

# Central Coast Intelligent Transportation Systems (CCITS) Strategic Deployment Plan

## ITS Architecture Maintenance Plan

FOR

The Santa Barbara County Regional ITS Architecture

June 2007

Submitted to:



Submitted by:

*TRANSCORE.*

In association with



---

**Table of Contents**

1. Introduction..... 1

2. Stakeholder Responsibilities..... 2

3. Maintenance Roles and Responsibilities ..... 6

4. Frequency of Updates ..... 8

5. What Architecture Components Will Be Updated?..... 9

6. Identifying and Implementing a Change..... 11

7. Regional Adjacencies and Overlap Issues ..... 15

8. Version Control..... 18

## Preface

This Intelligent Transportation Systems (ITS) Architecture Maintenance Plan was developed using the Build-A-Plan tool developed for Caltrans as part of the California Statewide ITS Architecture project. The tool was developed using input from several stakeholders, research of existing regional ITS architectures and regional plans, the Regional ITS Architecture Maintenance White Paper<sup>1</sup>, and the FHWA Final Rule/FTA Final Policy.

Documentation of the plan to keep the regional architecture up to date is a requirement of the Federal Rule 940/Policy 655 for ITS, which states that, “Regional ITS Architectures be developed to guide the development of ITS projects and programs” and requires each MPO and jurisdiction with an ITS Architecture (and ITS projects) to have a plan in place to maintain and update those regional ITS architectures. More specifically, Rule 940.9f states:

“The agencies and other stakeholders participating in the development of the Regional ITS Architecture shall develop and implement procedures and responsibilities for maintaining it, as needs evolve within the region.”

This document outlines an ITS Architecture Maintenance strategy for the **Santa Barbara County** Regional ITS Architecture and coordination with the other Central Coast Regional ITS Architectures and the Central Coast ITS Strategic Deployment Plan. It discusses the proposed “Who, What, When and How” of ITS architecture maintenance for **Santa Barbara County**. As such, this document discusses roles and responsibilities of **Santa Barbara County** ITS stakeholders and a high-level process for those stakeholders to maintain and update the **Santa Barbara County** Regional ITS Architecture. It also discusses what portions of the architecture will be maintained and updated and when the architecture will be maintained and updated.

---

<sup>1</sup> Developed by the National ITS Architecture Team (multiple authors), January 2004, Sponsored by the USDOT ITS Joint Program Office

## 1. Introduction

The Central Coast Intelligent Transportation Systems (CCITS) Strategic Deployment Plan is a blueprint for the orderly planning and deployment of ITS in the Central Coast region. It is also intended to be a living document that may require frequent review and periodic updating. As projects are implemented or expanded, as agency priorities change, or as other changes occur that impact ITS in **Santa Barbara County**, they will be documented through an update to the **Santa Barbara County** Regional ITS Architecture. This maintenance plan documents the procedures for updating the **Santa Barbara County** Regional ITS Architecture.

The maintenance plan is a very important part of the regional ITS architecture. It acts as a control mechanism for maintaining order in the process of keeping architectures up to date over time. It also acts as the instructions for keeping a set of complex, interrelated actions and documents on course over time.

This plan is laid out in two parts, both of which act as an instruction manual for changes to the regional ITS architecture. The first portion of this document (chapters 1 through 4) is presented for the user or regional stakeholder. It provides some background information along with recommended procedures for how a change should be initiated by the user. The second portion of this document (chapters 5 through 8) is presented for the maintainer of the regional ITS architecture. It identifies how the change is handled after it is submitted by the user. This organization allows each party to focus on the information that primarily pertains to them.

## 2. Stakeholder Responsibilities

The following section outlines the decisions of **Santa Barbara County** in relation to stakeholder responsibilities.

### 2.1. Definition of a Stakeholder

Stakeholders are an important part of the **Santa Barbara County** Regional ITS Architecture, as well as the Central Coast ITS Strategic Deployment Plan. They provide regional input which is used in the creation of the regional ITS architecture. A stakeholder is a public agency or private organization with a vested interest, or a "stake" in one or more transportation elements within a Regional ITS Architecture. Stakeholders are responsible for reviewing the regional ITS architecture prior to deploying new ITS projects in order to assure that the projects are consistent with the needs and goals of the region.

### 2.2. Updates to the Regional ITS Architecture

The **Santa Barbara County** Regional ITS Architecture and the Central Coast ITS Strategic Deployment Plan are dynamic documents that are subject to change as ITS evolves in the region. As changes occur, portions of the architecture, if not the whole architecture will need to be updated accordingly. These changes should be initiated by the stakeholders as the need arises, and as resources allow. The following list includes events identified by the "Regional ITS Architecture Maintenance White Paper" as events that may require change to a regional ITS architecture:

- **Changes in Regional Needs.** Regional ITS Architectures are created to support transportation planning in addressing regional needs. Over time these needs can change and the corresponding aspects of the regional ITS architecture that addresses these needs may need to be updated. These changes in needs should be expressed in updates to planning documents such as the Regional Transportation Plan (RTP).
- **New Stakeholders.** New stakeholders become active in ITS and the regional ITS architecture should be updated to reflect their place in the regional view of ITS elements, interfaces, and information flows. Why might new stakeholders emerge? The stakeholders might represent new organizations that were not in place during the original development of the regional ITS architecture. For example, a newly incorporated city, or a county that splits into two counties. Or maybe the geographic scope of the architecture is being expanded, bringing in new stakeholders. Or maybe additional transportation modes or transportation services are being considered that touch the systems of additional stakeholders.
- **Changes in Scope of Services Considered.** The range of services considered by the regional ITS architecture expands. This might happen because the National ITS Architecture has been expanded and updated to include new user services or to better define how existing elements satisfy the user services. A regional ITS architecture based on an earlier version of the National ITS Architecture should take into consideration these changes as the regional ITS architecture is updated. The National

ITS Architecture may have expanded to include a user service that has been discussed in a region, but not included in the regional ITS architecture, or was included in only a very cursory manner. Similar to the addition of the expanded Emergency Management User Services in the latest version (version 5.0) of the National ITS Architecture. Changes in the National ITS Architecture are not in and of themselves a reason to update a regional ITS architecture, but a region may want to consider any new services in the context of their regional needs.

- **Changes in Stakeholder or Element Names.** An agency's name or the name used to describe their element(s) undergoes change. Transportation agencies occasionally merge, split, or just rename themselves. In addition element names may evolve as projects are defined. The regional ITS architecture should be updated to use the currently correct names for both stakeholders and elements.
- **Changes in Other Architectures.** A regional ITS architecture covers not only elements and interfaces within a region, but also interfaces to elements in adjoining regions. Changes in the regional ITS architecture in one region may necessitate changes in the architecture in an adjoining region to maintain consistency between the two. Architectures may also overlap (e.g. a statewide ITS architecture and a regional ITS architecture for a region within the state) and a change in one might necessitate a change in the other. For further information on overlap and adjacencies, please see Section 7.0 of this document.
- **Changes due to Project Definition or Implementation.** When actually defined or implemented, a project may add, subtract or modify elements, interfaces, or information flows from the regional ITS architecture. Because the regional ITS architecture is meant to describe the current (as well as future) regional implementation of ITS, it must be updated to correctly reflect how the developed projects integrate into the region.
- **Changes due to Project Addition/Deletion.** Occasionally a project will be added or deleted through the planning process or through project delivery and some aspects of the regional ITS architecture that are associated with the project may be expanded, changed or removed.
- **Changes in Project Priority.** Due to funding constraints, or other considerations, the planned project sequencing may change. Delaying a project may have a ripple effect on other projects that depend on it. Raising the priority for a project's implementation may impact other projects that are related to it.

The above reasons for possible changes to the regional ITS architecture may happen frequently or infrequently, depending upon the region and the specifics of the original regional ITS architecture development effort. When a stakeholder identifies a potential update to the regional ITS architecture, the stakeholder should request a change using the procedure described below.

### 2.3. Process for Requesting Updates

When a possible change to the **Santa Barbara County** Regional ITS Architecture has been identified, a Change Request Form should be completed by the initiator of the change and the

form should be submitted to **the Deputy Director of Planning** of the **Santa Barbara County Association of Governments (SBCAG)**.

At a minimum, the Change Request Form requires the following inputs:

- Contact information of individual proposing change: name, title, agency, email, fax number and phone number
- Date
- A short description of proposed change (a title up to 25 characters)
- Detailed description of proposed change. (What is to be added, deleted, or modified?)
- Type of change proposed (e.g. new project, new stakeholder, etc.)
- Name of system(s) or project(s) being implemented or modified (if applicable)
- Status:
  - Planned (the agency wants to implement but has not yet secured funding for the proposed project)
  - Programmed (the agency has secured funding for the project)
  - Under Construction (the agency is currently deploying the system)
  - Existing (the agency has deployed the system(s) and it is currently operational)

A sample form is included in **Appendix A** of this Maintenance Plan. A copy of the form can be sent via regular mail, e-mail, or fax to **the Deputy Director of Planning** (contact information below) of the **Santa Barbara County Association of Governments (SBCAG)**.

*SBCAG*

*260 N. San Antonio Rd Suite B*

*Santa Barbara, CA 93110*

*phone - (805) 961-8900*

*fax - (805) 961-8901*

*email - mpowers@sbcag.org*

In addition to submitting the Change Request Form to SBCAG, SBCAG would like the parties requesting changes to the **Santa Barbara County** Regional ITS Architecture to also provide an assessment of the impacts of the requested change to the **Santa Barbara County** Regional ITS Architecture. The specifics of this process will be developed by SBCAG in consultation with local and regional agencies and Caltrans through the Technical Transportation Advisory Committee (TTAC). The specific process is not defined in this Architecture Maintenance Plan. However, what was discussed in concept in the development of this Architecture Maintenance Plan is described in the following paragraph(s).

The party requesting the change to the County Architecture would obtain hard copies of the following components of the existing County Architecture:

- Description of Region

- List of Stakeholders
- Operational Concept
- List of ITS Elements / Inventory
- List of Agreements
- Interfaces between Elements (Interconnects/Information Flows)
- System Functional Requirements
- Applicable ITS Standards
- Project Sequencing

The party requesting the change would then “mark –up” the anticipated changes to the County Architecture and submit the marked-up components – only those components where changes are anticipated would be submitted – along with the Change Request Form (Appendix A). A brief written description of the proposed changes, in narrative form, to accompany the marked-up components and the Change Request Form would also be useful. This description may include a little more background for the proposed change(s) and may include any interagency consultation that may have already taken place prior to submission of the change request.

SBCAG would then evaluate the proposed changes. Depending on the significance of the proposed change, SBCAG will confer with just the affected stakeholders (if the proposed change results in minor revisions to the architecture) or with the TTAC as a whole (if the proposed change is significant enough to warrant) to determine if the stakeholder group agrees with the analysis of the changes and what process would be utilized in approving and implementing the proposed change(s) to the County Architecture.



### 3. Maintenance Roles and Responsibilities

Maintenance of a regional ITS architecture can be taxing on agency resources; therefore, agencies must be identified that have the willingness to accept this responsibility. The following section outlines the choices of **Santa Barbara County** in deciding who will be responsible for the maintenance of the **Santa Barbara County** Regional ITS Architecture.

#### 3.1. County ITS Architecture Maintenance Responsibilities

At a minimum the party responsible for maintenance of the **Santa Barbara County** Regional ITS Architecture shall be responsible for the following:

- retaining the electronic and / or paper copies of the latest version of the architecture
- distributing the electronic and / or paper copies of the latest version of the architecture upon request
- maintaining a list of changes to be included in the next update to the **Santa Barbara County** Regional ITS Architecture
- soliciting changes from stakeholders before major updates
- keeping the stakeholder contact and distribution list up-to-date
- initiating updates to the architecture as appropriate
- implementing (or providing oversight of) changes to the architecture

These responsibilities may be assigned to a single agency or shared by a number of agencies within a region. For **Santa Barbara County**, the **Santa Barbara County Association of Governments (SBCAG)** is taking on the coordination role within the county, but the inputs required to complete the updates will be provided by, and coordinated with, the following agency(ies), on behalf of the region:

- Santa Barbara County Cities
- Santa Barbara County
- Santa Barbara County Transit Operators
- Caltrans District 5
- Caltrans District 7
- California Highway Patrol (CHP) – Ventura Dispatch and San Luis Obispo Dispatch
- Other local public safety agencies as appropriate
- The Central Coast ITS Coordinating Group
- The Santa Barbara County Air Pollution Control District
- AMTRAK and Airports as appropriate
- Other local agencies and interested parties as applicable

**SBCAG**, as the Metropolitan Planning Organization (MPO) for Santa Barbara County, will be the lead agency responsible for maintaining the Turbo Architecture database for the **Santa**

**Barbara County** Regional ITS Architecture. The main point of contact at **SBCAG** for maintenance of the architecture will be **the Deputy Director of Planning**.

### 3.2. Other Committees Involved

Other committees are also in place to further aid in the maintenance process. The committee names and responsibilities are listed below:

Committee Name	Responsibility
The SBCAG Technical Transportation Advisory Committee (TTAC)	Typically the TTAC meets monthly to coordinate transportation funding issues and priorities and traffic operations issues. The TTAC is made up of representatives from cities, counties, transit operators, Caltrans and other local agencies as appropriate.

#### 4. Frequency of Updates

It is important that the **Santa Barbara County** Regional ITS Architecture be kept up to date in order to guide ITS planning and deployment in the region and to keep within the intent of federal requirements. The most effective way to ensure that a regional ITS architecture stays up to date is to establish a regular schedule for updates. The **Santa Barbara County** Regional ITS Architecture will be updated as needed, but preferably no more frequently than once a year. The **Santa Barbara County** Regional ITS Architecture will be assessed on an annual basis to determine the need for changes and / or updates.

Additionally, **SBCAG** (and other **Santa Barbara County** ITS stakeholders as appropriate) will meet quarterly with the other MPO's in the Central Coast Region – **San Luis Obispo Council of Governments (SLOCOG)** and the **Association of Monterey Bay Area Governments (AMBAG)** – to coordinate changes in each of their respective Regional ITS Architectures. These meetings will most likely be under the auspices of the Central Coast ITS Coordinating Group. In addition to general coordination, the group will also discuss specific topics such as relevant Systems Engineering Review Forms (SERFs) for proposed ITS projects and coordination of regionally significant ITS within each of the Central Coast counties. The Central Coast ITS Coordinating Group meetings could be convened more frequently than quarterly to execute more timely coordination, if necessary.

If possible, the updates to the **Santa Barbara County** Regional ITS Architecture will be performed in coordination with the development of the **Regional Transportation Plan (RTP)** developed for Santa Barbara County and / or the **Regional Transportation Improvement Program (RTIP)**.

It is also noted that the updates to the **Santa Barbara County** Regional ITS Architecture will require resources, whether the intention is to perform the updates in-house or contract them out. These resources should be programmed into the overall work program.

## 5. What Architecture Components Will Be Updated?

The **Santa Barbara County** Regional ITS Architecture consists of several lists and documents in various formats, including reports, databases, and graphics. As events occur such as those described in Section 2.2 that may result in changes to the architecture, the various components of the architecture should be updated accordingly in a systematic fashion. A change to one of the architecture components (for example, the addition of a project or a stakeholder) often requires other components of the architecture to be updated as well. This is known as dependencies between architecture components.

To ensure that updates are made in all the necessary locations, the following table has been developed to assist the architecture maintainer. This table may be consulted by the maintainer to track key components of the **Santa Barbara County** Regional ITS Architecture and to ensure that all parts of the **Santa Barbara County** Regional ITS Architecture are updated appropriately. **Table 1** describes the different components of the **Santa Barbara County** Regional ITS Architecture, their status, their location (name of the file, document or database where the component can be found), the file format (e.g. Word, Turbo, Visio Drawing, etc.) and their common dependencies. This will help the maintainer organize the architecture prior to updating and make sure that all of the necessary components are updated.

All outputs in the architecture need to be reviewed to ensure that any dependencies which are not documented in **Table 1** are followed through. For example, a change made to the list of stakeholders may necessitate updating all stakeholder references in other sections of the architecture. Those dependencies should then be added to the dependency matrix (or list) so that future updates to the architecture reflect that dependency.

**Table 1. List of Architecture Elements To Be Updated**

Architecture Component	Status of Component	Location (Filename)	Format(s)	Dependencies
Description of Region	Currently in Architecture	TBD	TBD	List of Stakeholders, Operational Concept, List of ITS Components/Inventory, List of Agreements, Interfaces between Components
List of Stakeholders	Currently in Architecture	TBD	TBD	Description of Region, Operational Concept, List of ITS Components/Inventory, List of Agreements, Interfaces between Components
Operational Concept	Currently in Architecture	TBD	TBD	Description of Region, List of Stakeholders, List of ITS Components/Inventory, List of Agreements, Interfaces between Components, System Functional Requirements, Project Sequencing

<b>Architecture Component</b>	<b>Status of Component</b>	<b>Location (Filename)</b>	<b>Format(s)</b>	<b>Dependencies</b>
<b>List of ITS Components/Inventory</b>	Currently in Architecture	TBD	TBD	Description of Region, List of Stakeholders, Operational Concept, List of Agreements, Interfaces between Components, System Functional Requirements, Project Sequencing
<b>List of Agreements</b>	Currently in Architecture	TBD	TBD	Description of Region, List of Stakeholders, Operational Concept, List of ITS Components/Inventory, Interfaces between Components, System Functional Requirements, Project Sequencing
<b>Interfaces between Components (Interconnects/Information Flows)</b>	Currently in Architecture	TBD	TBD	Description of Region, List of Stakeholders, Operational Concept, List of ITS Components/Inventory, List of Agreements, System Functional Requirements, Applicable ITS Standards, Project Sequencing
<b>System Functional Requirements</b>	Currently in Architecture	TBD	TBD	Operational Concept, List of Agreements, Interfaces between Components
<b>Applicable ITS Standards</b>	Currently in Architecture	TBD	TBD	Interfaces between Components
<b>Project Sequencing</b>	Currently in Architecture	TBD	TBD	Operational Concept, List of ITS Components/Inventory, List of Agreements, Interfaces between Components

## 6. Identifying and Implementing a Change

### 6.1. Change Log

The **Santa Barbara County Association of Governments (SBCAG)** will be responsible for implementing future updates using the following procedure. As change forms for the **Santa Barbara County** Regional ITS Architecture are submitted for consideration, a master document or Change Log with all the proposed changes, dispositions and maintenance history should be maintained. This Change Log should contain the following information.

- Change Number (a unique identifying change number will be assigned for each item that needs to be independently tracked).
- Change disposition (accepted, accepted with modifications, rejected, deferred)
- Disposition Comment
- Change Type (Minor, Major)
- Baseline architecture components affected. This list would be a checklist of the following items from Section 5.0:
  - Description of Region
  - List of Stakeholders
  - Operational Concept
  - List of ITS Elements/Inventory
  - List of Agreements
  - Interfaces between ITS Elements (Interconnects/Information Flows)
  - System Functional Requirements
  - Applicable ITS Standards
  - Project Sequencing
- Disposition Date

### 6.2. Evaluation of Change Impact on County

If a process similar to that described in Section 2.3 is developed and adopted by Santa Barbara County, then it would be followed first. Upon successful completion of that initial “self assessment” process, a written evaluation of the change should be created by **SBCAG**. If other stakeholders will be impacted by the change, they should be contacted by **SBCAG** to ascertain their agreement with the proposed change(s). Stakeholder comments should be incorporated into the Change Log as part of the Disposition Comments. In some cases it may be necessary to hold a meeting with stakeholders to confirm agreement and also to ensure awareness of efficiencies and synergies resulting from proposed changes.

### 6.3. Approval of Change

Approval of changes to the architecture will be required from a majority of the affected stakeholders. The approval procedure can be determined on a case-by-case basis, based on the complexity of the updates and the time period elapsed since the most recent previous maintenance activity. Flexibility is an important component of the update and approval process.

For straightforward or minor updates, simple agreement among the affected stakeholder(s) and notification of all stakeholders should be sufficient for approval of changes to the architecture. If other stakeholders will be impacted by the change, they should be contacted by **SBCAG** to ascertain their agreement with the proposed change.

A straightforward or minor update may take several different shapes. One example of a minor update might be changing the status of Interconnects or Flows between ITS elements in the region from “Planned” to “Existing.” Another example may be a new Interconnect between two Existing Elements, where the stakeholders that own and / or operate the two Existing ITS Elements are in full agreement on the new Interconnect. It would probably also be predicated on other stakeholders in the region being in general agreement, and that no other stakeholders are adversely impacted by the new Interconnect.

More complex and involved updates may require more extensive stakeholder consultation and a more formalized approval process by the stakeholder group. This approval process can be incorporated into existing interagency coordination processes. Stakeholder comments should be incorporated into the Change Log as part of the Disposition Comments. The term “Approval” pertains only to changes in the Architecture documentation. It is anticipated that all major changes or updates to the **Santa Barbara County** Regional ITS Architecture should go through consultation and approval of the SBCAG Technical Transportation Advisory Committee (TTAC) and any other interagency coordination procedures deemed appropriate.

An example of a more complex update to the architecture might be the addition of a new stakeholder, with new ITS Elements added to the inventory, that connect to several other ITS Elements in the architecture. This example may also include the addition of new ITS services to the region that may impact the Operational Concept, List of Agency Agreements and the Project Sequence.

In the event that there is disagreement about how the updates should be incorporated into the architecture, it is recommended that the agencies utilize any existing coordination and cooperation processes currently in place to resolve conflicts that may arise from ITS Architecture maintenance activities. Such processes could include informal meetings among disagreeing stakeholders, perhaps mediated by a third party such as a Metropolitan Planning Organization (MPO) or a Regional Transportation Planning Agency (RTPA). As a later resort, the disagreement could elevate to more formal conflict resolution between / among

agencies. Whatever the approach, it is again recommended that existing coordination and cooperation processes currently in place in the region should be used to resolve conflicts.

#### **6.4. Implementation – Update Baseline and Notify Stakeholders**

##### **Update Baseline**

**SBCAG** will carry out the change (addition, addition with modifications, deletion or modification) as specified in the approved Change Request Form, including performing the following tasks:

- Ensure that changes are carried out on the most recent versions of the affected documents, spreadsheets, databases and graphics.
- Verify that all dependencies are followed through and related documents are synchronized with each other.
- Check for any new dependencies resulting from the change (for example, perhaps a new information flow necessitates a new diagram appearing in different reports, or perhaps incorporating a new stakeholder necessitates updates to various stakeholder agreements and roles and responsibility tables).
- Ensure that after changes are made, revised documents, spreadsheets, databases and graphics are posted, stored online or otherwise disseminated in “read-only” format to prevent any unauthorized changes from being made.
- Ensure that the revised documents, spreadsheets, databases and graphics follow the Version Control nomenclature established for the **Santa Barbara County** Regional ITS Architecture and described in Section 8.0 or decided upon by the external Consultant if any. The version numbers should correspond to those logged in the Change Log. The version numbers should be conspicuous either in the file name (for electronic files) and / or on the cover (for hard copies).
- Update the Change Log with the status of the change (“completed as documented in change request form” or other disposition), including:
  - the location and version number of the revised document, spreadsheet, database or graphic
  - the date of the change so that stakeholders can easily identify recent changes
  - notes of any additional actions or decisions related to the change (for example, “Phase 1 and Phase 2 of this project have been completed, while Phase 3 is planned and contingent on funding in the year 2008-2009”)

##### **Notify Stakeholders**

**SBCAG** will inform the stakeholders of changes in the **Santa Barbara County** Regional ITS Architecture via the following method(s):

- Email(s) to **Santa Barbara County** ITS stakeholders. **SBCAG** will ensure that a contact list, including contact names, positions, email addresses, and phone numbers, is kept current.
- Notify through regularly scheduled stakeholder meetings.



- 
- Notify through specially scheduled stakeholder meetings.
  - Distribute hard copies of revised documents to all stakeholders.
  - Notify the Central Coast ITS Coordinating Group of changes in the **Santa Barbara County** Regional ITS Architecture, and work with that group to ensure that the **Santa Barbara County** Regional ITS Architecture changes are incorporated into the Central Coast ITS Strategic Deployment Plan, as appropriate.

## 7. Regional Adjacencies and Overlap Issues

### 7.1. Background

Within the State of California, there are currently 19 “ITS planning regions” (including the “Statewide” region), which create a challenge when trying to coordinate interregional and statewide ITS services and projects. Each regional ITS architecture is focused on defining an integrated plan for deployment of ITS projects and services within that region, serving the needs and institutional climate for that region. Due to the timing of these regional ITS architectures and the recent release of the Federal Final Rule/Policy, all of the architectures vary in detail and complexity. Many of these architectures are currently undergoing revision to bring them up to federal compliance.

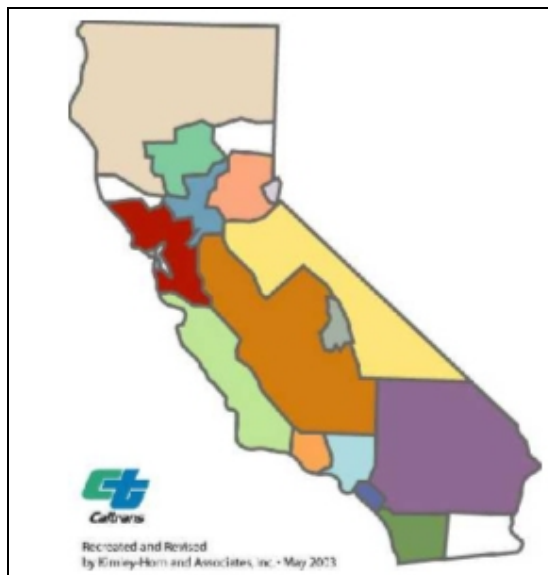
### 7.2. Overlap and Adjoining Definitions

With a state as large as California that has 19 planning regions, ITS planning and programming, especially on an interregional and state level can be difficult. For the purpose of interregional and state level planning and programming, two terms were developed to describe the situations that currently exist:

**Adjacencies or Adjacent Regions** – These are the regions which physically border a specific ITS planning region. These regions may have a direct effect on interregional planning, programming and the architecture for the specific region. Planning and programming, especially interregional projects, needs to be coordinated with all involved regions, which at a minimum will include some bordering regions.

**Overlapping/Layering** – For simplicity, this will be referred to as just overlap. Overlap is a condition that exists primarily in two situations. One is the statewide ITS architecture, which overlaps the other 18 ITS planning regions within California. This basically creates a layer which the regions have above their regional ITS architecture. The other situation where overlap occurs is in Southern California, which has a more advanced layering issue. Not only are the regional ITS architectures of that area layered above by the statewide ITS architecture, a third layer is placed in the middle by the Southern California ITS Architecture. The map below shows the geographical boundaries of the ITS planning regions within California.

An Underlying Region is a region that is a subset of the subject region. For example, each of the Central Coast Regional ITS Architectures is a subset of the Central Coast ITS Strategic Deployment Plan. Therefore, each of the Central Coast County ITS Architectures is considered an Underlying Region in relation to the Central Coast ITS Strategic Deployment Plan. There are no Underlying Regions contained within any of the 5 Central Coast counties.



A list of the regions and locations can be viewed at <http://www.kimley-horn.com/regionalguidance/RegionMap.htm>.

An example of these two situations would be a transportation corridor. Frequently, Caltrans is doing business on the interstate and state corridors running through several regions. This would be subject to both the adjacency issues, as it runs across the state and through several regions, as well as the overlap issues, where several regional ITS architectures control the region. Careful coordination of the affected regional ITS architectures would help in the implementation of such a project. If the architectures incorporated the ITS elements of this project, implementation and funding would be much smoother. Otherwise, one region may have planned all the services and ITS elements brought forth by the corridor, whereas another region may not. This could create tensions when trying to implement such services. A solution to this situation would be to update the regional ITS architecture that does not incorporate all the elements of the transportation corridor.

### 7.3. Interregional Planning

To address the issues of overlap and adjacencies, it is recommended that the most updated version of the regional ITS architecture for all adjacent / overlapping regions be obtained by **SBCAG** prior to the update of the **Santa Barbara County** Regional ITS Architecture. The regions potentially affecting the **Santa Barbara County** Regional ITS Architecture are listed in **Table 2**. By coordinating the **Santa Barbara County** Regional ITS Architecture with all adjoining and overlapping regions, interregional planning and project implementation should become more coordinated within and between the regions. Funding procurement for such projects should be easier to obtain since the project is covered by the regional ITS architectures of the surrounding regions. Also, by coordinating the regional ITS architectures with the statewide ITS architecture, large scale interregional and state level projects should be easier to accommodate.

**Table 2. Interregional Adjacencies and Overlap by Region**

<b>Region</b>	<b>Adjacent Regions</b>	<b>Overlap</b>	<b>Underlying Regions</b>
<b>Santa Barbara County</b> Regional ITS Architecture	San Luis Obispo County Regional ITS Architecture	Central Coast ITS Strategic Deployment Plan	N/A
	Ventura County ITS Architecture	California Statewide ITS Architecture	
	Southern California Regional ITS Architecture (Southern California Association of Governments (SCAG) Region)		
	San Joaquin Valley Regional ITS Architecture		

## 8. Version Control

Due to the dynamics of the **Santa Barbara County** Regional ITS Architecture, a version control system needs to be implemented. The version control system for the **Santa Barbara County** Regional ITS Architecture should include the updated date on the cover sheet of any document that is part of the architecture. On an update, the new publication date should be inserted so that the current version may be identified. A section should be added to the architecture that is titled “Updates / Changes.” A brief description of each update / change to the architecture should be inserted into this section so that a paper trail can be built to maintain the history of the architecture, which can also be used in any major updates / modifications to the architecture. Finally, a consistent file naming convention should be used to maintain version control of all electronic files, including the Turbo Architecture files.

## **Appendix A**

### **Change Request Form**

All changes to the **Santa Barbara County** Regional ITS Architecture should be initiated with this Change Request Form (next page).

A copy may be mailed, e-mailed, or faxed to **the Deputy Director of Planning** (contact information below) of **SBCAG**.

*SBCAG*

*260 N. San Antonio Rd Suite B*

*Santa Barbara, CA 93110*

*phone - (805) 961-8900*

*fax - (805) 961-8901*

*email - mpowers@sbcag.org*

### Change Request Form

Stakeholder  Proposing Change	Name		Title	
	Agency			
	Email			
	Phone No.		Fax No.	
Date				
Description of Change	Title	<i>Short Description (up to 25 characters)</i>		
	Detailed Description	<i>(What is to be added, deleted or modified? Attach additional documentation if necessary)</i>		
	Type of Change	<input type="checkbox"/> New Project/System <input type="checkbox"/> Deleted Project/System <input type="checkbox"/> Modified Project/System	<input type="checkbox"/> New/Changed Stakeholder <input type="checkbox"/> Change in Project Status <input type="checkbox"/> Change in Project Priority <input type="checkbox"/> Other	
	Systems or Projects	<i>Name of System(s) or Project(s) being implemented or modified (if applicable):</i>		
Project Status	<input type="checkbox"/> PLANNED (funding not yet secured) <input type="checkbox"/> PROGRAMMED (funding secured) <input type="checkbox"/> UNDER CONSTRUCTION (stakeholder is currently deploying system/project) <input type="checkbox"/> EXISTING			
Additional Notes				



This page intentionally left blank.