

# Yuma Regional Transit Study



## Executive Summary

Prepared for:



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## Introduction

The Yuma Regional Transit Study identifies transit needs within southwestern Yuma County and presents recommended transit system improvements based on three funding scenarios. This study examined current and projected population, demographics, and employment for the region, conducted extensive public outreach and data collection, identified transit deficiencies and developed recommended transit improvements based on the identified deficiencies. Recommendations have been developed assuming current funding levels, a 1/10 cent county-wide sales tax and a 1/5 cent county-wide sales tax. A corresponding 5-year financial plan accompanies the recommendations.

## Analysis of Current Conditions, Future Conditions, and Deficiencies

The current and future socio-economic characteristics, land use, and transportation system in Southwestern Yuma County were assessed as well as surveys results and historical financial data related to transit. This analysis revealed deficiencies in the transit system, especially in the network design, the service operations, and management system. The main deficiencies identified were:

- The lack of coverage and accessibility in areas such as downtown Yuma, downtown San Luis, and Fortuna Foothills,
- The lack of transit service in the evening and on weekends, and
- The long headways on the fixed-route service,

## Service Alternatives and Recommendations

Three service alternatives are proposed to improve the transit system in southwestern Yuma County. These service alternatives are based on three funding scenarios.

- The first scenario is based on current funding levels.
- The second funding scenario assumes current levels of funding (less local funding) plus revenues from a 1/10 cent dedicated transit sales tax in Yuma County
- The third funding scenario assumes current levels of funding (less local funding) plus revenues from a 1/5 cent dedicated transit sales tax in Yuma County.

Scenarios 2 and 3 assume increased, flexible funding for both transit operations and capital expenses. Therefore, the service alternatives based on these scenarios show how different funding levels allow providing increased levels of service and network coverage for transit riders. Improvements possible with additional funding especially include:

- Providing a better transit service area coverage,
- Increasing service frequency,
- Operating transit service later at night and on Saturdays and Sundays, and
- Enhancing the transit facilities and amenities.

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### Service Alternative 1

Service Alternative 1 is based on current funding levels. It comprises seven routes and includes a flexible demand-response evening service. Figure 1 illustrates the routes of Service Alternative 1. The network is made up of the following routes:

- Two long-distance routes connecting downtown Yuma to the City of San Luis, the City of Somerton, and the Town of Wellton (the Yellow and Orange routes),
- Two medium-distance routes connecting the North Cocopah Indian Reservation and the AWC campus to downtown Yuma (the Purple and Blue routes),
- One local route serving the City of Somerton and the Cocopah Indian Reservation (the Grey route), and
- Two one-way circulators serving downtown Yuma (the Red and Green routes).

Three of the seven routes – the Orange, Purple, and Grey routes – are “hybrids,” meaning that they follow a fixed-route for the majority of their service area, however they can also deviate to serve specific areas in response to a customer request.

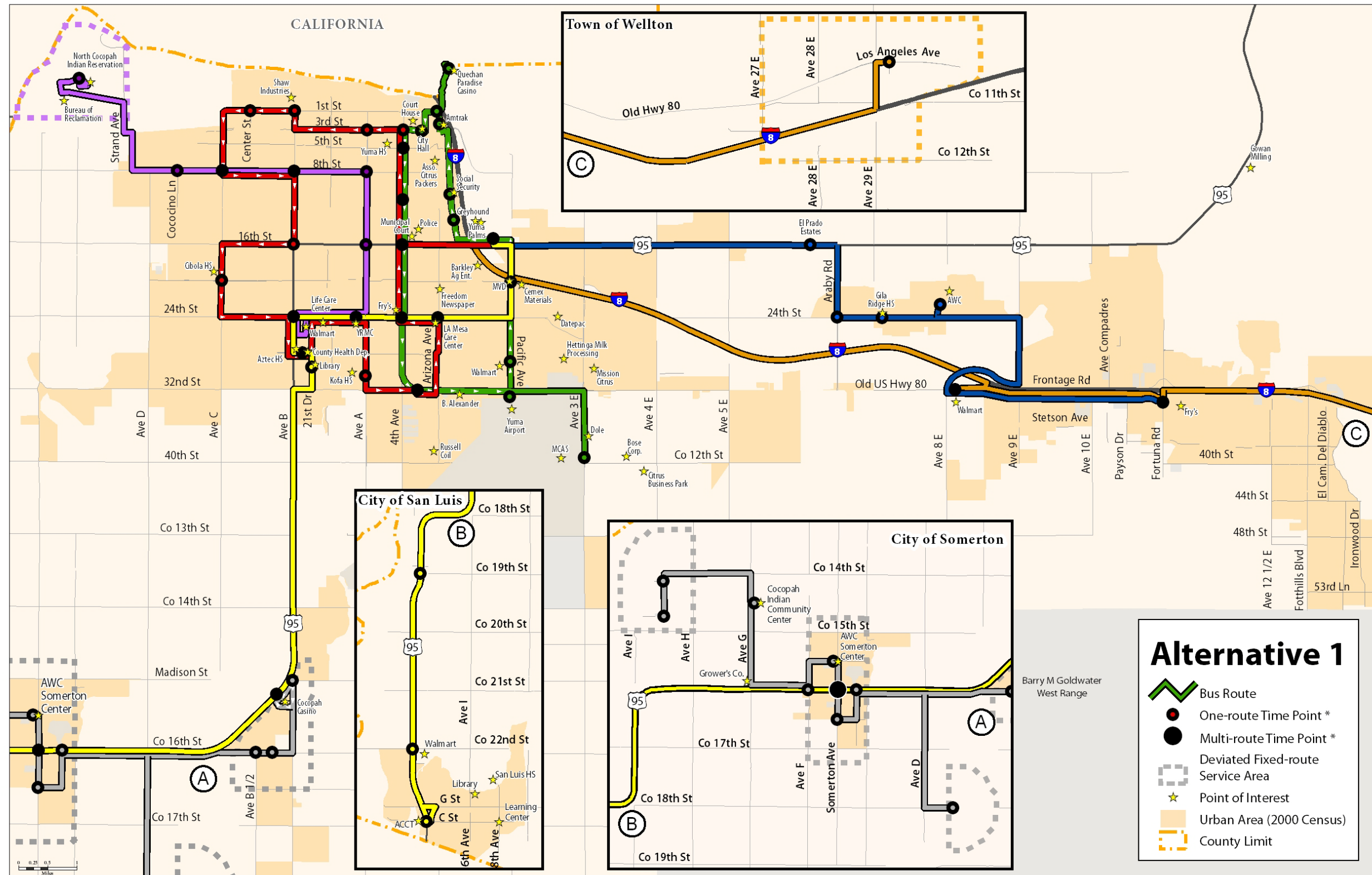
Transit service is provided from 6:30am to 8:34pm on weekdays, and from 9:30am to 5:34pm on Saturdays. Most of the routes operate with a one-hour frequency Monday through Saturday, except on holidays. Service Alternative 1 requires 7 buses.

As presented in Table 1, the cost to operate Service Alternative 1 is estimated at \$1.7 million (excluding administrative costs), which corresponds to 25,305 annual revenue service hours.

**Table 1: YCAT Annual Revenue Service Hours and Cost - Service Alternative 1**

Route	Annual Service Hours	Annual Cost
Blue Route	3,437	\$232,372
Green Route	3,437	\$231,956
Grey Route	2,890	\$195,055
Night CAT	760	\$51,292
Orange Route	709	\$47,873
Purple Route	3,358	\$226,570
Red Route	3,450	\$232,863
Yellow Route	7,258	\$489,863
<b>Total</b>	<b>25,305</b>	<b>\$1,707,844</b>
<b>Assumptions</b>		
<ul style="list-style-type: none"> <li>• The annual revenue service hours calculations assume service operates on 252 weekdays and 52 Saturdays per year for all routes except for Night CAT (which operates 190 weekdays), and the Orange route (which operates 104 weekdays).</li> <li>• The cost per hour of operation (excluding agency administrative costs) is \$67.49/hr.</li> </ul>		

Figure 1: Service Alternative 1



\* Bus stops may be located between these time points

### Service Alternative 2

Figure 2 illustrates the routes of Service Alternative 2. Service Alternative 2 consists of eight routes and a deviated fixed-route evening service:

- Two long-distance routes connecting downtown Yuma to the City of San Luis, the City of Somerton, and the Town of Wellton (Yellow and Orange Routes),
- Two medium-distance routes connecting the North Cocopah Indian Reservation and the AWC campus to downtown Yuma (Purple and Blue Routes),
- A local route serving the City of Somerton and the Cocopah Indian Reservation (Grey Route),
- Two two-way circulators serving downtown Yuma (Green and Red Routes), and
- A one-way circulator serving Fortuna Foothills (Pink Route).

Four of these routes (the Purple, Orange, Grey, and Pink Routes) are hybrids and can deviate in certain areas in response to customer requests.

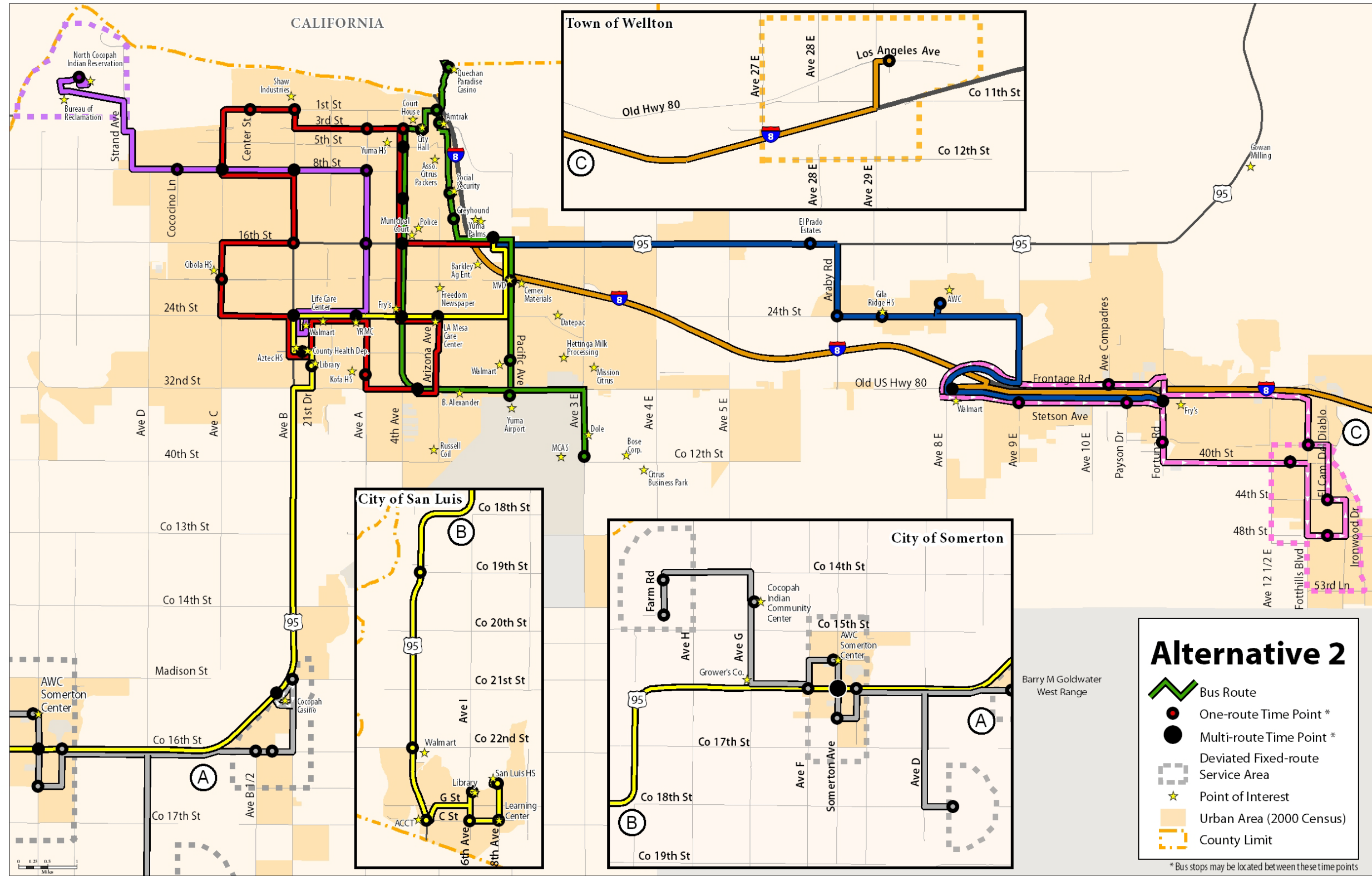
The network proposed in this alternative are similar to the one developed in Service Alternative 1. The main differences are an additional route exclusively serving Fortuna Foothills, additional coverage in San Luis, and two-way circulators in downtown Yuma. Service Alternative 2 provides coverage to a larger service area compared with Service Alternative 1. In addition, later service is provided and frequencies are greater compared to Service Alternative 1. Under Service Alternative 2, transit service is provided from 6:00am to 10:17pm on weekdays, and from 8:00am to 10:17pm on Saturdays and Sundays, except on holidays. Headways vary from 30 minutes to 1 hour on weekdays, and from 1 hour to 2 hours on weekends. Service Alternative 2 requires 15 buses on weekdays and 14 buses on weekends.

As presented in Table 2, the cost to operate Service Alternative 2 is estimated at \$4.2 million (excluding agency administrative costs), which corresponds to 61,886 annual revenue service hours.

**Table 2: YCAT Annual Revenue Service Hours and Cost- Service Alternative 2**

Route	Annual Service Hours	Annual Cost
Blue Route	4,215	\$284,449
Green Route	9,850	\$664,786
Grey Route	5,831	\$393,505
Night CAT	760	\$51,292
Orange Route	709	\$47,873
Pink Route	2,137	\$143,095
Purple Route	4,028	\$271,837
Red Route	9,882	\$666,908
Yellow Route	24,475	\$1,651,801
<b>Total</b>	<b>61,886</b>	<b>\$4,175,546</b>
<b>Assumptions</b>		
<ul style="list-style-type: none"> <li>• The annual revenue service hours calculations assume service operates on 252 weekdays and 52 Saturdays per year for all routes except for Night CAT (which operates 190 weekdays), and the Orange Route (which operates 104 weekdays).</li> <li>• The cost per hour of operation (excluding agency administrative costs) is \$67.49/hr.</li> </ul>		

Figure 2: Service Alternative 2





### **Service Alternative 3**

The transit network and hours of operations proposed in this alternative are identical to those developed in Service Alternative 2. As in Service Alternative 2, Service Alternative 3 has 8 routes and a flexible demand responsive evening service. In Service Alternative 3, most of the routes operate from Monday through Sunday, except on holidays, when there is no service. Figure 3 illustrates the routes of Service Alternative 3

In contrast to Service Alternative 2, the frequencies of service are increased on routes that will potentially be used by the most population: the Yellow Route, Blue Route, Red Route and Green Route. On the busiest routes, service frequencies are reduced to 15 minutes on weekdays and 30 minutes on weekends. Service Alternative 3 requires 25 buses on weekdays and 14 buses on weekends.

As presented in Table 3, the cost to operate Service Alternative 3 is estimated to \$6.5 million (excluding administrative costs), which corresponds to 95,731 annual revenue service hours.

**Table 3: YCAT Annual Revenue Service Hours and Cost - Service Alternative 3**

Route	Annual Service Hours	Annual Cost
Blue Route	6,946	\$468,793
Green Route	16,707	\$1,127,542
Grey Route	5,831	\$393,505
Night CAT	760	\$51,292
Orange Route	709	\$47,873
Pink Route	2,137	\$143,095
Purple Route	4,028	\$271,837
Red Route	16,761	\$1,131,167
Yellow Route	41,854	\$2,824,694
<b>Total</b>	<b>95,731</b>	<b>\$6,459,780</b>
<b>Assumptions</b>		
<ul style="list-style-type: none"> <li>• The annual revenue service hours are calculated considering 252 weekdays, 52 Saturdays and 52 Sundays per year. Except for the Night CAT operated 190 weekdays and the Orange route operated 104 weekdays.</li> <li>• The cost per hour of operation (excluding administrative costs) is \$67.49/hr.</li> </ul>		

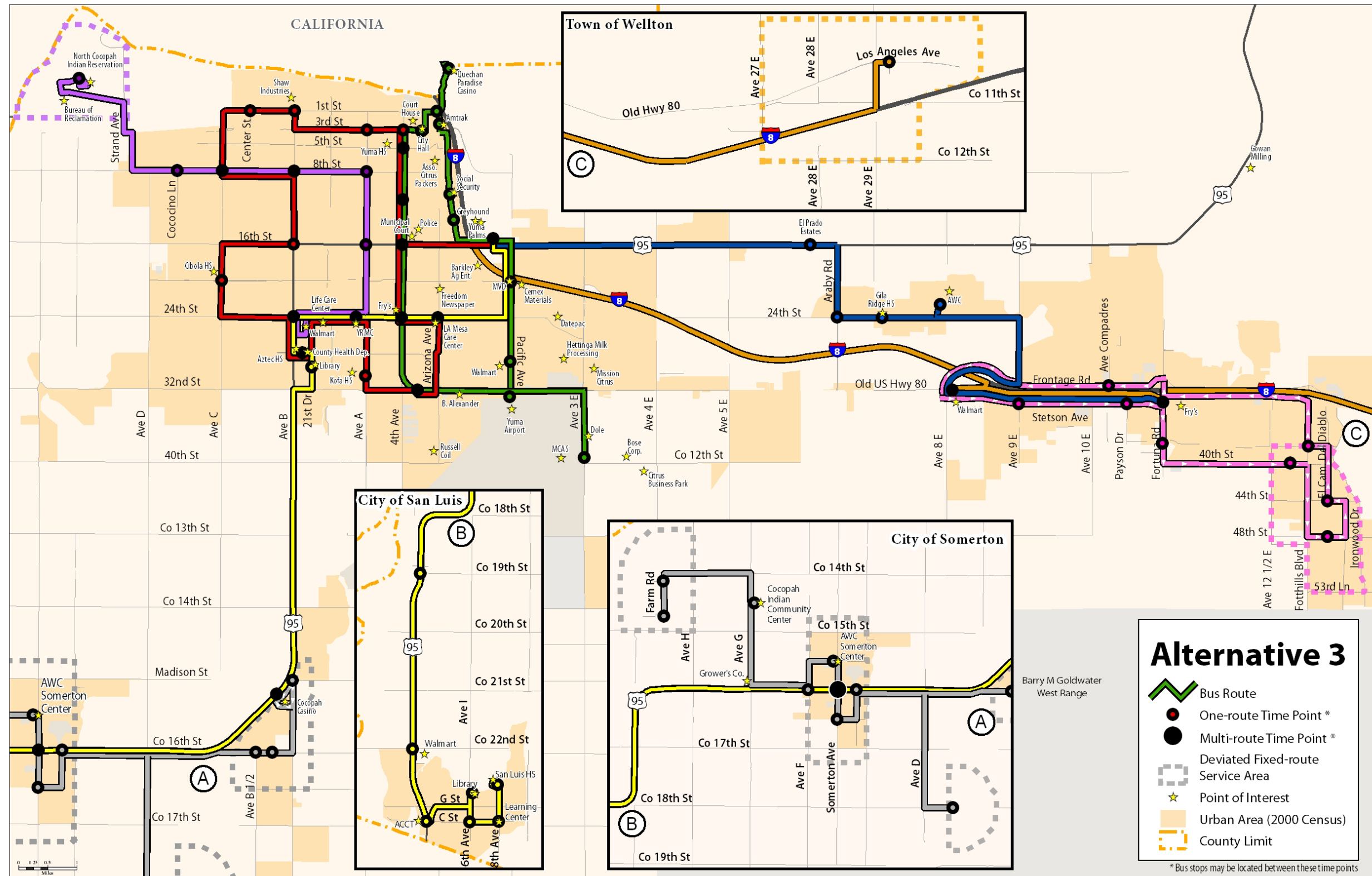
### **Complementary Paratransit Service**

The ADA requires that complementary paratransit service be provided within a ¾ mile radius of all fixed-routes to serve riders who are physically or mentally unable to use the fixed-route system. Under all service alternatives, this service will be operated during the same service hours as the corresponding fixed-route service. The Dial-A-Ride (DAR) service area will be limited to a ¾ mile radius of fixed-routes. In other areas, as well as in the deviated fixed-route service areas, no DAR service will be provided.

Under Service Alternative 1, DAR will be limited to those certified as having ADA-eligible disabilities. Service Alternatives 2 and 3 will be available to customers certified as having ADA-eligible disabilities, persons aged 65 or over, medically required travel assistants, and travel companions of an eligible rider.

In Service Alternative 1, the budget to operate the DAR service is estimated to \$632,700, for 9,500 service hours per year. In Service Alternatives 2 and 3, the budget to operate the DAR service is estimated to \$799,200, for 12,000 service hours per year.

Figure 3: Service Alternative 3



## Financial Plan

The financial plan for the transit system in southwestern Yuma County includes operating, capital, and administrative components supported by various funding sources. Two of the three financial scenarios proposed are based on a potential transit-dedicated sales tax, similar to the current Health District tax. Sales taxes of 1/10 of a percent sales tax (0.10%) and 1/5 of a percent sales tax (0.20%) were considered and are anticipated to provide revenues estimated to \$2.240 million and \$4.480 million, respectively. Such a tax collection would be submitted to voters for approval. Tables 4 through 6 summarize the 5-year financial plan for the service alternative developed.

**Table 4: 5-year Financial Plan - Service Alternative 1**

<b>Service Alternative 1</b>						
<b>Without Transit-dedicated Sales Tax</b>						
<b>Fiscal Year</b>		<b>FY 12/13</b>	<b>FY 13/14</b>	<b>FY 14/15</b>	<b>FY 15/16</b>	<b>FY 16/17</b>
<b>EXPENSES</b>	<b>Capital</b>	\$460,000	\$545,000	\$155,000	\$278,000	\$4,528,000
	<b>Operations</b>	\$2,407,771	\$2,483,549	\$2,547,275	\$2,622,517	\$2,727,418
	<b>Administration</b>	\$391,000	\$394,910	\$398,859	\$402,848	\$406,876
<b>Total Expenses</b>		<b>\$3,258,771</b>	<b>\$3,423,459</b>	<b>\$3,101,134</b>	<b>\$3,303,365</b>	<b>\$7,662,294</b>
<b>Total Revenues</b>		<b>\$3,488,484</b>	<b>\$3,471,615</b>	<b>\$3,325,471</b>	<b>\$3,537,497</b>	<b>\$7,783,577</b>
<b>Net Surplus/(Deficit)</b>		<b>\$229,713</b>	<b>\$48,157</b>	<b>\$224,337</b>	<b>\$234,132</b>	<b>\$121,283</b>

**Table 5: 5-year Financial Plan - Service Alternative 2**

<b>Service Alternative 2</b>						
<b>1/10 Cent Transit-dedicated Sales Tax</b>						
<b>Fiscal Year</b>		<b>FY 12/13</b>	<b>FY 13/14</b>	<b>FY 14/15</b>	<b>FY 15/16</b>	<b>FY 16/17</b>
<b>EXPENSES</b>	<b>Capital</b>	\$325,000	\$446,000	\$1,742,000	\$1,378,000	\$4,631,000
	<b>Operations</b>	\$2,280,309	\$2,327,123	\$5,063,764	\$5,191,249	\$5,366,931
	<b>Administration</b>	\$391,000	\$394,910	\$678,554	\$685,339	\$692,193
<b>Total Expenses</b>		<b>\$2,996,309</b>	<b>\$3,168,033</b>	<b>\$7,484,318</b>	<b>\$7,254,589</b>	<b>\$10,690,124</b>
<b>Total Revenues</b>		<b>\$3,523,997</b>	<b>\$3,805,264</b>	<b>\$7,998,155</b>	<b>\$7,505,875</b>	<b>\$10,690,365</b>
<b>Net Surplus/(Deficit)</b>		<b>\$527,689</b>	<b>\$637,231</b>	<b>\$513,837</b>	<b>\$251,286</b>	<b>\$241</b>

**Table 6: 5-year Financial Plan - Service Alternative 3**

<b>Service Alternative 3</b>						
<b>1/5 Cent Transit-dedicated Sales Tax</b>						
<b>Fiscal Year</b>		<b>FY 12/13</b>	<b>FY 13/14</b>	<b>FY 14/15</b>	<b>FY 15/16</b>	<b>FY 16/17</b>
<b>EXPENSES</b>	<b>Capital</b>	\$385,000	\$631,000	\$4,532,000	\$3,213,000	\$4,893,000
	<b>Operations</b>	\$2,292,708	\$2,340,028	\$7,446,761	\$7,644,924	\$7,918,753
	<b>Administration</b>	\$391,000	\$394,910	\$1,088,721	\$1,099,608	\$1,110,605
<b>Total Expenses</b>		<b>\$3,068,708</b>	<b>\$3,365,938</b>	<b>\$13,067,482</b>	<b>\$11,957,532</b>	<b>\$13,922,357</b>
<b>Total Revenues</b>		<b>\$3,500,242</b>	<b>\$3,685,074</b>	<b>\$13,277,004</b>	<b>\$11,962,315</b>	<b>\$13,924,050</b>
<b>Net Surplus/(Deficit)</b>		<b>\$431,534</b>	<b>\$319,135</b>	<b>\$209,522</b>	<b>\$4,783</b>	<b>\$1,693</b>