

Folsom Lake Trail

Proposed Trail Alignment

The Folsom Lake Trail

The Benefits Are Endless

- Connecting east Folsom and El Dorado County to the American River Parkway
- Creating an alternative off-street bikeway along the East Natoma Street transportation corridor
- Providing barrier-free bikeway access from El Dorado Hills to the American River Trail
- Access to numerous recreational opportunities including Folsom Lake & Historic Folsom



November 29, 2007

Jose Luis Caceres, Associate Planner
Sacramento Area Council of Governments
1415 L Street, Suite 300
Sacramento, CA 95814

Dear Mr. Caceres:

The City of Folsom, Parks & Recreation Department is pleased to submit our application for funding under the SACOG Bicycle and Pedestrian Funding program. The project name is "Folsom Lake Trail Bike/Pedestrian Overcrossing".

Per the Bicycle & Pedestrian Funding Program Guidelines, the City of Folsom is submitting one original signed application and twelve copies. In addition, one compact disc with a copy of the application is being provided.

I acknowledge that I am officially authorized to submit this grant application on behalf of the City of Folsom.

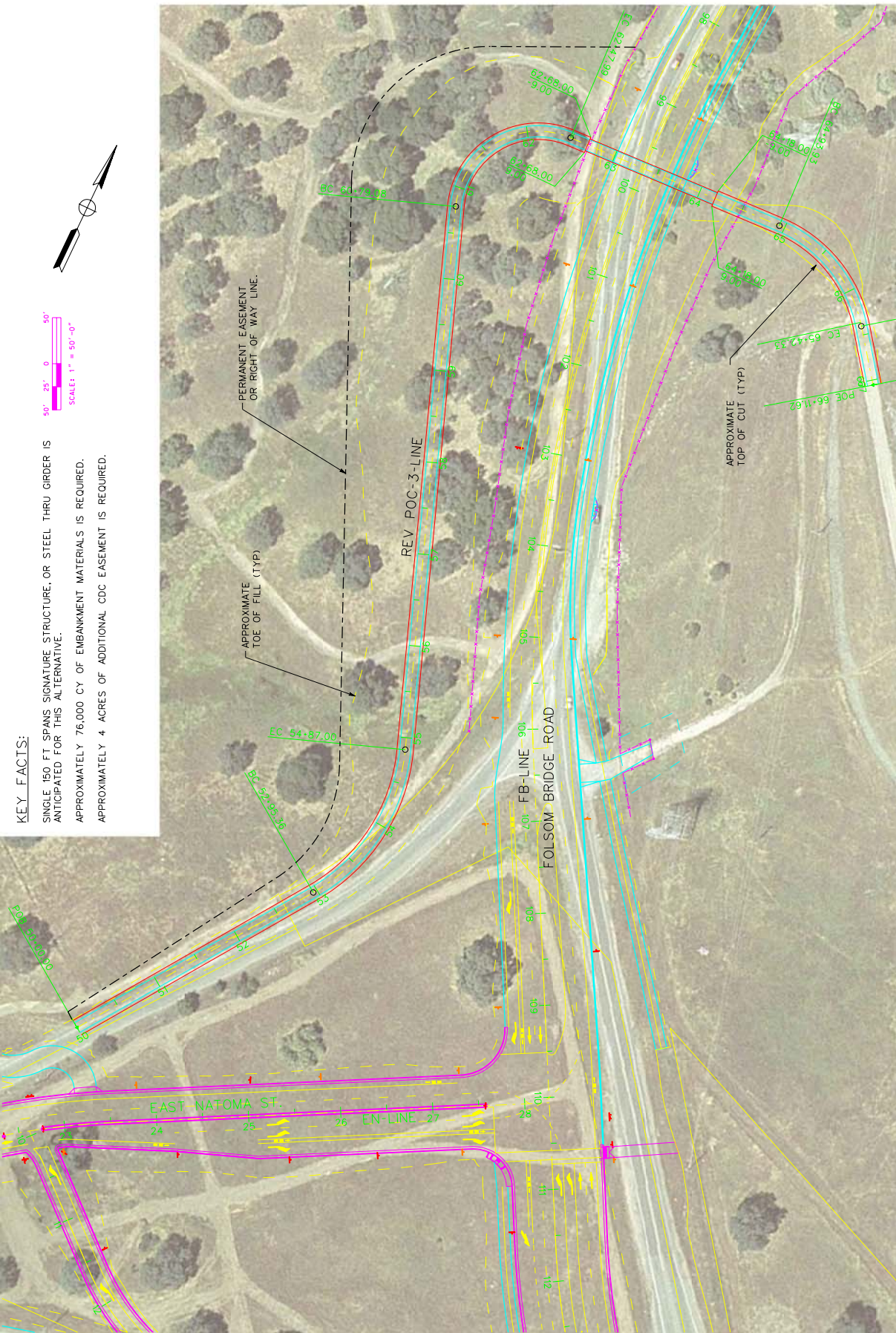
The contact person for this project is:

Jim Konopka
Senior Planner, Trails
Parks & Recreation Department
50 Natoma Street
Folsom, CA 95630
(916) 351-3516

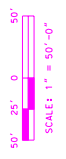
If you have any questions please contact Jim Konopka.

Sincerely,

Robert Goss
Parks & Recreation Director



KEY FACTS:
 SINGLE 150 FT SPANS SIGNATURE STRUCTURE, OR STEEL THRU GIRDER IS ANTICIPATED FOR THIS ALTERNATIVE.
 APPROXIMATELY 76,000 CY OF EMBANKMENT MATERIALS IS REQUIRED.
 APPROXIMATELY 4 ACRES OF ADDITIONAL CDC EASEMENT IS REQUIRED.



Symbol	Description	Date Approved

Client: DEPARTMENT OF THE ARMY	Project Manager: May 5, Mon
Contract: GROUPS OF ENGINEERS	Design Title: REV POC-3-LINE
Location: SACRAMENTO, CALIFORNIA	Drawn By: May 5, Mon
Scale: AS SHOWN	Spec No.:
Date: 09-01	Design Title No:

CH2MHILL / URS
 a joint venture
 1400 R STREET, SUITE 100
 SACRAMENTO, CALIFORNIA 95811
 TEL: (916) 441-1100
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FOLSOM
 AMERICAN RIVER WATERSHED PROJECT
 FOLSOM BRIDGE PROJECT
 EXHIBIT C
 EAST NATOMA ST REV POC-3
 PERMANENT EASEMENTS

Sheet Reference Number:
EXH-1
 Sheet 1 of 1

Environmental Justice:

Folsom Lake Trail Bike/Pedestrian Overcrossing Project

The City of Folsom will conduct an extensive public outreach effort as part of this project. The City plans on holding at least 2 public workshops to obtain public input on the project. In addition, the City plans to invite the public and businesses to a design workshop to help with the visual aspects and site design of the over-crossing. The goal is to design the overcrossing to fit in with the surrounding environment, be consistent with the City's current way-finding program and meet the needs of all user groups and skill levels. Noticing for the meetings will be through direct mailing to all landowners within 2,000-feet of the project area and advertising in all the local newspapers and City newsletter. Will also be providing notices at all the light rail stations and park and ride lots to give transit riders the opportunity to participate in the outreach efforts.

The population and income levels served by this project are projected to be very diverse in nature because of the access opportunities this project offers. The linkages to a bus transit stop located in close proximity to the project provides alternative transportation opportunities for the low-income population, who might not have easy access to an automobile. The proposed trail project provides direct access to several different types of employers. These employers cater to a diversity of skill and pay levels such as manufacturing, service, and retail.

As mentioned, the proposed project in combination with existing trail segments will provide a direct connection to the new light rail station at Glenn Drive, making access between transportation modes very convenient for all user groups. City bus service (Folsom Stage Line) will utilize this park and ride lot as a major transfer point. The linkage between public transportation and the trail will enable all users to enjoy the trail, including people who are disabled and can't drive a car and for those people who don't have access or can't afford an automobile.

PROJECT SUMMARY

Project Title	Folsom Lake Trail Bike/Pedestrian Overcrossing														
Local agency contact information	Jim Konopka City of Folsom Parks & Recreation Department 50 Natoma Street Folsom, CA 95630 (916) 351-3516 (916) 351-5931 jkonopka@folsom.ca.us														
Partners	City of Folsom is the Lead Agency														
Project Number in SACOG Master Plan	07-01-08														
Scope of project & location (not to exceed 150 words) Include aspects of project/program that contribute to Blueprint implementation and other goals of the Funding Program	See Attachment														
Project Schedule & Milestones: <ul style="list-style-type: none"> • Start work • Final Ed approved • R/W Acquired • Final plans approved • Environmental permits secured • Award construction contract • Work completed 	<table style="width: 100%; border: none;"> <tr> <td>Start Work:</td> <td>March 2008</td> </tr> <tr> <td>Final Ed Approved:</td> <td>December 2007</td> </tr> <tr> <td>R/W Acquired:</td> <td>April 2008</td> </tr> <tr> <td>Final Plans Approved:</td> <td>May 2008</td> </tr> <tr> <td>Env. Permits Secured:</td> <td>No permits required</td> </tr> <tr> <td>Award Const Contract:</td> <td>July 2008</td> </tr> <tr> <td>Work Completed:</td> <td>November 2008</td> </tr> </table>	Start Work:	March 2008	Final Ed Approved:	December 2007	R/W Acquired:	April 2008	Final Plans Approved:	May 2008	Env. Permits Secured:	No permits required	Award Const Contract:	July 2008	Work Completed:	November 2008
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Work Completed:	November 2008														
Overall Total Cost Estimate	\$1,345,000														
Total funding sought and funding committed from other sources	<table style="width: 100%; border: none;"> <tr> <td>SACOG Funding Request</td> <td style="text-align: right;">\$575,000</td> </tr> <tr> <td>City of Folsom Matching Funds</td> <td style="text-align: right;">\$475,000</td> </tr> <tr> <td>EEM Grant Funds</td> <td style="text-align: right;"><u>\$295,000</u></td> </tr> <tr> <td>Total Project Cost:</td> <td style="text-align: right;">\$1,345,000</td> </tr> </table>	SACOG Funding Request	\$575,000	City of Folsom Matching Funds	\$475,000	EEM Grant Funds	<u>\$295,000</u>	Total Project Cost:	\$1,345,000						
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Local funding commitment from each partner Local match must be at least 11.47% of requested amount	<table style="width: 100%; border: none;"> <tr> <td>City of Folsom</td> <td></td> </tr> <tr> <td>Grant Matching Funds:</td> <td style="text-align: right;">\$475,000</td> </tr> <tr> <td colspan="2">Per City Council Resolution No. 8194</td> </tr> </table>	City of Folsom		Grant Matching Funds:	\$475,000	Per City Council Resolution No. 8194									
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Risks to Schedule or Cost	Timing is critical for this project. The City has the ability to construct the proposed bike/pedestrian overcrossing before the new Folsom Dam Road is completed and open to traffic. If funding was not received, the cost to construct the bike/pedestrian overcrossing after the roadway is open to traffic would increase by a minimum of 35% - 40%. In addition, we would only have to disturb the site once.
Phases/divisibility	The proposed bike/pedestrian overcrossing is the first phase of the 6-mile Folsom Lake Trail that extends from the American River Trail to El Dorado County. The overcrossing is the most critical segment because it provides a much needed grade separated crossing of a new 4-lane arterial roadway that is projected to have 30,000 vehicles per day after the first year it is open to traffic.

COST ESTIMATE

Funding Categories	Task	Cost Estimate
Environmental	Environmental Studies	\$20,000
Engineering	Engineering & Design	\$80,000
Right-of-Way*	Right-of-Way acquisition	\$60,000
	Utility relocation & lighting	\$50,000
Construction*	Environmental mitigation	\$8,000
	Excavation/Grading Import Fill Material	\$475,000
	Foundation & Pavement	\$150,000
	Pre-Manufactured Bridge	\$450,000
	Drainage work	\$47,000
	Signage, signals, & striping	\$5,000
	Bicycle storage/parking	-----
	Buildings/structures	-----
	Non-capital staff activities	-----
	Non-capital materials (maps, brochures, manuals, printing, etc)	-----
Misc.*	Other project components	-----

*If project applicant is Caltrans, please provide cost estimate for the following additional two components:

- Right-Of-Way Support: _____
- Construction Support: _____

PROJECT BENEFIT ESTIMATE

Quantifiable Benefits Methodology

$$\begin{aligned} \text{Estimate of Existing Usage} &= 0 \\ \text{Estimate of Increase in Usage} &= 29,000 \text{ new users first year} \\ \text{Length of Project (miles)} &= .25 \text{ miles} \\ \text{Quantifiable Benefits} &= (0 (.25/10 \text{ mph}) (\$5/\text{hr})) + (29,000 (.25/10 \text{ mph}) \$10/\text{hr}) \\ &= \begin{array}{r} 0 \\ + \end{array} \begin{array}{r} \\ 7,250 \end{array} \\ &= \$7,250 \text{ benefits} \end{aligned}$$

Qualitative Benefits Methodology

It is difficult to measure the value of the safety and convenience the bike/pedestrian overcrossing, over a major arterial street, will offer to cyclists and pedestrians. It is also hard to estimate the increase in usage after the project is completed. The new overcrossing is expected to generate a significant amount of use based on the regional significance this project offers to residences in Folsom, El Dorado County and Placer County and the high use of existing trails in the area. The initial cost of an overcrossing seems high, however the number of new bike commuters this facility will generate will help reduce automobile trips and do its part to improve air quality.

EMISSIONS CALCULATIONS FOR CMAQ FUNDING

Folsom Lake Trail Bike/Pedestrian Overcrossing

The new Class 1 bike trail overcrossing is a critical link in the city bike system, allowing cyclists and pedestrians access to several major destinations including, employment, shopping, and transit. Within one-quarter mile of the project, there is a bus transit stop and the City Hall Campus. The project includes installation of a new bike/pedestrian overcrossing at the new Folsom Dam Road, including approach ramps and connection to the Class II bike lanes on East Natoma Street. The population of Folsom is 60,000.

Inputs to Calculate Cost-Effectiveness:

Funding Dollars (Funding): \$575,000

Effectiveness Period (Life): 20 years

Days (**D**): 200

Average Length (**L**) of bicycle trips: 1.8 miles

Annual Average Daily Traffic (**ADT**): 20,000

Adjustment (**A**) on ADT for auto trips replaced by bike trips from the bike facility: 0.0020

Credit (**C**) for Activity Centers near the project: 0.0005

Emissions Factors (From Table 3, for a 15-year Life):

	Auto Trip End Factor	Auto VMT Factor
ROG Factor	1.020 grams/trip	0.266 grams/ mile
NO _x Factor	0.458	0.319
PM10 Factor	0.016	0.219

Calculations:

$$\begin{aligned}\text{Annual Auto Trip Reduced} &= (D) * (ADT) * (A + C) \\ &= (200) * (20,000) * (0.0020 + 0.0005) \\ &= 10,000\end{aligned}$$

$$\begin{aligned}\text{Annual Auto VMT Reduced} &= (\text{Auto Trips}) * (L) \\ &= (10,000) * (1.8) \\ &= 18,000\end{aligned}$$

Annual Emission Reductions (ROG, NO_x and PM10) in lbs. per year

$$= [(Annual Auto Trips Reduced) * (Auto Trips End Factor)$$

$$+ (Annual Auto VMT Reduced) * (Auto VMT Factor)] / 454$$

$$\text{ROG: } [(10,000 * 1.020) + (18,000 * 0.266)] / 454 = 33.01 \text{ lbs. per year}$$

$$\text{NO}_x: [(10,000 * 0.458) + (18,000 * 0.319)] / 454 = 22.74 \text{ lbs. per year}$$

$$\text{PM10: } [(10,000 * 0.016) + (18,000 * 0.219)] / 454 = 9.04 \text{ lbs. per year}$$

Bicycle Facilities, Continued . . .

$$\text{Capital Recovery Factor (CRF): } \frac{(1+i)^n(i)}{(1+i)^n - 1} = 0.068 \text{ Where } n = \text{project life (20 years)}$$

and $i = \text{discount rate (3\%)}$

Cost-Effectiveness of Funding Dollars: $(\text{CRF} * \text{Funding}) / (\text{ROG} + \text{NOx} + \text{PM10})$
 $= [.068 * 575,000] / [64.79]$
= \$603.49 per lb.

FOR CMAQ PROJECTS ONLY:

Once emissions reductions have been calculated, for each pollutant convert lbs. of emissions reductions per year to kg/day:

$$\frac{\text{lbs. reduced per year}}{2.2 \text{ lbs./kg} * 365 \text{ days/year}} = \frac{33.01}{2.2 * 365} = \mathbf{0.004 \text{ kg/day ROG}}$$
$$\frac{\text{lbs. reduced per year}}{2.2 \text{ lbs./kg} * 365 \text{ days/year}} = \frac{22.74}{2.2 * 365} = \mathbf{0.003 \text{ kg/day NOx}}$$
$$\frac{\text{lbs. reduced per year}}{2.2 \text{ lbs./kg} * 365 \text{ days/year}} = \frac{9.04}{2.2 * 365} = \mathbf{0.001 \text{ kg/day PM10}}$$