

APPENDIX H

CONCEPTUAL TRANSIT PLAN



Sutter Pointe Conceptual Transit Plan

Prepared for:
The Sutter Pointe
Specific Plan Area

Prepared by:
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TABLE OF CONTENTS

1.0	INTRODUCTION	1
	Proposed Development Areas Map	2
2.0	EXISTING TRANSIT SERVICE.....	4
	2.1 Yuba-Sutter Transit	4
	2.2 Placer County Transit	5
	2.3 Roseville Transit	7
	2.4 Sacramento Regional Transit District	7
3.0	STRATEGIC APPROACH AND TRANSIT PLAN.....	8
	3.1 Sutter Pointe Transit Service Administration and Delivery	9
	3.2 The Family of Service Concept	9
	Sutter Pointe Transit Map	10
	3.3 Phase 1 Sutter Pointe Transit Plan	11
	3.3.1 <i>Car and vanpool programs</i>	11
	3.3.2 <i>Commuter Bus Service</i>	11
	<i>Table 3.1 - Phase 1 Sutter Pointe Bus Pull-out, Revenue Hours and Operating Cost Projections.</i>	12
	3.3.3 <i>Yuba-Sutter Transit</i>	13
	3.3.4 <i>Airporter Services</i>	13
	3.4 Phase 2 Sutter Pointe Transit Plan	13
	3.4.1 <i>Expansion of Sutter Pointe Transit Commuter Express Service</i>	13
	<i>Table 3.2 - Phase 2 Sutter Pointe Bus Pull-out, Revenue Hours and Operating Cost Projections</i>	14
	3.4.2 <i>Yuba-Sutter Transit</i>	14
	3.5 Phase 3 Sutter Pointe Transit Plan	14
	3.5.1 <i>Expansion of Sutter Pointe Transit Commuter Express Service in Phase 3</i>	14
	<i>Table 3.3 - Phase 3 Sutter Pointe Bus Pull-out, Revenue Hours and Operating Cost Projections</i>	16
	3.5.2 <i>Yuba-Sutter Transit</i>	16
	3.6 Phase 4 Sutter Pointe Transit Plan	16
	3.6.1 <i>Expansion of Sutter Pointe Commuter Bus Services</i>	17
	<i>Table 3.4 - Phase 4 Sutter Pointe Commuter Bus Pull-out, Revenue Hours and Operating Cost Projections</i>	17
	3.6.2 <i>Sutter Pointe Local Transit Service</i>	18
	<i>Table 3.5 - Phase 4 Sutter Pointe Local Transit Bus Pull-out, Revenue Hours and Operating Cost Projections</i>	18
	3.6.3 <i>Expansion of Neighboring Regional Transit Services</i>	19
	3.7 Sutter Pointe Transit Plan: Concluding Comments	20

4.0	SUTTER POINTE TRANSIT SERVICE STANDARDS.....	21
4.1	Efficiency Performance Standards	21
4.2	Service Quality/Reliability Guidelines	23
	<i>Table 4.1 - Recommended Sutter Pointe Transit Service Quality/Reliability Standards</i>	24
4.3	Service Design Guidelines	25
	<i>Table 4.2 - Recommended Sutter Pointe Transit Service Design Standards</i>	25
4.4	New Service Warrants	27
4.5	Introduction of New Services on a Trial Basis	29
5.0	FUNDING SOURCES.....	29
5.1	Funding Mechanisms	29
	5.1.1 <i>Federal Funding Sources</i>	30
	5.1.2 <i>State Funding Sources</i>	31
	5.1.3 <i>Local Funding Sources</i>	32
	5.1.4 <i>Phasing</i>	34
6.0	TRANSIT SUPPORTIVE MEASURES.....	36
6.1	Bicycle/Pedestrian	36
6.2	Land Use and Design	36
6.3	Transit Center(s)	37
6.4	Vehicles	38
	6.4.1 <i>Neighborhood Electric Vehicles</i>	38
7.0	CONCLUSION.....	41

ATTACHMENT

Definition for Transit Service Levels Types

Light Rail Transit (LRT)

Express Bus

Local Bus

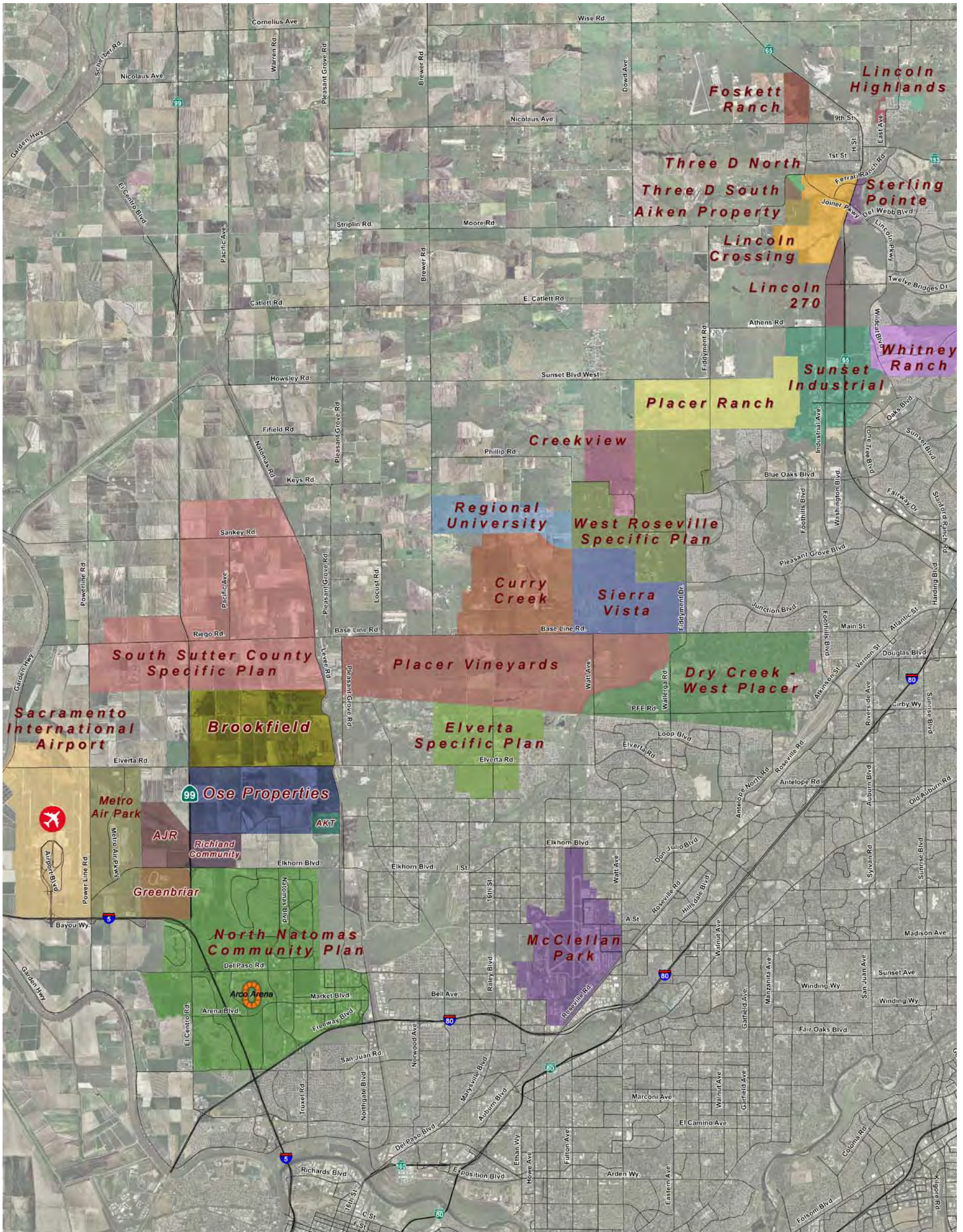
Bus Rapid Transit

1.0 INTRODUCTION

The Sutter Pointe project is a mixed-use, master planned, transit friendly development, incorporating transit supportive design policies and infrastructure. At full build out Sutter Pointe intends to provide 3,600 acres of employment-related land uses, 2,900 acres of residential neighborhoods with 17,500 housing units, and 1,000 acres of schools, parks, public buildings and open space.

Sutter Pointe is strategically located along Highway 99 and the future Placer Parkway and in the heart of a core growth area, with significant existing and future transportation infrastructure. SACOG's 2025 Metropolitan Transportation Plan (MTP) identifies new interchanges or interchange improvements along the Highway 99 corridor from Highway 99/Sankey Road south to Highway 99/Elkhorn Boulevard, including widening of Highway 99 along some portions between Sankey Road and Elkhorn Boulevard. High levels of new development make the availability of peak hour transit into and out of their job sites each day critical to the successful movement of commuters and can compliment anticipated Highway 99 corridor improvements. (See Proposed Development Areas Map, on the following page).

SACRAMENTO/SUTTER/PLACER REGION PROPOSED DEVELOPMENT AREAS



Base map provided by Fehr & Peers. Modified by The Hoyt Company.

The proposed Sutter Pointe Transit Plan will follow a relatively “conservative” and fiscally responsible staged implementation process tied closely to funding availability and the evolving travel needs of its residents. While transit supportive design and programs are implemented and infrastructure developed throughout the phases of Sutter Pointe development, public transit service should not be introduced until there is sufficient demand and/or trip density to support efficient and effective operations. Empty or underutilized buses tend to have a relatively large carbon footprint per passenger carried.

The success of the Sutter Pointe Transit Plan will be dependent on the supportive foundation of transit policy statements proposed in the Sutter Pointe Specific Plan Transportation and Circulation element. Specific plan policy statements will be operationalized in a series of transit performance standards and service design standards, some of which will be incorporated into subdivision design. The Transit Plan will follow an evolutionary implementation linked to the four phases of Sutter Pointe development. Over the four phases of development, the Sutter Pointe Transit Plan will incorporate ride share programs, commuter bus service setting the eventual stage for potential BRT or LRT service, and local service. Transit could eventually connect the master-planned area with key activity centers in Sutter, Sacramento and Placer Counties, including Sacramento International Airport. Additionally, north-south bus service to Yuba City and Marysville, and service from South Placer County to Sutter Pointe, could provide critical inter- and intra-county transit services.

A Master Air Quality Mitigation Plan (AQMP) has been prepared that will serve as a companion document. It includes proactive measures that support transit, mobility options, and reduced air pollution. Implementation of measures identified in the AQMP such as the Sutter Pointe Transportation Management Association (TMA) and efforts such as target marketing to residents and employees as Sutter Pointe builds out, is critical in ensuring initial ride share program success and long-term transit ridership. If the programs and services are implemented properly, Sutter Pointe will become a great regional example of a community that has reduced traffic through transit ridership and non-drive alone modes.

2.0 EXISTING TRANSIT SERVICE

Representatives of Yuba-Sutter Transit, Placer County Transportation Planning Agency, private shuttle providers, and Sacramento Regional Transit were met with and consulted during the preparation of this document to discuss various delivery methods for providing transit services.

2.1 Yuba-Sutter Transit

Yuba-Sutter Transit currently provides seven bus routes in addition to a Dial-A-Ride and rural reservation-based transit service to communities in the Marysville/Yuba City, Sutter County areas. Dial-A-Ride service is available to seniors, persons with disabilities and those with an origin or destination more than one-half mile from a fixed route. Dial-A-Ride service is also open to the general public each weekday evening from 6:00 p.m. to 9:30 p.m. Rates are \$1.50 - \$4.00 per one-way trip (depending on time of day and specific qualifying eligibility). The rural reservation-based service offers a combination of advance reservation and scheduled services from Live Oak, Wheatland and several rural cities in the Foothills area to the Marysville/Yuba City urban area where transfers can be made to other services.

Yuba-Sutter transit operates 38 buses with seating capacities for 14 to 45 passengers each. The local fixed-route system provides service every 30 to 60 minutes each weekday from 6:30 a.m. to 6:30 p.m. and from 8:30 a.m. to 5:30 p.m. on Saturdays. There are five Park & Ride Stops along Yuba-Sutter Transit routes, including a stop located at Highway 70 and Nicolaus Road in Sutter County.

Fourteen percent (14%) of Yuba-Sutter Transit service is between Marysville/Yuba City and downtown Sacramento primarily as a weekday commuter service. The Sacramento Commuter (Highways 99 & 70) Express and Sacramento Midday Express serve the downtown Sacramento area Monday through Friday, with service between Marysville/Yuba City and eight stops in downtown Sacramento. Commuter busses leave six times each morning and return six times each afternoon. The Sacramento Midday Express offers late morning, noon and early afternoon service with three round trips. The Sacramento Commuter Express offers commute-hour service and was expanded in August 2007 to accommodate additional rider capacity. In 2008 capacity needs were again identified (linked primarily to the rises in fuel costs) and the 2007 expanded service has been supplemented with additional busses.

The Sacramento Commuter Express between East Nicolaus and downtown Sacramento takes 20 to 30 minutes (depending on the time of day) and runs five times daily. Buses are equipped with bicycle racks, air-conditioning, overhead reading lights and reclining, high-backed seats. A monthly pass for the Sacramento Commuter service costs \$100. Yuba-Sutter Transit offers a \$40.00 Sacramento RT Monthly Transfer Pass.

Use of the fixed-route system has grown rapidly in recent years. A study by the UCLA Institute of Transportation Studies identified Yuba-Sutter Transit as fifth nationwide and first in California in annual fixed-route ridership growth (19 percent) for the five-year period from 1994 through 1998 among all federally funded urban service providers. Recent figures from Yuba-Sutter Transit show a 13.8% systemwide increase in ridership and a 31% commuter route increase over 2007 figures.

Expansion of transit services will become imperative as numerous large-scale developments are planned in Yuba County, Yuba City and Sutter Pointe County. All of these projects will result in significant population increases in this service area.

2.2 Placer County Transit

Placer County Transit currently provides five bus routes, a Commuter Express, and a Dial-A-Ride service. It serves Roseville, Granite Bay, Loomis, Rocklin, Auburn, Colfax, and Alta with a fleet of 19 vehicles ranging in capacity from 28 to 35 passenger seats. All vehicles are wheelchair lift-equipped and have bicycle racks. Placer County Transit operates Monday through Friday from 5:00 a.m. to 9:00 p.m. and Saturdays from 8:30 a.m. to 7:00 p.m. Fixed-route fares are \$1.00 (a 40-Ride Ticket Pass can be purchased for \$30.00). Dial-A-Ride service is open to the general public, must be reserved a day in advance and costs \$2.00 to \$3.00 for the general public or \$1.00 to \$1.50 for seniors/disabled.

The Placer Commuter Express travels the I-80 Corridor from Colfax to downtown Sacramento. Stops include the Taylor Park-and-Ride in Roseville and the Rocklin Multimodal Train Station, as well as eight stops in downtown Sacramento. This route operates Monday through Friday with two trips departing for Sacramento in the morning and two trips returning to Colfax in the evening. These buses feature air-conditioning, high-backed seats with ample legroom, and overhead storage space. Commuter service costs \$3.50 to \$5.00 one-way or \$110.00 to \$155.00 for a monthly pass.

The Auburn to light rail route travels between Auburn and the Watt Avenue/I-80 light rail station. Stops include Roseville Galleria and Louis Lane/Orlando Avenue in Roseville, and Sierra College in Rocklin. This route provides 15 round trips each day.

Additional routes serving west Placer County include the Taylor Road Shuttle and Lincoln/Sierra College Route. The Taylor Road Shuttle connects with the Auburn/light rail bus at Sierra College. (Transfers to other Placer County Transit buses are free of charge.) The Lincoln Sierra College bus runs a continuous route from Lincoln to Sierra College. Placer County Transit offers a free transfer to Sacramento RT.

The West Placer County area is currently undergoing massive plans for development, including Placer Ranch (2,421 acres), Placer Vineyards (4,379 acres), and Regional University (1,530 acres).

The Placer Ranch proposal includes a branch campus of CSUS (26,800 full-time students), 5,774 dwelling units and 42,198 jobs. Placer Vineyards is largely residential with 14,132 proposed dwelling units and 14,052 jobs. Regional University is a proposed four-year liberal arts college with a projected 6,000 undergraduate and graduate students. There are also several major developments, such as Curry Creek, planned within the City of Roseville and the Roseville Sphere of Influence (SOI).

The projected development, solely within the unincorporated area of southwestern Placer County includes:

- 100,970 residents (40,388 dwelling units)
- 34,000 students (2 campuses)
- 38,601 new jobs

In addition, 39,085 new residents and 3,930 jobs are proposed in developments within the West Roseville Specific Plan Area.

As a result of this proposed development, Placer County has prepared a Transit Study recommending service enhancements for west Placer County. The Placer County Transit Short Range Transit Plan recommends the following improvements or changes to the Placer County Transit services in the southwestern portion of Placer County over the next five to seven years¹:

- Increase frequency of the Auburn-Light Rail route during peak commute time to run every 30 minutes
- Extend the Lincoln-Rocklin-Sierra College schedule until 9:00 p.m. to provide connectivity with the Auburn-Light Rail route

¹ LSC Transportation Consultants, Inc., “West Placer Transit Study – Draft Report,” (October 3, 2005).

- Change the Lincoln-Rocklin-Sierra College Route to service Thunder Valley Casino and discontinue service to Atherton Road, Menlo Drive Business Park, and Costco
- Add a new bus stop along Rocklin Road at Sierra College
- Increase Saturday service from every two-hours to every hour
- Transfer operation of the Colfax to downtown Sacramento service from a contractor to Placer County Transit

2.3 Roseville Transit

Roseville Transit operates 12 local fixed routes within the City of Roseville, Monday through Friday from 6:00 a.m. to 8:00 p.m. and Saturdays 8:00 a.m. to 6:00 p.m. Services also include Dial-A-Ride, and Commuter Service to downtown Sacramento. All buses are equipped with wheelchair lifts and front-mounted bicycle racks.

Roseville Transit utilizes ten Park-and-Ride lots. Connections to other transit providers are located at the Galleria Mall (transfer to Placer County Transit) and Louis/Orlando Transfer Point (transfer to Placer County Transit and Sacramento RT). Transfers to Placer County Transit and Sacramento RT are free.

Fares for the local fixed-route service are \$1.30 per ride or \$50.00 for a monthly pass. Dial-A-Ride service is open to the general public, but requires advance reservation. The Dial-A-Ride fare is \$3.75 per ride.

Roseville Transit's Commuter Service to downtown Sacramento consists of seven round trips, Monday through Friday (including reverse commute trips) during the peak commuter hours. The one-way trip takes approximately one hour from Roseville to downtown Sacramento. Roseville Transit offers Commuter Service stops to 17 locations in Roseville and 20 locations in downtown Sacramento. The Commuter Service stops at the following Park-and-Ride lots: Amtrak, Galleria Mall, Foothills and Junction Boulevard, Maidu Park, Orlando Avenue and Cirby Way, Saugstad Park, Taylor and I-80. Commuter Service Fares are \$3.80 per single trip or \$130.00 for a monthly pass.

2.4 Sacramento Regional Transit District

The Sacramento Regional Transit District (Sacramento RT) operates 80 bus routes and 26.9 miles of light rail. Additionally, Paratransit door-to-door service is provided for those unable to use the fixed-route service. (All buses and light rail systems are accessible to the disabled.) Fourteen free Park-and-Ride lots are located along light rail lines. A trip single ticket is \$2.00 and a basic monthly pass costs \$85.00.

Sacramento RT service operates 365 days a year using 76 light rail vehicles, 258 buses powered by compressed natural gas (CNG) and 17 shuttle vans. Buses operate daily from 5:00 a.m. to 11:30 p.m. every 15 to 60 minutes. Light rail trains operate from 4:30 a.m. to 1:00 a.m. with service every 15 to 30 minutes.

Sacramento RT operates 31 routes (including light rail from downtown to Watt/I-80) in the area north of Sacramento, serving North Natomas, South Natomas, North Sacramento, Del Paso Heights, Rio Linda, Elverta, Del Paso Heights, McClellan Business Park, Arcade, Arden, North Highlands, Carmichael and Citrus Heights.

Additionally, the future Downtown Natomas Airport light rail line, currently being studied by Sacramento RT, is proposed to extend light rail service approximately 13 miles from downtown Sacramento (K and 7th Streets) to the Sacramento International Airport, with stations both to the east and to the west of Highway 99, north of I-5. It is currently in the advanced planning stages. The proposed alignment would follow Truxel Road and connect with the Downtown Intermodal Facility and the Capitol Corridor trains serving the Bay Area and Auburn, and provide connectivity with existing light rail lines and bus routes. Areas to be directly served by the future service will include North Natomas, Greenbriar, Metro Air Park, Arco Arena, South Natomas, Alkali Flat, Richards Boulevard and the Sacramento Central Business District (CBD).

Sacramento County voters identified the DNA line as the #1 transportation priority in supporting the Measure A half-cent sales tax renewal. The DNA line is projected to be operational in phases from 2012 to 2015. Sacramento RT is also in the process of preparing their Long Range Transit Master Plan (2035), which includes the DNA line.

The following provides a strategic approach and transit concept plan for Sutter Pointe (Section 3), a suggested range of appropriate service performance and design standards (Section 4), and potential funding sources (Section 5). The final mix of service strategies, implementation phasing, performance standards, service levels and operational policies will be established by the Transportation Management Association (TMA) based on travel needs, regional transit plans and priorities, and funding capacity.

3.0 STRATEGIC APPROACH AND TRANSIT PLAN

3.1 Sutter Pointe Transit Service Administration and Delivery

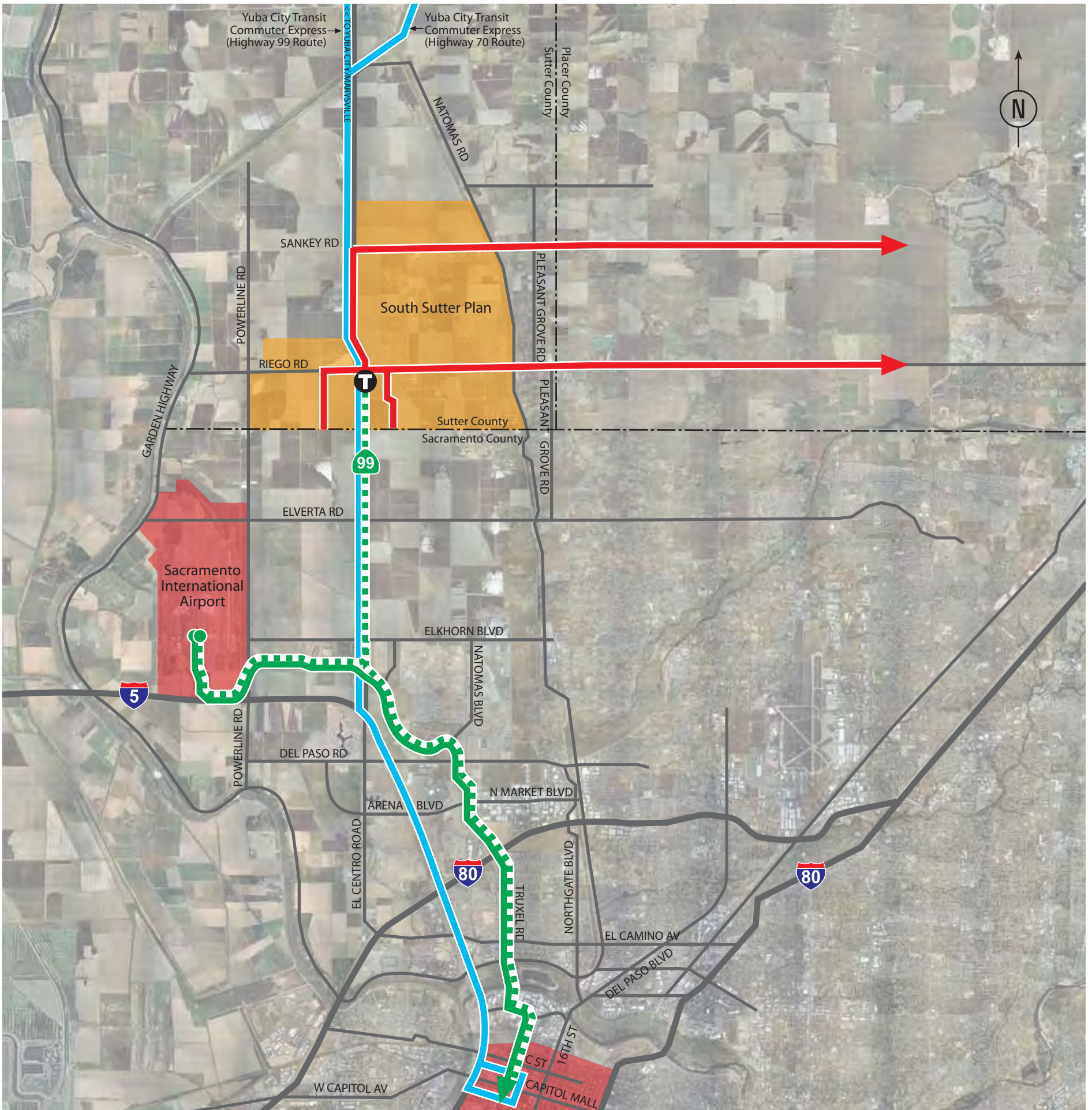
Sutter Pointe Transit will be administered through a locally organized Transportation Management Association (TMA). The primary roles of the TMA will be to:

- Ensure adherence to Specific Plan service design policies.
- Identify transportation needs and demand projections through public participation and regional travel forecast models.
- Develop funding strategies and annual operating budgets and capital programs.
- Develop service specifications and service plans (through regional Short Range Transit Plan (SRTP) Process).
- Develop service contract specifications and seek competitive bids through RFP process.
- Administer service contracts.
- Establish service performance standards, and monitor, evaluate and plan service.
- Coordinate service delivery with regional transit agencies to minimize service overlaps and ensure regional transit service efficiencies.
- Oversee development and maintenance of local transit infrastructure.

3.2 The Family of Service Concept

Public transit cannot be everything to everyone. Public transit cannot effectively serve low density service areas or a widely dispersed set of trip origins and destinations. Public transit effectively serves travel between residential concentrations and concentrations of jobs or activities. Given the relatively wide distributions of jobs throughout the metropolitan Sacramento area, the TMA will best serve the travel needs of Sutter Pointe through the establishment of a mobility manager function coordinating a range of rideshare alternatives to serve dispersed travel patterns with regional commuter and local transit services as demand densities warrant.

SOUTH SUTTER TRANSIT MAP



LEGEND

- ▬ Yuba City Transit Commuter Express Routes (Yuba City/Marysville to Downtown Sacramento)
- ▬ Potential Bus Rapid Transit Corridor (BRT)
- ▬ Downtown Sacramento/Natomas/Airport (DNA) Light Rail Route
- ▬ Potential Light Rail or BRT extension to South Sutter
- T Transit Center

3.3 Phase 1 Sutter Pointe Transit Plan

Phase 1 residential development will be concentrated along the Riego Road corridor east of Highway 99. Phase 1 business and industrial park development will be concentrated west of Highway 99 along the Riego Road corridor. Approximately 7,600 dwelling units are planned in Phase 1. Phase 1 population thresholds will not be sufficient to support a local transit service. A limited commuter bus service between the Phase 1 residential neighborhoods and downtown Sacramento may be viable.

A practical emphasis for the TMA would be to develop and market rideshare initiatives for work trips as travel patterns are understood and job concentrations sufficient to justify commuter bus service can be identified. Elements of the Phase 1 Transit or Mobility Plan would include:

3.3.1 *Car and vanpool programs*

Designed to serve specific regional employers or small concentrations of employers in regional business parks in metropolitan areas, car and vanpools may be able to provide a lower cost and faster commute alternative than scheduled bus service. As the Sutter Pointe population increases in Phase 1, travel patterns may emerge to replace some initial rideshare initiatives with a commuter bus service. However car and vanpools may prove to be the more appropriate commute alternative for some dispersed travel patterns through Phase 4 build-out and beyond.

3.3.2 *Commuter Bus Service*

A minimum ridership of 50 passengers per bus has been established as a desired threshold for the introduction of commuter bus services. A threshold population of 10,000 may be required to establish a 50 passenger per bus ridership level to start a limited peak hour commuter bus service. Given the concentration of employment in central Sacramento, a limited peak hour commuter bus service into Sacramento has the greatest potential. In Phase 1 a careful market assessment is required to determine if there is in fact a minimum ridership threshold to reach productivity (passengers carried per revenue hour) and farebox recovery ratio minimums. If the assessment does not produce positive results, the TMA will actively development rideshare initiatives to provide viable high occupancy vehicle (HOV) alternatives for employment commute trips for new Sutter Pointe residents. This option could be especially effective if employment destinations are dispersed and not effectively or efficiently served by commuter bus runs that can meet minimum ridership, productivity, and farebox recovery minimums.

Assuming minimum ridership thresholds are achievable in Phase 1, a limited peak hour commute service between the developed residential neighborhoods and downtown Sacramento may be viable. An initial commuter bus service could start with two AM and two PM runs operating as locals within Phase 1 residential areas and as express along Hwy 99 to/from downtown SAC (buses should arrive downtown (last stop) at 7:20 AM and 7:40 AM and depart the furthest downtown stop at 4:40 PM and 5:10 PM, allowing commuters to start or finish shifts on the hour or half hour. Note final schedule times would be established based on a "consensus" of the early ridership base.

The commuter routes would start and finish in Sutter Pointe residential neighborhoods to provide a single seat ride (similar to a local circulator). Local bus stops would be spaced at a minimum $\frac{1}{2}$ mile distance along neighborhood arterials with the majority of residents within $\frac{1}{4}$ mile walking distance of a bus stop.

The local portion of the routes would be limited to 10 minute one way loops. The one way express travel time is estimated to be between 35 and 40 minutes for a total one way travel time of 45 to 50 minutes. The current local stops used by the Yuba-Sutter Transit Sacramento Commuter Express would be used for this service. Onboard travel times would be enhanced by HOV lane designation or the initial development of the planned HWY 99 LRT right-of-way as a bus way.

Initially, the TMA could contract with a regional charter or over-the-road coach operator to provide and operate the Sutter Pointe Commute service under contract. Table 3.1 summarizes bus pull out, annual revenue hours and costs for this limited peak hour service. This would eliminate the need to procure buses and possibly take advantage of fleet economies of scale through the use of non-dedicated buses (contractors could amortize the buses over a wider range of contract work).

**Table 3.1 - Phase 1 Sutter Pointe Bus Pull-out,
Revenue Hours and Operating Cost Projections.**

Service	Peak Hour Bus Pull Out	Spare Bus Requirements	Annual Revenue Hour Requirements	Annualized Five Year Costs
Peak Hour Commute Service	2	1	425	\$78,000

Cost assumes \$80/revenue hour operating cost in first year and an annual inflation rate of 3.5%.

3.3.3 *Yuba-Sutter Transit*

Yuba-Sutter Transit would be encouraged to stop at the planned Sutter Pointe Transit Center (HWY 99 and Riego Road) on all its north/south Sacramento Commuter Express trips to increase Sacramento commuter bus service frequency and capacity for Sutter Pointe residents. The express stops would be designed to serve local commuters using the park and ride or bicycle facilities at the transit center. These would have to be quick on/off stops to minimize travel time increases for regular Yuba City/Marysville area commuters. If the market warranted, consideration could be given to a route deviation into the Phase 1 business park on a request basis.

3.3.4 *Airporter Services*

Given the range of flight arrival and departure times from the Sacramento International Airport, airporter shuttle services should not be provided or subsidized by the TMA. Demand would not be sufficient to support a productive public service. Sutter Pointe air travelers will be required to arrange for private airporter services, such as Super Shuttle or taxi, on an as required basis. This in turn creates small business opportunities in the area.

3.4 **Phase 2 Sutter Pointe Transit Plan**

An additional 4,097 housing units will be added in Phase 2 with an expansion of residential neighborhoods. The Phase 2 Sutter Pointe Transit Plan will build on initiatives and services introduced by the TMA in Phase 1. The population threshold will still not be sufficient to support a sustainable local transit service. Car and van pools will continue to serve dispersed commute travel patterns while the increase in population may warrant an additional commuter express route between the new Sutter Pointe residential neighborhoods and downtown Sacramento.

3.4.1 *Expansion of Sutter Pointe Transit Commuter Express Service*

The additional commuter express route would expand the local portion of the commuter service to the newly developed residential neighborhoods. Like the Phase 1 service, this new route would operate two AM and PM trips, with offset schedule times to increase service frequency and capacity between the Sutter Pointe Transit Center and downtown Sacramento (primarily for park and ride, kiss and ride and bicycle commuter passengers). The TMA would continue to operate the service under a service agreement using contractor provided equipment. Table 3.2 summarizes bus pull out, annual revenue hours and costs for this limited peak hour service.

**Table 3.2 - Phase 2 Sutter Pointe Bus Pull-out,
Revenue Hours and Operating Cost Projections**

Service	Peak Hour Bus Pull Out	Spare Bus Requirements	Annual Revenue Hour Requirements	Annualized Five Year Costs
Peak Hour Commute Service	4	1	850	\$369,200

Cost assumes \$95/revenue hour operating cost in first year and an annual inflation rate of 3.5%.

3.4.2 Yuba-Sutter Transit

No anticipated Phase 2 impacts on Yuba-Sutter Transit's Sacramento Commuter Express.

3.5 Phase 3 Sutter Pointe Transit Plan

An additional 3,182 housing units will be added in Phase 3 as residential neighborhoods are expanded to the north and south of Phase 1. This may necessitate an increase in the rideshare initiatives, the possible replacement of some vanpools serving east bound commute trips to business park developments along the I-80 corridor, an increase in the Phase 1 and 2 peak commuter services to downtown Sacramento, and possibly a reverse commute service to improve regional access to jobs in the expanding Sutter Pointe business and industrial park.

As the original Phase 1 population begins to age in place requests for a local transit service or midday service to Sacramento may increase. However the population threshold will not be sufficient to support a productive local transit service.

3.5.1 Expansion of Sutter Pointe Transit Commuter Express Service in Phase 3

- Increase in Sacramento Commuter Service Capacity:** Additional commuter express service would expand the local portion of the commuter service to the newly developed residential neighborhoods. Like the Phase 1 and 2 service, this new route would operate two AM and PM trips, with offset schedule times to increase service frequency and capacity between the Sutter Pointe Transit Center and downtown Sacramento (primarily for park and ride, kiss and ride and bicycle commuter passengers). An offset of schedule times for the expanded downtown commuter service will also minimize the bunching of Sutter Pointe buses along the HWY 99 corridor.

- **Expansion of Sutter Pointe Commuter Service to Placer County:** As population increases through Phase 3, it may become viable to replace some of the initial vanpool serving jobs in the Roseville area with peak hour commuter bus service. Like the downtown Sacramento commuter services these services could be operated through a private sector contractor providing drivers, equipment and maintenance. The Placer commuter services would also start as a local circulator within Sutter Pointe neighborhoods and operate as express services to the destination business parks. Actual local routing would be focused on those neighborhoods with sufficient demand. Local routing may have to be slightly longer to provide adequate coverage.
- **Midday Service to Sacramento:** In Phase 3, there may be sufficient demand for a midday commuter service to downtown Sacramento. Initially there could be a mid morning trip around 10:00 AM and a mid afternoon trip around 3:00 PM. The actual trip times could be finalized through public outreach. Midday service would operate as an express service between the Sutter Pointe Transit Center and downtown Sacramento. Given the expanded size of the Sutter Pointe residential development, this service could operate locally as a flex route with routing along the existing local commuter routes on a demand response basis.
- **Reverse Commute Services to Sutter Pointe Business Park:** This service could be integrated with the peak downtown Sacramento commute services. Select morning peak hour buses could operate in-service in the off peak direction and completing a short 10 minute business park loop before going out of service at the Sutter Pointe Transit Center. Select afternoon peak hour buses could begin a return trip business loop after completing their local residential loop and operate as an express service back into Sacramento. This reverse commute service would pick up and drop at all designated downtown Sacramento bus stops.

The TMA would continue to operate transit service under a service agreement using contractor provided equipment. Table 3.3 summarizes bus pull out, annual revenue hours and costs for this limited peak hour service.

**Table 3.3 - Phase 3 Sutter Pointe Bus Pull-out,
Revenue Hours and Operating Cost Projections**

Service	Peak Hour Bus Pull Out	Spare Bus Requirements	Annual Revenue Hour Requirements	Annualized Five Year Costs
Peak Hour Commute Service	8	2	1,700	\$890,300
Midday Service to Sacramento	Peak Hour Commute Buses Used		590	\$310,000
Reverse Commute Express Service to Sutter pointe Business Park	Peak Hour Commute Buses Used		210	\$100,000
Total	8	2	2,500	\$1,300,300

Cost assumes \$98/revenue hour operating cost in first year and an annual inflation rate of 3.5%.

3.5.2 Yuba-Sutter Transit

If demand warranted, Yuba-Sutter Transit could add dedicated peak hour trips specifically serving the Sutter Pointe business and industrial park from the Yuba City/Marysville area.

3.6 Phase 4 Sutter Pointe Transit Plan

The total planned build out of 17,500 housing units and 3,600 acres of business and industrial park development will be reached in Phase 4. Commute alternatives will continue to be critical for regional work trips and to access a higher range of goods, services and activities in Sacramento. Rideshare initiatives will be expanded along with commuter express and intercity transit services. In Phase 4 there may be a sufficient population threshold to support a local service.

3.6.1 Expansion of Sutter Pointe Commuter Bus Services

During this phase, commute bus services to Sacramento and Placer County will likely double as demand to employment concentrations will expand to support higher frequency service and added capacity. Local commute route segments will expand to serve new Phase 4 residential neighborhoods. As demand exceeds Sutter Pointe park and ride capacity there will be a greater need to introduce local feeders pulsed to facilitate good transfers with express services at the Sutter Pointe Transit Center. A business park shuttle service may be required to provide direct service to the expanded areas of the business and industrial park. Table 3.4 provides a summary of commuter bus pull-out requirements, and costs.

Table 3.4 - Phase 4 Sutter Pointe Commuter Bus Pull-out, Revenue Hours and Operating Cost Projections

Service	Peak Hour Bus Pull Out	Spare Bus Requirements	Annual Revenue Hour Requirements	Annualized Five Year Costs
Peak Hour Commute Service	12	2	2,550	\$1,603,000
Midday Service to Sacramento	Peak Hour Commute Buses Used		590	\$371,000
Reverse Commute Express Service to Sutter pointe Business Park	Peak Hour Commute Buses Used		420	\$263,600
	12	2	3,560	\$2,237,600

Cost assumes \$117/revenue hour operating cost in first year and an annual inflation rate of 3.5%.

3.6.2 Sutter Pointe Local Transit Service

As populations reach the 50,000 range, local public transit may be sustainable. The range of services could include peak hour residential and business park feeder services for HWY 99 trunk express services, midday neighborhood circulators and ADA complementary paratransit service. The local neighborhood circulators could operate as flex routes providing relatively efficient service to lower density residential areas. Flexroute services generally operate between scheduled timepoints with small buses. Relaxed schedules allow for route deviation between scheduled timepoints. Flexroutes can serve both general public and special needs transit markets eliminating the need for dedicated, ADA complementary paratransit service. Table 3.5 provides a summary of potential local transit bus requirements and costs.

**Table 3.5 - Phase 4 Sutter Pointe Local Transit Bus Pull-out,
Revenue Hours and Operating Cost Projections**

Service	Peak Hour Bus Pull Out	Spare Bus Requirements	Annual Revenue Hour Requirements	Annualized Five Year Costs
Local Flexroute Neighborhood Shuttles	2	1	5,420	\$3,051,600
Local Commute Feeder Services	3		3,060	\$1,722,900
Total	5	1	8,480	\$4,774,500

Cost assumes \$105/revenue hour operating cost in first year and an annual inflation rate of 3.5%.

3.6.3 Expansion of Neighboring Regional Transit Services

The expansion of neighboring communities will necessitate the expansion of neighboring transit services. Both Yuba-Sutter Transit and Regional Transit expand both regional trunk and local coverage into the Sutter Pointe. At this time the TMA may choose to contract directly with neighboring agencies for the provision of both Sutter Pointe regional commute and local transit.



Yuba-Sutter Transit Riders

3.7 Sutter Pointe Transit Plan: Concluding Comments

The proposed Sutter Pointe Transit Plan follows a cautious, phased implementation plan. Services should not be introduced or expanded until there are sufficient population or job thresholds or reasonable expressions of unmet needs. Initially, the TMA will encourage and implement a range of rideshare initiatives to accommodate dispersed employment commute patterns. As population increases and as travel becomes more concentrated, peak hour commuter services will be introduced. Through build-out, commuter services will expand to cover more residential neighborhoods and employment destinations. Commuter service frequency will be increased as warranted and local transit service will be introduced. BRT and LRT services may expand to serve the Sutter Pointe development as regional transit service expands. General population thresholds for transit include:

- 50,000 residents to justify the introduction of local transit service.
- 10,000 residents to justify the introduction of peak hour commuter bus services.
- 8,000 to 18,000 residents within ½ mile of a station to justify BRT corridor investment.
- 10,000 to 20,000 residents within ½ mile of a station to justify LRT corridor investment.



Example of a Bus Rapid Transit Vehicle

4.0 SUTTER POINTE TRANSIT SERVICE STANDARDS

Service performance and design standards provide benchmarks for the successful design and operation of public transportation. An understanding of mode-specific standards certainly provides a clearer appreciation of how a particular mode may fit into a regional service strategy. Performance standards relate to service efficiency, service quality to customers, and reliability. Design standards relate to minimum population thresholds, maximum walking distances, transit stop spacing, recovery time, etc. Standard benchmarks vary greatly from mode to mode. Knowing these differences is critical to the selection of modes for specific service applications. Standards should be developed to clearly support public transportation goals, objectives and policies.

Standards can be set by federal and state regulatory requirements, as well as by local goals, objectives and service priorities adopted by transit agencies. While specific standards vary, industry practice generally uses the following three categories for service performance and design:

1. Efficiency standards.
2. Service quality/reliability standards.
3. Service design standards.

4.1 Efficiency Performance Standards

Efficiency standards use operational performance data to measure the performance of a transit system. Monitoring operational efficiency and productivity requires data such as operating cost, passenger revenue recovery, vehicle revenue miles, vehicle revenue hours, and boardings (revenue passenger trips).

Service monitoring and evaluation should be kept simple to free up administrative resources for service marketing, problem solving and planning. Efficiency performance should be monitored and reviewed by the TMA on a monthly basis. The TMA should limit its range of efficiency performance to a few key indicators. These include:

- **Operating Cost per Passenger:** Calculated by dividing all operating and administrative costs by total passengers (with passengers defined as revenue trips). The subsidy cost per passenger is a further refinement of this measure and is calculated by subtracting farebox revenue from gross operating and administrative costs and dividing by total passengers.

- **Operating Cost per Service Hour:** Calculated by dividing all operating and administrative costs by the total number of vehicle service hours (with service hours defined as time when the vehicle is actually in passenger service)
- **Passengers per Revenue Hour:** Calculated by dividing the total number of passengers (revenue trips) by the total number of vehicle service hours. The number of passengers per hour is a good measure of service productivity and critical to the establishment of design standards and benchmarks for the expansion of transit service. Passengers per service hour should be calculated for each service type and for different time periods, such as peak, midday, Saturdays, Sundays, and evenings (if introduced). Minimum passengers per hour standards should be established to achieve the minimum passenger revenue recovery ratio benchmark (see below).
- **Passenger Revenue Recovery Ratio:** Calculated by dividing all passenger revenue by total operating and administrative costs. Passenger revenue recovery ratio benchmarks evaluate both system efficiency (through operating cost) and productivity (through boardings). Passenger revenue recovery ratio benchmarks are critical to the establishment of benchmarks for passengers per revenue hour and service design.

Service performance standards need to be tied to minimum passenger revenue recovery ratio benchmarks. The cost per service hour and the cost per passenger will likely increase annually as operating costs increase. While it is more difficult to control increases in the cost per revenue hour because of increasing labor (wages and benefits) and fuel costs, the cost per passenger can be more effectively controlled, and potentially lowered, by increasing service productivity. As operating costs increase, a greater number of passengers carried per revenue hour will be necessary to meet the approved passenger revenue recovery benchmark. Generally, this is accomplished through a shift from less productive service coverage to services with a higher ridership potential.

- The recommended passenger revenue benchmark is 10% prior to the Sutter Pointe population reaching 50,000 and 20% following a population exceeding 50,000.

Passengers per service hour benchmarks will vary from year to year, depending on the number of passengers required to achieve the passenger revenue recovery benchmarks for each service type. The number of passengers required per revenue hour is calculated as follows:

Passenger Revenue Recovery Required per Revenue Hour = $a \times b = c$

Where: a = cost per revenue hour.

b = passenger revenue recovery benchmark.

c = actual total revenues per revenue hour required.

Number of Passengers Required = c divided by $d = e$

Where: c = actual total revenues per revenue hour required.

d = average fare collected per passenger carried plus average advertising revenue generated per passenger carried.

e = passengers/revenue hour required to achieve the passenger revenue recovery benchmark.

4.2 Service Quality/Reliability Guidelines

Sutter Pointe Transit service quality and reliability standards should reflect system goals and support the measurement of success in achieving specific objectives and polices. Table 4.1 summarizes the key service quality and reliability standards and numeric values for Sutter Pointe Transit's services.

Service quality and reliability standards should be monitored and reviewed by TMA staff on a monthly basis.

**Table 4.1 - Recommended Sutter Pointe Transit Service
Quality/Reliability Standards**

Quality/Reliability Standard	Commuter and Local Services Service
On-Time Performance	90% of all revenue bus trips must depart the route start point and arrive at the route end point no later than four minutes after or one minute before the time published in the schedule.
Passenger Complaints / Passengers Carried	The number of complaints shall not exceed 0.10 % of the total boardings. Benchmark = 1 complaint/1,000 boardings.
Preventable Accidents / Miles Operated <i>(While there should be no preventable accidents, a benchmark has been established to permit some flexibility in the evaluation of training efforts.)</i>	The number of preventable accidents shall not exceed 0.0005% of total service miles operated. Benchmark = 1 preventable accident/200,000 service miles.
Roadcalls ^a / Miles Operated	Benchmark = 1 roadcall/10,000 service miles.
Bus Trips Cancelled	No scheduled bus trips shall be cancelled because of vehicle shortages or staff absenteeism. Benchmark = zero tolerance.

- a) The term roadcall commonly used for any difficulty or trouble with a bus that requires transit maintenance staff to switch out a bus, to repair it on the road, or to tow it back to the garage.

4.3 Service Design Guidelines

Service design standards are critical planning tools to justify and prioritize the expansion of service to new areas and potential markets, and to guide how the service will be delivered. Transit service design incorporates a mix of interrelated social, political, geographical, and economic factors. Generally these can include:

- The community's vision, goals, and objectives for transit.
- The marketability of the service(s) to be provided.
- Environmental and energy issues.
- Available technology.
- Topography, land use design and right-of-way design characteristics and limitations.
- Budget limitations.

Recommended service design standards are provided for Sutter Pointe Transit's commuter and local services in Table 4.2.

Table 4.2 - Recommended Sutter Pointe Transit Service Design Standards

Standard	Benchmark/Criteria
Maximum Walking Distance	75% of all residences and places of employment within Sutter Pointe should be within ¼ mile of a bus stop.
Bus Stop Spacing	Local service bus stops should be spaced ½ mile apart in urbanized service areas. Bus stops outside the urbanized area will be limited to major destinations, points of interest, or residential concentrations.
Bus Stop Location	Bus stops should be placed at the far side corner of intersections to allow clearer traffic view lines for pedestrians, wherever possible. Mid-block bus stops should be limited to major activity centers or high-density residential complexes.

<p>Minimum Bus Stop Design</p>	<p>All bus stops should be clearly marked with proper signage including the designated route numbers. Where feasible, bus stops should have well-drained access, concrete or hard surface pads, and adequate lighting for passenger security and safety.</p> <p>Benches should be considered for bus stops with higher than average passenger volumes or senior boardings. A general guideline for consideration by the TMA is:</p> <ul style="list-style-type: none"> - 15 or more boardings per day. <p>Shelters should be considered for bus stops with higher passenger volumes and at transfer locations where passengers may have to wait to make their connections. Priority should be given to facilities catering to seniors and persons with disabilities. A general guideline for consideration by the TMA is:</p> <ul style="list-style-type: none"> - 25 or more boardings per day. <p>Annual bench and shelter budgets should be established in conjunction with an installation prioritization program based on stop passenger volumes.</p>
<p>Passenger Loads</p>	<p>Maximum loading on buses traveling short distances at low speeds should not exceed 150% of seated capacity on a continual basis.</p> <p>Maximum loading on buses exceeding 50 miles per hour should not exceed be 100% of seated capacity (no standing loads) on a continual basis.</p> <p>Passenger loads should not exceed Gross Vehicle Weight Ratings.</p>
<p>Service Headways</p>	<p>Fixed route service headways should be such that passenger load standards are not exceeded on a continual basis.</p> <p>Capacity issues on high passenger volume routes can be more effectively addressed by increasing bus size.</p>
<p>Recovery Time</p>	<p>For each bus trip, build a minimum of 10% recovery time into the fixed route schedule.</p>
<p>Interlining</p>	<p>Where feasible, design strategic interlines to minimize inter-route transfers. Route interlining should not negatively impact the built-in 10% recovery time.</p>

<p>Timed Transfers</p>	<p>Schedules should, where feasible, be built to ensure timed transfers for priority connections at planned transfer locations.</p> <p>Where feasible, connections should be designed to limit passenger transfer wait times to five minutes or less.</p>
<p>Maximum On-Board Travel Time</p>	<p>Passenger travel time between commuter route start and finish point should not exceed 60 minutes.</p>
<p>Fleet Management</p>	<p>Adopt a seven-year life cycle for light duty buses and a 12-year life cycle for medium duty buses and 5 to 7 years for light duty buses.</p> <p>Effectively cycle buses in-service to evenly utilize fleet resources.</p> <p>Operate with a 15% spare bus ratio (2 spare buses for every 10 to 12 peak pullout buses).</p>

4.4 New Service Warrants

New Service Warrants provide a tool for judging when new services or service extensions are appropriate. A new fixed route or route extension could be introduced when ridership forecasts based on population, school enrollment, or job density are sufficient to achieve minimum passenger revenue recovery ratios by service type. New services should be introduced on a trial basis and given a minimum of twelve months to achieve the required minimum passenger revenue recovery ratio (refer to Section 8.3). As new residential areas or business developments build out, there may initially be only sufficient potential ridership to support peak-only service. With eventual build out, there may be sufficient potential ridership to support midday, evening and weekend service.

New service expansion and/or service frequency increases should always be assessed in terms of potential ridership and the achievement of the minimum passenger revenue recovery benchmark. Prior to the recommendation of new services, an analysis of ridership potential and passenger revenue recovery is required.

The formula for calculating the minimum number of passengers needed per revenue hour to meet minimum passenger revenue recovery is:

Passengers per revenue hour = (a X b) divided by d = e

Where: a = cost per revenue hour.

b = passenger revenue recovery benchmark.

d = average fare collected per passenger carried plus average advertising revenue generated per passenger carried.

e = passengers/revenue hour needed to achieve passenger revenue recovery benchmark.

The formula for calculating the potential hourly ridership in a service area is:

Potential passengers per revenue hour = f X g = h

Where: f = population within 400 meters of the proposed new transit service.

g = per capita hourly transit trip rate.

h = potential passengers per revenue hour.

Daily ridership can also be calculated by multiplying the population in the new area (employees in a business park or students in a school) to be served by an accepted daily per capita trip rate. Hourly productivity can be calculated by dividing the projected daily demand by the number of revenue hours needed to operate the service.

The decision to introduce new service should be contingent on the number of potential passengers per revenue hour being equal to or greater than the number of passengers per hour required to achieve the passenger revenue recovery benchmark. A Go/No Go decision can be based on the probability of attracting sufficient ridership to meet the approved minimum passenger revenue recovery benchmark within a formal pilot project timeframe.

In some cases, new services may only be warranted during weekday peaks when hourly productivity is sufficient to support passenger revenue recovery requirements. In other cases, service requests to new business parks or new residential subdivisions

could be considered through a joint partnership with major employers or developers to offset passenger revenue recovery shortfalls when initial ridership during the early phases of development is too low to support the approved passenger revenue recovery minimum.

4.5 Introduction of New Services on a Trial Basis

New or expanded services should be introduced on a pilot project basis for a trial period not to exceed 24 months. During this period, the new service will be evaluated and adjusted to improve performance. Productivity expectations should be established for the evaluation of new services during the pilot project period.

New service should achieve at least 50% of the system-wide passenger revenue recovery within the first 18 months of operation. Any new service not achieving this minimum should be considered for discontinuation at the end of the pilot project period. The revenue hours could be reallocated to other planned service improvements. Following the pilot project period, the service could be discontinued if it continues to fall below the minimum passenger revenue recovery benchmark.

5.0 FUNDING SOURCES

A fiscal analysis of the costs of transit alternatives is to be provided in a separate document prepared by EPS. The following is a discussion of potential funding mechanisms.

5.1 Funding Mechanisms

As the Sutter Pointe Transit Plan is further developed and refined through duties performed by the Transportation Management Association, funding mechanisms will need to be established for a phased implementation. This section provides a brief description of potential funding sources.

Federal, state and local public funding is available for assisting in the development of transit systems, for both creating and on-going operations. However, federal and state funding is allocated through SACOG and the MTP process to local agencies. For example, if Yuba-Sutter Transit were to choose to augment or expand their current service, they could apply for and potentially receive funding and then use the funding to extend service to Sutter Pointe. In order to be successful in receiving federal funding, transit districts must provide matching funds such as those identified in Sections 5.1.1 and 5.1.2 (provided through Sutter Pointe once it incorporates).

5.1.1 Federal Funding Sources

Federal funding for public transportation comes through the U.S. Department of Transportation (USDOT), specifically the Federal Transit Administration (FTA). Programs and funding for public transportation were enabled under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and were subsequently replaced by the Transportation Equity Act for the 21st Century (TEA-21), and now currently SAFETEA. The Act established authorizing levels and programs for transit and highway projects, and it institutionalized the ability to shift funds from one program to another depending on local priorities. There are several different sources of federal funding. Some are based on formula and some are discretionary.

Section 5309 Funds – The FTA administers funding programs designed to assist local agencies in funding new rail starts. Funding for FTA “New Starts” is very competitive throughout the country.

“Small Starts” is a new Section 5309 provision for projects that are seeking less than \$75 million in federal funding, with a total estimated project cost of less than \$250 million. It is designed to fund BRT, streetcars, and commuter rail projects. The FTA will provide Federal Assistance only if FTA finds that the project is: (a) based on planning and Alternative Analysis, (b) justified based on a review of its public transportation supportive land use policies, cost effectiveness, and effect on local economic development; and (c) supported by an acceptable degree of local financial commitment.

In both cases, a proposed project must first be authorized by Congress and, secondly, must be accompanied by a complete alternatives analysis process to the satisfaction of the FTA. Administrative rules and procedures governing project review for “Small Starts” projects are expected in 2006 for FY 2008 funding.

The Sacramento Regional Transit District is currently completing the Alternative Analysis for the DNA line and a draft EIR/EIS is to be released in December 2006. The AD/DEIS could be supplemented in the future to cover a five-mile LRT or BRT extension to Sutter Pointe.

Section 5311 Funds – This non-urbanized area funding program (5311) provides transit capital and operating assistance through the State to rural areas (less than 50,000 in population). FTA provides the California Department of Transportation with an annual appropriation to fund the maintenance, development, improvement and use of public transportation systems in rural and small urban areas in California.

Section 5310 Funds – The special needs funding program (5310) provides transit capital and operating assistance to the State of California for allocation to organizations or governmental authorities that offer specialized transportation services to elderly persons and to persons with disabilities. This program allows for the transfer of funds to the non-urbanized area program (5311), if funds are used for the purpose authorized.

Section 5317 Funds – The New Freedom Initiative (5317) provides formula grants to the State for new transportation services and transportation alternatives for individuals with disabilities beyond those required by the Americans with Disabilities Act of 1990 (ADA), including motor vehicle programs that assist persons with disabilities with transportation to and from jobs or employment services. States solicit applications for grants and then award the grants on a competitive basis. This program allows for the transfer of 5317 funds to the non-urbanized area program (5311), provided the funds are used for the authorized purpose.

Congestion Mitigation Air Quality (CMAQ) and Transportation Enhancement Funding – These program funds are designed to assist communities with transportation strategies that reduce auto emissions and enhance the multi-modal functioning of local and regional transportation systems. Both help reduce air pollution. The availability of these funding sources has been continued under SAFETEA-LU. Allocated locally through SACOG, the virtue of these programs is the flexibility they allow in dedicating federal surface transportation funds to a wide spectrum of transportation-related investments. CMAQ funds have been widely used by Yuba-Sutter Transit and Sacramento Regional Transit.

Economic Development Administration (EDA) Grants – The Public Works Grants provided by the U.S. Department of Commerce Economic Development Administration may be a potential source of capital grant funding.

5.1.2 State Funding Sources

Transportation Development Act - The Mills-Alquist-Deddeh Act (SB 325) was enacted by the California Legislature to improve existing public transportation services and encourage regional transportation coordination. Known as the Transportation Development Act (TDA) of 1971, this law provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans.

The Transportation Development Act (TDA) provides two major sources of funding for public transportation: the Local Transportation Fund (LTF), which is derived from a 1/4 cent of the general sales tax collected statewide, and the State Transit Assistance fund

(STA), which is derived from the statewide sales tax on gasoline and diesel fuel. These funds are for the development and support of public transportation needs that exist in California and are allocated to areas of each county based on population, taxable sales and transit performance.

Public Transportation Account - Public Transportation Account (PTA) Revenues accrue from a sales tax on gasoline and diesel fuel. Fifty percent of all PTA revenues go to the State Transit Assistance (STA) Program, which provides funds for public transit operations and for regional transit projects. STA funds are allocated to the region based upon two factors: (1) 50 percent based on population and (2) 50 percent based on fare revenues from the prior year.

State Transportation Improvement Program (STIP) – Every two years, the California Transportation Commission programs funds for a variety of projects that relieve congestion on State highways and local streets, including transit construction projects, seventy-five percent of STIP funds are distributed to the counties. The remaining 25 percent is programmed for intercity highway and rail improvements.

State Transit Assistance (STA) – On November 7, 2006 state voters will consider Proposition B, a \$19.5 billion transportation improvement bond sponsored by the governor and state legislature. Should this measure pass, local transit districts in the Sacramento region will receive a significant increase in State Transit Assistance (STA) funds that could potentially be used for system expansion, such as building a portion of the DNA project, the replacement of buses, and to help cover transit operators' annual operation and maintenance costs.

5.1.3 Local Funding Sources

In the discussion of federal funding, the point was made regarding the use of local funds as a match. Local funding can come from a wide range of sources. Local funding is a critical component of any funding plan as it is a requirement to match federal and state sources. *Local funding for the purposes of this project refers to sources available after Sutter Pointe incorporates.*

Local Sales Tax – Funding from local taxes will be reviewed if and when Sutter Pointe Incorporates. The federal government rewards so called “self help counties,” those with a local sales tax for transportation. In 1988 and 2004, the Sacramento County voters approved Measure A, a 1/2-cent sales tax for transportation (approximately 1/3 cent for transit). Placer County is seriously considering a transportation sales tax. Sales taxes are popular because they provide significant revenue (millions) on an annual basis.

Since it is multi-year, the sales tax is dependable and depending on the spending program, can be used for operating as well as for capital programs. The tax is subject to a public referendum.

General Obligation (GO) Bonds - GO bonding can be a useful tool for financing the capital cost of transit investments. This method of funding may be utilized after Sutter Pointe incorporates.

Special Assessment Districts – The County or Sutter Pointe (upon incorporation) may choose to create a Special Assessment District (or Community Service District) to provide services or construct capital infrastructure for specified benefits to property owners. Creating the Special Assessment District, adopting an equitable formula, and documenting the benefits may be accomplished by resolution. The properties being assessed must be specifically benefited by the services and/or capital improvements. The assessment must be reasonably proportionate to the benefits. Unlike the BID (described below), the governing jurisdiction may create the resolution without any vote of the affected property owners. The special assessment allows greater flexibility than that allowed in BIDs.

The special assessment is a valid tool for generating revenues as the local share of capital and/or operating costs associated with the proposed transit system. There are as many special assessment variations as the projects that employ them. The viability of this approach is determined by the rationale for allocating the cost of burdens to potential beneficiaries, as well as the impacts on property values that might result from both the benefit to be received and the costs to be allocated. There are several basic approaches to such special assessments. Among them, California law provides for Infrastructure Financing Districts, a mechanism that could be used to assess benefited property owners for a portion of the cost of a transit line serving their properties.

The range of potential assessment rates also varies, and the experience of other communities was researched for similar assessment districts and rates used to fund local transportation-related infrastructure. Based on the beneficial effect of transit projects on property values and development in other U.S. cities, it is reasonable to forecast that the transit system itself would benefit nearby properties by enhancing their development potential.

Business Improvement District(s) – The County or newly incorporated Sutter Pointe could consider the formation of a Business Improvement District (BID) as an additional means of generating real estate-related revenue for transit. BIDs may be established by resolution. The establishment of a BID is usually predicated on the approval of a

majority of the property owners within the proposed district. The funds from the property assessment can be used to promote and market the area. Funds can also be used to enhance security, maintenance, beautification and transportation. The property owners would be specially benefited by the provision of the BID services and will be assessed upon each such property in reasonable proportion to the benefits derived from the services. Numerous BIDs have been established throughout California during the past decade.

BIDs typically rely on an assessment applied to the properties within a defined area, based on an assessed property value, a per-square-foot basis, or a linear frontage basis. The property owners must agree to the assessment.

Rental Car Taxes – Some communities are using taxes from rentals of automobiles to fund transit studies and operations. This mechanism is better received if it is one of several funding components. This mechanism could be of interest if all rental cars leased at the Sacramento International Airport were to have a special use tax that went to the counties in which the air passenger would be staying or traveling.

Passes – Pass programs, supported by employers and educational institutions, can be a significant revenue source for operations. For reasons of improving air quality, employee trip reduction, and reduced parking demand, employers have multiple incentives for supporting employee transit pass programs. The South Natomas TMA, CSUS and the Los Rios Community College have a discounted pass program for all students.

Advertising and Sponsorship – Some modest revenues may be obtained from advertising on, within, and near the transit vehicles. The second is concession agreements and/or rental fees on vending machines or automatic teller machines at the proposed stops. There have been a wide variety of approaches to ancillary revenues in other streetcar projects. Some projects have been aggressive in exploiting these opportunities, others have been more cautious.

5.1.4 Phasing

Ultimately, land-use densities, the balance of uses and trip distribution could warrant a comprehensive public transit system of regional, local and specialized service types. The transit system would need to start with basic services and be built up incrementally.

The first phase of public transit service supporting the project must be commuter service from Marysville/Yuba City to Sutter Pointe, and from Sutter Pointe to downtown Sacramento. While service to jobs within the project and to job centers such as those in south Placer County, the Airport, and Metro Air Park could follow shortly. Service to the more than 110,000 jobs in the Sacramento CBD is critical from the outset.

Initially, this service would likely be provided via an added stop on the Yuba-Sutter Transit commuter bus routes. Currently at capacity, this service will need to be assessed at the appropriate time to determine if an additional trip or additional buses needs to be added. Yuba-Sutter Transit commuter buses would pull off Highway 99 at Riego Road for a limited single-stop before continuing into Sacramento. As the Sutter Pointe population increases and ridership demand warrants it, the transit district would likely commence commuter trips from Sutter Pointe.

Residents should be targeted at the time they purchase or lease their home to determine desire to utilize express transit service. Residents that would like to take transit from Marysville and Yuba City to Sutter Pointe jobs, or from Sutter Pointe to downtown Sacramento should be provided with service. Yuba-Sutter Transit's existing successful commuter line could be modified to add one stop within Sutter Pointe. The location should be one that would provide the quickest pick-up/drop-off time so current riders, who have been enjoying non-stop service to downtown Sacramento, would not be inconvenienced.

Dedicated service, originating within Sutter Pointe, provided by a local operator or privately run, could commence after a target number of riders are identified (50-100 riders, depending on area served – downtown Sacramento, Placer County, etc.).

By offering service when a core group of riders is committed to utilizing transit, cost savings are realized and fuller busses on roadways give a better sense of benefit than empty or sparsely filled busses.

As land-use densities increase and critical mass is developed, regional transit services linking resident use with regional activity centers will be phased into the comprehensive program. Additionally, local transit service, and all day and evening/weekend service will be phased in to augment the commuter peak period service.

6.0 TRANSIT SUPPORTIVE MEASURES

In order to achieve a development that is truly transit, bicycle, and pedestrian friendly, the project must do more than simply secure transit services and provide bicycle lanes. The following measures supporting transit and mobility and will be included in the project (identified in the Specific Plan and the Master AQMP):

6.1 Bicycle/Pedestrian

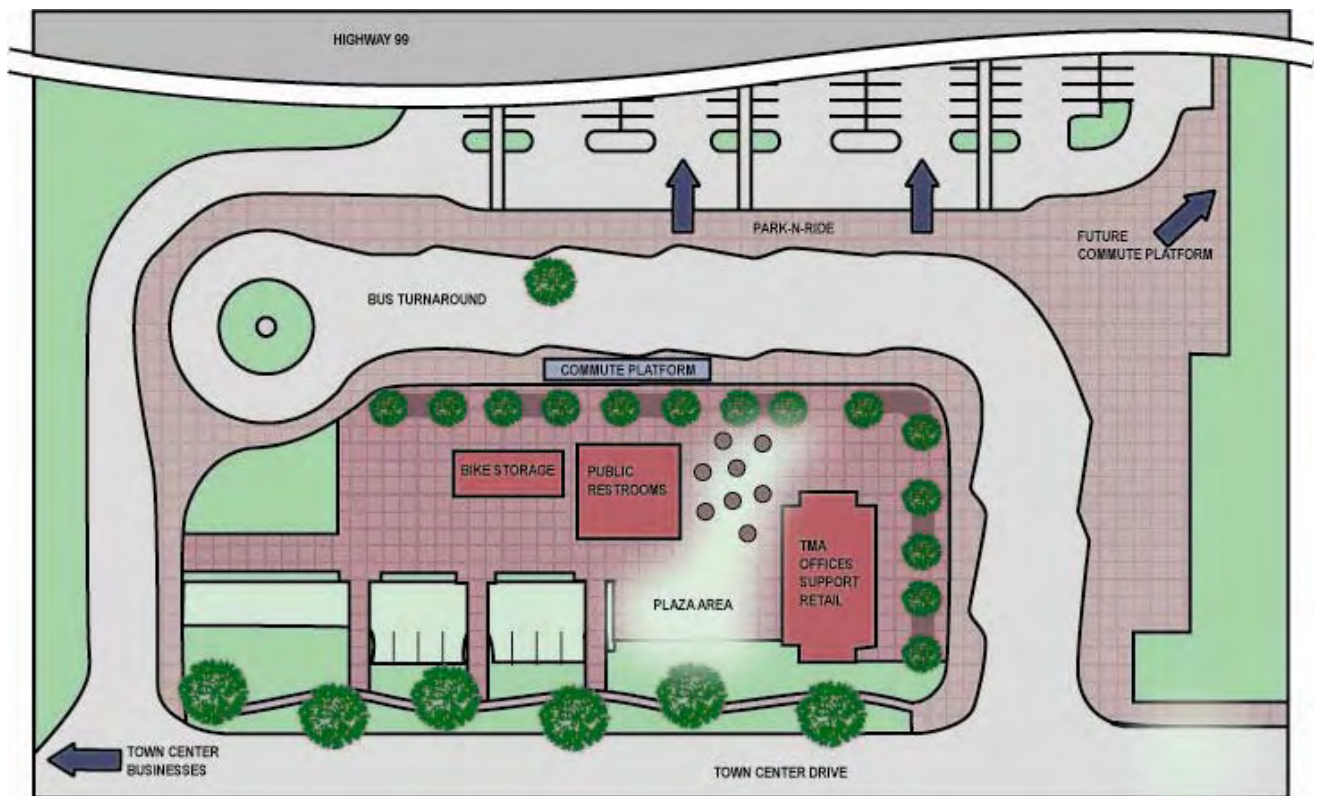
- Pedestrian and bicycle connectivity between housing, retail and civic uses (including openings in any planned soundwalls, gates, or other impediments to circulation)
- Class II bicycle lanes (on-street striping) on all major streets
- Class I bicycle lane (off-street bikeway) - connect school to residential areas
- Pedestrian infrastructure – separated sidewalks with tree canopy on major streets
- Bicycle storage at commercial/retail areas
- School walk/bicycle/carpool program for students
- A school traffic circulation improvement plan (facilitate low impact traffic during pick-up/drop-off including teacher parking lot separate from student area, incentives for teachers to carpool, take transit etc., low or no-cost to ride school bus)

6.2 Land Use and Design

- The interior street system should be as grid-like as possible, avoiding circuitous streets and cul-de-sacs
- Individual villages or subdivisions in mixed-age developments should minimize the use of gates; there should be very few barriers to pedestrian and bicycle travel
- Housing styles that encourage pedestrian travel – homes with porches built closer to street with alley loading and unloading
- Mixed-use: ground floor retail/housing structures and/or office/retail/housing
- Industrial/college areas with some retail/restaurants/mixed-use
- Retail areas need to front streets with parking in the rear to promote pedestrian/bicycle activity
- Neighborhoods serving as focal points with schools/recreation within 1/4 to 1/2 mile walking distance including amenities such as separated sidewalks, benches, par course, lighting
- Transit shelters at all stops, shaded pathways to all transit stops
- Bikeways to transit stops with bicycle storage
- 75% of all residences and places of employment in Sutter Pointe should be within ¼ mile of a bus stop. This sets the stage for route design, bus pull planning, walk way location etc.
- Local service bus stops should be spaced ½ mile apart in urbanized service areas.

6.3 Transit Center(s)

Transit Center(s) or “hubs” for all modes of public and private transit operators, bicyclists and taxis are a key transit component. The Specific Plan will accommodate a five acre primary transit center on the east side of Highway 99, immediately south of the Highway 99/Riego Road Interchange and has identified two additional, 3 acre, transit centers. This Sutter Pointe Transit Center could include the Sutter Pointe light rail transit station (DNA line), BRT, express bus, and local bus facilities, a large park-and-ride lot and various support facilities including shelter(s), informational kiosk, and signage. Commuter-serving retail (café, sundries, dry cleaners, florist, etc.) should be located at, or adjacent to, this primary transit center. Any transit services operated by Yuba-Sutter Transit, Sacramento RT, Placer County Transit, the CSD and private shuttle operators could all pulse in and out of the main transit center at the heart of the Sutter Pointe transit system.



6.4 Vehicles

- Enhance automobile connectivity between uses – eliminate shrubs, gates, or walls that prohibit traffic circulation within retail/commercial/industrial areas – (that force traffic onto the street)
- Provide the minimum amount of required parking required
- Allow golf carts on streets (design streets with speeds of less than 35 miles per hour) with special parking at retail areas to promote golf cart use
- Promote NEV use

6.4.1 Neighborhood Electric Vehicles

Neighborhood electric vehicles (NEVs) include golf carts and low speed vehicles (LSVs). Golf carts have a maximum speed of 20 mph. LSVs are capable of up to 25 mph and must have seatbelts, windshields, turn signals, headlights, brake lights and other safety equipment that golf carts are not required to have.

Vehicles can be fully enclosed, so the rider(s) can be protected from inclement weather, and are operational on local streets and arterials.² NEVs can be customized. Common customizations include special paint colors, graphics, chrome wheels, and neon strip lighting.



² California Department of Motor Vehicles (DMV) code defines and regulates these as “low speed vehicles” or “neighborhood electric vehicles”. These vehicles may operate on any roadway with a speed limit of 35 mph or less; they may cross a roadway with a speed limit in excess of 35 mph if the crossing begins and ends on a roadway with a speed limit of 35 mph or less and occurs at an intersection of approximately 90°.

NEVs can travel on roadways with a maximum allowable speed of up to 35 mph, and they have a range of 30-75 miles (depending on manufacturer and terrain), are 100% non-polluting, and can be easily charged by a standard 110-volt outlet (a full charge can be obtained in as little as 10 hours). Many NEVs also have regenerative braking, which means the braking system allows the vehicle to charge the batteries anytime the vehicle is in motion and the accelerator is not actuated (i.e., if the car is coasting down hill or if the braking system is used to slow down).

In the age-restricted areas of the project, which may include a golf course community or greenbelt community, it is anticipated that a certain number of residents will be utilizing privately owned electric golf carts. Electric golf carts or NEVs would be an effective, zero emission mode of transportation. These vehicles have evolved to be far more than an easy way to get to the golf course or clubhouse. In age-restricted communities throughout California, Arizona, and elsewhere, electric golf carts are playing a significant transportation role for the full range of transportation trips.



Golf carts play a major transportation role in local trip making as shown here.

NEVs can also be utilized in other non age –restricted areas of the project. As most trips occur within 10 miles from home (approximately 80%), any perceived fears of “running out of power” while driving an NEV should be alleviated. Because NEVs can be utilized for the majority of the short distance trips (such as to school, grocery stores, etc), owning and utilizing an NEV could eliminate the need for a second car. Approximately 65% of U.S. families own a second car. Replacing the second car with an NEV could significantly reduce air pollution. Commercial and industrial areas should also take advantage of NEVs for internal trips made by security or other staff.

Owning and operating an NEV is easy and cost effective. Tags, titles and insurance are obtained in the same way that those for regular passenger vehicles are obtained. Vehicle maintenance is less costly and less time consuming than a regular vehicle as charging costs are less than gasoline and there are no more trips to the gas station, no more oil changes, tune-ups, radiator coolant or muffler replacements, or transmission problems.

Besides saving money at the gas pump, there are also state and federal incentives (including tax incentives) available to the consumer.

- The Sacramento Municipal Utility District (SMUD) offers a discounted rate (approximately 50% of the regular residential rate) for electricity used to charge an NEV for residential customers. SMUD also has lower off-peak time-of-use rates for commercial customers’ EV charging. Although SMUD is currently not available to residents in Sutter County, a similar program could be offered to residents of Sutter Pointe by the electric company serving the area.
- The Internal Revenue Service currently offers a tax credit for the purchase of qualified electric vehicles.³ All dedicated, plug-in-only electric vehicles qualify for the tax credit, which is available for business or personal vehicles. A tax deduction of up to \$100,000 per location is available for qualified electric vehicle recharging property used in a trade or business. Updated tax credit information should be researched and information made available to residents and commercial property owners at the time that Sutter Pointe is occupied.

³ Section 179A of the Energy Policy Act of 1992; it was extended through 2007 by the Working Families Tax Relief Act of 2004. IRS Form 8834 can be used to calculate the credit for qualified electric vehicles placed in service. The credit amount equals 10% of the cost of the vehicle up to \$4,000. This credit is currently scheduled to be reduced by 75% and expire in 2007. To qualify for the credit, the vehicle must be powered primarily by an electric motor drawing current from batteries or other portable sources of electricity.

7.0 CONCLUSION

The Conceptual Transit Plan for the Sutter Pointe community provides a comprehensive framework for future transportation efficiency within and around the project. Planning for diverse transit demands and providing that service at key phases of development will be essential in the sustainability and livability for residents, employees and visitors to Sutter Pointe. Identifying transit funding opportunities and recognizing future needs by offering transit centers and dedicating areas to accommodate LRT or BRT for regional benefit, shows that Sutter Pointe is a good neighbor and transit forward.

Supporting programs and infrastructure such as transit centers, vanpool programs, park-and-ride lots, Transportation Management Association (TMA) membership, bicycle and pedestrian connectivity, and mixed-use areas with retail facing the street, will provide an optimum opportunity for the local, regional and specialized transit services to thrive. The Master AQMP, TMA Implementation Plan, and the AQMP Program Implementation Plan will provide details on how these and other programs will promote and enhance transit ridership, and other mobility options. As Sutter Pointe moves forward, the TMA will work closely with transit operators while planning transit services. Sutter Pointe's foresight and accommodation of potential transit components could be a model for other communities wishing to achieve a reduction in traffic and increased mobility by utilizing clean fuel or low-emission transit vehicles, and NEVs for internal connections and short trips, Sutter Pointe could be an air quality leader.

ATTACHMENT

Definition for Transit Service Levels Types

Light Rail Transit (LRT)

LRT is operated on fixed rails and is powered by overhead catenary. The rails can be at grade, aerial, or subterranean. Rail right-of-way (ROW) can be exclusive or shared with mixed-flow automobile traffic. There is only one LRT operator in the Sacramento region, Sacramento RT, which operates 37 miles of LRT with another 20 miles in construction, engineering or planning phases.

Express Bus

Express Bus provides service with easily identified stations and may use over-the-road or luxury vehicles. Express Bus services operate with frequent headways (15-minute service) during peak periods. Station spacing is typically one-half to one mile apart along major corridors, and utilizes some Traffic Signal Priority (e.g., signal pre-emption). It often operates in HOV lanes, expressways or freeways for part of the trip. It usually operates during peak travel periods and in peak directions. Headways, station spacing and design, ROW, use of passenger information technologies, and fare-collection method fall short of BRT. This service typically operates faster than local bus service, but slower than BRT, and can be very competitive with the private automobile.

Local Bus

There are a wide range of local bus services. Local bus service picks up and discharges passengers at frequent, designated places (stops) in mixed-flow traffic, often servicing midday or off-peak destinations (e.g. malls, high schools, medical facilities, etc.) Travel times are slower due to the increased number of stops. Local service often has a higher percentage of transit dependent riders.

Bus Rapid Transit

BRT is a premium bus service with large easily identified vehicles with stations that allow rapid boarding capability (often low-floor vehicles). BRT typically operates on exclusive ROW. Service operates with frequent headways (15 minutes or less). Station spacing is typically one mile apart along major corridors. BRT service employs simple, direct routing schemes, with a significant amount of priority at roadway intersections along the corridor, and may incorporate exclusive or specially designed ROWs. Passenger information technologies are incorporated into vehicles and stations. This service achieves high average route speeds and can be very competitive with the private automobile. BRT service does not currently exist in the Sacramento region although several BRT routes are in the planning stages.