



**PLANNING AND PROGRAMMING COMMITTEE
JANUARY 19, 2005**

SUBJECT: LOS ANGELES COUNTYWIDE INTELLIGENT TRANSPORTATION SYSTEMS (ITS) POLICY AND PROCEDURES

ACTION: APPROVE LOS ANGELES COUNTYWIDE ITS POLICY AND PROCEDURES

RECOMMENDATION

Adopt the proposed Los Angeles Countywide Intelligent Transportation Systems (ITS) Policy and Procedures (see Attachment A).

ISSUE

The Federal ITS Policy 23 CFR parts 655 and 940 will become effective April 8, 2005 and requires that all ITS projects using federal funds conform to the National ITS Architecture and Standards. Furthermore these Federal ITS policy and regulations require that all federally funded projects be guided by a regional ITS architecture and employ a system engineering process on a scale commensurate with the project scope. The proposed Los Angeles Countywide ITS Policy and Procedures were developed in coordination with external agencies such as Caltrans, City and County of Los Angeles and internal MTA departments as well as the United States Department of Transportation (USDOT) representatives to ensure all MTA sponsored ITS projects are/would be in compliance with the federal requirements to minimize delays in receiving the federal funds.

POLICY IMPLICATIONS

The recommended action is consistent with MTA's Long Range Plan which calls for the use of ITS to increase the effectiveness of the surface transportation system.

DISCUSSION

It is MTA's practice to abide by federal ITS requirements for all projects and agencies in Los Angeles County seeking federal funding programmed for ITS projects subject to this rule. For consistency and to maximize benefits, the proposed Los Angeles Countywide ITS Policy and Procedures will be also applied to ITS projects with state and local funding sources that are programmed and administered by the MTA.

The proposed Los Angeles Countywide ITS Policy and Procedures were presented to the Bus Operations, Streets and Freeways, and Local Transit Systems Subcommittees for their review and comments. These proposed Policy and Procedures were subsequently approved by Technical Advisory Committee (TAC) at its regular meeting on November 3, 2004.

A representative from USDOT Los Angeles Joint Office clarified that routine maintenance and operation projects such as replacement of traffic signal controllers, purchase of transit vehicles and rolling stock equipped with currently used computer, communication, Advanced Vehicle Locating (AVL) and/or passenger counting systems are exempted from compliance. In addition, ITS projects funded with Propositions A and C Local Return revenues would only be affected if they were being used to match state and federal funds.

The proposed Policy and Procedures call for ITS project sponsor agencies to complete and submit a self certification form indicating that they are aware of and will comply with the ITS requirements listed on the form.

The proposed Policy and Procedures also call for the MTA Countywide Planning and Development Department (CP&D) to administer and support the implementation of the Los Angeles Countywide ITS Policy by:

- Making consistency information available to external agencies and MT A internal departments;
- Reviewing and adding consistency requirements to the MT A Call for Projects requirements;
- Reviewing and adding consistency requirements to Prop A and Prop C funding guidelines;
- Reviewing and adding consistency requirements to Short Range Transit Plan (SRTP) countywide guidelines;
- Coordinating with transportation, transit agencies, emergency service providers and Metro internal Departments to define their ITS projects, their concept of operations and providing assistance to meet the consistency requirements; and developing necessary integration interfaces to the Los Angeles County Regional ITS Architecture;
- Providing support and guidance to transportation, transit agencies and emergency service providers using the Regional ITS Architecture guide book and tools for interface development;
- Participating and ensuring inter-agency system operation and management agreements are executed as appropriate and described in the Los Angeles Regional ITS Architecture;
- Administering the function and expansion of Los Angeles County Regional

ITS Architecture; organizing ITS coordination committees and working groups that address technical and institutional issues that are associated with the operation, upgrade and maintenance of the Los Angeles Regional ITS Architecture; and

- Maintaining and updating the Los Angeles Regional ITS Architecture Plan for incorporation into the Southern California Associated Government (SCAG) Regional ITS Plan, Regional Transportation Plan (RTP), and MTA's Long Range Transportation Plan (LRTP) and Short Range Transportation Plan (SRTP).

OPTIONS

MTA could choose not to adopt the proposed Los Angeles Countywide ITS Policy and Procedures. This is not recommended since the proposed Policy and Procedures would benefit our efforts to effectively plan, develop and deploy ITS projects, enhance regional traffic coordination and management, and minimize federal funding delays.

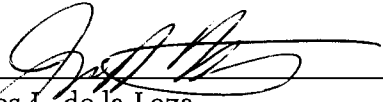
NEXT STEP

MTA will apply the Los Angeles Countywide Policy and Procedures to future ITS projects.

ATTACHMENT

Attachment A: Los Angeles Countywide ITS Policy and Procedures

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POLICY STATEMENT

Federal regulations (23 CFR Parts 655 and 940 Intelligent Transportation System (ITS) Architecture and Standards; Final Rule) now require ITS projects funded with the Highway Trust Fund to conform to the National ITS Architecture and Standards; be guided by a regional architecture with geographic boundaries defined by stakeholder needs; and use systems engineering analysis on a scale commensurate with the project scope. It is MTA's Policy to abide by the Federal ITS regulations and requirements for those agencies seeking federal funding programmed by MTA for projects subject to this rule. For consistency and to maximize benefits, MTA ITS Policy is also applied to projects with state and local funding sources programmed and administered by the MTA.

PURPOSE

The purpose of this policy is to monitor funding compliance with the Federal Transit Administration (FTA) National ITS Policy and Federal Highway Administration (FHWA) ITS Final Rule.

APPLICATION

This policy applies to all ITS projects funded from the Highway Trust Fund. This includes funding through the Mass Transit Account and any other funds distributed by the FTA and the FHWA. In addition it applies to all ITS project funds programmed and administered by the MTA through the Call For Projects, and Propositions A and C Local Return revenues if they were being used to match state and federal funds.

ITS involves the use of advanced computer, electronic and communications technologies to increase the safety and effectiveness of the surface transportation system. MTA encourages the use of ITS technologies to enhance the productivity of the existing infrastructure and vehicles that carry passengers, goods and services in Los Angeles County (i.e. highways, streets, bridges, mass transit vehicles and tracks). Some examples of transportation systems supported by ITS technologies include: advanced traffic signals; automated bus and maintenance vehicle location systems; electronic fare systems; electronic roadside and transit information signs; automated vehicle control systems and traveler information systems. Adding such technologies to our transportation systems saves lives, time and money.

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ADOPTED BY CEO: Roger Snoble



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1.0 PROCEDURES

1.1 ITS Project Definition

An ITS project is defined as “any project that in whole or in part funds the acquisition of technologies or systems of technologies that provide or significantly contribute to the provision of one or more ITS User Services as defined in the National ITS Architecture.” See attachment A for ITS User Services version 5.0. This definition applies equally to both projects that are internal and external to MTA.

1.2 ITS Project Planning and Development

During project planning and development, all external agency project sponsors and MTA internal departments must certify that the project ITS elements are consistent with the Los Angeles County Regional ITS Architecture by filling out the “Consistency Self-Certification Form” (Attachment B). Failure to meet the requirements of this policy may result in delaying the programming and allocation of federal, state and local funds.

1.3 Los Angeles County Regional ITS Architecture

The purpose of the Los Angeles County Regional ITS Architecture is to maximize the benefits of all of the investments in ITS technology by promoting their integration and following the system engineering process. Integration gives access to data for multiple partners at little or no additional investment. The Regional ITS Architecture for Los Angeles County can be found at www.rriits.net. It describes the process and the roles and responsibilities for maintaining the Regional Architecture after it is adopted.

The Los Angeles Regional ITS Architecture is used as the base framework for SCAG’s high level Regional ITS Architecture. This architecture covers the six counties that constitute the SCAG Region, and is also consistent with the California Statewide ITS Architecture and System Plan. Both the SCAG and Statewide ITS architectures are under development. They will ensure both regional and statewide coordination and consistency at all levels and integration within the same communication framework..

The Los Angeles County Regional ITS Architecture provides a framework for ensuring institutional agreement and technical integration of ITS projects or groups of projects. Current or future ITS project sponsors receiving funding programmed and administered by MTA should acquaint themselves with the Los Angeles Regional ITS Architecture and participate in its future development. The Los Angeles County Regional ITS Architecture



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and Plan must also be maintained and be consistent with the region's transportation plans and improvements programs.

To support the need for consistency with the Los Angeles Regional ITS Architecture, the MTA Countywide Planning and Development Department (CP & D) is responsible for:

- Making consistency information available to external agencies and MTA internal departments;
- Reviewing and adding consistency requirements to the MTA Call for Projects requirements;
- Reviewing and adding consistency requirements to Prop A and Prop C funding guidelines;
- Reviewing and adding consistency requirements to Short Range Transit Plan (SRTP) countywide guidelines;
- Coordinating with transportation, transit agencies, emergency service providers and Metro internal Departments to define their ITS projects, their concept of operations and providing assistance to meet the consistency requirements; and developing necessary integration interfaces to the Los Angeles County Regional ITS Architecture,
- Providing support and guidance to transportation, transit agencies and emergency service providers using the Regional ITS Architecture guide book and tools for interface development;
- Participating and ensuring inter-agency system operation and management agreements are executed as appropriate and described in the Los Angeles Regional ITS Architecture;
- Administering the function and expansion of Los Angeles County Regional ITS Architecture; organizing ITS coordination committees and working groups that address technical and institutional issues that are associated with the operation, upgrade and maintenance of the Los Angeles Regional ITS Architecture; and
- Maintaining and updating the Los Angeles Regional ITS Architecture Plan for incorporation into the Southern California Associated Government (SCAG) Regional ITS Plan, Regional Transportation Plan (RTP), and MTA's Long Range Transportation Plan (LRTP) and Short Range Transportation Plan (SRTP).



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1.4 ITS Project Compliance

1.4.1 To ensure compliance with the ITS Policy, all ITS project sponsor agencies including MTA internal departments are required to complete the Los Angeles County Regional ITS Architecture Consistency Certification Form (Attachment B) and to self certify that their project's ITS elements in whole or in part are consistent with the Los Angeles County Regional ITS Architecture through the following:

- Identification of ITS systems elements
- An outline concept of operations for the project;
- Identification of participating agency roles and responsibilities;
- A commitment to perform a lifecycle analysis for all ITS system elements;
- A commitment to maintain and operate the system after the project completion;
- A commitment to the use of systems engineering either directly by the agency and/or their vendors;
- A commitment to document the systems engineering steps followed at project completion; and,
- A commitment that the project will address the use of standards in the context of the Los Angeles County Regional ITS Architecture and participate in the configuration management process.

As an additional aid to understanding the system engineering process, a major reference resource is the Caltrans Local Assistance Home Page: www.dot.ca.gov/hq/LocalPrograms. The Local Programs Procedures Manual Update LPP 04-04 deals specifically with ITS projects and includes detailed guidelines for compliance with the regulations including discussion of the process and application of systems engineering to ITS projects. FTA is currently developing detailed transit specific guidelines for compliance with the system engineering requirements. These guidelines will be made available on the Regional ITS Architecture website (www.riits.net) when they are completed.



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REVISION HISTORY

Version No.	Date Submitted	Comments

ATTACHMENTS

- A: Elements of National ITS Architecture User Services (Version 5.0)
- B: Los Angeles County Regional ITS Architecture Consistency
Self-Certification Form

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ATTACHMENT A

Elements of National ITS Architecture User Services (Version 5.0)

- 1. *Travel and Traffic Management***
 - 1.1 Pre-Trip Travel Information
 - 1.2 En-Route Driver Information
 - 1.3 Route Guidance
 - 1.4 Ride Matching & Reservation
 - 1.5 Traveler Services Information
 - 1.6 Traffic Control
 - 1.7 Incident Management
 - 1.8 Travel Demand Management
 - 1.9 Emissions Testing and Mitigation
 - 1.10 Highway Rail Intersection
- 2. *Public Transportation Management***
 - 2.1 Public Transportation Management
 - 2.2 En-Route Transit Information
 - 2.3 Personalized Public Transit
 - 2.4 Public Travel Security
- 3. *Electronic Payment***
 - 3.1 Electronic Payment Services
- 4. *Commercial Vehicle Operations***
 - 4.1 Commercial Vehicle Electronic Clearance
 - 4.2 Automated Roadside Safety Inspection
 - 4.3 On-Board Safety and Security Monitoring
 - 4.4 Commercial Vehicle Administrative Processes
 - 4.5 Hazardous Material Security and Incident Response
 - 4.6 Freight Mobility
- 5. *Emergency Management***
 - 5.1 Emergency Notification and Personal Security
 - 5.2 Emergency Vehicle Management
 - 5.3 Disaster Response and Evacuation
- 6. *Advanced Vehicle Safety Systems***
 - 6.1 Longitudinal Collision Avoidance
 - 6.2 Lateral Collision Avoidance
 - 6.3 Intersection Collision Avoidance
 - 6.4 Vision Enhancement for crash Avoidance
 - 6.5 Safety readiness
 - 6.6 Pre-Crash Restraint Deployment
 - 6.7 Automated Vehicle Operation
- 7. *Information Management***
 - 7.1 Archived Data Function
- 8. *Maintenance and Construction Management***
 - 8.1 Maintenance and Construction Operations



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ATTACHMENT B

**LOS ANGELES COUNTY REGIONAL ITS ARCHITECTURE CONSISTENCY
SELF-CERTIFICATION FORM**

This form should be completed and executed for all ITS Projects or Projects with ITS elements. The form should be sent to Metro Countywide Planning and Development (CP & D) for any planned ITS projects or proposed funding involving Local, State or Federal funds programmed or administered through the MTA.

1. Name of Sponsoring Agency: _____

2. Contact Name: _____

3. Contact Phone: _____

4. Contact Email: _____

5. Project Description:

6. Identify the ITS elements being implemented and the relevant National Architecture User Service(s), see Attachment A.

7. Outline of the concept of operations for the project.



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8. Identify participating agencies roles and responsibilities _____

By signing and self-certifying this form, the agency commits itself to follow the ITS requirements listed below during project design and implementation. Please be advised that your project may be subject to further review and documentation by FHWA or FTA during project design and implementation phases:

- Perform a lifecycle analysis for the ITS project elements and incorporate these costs into the Operations and Maintenance plan as part of the system engineering process,
- Maintain and operate the system according to the recommendations of the Operations and Maintenance plan upon project completion,
- Use the systems engineering process and document the system engineering steps, and
- Use the Los Angeles County Regional ITS Architecture interface standards if required and conform to the regional configuration management process.

Signature:

_____ Date _____

Agency Representative

Please return this Project Self Certification Form to MTA, Department of CP & D
 Attention: Ms. Carol Inge, Deputy Executive Officer, Transportation Development and Implementation, Los Angeles County Metropolitan Transportation Authority, One Gateway Plaza, MS 99-22-1, Los Angeles, CA 90012-2952