

STAFF REPORT

SUBJECT: South Coast Intelligent Transportation System Projects

MEETING DATE: March 18, 2010

AGENDA ITEM: 6C

STAFF CONTACT: Fred Luna

RECOMMENDATION:

- A. Approve a contract amendment with Kimley-Horn & Associates to initiate Phase II of the South Coast ITS projects with a budget of \$475,000 for design and implementation of Tier 1 projects and a contract termination date of June 30, 2011.
- B. Authorize staff to develop memorandums of understanding with respective local agencies fund and implement Tier 1 projects.

SUMMARY:

At the February 3, 2010, South Coast Subregional Committee meeting, staff presented projects recommended for implementation under the board-approved South Coast Intelligent Transportation System (ITS) Plan. Members of the subregional committee provided positive comments on the three projects.

- Traveler Information Website (SBCAG sponsor)
- Signal Synchronization on Carrillo Street (in City of Santa Barbara)
- Transit Signal Priority (TSP) on upper State Street corridor (in City of Santa Barbara)

The projects are being funded through two federal earmarks secured by Congresswoman Lois Capps totaling nearly \$1.6 million for South Coast Highway 101 corridor ITS projects. Phase I of the ITS effort included preliminary engineering and a feasibility determination for the projects at a cost of \$200,000. The contract for Phase I was approved by the SBCAG board in November 2008. Staff is recommending the SBCAG board approve a contract amendment with its consultant team, Kimley-Horn & Associates (KHA) for Phase II. Phase II would include design and implementation of the three projects and a traffic signal synchronization analysis for the Hollister corridor from the Santa Barbara city line to Storke Road. It would extend the contract through June 30, 2011 and authorize \$475,000 in earmark funding be spent on design, to procure equipment and materials, and to install or construct the three projects. Staff is also recommending that memorandums of understanding be developed with the city of Santa Barbara and the Santa Barbara MTD for implementation of the capital projects on Carrillo Street and upper State Street. At a later date, when it becomes clear that a balance of earmark funding will remain, staff will return to the board with a recommendation to implement Tier II projects, potentially including synchronization on Hollister Avenue depending on the outcome of the synchronization analysis.

DISCUSSION:

At its meeting on February 3, 2010, the South Coast subregional committee supported the three projects listed in Table 1 to be implemented as Tier 1 projects. These three projects were previously documented in the South Coast ITS Plan which was adopted by the SBCAG board in April 2009.

**Table 1
Tier 1 Projects for Implementation**

Project	Description
Web-based Traveler Information System	Development of a regional traveler information website that would provide real time, map-based information on road closures, CHP incident reports, and Highway 101 traffic conditions.
Signal Synchronization on Carrillo Street	Timing coordination of signals of up to 6 signals on Carrillo Street from Chapala Street to US 101 ramps. To improve peak hour traffic flow to and from US 101 and improve a main route to transit center.
Transit Signal Priority (TSP)	Equipping up to 20 MTD buses with hardware and providing up to 10 spares for buses to interface with signal priority capabilities on Upper State Street corridor between Calle Laureles and Calle Real/US 101 ramps. To improve transit vehicle reliability during peak hours.

Another project was discussed at the subregional committee meeting which proposed to synchronize signals in the City of Goleta along Los Carneros Road but Goleta staff indicated they wanted to continue discussing the project and an alternative project on Hollister Avenue with SBCAG staff. A meeting was held on February 24, 2010 at which the City of Goleta staff indicated that they preferred exploring the possibility of synchronizing signals on Hollister Avenue between Fairview Avenue and Storke Road rather than Los Carneros. SBCAG staff responded that a work task could be included in Phase II of the Kimley contract to look at detailed options for synchronizing signals on Hollister Ave in the City and within the County of Santa Barbara as well. Depending on the funds that remain after completing the Tier 1 projects, the Hollister Ave projects could be implemented as part of a subsequent phase. The City staff supported this approach. Attached is an email from the City of Goleta indicating their support.

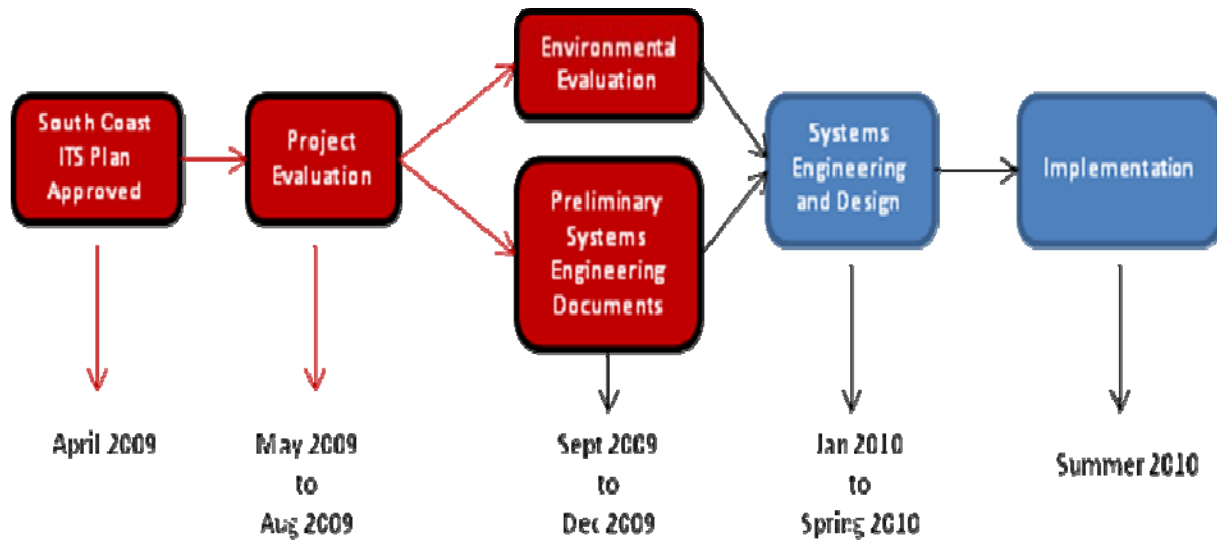
SBCAG staff has continued to work with local agency staff on the other three projects, as well, and has received letters of support from the agencies on their respective projects. Those letters have been attached to the staff report.

Status of Each ITS Project and Next Steps

Each of the three projects has been cleared environmentally through a Preliminary Environmental Study (PES) that was prepared by the consultant team and a categorical exemption document prepared by Caltrans. In addition, as required for all federally funded ITS projects, preliminary set of systems engineering documents have been prepared and submitted to Caltrans and FHWA for review. These documents ensure that the ITS projects being proposed for implementation are consistent with the Central Coast ITS architecture which governs ITS projects in our region.

Staff and the consultant team have now completed the tasks shown in Figure 1 below up through Environmental Evaluation and Preliminary Systems Engineering Documents. The next steps remain are to prepare the detailed design and final systems engineering which will vary for each of the three projects. The contract amendment being requested will provide the budget to have the consultant complete all tasks for the three projects through implementation.

**Figure 1
ITS Project Development Flow Chart**



Phase II Contract Amendment

In November 2008, SBCAG approved a contract with Kimley Horn & Associates in the amount of \$200,000. During the course of the 15 months, two specific task orders were written to fund specific efforts provided by the Kimley Horn team for Phase I. The first task order culminated in the completion of the ITS South Coast Plan which was approved by the SBCAG board in April 2009. A second task order was written to take us through the environmental evaluation and preliminary systems engineering documentation. These two task orders have exhausted the initial contract budget authority. Staff is now requesting that the SBCAG board approve a contract amendment to authorize funding for Phase II to implement the three Tier 1 projects.

The contract amendment for Phase II would include \$475,000 of additional earmark funding (of the total \$1.6 million authorized) which includes a 20% contingency for engineering and construction through implementation. Of this total cost, approximately \$132,000 is for engineering and \$343,000 is for construction/integration (including equipment procurement). Table 2 shows the breakdown by each project.

**Table 2
Project Cost**

Project Description	Project Costs		
	Engineering and Design	Build and Integration	Total
Web Traveler Information Site	\$50,000	\$125,000	\$175,000
Carrillo Street – Signal Synchronization (includes Hollister analysis)	\$15,000	\$40,000	\$55,000
Upper State Street – Transit Signal Priority	\$45,000	\$120,000	\$165,000
Subtotal	\$110,000	\$285,000	\$395,000
Contingency (~ 20%)	\$22,000	\$58,000	\$80,000
Total Cost	\$132,000	\$343,000	\$475,000

With the approval of the contract amendment, SBCAG staff will again negotiate task orders to expend the budget on specific work items to be completed by specific dates. The task orders will include the following activities (grouped by project):

Traveler Information Website

- Completion of the Concept of Operations (ConOps) and Systems Engineering Management Plan which are required documents for federally funded ITS projects.
- Development of design and specifications for traveler information website
- Testing and launch

Signal Synchronization Projects

Carrillo Street – Santa Barbara

- Completion of the Concept of Operations (ConOps) and Systems Engineering Management Plan which are required documents for federally funded ITS projects.
- Travel time studies, data collection and “before and after” traffic analysis
- Signal timing plan development
- Testing
- Support SBCAG staff developing Memorandum(s) of Understanding with City of Santa Barbara

Hollister Corridor -- Santa Barbara City Line to Storke Road

- Project Initiation and Field Work (signal timing analysis)
- Prepare a Project Strategy document that outlines options, costs
- Preparation of Systems Engineer Review Form

Transit Signal Priority Projects – Upper State Street, Santa Barbara

- Completion of the Concept of Operations (ConOps) and Systems Engineering Management Plan which are required documents for federally funded ITS projects.
- Inventory, evaluate and configure of vehicle detectors on signals
- Design and specify requirements for hardware
- Coordinate installation of hardware on transit fleet
- Support SBCAG staff developing Memorandum(s) of Understanding with City of Santa Barbara and Santa Barbara MTD
- Testing

Recommendation

Staff is recommending that the board:

- A. Approve a contract amendment with Kimley-Horn & Associates to initiate Phase II of the South Coast ITS projects with a budget of \$475,000 for design and implementation of Tier 1 projects and a contract termination date of June 30, 2011.
- B. Authorize staff to develop memorandums of understanding with respective local agencies related to fund and implement Tier 1 projects.

ATTACHMENTS

1. Letter of support from SBMTD
2. Letter of Support from City of Santa Barbara
3. Letter of Support from City of Goleta



Metropolitan Transit District
550 Olive Street
Santa Barbara, CA 93101

p (805) 963-3364
f (805) 962-4794
www.sbmtd.gov

March 11, 2010

Mr. Jim Kemp
Executive Director
Santa Barbara County Association of Governments
260 North San Antonio Road, Suite B
Santa Barbara, CA 93110-1315

Re: Support for Transit Signal Priority Project

Dear Mr. Kemp:

The Santa Barbara Metropolitan Transit District (MTD) supports the Santa Barbara County Association of Governments (SBCAG) recommendation to proceed with the Transit Signal Priority (TSP) project related to the Upper State Street area. MTD understands that SBCAG has confirmed Caltrans approval to fund all Tier 1 projects, including the aforementioned TSP project with no local match requirement, with the federal grant received by SBCAG for Intelligent Transit Systems deployments within the South Coast.

MTD feels that this project is a good start to identifying the benefits of bus transit priority technology within its jurisdiction. The Upper State Street area is a crucial transportation pathway that provides commuters with a parallel route to the 101 Highway and this corridor is a critical aspect of the local public transit infrastructure.

Sincerely,

A handwritten signature in cursive script that reads "Sherrie Fisher".

Sherrie Fisher
General Manager



City of Santa Barbara

Public Works Department

www.SantaBarbaraCA.gov

March 4, 2010

Main Office

630 Garden Street
P.O. Box 1990
Santa Barbara, CA
93102-1990

Jim Kemp, Executive Director,
Santa Barbara County Association of Governments
260 North San Antonio Road, Suite B
Santa Barbara CA 93110

Administration

Tel: 805.564.5377
Fax: 805.897.2613

**SUBJECT: CITY OF SANTA BARBARA SUPPORT FOR LOCAL INTELLIGENT
TRANSPORTATION SYSTEM PROJECTS**

Engineering

Tel: 805.564.5363
Fax: 805.564.5467

Facilities

Tel: 805.564.5415
Fax: 805.897.2577

Street Maintenance

Tel: 805.564.5413
Fax: 805.897.1991

Transportation

Tel: 805.564.5385
Fax: 805.564.5467

Water Resources

Tel: 805.564.5387
Fax: 805.897.2613

Dear Mr. Kemp:

The City of Santa Barbara (City) understands that the Santa Barbara County Association of Governments (SBCAG) staff will be taking a recommendation to its board on March 18, 2010 to recommend approval in moving forward with the implementation of several Intelligent Transportation System (ITS) projects that came out of the South Coast ITS Plan, approved in April 2009. As a member of the South Coast ITS Plan Working Group, the City of Santa Barbara participated in this effort and its connection to the 101 in Motion consensus package strategies, which called for implementing ITS projects as early-action projects. City staff has also been involved in the study of local project feasibility.

The purpose of this letter is to show support for two specific projects within the City's jurisdiction:

- Carrillo Street Signal Synchronization from State Highway 101 to Chapala Street; and
- Upper State Bus Signal Prioritization from Calle Laureles to Calle Real/State Highway 154

By indicating support for these projects, the City of Santa Barbara is agreeing to continue to cooperate with SBCAG on implementing these projects and entering into a Memorandum of Understanding that will identify roles and responsibilities of the City and SBCAG during future phases of the project such as design, testing, integration, operations and maintenance. We look forward to continuing to work on these projects and the benefit that they will yield.

Sincerely,

Christine F. Andersen
Public Works Director

Dvh/kts

c: Browning Allen, Transportation Manager
Ron Chandler, Transportation Engineering Associate

From: Rosemarie Gaglione [mailto:rgaglione@cityofgoleta.org]
Sent: Wednesday, March 10, 2010 11:08 AM
To: Fred Luna; Marti Schultz
Cc: Steve Wagner
Subject: RE: Signal Synch Project on Hollister

Fred,

This is to confirm that the City of Goleta is supportive of an ITS project to synchronize traffic signals on Hollister Avenue between Fairview Avenue and Storke Road. As we discussed, it is our preference to have video detection and not just a timing program. As you know, Hollister Avenue becomes the alternative to 101 when there is a collision or road work that impedes traffic flow on the highway. It would be best to be able to have a system that is flexible enough to accommodate those temporary changes in the volume and patterns.

Thanks for facilitating this effort.

Rosemarie Gaglione, PE
Capital Improvement Program Manager
City of Goleta
805.961.7500



From: Fred Luna [mailto:FLuna@sbcag.org]
Sent: Wednesday, March 10, 2010 10:46 AM
To: Rosemarie Gaglione; Marti Schultz
Subject: Signal Synch Project on Hollister

Rosemarie and Marti,

So we are putting together the scope of work for our consultant that will be part of an SBCAG board item on our March 18th agenda. We have included scope for our consultant to prepare a Implementation Strategy document that would outline options for signal synchronization on Hollister Ave from Fairview to Storke as we discussed when we met a couple of weeks ago. Jim Kemp has asked that I request all local agencies provide correspondence to SBCAG that it can include in its staff report or provide to the board at the meeting that indicates support for the ITS projects within their jurisdiction.

Since in the case of the Goleta project, the scope is fairly minimal at this point, an email would suffice.

Fred Luna