

## Chapter 7. Five Year Service Plan

The following is a summary of the Yolo County Transportation District (YCTD) Draft Service Plan for the 5-7 year period from 2006/07 to 2012/13. A supporting Capital and Financial Plan will be provided in the following chapter.

The Draft Service Plan includes the following three elements:

- **Yolobus Fixed Route Service Plan.** The service plan for Yolobus' fixed route bus network includes the following three scenarios:
  - **Base** – this scenario includes a service plan with no significant increase in operating revenue.
  - **Growth** – this scenario presents the level of service that is designed to move towards SACOG's Preferred Blueprint transit mode split goal of 3.8% for Yolo County<sup>1</sup>.
  - **Future** – this section includes conceptual ideas that could be considered but fall outside of the 5-7 year timeframe of this SRTP.
- **Yolobus Special Service Plan.** The service plan for Yolobus Special includes recommendations over the next 5-7 years.
- **Streetcar Concept in West Sacramento.** This section presents a general discussion of the opportunity to introduce streetcar service in West Sacramento, along with the Capital and Operating cost considerations. This section also presents a proposed timeline for implementing streetcar service in phases. This section is in the West Sacramento, Yolobus Fixed Route Service Plan. The streetcar service will compliment the fixed route network if it's implemented during the 5-7 year period of the SRTP.

### Yolobus Fixed Route Service Plan

Because the fixed route transit services provided in the YCTD service area are somewhat separate and largely operate independent of each other, the service plan is organized by the following geographic areas:

- Woodland (local and express/commute)
- West Sacramento (local, express/commute and streetcar)
- Davis (express/commute)
- Winters/County (local and regional).

For each community or type of service, a series of issues, opportunities and/or constraints will be presented that frame the context of the service plan recommendations. It should be noted that no major changes are recommended for

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<sup>1</sup> Transit mode split figure obtained from SACOG's Sacramento Region Blueprint website, titled "Summary Statistics" table for Yolo County.

Route 42 – the major intercity route that connects Woodland, Davis, West Sacramento, downtown Sacramento and the Sacramento International Airport.

## Woodland Service Recommendations

### Issues, Opportunities and Constraints

As Woodland grows, the demand for additional local and commute/express transit service will also increase. Although Woodland has surpassed 50,000 residents (up from approximately 39,000 in 1990), Woodland's growth will be somewhat constrained by the agricultural land that surrounds the city. The Sacramento Region Blueprint envisions that Woodland will not become a "bedroom" community for workers in Sacramento, Davis or the Bay Area, but rather have a good mix of both housing and jobs. The Blueprint also envisions significant reinvestment in downtown Woodland that will build a vital core for the city.

Growth in Woodland, is occurring in the southeast and east part of town, as well as in some neighborhoods northwest of downtown. Several major developments are planned or under construction in the city that will have an impact on transit over the next 5-7 years, including the Gateway retail project and Spring Lake residential development.

The following themes are driving the service alternatives presented for Woodland:

- **Need for more local service.** The two local loop routes (210 and 211) will not be sufficient to handle all of the demands for local service as the city grows. Additional local service is recommended in both the Base and the Growth scenario changes to the structure of the routes is to help support the good mix of housing and jobs in Woodland. It should be noted that Woodland has the greatest proportion of local workers (those that live and work in Woodland) compared to Davis and West Sacramento<sup>2</sup>.
- **Streamlined and enhanced commuter/express service.** Similar to local services, express services will need to respond to Woodland's growth. Because commuter/express services typically appeal to choice riders, they are often more sensitive to travel time and less sensitive to cost (than transit dependent riders). Therefore, the fastest, most direct routes, along with an enhanced park and ride network is the recommended approach. An additional commute/express route is recommended for Woodland in the Growth Scenario to help improve the region's transit mode split<sup>3</sup>.

### Base Service Recommendations - Woodland

The following service modifications are recommended in Woodland if no significant increases in resources are available. Note that the changes to routes 210/211 and the addition of routes 212/214 are recommended only when the Gateway development at

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<sup>2</sup> US Census Bureau, Census Transportation Planning Package.

<sup>3</sup> SACOG's Draft Preferred Blueprint Scenario estimates Woodland's transit mode split much lower than other cities in Yolo County.

I-5 and County Road 102 and the Spring Lake development at Gibson and County Road 102 are complete.

***Route 210/211 Woodland Local***

These two routes are recommended to serve West Woodland. These routes would run on one hour headways, with route 210 providing clockwise service and the 211 providing counter clockwise service. Both routes would serve Gibson, Cottonwood, Ashley, Court, W. Woodland, Third St., Beamer Matmor, Industrial and Gum. These routes, along with the route 212 and route 214, would have an increase of one bus and 5,900 additional hours of revenue service. The first year of increased revenue service hours and the additional peak hour bus will be paid for with money already collected from the Spring Lake development and money to be collected from the Gateway development.

***Route 212/214 Woodland Local***

These two routes are recommended to serve East Woodland, including the new Gateway development and the Spring Lake development. These routes would run on one hour headways, with route 212 providing clockwise service and the 214 providing counter clockwise service. Both routes would serve Gum, Matmor, Gibson, Pioneer, Odgen, Branigan, Farnham, Maxwell and E. Main (including the Wal-mart). These routes along with the route 210 and route 211 would have an increase of one bus and 5,900 additional hours of revenue service. The first year of increased revenue service hours and the additional peak hour bus will be paid for with money already collected from the Spring Lake development and money to be collected from the Gateway development.

***Express Routes***

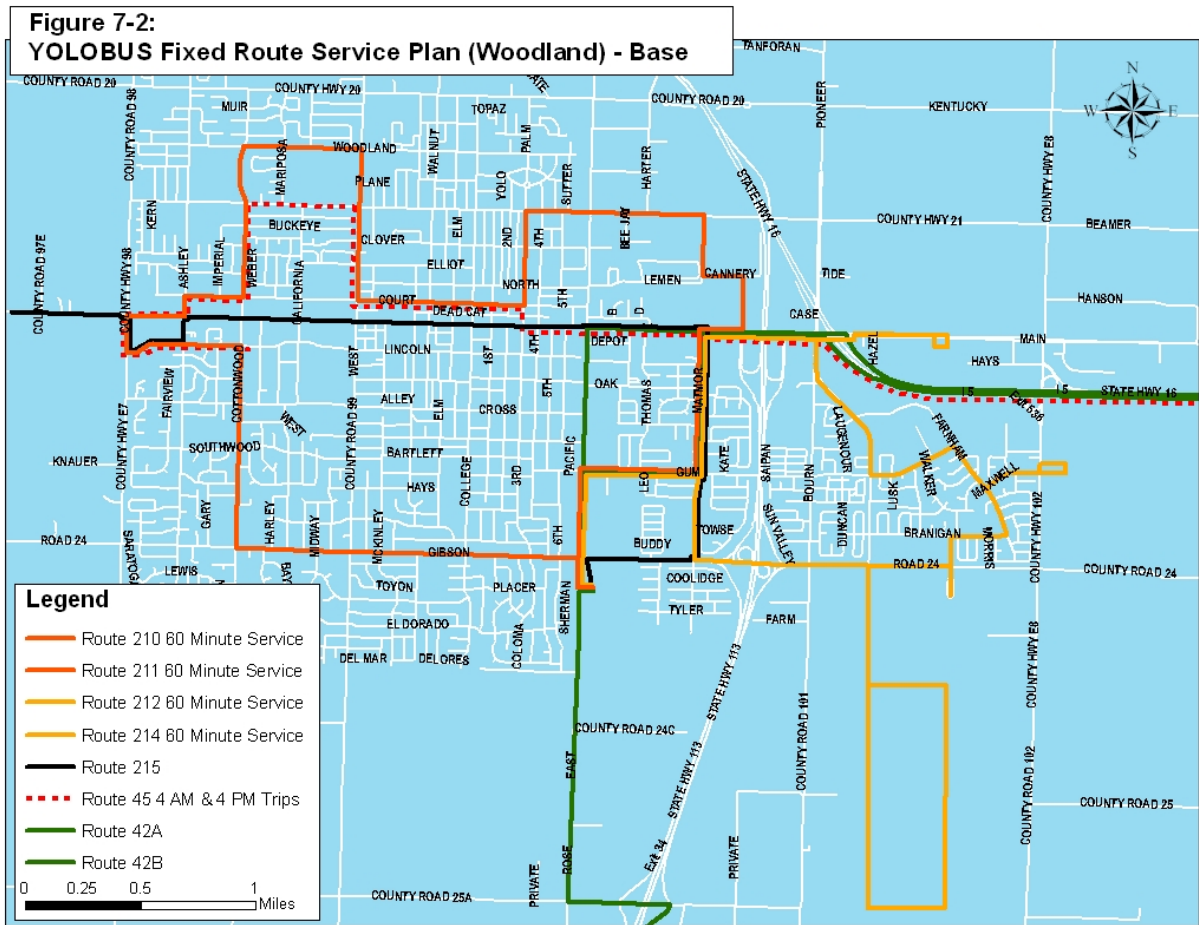
In this scenario, no modifications are recommended to the express route structure. However, to attract more “choice” riders, park and ride locations are encouraged (near I-5 for Route 45 and at the County Fair Mall for Route 242). Potential park and ride locations include the County Fair Mall, north of the YCTD yard or close to I-5 and Main Street. As a general rule, park and ride locations near freeway entrances are much more successful at capturing a larger commute/express market than a more remote location.

**Figure 7-1 Summary of Base Service Recommendations - Woodland**

Route	Portion of Route	Recommended Changes	Additional Costs
210/211	East portion	From E. Main out to Wal-mart including Pioneer, Gum, Farnham, Branigan and E. Gibson, will be cut from both routes	None
212/214	New Routes	Both routes will begin at County Fair Mall and serve Gum, Matmor, E. Main, Pioneer, Farnham, Maxwell, Branigan, Ogden, and E. Gibson	One additional peak hour bus and 5,900 additional hours of revenue service.
42	All	There would be no modifications to route 42A or 42B	None
Express routes	Near I-5 and County Fair Mall	No route changes. Explore park and ride locations at County Fair Mall, near the YCTD yard or near I-5 and Main Street.	A small surface lot is estimated to cost between \$1,600-\$1,800 per space*.
		<b>Total</b>	<b>One additional peak hour bus and 5,900 additional revenue service hours.</b>

\* Victoria Transport Policy Institute (www.vtpi.org). Figures are in 2000 dollars and does not include land costs.

**Figure 7-2 Map of Base Service Recommendations - Woodland**



## **Growth Service Recommendations - Woodland**

As noted earlier, the Growth Scenario is included to help move Yolo County closer to the 3.8% transit mode split recommended in the Sacramento Region Blueprint. To help the agency achieve this goal, the following service recommendations are made for Woodland. Although these improvements are not directly tied to a financial plan, potential funding sources are identified in the Financial Plan that could pay for some of these operating and capital costs.

### ***Routes 210/211 Woodland Local***

There are no modifications to these routes in the Growth Scenario. However, because over half (56%) of Woodland residents work locally in Woodland (more local workers than any other city in the service area), it is recommended to increase from one hour headways to 30 minute headways on weekdays only. This increase in service on both these routes and routes 212/214 would result in the addition of three peak hour buses and an addition of 10,500 annual service hours. Improving frequencies from hourly to every half hour is expected to have a positive impact on ridership in Woodland, and ridership gains should be fully realized within 12 to 18 months (since no significant route modifications are proposed). It is also recommended that overall service hours during the day increase.

### ***Routes 212/214 Woodland Local***

There are no modifications to these routes in the Growth Scenario. However, because over half (56%) of Woodland residents work locally in Woodland (more local workers than any other city in the service area), it is recommended to increase from one hour headways to 30 minute headways on weekdays only. This increase in service on both these routes and routes 210/211 would result in the addition of three peak hour buses and an addition of 10,500 annual service hours. Improving frequencies from hourly to every half hour is expected to have a positive impact on ridership in Woodland, and ridership gains should be fully realized within 12 to 18 months (since no significant route modifications are proposed). It is also recommended that overall service hours during the day increase.

### ***Route 45 North Woodland Express***

In the Growth Scenario it is recommended that route 45 only serve the North area of Woodland. Route 45 would start at Cottonwood and W. Lincoln and serve W. Lincoln, W. Main, Ashley, Cottonwood (North of Main), Beamer, West, Court, and E. Main before traveling to downtown Sacramento. Four daily a.m. and four daily p.m. trips are proposed Monday through Friday. Because of the decrease in running time it may be possible to run this route with three peak hour buses instead of four. This change coupled with the new route 46 would result in the addition of 2 peak hour buses and 3,500 annual service hours

### ***Route 46 South Woodland Express***

In the Growth Scenario it is recommended to create a new express route between Woodland and downtown Sacramento. In this scenario route 46 would only serve the south area of Woodland. Route 46 would start at Cottonwood and Lincoln and serve Cottonwood (south of Main), Gibson, Pioneer, Parkway and Co Ro. 102 before traveling to downtown Sacramento. Four daily a.m. and four daily p.m. trips are proposed Monday through Friday. Because of the running time it may be possible to run this route with three peak hour buses instead of four. This change coupled with the new route 45 would result in the addition of 2 peak hour buses and 3,500 annual service hours. It is recommended that Yolo County Transportation District work a deal with the Gateway Development to have a park and ride lot at the intersection of County Road 102 and Maxwell on the northeast side that would be served by the route 46.

### ***Route 42***

There are no route modifications suggested to the route 42 in this scenario.

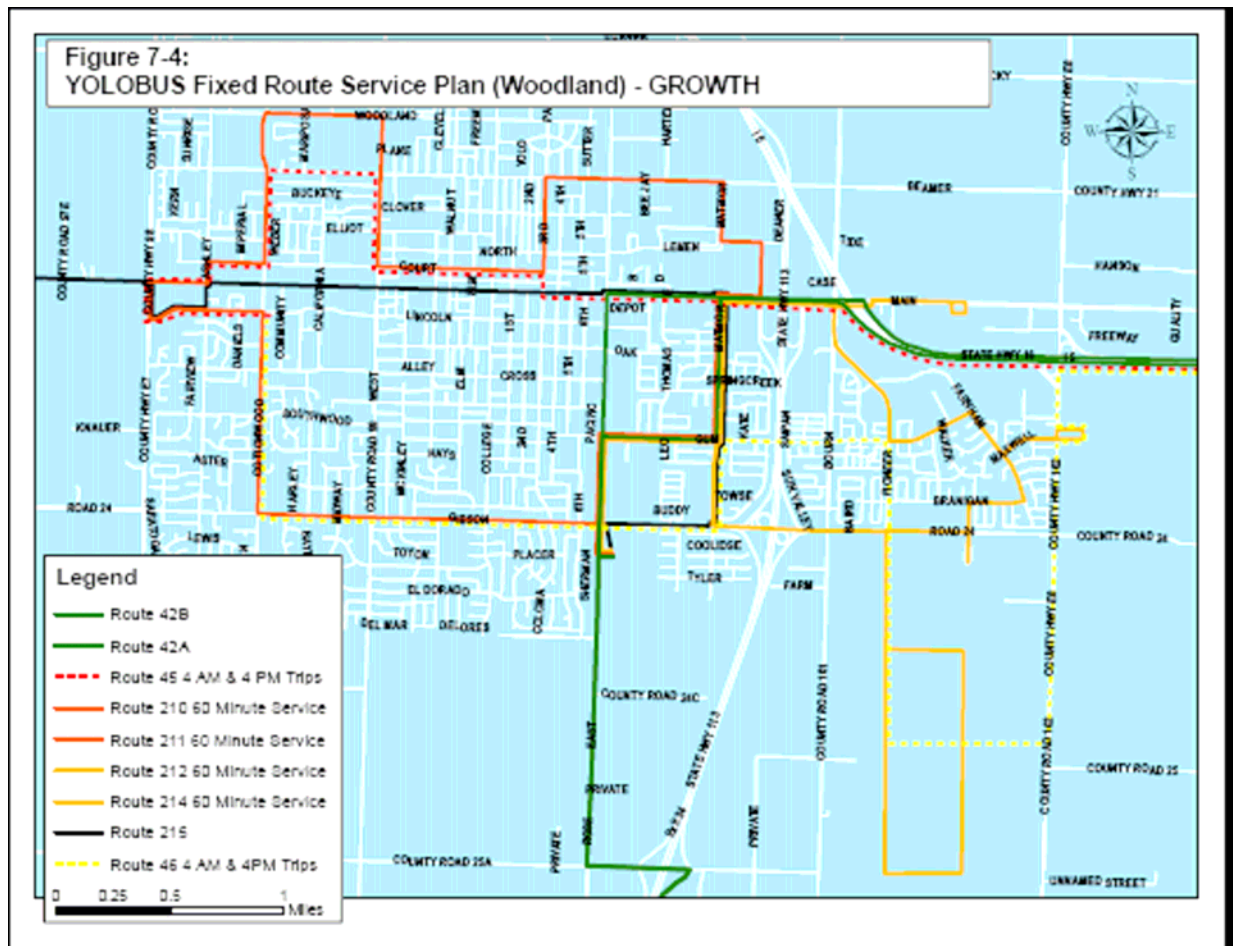
### ***Route 242***

No additional service on Route 242 to Davis is recommended.

**Figure 7-3 Summary of Growth Scenario Service Recommendations - Woodland**

<b>Route</b>	<b>Portion of Route</b>	<b>Recommended Changes/Additional Costs</b>	<b>Additional Costs</b>
210/211	All	Increase weekday frequency to 30 minutes.	<b>Two additional peak buses &amp; approximately 6,600 annual service hours.</b>
212/214	All	Increase weekday frequency to 30 minutes.	<b>One additional peak buses &amp; approximately 3,900 annual service hours.</b>
45	Local Woodland portion	Route 45 would begin near the corner of Gibson and Cottonwood travel north via Cottonwood, left Lincoln, right Co Rd. 98, left Ashley, right W. Court, left Cottonwood, right Beamer, right West, left Court, right 3rd, left E Main continue to I-5 and non-stop via existing alignment. Rename to "Route 45 – North Woodland – Sacramento Express."	<b>None.</b>
46	New route	New Route 46 would start at the corner of Cottonwood and Lincoln and travel south via Cottonwood, left on Gibson, left Matmor, right Gum, right Pioneer, left Parkway, left County Road 102, stop at new park and ride, right I-5 and continue via Route 45 alignment to downtown Sacramento. Name "Route 46 – South Woodland – Sacramento Express."	<b>two additional peak buses; approximately 3,000 annual service hours.</b>
		<b>Total</b>	<b>Five peak buses &amp; approximately 13,000 annual revenue hours</b>

**Figure 7-4 Map of Growth Scenario Service Recommendations - Woodland**



### **Future Service Consideration - Woodland**

Beyond the planning horizon of this SRTP, Woodland is projected to have continued modest growth. The Sacramento Region Blueprint estimates Woodland's population at 84,000 by 2050. Although this growth is not as rapid as other cities in the region, demand for local and express/commute service will continue to increase. The following ideas are presented as considerations for how transit service in Woodland can grow beyond the 5-7 year SRTP period.

- **Introduce new “Main Street” route.** A new route traveling along Main Street from County Road 98 to County Road 102 would provide continual service along Woodland's main commercial corridor. It is estimated that if this service operated every 30 minutes, an additional 2 peak buses would be required.
- **Increase number of trips on express routes.** Two additional trips on each of the express routes are recommended that would arrive in Sacramento around 7:15 am and 7:30 am. The returning evening trips would arrive in Woodland around 5:30 pm and 6:00 pm. If this were implemented for both routes 45 and 46, four additional peak buses would be required. Alternatively, one additional trip could be added to each express route, resulting in only two additional peak buses.
- **Increased service to UC Davis.** If UC Davis was to increase the demand of transit service by influencing UC Davis staff, students and faculty to use alternative modes of transportation, YCTD should investigate increased trips between Woodland and UC Davis. These new trips would need to be synchronized with the needs of UC Davis affiliates. Travel time on these new trips would need to be comparable to current driving times therefore the current 242 route would need to be slimmed down. This increase in service would require additional funding.

## West Sacramento Service Recommendations

### Issues, Opportunities and Constraints

West Sacramento is poised for significant growth over the next 5-7 years and beyond. The Sacramento Regional Blueprint estimates that West Sacramento will become a major city of over 130,000 by 2050. West Sacramento's location adjacent to Sacramento is largely responsible for growth in the city. The abundance of vacant land (especially in Southport) and the city's good regional transportation access – the confluence of Highway 50 and I-80 – is spurring new retail/commercial and office development. Likewise, the city has an abundance of infill and redevelopment opportunities, especially in the Triangle Area, in the Washington Neighborhood and along West Capitol Avenue.

Although not intended to be an exhaustive list of all the development activity that is occurring in West Sacramento, the following areas and specific developments will have the biggest impact on the level of transit service provided in the city:

- **Southport.** In 2000, this area of West Sacramento had about 5,800 residents<sup>4</sup>. This area of West Sacramento is served by one route (Route 39) that provides two a.m. and two p.m. trips daily during peak periods only<sup>5</sup>. During the 5-7 years of the SRTP, Southport is expected to grow and by 2020 could have as many as 40,000 residents<sup>6</sup>. Most of the growth in the area is single-family residential, but several multi-family developments are underway or proposed. In addition, the Southport Town Center (a medium-size shopping center anchored by Nugget Market) has recently been built near Jefferson/Linden, and West Sacramento's new high school is proposed just south of this area<sup>7</sup>.
- **New Transit Center.** A new West Sacramento Transit Center is proposed to be located across from City Hall at West Capitol and Merkle Avenue. The new facility, still in the engineering and design phase, is expected to serve as a hub for local and regional transit service in the city. The new transit center will be integrated into a civic center complex which includes a Los Rios community college satellite campus, a senior center, library, offices space and complimentary retail space. It is anticipated that this facility will be complete in FY 2006/07.
- **West Capitol Avenue.** As one of West Sacramento's most prominent corridors, West Capitol is poised for significant redevelopment in the coming years. The City has recently issued an RFP (West Capitol Corridor Study) to study redevelopment opportunities along this corridor.
- **Washington Neighborhood.** Located directly opposite downtown Sacramento, this is one of West Sacramento's oldest neighborhoods. Significant infill

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<sup>4</sup> US Census Bureau

<sup>5</sup> Yolobus also operates the River Cats Shuttle, which provides service to/from Southport during River Cats home games.

<sup>6</sup> City of West Sacramento General Plan, Policy Document

<sup>7</sup> It should be noted that this is not an additional high school, but will replace the existing River City Senior High School just south of Highway 50 on Clarendon Street.

development is proposed that includes single-family and multi-family residential, office, retail and a major hotel.

- **Riverpoint/Riverside Center.** Located on the northwest side of the city near the Reed Avenue/Sacramento Avenue exit on I-80, this area includes IKEA and other proposed retail uses such as Wal-mart and Home Depot as well as additional office space. In all it is estimated that nearly 1 million square feet of either office or retail space will be available at Riverpoint. The Employment and Social Services office is planning to relocate to the Riverside Center area.
- **Triangle Area.** Just south of the Washington neighborhood, and across the river from downtown Sacramento, this area is currently home to Raley Field. Significant office, retail and high-density residential growth is planned for this area.

Based on the growth that is occurring in West Sacramento, the following themes are driving the service alternatives:

- **Improve local service north of the port.** The existing local routes in West Sacramento (routes 40/41) have been in place for a long time. Current routes 40/41 operate in a figure eight thus causing long travel times between relatively close locations. These routes have been modified over the years to serve new areas and address on-time performance issues. As a result, routes 40 and 41 are circuitous and do not directly mirror each other in both directions. In addition, these two routes operate on 70-minute headways rather than every hour due to the time it takes for each route to cycle.
- **Increase frequency of service along West Capitol.** Currently, route 42 provides service along the entire length of West Capitol on hourly headways. Based on the strong ridership on this route in West Sacramento, however, more frequent transit service would likely benefit this corridor, at least from Harbor to downtown Sacramento. In addition, the introduction of high-frequency service on West Capitol will “prime the pump” for other modes into West Sacramento, such as streetcars or LRT, if and when they are implemented. A more detailed review of streetcar service in West Sacramento is provided later in this chapter.
- **Introduce midday service in Southport.** As this area continues to fill in, the need for midday service will become much more apparent. Regardless of mode (bus, streetcar, etc.), the Southport area when fully built out will have as many or more residents than the north part of West Sacramento. Although overall densities and land use patterns are not ideal for high-frequency transit service, additional midday transit service can start to build the presence of transit in the community and may help alleviate some traffic congestion to this area. Many of the planned developments in the Southport area will have town centers with neighborhood retail and high density housing. Midday service should focus on serving these locations as they have both the riders and the most used destinations.
- **Improve commuter/express service, especially from the Southport area.** Many new residents in the Southport area do not work in West Sacramento. A recent survey conducted by YCTD suggests that many of them work in either

Davis or somewhere in Sacramento County -. The survey also found that many of the new residents in Southport are considered “choice” riders, that is, they likely have other transportation options available to them. The survey also found that many of the residents were unwilling to park and ride. Therefore, if commuter/express service is to be successful, it must offer fast and direct service to major employment centers, such as downtown Sacramento or UC Davis. These employment centers also have the greatest disincentive to driving alone as parking is either constrained, expensive or both.

### **Base Service Recommendations – West Sacramento**

Unlike the “Base” scenarios for other cities, this scenario assumes a modest increase in resources to meet the basic needs that have arisen in West Sacramento since the last SRTP was completed. The modest changes includes three buses operating all day (approximately 14 hours on weekdays, 12 hours on Saturday, 10 hours on Sunday), midday bus service to Southport and four additional route 39 trips. Also included in the changes is the creation of a route which would connect West Sacramento and downtown Sacramento, however the assumption is that this route will be funded with money from the Department of General Services which is currently paying Regional Transit to run service between the Ziggurat building and downtown Sacramento. .

It should be noted that West Sacramento has grown substantially more than any other city in Yolo County and has the largest estimated gap in service hours per capita. This scenario is intended to bring West Sacramento “up to speed” with the level of service that is appropriate for this growing city.

The goal of the “Base” scenario is to build toward a strong “base” transit network that can be improved if and when additional resources become available (this will be discussed further in the Growth Scenario). This base network will also set the stage for more enhanced transit modes that may be implemented in West Sacramento in the future (such as LRT or streetcars).

### ***Route 35 West Sacramento-Sacramento Connection***

This route is proposed to exclusively serve the West Sacramento Transit Center, Ziggurat building and downtown Sacramento. During the peak hour this bus would run 15 minute headways and during off peak would run 30 minute headways. The proposed route would start at the West Sacramento Transit Center; travel east on West Capitol and serve West Capitol, 5<sup>th</sup> St., E St., 3<sup>rd</sup> St., Capitol Mall, N St., 8<sup>th</sup> St. and L St. It is recommended that Yolo County Transportation District investigate the possibility of acquiring funds from the Department of General Services. The proposed route would require two peak hour buses, (one midday bus) and an increase in revenue service hours of 6,300 per year.

### ***Route 38 Southport Local (Fixed Route or Flex Route)***

This new route would assume the southern portion of Routes 40/41 and provide Southport residence with midday service. This route would also connect north West Sacramento residents with the Nugget Shopping Center. The route would serve West

Capitol, Westacre, Park, Stone, Jefferson, Gateway, Beach, Stonegate, Village Parkway, Lake Washington, Redwood, Linden, Marshall, Golden Gate, Promenade and Southport Parkway. Assuming the route operates only 8 trips a day Monday through Sunday, this route would require one additional peak hour bus and an additional 3,900 annual revenue hours.

This route could start as a fixed route; however, if ridership is light the route might be turned into a flexible fixed route before being canceled altogether. The flexible fixed route would start at West Capitol and Merkley, travel West to Westacre. It would then turn south on Westacre and travel along Westacre, Park and Stone before turning south on Jefferson to the Southport Town Center. From here, time would be built into the schedule that would allow the bus to provide “flex” service to residents in the Southport area. The flex-route would function similar to a dial-a-ride service but be available to the general public. For pick-ups, people would call a special number at YCTD and give the dispatcher the time and location that they would like to be picked up. The driver would then be given the exact time and location of the pick-up (to the nearest corner). Passengers must be waiting for the bus – drivers will not wait for passengers. Drop-off’s would be handled on-the-fly by the driver.

In the first year of operation, YCTD should monitor this route closely to determine if a regular fixed route service is more effective.

### ***Route 39 Southport Downtown Express***

Small modifications are recommended for this route to serve the areas of Southport that are not currently served. The route would continue to start on Marshall at Rivermount but would serve Golden Gate Oakland Bay, Southport Parkway, Otis, Jefferson, Linden, Lake Washington, Stone Gate, Beach, Gateway, and Jefferson. Besides the modification to the route it is also recommended that two a.m. and two p.m. trips be added to serve these growing areas. The morning trips are recommended to leave Southport at 5:35 a.m., 6:05 a.m., 7:05 a.m. and 7:35 a.m. with return in the evening leaving downtown Sacramento at 4:05 p.m., 4:35 p.m., 5:35 p.m. and 6:05 p.m. These two additional a.m. and two additional p.m. trips will require one additional peak bus and approximately 2,100 additional annual revenue hours.

### ***Routes 40/41 – North West Sacramento Local***

These two routes are proposed to provide North West Sacramento local service. Using only one bus and operating on hourly headways, these routes will run 14 hours/day during the week and 12 hours/day on Saturday and 10 hours/day on Sunday. They will provide access to North West Sacramento residents to areas such as Riverpoint Center, (including job sources IKEA, Wal-Mart and Home Depot) Triangle Ct. (including Social Services and West Sacramento Police Department) and the Safeway Shopping Center. This route will start on West Capitol at Merkley and serve West Capitol, Jefferson, Sacramento, Solano, Water, Bryte, Anna, Kegle, Lighthouse, 3<sup>rd</sup> St. These routes will not require an additional bus or additional hours.

***Route 240- West Capitol, North Industrial Area***

It is recommended that this route be completely modified from its current route and schedule. This route is recommended to provide all day service between downtown Sacramento and the North West Industrial area. This route would start in Downtown Sacramento and serve West Capitol, Harbor (North), Reed, Riverpoint, and Stillwater. This route would help to decrease the headways on West Capitol between Harbor and downtown Sacramento from the current one hour to half hour service. This route would operate 14 hours/day during the week and 12 hours/day during the weekend. It would also require an additional peak hour bus and approximately 1,800 additional annual revenue hours.

***Route 241 – West Capitol, South Industrial Area***

It is recommended to create a completely new route that would start in downtown Sacramento and serve West Capitol, Harbor (south of West Capitol), Industrial, Parkway, Seaport, and Enterprise. This route would operate two a.m. and two p.m. trips and would require two additional peak hour buses unless they were interlined with current Davis or Woodland Express routes (similar to how the current 240 is operated). This route would also help decrease the headways on West Capitol during the peak hour.

***Vanpool Program***

The general public household survey conducted in Southport by YCTD found that a significant number of people who live in Southport work in Davis. For this reason, a targeted vanpool program between Southport and Davis is recommended. The vanpool program would help gauge the need for a more permanent fixed route express service between Southport and Davis. The vanpool program could focus on a small park and ride facility at the Southport Town Center (see below).

***Park and Ride Facility***

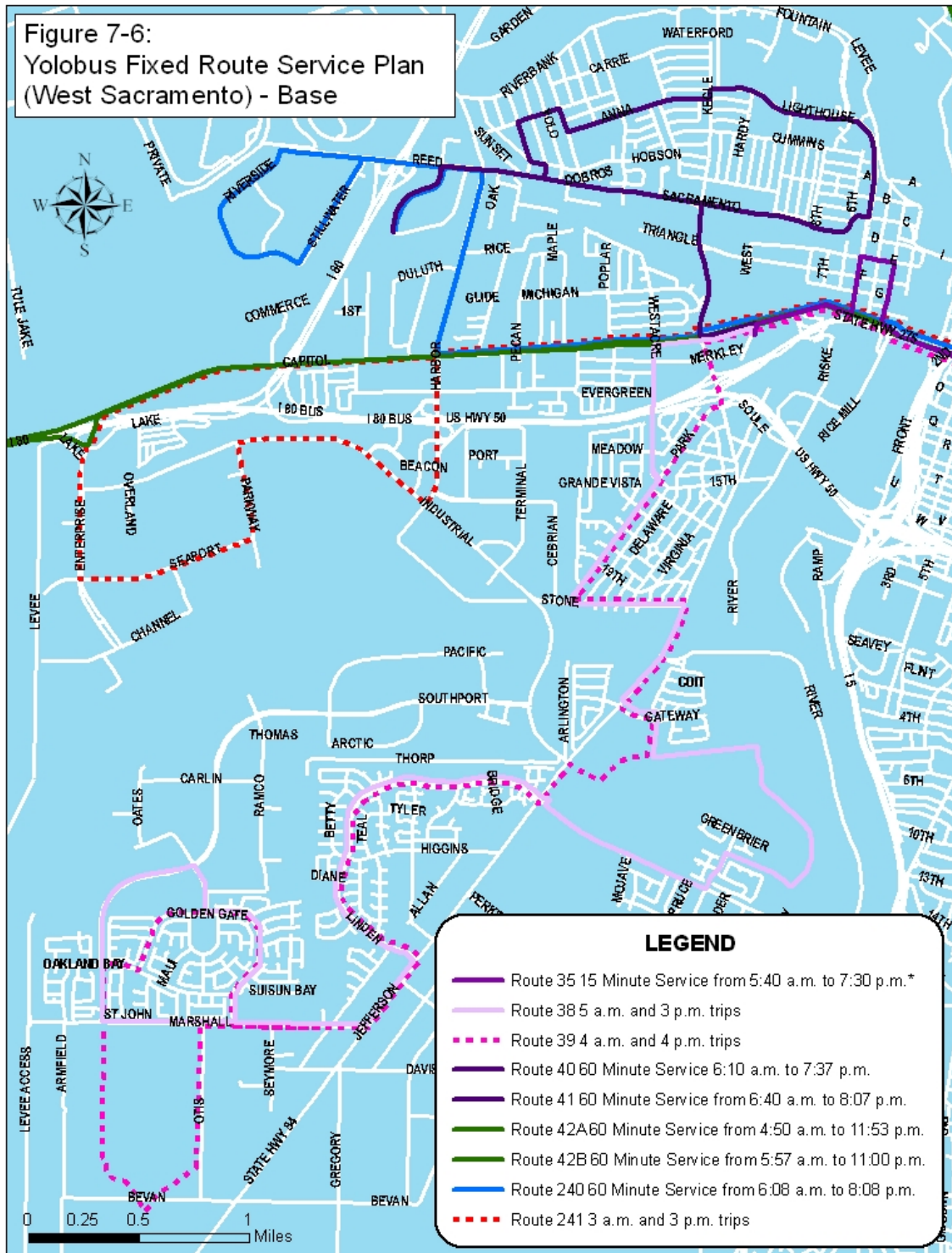
Development of a small park and ride facility (30 to 50 cars) could be considered at or near the Southport Town Center. This park and ride facility could be located in an existing lot that would be shared during the weekday with YCTD. The new lot would serve as a pickup location for both Route 39 and the proposed vanpool program between Southport and Davis. A key to making this park and ride facility work is to ensure that good pedestrian access is provided to and from the bus stop (in the northbound direction located on Jefferson).

**Figure 7-5 Summary of Base Service Recommendations – West Sacramento**

Route	Portion of Route	Recommended Changes	Additional Costs
35	New Route	Traveling eastbound, from the new West Sacramento Transit Center, east on West Capitol, left on 5 <sup>th</sup> St., right on E St., right on 3 <sup>rd</sup> St., left on Capitol Mall, right on N St., left on 8 <sup>th</sup> St., left on L St., right on Capitol Mall, right on 3 <sup>rd</sup> St., left on E St., Left on 5 <sup>th</sup> St., right on West Capitol, back to the Transit Center	Two additional peak buses; approximately 6,300 additional annual revenue hours.
38	New route	From the new Transit Center, this new route would travel west on West Capitol, left on Westacre, right on Park, left on Stone, right on Jefferson, left on Linden Road to the Southport Town Center. Flex route service would be provided throughout Southport. Service frequency is every 60 minutes. Timed connections would be made hourly with Route 42 at the new Transit Center in the eastbound direction.	One additional peak bus; approximately 3,900 additional annual revenue hours.
39	Entire route	Route would be changes to serve the areas south and east of the current route, along with the increase of two a.m. and two p.m. trips.	One additional peak bus; approximately 2,100 additional annual revenue hours.
40/41	Entire route	Traveling westbound from the new West Sacramento TC, both routes would serve West Capitol, Jefferson, Sacramento, Solano, Hobson, Water, Lisbon, Bryte, Anna, Kegle, Lighthouse, 3rd, C St. These routes would not go into downtown Sacramento but would be operated in such a way to provide direct connections with route 240.	None.
240	New route	From downtown Sacramento would travel west on W. Capitol, right on Harbor, left on Reed, left on Riverpoint, left on Reed, left on Stillwater, right on Riverside, right on Harbor, left on West Capitol.	Approximately 1,800 additional annual revenue hours.
241	New Route	From downtown Sacramento would travel West on West Capitol, left on Harbor, right on Industrial, left on Parkway, right on Seaport, right on Enterprise, left on West Capitol and back into downtown Sacramento	None
<b>Total</b>			<b>Four peak buses;</b>

			<b>approximately 14,100 annual revenue hours.</b>
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**Figure 7-6 Map of Base Service Recommendations – West Sacramento**



## **Growth Service Recommendations – West Sacramento**

To help YCTD achieve the mode split goal for the region (3.8%), and if additional funding is available to the agency, the following service recommendations are made for West Sacramento. These service recommendations also begin to develop a more robust bus network on West Capitol Avenue between the Harbor and downtown Sacramento, which could be replaced by a new LRT or streetcar line.

### ***Route 35 Sacramento-Sacramento Connection***

No proposed changes are recommended.

### ***Route 36 Northwest Southport Express***

It is recommended that a true network of express bus routes be created between Southport and downtown Sacramento. Routes 36, 37, 39 and 47 are all new routes proposed for the Southport area which would provide quick, frequent bus service. Route 36 would only serve the northwest area of Southport. The route would start on Linden at Canvasback and serve Linden, Jefferson, Stone, Park and West Capitol before traveling into downtown Sacramento. Four daily a.m. and four daily p.m. trips are proposed Monday through Friday. Because of the length, the route should allow the first and third and second and fourth trip trips to be interlined and thus decrease the number of peak hour buses needed. This route would require two additional peak hour buses and an additional 3,300 hours of revenue service

### ***Route 37 Northeast Southport Express***

It is recommended that this route serve the northeast area of Southport. This route would serve the area between Jefferson and the Sacramento River and from the Barge Canal to the Harborpointe project. This route, like route 47, will access the new South River Road bridge once it is built and serve the Triangle area before traveling into downtown Sacramento. Four daily a.m. and four daily p.m. trips are proposed Monday through Friday. Because of the length, the route should allow the first and third and second and fourth trip trips to be interlined and thus decrease the number of peak hour buses needed. This route would require two additional peak hour buses and an additional 3,300 hours of revenue service

### ***Route 38 Southport Local (Fixed Route)***

This route would be similar to the Base Scenario. However, YCTD might find the fixed route to be more service than the area can support. At that time it is recommended that this route become a flex route.

### ***Route 39 Southwest Southport Express***

It is recommended that this route would serve only Bridgeway Island and Bridgeway Lakes. The route would continue to start on Marshall at Rivermount and serve Marshall, Golden Gate, Oakland Bay, Southport Parkway, Otis, Jefferson, Stone, Park and West Capitol before traveling into downtown Sacramento. Four daily a.m. and four

daily p.m. trips are proposed Monday through Friday. Because of the length, the route should allow the first and third and second and four trip trips to be interlined and thus decrease the number of peak hour buses needed. This route would require no additional peak hour buses and no additional hours of revenue service.

### ***Route 40/41 – North West Sacramento Local***

These routes would remain the same as discussed in the Base Scenario; however the frequency and the length of service would be changed from once an hour to twice an hour and from 6 a.m. – 8 p.m. to 6 a.m. to 10 p.m. This increase in service, matched with the increased service on West Capitol, will help support the planned growth along West Capitol.

### ***Route 47 Southeast Southport Express***

It is recommended that this route would only serve the southeast area of Southport. The route would serve the area between Jefferson and the Sacramento River and from Harborpointe to Riverpark. This route like, route 37, will access the new South River Road bridge once it is built and serve the Triangle area before traveling into downtown Sacramento. Four daily a.m. and four daily p.m. trips are proposed Monday through Friday. Because of the length, the route should allow the first and third and second and four trip trips to be interlined and thus decrease the number of peak hour buses needed. This route would require two additional peak hour buses and an additional 3,300 hours of revenue service

### ***Route 48 North West Sacramento-Sacramento Express***

This route would be new and would serve the north West Sacramento Area, by providing express bus service between West Sacramento and downtown Sacramento. This route would start on Sacramento at Douglas and serve Sacramento, Kagle, Lighthouse, 6<sup>th</sup> St., B St., 3<sup>rd</sup> St., Triangle area and downtown Sacramento. This new route is recommended to start with 2 a.m. and 2 p.m. trips, however it may need more than these two trips if the route becomes popular.

### ***Route 240 West Capitol-North Industrial Shuttle***

This route would remain the same as discussed in the Base Scenario; however the frequency and the length of service would be changed from once an hour to twice an hour and from 6 a.m.–8 p.m. to 6 a.m.-10 p.m. These increase in service matched with the increased service on routes 40/41, will help support the planned growth along West Capitol.

### ***Route 241 West Capitol-South Industrial Shuttle***

There are no more additional recommendations for this route.

***Park and Ride Facility***

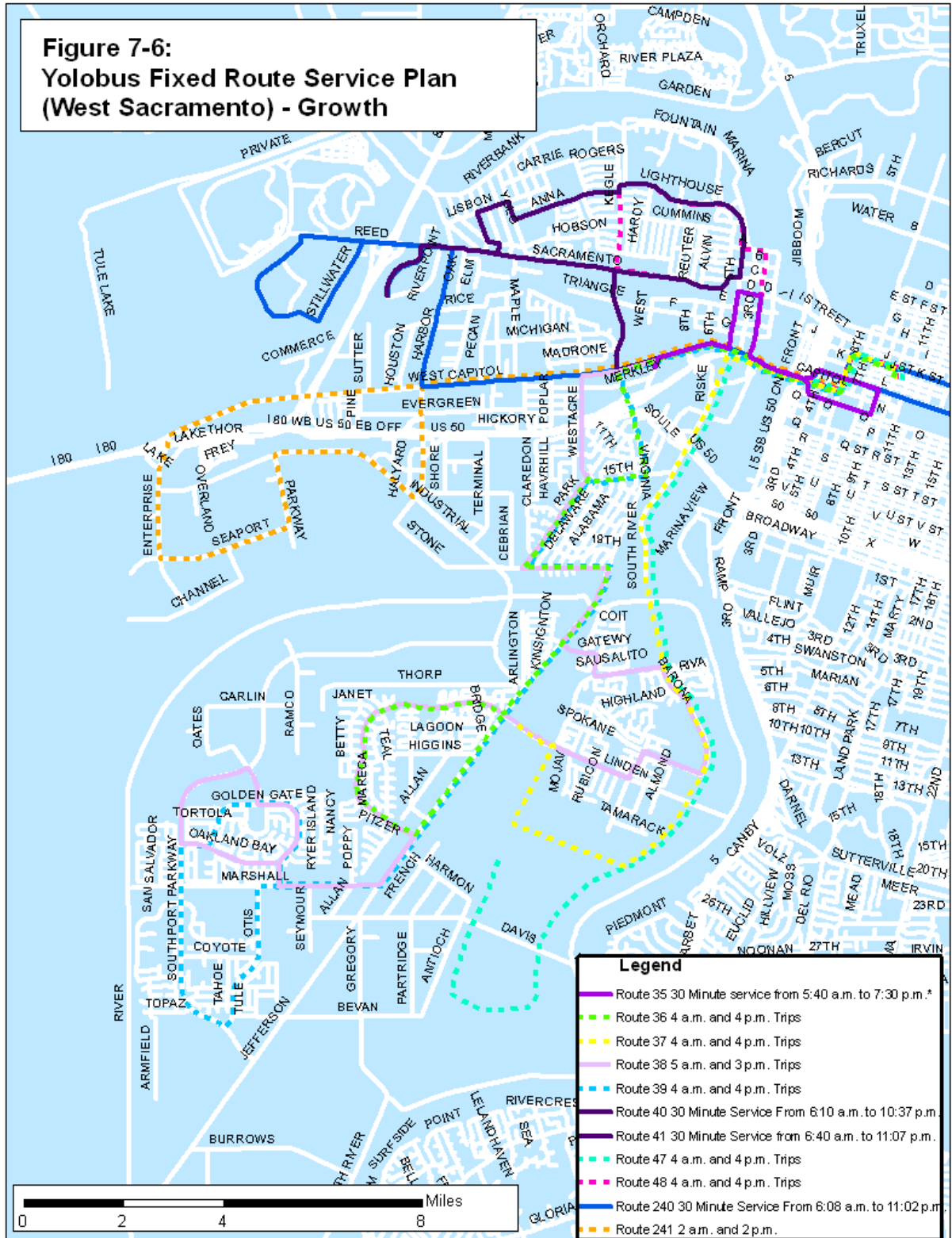
If the demand for parking spaces at the Southport Town Center is higher than the supply, YCTD should explore development of a more permanent park and ride location, ideally with good access to and from Jefferson. One potential area to explore is vacant land around the railroad tracks east of Jefferson. A location along the railroad tracks would have the added benefit of securing land adjacent to a potential LRT or streetcar line.

**Figure 7-7 Summary of Growth Scenario Service Recommendations – West Sacramento**

Route	Portion of Route	Recommended Changes	Additional Costs
35	None	No proposed changes.	None.
36	New route	This route would provide express bus service to the northwest area of Southport which in the Base was provided by the route 39. 4 a.m. & 4 p.m. trips.	<b>Two peak bus, approximately 3,300 annual revenue hours.</b>
37	New route	This route would provide express bus service to the northeast area of Southport. 4 a.m. & 4 p.m. trips.	<b>Two peak buses, approximately 3,300 annual service hours.</b>
38	Fixed Route vs. Flex Route	The only change to this route is that it might no longer provide fixed route service. If ridership does not meet YCTD standards a flex route might provide the area with the need service.	None.
39	New Route	This route would go from providing express bus service to all of Southport to providing service to only the Bridgeway Lake and Bridgeway Island (southwest area). 4 a.m. & 4 p.m. trips.	
40/41	Entire Route	These routes would stay the same as the base scenario except it is recommended to increase service from 60 minute headways to 30 minute headways. An increase in the service hours is also recommended	<b>One peak bus, approximately 4,900 annual revenue hours.</b>
47	New route	This route would provide express bus service to the southeast area of Southport. 4 a.m. & 4 p.m. trips.	<b>Two peak buses, approximately 3,300 annual revenue hours.</b>
48	New Route	This route would provide express bus service to Northeast West Sacramento. The route would start at Sacramento and Douglas and serve Sacramento, Kegal, Lighthouse, 6 <sup>th</sup> St., B St., and 3 <sup>rd</sup> St. before traveling into downtown Sacramento.	<b>Two peak bus &amp; approximately 2,100 annual revenue hours.</b>
240	Entire Route	This route would stay the same as the base scenario except it is recommended to increase service from 60 minute headways to 30 minute headways. An increase in the service hours is also recommended.	<b>One peak bus, approximately 5,200 annual revenue hours.</b>
241	None	No additional recommendations	None
		<b>Total</b>	<b>Ten peak buses, approximately</b>

Route	Portion of Route	Recommended Changes	Additional Costs
			<b>22,100 annual revenue hours</b>

**Figure 7-8 Map of Growth Scenario Service Recommendations – West Sacramento**



## Future Service Consideration

As mentioned earlier, West Sacramento is poised to become a major city by 2050. Although beyond the scope of the SRTP, the following ideas are presented as considerations for improving and expanding the transit network in West Sacramento.

- **Improved circulation in neighborhoods.** Work closely with the City of West Sacramento to increase circulation in growing neighborhoods. Plans for the Triangle area and Washington neighborhood indicate that these areas will be very different places in the future. Although Raley Field is located in the Triangle area, this is the only significant attraction in this area. The Washington neighborhood, however, is experiencing more rapid infill development, and is already an established older neighborhood.
- **Improved fixed route service in Southport.** Although several new routes are proposed for Southport, YCTD could consider providing more regular service to this area. The goal is to establish transit as a reliable and familiar fixture in Southport before this area develops. Given the existing and proposed land use in Southport, however, local services are not expected to achieve high ridership.
- **Transit Priority and Speed.** Several corridors in West Sacramento may become “high frequency transit corridors” in the future. The most obvious example of this is West Capitol Avenue, one of the city’s most prominent corridors. This corridor also has the greatest redevelopment potential. Because transit will be in direct competition with other modes (notably the automobile), YCTD should explore ways of improving the speed, reliability and comfort of transit in these corridors. It is recommended that YCTD study the various options for enhancing transit in some of West Sacramento’s major corridors, such as signal pre-emption, queue jumping, dedicated bus lanes, NextBus-type technology, bus bulb-outs, etc.
- **Supplemental School Service.** The Washington Unified School District has considered reducing or eliminating school bus service in West Sacramento. Although the details of this are yet to be determined, this would have an impact on local transit services. Because the new high school is planned for Southport, additional transit service in Southport may be required, as well as service that connects with routes in the north part of the city.
- **Increased Service to UC Davis.** If UC Davis was to increase the demand of transit service by influencing UC Davis staff, students and faculty to use alternative modes of transportation, YCTD should investigate creating express trips between West Sacramento and UC Davis. These new trips would need to be synchronized with the needs of UC Davis affiliates. Travel time on these new trips would need to be comparable to current driving times. This increase in service would require additional funding.
- **Streetcar Service.** See below.

## **Streetcar Concept for West Sacramento**

This section discusses opportunities for introducing streetcar service in West Sacramento. This section presents the proposed concept, including the general characteristics of streetcars, cost implications (capital and operating) and several conceptual alignments.

The service plan that precedes this section includes a bus-only approach to local and regional transit provided by YCTD. Because streetcar systems are typically designed for local circulation, the concept presented here would complement and serve as an overlay on the bus network as discussed in the service plan.

Ultimately, it is recommended that a more detailed streetcar feasibility study be conducted by YCTD, RT and the cities of West Sacramento and Sacramento. A more detailed study is important not only to determine the most appropriate alignment and operating characteristics, but to provide reliable cost estimates and ridership forecasts. This study should justify the project, which would improve the chances of securing federal funding.

## **Background and Community Support**

Sacramento and West Sacramento have a rich history of operating streetcars. Although streetcars were discontinued in the Sacramento region in 1947, the Sacramento Northern Railway operated numerous interurban routes through the Sacramento region, with service north to Chico and Marysville and southwest to the Bay Area.

Today, streetcars are enjoying a renaissance in American cities of all sizes, as both public and private interests have realized the potential streetcars have for moving people and spurring economic development. Many of the basic community and economic development principles that fueled the early streetcar lines are present today. A focus on more dense development along main corridors, restored demand for living close-in and pedestrian-friendly mixed-use neighborhoods are among the factors that have restored interest in streetcars. In planning for future economic growth and redevelopment in West Sacramento, the streetcar has arisen as an alternative to support local circulation needs and to help codify new development in a more efficient and cost-effective manner.

On September 23rd, 2005, the Sacramento Regional Transit District (RT), in partnership with Friends of Light Rail & Transit, held the Capital Area Streetcar Summit. The summit's primary goal was to educate the public on the various applications and costs associated with a streetcar system in the Sacramento area. Sacramento RT, SACOG, and the City of West Sacramento have all indicated their support for considering streetcars as another way to improve mobility in the region.

## **Streetcar Characteristics**

This section describes the basic characteristics of streetcars and discusses some of the reasons why streetcars are making a comeback in many American cities. These

characteristics are based on previous research conducted by Nelson\Nygaard, as well as information gleaned from the Streetcar Summit.

- Streetcars are different from light rail. The main difference between the two modes is that streetcars are typically for local trips, and make local stops. Light rail is generally focused on providing regional service and makes fewer stops.
- Streetcars are typically more comfortable than buses. Streetcars generally attract more riders than bus routes in the same area and the difference in ridership is often much higher.
- Property owners and developers are often willing to financially contribute to a streetcar system because they realize the value that a streetcar brings to their property and to the neighborhood.
- Similar to other street-running modes, streetcars are generally focused on serving destinations within a neighborhood, not just moving through it rapidly.
- Streetcars provide a visible and easy to understand routing which attracts new users (tracks and overhead wires are permanent reminders of the streetcar's presence).
- Streetcars attract both a visitor and local user market to transit.
- Streetcars catalyze and organize development.
- Streetcars do not have to be historic. Several North America and European examples exist where modern streetcars have been implemented.
- A number of cities credit the streetcar with catalyzing infill development, including:
  - Portland, OR
  - Memphis, TN
  - Tampa, FL
  - Little Rock, AR
  - Tacoma, WA
  - Charlotte, NC

## **Funding**

As with other transit modes, there are two basic costs associated with streetcar service: capital and operating. These two costs are discussed separately below:

### **Capital Needs and Estimates**

As noted earlier, a more detailed plan is recommended to develop reliable capital cost estimates. In general, however, a good and wide ranging estimate for an urban streetcar constructed to run in mixed traffic is \$12 million to \$20 million per track mile (this includes vehicles and a vehicle barn). There are examples of projects that have

achieved lower costs, but they are typically simple systems with limited conflicts. Some of the capital cost elements that would need to be considered include the following:

- **Track work.** This includes track slab installation, turnout/track crossing installation and ballasted track installation.
- **Vehicles.** There are two different types of streetcars: modern and vintage/replica. The fleet size depends on the headway and number of track miles.
- **Catenary's poles and overhead wire.**
- **Drainage.** Potential costs can result from storm water retention and treatment facilities.
- **Utilities.** This includes possible relocation or modification of public utilities (water, storm and sanitary), as well as any private utilities that exist.
- **Construction Soft Costs.** This includes mobilization, field engineering, quality control and general conditions.
- **Engineering and Administration.** This includes agency and consultant costs to design and manage the construction of the streetcar project.
- **Civil/Roadway.** This includes overlay of pavement, traffic control, minor roadway and/or sidewalk reconstruction.
- **Platforms.** This includes all costs associated with streetcar stops, which are usually every 2 blocks, or roughly 700 feet.
- **Substations.** Approximately one per mile of track.
- **Operations/Maintenance Facility.** Must be located on or near streetcar line.

### Operating Costs

The operating cost for streetcar service is generally driven by the cost for a unit (usually an hour) of operation. The more frequent the service operates, the greater the number of vehicles and operators required, and thus higher costs. The cost per hour is unique to the operator providing the service and reflects prevailing wage rates, operator-specific overhead costs, costs specific to the vehicles purchased, etc. Existing streetcar operations in North America are operated by a variety of entities. In Portland, OR, the City of Portland owns and operates the Portland Streetcar. In Tacoma, Tampa, Memphis and Little Rock, the transit agency operates the streetcar line. Tucson's streetcar line is operated by a non-profit agency.

Because streetcars in West Sacramento could be operated by several possible entities (Yolo County Transportation District, Sacramento RT, the City of West Sacramento, the City of Sacramento, etc.), operating costs are difficult to estimate at this time. Based on experiences from other cities that operate bus and streetcar service, streetcar operating costs average 35 to 50 percent higher than the companion bus costs. Even at properties that operate modern streetcars, streetcar operation tends to be more costly than bus. Generally, there are more buses in operation than streetcars, resulting in economies of scale for that mode.

## Conceptual Alignment and Phasing

Several potential streetcar alignments have already been suggested in West Sacramento and presented here. It should be noted that several assumptions are made about these alignments: (1) streetcar service in West Sacramento would be an extension of service that continues into downtown Sacramento; (2) a streetcar alignment in downtown Sacramento has yet to be determined; and (3) each alignment between Sacramento and West Sacramento is assumed to use the Tower Bridge.

**Alignment 1 - West Capitol Avenue.** Phase 1 of this alignment would travel across the Tower Bridge from downtown Sacramento and continue along West Capitol to the new Transit Center at Merkley. This section would be less than one mile in length from the middle of the Tower Bridge. Phase II would extend this line along West Capitol Avenue to Harbor Boulevard. Both phases of this alignment would be approximately 2.25 miles from the middle of the Tower Bridge.

**Alignment 2 – Southport.** Phase I of this alignment would travel across the Tower Bridge from downtown Sacramento and continue along W. Capitol to 3rd Street before turning south to the Yolo Shortline railroad tracks just north of Raley Field and the Triangle area. This alignment would be less than one mile in length from the middle of the Tower Bridge. Phase II would continue south along the railroad tracks to Linden Road. The total alignment (Phases I and II) would be approximately 3 miles from the middle of the Tower Bridge.

Figure 7-16 presents the conceptual alignments for streetcar lines in West Sacramento.

It should be noted that if streetcar service were implemented during the five to seven-year period of this SRTP, the bus network proposed in the service plan would be modified slightly to compliment the streetcar system. The routes that would be affected by a new streetcar service include the following:

**Route 35**, with the addition of Streetcar service the frequent service that is proposed between the new Transit Center and downtown Sacramento, would no longer be necessary if Alignment 1 is introduced.

**Routes 39**, in the Base, would continue to provide Southport residence with direct service from Southport to downtown Sacramento if Alignment 1 is introduced.

**Route 39, 36, 37, 47** in the growth scenario would continue to provide Southport residents with direct service from Southport to downtown Sacramento if Alignment 1 is introduced. However if Alignment 2 is introduced then routes 39, 40 41 & 47 would become feeder routes to the Streetcar service.

**Route 241** would still need to exist as it provides important local service along West Capitol Ave.

## **Figure 7-9 Conceptual Streetcar Alignments in West Sacramento**

## Davis Service Recommendations

### Issues, Opportunities and Constraints

With the exception of Route 42, YCTD focuses exclusively on serving the commute/express market in Davis. Most of the local service needs are handled by Unitrans. Route 42, however, plays an important role because it is the only fixed route service operating in Davis on Sunday.

In general, the express/commute routes serving Davis are performing well. However, because most riders using these services have a choice in how they travel<sup>8</sup>, these routes must provide direct, convenient and fast service that is as easy to understand as possible. The guiding principles used to develop the commute/express service recommendations for Davis include:

- **Focus on fast, direct service.** Where possible, commute/express routes should mimic the route people would take if they were driving. Service that meanders through neighborhoods that are not on the way to the freeway are likely seen as “out of the way.” This ultimately reduces the time spent on the bus – an important selling point for commute/express services.
- **Identify a route with a specific area of town.** Commute services that identify with a particular part of town are much easier to use and understand, such as “West Davis”, “South Davis” and “Central Davis.” Although several routes are already doing this (e.g., “Route 43 – UCD/Northeast Davis”), some routes are traversing several areas of town.
- **Rely on Unitrans and Route 42 for local connections.** Route 42 is an integral component of making the express/commute network work because it provides a back-up service to and from Sacramento. It is also the only fixed route service in Davis on Sunday. During the week and on Saturday, Unitrans also provides excellent connections to nearly all neighborhoods in the city.
- **Explore additional Park and Ride facilities.** Where appropriate, park and ride facilities can expand the coverage of the express network. Park and ride facilities adjacent to a freeway on-ramp that provide direct service to Sacramento can offer riders that can’t walk to the bus more options.

### Base Service Recommendations - Davis

The following service modifications are recommended in Davis if no significant increase in resources is available.

#### ***Route 43 –Central East Davis***

This route will remain exactly the same and provide express bus service to Davis residents on 5<sup>th</sup> St, F Street, Poleline, Loyola, Tulip, and Alhambra. This route is one of YCTD’s most productive (around 30 passengers per hour) and often experiences over-

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<sup>8</sup> Based on Davis Express Survey, January 2005, only 15% of respondents said they use the bus because they do not have a car available to them.

crowding<sup>9</sup>. The route 43 Reverse would continue providing service between Downtown Sacramento and Davis with one morning trip and one evening trip. Three daily a.m. and three daily p.m. trips are proposed Monday through Friday on route 43.

#### ***Route 44 – Central, South Davis***

This route will remain exactly the same and serving Covell, Anderson, Russell, B St., 1<sup>st</sup> Street, Richards, Lillard, Drummond, Cowell, Chiles, and El Cemonte. Three daily a.m. and three daily p.m. trips are proposed Monday through Friday.

#### ***Route 230 –West Davis***

This route would no longer serve north Davis and would provide quicker trips between Davis and downtown Sacramento. With the route starting on Covell at Sutter and serving Covell, Lake, Arlington, Calaveras, Eisenhower, Alameda and Arthur. Three daily a.m. and three daily p.m. trips are proposed Monday through Friday.

#### ***Route 231 – Late Evening Sacramento- Davis Express***

There are no recommended changes for this route.

#### ***Route 232 – North, East Davis***

This route would cover the part of Davis which were cut from the route 230 and provide additional service, along Alhambra where the current route 43 has overcrowding. This route would start on Grande at Solito and serve Catalina, Anderson, Villanova, 14<sup>th</sup> St., Covell, Poleline, Moore, Wright and Alhambra. Three daily a.m. and three daily p.m. trips are proposed Monday through Friday.

#### ***Route 42 – Intercity***

No major modifications are recommended for this route in Davis. However, it is recommended that on the Route 42A (clockwise), bus stop improvements are made to allow the stopping and safe de-boarding of passengers on Mace at 2<sup>nd</sup> St. The ride check conducted for this study found only 1 person boarding at the park and ride lot on route 42B and 3 people boarding on Route 42A. Although this deviation does not take much time, the time saved could help solve some of the current late problems on route 42A in the morning.

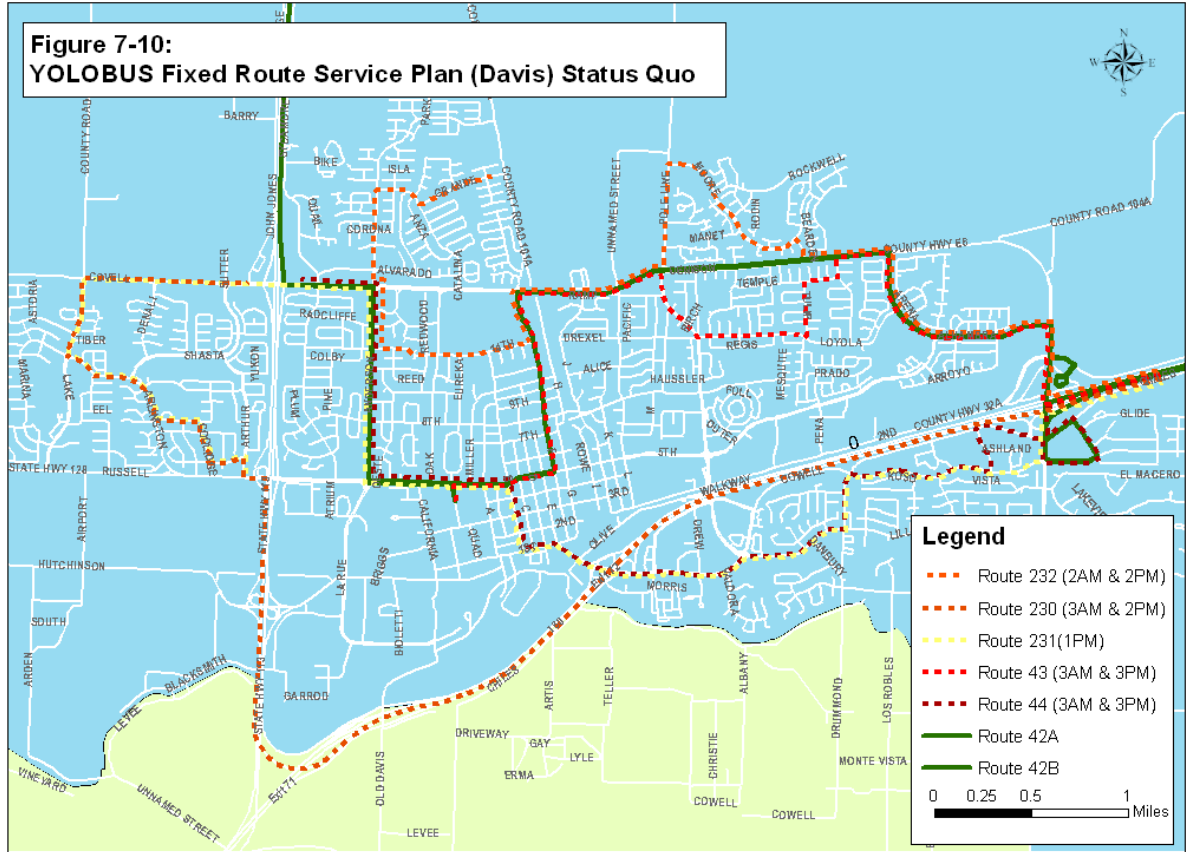
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<sup>9</sup> As revealed in the Davis Express Survey , January 2005.

**Figure 7-10 Summary of Base Service Recommendations – Davis**

<b>Route</b>	<b>Portion of Route</b>	<b>Recommended Changes</b>	<b>Additional Costs</b>
43	All	There would be no modification of the route 43	None.
44	All	There would be no modification of the route 44	None.
230	Northern portion	This route would no longer be responsible for serving north Davis. The route would start on Covell at Sutter. This would be the only modification of the route as it would continue to serve Covell, Lake, Arlington, Calaveras, Eisenhower, Amador and Arthur.	One Additional p.m. peak hour bus and 1,100 additional revenue service hours.
231	All	There would be no modification of the route 231	None.
232	North Central North Eastern portion	This route has the most changes including the taking over the current 230 north Davis route and the increased service to northeast Davis. This route would serve Grande, Catalina, Anderson, Villanova, F St. Poleline, Moore, Wright, and Alhambra.	Two additional peak hour buses and 2,000 additional revenue service hours.
42	Near Mace St. Park and Ride	Route 42A would not serve the Mace Street Park and Ride directly. The route would stay on Mace.	None.
		<b>Total</b>	<b>Three additional peak hour buses and 3,100 additional revenue service hours.</b>

**Figure 7-11 Map of Base Service Recommendations – Davis**



## **Growth Service Recommendations - Davis**

If more funding becomes available, the following changes and additions to the express service in Davis is recommended. As with other cities, the goal is to enhance the express routes between Davis and Sacramento to help improve the regional mode split for transit.

### ***Route 43 –Central East Davis***

Since this is the busiest express route, it is recommended that at least one additional am trip and one additional pm trip is recommended. This would require on additional peak hour bus and an additional 1,600 annual revenue hours.

### ***Route 44 - Central South Davis***

One additional a.m. and one additional p.m. trip is proposed for this route if additional resources are available, since this is YCTD's second best performing express/commute route. This would require on additional peak hour bus and an additional 1,600 annual revenue hours.

### ***Route 230– Central West Davis***

One additional a.m. and one p.m. trip is proposed for this route if additional resources are available. This would require on additional peak hour bus and an additional 1,100 annual revenue hours.

### ***Route 232 – North East Davis***

One additional a.m. and one additional p.m. trip are proposed for this route if additional resources are available. This would require on additional peak hour bus and an additional 1,600 annual revenue hours.

### ***Other Recommendations***

If more funding becomes available, YCTD should also look into providing express bus service from the Mace Park and Ride Lot to downtown Sacramento. This route could be a very efficient route with trips being between 30 and 45 minutes.

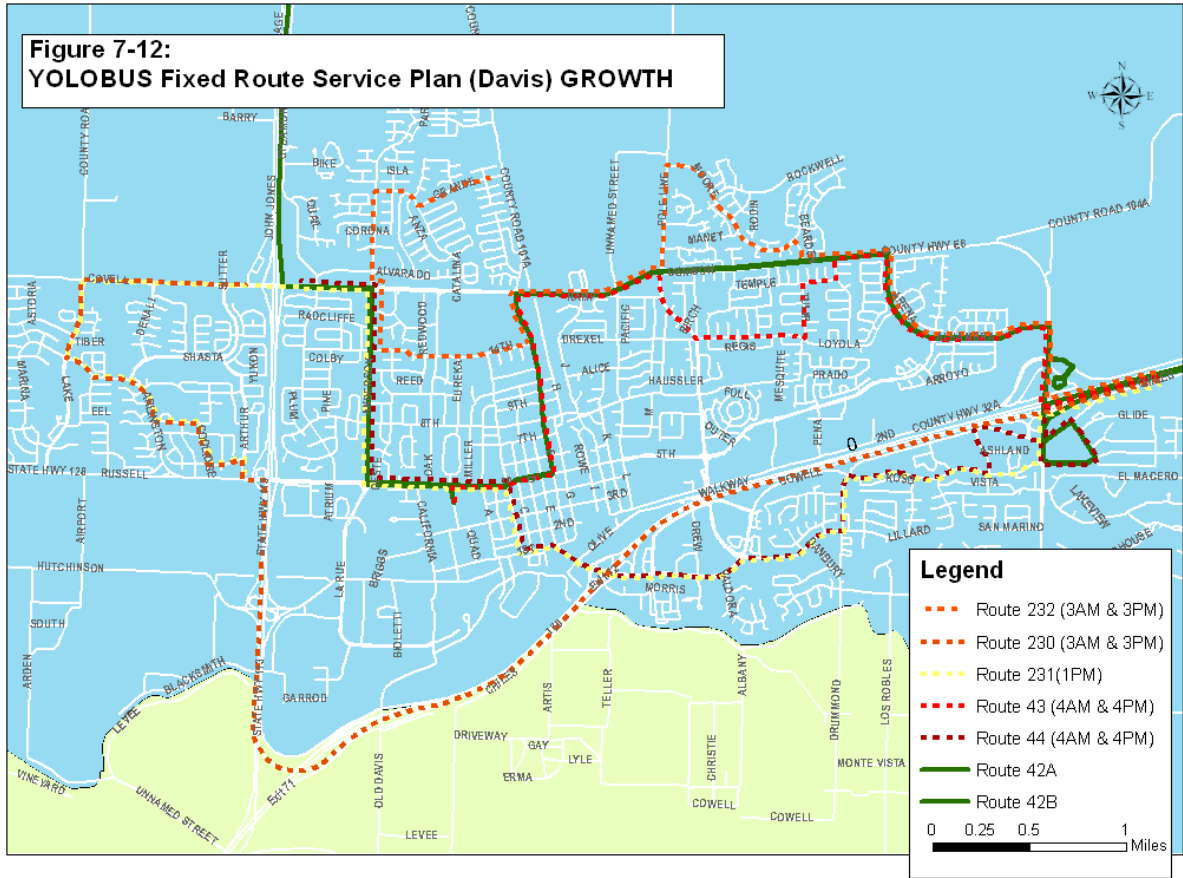
### ***Park and Ride***

It is recommended that a small (35-50 stall) park and ride facility be explored near the proposed West Village development on the UCD West Campus with easy on-off access to Highway 113. This facility could serve both the new development as well as the UCD campus. Route 230 in West Davis, would serve this park and ride facility.

**Figure 7-12 Summary of Growth Scenario Service Recommendations  
– Davis**

<b>Route</b>	<b>Portion of Route</b>	<b>Recommended Changes</b>	<b>Additional Costs</b>
43	All	One additional a.m. trip and one additional p.m. trip	<b>One additional peak bus &amp; approximately 1,600 annual revenue hours.</b>
44	All	One additional a.m. trip and one additional p.m. trip.	<b>One additional peak bus &amp; approximately 1,600 annual revenue hours.</b>
230	All	One additional a.m. trip. and one additional p.m. trip	<b>One additional peak bus; 1,200 annual revenue hours.</b>
232	All	One additional a.m. trip and one additional p.m. trip.	<b>One additional peak bus &amp; approximately 1,600 annual revenue hours.</b>
		<b>Total</b>	<b>Four peak buses &amp; approximately 6,000 annual revenue hours</b>

**Figure 7-13 Map of Growth Scenario Service Recommendations – Davis**



### **Future Service Considerations - Davis**

Although it is beyond the scope of this SRTP, YCTD should continue to consider the implications of the Capitol Corridor service in the county:

- **Regional Rail (Capitol Corridor).** Amtrak's Capitol Corridor service provides bus and rail service between Auburn and the San Jose. In Yolo County, there is one stop in Davis. Although the Capitol Corridor provides hourly service during peak periods between Sacramento and Davis, it serves more of a regional function. In the future, however, this corridor could serve a larger role in moving people throughout Yolo County and the region, especially if growth between Fairfield and Sacramento continues at the current pace.
- **Increased Service to UC Davis.** If UC Davis was to increase the demand of transit service by influencing UC Davis staff, students and faculty to use alternative modes of transportation, YCTD should investigate increased trips between downtown Sacramento and UC Davis. These new trips would need to be in sink with the needs of UC Davis affiliates. This increase in service would require additional funding.

## **Winters and Yolo County Service Recommendations**

### **Issues, Opportunities and Constraints**

As discussed in earlier chapters of this report, the demand for transit service outside of Woodland, Davis and West Sacramento is relatively limited. The main exceptions, however, are Winters and Cache Creek Casino, served by Routes 220 and 215 respectively. Both of these areas are experiencing some growth and demand for transit service is expected to increase.

In addition, Yolobus provides service to Dunnigan and Knights Landing, demand for transit service in these areas are expected to remain unchanged through the 5-7 year period of the SRTP. In addition, services to these areas operate so infrequently that a small change can actually do more harm than good.

Without a significant increase in resources, we do not recommend any changes to the transit services provided outside of Woodland, Davis and West Sacramento. Therefore, we are not presenting a “Base” service plan. If additional resources become available, however, the following Growth Scenario suggests some improvements to the transit services provided in Winters and to the Cache Creek Casino.

### **Growth Scenario – Winters and Yolo County**

The following service modifications are recommended for Routes 220 and 215 if additional resources are available.

#### ***Route 220***

Additional peak hour service is recommended between Winters and Davis. With the bulk of the ridership on the route 220 being on the two commute trips, and a significant number of UC Davis employees holding residents in Winters, additional peak hour bus service could help increase the mode split in the City of Winters. An additional am and pm peak hour trip would give Winters residents increased options to get to work. This additional service would require one peak hour bus and an additional 1,600 annual revenue hours. This study looked into additional trips between Winters and Vacaville, as more Winters residents work in Vacaville than work in Davis, however due to the diversity of the destinations in Vacaville it is not recommended that additional peak hour trips be made to Vacaville.

#### ***Route 215***

Route 215 is Yolobus’s most productive route; because of this no route changes are recommended. However, as the casino and surrounding area grow, so too will the demand for more service, i.e. more trips, especially from service workers. At this time, no specific times are suggested. Rather, additional trips should be added that best meet additional work shifts or to relieve over crowding on existing trips.

**Figure 7-14 Summary of Growth Scenario Recommendations – Winters/Yolo County**

<b>Route</b>	<b>Portion of Route</b>	<b>Recommended Changes</b>	<b>Additional Costs</b>
220	All	Add additional a.m. trip and an additional p.m. trip between Davis and Winters.	<b>One additional peak bus &amp; approximately 1,000 additional annual revenue hours.</b>
215	All	Add two additional midday round trips between Woodland and Cache Creek Casino, seven days a week.	<b>No additional peak buses, approximately 1,100 additional annual revenue hours.</b>
		<b>Total</b>	<b>One additional peak buses; approximately 2,100 annual revenue hours.</b>

## Future Service Consideration

Beyond the 5-7 year period of this SRTP some additional service may be warranted on the county routes outside of Woodland, Davis and West Sacramento. The following are some general concepts for how service could be expanded in the future:

- **Route 220.** This route should eventually be operated every hour at least between Winters and Vacaville. In addition, the service span should be lengthened to allow Winters residents who work in Vacaville past 5 p.m. the option of using the bus. A longer service span makes transit more attractive for different types of trips. This change would require an additional peak bus.
- **Route 215.** Although YCTD should be reluctant to make changes to its most productive route, a more consistent hourly headway on Route 215 would provide more meaningful service to residents in Madison, Esparto and Capay, as well as residents along the Highway 16 corridor and Cache Creek Casino. Additional trips could then be added as needed that correspond to shift changes at the casino or to overcrowded trips.
- **Routes 216 and 217.** These routes provide “lifeline” services, improving the productivity is not a goal. Rather, they should respond to the specific needs of the passengers and communities that are being served (Knights Landing, Dunnigan, Yolo). One suggestion is that over time it may be more appropriate to provide more regular service, especially weekend service, to Knights Landing. The twice a week service to Dunnigan and Yolo appears to be an appropriate level of service for the foreseeable future.
- **Increased Service to UC Davis.** If UC Davis was to increase the demand of transit service by influencing UC Davis staff, students and faculty to use alternative modes of transportation, YCTD should investigate increased trips between Winters and UC Davis. These new trips would need to be synchronized with the needs of UC Davis affiliates. This increase in service would require additional funding.

## Summary and Recommended Phasing of the Service Plan

Figure 7-16 below presents a summary of the service plan recommendations, along with a proposed 5-7 year phasing plan for implementing the various elements of the service plan. For each fiscal year, Figure 7-16 also presents the number of additional buses and annual revenue hours that would be required for the Base and Growth scenario. In addition, a separate schedule is presented for potential streetcar service in West Sacramento.

**Figure 7-15 YCTD Fixed Route Service Plan Recommended Phasing**

Service Plan Scenarios	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12 and 2012/13
<b>Base</b>	<b>Woodland</b>					
	Explore park and ride locations	Explore park and ride locations	Route 210/211 and 212/214 routing to serve Gateway and Spring Lake	None	None	None
	<b>W. Sacramento</b>					
	Add new Routes 40/41 (60 min. headways). Add new Route 240(60 min. headway). .Add new Route 38 to Southport (60 min. headway) Add 2 new a.m. and 2 p.m. trips on route 39. Add Route 35 between West Sacramento and downtown Sacramento.	Review Route 38 fixed route performance	Review Route 38 fixed route performance	Review Route 38 fixed route performance	Review Route 38 fixed route performance	Review Route 38 fixed route performance
	<b>Davis</b>					
	None	Implement express route changes in Davis (Routes 43, 44, 230, 231, 232)	None	None	None	None
	<b>Winters/County</b>					
None	None	None	None	None	None	
<b>Route 42</b>						
No deviation to Mace Park and Ride (Davis) on Route 42A	None	None	None	None	None	
<b>Growth</b>	<b>Woodland</b>					
	Same as Base	Same as Base	Same as Base	Add route 46 south Woodland and modify route 45 north Woodland	Same as Base	Increase frequency on Route 210/211 and 12/214 to 30 minutes
	<b>W. Sacramento</b>					
	Same as Base	Same as Base	Add new Southport express routes 36, 37 and 47 and modify route 39.	Increase service on route 240 from 60 minute headways to 30 minute headways. Add new North West Sacramento express route 48	Increase service on routes 40/41 from 60 minute headways to 30 minute headways.	None
	<b>Davis</b>					
	Same as Base	Same as Base	Same as Base	Same as Base	Add additional trips to routes 43, 44	Add additional trips to route 230, 232
	<b>Winters/County</b>					
None	None	None	Add one additional morning trip to route 220 Add two additional midday trips on Route 215	None	None	
<b>Route 42</b>						
Same as Base	None	Same as Base	None	None	None	
<b>Additional Peak Buses</b>	Base: 4 Growth: 4	Base: 2 Growth:2	Base: 1 Growth: 7	Base: 0 Growth: 7	Base: 0 Growth:3	Base: 0 Growth: 5
<b>Revenue Hours</b>	Base: 14,100 Growth: 14,100	Base: 1,000 Growth: 1,000	Base:5,900 Growth: 15,800	Base: 0 Growth: 11,500	Base: 0 Growth: 8,100	Base: 0 Growth: 13,300

	2006/07	2007/08 through 2009/10	2010/11	2011/12 and 2012/13
<b>Streetcar (West Sacramento)</b>	Conduct Feasibility Study and Funding Plan Finalize funding agreements with developers	Initiate Preliminary Engineering and Environmental Review Final Design and Environmental Approval Preliminary Engineering	Prepare Specifications and Bid Documents	Begin Construction Phase I

## **YOLOBUS Special Service Plan**

YOLOBUS Special Service is an expensive program to deliver. Purchased transportation service costs (total operating contract costs/revenue hour) are relatively high. Operating costs are greatly impacted by the size of the service area, the low density of demand, the provision of intercity service (including service to destinations in Sacramento), and the extended service coverage area. Service area size and long travel distances constrain service productivity.

Yolo County Transportation District staff have adopted a proactive oversight and planning approach to YOLOBUS Special Service. In particular, YCTD's Financial Officer has been taking steps to control program demand and operating costs. Initiatives include:

- The adoption of a new ADA application form emphasizing a functional assessment;
- The re-registration of all registered clients;
- The ongoing monitoring of service performance and costs;
- Understanding the RouteMatch scheduling software; and
- Working with the service contractor's paratransit scheduling and dispatch staff to more effectively use the scheduling software.

The following service plan builds on YCTD staff initiatives to further improve service efficiency, productivity and flexibility to YOLOBUS Special Service customers.

### **Service Eligibility and Registration**

#### **Registrant Re-certification**

On May 11, 2005, YCTD staff initiated a re-registration process requiring that all current registrants re-apply for service using the new application form. There were 2,500 YOLOBUS Special Service registrants on May 11, 2005. Re-registration will be completed by September 30, 2005. Staff predict that as many as  $\frac{3}{4}$  of the current registrants will either not reapply or not be eligible under the new functional eligibility guidelines. YCTD will carry out a full re-registration every two years.

The number of active registrants could be reduced to 625. Although this number likely represents the core of the current "active" passengers making the majority<sup>10</sup> of the 16,590 annual trips<sup>11</sup>, a reduction in the number of registrants will result in some reduction in demand. As a result demand will likely remain flat in FY 2005/06 or drop slightly. The process is summarized below.

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<sup>10</sup> The 20/80 rule often applies to paratransit demand, where approximately 20% of paratransit registrants make 80% of the trips.

<sup>11</sup> Total passenger trips for FY 2004/05.

- **YCTD will assume direct responsibility for the YOLOBUS Special Service registration and certification process.** YCTD staff will screen and certify all applications.
- **YCTD will conduct a full re-registration every two years.** An ongoing re-registration process is an effective paratransit demand management strategy. The process cleans up the registration database, removing the deceased and those who have moved out of the service area; eliminates those who no longer qualify for ADA complementary paratransit service under the stricter ADA eligibility requirements; and discourages application by those who may not qualify.
- **YCTD will monitor temporary eligibility status, requiring temporary registrants to reapply prior to the expiry date of their eligibility status.** This can be accomplished by automatically flagging temporary eligibility expiration dates through the registration database. The registrants' continued need for paratransit service can be reevaluated. Those no longer qualifying can be removed from the registration database and no longer provided service. The ongoing control of temporary eligibility is a good demand management strategy, ensuring that the service is provided to those who legitimately require it.

### **New Application Form**

The new YOLOBUS Special Service application form is modeled after a form used by many San Francisco Bay Area paratransit agencies and follows the more stringent minimum ADA complementary paratransit requirements, requiring a functional assessment and verification by a professional that the applicant cannot use fixed route transit.

The new application form also requires verification that a registrant must travel with a personal care attendant (PCA). Currently, 12% of all passenger trips are by non-fare paying attendants. This high rate of attendant travel suggests that "guests" could be identified as attendants during the trip booking process to secure a ride and avoid paying the fare. This situation has a negative impact on farebox recovery and can constrain capacity.

- **YCTD will limit YOLOBUS Special Service eligibility to those who qualify under ADA complementary paratransit eligibility criteria.** In FY 2004/05, there were 25 new certified applicants. As the Yolo County population ages, the number of individuals considering applying for YOLOBUS Special Service will likely increase. Adoption of ADA eligibility criteria is a demand management tool to more effectively limit paratransit service to those who cannot use fixed route transit because of a physical or cognitive disability.
- **YCTD will continue to use the revised YOLOBUS Special Service application form to determine eligibility for ADA complementary paratransit service.** The new application form is an effective screening tool. The requirement to complete a functional assessment and obtain professional verification of need will discourage those who may not really need the service

from applying, or delay their application, until a time when they can no longer effectively use fixed route transit.

- **YCTD will require the determination of need for a PCA through the application and certification process and limit the travel of PCAs to those formally registered.** Many of those currently traveling as PCA's should likely be traveling as fare paying guests on a space available basis. Tighter restrictions on who requires a PCA may increase bus capacity and reduce trip denials of ADA certified registrants. PCA restrictions will also increase the number of "guests" traveling on the service (when space is available). This will increase the number of fare paying passengers, the average fare collected per passenger, and the farebox recovery ratio.

### **Functional Assessments for Yolobus Special Service Applicants**

Service contract staff currently screen applicants. Many ADA paratransit agencies are instituting functional assessments for some or all of their applicants. Functional assessments offer an additional screening of applicants and can actually discourage some from applying.

Functional assessments are not generally conducted by paratransit service contractors. In some cases, functional assessments are contracted to a third party (Access Services in Los Angeles County), or conducted in-house by the agency administering the program (Eastern Contra Costa County Transit Authority and Ventura County Transportation Commission).

- **YCTD should consider a requirement for formal, in-person functional assessments as part of the Yolobus Special Service registration process.** While there are currently few new applications each year, functional assessments will further limit growth in the number of registrants and demand for service. Given the size of the current YCTD administration, conducting functional assessments should be contracted out to a third party organization, fully capable of assessing how a physical or cognitive disability limits an individual's ability to use fixed route transit.

### **Service Restructuring**

YCTD has tightened up the application and certification process for YOLOBUS Special Service. This will effectively reduce the registrant database, limit the number of new registrants, and reduce current demand as well as the growth rate of future demand. This establishes a base to implement more effective scheduling procedures to increase service productivity and efficiency.

The following service restructuring plan builds on the tighter certification process and ongoing enhanced use of RouteMatch scheduling software. It is designed to reduce paid revenue hours, non-revenue service hours and total service miles. The proposed changes could be introduced gradually in FY 2005/06 and establish a level of service for a new YOLOBUS Special Service operating contract after the current contract expires on August 31, 2006.

Figure 7.16 provides an example of potential cost savings through a reduction in the number of buses and paid revenue hours. A range of potential savings is provided based on a five to twenty percent reduction in revenue hours and revenue miles. These savings are based on FY 2004/05 costs. In reality, contract costs, fuel and insurance costs will increase each year.

A ten percent reduction in revenue hours is feasible in FY 2005/06 with a further 10% reduction in FY 2006/07. FY 2006/07 revenue hours will set the base for the next five-year contract cycle beginning September 1, 2006.

**Figure 7-16 Projected Operating Cost Savings Through Reduction in Revenue Hours and Miles**

	Current 2004/05	5% Reduction in Revenue Hours/Miles	10% Reduction in Revenue Hours/Miles	15% Reduction in Revenue Hours/Miles	20% Reduction in Revenue Hours/Miles
One Way Passenger Trips	14,622	14,622	14,622	14,622	14,622
Total Revenue Hours	10,866	10,323	9,779	9,236	8,693
Total Revenue Miles	174,503	165,778	157,053	148,328	139,602
<b>Purchased Transportation Costs</b>					
Fixed Monthly Charges	\$269,212	\$269,212	\$269,212	\$269,212	\$269,212
Hourly Charges	\$188,307	\$178,892	\$169,476	\$160,061	\$150,646
Mileage Charges	\$137,247	\$130,385	\$123,522	\$116,660	\$109,798
Total Purchased Transportation Costs	\$594,766	\$578,488	\$562,211	\$545,933	\$529,655
Fuel Costs	\$45,840	\$43,548	\$41,256	\$38,964	\$36,672
Insurance Costs	\$57,703	\$54,818	\$51,933	\$49,048	\$46,162
<b>TOTAL OPERATING COSTS</b>	<b>\$698,309</b>	<b>\$676,854</b>	<b>\$655,399</b>	<b>\$633,944</b>	<b>\$612,490</b>
TOTAL OPERATING COST/REVENUE HOUR	\$64.27	\$65.57	\$67.02	\$68.64	\$70.46
TOTAL COST/PASSENGER TRIP	\$47.76	\$46.29	\$44.82	\$43.36	\$41.89
SERVICE PRODUCTIVITY (Pass/revenue hour)	1.35	1.42	1.50	1.58	1.68

**Enhanced Scheduling Procedures**

The following scheduling procedures are intended to reduce the cancellation rate, and increase trip making flexibility, service productivity, efficiency, and farebox recovery. All are possible with the current RouteMatch software.

The current cancellation rate is under 10% of scheduled trips. Many paratransit services have a much higher trip cancellation rate. Introducing the following procedures can further lower the YOLOBUS Special Service cancellation rate.

- **Encourage more booking 1 to 2 days in advance.** YOLOBUS Special Services allows advance bookings up to five days in advance. The majority of requests are made five days out. The further out a trip request is made, the higher the probability it will be cancelled. YCTD should encourage more bookings one to two days out. This may be possible with fewer registrants booking trips.
- **Establish open booking.** Establish open booking list for local trips within Woodland and West Sacramento. An open booking list is made up of advance bookings that could not be fit onto a scheduled run when the booking was initially made. Essentially, schedulers overbook the service based on their understanding of cancellation trends. Schedulers set ceilings on the number of open bookings that they will book each day. Trip requests from the open booking list are assigned by the dispatcher on the day of service as cancellations are recorded. Open booking list trips that fit into gaps created by cancellations or through the optimization of runs on the day of service. Open bookings can be assigned to a run without a bus or can be recorded in sequential order on a separate dispatch list. The customer is given a confirmed pick up window time when the request is made. Supplemental taxi contracts provide back up for those open bookings that cannot be assigned to a bus on the day of service. While an open booking list may be practical for local trips originating and ending within the communities of Woodland and West Sacramento, it is not practical for intercity trips and trips to and from Sacramento.
- **Allow will call bookings for medical return trips.** Paratransit customers do not always know when a medical appointment will be finished and booking a return medical appointment trip can be difficult. More and more paratransit agencies have established a will call policy for medical return trips. Established policies are often based on a 60 minute pick up window after a will call request has been made. An effective will call policy reduces no shows and the need to send back a bus when the customer is actually ready. Supplemental taxi contracts provide back up when a bus is not available to serve the will call request.
- **Encourage same day bookings.** YOLOBUS Special Service already accommodates same day bookings on a space available basis. The accommodation of same day bookings requires an aggressive dispatch strategy. Dispatchers can place trips on buses on the day of service based on run optimization and as cancellations come in.

### Supplemental Taxi Contract

- **YCTD should explore the feasibility of a supplemental taxi contract in the next service contract cycle beginning September 1, 2006.** Approximately 72% of all YOLOBUS Special Service passenger trips are by passengers not using a wheelchair. Many of these passengers could ride in a taxi sedan or non-wheelchair accessible mini-van.

Taxi contracts are often used to supplement paratransit services. They provide back up capacity during peaks or in the event of an accident or bus breakdown, and provide service during off peak hours and in low-density service areas where bus productivity is

low. The current YOLOBUS Special Service operating cost/passenger trip is over \$47.00. A supplemental taxi contract could provide additional coverage in West Sacramento and for trips between West Sacramento and Sacramento. In some cases, taxis might be more cost effective for some trips between Woodland and Davis. A supplemental taxi contract could reduce the number of buses required to provide coverage, especially in the early morning, in the evenings and on weekends. A supplemental taxi service could also provide a fixed route feeder service for persons who have difficulty walking to and from a bus stop.

Supplemental taxi contract payments are usually based on a metered or discounted meter rate per taxi trip. Economies can be gained by linking single trips or grouping travel from a common origin and destination. Daily taxi trip ceilings must be established for budget control purposes.

Trips should only be assigned to a taxi if a YOLOBUS Special Service bus was not available and could not efficiently serve the trip, or was running behind schedule. Taxi contract specifications would have to meet all FTA and YOLOBUS Special Service operating and policy requirements. Taxi contracts usually require additional administrative and oversight efforts. To be successful, participating taxi companies and drivers must be willing to fully comply with the requirements of the service contract. Not all taxi companies are appropriate for public paratransit service.

## **Service Contract**

YOLOBUS Special Service operating costs are relatively high. The total FY 2004/05 operating cost per revenue hour was \$64.27 and the cost per passenger carried was \$47.76 (See Figure 7-15). The purchased transportation service cost per revenue hour is \$54.74 (direct contract expenses). This cost is based on a fixed monthly price, a bid price per revenue hour and a bid price per revenue mile. The current three price bid structure may be too complex for effective costing by potential bidders and result in some costs being assigned twice.

- **YCTD should simplify the contract bid structure for the new YOLOBUS Special Service contract term beginning September 1, 2006.** The contract bid structure should be simplified to a monthly fixed fee to cover management, administration, scheduling and dispatch costs, and a revenue hour cost reflecting driver related, direct operational and maintenance costs. This tends to be the industry norm and a structure that the industry can more readily bid on. In the last contract cycle, a bid price per revenue mile was requested in addition to the standard fixed (administration) and variable (hourly) bid price. This was originally requested to simplify the accounting of maintenance costs and vehicle mileage. However, both can be recorded through vehicle specific files that record individual vehicle mileage and assign fuel consumption/costs and maintenance histories/costs to individual vehicles. The simplification of the bid structure to a (fixed) monthly fee and a (variable) hourly should result in a range of more competitive bids. YCTD will have to be specific about what cost elements are to be included separately in the fixed and hourly bid figures.

- **Establish incentives for on time performance and exceeding a minimum productivity benchmark.** On time performance and productivity incentives encourage paratransit service contractors to exceed contract and service policy expectations. A monthly incentive should be established to reward the contractor if they exceed a minimum passengers/revenue hour productivity benchmark while exceeding the on time performance minimum expectation. Incentives encourage the contractor to be more productive with the existing revenue hours and to make efficient use of the supplemental taxi contract. An incentive will encourage the contractor to more effectively use an open booking list and more aggressively assign same day bookings. On time performance and productivity benchmarks must be clearly stated in the initial RFP and final contract document.

### **YOLOBUS Special Service Plan**

In FY 2005/06 Yolo County Transportation District budgeted 12,000 demand response hours. With the average age of Yolo County residence increasing there will be an increase in demand for paratransit service in Yolo County, even with the steps being made to control program demand YCTD will still need to increase FY 2006/07 demand response operating hours to 14,000 hours. In subsequent years YCTD should plan on budgeting between 17,000 and 19,000 demand response operating hours.

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