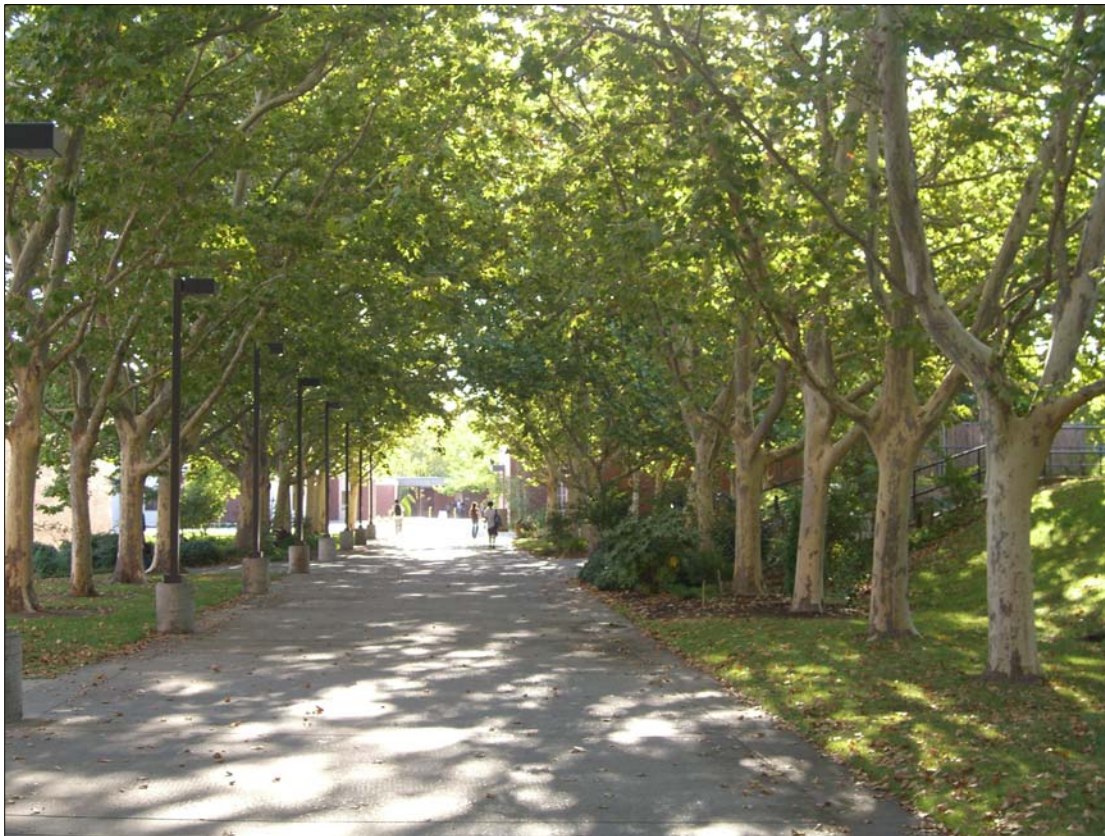


# **Los Rios Transportation Connections**

## **Chapter 3 - Cosumnes River College**



## **Findings and Recommendations**



**Aerial View of Cosumnes River College**

## Introduction

Cosumnes River College, located in a growing part of the Sacramento Region, has significant opportunities to increase walking<sup>1</sup>, bicycling and transit through planned and potential improvements that are being considered or are underway by the College and in the vicinity of the College. The City of Sacramento is committed to creating new development that is transit-oriented and pedestrian-friendly. Sacramento Regional Transit is committed to extending Light Rail to the Cosumnes River College Campus. The City of Elk Grove's award winning transit system "e-tran" serves the College with several lines. The College is considering changes to its perimeter to strengthen connections with the surrounding community.

The Los Rios Transportation Connections Plan offers additional recommendations to support greater access from the community to the College through improved infrastructure and through programs that support walking, bicycling and transit.

With nearly one fourth of Cosumnes River College students living within two miles of the campus, improvements to the pedestrian and bicycle infrastructure could significantly increase walking and bicycling to the campus. Calming high-speed traffic, and providing safe, convenient street crossings will make walking and bicycling as well as transit more attractive. A pedestrian and bicycle friendly crossing of nearby Highway 99 could overcome a major barrier to walking and cycling. Bringing sidewalks, signage, traffic signals and bus stops into compliance with the Americans with Disabilities Act (ADA) as well as State, County, and City of Sacramento disability access requirements<sup>2</sup> will enable many more disabled students to access Cosumnes River College. Finally, increased transit, bicycling and walking could be cost-effectively facilitated by routinely including these modes in campus information and programs.

## Background

Cosumnes River College, built in 1970, is located on the southern edge of the City of Sacramento near Highway 99, about 14 miles south of downtown Sacramento adjacent to unincorporated areas of Sacramento County and the City of Elk Grove. In Fall 2006 12,152 students were enrolled<sup>3</sup>. In Fall 2007 there was a 9.0% increase at CRC to 13,688.<sup>4</sup>

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<sup>1</sup> Walking includes pedestrians with disabilities whether using wheelchairs, walkers, canes, or other assistive devices.

<sup>2</sup> The California Code of Regulations, Title 24, and the City of Sacramento Improvement Standards.

<sup>3</sup> Los Rios Community College District Office of Institutional Research

<sup>4</sup> Victoria Rosario, Los Rios Community College District, February 2008.

The College is on approximately 156 acres bounded by Cosumnes River Boulevard, Center Parkway, Bruceville Road, and Calvine Road. Until recently, the College was surrounded by residential neighborhoods, undeveloped land, and schools. Valley High School is across the street to the west; an elementary school is in the neighborhood to the north. Cosumnes River College Park, a 5.24 acre park with a baseball and soccer fields, located at the northwest corner of the College, is used by City residents and the College.

Major shopping centers have recently been built to the east and northeast of the College. Higher density residential is to the north, west and south. The remaining undeveloped land near the College is planned for commercial and residential development in the near future. Hwy 99, less than a mile away from the center of the campus to the east, is a major barrier to pedestrians and bicyclists. Beyond Hwy 99 to the east, are schools, residential neighborhoods, and commercial areas.

## **Campus Institutions and Transportation**

Cosumnes River College has a shared governance structure that includes the College Administration, the Academic Senate, the Student Senate and the Classified Senate. The Administration in collaboration with the Faculty Senate and the Classified Senate has created many joint committees to deal with academic and administrative issues. The Academic Senate's Social Responsibility Committee provided input to the early stages of this planning effort. The Earth Day Planning Committee's invitation to WALKSacramento to participate in Earth Day at Cosumnes River College led to additional input from the campus community.

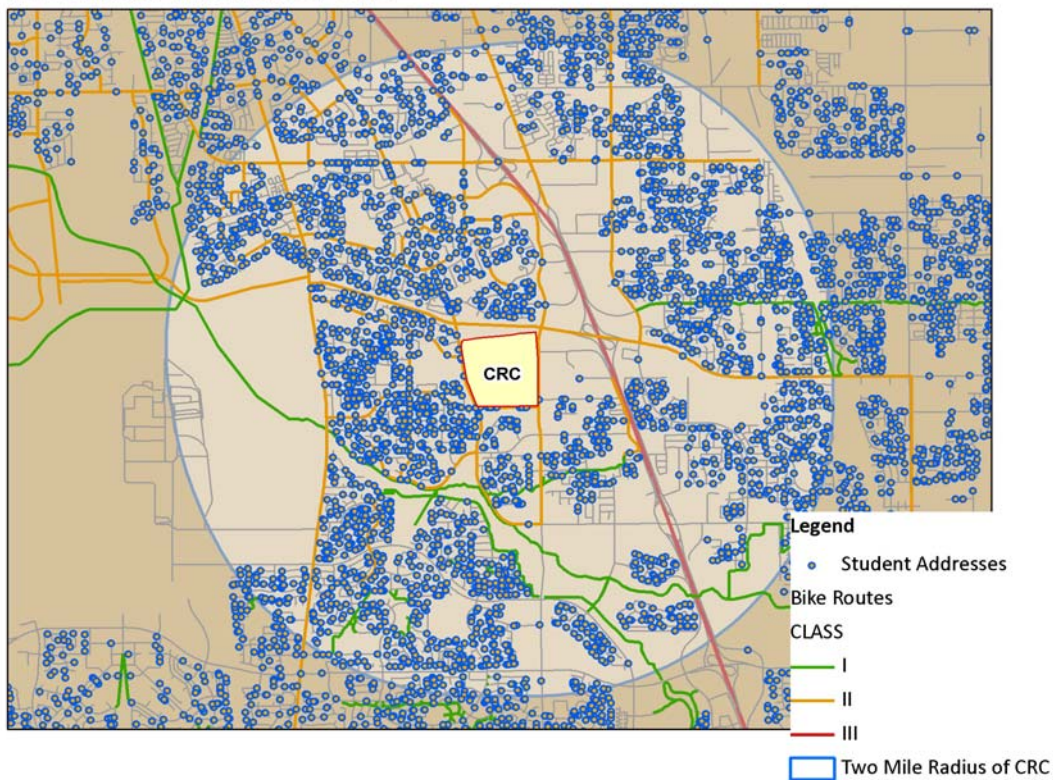
Campus transportation issues are dealt with administratively by the Department of Administrative Services. The Director of Administrative Services and Vice President for Administrative Services and Student Support are responsible for assuring the smooth operation of campus facilities including parking and transportation and for providing information on such issues. Transportation issues related to students with disabilities are informed by the Disabled Students Programs and Services Department as well as all applicable codes and regulations. The College's Health and Facilities Committee provides input to the Administration on transportation issues related to physical facilities.

For some years, the College has been concerned about the lawn covered earth berms around the campus that separate the College from the community both physically and visually. Some have called them fortresses. The president has proposed the development of a "Perimeter Plan" to remove or lower the berms and undertake other measures to provide greater connection to the community. One thought by faculty is to provide a walking path surrounding the College that could be used by the College as well as the community. However, development of this plan is contingent upon future funding which has not yet been identified.

# Cosumnes College Transportation Findings

## Travel Behavior

Many Cosumnes River College students live within convenient walking distance of the College (½ - 1 mile) and many more live within bicycling distance – 2 to 5 miles. Many students come by transit – some a combination of Light Rail and bus. According to GIS data compiled by Cosumnes River College Geography Professor, Scott Crosier, approximately 9% of CRC students live within one mile of campus and nearly 24% live within two miles.<sup>5</sup> Additionally, according to Crosier, approximately 51% of students live within ½ mile of an e-tran or Sacramento Regional Transit bus stop along routes which access the College directly (without a transfer).



According to a Los Rios Community College District survey done in 2007 to provide input to this plan, nearly 12% of students take the bus to campus, 7% take light rail, and approximately 8% walk or bicycle. Approximately 10% carpool and about 8% are dropped off.

<sup>5</sup> Assessment of the Transportation Infrastructure through the Use of GIS", Scott Crosier, Cosumnes River College, 2008. Included in Appendix B of this plan.

**“How do you currently get to Cosumnes River College?”**

<b>Travel Mode</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>
Walk	5.7%	6.9%	87.4%
Bicycle	1.2%	2.3%	96.5%
Light Rail	6.8%	8.0%	85.2%
Bus	11.5%	9.2%	79.3%
Drive Alone	71.3%	11.7%	18.0%
Carpool	9.8%	27.2%	63.0%
Dropped Off	7.9%	28.1%	64.0%
Other	6.1%	0.0%	93.9%
Total	120.3%		

Source: Los Rios Community College District e-mail Survey 2007

More than 20% of the students use more than one mode each day as can be seen in the table above. Since there is no Light Rail going directly to CRC, the students taking the Light Rail are some of the same ones taking the buses. Other students may combine transit and bicycling or other modes. Student responses regarding ways that they “Sometimes” get to Cosumnes River College show that rather than relying on a single commute mode, individual students use different modes at different times, piecing together a combination of modes to meet their transportation needs.

The traffic counts on the roadways surrounding Cosumnes River College are not high compared with similar arterials and thoroughfares in other parts of Sacramento. However, the streets are wide and some have “excess capacity” – that is, more room than may be needed for the current traffic levels. This excess capacity leads to dangerously high speeds and weaving.

**Street Characteristics in the vicinity of Cosumnes River College**

<b>Street Name</b>	<b># of travel lanes</b>	<b>Posted Speed Limit</b>	<b>Sidewalks?</b>	<b>Bike lanes?</b>	<b>Average <sup>7</sup> Daily Traffic</b>
Bruceville Road	6	45	Missing segments	Yes	17,762 19,606
Cosumnes River Boulevard	4	50	No	Yes - narrow <sup>8</sup>	19,786 24,408 34,044*
Center Parkway	4	40 (25 near HS)	Yes (missing south of Calvine)	Yes	11,040 18,050
Ehrhardt Avenue			Yes		10,590
Calvine Road	2	45	Yes	Yes	4,751

\*34,044 ADT at Hwy 99

The most recent data for Bruceville Road with six through lanes, for example, indicates between 17,762 and 19,606 Average Daily Traffic (ADT). Cosumnes River Boulevard has 19,700 and 24,400 ADT. Center Parkway next to the campus has 11,040 ADT; north of Cosumnes River Boulevard, its ADT is 18,050. Calvine Road next to the campus has between 4,751 and 5,840 ADT.

## Transportation Information

Each new term brings new students to Cosumnes River College. Students and faculty have different schedules each semester, and different schedules on different days of the week. Thus, up-to-date transportation information is important to students when planning their schedules.

The College's web page "Directions to Campus" provides driving directions to the campus but no directions for other modes. Elsewhere on the College's website, a "Public Transportation" link provides route information for the three Sacramento Regional Transit routes that serve the college. The website provides no information about the nine *e-tran* routes that serve the college, or about Paratransit or *e-van*. A separate web link provides information on Student Access cards that also serve as transit passes. Students can pick up their student access card/transit pass at the Admissions and Records side window.

Information on transit routes is also available at the Student Development Office on the first floor of the Library Building. Lack of knowledge about routes and schedules was cited by 26.1% of Cosumnes College Students surveyed as one of the reasons they don't take transit.<sup>6</sup>

No information is provided on pedestrian or bicycle routes to campus, or bicycle parking.

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<sup>6</sup> Source: Los Rios Community College District e-mail Survey 2007 (Appendix E)

<sup>7</sup> Traffic counts on City of Sacramento streets are available at <http://www.cityofsacramento.org/transportation/traffic/>

<sup>8</sup> Construction on Cosumnes River Boulevard has resulted in temporary removal of the narrow bike lanes.

## Pedestrian Access to the College

Nearly 6% of students walk to the Cosumnes River College campus. This reflects the fairly complete network of sidewalks in the neighborhoods adjacent to the campus to the west and south. Nonetheless, significant barriers to walking result from the high speeds of drivers on the roads adjacent to the campus, the lack of safe and convenient crossing locations, and the lack of sidewalks on some street sections.

While the campus itself is very pedestrian friendly, pedestrians must walk some distance from the entrances to reach the campus. The entrances pose some confusion for pedestrians as well.

A wrought iron fence and earth berms enclose the entire perimeter of the College with openings limited to its three main entrances, and an inconspicuous entrance near the north-east corner of campus. Once past the wrought iron fence, the campus buildings are surrounded by six large parking lots, two near each entrance.



Cosumnes River College Park, a joint-use park of the City of Sacramento and the College, is located at the northwest corner of the College adjacent to Cosumnes River Boulevard and Center Parkway. There is no direct pedestrian or bicycle access to the park for pedestrians or bicyclists. Access is through the College's entrance off Center Parkway.

### Campus Entrances

The three main campus entrances have the same basic design. A wide asphalt pedestrian path goes down the center of a wide median with two lanes for motor vehicles on either side. Pedestrians must cross vehicle travel lanes to reach the path in the median. This results in an additional pedestrian/vehicle conflict as compared with traditional sidewalks. Many students walk on the grass along the sides of the driveway or in the motor vehicle lanes rather than down the center of the median. The driveways lack marked bicycle lanes. Some bicyclists use the pedestrian path creating traffic confusion at the ends of the driveway.



Pedestrian crossings to the College entrances are inadequate. The entrances off Center Parkway and Calvine Road lack marked crosswalks for pedestrians. The signalized Bruceville Road crossing serves as a gateway to the College, and to a busy transit center served by Sacramento Regional Transit and by *e-tran*.

### **Pedestrian Drop-off and Pick-up**

Student survey results indicate that nearly 30% of Cosumnes River College students are dropped off some of the time, and approximately 8% are always dropped off. All three main entrances to Cosumnes River College provide convenient on-campus drop off/pick up locations along a sidewalk with easy access and egress for drivers. The intuitive design of the drop off/pick up areas makes these passenger loading areas easy to use, even without additional instructions or signage. Off-campus drop off/pick up is also possible on Center Parkway and Calvine Road which both offer parking lanes that can be used for drop-off and pick-up. The drop-off/pick-up points lack shelter, shade and benches.



### **Pedestrian Crossings**

Crossing the street to the College on foot is challenging. The high motor vehicle speeds around Cosumnes River College are daunting. This is especially true on Bruceville Road.<sup>9</sup> Excess roadway capacity noted earlier means that drivers have more room than they need, inviting excessive speed.

At most intersections, pedestrians are prohibited from crossing at least one leg of the intersection, resulting in longer waits for walk signals, as well as requiring three street crossings rather than only one. As noted earlier, there are no marked crosswalks at the College's Center Parkway and Calvine Road entrances.

Many Valley High School students commute via transit, crossing Center Parkway to reach the transit center on the College campus. The College's west entrance on Center Parkway is south of the High School, but the signalized pedestrian crossing of Center Parkway is to the north. Many high school students cross Center Parkway south of the High School near the College entrance.

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<sup>9</sup> Residents at the September 24, 2007 Community Workshop complained of the high motor vehicle speeds on Bruceville Road.

## **Sidewalks and Walkways**

Bruceville Road is missing sidewalks adjacent to the College from the corner of Cosumnes River Boulevard to West Stockton Avenue. This makes pedestrian access from the north difficult and impossible for many pedestrians with disabilities. Bruceville Road is also missing sidewalks both north and south of the campus and on the east side across from the campus. Some of this is due to land waiting to be developed.

Center Parkway and Calvine Road: Adjacent to the College, these roads have sidewalks on both sides of the street. Center Parkway is missing sidewalks on some segments south of the campus.

Cosumnes River Boulevard: The northern boundary of Cosumnes River College has no sidewalks on either side of the road; bicycle lane markings are inadequate. Nonetheless, pedestrians and bicyclists are observed using this roadway without the safety of clearly designated space. Sacramento Regional Transit is planning to construct a pedestrian-bicycle path on the north side of Cosumnes River Boulevard along the channelized Union House Creek as part of the South Line Light Rail Extension. There are no shade trees near the sidewalks bordering the campus. With the exception of the newest sidewalks on Bruceville Road, sidewalks are not separated from traffic.



*Lack of sidewalks around the campus perimeter, such as along Bruceville Road, pose a danger to pedestrians around and near the campus*

## **Pedestrian Crossings at Highway 99**

Less than half a mile to the east of Cosumnes River College, Highway 99 is a major barrier to pedestrians and bicyclists. Pedestrians must cross freeway ramps with two lanes of cars going at freeway speeds. Nonetheless, many people are seen walking across this dangerous interchange. (More about this in the next section dealing with bicycle access.)

The City of Sacramento and Sacramento Regional Transit are considering providing a pedestrian/bicycle/transit crossing of Highway 99 in the vicinity of Cotton Lane.

## Bicycle Access to the College

The Sacramento Area Bicycle Advocates (SABA) review of bicycle access to the College within a two mile radius identified many barriers to bicycling as well as improvements that would support increased bicycling to the College. Additionally SABA has provided several program and organizational recommendations that would support increased bicycling to the College.<sup>10</sup>

The Cosumnes River College campus is bounded on the east, north and west by fast, four- and six-lane roads (Center Parkway, Cosumnes River Boulevard and Bruceville Road respectively). The roads have Class II bike facilities (bike lanes), but would be intimidating to many cyclists because of the high traffic speeds particularly Cosumnes River Boulevard and Bruceville Road.

In addition, some roads have medians that have the effect of encouraging wrong-way bicycle riding. For example, cyclists approaching Bruceville Road from Shasta Avenue (to the east) have no legal way to turn left onto Bruceville Road.

Many arterials and some collectors in the vicinity of the campus are limited access roads with median barriers. These limited-access roads and median barriers can greatly increase trip distances for cyclists, and may encourage cyclists to ride against traffic or on sidewalks rather than take a much longer route. In fact, SABA's bicycle audit encountered several cyclists riding against traffic or on the sidewalk.



*Wrong-way cyclist on West Stockton Boulevard*

### Access from the North and West

The neighborhoods west and north of the campus are older subdivisions that have good, continuous neighborhood streets that provide bicycle-friendly through routes. Ehrhardt Avenue and Valley Hi Drive are examples of these streets. Major north/south arterials, Center Parkway and Bruceville Road have bike lanes.

### Access from the South

Calvine Road on the south side of the campus has two lanes and slower traffic, but Calvine Road itself can only be accessed from Center Parkway or Bruceville Road. Newer subdivisions have no convenient through routes, forcing bicyclists onto the busy arterials. The major arterials Center Parkway and Bruceville Road have bike lanes, but the speed and volume of traffic is intimidating to many cyclists.

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<sup>10</sup> Details of SABA's findings and recommendations are provided in Appendix F to this Plan (and at SABA's website: [www.sacbike.org](http://www.sacbike.org)).

The Laguna Creek trail system provides some access to Elk Grove neighborhoods but stops short of connecting with the College.

### **Access from the East**

Highway 99 forms a virtually impenetrable barrier to bicyclists. There is no bicycle-friendly crossing of Hwy 99 between the Florin Creek Trail undercrossing located at Sheldon Park south of Florin Road near Orange Avenue (which is not signed and difficult to locate) and Sheldon Road, a distance of over four miles.



*Florin Creek Trail undercrossing*



*Calvine Road on-ramp to Hwy 99*

The only crossings of Hwy 99 in that four mile section are the freeway interchanges at Cosumnes River Boulevard/Calvine Road and at Mack Road. These interchanges require bicyclists to negotiate two-lane on-ramp diverges (twice at Calvine Road). These are extremely dangerous because even those cyclists who are confident to cross one lane of high-speed traffic can't easily or safely cross the remaining lane required of the two-lane on ramp. These ramps are designed for cars. People start achieving freeway speeds before they get on the freeway.

### **Planned Future Bicycle/ Pedestrian and Trail Access**

While not intended to replace a network of complete streets with on-road bicycle lanes, off-road trails provide a safe, pleasant way to bicycle to destinations. These can be good routes for pedestrians as well, particularly for those interested in walking longer distances. Both the City of Sacramento and the City of Elk Grove have been developing bicycle paths in the vicinity of the College.

Laguna Creek: Bike paths are planned or built along Laguna Creek to the west and south of the campus. The Laguna Creek Trail when completed, in addition to coming within about one half mile of the College, will provide a pedestrian/bicycle crossing of Highway 99 between Sheldon Road and Laguna Boulevard.

Jacinto Creek Parkway Trail: This relatively short trail runs east and west south of the College. It begins on the west side of Highway 99 and goes west to connect with the Laguna Creek Trail on the other side of Center Parkway.

Elk Grove Trail System: The connection of the Elk Grove Creek Class I Bikeway via a bike/pedestrian bridge across Highway 99 at Elk Grove Creek will provide a pedestrian/bicycle crossing of Highway 99 between Laguna Boulevard and Elk Grove Boulevard. The Elk Grove Creek flows into Laguna Creek, so the trail systems will connect.

Tillotson Parkway Trail: The Tillotson Parkway Trail, a six mile east-west trail on the east side of Highway 99, north of Calvine Road in the Southgate Parks and Recreation District, connects Elk Grove Florin Road in the east to Power Inn Road in the west. Its western ending point is very near Highway 99 and Strawberry Creek. Strawberry Creek, which flows under Highway 99 roughly paralleling Cosumnes River Boulevard and Calvine Road, offers a potential location for a bicycle/pedestrian crossing of Highway 99 as well as a bike path connection to the Tillotson Trail.

Union House Creek: Along with plans to extend the Light Rail to Cosumnes River College, Sacramento Regional Transit plans to create a separated trail along the channelized Union House Creek from Deer Lake Drive to Bruceville Road including a pedestrian and bicycle bridge over the creek at Valley Green Drive. This proposed trail makes possible a bicycle-pedestrian link from Arroyo Vista Drive just north of Cosumnes River Boulevard via Sunny Creek Way. The trail will provide a link to the planned Light Rail station at Cosumnes River Boulevard and Center Parkway across the corner from the College.

The Great California Delta Trail System: The California Delta Protection Commission is in the process of developing a system to link the San Francisco Bay Trail system with the Sacramento River trails in Yolo and Sacramento Counties. It will be created with the participation of jurisdictions in the Delta adding links to existing trails to gradually create a complete system. The project will be funded by the participating agencies.<sup>11</sup>

## **Bicycle Parking and Campus Access**

The College's three entrance roads leading from Center Parkway, Calvine Road and Bruceville Road lack bike lanes. There is no entrance to the campus from Cosumnes River Boulevard to the north.

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<sup>11</sup> Information on the proposed Delta Trail can be found at the Commission's website: [www.delta.ca.gov](http://www.delta.ca.gov)

Where the south entrance road meets the central campus there are a set of 14 bike lockers and a bike rack that can accommodate 6 bikes. Both are highly visible and conveniently located.



*Bike lockers at south entrance of CRC campus*

The central part of the campus where the academic buildings are located measures 1500' east to west and 1200' north to south. The absence of a campus bikeway system is not a serious shortcoming because the distance between the bicycle parking and most destinations on campus is short enough to walk.

There are no signs posted on campus paths saying that bicycles are allowed or banned, but the paths are not generally suitable for bicycle use because they are not wide enough for pedestrians and bicyclists to share.

The entire central campus is raised about six feet above grade, and is only accessible by flights of stairs. Bicyclists must carry their bikes up the steps to access the bike lockers and racks, which may be difficult for cyclists with heavy bikes or heavy loads.



*Steps leading to Cosumnes River College central campus level, an obstacle for bicyclists*

## **Transit Access**

Cosumnes College is fortunate to be designated as a major transit center by both Sacramento Regional Transit District and the Elk Grove e-tran system. The College's Bruceville entrance is the location of the transit center and at various times of the day, several buses can be seen waiting to begin their routes. The College is served by three Regional Transit bus Routes and nine e-tran routes.

Los Rios students voted to assess themselves a semester fee for universal transit access. This minimum fee enables all Los Rios students to have a transit pass for the entire semester making transit affordable.

Nearly 1500 students (12%%) take Light Rail and/or the bus for part of their trips to the College. Many don't take transit because they believe it takes too much time (46%) or it is too far to walk to the bus stop (31%). Some don't take transit because they don't know the routes or schedules (26%).



*Lack of information keeps more students from taking public transit*

### Top Reasons Cosumnes College Students Give for Not Taking Transit

Takes too much time	46.2%
Too far to walk to transit stops	31.1%
Don't know routes or schedules	26.1%
Not reliable	20.2%
Don't feel safe	20.2%

Source: Los Rios Community College District Survey 2007

Most bus service ends at by 6:30 p.m. Only the SacRT Route #56 and the Elk Grove e-tran Route #156 go into the evening. Both of these routes provide service to Meadowview Light Rail Station. All other routes end by 6:30-7:00 p.m.

### Sacramento Regional Transit Routes serving Cosumnes River College

Sacramento Regional Transit Route #	Headways	First & Last Bus	Access to Light Rail Station?	Sat & Sun service?
54 Center Parkway	1 hour (except for a few really early morning busses)	5:30 a.m. 6:17 p.m.	Florin Light Rail Station	Sat
55 Scottsdale (Florin Mall)	1 hour	7:30 a.m. 6:37p.m.	No	Sat & Sun
56 Pocket –CRC	30 min	6:15 a.m. - 10:44p.m.	Meadowview Light Rail Station	Sat & Sun

The Elk Grove e-tran system operates 18 transit lines, of which 9 have Cosumnes River College as one of their major destinations.

### e-tran Routes serving Cosumnes River College

e-tran Routes <sup>12</sup>	Headways	First & Last Bus	Access to Light Rail Station?	Sat/Sun Service?
154 Calvine	30 min a.m/p.m. 2 hours mid-day	7:15 a.m. 6:25 p.m.	No	No
155 Weekend City Circulator	1 hour	7:56 a.m. - 6:25pm	No	Saturday only
156 Bruceville/Elk Grove Blvd.	30 min with some hourly in evening	5:30 a.m. – 9:30 p.m.	Meadowview Light Rail Station	Sat & Sun
157 Laguna	hourly with some 30 min	6:44 a.m. – 6:25 p.m.	No	Sat

<sup>12</sup> Information on e-tran schedule & routes is at <http://www.e-tran.org/>

**e-tran Routes serving Cosumnes River College (cont.)**

<b>e-tran Routes</b> <sup>12</sup>	<b>Headways</b>	<b>First &amp; Last Bus</b>	<b>Access to Light Rail Station?</b>	<b>Sat/Sun Service?</b>
158 Elk Grove-Florin	Mostly hourly	6:47 a.m. – 6:25 p.m.	No	No
159 Whitelock Parkway/Franklin	Mostly hourly	6:29 a.m. – 6:25 p.m.	No	No
160 Bond	Hourly	6:39 a.m.- 6:26 p.m.	No	No
161 Bilby	3 commuter buses/day	6:45 a.m.- 3:25 p.m.	No	No
162 Laguna Springs	Hourly	6:52 a.m. – 5:25 p.m.	No	No

**Disability Access**

Assessing the needs of Cosumnes River College students with disabilities, Andrea Roberge, one of the Los Rios Community College staff who prepared a report as part of this project, notes that while nearly 12% of Cosumnes students take transit, a much higher percentage of the College’s disabled students take transit (approximately 44%). The individuals who responded to Roberge’s survey had some of the same issues as other College students noting that they did not take transit either because it was not available in their area, that it took too much time, or that it didn’t run late enough to be useful.

Roberge noted that many students with disabilities also have learning disabilities that exacerbate their use of the transit system. She recommends that the College provide more education and publicity about student transit access cards and better information about transit routes. Roberge also notes that safety is of particular concern to students with disabilities who feel and can be very vulnerable when waiting for buses or riding on buses and Light Rail.<sup>13</sup>

Both Sacramento Regional Transit and Elk Grove e-tran provide service for persons with disabilities.

ADA access is inadequate at several bus stops on Bruceville Road. On the northeast corner of Bruceville and Calvine Roads the landscape strip is a barrier between the waiting area and the bus. Farther south the lack of sidewalks is a problem.

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<sup>13</sup> Andrea Roberge, “Making Public Transit Use More Feasible and Appealing for Cosumnes River College Students with Disabilities”, Los Rios Transportation Connections Project, Cosumnes River College, December 2007 (Appendix D).

## Future Transit Plans

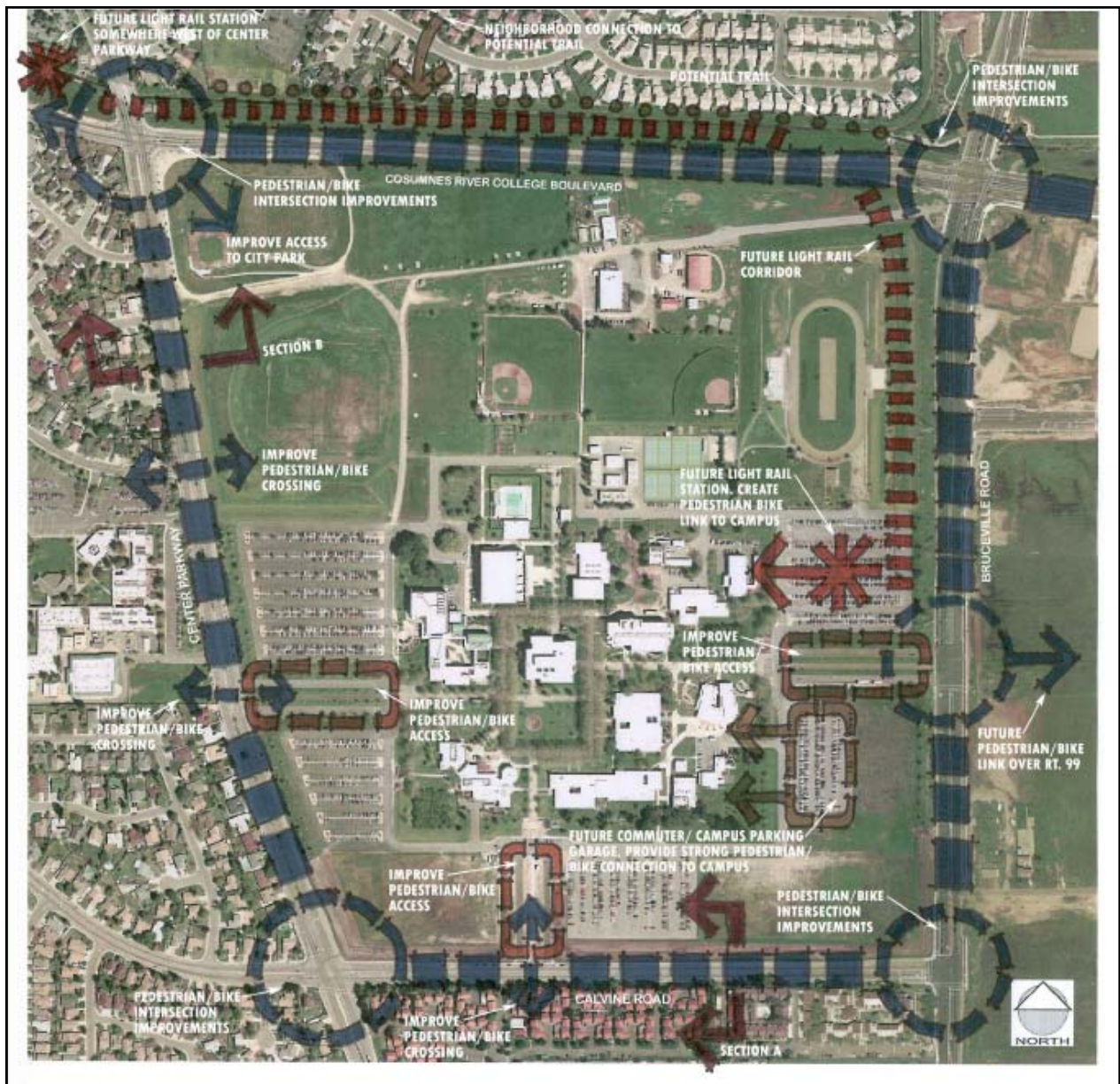
Sacramento Regional Transit plans to extend the South (Blue) Line Light Rail from Meadowview Road to the East Entrance of Cosumnes River College. Los Rios Community College District (LRCCD) and Sacramento Regional Transit (RT) are planning to partner to build a 2000 space parking structure in the parking lot near the east entrance of the campus adjacent to the future Light Rail Station as part of the South Sacramento Corridor Phase 2 Light Rail Extension Project. The project is slated to begin in 2009 and to be complete by 2011. The Light Rail Station is expected to follow completion of the parking structure.<sup>14</sup> The Light Rail tracks will be elevated to cross over Cosumnes River Boulevard near Bruceville Road. The extension project is awaiting federal environmental review approval. Federal dollars have been dedicated to the project but more funds are needed.<sup>15</sup>

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<sup>14</sup> Taiwo Jaiyeoba, Project Manager, South Sacramento Corridor Phase 2 Light Rail Extension Project, Sacramento Regional Transit District

<sup>15</sup> Taiwo Jaiyeoba

# Cosumnes River College Recommendations



The above schematic illustrates some of the main campus recommendations including pedestrian and bicycle improvements to the three main entrances to the College and to the roads adjacent to those entrances – Bruceville Road, Center Parkway, Calvin Road and pedestrian and bicycle improvements to Cosumnes River Boulevard. New entrances to the Cosumnes River College Park are recommended along with improvements to the perimeter landscaping of the campus.

# Cosumnes River College Recommendations

## Campus Institutional Recommendations:

Cosumnes River College has a wealth of knowledge, expertise and concern about the many issues related to transportation connections such as student access, health, environmental quality, transportation sustainability, and global warming to name a few. Bringing the College's talents and expertise to bear on this issue will accelerate changing the cultural and physical environment toward increased support for multi-modal transportation connections. To engage the College's talents in support of multi-modal transportation connections, the College can:

**Define responsibilities for transportation issues:** Assign responsibility for overseeing multi-modal transportation issues. Include Transportation Connections as a topic of concern by the College's Health and Facilities Committee with regular reports of problems and progress in improving access for pedestrian, bicyclists and transit users.

**Initiate transportation advisory committees** that can provide regular input to the College's governance structures and outside agencies on the problems that need to be addressed to improve access. In addition, the College may also initiate user groups that provide support to students in dealing with issues related to the particular mode.

**Assess Progress:** The College, its committees and user groups can perform annual or semi-annual assessments of the multi-modal transportation environment. This can be done by audits of walkability, bikability and transit with progress acknowledged and critical problems prioritized for action. Additionally, annual travel surveys can also assess changing travel patterns. Before and after surveys can assess the impact of transportation improvements as they come on-line.

**Participate on local and regional planning bodies:** The College can designate representatives to participate in local and regional planning efforts that are seeking input related to specific modes in the vicinity of Cosumnes River College. Current planning efforts include the Sacramento County's Bikeway Master plan Update; the Sacramento Regional Transit's Transit Master Plan Update, Short Range Transit Plan Update, and ADA/Paratransit Plan Update; the City of Sacramento General Plan Update and South Area Community Plan Update; and the Delta Protection Commission Great Delta Trail System Plan

**Work with transportation & utility agencies on potential roadway improvements:** Work with the City of Sacramento Department of Transportation on plans to upgrade sidewalks and bicycle lanes. Work with SMUD to relocate or underground utility poles blocking sidewalks. Work with the County of Sacramento Department of Transportation and Caltrans on pedestrian and bicycle improvements to the Hwy 99 interchanges.

**Update Campus Master Plans and Facilities Plans:** Incorporate consideration of multi-modal access when the Cosumnes River College Master Plan is updated. Integrate all modes of transportation into any new facilities plans.

**Academic studies and student programs:** Incorporate where appropriate multi-modal transportation issues into academic studies and student programs.

**Provide transportation information on all modes:** As noted in the next section.

## **Transportation Information Recommendations**

Provide transportation information to students, staff, faculty, and visitors regarding all transportation options for getting to campus. Providing up-to-date information on transportation options could prove very cost effective for students. For example, when students at Cosumnes River College Students were asked why they don't ride transit, over 26% said that they didn't know the routes and/or the schedules.

**Include all modes** (walking, bicycling, transit, driving, and drop-off) whenever directions to campus are provided on the college website, class schedules, event flyers, etc. encouraging multi-modal commuting.

**Provide information on all modes**, even options that are limited, (i.e., "Bus service stops at 6:00 pm." or "Bicycle and pedestrian access is along high-speed roadway without sidewalks or bicycle lanes, and with narrow shoulders.")

**Include information on transit with course enrollment** to help students plan transit compatible schedules.

**Include information on car-free living** and savings with financial aid advising. Let potential students know that car ownership is not a prerequisite to attending CRC. For students who are looking for housing, provide information on transit and bicycle routes to provide more opportunity to choose housing that does not necessitate car commuting to campus.

**Implement targeted informational campaigns at key times:**

- Inform incoming students of transportation options. A program to encourage making one's first trip to campus by transit, bicycle, etc. is an option.
- Near the end of a semester, prepare for the coming semester by updating the campus community of the latest information on transit, bicycling, etc.

## **Campus Entrance and Perimeter Recommendations:**

Modest improvements to the main college entrances would welcome pedestrians and cyclists to campus. Providing additional entrances for pedestrians and bicyclists would reduce travel distance, an important factor for pedestrians and cyclists. Well aligned entrances and street crossings could create direct connections with bicycle friendly streets. Natural locations could be considered for additional entrances that relate to streets and provide access to community park facilities.

The construction of the Light Rail station near the Bruceville Road entrance offers an opportune time to make changes that would benefit pedestrians and bicyclists and transit riders. Other construction and roadway projects may create additional opportunities to provide pedestrian and bicycle amenities.

### **Enhance the College's main entrances:**

- Stripe bicycle lanes along the College's three main entrance drives.
- Provide effective bicycle detection to trigger signals.
- Provide for bicyclists making left turns into and out of the College.
- Provide wide sidewalks on both sides of entrance drives.

### **Create direct pedestrian & bicycle access to Cosumnes River College Park**

A new pedestrian-bicycle entrance at the southeast corner of Cosumnes River Boulevard and Center Parkway will make this Sacramento City park accessible to neighbors. The proposed South Light Rail Center Parkway Station at the northwest corner could enable entire recreational sports teams to take Light Rail to the park.

**Enhance northeast "back" entrance on Bruceville Road:** The proposed Light Rail line is expected to "flyover" Cosumnes River Boulevard and the northerly back entrance to the College. This is an excellent opportunity to enhance this entrance for pedestrians and bicyclist by providing sidewalks or walkways and bike lanes. It would provide a more direct route for pedestrians coming from Bruceville Road to the north.

### **Create new bicycle/pedestrian entrance to the College at Ehrhardt Avenue:**

A new entrance at Ehrhardt Avenue could provide a good bicycle and pedestrian route from the west in conjunction with crossing improvements at Ehrhardt Avenue and Center Parkway.

### **Campus Perimeter Plan**

With the many changes coming to the campus as a result of the South Line Light Rail extension, it is a good time for the College and the community to consider potential changes that might bring greater connection and visibility to the campus. Opening up

the perimeter with new entrances near Cosumnes River College Park would be especially beneficial to the community. As walking is this country's number one form of exercise, it would make sense to create a walking path around the perimeter of the campus that also connects to the Park. This could include a widened sidewalk with shade trees on both sides of the path. By working with the City's Parks and Recreation Department and the community, a plan could be developed with changes that could benefit the College, the City and the community.

Though there may not be immediate funds for implementation, having a viable plan will put the College and the City in a good position to gain funds when they do become available. While it may be prohibitively expensive to totally remove the perimeter berms, there may be some changes that can be made to a portion of the berms that would benefit the community and increase the visibility of the College. The College and the City can begin now to explore options.

### **Landscaping and Tree Canopy**

Shade from tree canopies creates a more inviting environment for walking and bicycling. Separating sidewalks from the street by a tree shaded landscaped area also shields pedestrians from fast moving traffic, and provides beauty and comfort during the hot summer months. Creating tree wells in the street adjacent to the sidewalk is one method of adding shade trees to an existing street (see Sections A & B). The wide roadways surrounding Cosumnes River College provide room for shade trees. Additional trees can be planted along the perimeter of the campus on existing landscaped areas. Walkways from the entrances to the campus can also be enhanced with a shade canopy.

- Plant shade trees along, Cosumnes River Boulevard, Bruceville Road, Calvine Road, and Center Parkway to provide shade for bicyclists and pedestrians.

## **Roadway Improvement Recommendations**

### **Bruceville Road**

#### **Separated sidewalks:**

- Provide separated sidewalks on west side Bruceville Road from Cosumnes River Boulevard to West Stockton Boulevard.
- Provide sidewalks between the on-campus bus stop and the sidewalk along Bruceville Road.
- Provide separated sidewalks where missing on Bruceville Road to the north and south of campus.
- Provide separated sidewalks on the east side of Bruceville Road, across from campus.

**Pedestrian & bicycle crossings:** Provide conspicuous, high visibility marked crosswalks on all legs of intersections along Bruceville Road with pedestrian refuge islands where space permits. Provide effective bicycle detection to trigger signals with signal timing appropriate for cyclists.

- Bruceville Road and Cosumnes River Boulevard: improve pedestrian and bicycle safety at all four legs of crossing. Reduce crossing distance; check signal timing; make crosswalks conspicuous with high visibility marking and signage.
- Bruceville Road and West Stockton Boulevard: (T intersection connecting College with shopping center). Provide marked crosswalk missing on third leg of the intersection.
- Bruceville Road and East Entrance: Provide marked crosswalk missing on third leg of the T intersection. When Cotton Lane is extended, this will be a full 4-way intersection. Provide high visibility marked crosswalks for all legs of the intersection. Provide effective bicycle detection to trigger signals, and signal timing appropriate for cyclists.
- Bruceville Road and Calvine Road: Provide marked crosswalk missing on the fourth leg of the intersection. Provide bicycle detection to trigger signals, with signal timing appropriate for cyclists.

**Median redesign:** Redesign medians so that cyclists can easily access the correct side of the road and ride with the direction of vehicle traffic.

**Signal timing:** Time signals to provide enough time for pedestrians and bicyclists to cross this multi-lane arterial. Set signal timing to maintain driver speeds at 35 miles per hour.

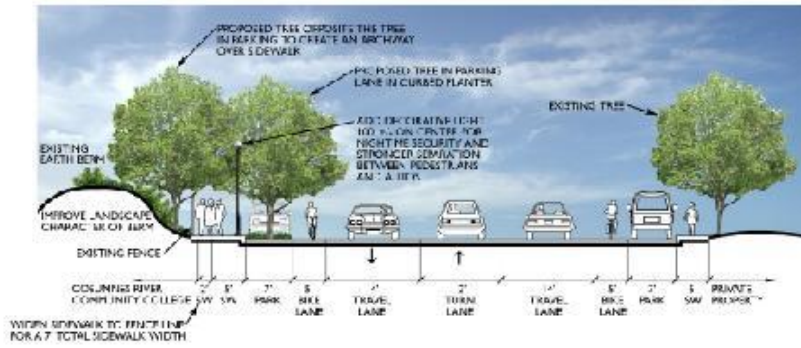
**Transit stops:** Provide ADA access at all bus stops along Bruceville Road.



EXISTING CONDITION SOUTH SIDE



EXISTING CONDITION NORTH SIDE



Calvine Road looking east

## Calvine Road

**Calvine Road and College's South Entrance:** Provide high visibility marked crosswalks with pedestrian refuge islands.

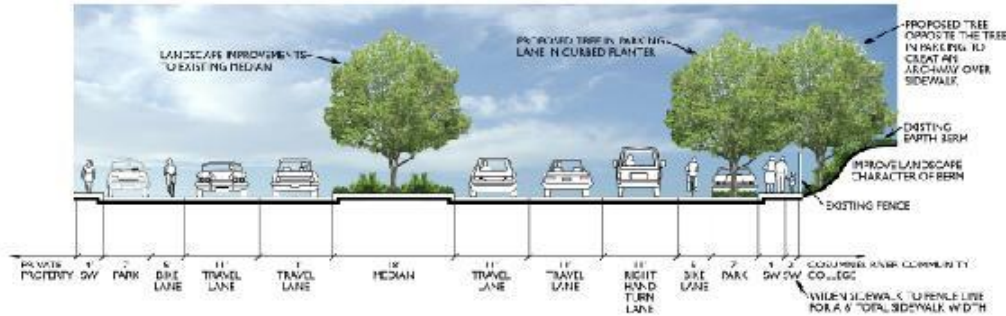
**Road Diet:** Consider measures to slow traffic such as narrowing travel lanes. This can be done by enlarging the sidewalks and adding landscaped areas adjacent to the road. A less expensive treatment would add tree wells in sections of the parking lane and plant large stature trees to provide shade for pedestrians and bicyclists (see diagram above).



EXISTING CONDITION MEDIAN



EXISTING CONDITION EAST SIDE



Center Parkway looking north

## Center Parkway

### **Pedestrian and Bicycle Crossings:**

Center Parkway and Ehrhardt Avenue: Provide marked crosswalk on third leg of intersection.

Center Parkway and West Entrance: Provide high visibility marked crosswalks with pedestrian refuge islands and traffic signals.

Center Parkway and Calvine Road:

- Provide marked crosswalk on fourth leg of the intersection. Provide bicycle detection to trigger signals, with signal timing appropriate for cyclists.
- Move southbound Center Parkway bike lane to the left of right turn only lane on to increase the safety of through cyclists and meet Caltrans standards.

**Median Redesign:** Redesign median to permit left turns and to increase access so that cyclists are encouraged to ride with traffic.

**Road Diet:** Consider measures to slow traffic such as narrowing travel lanes. This can be done by enlarging the sidewalks and adding landscaped areas adjacent to the road. A less expensive treatment would add tree wells with large stature trees in sections of the parking lane to provide shade for pedestrians and bicyclists (see diagram above).

## Cosumnes River Boulevard

- Provide separated sidewalks with shade trees on the south side of Cosumnes River Boulevard to buffer pedestrians from the high speed traffic.
- Improve intersection at Center Parkway and Cosumnes River Boulevard for

pedestrians and cyclists. (Reduce crossing distance; check signal timing; make crossings conspicuous with high visibility marking and signage.)

- Complete pedestrian/bicycle path along the channelized Union House Creek as part of the South Line Light Rail extension.

## **Bicycle and Pedestrian access across Highway 99**

Highway 99 is a significant barrier to both walking and bicycling. Bicycle- and pedestrian-friendly crossings of Highway 99 are needed both north and south of Calvine Road. The existing freeway interchange design at Cosumnes River Boulevard/ Calvine Road does not safely accommodate bicyclists or pedestrians. New interchange designs can more safely accommodate pedestrians and bicyclists. The State is currently making major new investments to Highway 99. Funds may be available to provide safe pedestrian/bicycle crossings particularly where funding is going to make other interchange improvements.

**Cosumnes River Boulevard/Calvine Road Interchange:** Remodel so that the acceleration lane intersections with Cosumnes River Boulevard approximate right angles and a normal, signalized, street grid intersection. Pending completion of the intersection remodel provide:

- Improved bicycle lane striping and signage
- High visibility pedestrian crossings with signage and pedestrian signals or flashing lights with push buttons.

**Sheldon Road Interchange:** The interchange crossing of Highway 99 at Sheldon Road will likely be rebuilt soon, and should include bicycle-friendly on-ramps instead of high-speed diverges.

**Mack Road Interchange:** The overcrossing of Hwy 99 at Mack Road could likely be modified to include 90-degree on-ramps instead of diverges.

**Provide Bicycle-Pedestrian over-crossings and under-crossings:** Potential for separate bicycle/pedestrian over and under-crossings exist at several locations:

- Cotton Lane: Provide a pedestrian/bicycle crossing of Highway 99 in the vicinity of Cotton Lane, and extend Cotton Lane to Bruceville Road.
- Laguna Creek Parkway: The City of Elk Grove is constructing a Class I facility along the Laguna Creek Parkway and has recently received approval for funding a bike/ pedestrian bridge across Highway 99.
- Stevenson Ave to Hospital Drive/Timberlake Drive might be a suitable location for a northern roadway under-crossing, especially because this would improve access to the Methodist Hospital and could connect with the Tillotson Parkway.
- Jacinto Avenue Explore the feasibility of providing a bicycle-pedestrian undercrossing, especially because of the neighborhood park at Jacinto Creek.

- Strawberry Creek: Explore the feasibility of providing an undercrossing near Calvine Road at Strawberry Creek that offers a connection to the Tillotson Parkway and to the planned trail along Union House Creek.

## **Additional Bicycle Program, Infrastructure and Access Recommendations**

### **Campus Program Recommendations:**

- Develop campus Bicycle Master Plan to serve students, faculty, staff and visitors.
- Designate a campus bicycle coordinator.
- Support formation of a bicycle users group.
- Consider forming a Bicycle Advisory Committee.
- Provide up-to-date bicycle information on campus website.
- Provide bicycle skills training by sponsoring on-campus bicycle skills sessions in conjunction with a campus bicycle advisory committee, bicycle users group, student cycling club and/or off-campus organization such as Sacramento Area Bicycle Advocates or League of American Bicyclists. Adding bicycling as a Physical Education offering is another option.

### **Campus Infrastructure Recommendations:**

- Replace campus bike racks with inverted-U or other racks recommended in the Association of Pedestrian and Bicycle Professional Bicycle Parking Guidelines.
- Add bicycle lockers and racks on the west and east sides of the campus, in addition to those already provided on the south side.
- Add lockers and racks at both campus and parking lot levels so that cyclists don't have to carry their bicycles up steps to access them.
- Add bike parking directional signage.
- Assess need for additional shower and locker access for bicycle commuters.

### **Bicycle Route Recommendations:**

- Develop map of potential bike routes coming to the College from various directions.

### **Miscellaneous Bicycle Recommendations:**

- Remove median barriers or add left turn options on Center Parkway north of Cosumnes River Boulevard and other neighborhood streets that have limited access.
- Check signal timing at Center Parkway and Jacinto to see if it is adequate for bicyclists.
- Add curb cut and improve crossing at intersection of North Laguna Creek Wildlife Area trail and Center Parkway.

## Transit Access Recommendations

There are many opportunities to gain transit improvements to Cosumnes River College. Some are modest such as increasing access to transit information by students. Others will require investments such as upgrading waiting areas, providing new transit routes, and increasing transit frequencies.

As many as 1500 students regularly take Light Rail and/or transit to Cosumnes River College in spite of challenging conditions in terms of routes and schedules. Approximately 1300 additional students take transit occasionally. Students have a powerful economic incentive to take transit. With modest improvements, many more students would likely take this option.

Coordination and involvement with the Sacramento Regional Transit District is critical to gain priority for changes that would lead to increased transit ridership to the College. This is an opportune time as the Sacramento Regional Transit District is in the midst of a major planning effort which will culminate in a long range Transit Master Plan, a Short Range Transit Plan, and an ADA/Paratransit Plan. These plans are expected to lead to a new funding initiative to support expanded Light Rail and transit.

**Provide information & education:** One of the reasons that students give for not taking transit is that they don't know the routes or schedules. Additionally, some students are unaware of their ability to ride transit using their Los Rios Transit Access Card. Providing this information is something that would take minimum investment to remedy.

- Include information on transit routes on all directions to the College.
- Provide several places on campus where transit route brochures are easily available.
- Provide information on the Transit Access Card.
- Provide information on the health benefits of walking to transit could influence those students that live near transit stops to take transit for some of their trips.

**Enhance the convenience and safety of the Bruceville Transit Center:** Another reason students give for not taking transit is that they don't feel safe. Enhancing the Bruceville Transit Center as part of the South Line Light Rail extension project can increase its convenience and safety.

- Upgrade transit waiting areas: with good lighting, room for all to maneuver, and shelter from wind and rain.
- Provide greater security at the Transit Center by having Sacramento RT or Los Rios security personnel include this area on their regular rounds of the campus.
- Provide signage including descriptions, maps and schedules of each route; electronic kiosk that provides online information of next buses coming to the Transit Center, and a clock.

- Designing new station and garage with good “eyes on the street” by creating natural surveillance by the users with entrances and windows overlooking sidewalks and walkways and by avoiding blank walls.
- Creating a study area adjacent to the transit station to encourage transit use by facilitating student study while awaiting transit.

**Increase transit frequencies and optimize schedules:** Work with Sacramento Regional Transit and e-trans to coordinate transit routes, frequencies, schedules with students’ needs.

- Align class and transit schedule as needed to maximize timing to meet class schedules. Alignment of schedules is especially important for routes with long headways, and is a tool for building ridership, so that frequency can be increased.
- Consider providing facilities for bus drivers to take breaks at CRC to give RT another tool for adjusting bus schedules to align with class schedules.

**Participate in Sacramento Regional Transit’s Planning Process:** Initiate involvement of students, faculty, and staff in the update of Regional Transit’s Transit Plan, Short Range Transit Plan and ADA/Paratransit Plan. This could include:

- Outreach: Explore in greater detail what would work to make transit a more viable option for students as well as faculty and staff. This could take the form of more detailed surveys, focus groups and on-campus workshops.
- Evaluate and revise routes: Using the excellent GIS capabilities of the College gives planners the opportunity to design and model routes that would optimize access to students.
- Provide transit recommendations: Provide specific recommendations to Regional Transit for improvements that would increase transit ridership. The recommendations in this plan are a good beginning.
- Provide recommendations on Future Light Rail Station Design: The College can be an active participant in the design process for the new Light Rail Station and garage.

**Create On-Campus Transit Management/Planning Group:** Create a joint student/faculty/staff transit management advisory group. The purpose of the group would be to assist in various activities that support increasing transit and transit ridership to the College such as participating in Sacramento Regional Transit’s planning process; providing recommendations to Cosumnes River College governance structures to gain support for changes that would improve transit and transit ridership; and providing quick response to transit issues that arise on campus.