

STAFF REPORT

SUBJECT: Central Coast Intelligent Transportation Systems Implementation Plan

MEETING DATE: November 1, 2007

AGENDA ITEM: 10

RECOMMENDATION: Review and provide input on CCITS Implementation Plan project list

STAFF CONTACT: Michael G. Powers, Andrew Orfila

At the October TTAC meeting, there was some concern from TTAC members that some of the projects contained in the CCITS Implementation Plan had not been reviewed by the local agencies. Staff submitted a draft inventory list of ITS projects to TTAC back in February 2006 and asked that members review the list to add, delete or modify as necessary. The February 2006 staff report and the current County inventory from the Implementation Plan is attached for reference.

Staff will be accepting additional comments on the Plan and Inventory at the November meeting. If there are any major policy issues that an agency sees with the list of projects, staff will work with the CCITS Coordinating Group and the consultant to ensure that these are reflected in the Plan. It should be noted that the Plan was prepared based on the County inventory of projects from early 2006, and that there may have been some changes since then. Other minor changes to the ITS infrastructure and changes to future planned ITS projects can be reported as part of SBCAG's ITS architecture updates, which will be completed periodically as needed.

Attachments: CCITS Inventory Staff Report, February 2006
CCITS Implementation Plan Inventory for Santa Barbara County



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STAFF REPORT

TO: TTAC

SUBJECT: Intelligent Transportation System (ITS) Regional Architecture Plan

MEETING DATE: February 2, 2006

AGENDA ITEM: 8

RECOMMENDATION:

Receive a summary of the Central Coast ITS Program and provide input on status of existing and planned ITS projects.

STAFF CONTACT: Andrew Orfila, Michael Powers

DISCUSSION:

With worsening traffic congestion in Santa Barbara County, the continued implementation of Intelligent Transportation Systems (ITS) technology is becoming increasingly important. ITS involves the use of advanced computer, electronic, and communication devices to improve the operations, efficiency, and safety of our existing transportation system. ITS technology gives commuters, tourists, truck drivers, emergency service providers, and transit operators access to a number of different devices to plan their trips according to real-time traffic conditions.

Since 1998, SBCAG has been involved with the Central Coast Intelligent Transportation Systems (CCITS) project. The project is a joint effort with Caltrans District 5, the Association of Monterey Bay Area Governments (AMBAG), and the San Luis Obispo Council of Governments (SLOCOG) to develop an approach for making the most of ITS opportunities in each County and throughout the Central Coast region. With the assistance of a consultant (TransCore), a Strategic Deployment Plan was developed in 2000. It provided a “road map” for ITS implementation and brought projects and systems together into an integrated plan. Since then The CCITS Coordinating Group continued to meet on a quarterly basis. Within the last few years the group received some federal funds to prepare a ITS Architecture and Maintenance Plan in order to comply with federal requirements. A competitive consultant solicitation process was used to select the firm of TransCore to prepare the Plan.

TransCore is currently involved in preparing a regional ITS architecture for each MPO within the CCITS and Caltrans District 5. A brochure that will be distributed at the TTAC meeting provides a brief description of the CCITS project, as well as information on various ITS projects throughout the Central Coast region. A regional ITS Architecture is a federal requirement. When complete, the architecture will be a central database of transportation telecommunications technology and it will identify the interfaces and paths that will make it

Member Agencies

Buellton ■ Carpinteria ■ Goleta ■ Guadalupe ■ Lompoc ■ Santa Barbara ■ Santa Maria ■ Solvang ■ Santa Barbara County

possible to integrate many systems in the future. The architecture can be used as a tool for guiding ITS projects through the conceptual, design, and deployment phases. Any ITS project that uses federal must be assessed for consistency with the regional ITS architecture. SBCAG is working with the consultant to “build” the system to include existing and anticipate upcoming projects to make this effort as painless as possible for agencies proposing ITS projects or projects that have ITS elements.

Telecommunications technologies were also an integral part of the 101 In Motion consensus recommendations. Improving the flow of information about traffic conditions allows drivers to make better informed choices about travel on the 101 corridor. Specific ITS recommendations include: bus priority on selected streets through signal priority, freeway service patrol, 511 travel information, variable message signs, GPS real-time arrival information at bus stops, among other measures. In fact, a network of changeable message signs at the junction of each major state highway throughout the county can assist the traveling public in responding to road closures or restrictions due to accidents, fire, slides, or other impedances.

There are a number of ITS projects currently in place within Santa Barbara County. Table 1 summarizes some of these devices by agency. In most cases the examples may be in isolated locations, vs. across the entire system, e.g. synchronized signals along a specific corridor, but it is still advisable to include the devices into the architecture.

SBCAG is seeking input from TTAC members regarding:

- Any projects that need to be added or deleted.
- The status (i.e. funded or unfunded) of the projects listed above in Table 2.

Table 1 – Existing ITS Devices in Santa Barbara County, Draft

Agency/Stakeholder	Device/Element
Buellton	Synchronized Signal System
Caltrans	1-800 ROAD Call In System Loop detectors, CCTV Cameras Portable Highway Advisory Radio Synchronized Signal System Traffic Monitoring Stations Website
California Highway Patrol	Dispatch System Website
Carpinteria	Synchronized Signal System
City of Goleta	Advanced Crosswalks Synchronized Signal System
Lompoc	Synchronized Signal System
Santa Barbara (City)	Parking Management System Synchronized Signal System
Santa Barbara County	Synchronized Signal System
Santa Barbara Metropolitan Transportation District (MTD)	Website Kiosks
Santa Maria	Synchronized Signal System
SBCAG	Call Boxes
Solvang	Synchronized Signal System
UCSB	Smart Parking Card

Table 2 summarizes some of the future ITS devices that are planned for Santa Barbara County.

Table 2 – Potential ITS Devices in Santa Barbara County, Draft

Agency/Stakeholder	Device/Element
Amtrak	Next Train Changeable Message Signs Automated Ticketing (with Metrolink)
Buellton	Advanced Crosswalks
Caltrans	Changeable Message Signs Ramp Meters CCTV
City of Lompoc Transit (COLT)	Automated Vehicle Locator
Santa Barbara (City)	Advanced Crosswalks
Santa Barbara County	CCTV Traffic Management Center
Santa Barbara MTD	Automated Vehicle Locator Next Bus Message Signs Smart Card
SBCAG	511 Traveler Information System Dynamic Carpool System Freeway Service Patrol Smart Call Boxes Smart Card
Santa Maria Area Transit (SMAT)	Automated Vehicle Locator Smart Card

While there are potential ITS projects, one of the biggest deficiencies in our current ITS "system" is the limited amount of coordination that occurs to make sure the real time information gets disseminated. Local radio reports are sporadic. Caltrans only staffs its District 5 TMC only part time. To make this information available to travelers, media and emergency responders, there will need to be a stepped up level of coordination among agencies. An example of this problem was illustrated with the closure of NB Highway 101 in Montecito on a Saturday due to a diesel tanker spill and the resulting congested local roads reaching all the way to Carpinteria. Additional coordination of data collection and evaluation and information dissemination needs more attention.

SBCAG is the beneficiary of a recent congressional earmark from Congresswoman Capps for ITS improvements to the 101 corridor. Approximately \$800,000 is available for operations and management improvements arising from 101 IM on the 101 corridor. Staff believes this funding can assist in implementing some level of ITS improvements in the corridor. Caltrans recently activated a webcam showing freeway traffic conditions south of Patterson and plans to expand this network of webcams in the corridor. In addition, Caltrans is in the process of activating two small changeable message signs at the north and south junctions of 101 and 154.

Inventory

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Stakeholder Inventory for Project Santa Barbara County Local ITS

Amtrak

Element: Amtrak Next Train CMS *Status:* Programmed
Description: Train/bus arrival notification system at stations in Santa Barbara (planned short-term) and San Luis Obispo Counties (planned mid-term) and Monterey County (Salinas) (planned long-term)

Caltrans D5

Element: Caltrans D5 (Portable) HAR *Status:* Planned
Description: Portable HAR system for Caltrans District 5

Element: Caltrans D5 CCTV *Status:* Existing
Description: Caltrans District 5 CCTV cameras; images also go to District 4 TMC.

Element: Caltrans D5 CMS *Status:* Programmed
Description: Caltrans District 5 Changeable Message Signs (in SB County @ 101/154 North and South)

Element: Caltrans D5 Ramp Meters *Status:* Programmed
Description: Freeway ramp meters in Caltrans District 5

Element: Caltrans D5 Signal System *Status:* Existing
Description: Caltrans D5 arterial signal system with synchronized signals

Element: Caltrans D5 TMC *Status:* Existing
Description: Transportation Management Center for Caltrans District 5; located in San Luis Obispo. Joint operations w/ CHP

Element: Caltrans D5 Traffic Monitoring Stations *Status:* Planned
Description: Caltrans District 5 roadway vehicle detection (in ground but not connected/operational)

Central Coast Dial-A-Ride-Operators

Element: Central Coast Dial-A-Ride Operators *Status:* Existing
Description: On-demand transit services for the Central Coast Region

City of Buellton

Element: Buellton Advanced Crosswalks *Status:* Planned
Description: System(s) to increase driver awareness of potential pedestrian conflicts in Buellton

Element: Buellton Signal System *Status:* Existing
Description: City of Buellton signal system with synchronized signals & smart corridor

City of Carpinteria

Element: Carpinteria Signal System *Status:* Existing
Description: City of Carpinteria signal system

City of Goleta

Element: Goleta Advanced Crosswalks *Status:* Existing
Description: System(s) to increase driver awareness of potential pedestrian conflicts in Goleta (prior County projects)

Element: Goleta Signal System *Status:* Existing
Description: Synchronized signal system in the City of Goleta

City of Guadalupe

Stakeholder Inventory for Project Santa Barbara County Local ITS

Element: Guadalupe Flyer *Status:* Existing
Description: Local transit service for the Guadalupe area (currently contracted to SMOOTH)

Element: Guadalupe Signal System *Status:* Planned
Description: City of Guadalupe signal system

City of Lompoc

Element: Lompoc Signal System *Status:* Existing
Description: Lompoc traffic signal system, incl. synchronization

City of Lompoc Transit (COLT)

Element: City of Lompoc Transit (COLT) *Status:* Existing
Description: Transit operations for the City of Lompoc

Element: COLT Vehicle Locator (AVL) *Status:* Planned
Description: AVL system for City of Lompoc Transit

City of Santa Barbara

Element: Santa Barbara (City) Advanced Crosswalks *Status:* Planned
Description: System(s) to increase driver awareness of potential pedestrian conflicts in Santa Barbara (City)

Element: Santa Barbara (City) Parking Management System *Status:* Existing
Description: Parking management system for downtown area and special events

Element: Santa Barbara (City) Signal System *Status:* Existing
Description: City of Santa Barbara signal system with synchronized signals & smart corridor

City of Santa Maria

Element: Santa Maria Signal System *Status:* Existing
Description: City of Santa Maria signal system with synchronized signals

City of Solvang

Element: Solvang Signal System *Status:* Existing
Description: Solvang traffic signal system, incl. synchronization (SR 246)

Private Call Answering Center (PCAC)

Element: Private Call Answering Center (PCAC) *Status:* Programmed
Description: Private call answering center to pre-process incoming call box calls and route (CHP, local Agency, etc.) as needed

Santa Barbara County

Element: Santa Barbara County CCTV *Status:* Existing
Description: Santa Barbara CCTV cameras/system

Element: Santa Barbara County Signal System *Status:* Existing
Description: Santa Barbara County signal system with synchronized signals

Element: Santa Barbara County TMC *Status:* Programmed
Description: Traffic Management Center for Santa Barbara County. Coverage will include the South Coast area of SB County (Carp., SB, adn Goleta).

Santa Barbara County Association of Governments (SBCAG)

Element: SBCAG 511 *Status:* Planned
Description: SB-area traveler information system(s)

Element: SBCAG Call Boxes *Status:* Existing

Stakeholder Inventory for Project Santa Barbara County Local ITS

<i>Element:</i> SBCAG Call Boxes	<i>Status:</i> Existing
<i>Description:</i> SB-area highway call boxes	
<i>Element:</i> SBCAG Dynamic Carpool System	<i>Status:</i> Planned
<i>Description:</i> Ride matching system for Santa Barbara area	
<i>Element:</i> SBCAG Freeway Service Patrol	<i>Status:</i> Programmed
<i>Description:</i> CHP-dispatched FSP for Hwy 101 from the Ventura County line to Winchester Cyn (scheduled to begin March '06)	
<i>Element:</i> SBCAG Planning	<i>Status:</i> Existing
<i>Description:</i> Transportation planning and data services for SBCAG	
<i>Element:</i> SBCAG Smart Call Boxes	<i>Status:</i> Planned
<i>Description:</i> SB-area highway smart call boxes	
<i>Element:</i> SBCAG Smart Card	<i>Status:</i> Planned
<i>Description:</i> Transit Smart Card for use on Clean Air Express/Vista transit systems	

 Santa Barbara County Local Agencies*Stakeholders in this group:*

City of Santa Barbara
 City of Lompoc
 City of Santa Maria
 City of Buellton
 City of Solvang
 City of Goleta
 City of Carpinteria
 City of Guadalupe

<i>Element:</i> Santa Barbara County Emergency Medical Services	<i>Status:</i> Existing
<i>Description:</i> Santa Barbara County EMT/ambulance system	

Santa Barbara Metropolitan Transit District (SBMTD)

<i>Element:</i> Santa Barbara Metropolitan Transit District (SBMTD)	<i>Status:</i> Existing
<i>Description:</i> Transit operations for the Santa Barbara metro area	

<i>Element:</i> Santa Barbara MTD AVL	<i>Status:</i> Planned
<i>Description:</i> Automatic Vehicle Location system for SBMTD fleet	

<i>Element:</i> Santa Barbara MTD Kiosks	<i>Status:</i> Existing
<i>Description:</i> Transit information kiosks for Santa Barbara MTD	

<i>Element:</i> Santa Barbara MTD Next Bus	<i>Status:</i> Planned
<i>Description:</i> Next bus arrival system for SBMTD	

<i>Element:</i> Santa Barbara MTD Website	<i>Status:</i> Existing
<i>Description:</i> Website for SBMTD riders. Includes trip planning. (http://www.sbmtd.gov/) -- currently has static schedule and fare info plus intelligent PDA download	

Santa Maria Area Transit (SMAT)

<i>Element:</i> SMAT (Santa Maria Area Transit)	<i>Status:</i> Existing
<i>Description:</i> Transit operations for the City of Santa Maria	

<i>Element:</i> SMAT AVL	<i>Status:</i> Planned
<i>Description:</i> Automatic Vehicle Location system for SMAT	

<i>Element:</i> SMAT Smart Card	<i>Status:</i> Planned
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Stakeholder Inventory for Project Santa Barbara County Local ITS

Element: SMAT Smart Card*Status:* Planned*Description:* Transit Smart Card for use on SMAT

Santa Ynez Valley Transit (SYVT)*Element:* Santa Ynez Valley Transit (SYVT)*Status:* Existing*Description:* Transit operations for the Santa Ynez Valley

UCSB*Element:* UCSB Smart Card*Status:* Existing*Description:* UCSB Smart Card for Parking Program
