

**Metro**Los Angeles County  
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metro.net**PLANNING AND PROGRAMMING COMMITTEE  
JULY 18, 2007****SUBJECT: REGIONAL INTELLIGENT TRANSPORTATION SYSTEMS (ITS)  
PROGRAM AND NETWORK****ACTION: AMENDMENT FY08 BUDGET TO INCLUDE METRO'S ITS PROGRAM****RECOMMENDATION**

Amend the FY08 Budget in the amount of \$1,350,000 to continue work on Metro's Regional ITS Program for the activities shown in Attachment A, which supports the maintenance, development and improvement of the Regional Integration of ITS (RIITS) Network.

**ISSUE**

Funding is required to maintain and operate the existing RIITS system and to expand the network to include interfaces with additional cities and transportation agencies. Intelligent Transportation Systems, or ITS encompasses a broad range of wireless and hard-wire communication-based information, control and electronics technologies. When integrated into the transportation infrastructure, these technologies help to manage traffic flow, reduce congestion, provide alternative routes to travelers, enhance productivity and save resources. Metro's RIITS Network utilizes proven advanced technologies to coordinate, exchange information and traffic control data among multiple agencies in real time. Currently the data contributors to the Los Angeles County RIITS Network are Caltrans District 7, the California Highway Patrol, the Los Angeles City Department of Transportation, and Metro Transit Operations. The RIITS Network offers a reliable, uniform, and consistent real time platform that supports the major transportation agencies in Los Angeles County.

In FY 07, Metro's Regional ITS Program staff (1) continued system expansion and interface development of RIITS Network with highway and transit agencies that have received Metro programmed funds to manage their individual traffic operations in real time, (2) operated and maintained the RIITS Network, and (3) launched a public web page on Metro.net which displays real time traffic congestion.

Continued maintenance, support and development of the Regional ITS Program is being requested for the following reasons:

- A. RIITS continues to be the preferred data source for new and existing traveler information and traffic management systems. In order to service these users, Metro staff will need to enhance and expand the current system and develop new system applications (Attachment A).
- B. Metro has ongoing consultant contracts to develop communication interfaces with Long Beach Transit's Advance Vehicle Location (AVL) system and the Los Angeles County Information Exchange Network (IEN). In FY07, Foothill Transit programmed funds to interface their AVL system into the RIITS Network.
- C. RIITS is a primary data source for Information Service Providers (ISPs) to obtain real time traffic congestion information. Metro has entered into Data Service Agreements with eighteen (18) private ISPs to disseminate real time traffic congestion information to travelers via television, radio broadcast, internet and other media.
- D. Los Angeles Service Authority for Freeway Emergencies (LA SAFE) elected to use Metro's RIITS Network as the platform for the upcoming Los Angeles 511 Advance Traveler Information Project. LA SAFE entered into a Letter of Agreement with Metro, effective January 1, 2007, to use the RIITS Network. This agreement with LA SAFE requires enhanced operation and maintenance of the RIITS Network.
- E. Metro must update and maintain the Regional ITS Architecture in order to meet federal requirements for the programming and administration of federal funds to projects, which include ITS elements, and in order to pass the Federal Transit Administration's Triennial Audits.

## **POLICY IMPLICATIONS**

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), in response to the development and deployment of ITS technologies, created a National ITS Standards and Architecture. Recent federal regulations for the programming and administration of federal funds were amended to ensure that ITS projects conform to the National Standards and are guided by regional architecture. In light of these requirements, Metro's RIITS Network represents the Los Angeles County Regional ITS Architecture, which is necessary to ensure regional compliance with federal regulations and funding requirements.

On January 27, 2005, the Metro Board approved the adoption of the proposed Los Angeles Countywide Intelligent Transportation Systems (ITS) Policy and Procedures. The chief purpose of this policy is to help guide and assist the orderly and systematic deployment of ITS technologies throughout Los Angeles County, in accordance with federal regulations.

Metro's ITS Policy stipulates that all ITS projects receiving federal, state, or local funds programmed by Metro be governed by the Regional ITS Architecture for consistency in order to maximize benefits.

Against this background, Metro has made long-term commitments to partner agencies through the Inter-Agency Traffic Operation and Management Memorandum of Understanding (MOU), which was executed on April 15, 2004. In this MOU, Metro's role is to develop, upgrade, operate and maintain the RIITS Network. Consistent with this MOU, on February 24, 2005, the Metro Board authorized the Chief Executive Officer to execute Data Service Agreements with ISPs and public agencies.

## OPTIONS

The Metro Board may choose not to fund the Regional ITS Program. This is not recommended because Metro would not be able to honor existing contract/agreement obligations. This action would also remove Metro as a regional leader in providing expertise in a rapidly emerging field within transportation planning. Moreover, it would jeopardize Metro's ability to program and administer federal funds.

Another option considered was that of relying on other agencies to manage and control the Regional ITS Program. This action is not recommended because it could limit Metro's involvement in critical transportation and implementation issues. This option would compel Metro to rely on an outside agency to meet critical FHWA requirements for utilizing grant monies.

## FINANCIAL IMPACT

Approval of this action will amend the FY08 budget and add \$1,350,000 of expenditures in Project 420002 Task 6505.02. This project will be funded with Prop. C 25%. Funds for this project were not included in the FY08 Budget because the FY08 Budget was constrained to FY07 levels and not all projects could be included.

The cost center manager and the Chief Planning Officer will be responsible for project budgeting for continued maintenance costs and system enhancement in future years. Funding for this project has been identified in the proposed Long Range Transportation Plan update.

## DISCUSSION

The limitations of expanding existing infrastructure systems due to funding shortages, environmental issues, and right-of-way acquisition have brought ITS into the national spotlight as a way of using technology to help expand the capacity of existing transportation systems. Across the nation, agencies are implementing ITS projects to increase mobility and

reduce congestion through better management of the infrastructure. Compared to major capital improvement projects, ITS projects are a far more effective solution to traffic congestion due to their low cost and speed of implementation.

Metro bus operations, service sectors and Metro “Real Time Traffic” currently utilize the RIITS Network as their primary real time data source. Metro Marketing is exploring the possibility of using the RIITS Network to develop a Next Bus Arrival service for transit users. In addition, Metro bus and rail operations are being integrated into the RIITS Network. The real time location and schedule adherence for all Metro buses are currently available on the RIITS Network Agency map and Metro Rail lines are coming on-line as the information becomes available. The routes for all of the rail lines are currently on the Agency map and real time location is available for the Red and Green Lines. Moreover, Metro rail is currently working on providing four incident streaming video cameras to the RIITS Network to enable the Los Angeles County Sheriff Department to access this data through the internet in their mobile units, thus enabling quicker response to incidents.

### **NEXT STEPS**

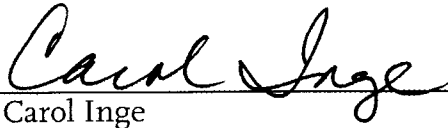
Approval of this recommendation to amend the FY08 Budget will allow the continued development, operation, maintenance, and upgrade of the Regional ITS Program and RIITS Network.

The next phase in mobility enhancement using ITS is Integrated Corridor Management (ICM). ICM involves the development, coordination and implementation of multi-agency transportation management and operation strategies on a designated corridor. The Metro Board has already shown its support for ICM through its nomination to the California Transportation Commission of the \$40 million Corridor Intelligent Transportation System Elements project on December 7, 2006.

### **ATTACHMENTS**

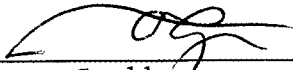
#### **A. Proposed Regional ITS Program Budget Elements**

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## ATTACHMENT A

### REGIONAL ITS PROGRAM FY 08 WORK PROGRAM AND BUDGET

Work Program Item	Budget
<b>I. RIITS NETWORK System Enhancement (Software modifications)</b>	
<b>Interface with LADOT</b> <i>LADOT Metro Rapid Data</i>	\$100,000
<b>Interface with Caltrans District 7</b> <i>Additional 200 CCTV Camera Images</i>	\$50,000
<b>II. RIITS NETWORK System Expansion</b>	
<b>Two Way Interface with Los Angeles County IEN (Carry over from FY 06-07)*</b> <i>Arterial Congestion and Traffic Signal Timing Status Data</i>	\$200,000
<b>Two Way Interface with Long Beach Transit (Carry over from FY 06-07)*</b> <i>Real time Location and Schedule adherence data for Long Beach Transit buses</i>	\$110,000
<b>III. RIITS NETWORK New System Development</b>	
<b>RIITS Website Base Map Upgrade</b> <i>Upgrade Base Map and transform data to be consistent with new Metro base map</i>	\$400,000
<b>IV. RIITS NETWORK Operation &amp; Maintenance (O &amp; M)</b>	
<b>Operation and Maintenance</b> <i>Weekdays Only 7am-7pm, Next day response, with expansion to 24/7 operation and maintenance and a max. response time of 4-hour effective 01/01/08 (per agreement with LASAFE) **</i>	\$295,000
<b>Equipment Warranty Extensions (with redundancy)</b>	\$30,000
<b>Network Operation &amp; Interface Support</b> <i>System Upgrades &amp; Modifications to RIITS Graphical User Interface (GUI) requested and approved by the RIITS Configuration Management Committee  LADOT, Metro Marketing, Foothill Transit, ISPs Interface Support</i>	\$100,000
<b>V. TRAINING &amp; STUDIES</b>	
<b>Regional ITS Long Range Plan</b> <i>Development of a Long Range to guide the Regional ITS Program</i>	\$50,000
<b>RIITS Network User Training</b> <i>Training for agency users as well as Metro Transit Operations staff</i>	\$15,000
<b>TOTAL</b>	<b>\$1,350,000</b>

\* Contracts executed and initiated in FY07

\*\* LASAFE will reimburse Metro for \$75,000 of these funds, per LASAFE/METRO Agreement