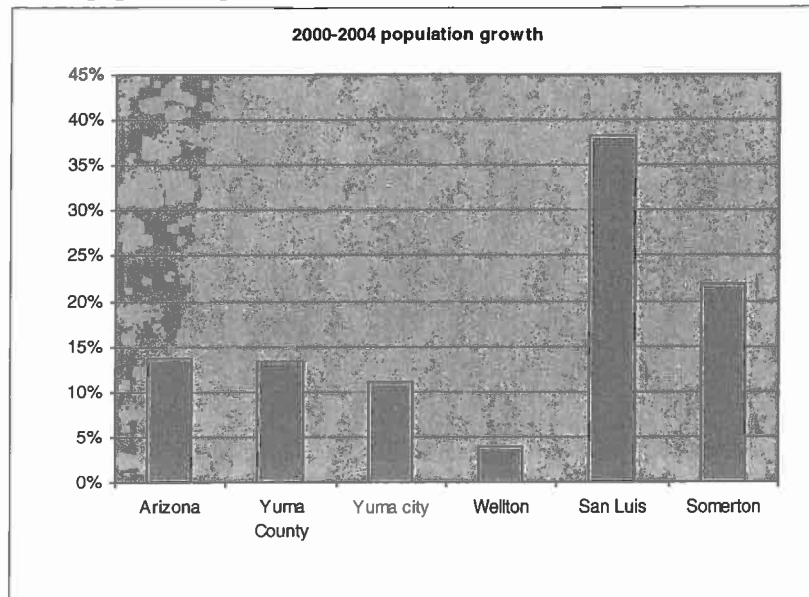
Although the Town itself is small, it is located in rapidly growing and urbanizing Yuma County. Its proximity to both the state line with California and the international border with Mexico, and historical importance as a well-stop during the development of the Southern Pacific railroad line, means that the town has long been a crossroads.

For the town's year-round residents, the town is primarily a farming or retirement community, but Wellton has historically been a destination for winter visitors. These many part-year residents arrive in the early fall and depart in late spring, and make their home in the Town's many RV parks. Figures from the 2000 U.S. Census show Wellton's population at 1,800, but that number may or may not include part-year visitors, who often claim another state for their permanent residency. Town leaders indicate that the town's population doubles in the winter months.

2. Growth

The Yuma County population grew more than 13% between 2000 and 2004, but that rapid growth was distributed unevenly throughout the county. The fastest-growing areas were near the border with Mexico: San Luis grew by 38% during that period; Somerton grew by almost 22%. By contrast, Wellton's growth lagged far behind the rest of the county, with less than 4% growth over the four-year period, as Figure 1 shows.

Figure 1: Yuma area population growth



Wellton town leaders foresee a much greater growth rate in the coming years, with the expectation of construction of an oil refinery in Tacna; upscale housing development in the area south of Interstate 8; and the relocation of the U.S. Border Patrol's administrative center to Wellton, among other anticipated developments, such as the solar power plant.

3. Demographics

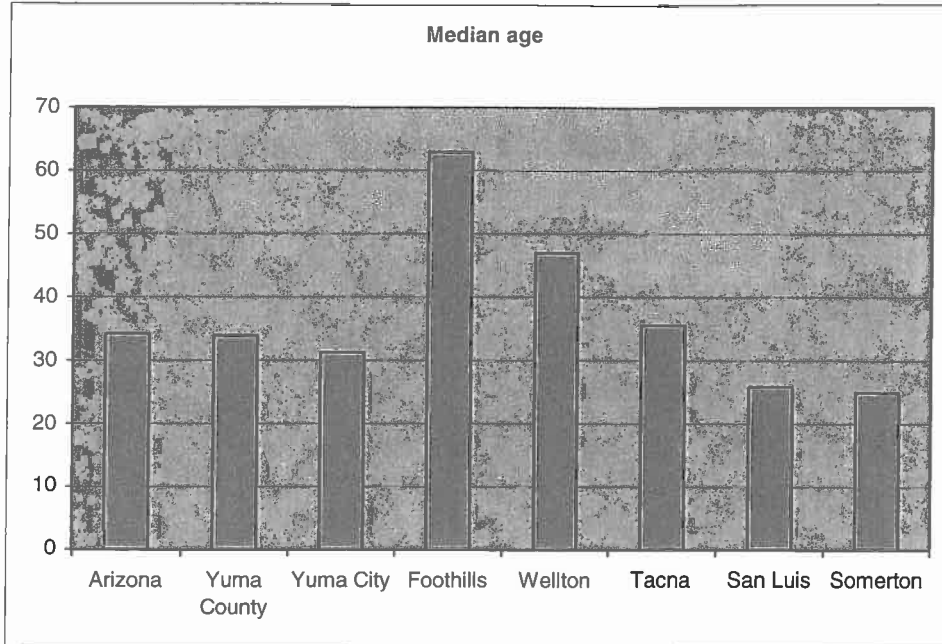
3.1 Age and Income

Age and income are important indicators of transit demand; generally, the older and/or less affluent the individual, the more likely he or she is to use bus transit. This is especially true of rural transit systems – a Minnesota study found that, compared with intercity bus transit (such as Greyhound Bus Lines), rural transit riders are older and have lower incomes. Rural transit riders tend to use transit service more for necessary shopping and medical trips, rather than discretionary social trips; and they tend to use transit because they simply cannot drive and thus do not have another option. In other words, riders of rural transit services are often a group that depends on transit for their daily needs.

Age

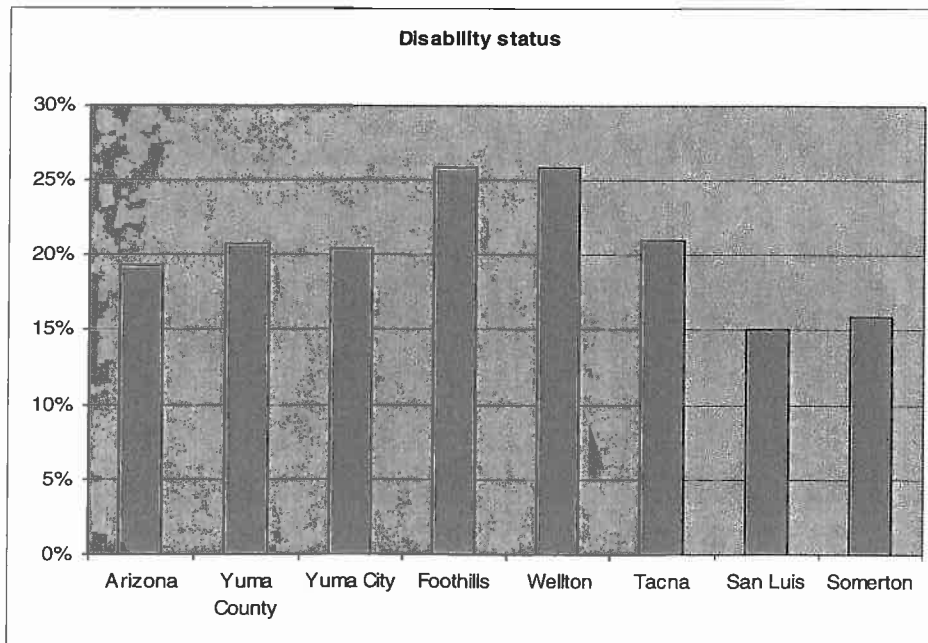
Data from 2000 U.S. census reports indicate that the age of the Wellton's population is among the highest in the Yuma area. Wellton's median age is 46.9 (compared with a county average of 33.9 years – see Figure 2).

Figure 2: Yuma area median age



It is also noted that Wellton's population also has among the highest disability rates in the Yuma area; over a quarter of Wellton residents are considered disabled. (See Figure 3.)

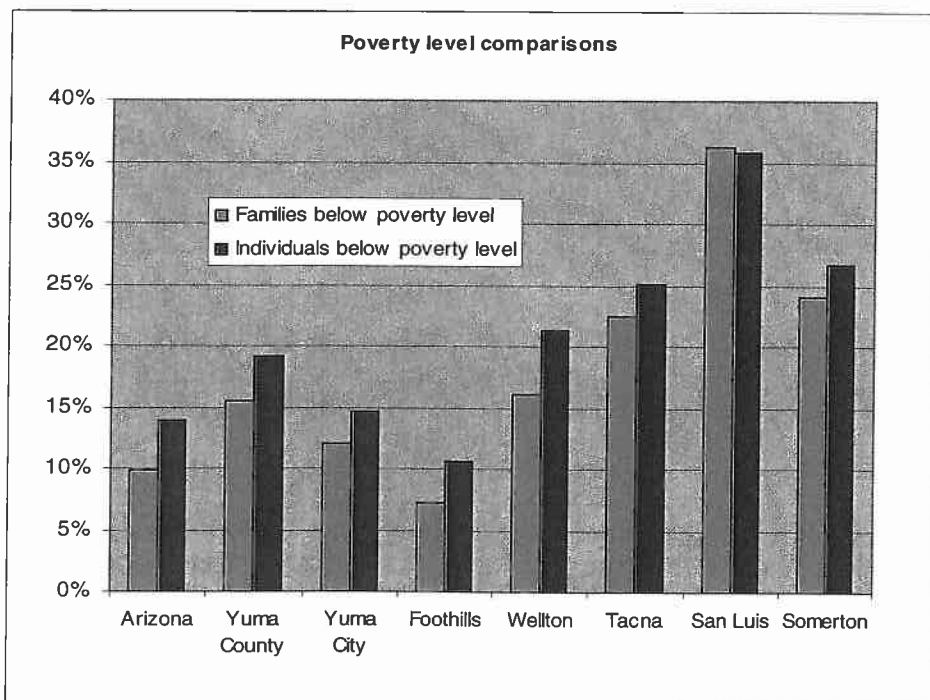
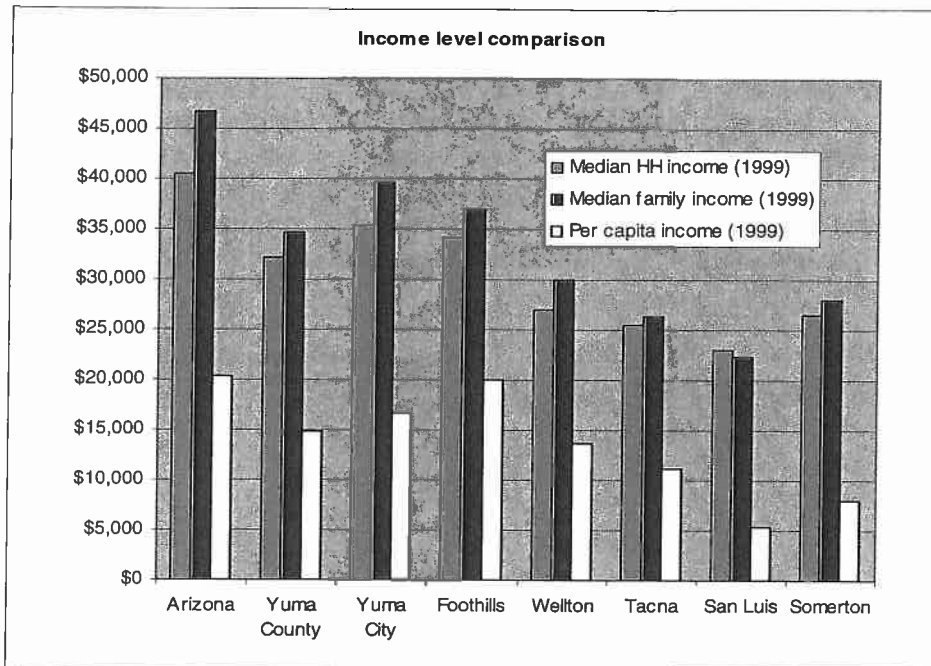
Figure 3: Percentage of population considered disabled



Income

The Yuma area in general has lower median household and family incomes than the Arizona state average, but the median income in Wellton is relatively higher than the rest of Yuma County. Nonetheless, according to U.S. Census data, 21% of Wellton's population lives below the national poverty line (see Figure 4 on next page).

Figure 4: Income and poverty level in Yuma area



3.2 Ethnicity

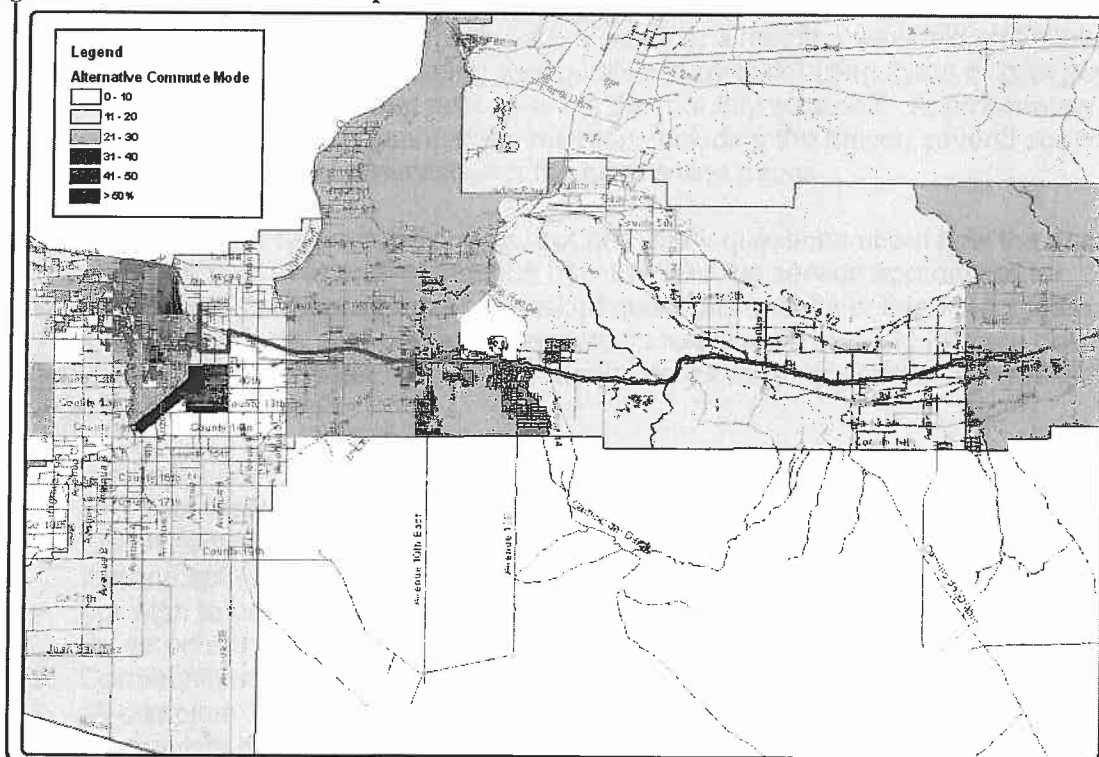
Figures from the 2000 U.S. Census indicate that a slight majority (55%) of Wellton residents are white non-Hispanic, followed by 40% Latino/Hispanic; 25% of the residents classify themselves as “other race,” 2.5% are “two or more races,” 2.1% are American Indian; and 2% are Black/African-American.

4. Current Travel Behavior

In addition to demographic factors such as income and age, populations may indicate an openness to transit use through their current transportation behavior.

In the 2000 U.S. Census data, Wellton residents exhibited a high rate of alternative transportation mode share in their journey to work; that is, many Wellton residents commute to work by means other than driving alone in a personal vehicle. In some parts of the Wellton area, the alternative transportation mode share is higher than 28%. (Census data is at the block group level. Unfortunately, a greater level of detail is not available.)

Figure 5: Use of alternative transportation mode



5. Existing Transit Service

Currently, the Town of Wellton’s only form of public transit is the Greater Yuma Area Dial-A-Ride demand-responsive bus program. This program is aimed primarily at senior or disabled populations. The Dial-A-Ride program requires a 24-hour advance reservation. The price for a trip is \$4.00.

Taxi service in the Yuma area is based primarily in the City of Yuma, with three additional companies in San Luis. Service to Wellton is prohibitively expensive.

6. Conclusions

The population in the Wellton area is older with relatively high disability levels. In addition, while not poor by Yuma County standards, many people live below the national poverty level. All three of these issues are strong indicators of potential transit demand. The people of Wellton seem to have compensated for the lack of public transportation by relying on a high level of carpooling. Given the high proportion of Latino/Hispanic residents in Wellton, any new service should have information presented both in English and Spanish.

D. PUBLIC COMMENT

1. Community Input

1.1 Pilot Project Concept

To solicit public comment on the proposed bus service, a meeting was held on October 11 at Wellton Town Hall. The meeting was publicized by distributing flyers in local post offices, and in the newsletter that accompanies the monthly water bill. Approximately 20 community members were present at the meeting, including the Mayor, several council members, and the editor and publisher of the local online paper.

Community members favored the project, but had many questions about how the service would operate and a great deal of input on how to make the service appropriate for Wellton residents. Community members asked questions directly of the project team, filled out comment cards, and placed sticky dots on large-scale maps to indicate desired pick-up and drop-off locations. (Several comment cards were received in the weeks after the meeting as well.)

Community input from this first meeting indicated the following:

1. The community members present are most concerned with being able to use transit service for shopping trips and medical visits. They were very concerned that the schedule be designed to accommodate such trips; for example, they did not wish to have only one round-trip per day, which would leave them in Yuma for an entire day.
2. Community members desired a direct connection between Wellton and Yuma. (A complete list of suggested destinations is below.)
3. Community members thought Arizona Western College (AWC) was an important destination for Wellton residents. They preferred direct service to AWC rather than a connection with the existing YCAT bus service via Yuma Palms Shopping Center or other intermediate location. (According to the registration office of Arizona Western College, there are generally about 50 students from the Wellton area each year.)
4. There was a lack of familiarity with transit in general, and the YCAT & demand-response systems in particular. Community members asked such questions as "How do I signal to the driver that I wish to get on the bus?"; "Is a return trip guaranteed?"; "Do wheelchairs and strollers fit on the bus?" and "Where does

- YCAT go?" Questions about whether and how demand-responsive and fixed-route service would operate in conjunction with each other were also heard.
5. The fare will be an important concern; senior discounts and monthly passes would be popular.

Most popular destinations (see Figure 6 on the next page):

Yuma

Wal-Mart East (Palo Verde and Pacific)

AWC (Arizona Western College) on East County 10th, west of Ave 9E

Yuma Palms Mall

YRMC (Ave A just south of 24th)

Foothills/Fortuna

Fry's on Fortuna and 34th (also has urgent care center)

Wellton

Market on Los Angeles between Gulzow and Butterfield

Family Service Center (Williams & Arizona)

Other suggested destinations:

VA Clinic (approximately Gila Ridge and Ave 2 ½)

Wal-Mart West (24th just west of Ave B)

Los Angeles & 28E

Williams/westbound I-8 off ramp/County 11th

San Luis, AZ

Wellton - County 10th at Ave 28 ½

Downtown/Old Town Yuma

1.2 Response to Service Options

A second community meeting was held the evening of December 13, 2005, in the Wellton Town Hall. The preferred alternative service concept was presented, along with additional information on transit in the Yuma area and other service concepts.

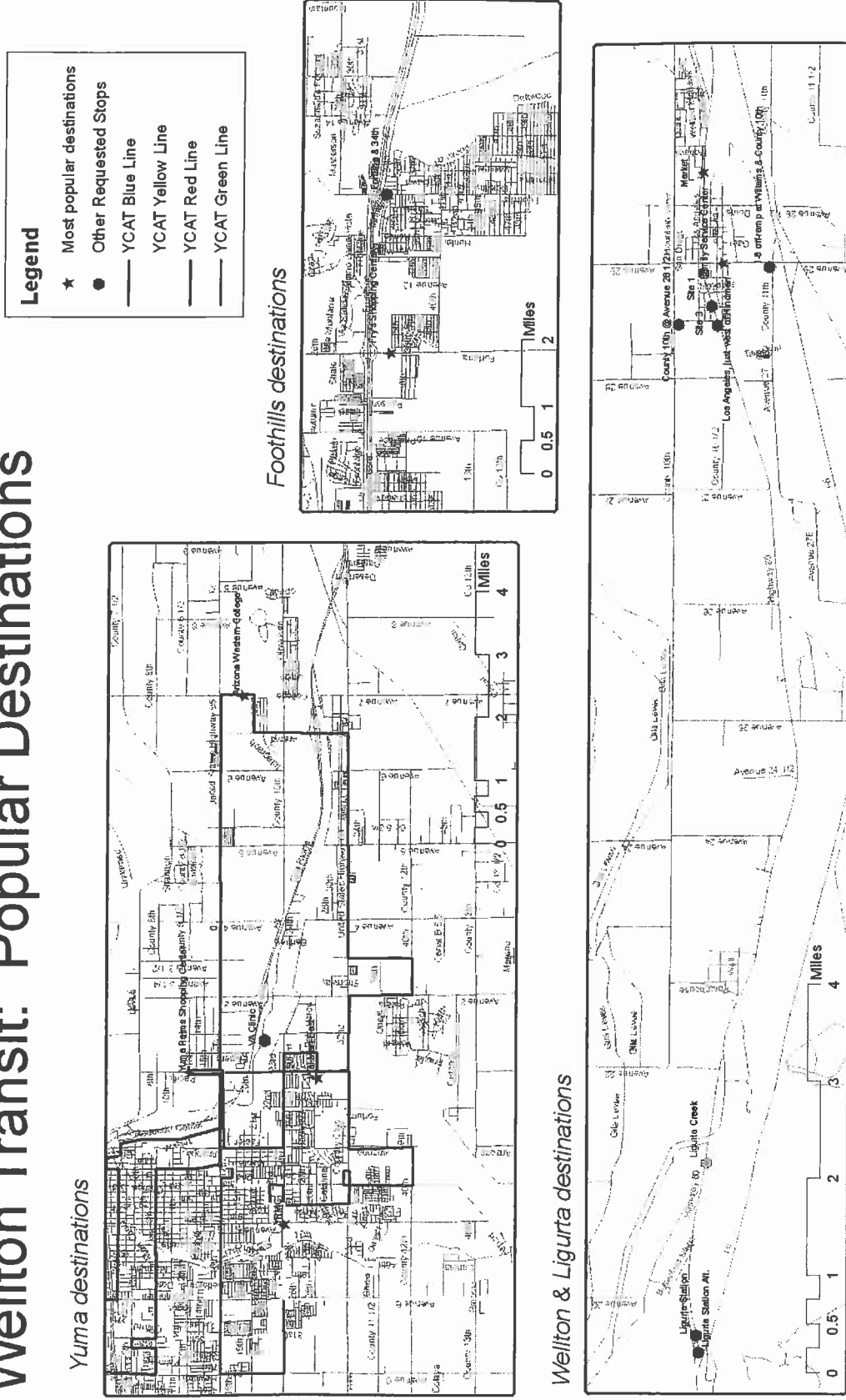
Despite a low attendance at the second meeting, the community members present provided a great deal of valuable feedback. The public responded favorably to the preferred alternative, especially when YMPO representatives clarified details on the route, future park-and-ride sites, and schedule.

Several comments concerned how to kick off the new service successfully. Among the suggestions:

- Start new service well before mid-April, when the winter-only residents leave the Wellton area. Starting the service early may help winter-only residents become familiar with the service and cause them to make plans based on having transit access to Yuma, such as not bringing a car on their next trip to Wellton.
- To ensure potential riders are completely familiar with how to ride the bus, have a kick-off for the inaugural ride, with dignitaries in attendance, tours of the bus, "how-to" demonstrations, and so on. An open house during business hours the week prior to the service kick-off would also help promote the service and help make Wellton residents familiar with transit.

Figure 6: Popular Destinations

Wellton Transit: Popular Destinations



- Community members were concerned about the need for exact change.
- The Wellton Town Manager wondered whether YCAT service could help pay for re-paving of the Town Hall parking lot in exchange for making Town Hall restroom facilities available to transit riders.

2. Interviews with Key Stakeholders

To gauge whether public figures and community leaders supported the project, the project team conducted interviews with the following people:

John Nussbaumer, Mayor, Town of Wellton
Gary Reinhart, Town Manager, Town of Wellton
William Timm, Pastor, Gloria de Cristo Lutheran Church, Foothills
James Underhill, President & CEO, Underhill Transfer Company, Foothills
Mark Watson, City Administrator, City of Yuma
Gary Burroughs, Deputy City Administrator, City of Yuma
Casey Prochaska, Supervisor (West District), County of Yuma
David Garcia, Administrator, County of Yuma

Several themes emerged from these interviews.

2.1 Support for Project

Public leaders generally supported the idea of a pilot service. Almost all of the interviewees mentioned the timeliness of a transit project, given the high gas prices. Others mentioned the rapid growth in the east county and potential future growth due to the refinery project.

Wellton Town leaders were the most optimistic about the project; they felt that there is great growth potential in Wellton in the next few years, and would like to have transit in place before the growth comes. They also foresaw immediate use of the transit service by Wellton residents traveling to Yuma for shopping, medical, and school needs, and to some degree for work trips.

2.2 Concerns about Project

Although none of the public leaders saw a downside to the pilot project, there was concern over funding future permanent transit service.

Several doubted that there would be enough ridership in Wellton to justify a permanent service, given the small population and low-density development, the relatively high median incomes in Wellton, and high automobile ownership and use.

2.3 Destinations

Community leaders generally suggested the same destinations & trip purposes as community members, with the following additions:

Swap Meet

Peanut Patch

Public schools not in need of bus service, but private schools may be

Ligurta

3. Summary

The Town of Wellton is very small, but given the older population, the high number of part-year residents, the substantial number of residents living below the poverty line, and the current high mode share for alternative transportation options, the Town of Wellton may have a great deal of latent transit demand. (Ridership projections are presented later in the following section.) At the same time, the small population and low-density development create a challenge to ensure that service can reach those who need it most. The enthusiasm for transit from Wellton's residents and public figures could help to make implementation successful.

E. ESTIMATES OF DEMAND

Estimating travel demand in rural areas is an inaccurate science, so the project team used several different methods to develop a range of ridership demand forecasts. Although the pilot project is aimed at the population in Wellton, the project team included the Foothills area in ridership estimates. This section presents a summary of the demand estimates; for more information about methodology and detailed calculations, see Appendix II.

The Transportation Cooperative Research Program (TCRP) describes its preferred method in a 1995 publication called "Workbook for Estimating Demand for Rural Passenger Transportation." This method applies a service factor to census data to estimate demand for transit service. Using this method, the project team arrived at a ridership forecast of 14 passengers per day from Wellton.

The project team also used existing YCAT ridership rates to estimate the potential for ridership on a new Wellton line. The current daily ridership rate in Yuma is 4.6 rides per 1,000 people. At this same rate of ridership in Wellton, the projected travel demand would be only 9 people per day.

A third method is to estimate travel demand based on national trip-making and mode share rates. National averages show that the typical non-urban, over 65 household makes about 4 trips per day, and that the transit mode share is 2%, though in Arizona it is typically closer to 1%. Applying national trip-making rates and a 1% average transit mode share to Wellton census data results in a ridership estimate of 28 passengers per day.

Even with such a wide range of estimates (from 9 to 28 passengers per day), some conclusions about the Wellton service can be made:

1. A 17-passenger bus will provide adequate capacity for the anticipated daily demand from Wellton, but may not provide enough capacity for potential riders from the Foothills area.
2. To achieve a 15% farebox return (the ratio required by some funding sources), the Wellton service will need 11 passengers per day. This seems achievable, since even the lowest estimate of demand shows 9 people/day from Wellton, and does not include demand from the Foothills.
3. YCAT may need to prepare for higher demand (especially from the Foothills area) with larger buses.

F. MEASURING PERFORMANCE

Projects funded by federal money via the Arizona Department of Transportation (ADOT) are subject to measurement on a cost-efficiency and cost-effectiveness basis. (Cost-efficiency measures service performance in terms of money, while cost-effectiveness measures service in terms of people served.) Therefore, the Wellton transit line will be evaluated on the basis of passenger trips, cost per revenue miles, cost per service hour, among other standard measurements. Data for these measurements are collected by the service operator and submitted to YCAT and then to ADOT. Since the Wellton line will be funded by a variety of sources, different metrics may apply for different sources. In addition to the standard indicators listed previously, the Wellton line will need to achieve a 15% farebox ratio, per 5307 stipulations.

We spoke with several experienced rural transit route administrators to understand other ways of measuring the success of the Wellton line. Several commented that it is inappropriate to measure rural transit routes by the same indicators used for urban service. Rural routes, by definition, serve small population centers with long distances between stops; therefore, they do not appear competitive when compared against urban routes, which serve large populations with closely-spaced stops. The costs for rural service, when viewed on a per-mile or per-passenger basis, will almost always be much higher than for urban service.

Experience with rural transit issues suggests two preferred ways to understand whether rural transit service is successful: the first is to measure the progress of the route against itself over time, rather than against urban routes at a single point in time. This would lead to the question, "Is ridership increasing from month to month on the same route?" rather than the question "Is this route more cost-efficient than another route?"

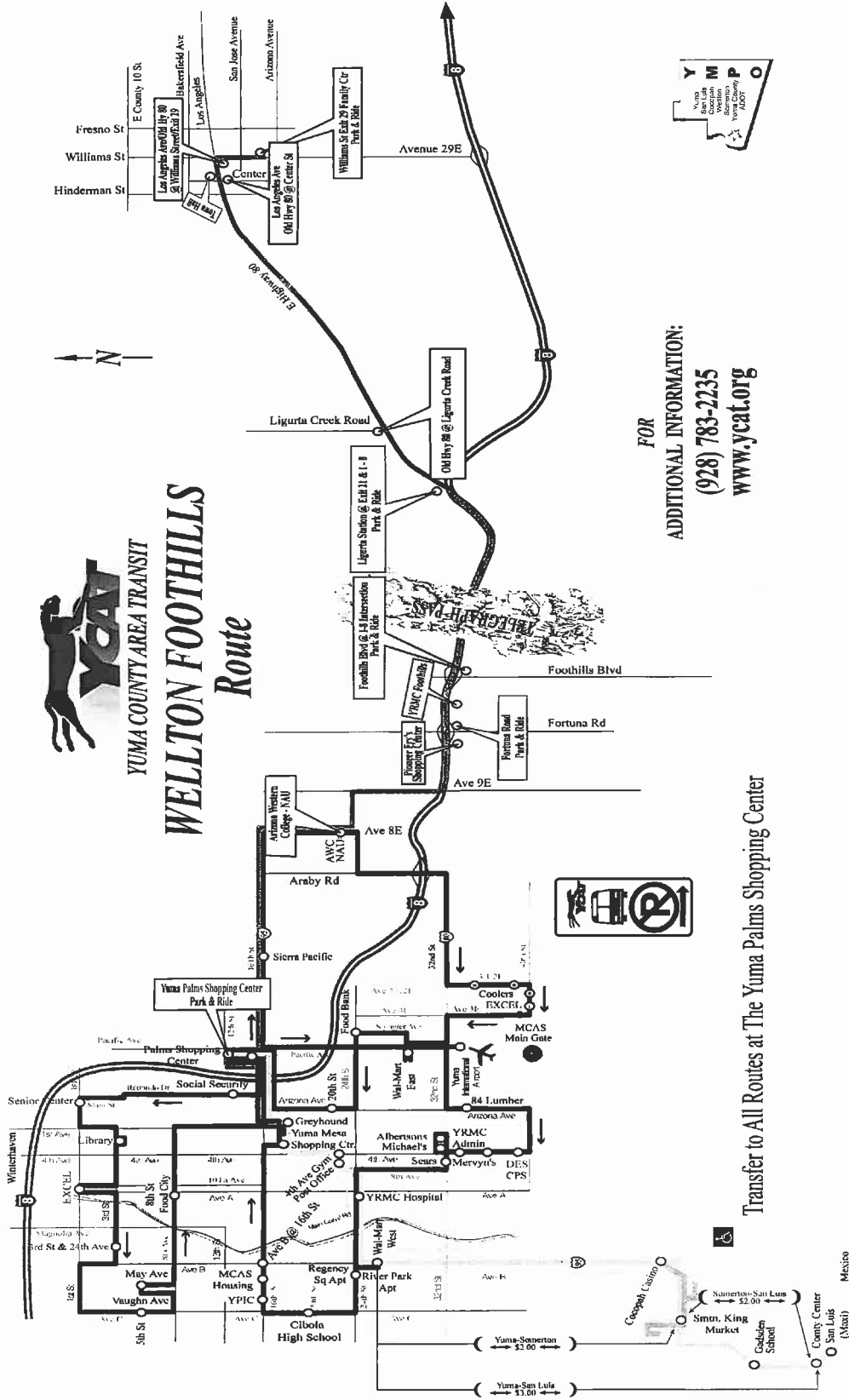
The second measurement for rural routes is whether the service is meeting community-specific goals, with cost being a secondary consideration. For example, the Wellton community is concerned that people in Wellton have access to shopping, medical care, and educational opportunities. By performing an annual on-board and community survey, YCAT can discover who the Wellton line riders are, where they are traveling, and where else they would like to travel. In this way, YCAT can measure whether or not it is meeting the community's goals.

Experienced rural transit route administrators caution not to set expectations too high for a starter service, and to keep in mind that service may drop off in the summer months.

G. PREFERRED ALTERNATIVE & IMPLEMENTATION PLAN

Based on the input from Wellton residents and Yuma area public figures and community leaders, a preferred alternative was selected out of several service option concepts discussed. A map showing the route and stops for the preferred alternative, henceforth referred to as the "Wellton Line," is presented on the next page (see figure 7). (For details on other service concepts considered, see Appendix I.)

Figure 7: Wellton Line Preferred Alternative



1. Operations

1.1 Routing

The "Wellton Line" will begin at the Family Service Center in Wellton, and terminate at the Yuma Palms Shopping Center. Since it is aimed at providing service to as wide a potential audience as possible, the Wellton Line runs on the interstate only where strictly necessary and on local roads as much as possible. Between Wellton and Ligurta, for example, the Wellton Line will take Old Highway 80 (rather than Interstate 8); once it reaches the Foothills area, the Wellton Line runs on frontage road and local streets.

1.2 Destinations

The Wellton Line will provide service in the Wellton town core (including the Town Hall), the western portions of Wellton, Ligurta Creek, Ligurta, the Foothills at Foothills Blvd., and Fortuna Road., Arizona Western College, Wal-Mart East, and the Yuma Palms Shopping Center.

1.3 Bus Stops

Bus riders need appropriate amenities to make their wait for the bus pleasant and secure, and their boarding safe. The bus stop must have plenty of room for the bus to pull over to safely pick up riders and safely re-enter the traffic flow. Stops have been identified at each of the destinations (stops already exist at destinations in Yuma). The Ligurta Creek stop will be "flag-down" only; that is, the bus will stop only if a patron is waiting to board or exit the bus, otherwise, the driver will not stop.

For the start of Wellton Line service, only minimal amenities, such as signs, will be placed at bus stops. As the service is monitored and evaluated, the appropriate amenities will be programmed into the YCAT budget.¹

1.4 Park-and-Ride Sites

Due to the spread-out nature of Wellton, people may choose to drive their car to a bus stop. Secure park-and-ride locations must be identified so that potential passengers can be confident that they will have a safe place to leave their vehicles.

Identified possible park-and-ride sites to access the Wellton Line are the following:

- In Wellton
 - Family Service Center (Arizona & Williams): vacant land across from FSC
- In Ligurta
 - Ligurta Station
- In Foothills
 - Foothills Blvd @ I-8 intersection
 - Pioneer Shopping Center (Fortuna Road, south of I-8)
- In Yuma
 - Yuma Palms Shopping Center (existing park-and-ride)

Agreements have been established with owners of the four new park-and-ride site owners, well in advance of service start-up.

¹ Currently, five bus shelters per year are planned for the entire YCAT system.

1.5 Schedule

The Wellton Line will initially provide service 6 days per week, with three round-trips per day. (The Line will not run on Sundays.) Each one-way trip is estimated to be just under one hour; total round trip time, with a five-minute layover, will be two hours and four minutes.

The schedule has been timed to match up with existing YCAT lines at Yuma Palms Shopping Center for convenient transfers to other destinations. (Figure 8 shows the proposed schedule for the Wellton Line.) Service is scheduled for early morning, noon, and late afternoon. The late afternoon run is deliberately scheduled to provide service for Arizona Western College students returning home to Wellton after class.

Figure 8: Proposed Schedule

YUMA TO WELLTON			
Palms Shopping Center at Castle Dome Ave & Yuma Palms Pkwy	5:55	11:20	7:00
Arizona Western College & Northern Arizona University	6:10	11:35	7:15
Pioneer (Fry's) Shopping Center at Fortuna Road & I-8 Intersection	6:21	11:46	7:26
YRMC Foothills Medical Facility Frontage Road	6:25	11:50	7:30
Foothills Blvd at I-8 Intersection	6:29	11:54	7:34
Ligurta Station at Exit 21 & I-8 Intersection	6:45	12:10	7:50
Old Hwy 80 at Ligurta Creek Road	6:50	12:15	7:55
Los Angeles Ave & Center Street (Across From Town Hall)	6:54	12:19	7:59
Los Angeles Ave & Williams Street	6:56	12:21	8:00
Williams Street & Arizona Ave at Family Service Center	6:57	12:22	8:02



WELLTON TO YUMA			
Williams Street & Arizona Ave at Family Service Center	7:02	12:27	8:07
Los Angeles Ave & Williams Street	7:03	12:28	8:08
Los Angeles Ave & Center Street (At Town Hall)	7:04	12:29	8:09
Old Hwy 80 at Ligurta Creek Road	7:09	12:34	8:14
Ligurta Station at Exit 21 & I-8 Intersection	7:13	12:38	8:18
Foothills Blvd at I-8 Intersection	7:21	12:46	8:26
YRMC Foothills Medical Facility Frontage Road	7:25	12:50	8:30
Pioneer (Fry's) Shopping Center at Frontage Road & I-8 Intersection	7:29	12:54	8:34
Arizona Western College/Northern Arizona University	7:44	1:09	8:49
Palms Shopping Center at Castle Dome Ave & Yuma Palms Pkwy	8:00	1:25	9:05

1.6 Vehicles

Service for the Wellton Line will be provided by a single vehicle. The bus to be used has seating for 17 passengers and space for two wheelchairs. The bus will have a sign on the front reading "Wellton/Foothills/Yuma."

Ridership on the Wellton line will be monitored to determine whether a larger bus or an additional vehicle is required.

1.7 Fare Policy

Fare for the Wellton Line will be based on origin:

- For trips originating in Wellton, the one-way fare will be \$3.
- For trips originating in the Foothills, the one-way fare will be \$2.
- Transfers to other YCAT lines in the system will be \$1.
- Children will pay full fare if occupying a seat, but will be free if riding on a parent's lap.

2. Funding

The YMPO has determined the following cost and funding program (in 2006 dollars) for the three year duration of the pilot project:

Wellton Pilot Program Cost Analysis and Level of Service Available

Year 1: 6 hours of Operation 6 Days per Week for 51 weeks					Formula Notes
Year One					
ALI Number	Expense Item	FTA Amount	Match	Total Cost	\$
11.71.12	Capital	\$ 20,563	\$ 5,141	\$ 25,704	\$ 64,260
30.09.00	Operations	\$ 19,278	\$ 19,278	\$ 38,556	\$ 25,704
11.13.02	Bus Purchase	\$ 34,584	\$ 7,083	\$ 41,667	\$ 38,556
11.32.09	Signs, Placards, Schedules, Etc.	\$ 1,600	\$ 400	\$ 2,000	
11.33.10	Bus Shelters (5)	\$ 17,180	\$ 4,295	\$ 21,475	
44.24.00	Planning	\$ -	\$ 3,000	\$ 15,000	
44.21.00	Program Support	\$ 6,400	\$ 1,600	\$ 8,000	
11.33.04	Parking Improvements	\$ 32,000	\$ 8,000	\$ 40,000	
	Grand Totals	\$ 131,605	\$ 48,797	\$ 192,402	

Year 2: 8 hours of Operation 6 Days per Week for 51 weeks					Formula Notes
Year Two					
ALI Number	Expense Item	FTA Amount	Match	Total Cost	\$
11.71.12	Capital	\$ 27,418	\$ 6,854	\$ 34,272	\$ 85,680
30.09.00	Operations	\$ 25,704	\$ 25,704	\$ 51,408	\$ 34,272
11.13.02	Bus Purchase	\$ 34,584	\$ 7,083	\$ 41,667	\$ 51,408
11.32.09	Signs, Placards, Schedules, Etc.	\$ 2,400	\$ 600	\$ 3,000	
11.33.10	Bus Shelters (5)	\$ 16,000	\$ 4,000	\$ 20,000	
44.24.00	Planning	\$ -	\$ -	\$ -	
44.21.00	Program Support	\$ 12,000	\$ 3,000	\$ 15,000	
11.33.04	Parking Improvements	\$ 5,600	\$ 1,400	\$ 7,000	
	Grand Totals	\$ 123,705	\$ 48,642	\$ 172,347	

Year 3: 8 hours of Operation 6 Days per Week for 51 weeks					Formula Notes
Year Three					
ALI Number	Expense Item	FTA Amount	Match	Total Cost	
					\$ 85,680
11.71.12	Capital	\$ 27,418	\$ 6,854	\$ 34,272	\$ 34,272
30.09.00	Operations	\$ 25,704	\$ 25,704	\$ 51,408	\$ 51,408
11.13.02	Bus Purchase	\$ 34,584	\$ 7,083	\$ 41,667	
11.32.09	Signs, Placards, Schedules, Etc.	\$ 2,400	\$ 600	\$ 3,000	
11.33.10	Bus Shelters (5)	\$ 16,000	\$ 4,000	\$ 20,000	
44.24.00	Planning	\$ -	\$ -	\$ -	
44.21.00	Program Support	\$ 12,000	\$ 3,000	\$ 15,000	
11.33.04	Parking Improvements	\$ 5,600	\$ 1,400	\$ 7,000	
Grand Totals		\$ 123,705	\$ 48,642	\$ 172,347	

Assuming the Wellton Line meets performance expectations, funding for the longer term should be part of an overall YCAT funding strategy. The YMPO may want to explore the option of creating a dedicated local source of transit funding, which would provide a more reliable, steady funding stream. This and other options will be considered under the Short-Range Transit Plan (part of the 2006 YMPO Regional Transportation Plan).

3. Service start

Service kickoff is planned for late January, pending approval of the grant by the Arizona Department of Transportation and approval of certification from the Federal Transit Administration.

The vehicle has been secured, and the current YCAT contractor has been informed of the new service, and will be able to start up the Wellton Line even with short notification.

3.1 Service Publicity

The Wellton community has already been very active in promoting the new service at area RV parks and community gathering places. However, several more formal steps will be taken to publicize the new service once the start date has been established:

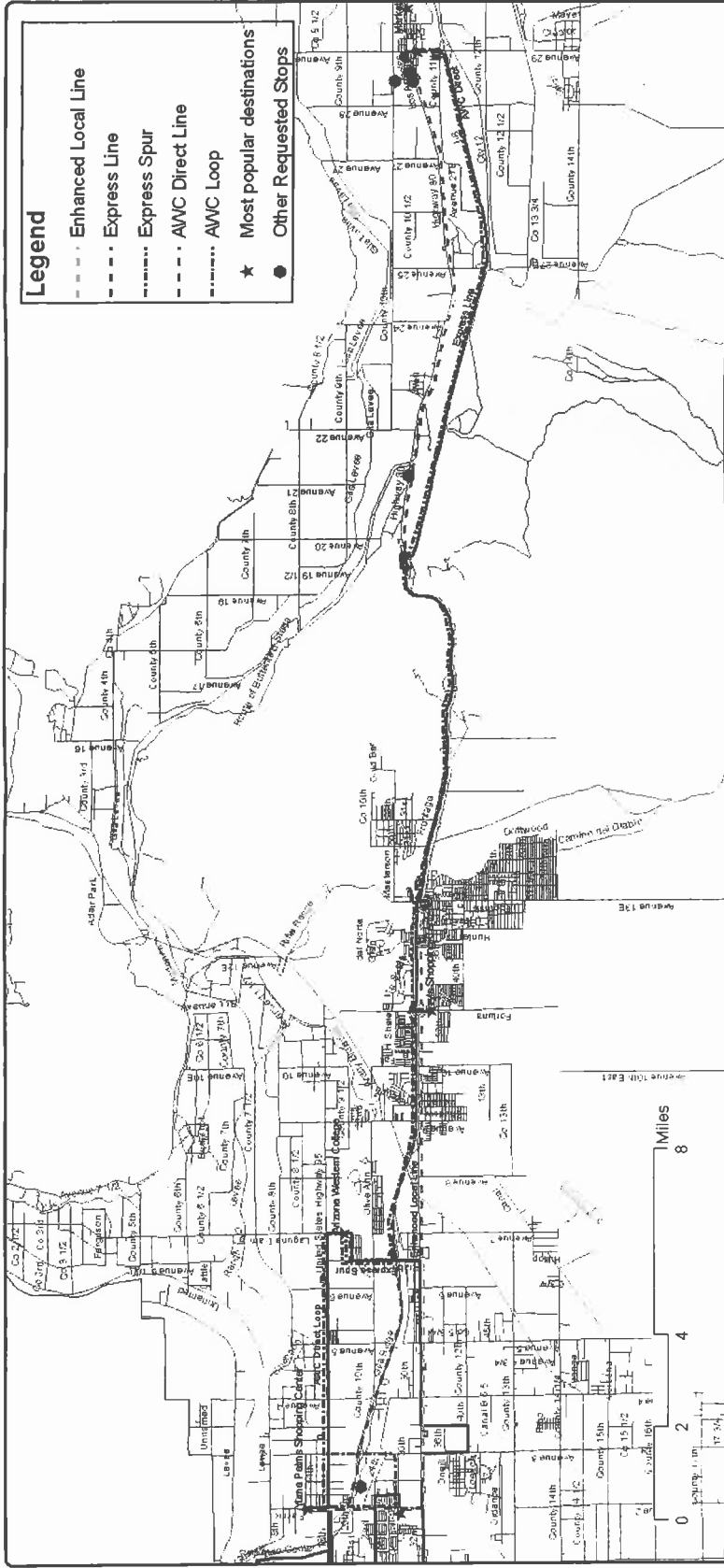
- The Yuma Sun and Wellton Diplomat newspapers will be informed.
- On YCAT brochures, the Wellton Line will be referred to as the Orange Route. A temporary brochure has been completed and a final brochure will be printed once the start date has been approved.
- A kick-off function, with public figures and local dignitaries in attendance, will be scheduled to promote the new service.

H. APPENDICES

APPENDIX I: ALTERNATE SERVICE CONCEPTS

In addition to the Preferred Alternative, the project team developed three other concepts to present to the Wellton community. These alternative routes are referred to as the "Enhanced Local Line," the "Express Line," and the "AWC Direct line." All suggested concepts serve the key destinations of Fortuna Rd, Foothills Rd., and the Yuma Palms Shopping Center (and thus, all three allow a transfer to existing YCAT service for additional destinations) but the intermediate routing differs between the three. The map below shows the three alternate concepts, and a description each follows.

Wellton Transit: Service Concepts



“Enhanced Local Service”

Concept Description

Concept name	Description	Estimated one-way distance	Estimated one-way travel time	Estimate round-trip distance	Estimated round-trip travel time (including layovers)	Advantages	Disadvantages
Enhanced Local Service	Bus travels on Old Interstate 80 in the Wellton area, and the frontage road in the Yuma Area, with final destination of Yuma Palms Shopping Center. Return trip to Yuma follows the same route.	31 miles to Yuma Palms	55 minutes to Yuma Palms	62 miles	129 minutes	Access to more riders & more Wellton-area destinations. Allows direct trip to Wal-Mart East. Transfers to Blue Line at MCAS, and Wal-Mart East. Transfers to Blue, Red, Yellow, & Green Lines at Yuma Palms I & II.	Slower service due to more stops and off-freeway travel.

“Express Line” and “Express Line + AWC Spur”

Concept Description

Concept name	Description	Estimated one-way distance	Estimated one-way travel time	Estimate round-trip distance	Estimated round-trip travel time (including layovers)	Advantages	Disadvantages
Express Line	Bus travels on I-8 between Wellton & Ligurta; after stops at Foothills and Fortuna, bus continues on I-8 until Pacific. Bus exits freeway at Pacific, and continues directly to Yuma Palms Shopping Center. Return trip to Wellton follows the same route.	31 miles to Yuma Palms	38 minutes to Wal-Mart	62 miles	96 minutes	Quickest trip into Yuma to reach Yuma Palms Shopping Center and to connect to other YCAT destinations. Transfers to Blue, Red, Yellow, & Green Lines at Yuma Palms I & II.	Any destination besides Foothills, Fortuna, and Yuma Palms will require a transfer.
Express Line + AWC Spur	Same as above route with addition of spur to AWC.	27 miles to AWC 45 miles to Yuma Palms	34 minutes to AWC 55 minutes to Yuma Palms	69 miles	111 minutes	Advantages of above; plus, allows direct service to AWC. Transfer to Blue Line at AWC. Transfers to Blue, Red, Yellow, & Green Lines at Yuma Palms I & II.	Adds time to route.

“AWC Direct” and “AWC Direct + Loop”

Concept Description

Concept name	Description	Estimated one-way distance	Estimated one-way travel time	Estimate round-trip distance	Estimated round-trip travel time (including layovers)	Advantages	Disadvantages
AWC Direct	Bus travels on I-8 from Wellton to Liguria; makes stops at Foothills and Fortuna; then returns to I-8 and exits at Araby Rd to Arizona Western College; from there, the final destination is Yuma Palms Shopping Center.	27 miles to AWC 33 miles to Yuma Palms	34 minutes to AWC 46 minutes to Yuma Palms	65 miles	112 minutes	Allows direct trip to College, with no transfer; relatively quick to Yuma Palms and connection to other YCAT destinations. Transfers to Blue Line at AWC, Sierra Pacific, and Yuma Palms I & II. Transfers to Blue, Red, Yellow, & Green Lines at Yuma Palms I & II.	Duplicates a substantial portion of YCAT Blue Line.
AWC Direct + Loop	A loop version of above route to serve Wal-Mart East on return trip to Wellton.	27 miles to AWC 33 miles to Yuma Palms 35 miles to Wal-Mart	34 minutes to AWC 46 minutes to Yuma Palms 49 minutes to Wal-Mart	72 miles	122 minutes	Advantages of above; plus, would provide direct service to all but one of the most popular destinations for Wellton residents. Transfers to Blue Line at AWC, Sierra Pacific, Yuma Palms I & II, and Wal-Mart East. Transfers to Blue, Red, Yellow, & Green Lines at Yuma Palms I & II.	Adds time to route.

APPENDIX II: ESTIMATING RURAL TRANSIT DEMAND

It is difficult - if not impossible - to predict exactly what ridership on the new Wellton line will be. Many factors affect ridership, and some – such as general economic conditions or price of gasoline – are outside the control of the transit agency. At the same time, it is possible to give an estimated range of the demand for ridership. The purpose of this section is to describe the methods used to generate the range of estimated demand presented in the body of the document. Each of the methods has its advantages and drawbacks, and those are discussed as well.

Table 1 summarizes the results of the three different methods used.

Table 1: Estimates of demand

Transit demand forecast	TCRP method			Current ridership per-capita method			Trip-rate/mode share method			
	Wellton	Foothills	Combined	Wellton	Foothills	Combined	Wellton	Foothills	Combined	
Estimated daily ridership	14	114	128	9	93	102	2%	55	739	795
							1%	28	370	397
							0.5%	14	185	199
Farebox, based on \$3 fare	\$ 85	\$ 685	\$ 770	\$ 52	\$ 561	\$ 613	2%	\$ 333	\$ 4,436	\$ 4,769
							1%	\$ 166	\$ 2,218	\$ 2,384
							0.5%	\$ 83	\$ 1,109	\$ 1,192
Farebox ratio (costs = \$280/day)	30%	245%	275%	19%	200%	219%	2%	119%	1584%	1703%
							1%	59%	792%	852%
							0.5%	30%	396%	426%
% of capacity used (daily capacity = 102 seats/day)	14%	112%	126%	9%	92%	100%	2%	54%	725%	779%
							1%	27%	362%	390%
							0.5%	14%	181%	195%

In 1995, the Transit Cooperative Research Program (TCRP) published its “Workbook for Estimating Demand for Rural Passenger Transportation.” This is the method referred to as the “TCRP method” in the table above. The TCRP method applies “service factors” to transit and demographic data (from US Census data). Service factors are based on research about the demand for transit in rural areas, and vary according to the amount of transit provided per square mile. Based on the TCRP method, the estimate for daily ridership from Wellton is 14 passengers per day; from the Foothills area, it is 114 passengers per day.

It is possible that the estimate from the TCRP method will be accurate; however, it is also possible that the TCRP method either over estimates or underestimates demand. The TCRP method is based on the assumption that ridership will largely comprise the transit dependent populations, so the only demographic factors considered are the population with mobility limitations and population living below the poverty level. The unique characteristics of an area’s population do not really come into play. For example, in Wellton, there may be an additional group of younger people who take transit to the Arizona Western College; winter visitors may prefer transit to driving. For those reasons, the TCRP method may underestimate demand. At the same time, the TCRP method does not explicitly consider the effect of fare level on ridership (also referred to as the price elasticity of demand). Generally, the more expensive the fare, the less people will be willing to pay; however, it is not clear what fare level the TCRP method is based on. If it is based on a \$1 fare, then the demand estimate for Wellton may be too high, since the Wellton service fare is set at \$3. On the other hand, if the TCRP method

is based on a \$5 fare, then the estimate for Wellton would be too low. The estimate should be considered just that; it is not a prediction of actual travel.

The second method is not formally documented, but simply considers the current demand for transit on the YCAT system and applies that to the Wellton and Foothills population. Based on ridership of 457 passengers per day and the combined total population (in 2004) in Yuma, San Luis, and Somerton (approximately 100,103), the demand for ridership is currently 4.57 per 1,000 people. Applying that ratio to the Wellton population results in an estimate of 9 rides per day from Wellton and 93 from the Foothills. This figure is lower than the TCRP method estimates, but not substantially so. This is an easy way of estimating demand, but should be used cautiously, since the population of Wellton is quite different from that of the City of Yuma, San Luis, and Somerton.

The final method uses national averages of trip-making and applies different mode-share percentages to arrive at a range of estimates. Based on this method, the range of riders per day is 14-55 from Wellton, and 185 -739 from the Foothills. These figures are based on rates of 3.96 trips per day for households in MSA Non-urban areas (such as Wellton); and a rate of 3.83 trips per day in MSA Urban areas (like the Foothills). Given the high median age of residents in Wellton and Foothills, the estimates used are specifically for ages 65 and older. The estimates are also specific to households with vehicles, and this is one disadvantage of using this method. Households without vehicles tend to have much lower trip-making rates than those with vehicles, for obvious reasons; but data on vehicle ownership in Wellton was not available. Therefore, this method most likely overestimates future ridership since all households are assumed to have at least one vehicle.