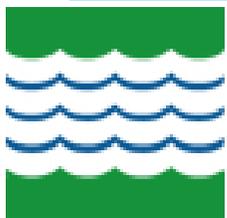
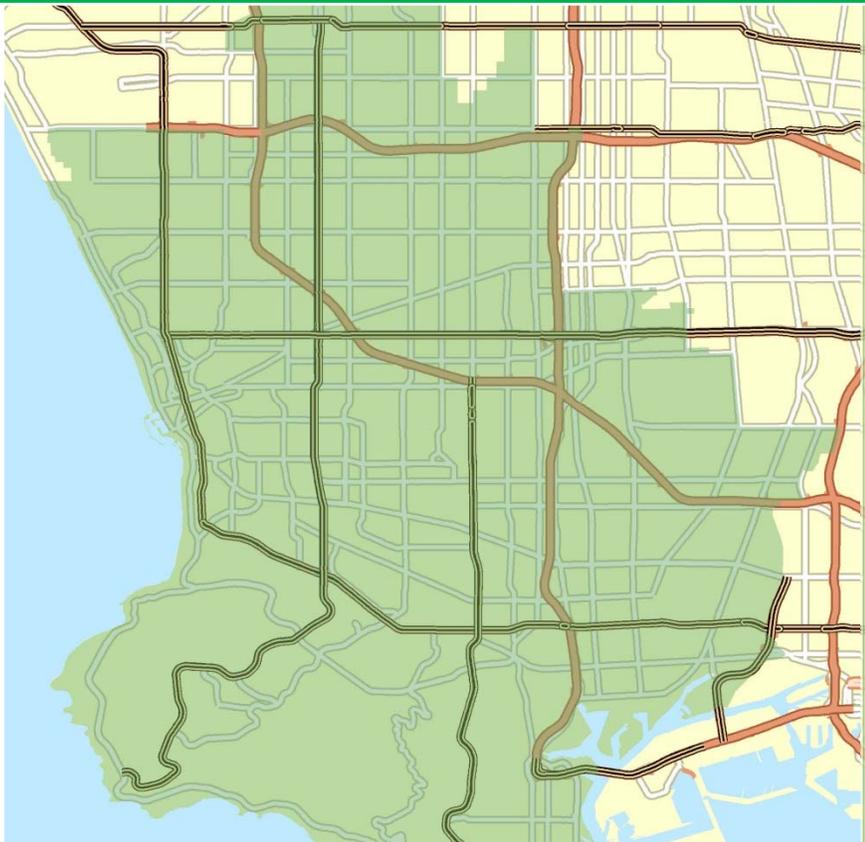


# South Bay

## Measure R Highway Program Final Implementation Plan Part C: Strategic Implementation Element



**SOUTH BAY CITIES**  
COUNCIL OF GOVERNMENTS

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Version 4

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## **Implementation Plan Executive Summary**

The South Bay Cities Council of Governments (SBCCOG) is partnering with the Los Angeles County Metropolitan Transportation Authority (Metro), California Department of Transportation (Caltrans), and South Bay jurisdictions to fund transportation projects that increase mobility, safety, and sustainability on transportation corridors in the South Bay.

The Measure R one-half percent sales tax to fund transportation in Los Angeles County was approved by Los Angeles County voters in November 2008. Measure R provides a specific, dedicated funding source for program projects to improve state highway operations in the South Bay region of Los Angeles County totaling \$906 million in 2008 dollars (or an estimated \$1.5 billion escalated to year of expenditure dollars) over the 30-year life of Measure R, called the South Bay Measure R Highway Program (SBHP).

Based on system performance monitoring and identified system needs, the SBCCOG develops a prioritized program of projects and oversees project implementation in partnership with each lead local agency, Metro and Caltrans. Project funding allocations are recommended by the SBCCOG Board for approval by the Metro Board in rolling five to seven year increments, updated on an annual basis. SBHP projects are delivered by agencies under funding agreements with Metro.

The SBHP Implementation Plan provides the SBCCOG a framework to rationally and systematically prioritize projects, leverage other local, state and federal fund resources, and close the potential funding gap for the completion of projects over the life of Measure R.

The SBHP Implementation Plan is comprised of four sections:

**Part A: Policies** guiding the program, project development, the allocation of funds to design and construct highway improvement projects, and oversight of project delivery are documented in this section. The policies related to Measure R, including the Measure R ordinance, related Metro policies, and SBCCOG policies to manage the SBHP, are slated to provide guidance in the ongoing management of the program. Part A also describes the roles and responsibilities of agencies and their staffs involved in the allocation of funds and delivery of projects. The program management aspects of the SBHP are described in detail, such as administrative activities, oversight and risk management, training, and project development. Finally, Part A documents the Strategic Transportation Element (STE) which identifies measures for project definition and assessment and the results of Intelligent Transportation Systems planning activity (ITS Plan) in the South Bay.

**Part B: Procedure Manual** describes the procedures and processes used to implement the SBHP. Part B is intended to clarify the procedures and processes in the program management, project development, and funding allocation decision-making for the implementing agencies, the SBCCOG, and Metro.

**Part C: Strategic Implementation Element** focuses on how to implement the STE and ITS Plan. The Highway Monitoring System described in Part C is the systems framework for identification, development and performance monitoring of projects for implementation through the SBHP. The STE identifies performance measures for the evaluation and assessment of freeway and arterial projects which are part of the SBHP. The ITS Work Plan includes a need identification and implementation planning for intelligent transportation systems as a first step in identifying sub-regional transportation needs to be addressed comprehensively through the SBHP.

**Part D: Funding Program** lists the funding allocations to individual projects and programs which comprise the SBHP. The funding allocations are updated on an annual basis to ensure the readiness of projects to receive funds. This is to ensure the use of available program funds and to maximize funding opportunities from additional sources.

## **1. Highway Monitoring System**

**TO BE INSERTED FOLLOWING SBCCOG APPROVAL**

## **2. SBHP ITS Work Plan**

### **2.1 Introduction**

Prior to the development of the SBHP, the South Bay already enjoyed benefits from locally deployed ITS systems and components; on-going projects Measure R are adding to this installed base. AS examples, the Los Angeles County Department of Public Works (DPW), working together with local agencies has, through various County programs, enabled the creation of Traffic Management Centers housing centralized traffic signal systems, upgraded traffic signal equipment and designed and installed the communications infrastructure needed to connect one to the other. The County is currently complementing local infrastructure enhancement projects in Inglewood, Gardena and Lawndale with projects to design and install CCTV surveillance systems. A separate County project, to develop and install video distribution architecture throughout the County, will ensure that these CCTV images can be shared by all the agencies in the South Bay.

At the Regional level, METRO has introduced a cross-modal element to ITS by pioneering inter-jurisdictional transit priority systems so that local transit services can enjoy the benefits that METRO services have been experiencing in transit corridors within the City of Los Angeles.

Regional ITS systems involving cooperation between METRO, Caltrans, the California Highway Patrol (CHP) and various local agencies include freeway surveillance and control, ramp metering systems and motorist information systems (from changeable message signs through to METRO's go511 traveler information system). LA County DPW is attempting to bridge the gap between local and regional signal operations through the Countywide Information Exchange Network (IEN), connecting traffic control systems in the County to enable agencies to share data.

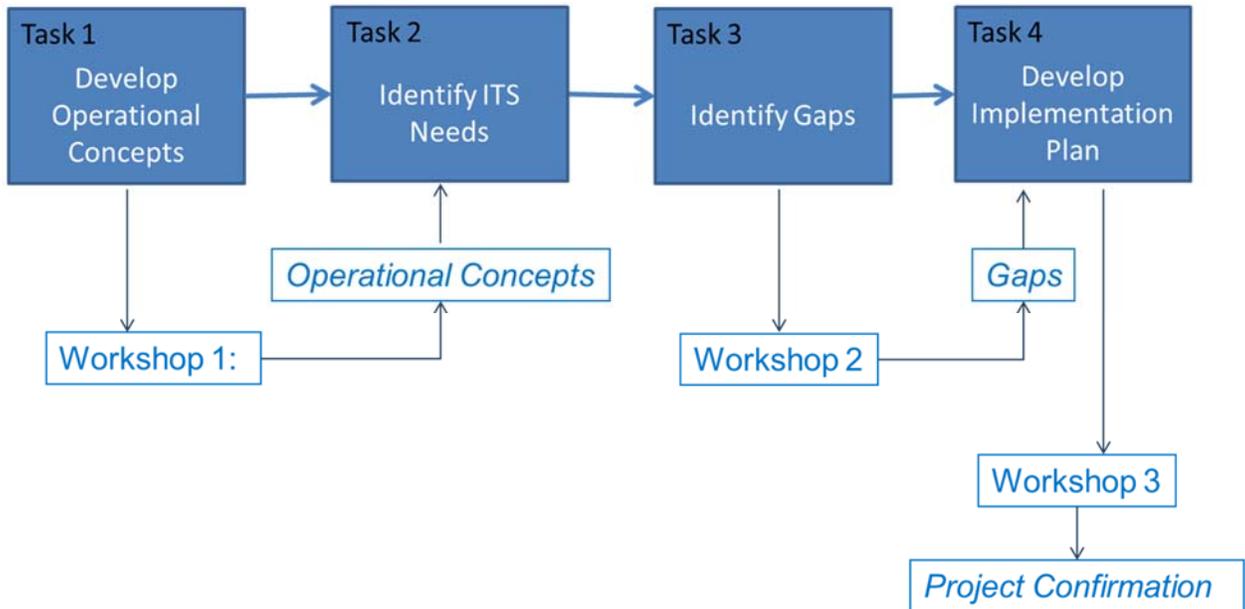
With this backdrop of ITS deployments, METRO and the South Bay Cities Council of Governments identified the need to develop a comprehensive ITS Plan for the South Bay which would take stock of the current state of ITS deployment, and identify what is needed to meet the short, medium and long term needs of the region. The final output of this activity is the South Bay ITS Implementation Plan identifying and assessing ITS projects with recommendations for their deployment. In the process of developing the Implementation Plan, a number of supporting documents were also created as described below.

### **2.2 ITS Plan Development Process**

The process that was used to develop the ITS Plan is shown in Figure 1. The whole process was based upon collaboration between the SBCCOG member agencies, the regional agencies (Caltrans, Metro and the County of Los Angeles) and SBCCOG staff.

The foundation for the later work is based upon the development of operational strategies in Task 1 that the agencies identified as relevant for application to the South Bay highway network. These were documented in the Operational Concepts Report. Having identified the strategies to

be implemented, the agencies were then led through the identification of ITS systems and components



**Figure 1: ITS Plan Development Process**

that would be needed by them to carry them out – the ITS needs definition. By comparing the ITS Needs with current and planned ITS deployments, Task 3 identified the technical, functional and operational gaps that would need to be filled and so provide the basis for Task 4 the identification of potential ITS projects for consideration as candidate projects for assessment during the annual updates to the SBHP Implementation Plan.

## 2.3 ITS Projects

### 2.3.1 Regional Projects

The following projects were identified through the ITS Plan process as regional in nature benefitting multiple agencies and therefore requiring both a consensus from the involved agencies and also the identification of a lead agency to make the project viable.

#### RP.1 Event Information Sharing System

**Description:** This project will design and implement a special event and construction information sharing system throughout the South Bay. The system will build upon and use Metro’s current information systems such as the SoCal 511 and RIITS as well as the LA County Information Exchange Network.

**Estimated Cost:** \$1,500,000

#### RP.2 Emergency Fallback Power Project

**Description:** This project will provide emergency back-up power for 50 critical intersections on key arterials in the South Bay.

**Estimated Cost:** \$300,000

#### RP.3 Community Notification System

**Description:** This project will implement community alert systems in all cities in the South Bay in order to push timely information regarding non-recurring traffic congestion, incidents, special events and construction to the public.

**Estimated Cost:** \$250,000

#### RP.4 Arterial Messaging System

**Description:** This project will implement dynamic message signs on Sepulveda Blvd informing motorists of travel times and parking availability. The signs will also be available for use in incident and disaster management scenarios

**Estimated Cost:** \$4,500,000

#### RP.5 Arterial Detection Project

**Description:** This project will implement detection along key arterials in the South Bay to provide data for program assessment under the Strategic Transportation Element. It will build upon the LA County DPW South Bay Arterial Detection Plan.

**Estimated Cost:** \$1,500,000

#### RP.6 Emergency Vehicle Priority System

**Description:** This project will implement emergency vehicle priority on key arterials in the cities of Hawthorne, El Segundo, Redondo Beach, Hermosa Beach, Gardena and Manhattan Beach.

**Estimated Cost:** \$3,000,000

#### RP.7 Emergency Vehicle Priority System Upgrades

**Description:** This project will add emergency vehicle dynamic signing at 100 intersections equipped with emergency vehicle priority equipment in the cities of Hawthorne, El Segundo, Redondo Beach, Hermosa Beach, Gardena and Manhattan Beach.

**Estimated Cost:** \$6,000,000

#### RP.8 Sr-110 Harbor Freeway Integrated Corridor Management System

**Description:** This project will implement an Integrated Corridor Management System along the SR -110 Corridor between Artesia Boulevard and the I-405. The project will integrate freeway,

arterial and transit operations; implement a Decision Support System for coordinated agency operations and traveler information systems.

**Estimated Cost:** \$10,000,000

### ***2.3.2 Agency Specific Projects***

In addition to the regional projects, discussions with the agencies identified the following projects that had lead agencies identified and would not require consensus approval to continue.

#### **CA.12 Home Depot Center Event Management System (Carson)**

**Description:** The Home Depot Center is now firmly established as a major event center for the Southland. This project will provide the City of Carson with tools to better manage event traffic. Key components are a wireless communications network, arterial changeable message signs, and coordinated freeway/arterial operation on Avalon Boulevard, and at three freeway ramps.

**Estimated Cost:** \$3,500,000

#### **CO28 Loop Closure to provide Backbone Communications Network Redundancy (County of Los Angeles)**

**Description:** Through multiple local projects, the County has already installed a multi-media South Bay backbone communications network which supports data and video communications between the County and local Agency TMC's. This project complements the current network by providing a redundant path to the County TMC for improved reliability.

**Estimated Cost:** \$2,500,000

#### **CO29 Deployment of CCTV Cameras in 16 Locations (County of Los Angeles)**

**Description:** This project will continue the County's already established plan to deploy CCTV sites in cities in the South Bay.

**Estimated Cost:** \$800,000

#### **HA.05 Municipal Wireless Communications Network for Transportation (Hawthorne)**

**Description:** This project would expand on the positive experience gained from the use of wireless technologies for transit priority and provide a City-wide wireless network for to communicate with ITS systems and components.

**Estimated Cost:** \$600,000

IW.08 Communication Gap closure, Traffic Signal Upgrades and Arterial Detection (Inglewood)

**Description:** This project builds upon the City's ITS Mater Plan deployment which is now in its fourth phase.

**Estimated Cost:** \$3,500,000

## 2.4 Project Selection

The regional projects were presented to the SBCCOG agencies at a workshop, and the agencies were invited to:

- Indicate support for the project
- Indicate willingness to act as lead agency

The results of the agency "voting" are presented in Table 1. It should be noted that Metro refrained from offering input on the grounds that the project selection should be following operational agency preferences. However, Metro did express willingness to lead the Event Information Sharing Project due to the synergies with the Metro go511 traveler information system. In addition, the County also expressed interest in this project as being complementary to the El Segundo Traveler Information System "BlueCommute". For these reasons, it is considered that a lead agency has been identified for this project pending resolution between Metro and the County.

The supported projects are therefore:

- Event Info Sharing System
- Emergency Fall Back Power Project
- Arterial Detection Gap Project
- SR110 Harbor Freeway ICMS

## 2.5 Project Funding Considerations

The selected projects go forward as Candidate Projects for consideration for Measure R funding in 2016/17 and 2017/18.

The City of Inglewood decided to put identify IW.08 as Phase V of its ITS Plan, and put the project forward for consideration in the 2013 Call for Projects.

The funding application statuses of all projects identified through the ITS Plan activity is shown in Table 2.

## 2.6 Other Considerations

It should be noted that an operational gap analysis was also carried out as part of the ITS Plan activity. Topics that were identified are:

- Forum for Operational Coordination
- Funding Operations and Maintenance
- Detour Planning
- Operational Strategies for Corridor Management
- Parking Utilization

It was agreed that the South Bay Signal Forum, which was created by the County to develop and advance the Signal Synchronization and Bus Speed Improvement program should be reconvened to provide a venue for initialing addressing Operational Coordination.

ID	Project	Consensus w/lead agency	Lead Agency	Gardena	Hawthorne	Manhattan Beach	Hermosa Beach	El Segundo	Redondo Beach	Lomita	Caltrans	Inglewood	LA County	Torrance	Carson	Lawndale	City of LA
RP.1	Event Info Sharing System	*	*	n	n	s		s	s	s	s	s	n	n	s		s
RP.2	Emergency Fall Back Power Project	*	*	s	n	s		s	n	n	s	s	SL	s	n		n
RP.3	Community Notification Sys			o	n	s		s	n	n	s	s	n	s	n		n
RP.4	Arterial Messaging Sys			n	n	o		s	n	n	s	s	n	o	s		s
RP.5	Arterial Detection Gap Project	*	*	n	n	n		s	s	s	s	s	SL	s	s		n
RP.6	Emergency Veh. Priority Sys			o	n	s		n	n	s	s	n	n	s	n		n
RP.7	Emer. Veh. Priority Sys. Upgrade			o	n	o		n	n	n	s	n	o	o	n		n
RP.8	SR110 Harbor Freeway ICMS	*	*	n	n	n		n	n	n	SL	n	n	n	s		n

s = support, n = neutral, o = oppose, SL = Support, willing to serve as lead agency

**Table 1: Agency Voting on Regional Projects**

Old ID	Project	Lead Agency	New ID	Comments
RP.1	Event Info Sharing System	Metro/County	CO.30	Candidate Measure R Project
RP.2	Emergency Fall Back Power Project	County	CO.31	Candidate Measure R Project
RP.3	Community Notification Sys			Hold for Future Consideration
RP.4	Arterial Messaging Sys			Hold for Future Consideration
RP.5	Arterial Detection Gap Project	County	CO.32	Candidate Measure R Project
RP.6	Emergency Vehicle Priority System			Hold for Future Consideration
RP.7	Emer. Vehicle Priority System Upgrade			Hold for Future Consideration
RP.8	SR110 Harbor Freeway ICMS	Caltrans	CT.38	PAED Funded in 2018/19
CA.12	Home Depot Center Event Management	Carson		Candidate Measure R Project
CO.28	Loop Closure for Backbone Redundancy	County		Candidate Measure R Project
CO.29	CCTV Camera Deployment	County		Candidate Measure R Project
HA.05	Municipal Wireless Network	Hawthorne		Hold for Future Consideration
IW.08	ITS Phase V	Inglewood		2013 Call For Projects App.

**Table 2: Summary of ITS Project Funding Considerations**