Agenda Report

Date: April 8, 2002

To: **CITY COUNCIL**

Thru: **FINANCE COMMITTEE**

From: **CITY MANAGER**

Subject: **Amending of CIP FY 2002-2006 to Include One New Project - Pasadena Light Rail Adaptive LRT Priority System (ALPS)**

RECOMMENDATION:

It is recommended that the City Council:

1. Amend the Traffic Control and Facilities section of FY 2002-2006 Capital Improvement Program (CIP) budget to include one new project – *Pasadena Light Rail Adaptive LRT Priority System (ALPS)*;

2. Approve a journal voucher appropriating the Light Rail Reserves (Proposition A/C) in the amount of $750,000 and recognizing the Los Angeles to Pasadena Metro Blue Line Construction Authorization's MTA funding (SB 1457) in the amount of $750,000 and appropriating it to the *Pasadena Light Rail Adaptive LRT Priority System (ALPS)* CIP project.

BACKGROUND:

The Pasadena-Los Angeles ***"Gold Line"*** Light Rail Project will cross three major east-west streets at grade – Glenarm Street, California Boulevard and Del Mar Boulevard. In order to determine the performance of traffic operations and prescribe any necessary improvements for safe and efficient operations at these crossings, staff had solicited professional consulting service ("Grade Crossing Operation Evaluation" by Korve Engineering) in June 2000. The Evaluation concluded that an adaptive traffic control system could be designed to minimize or eliminate any delay which might be caused by the train crossing. As a result, the City requested that the adaptive system be added to the project since it was not in the base project as designed by the MTA. Therefore, in the application from the City and the Blue Line Authority to the Public Utilities Commission (PUC), an adaptive priority system was included in-lieu of relying on the standard PUC heavy rail preemption mechanism. Because the system is important to both the Blue Line Authority and the City, staff recommended the entities share the costs of implementing such a system.

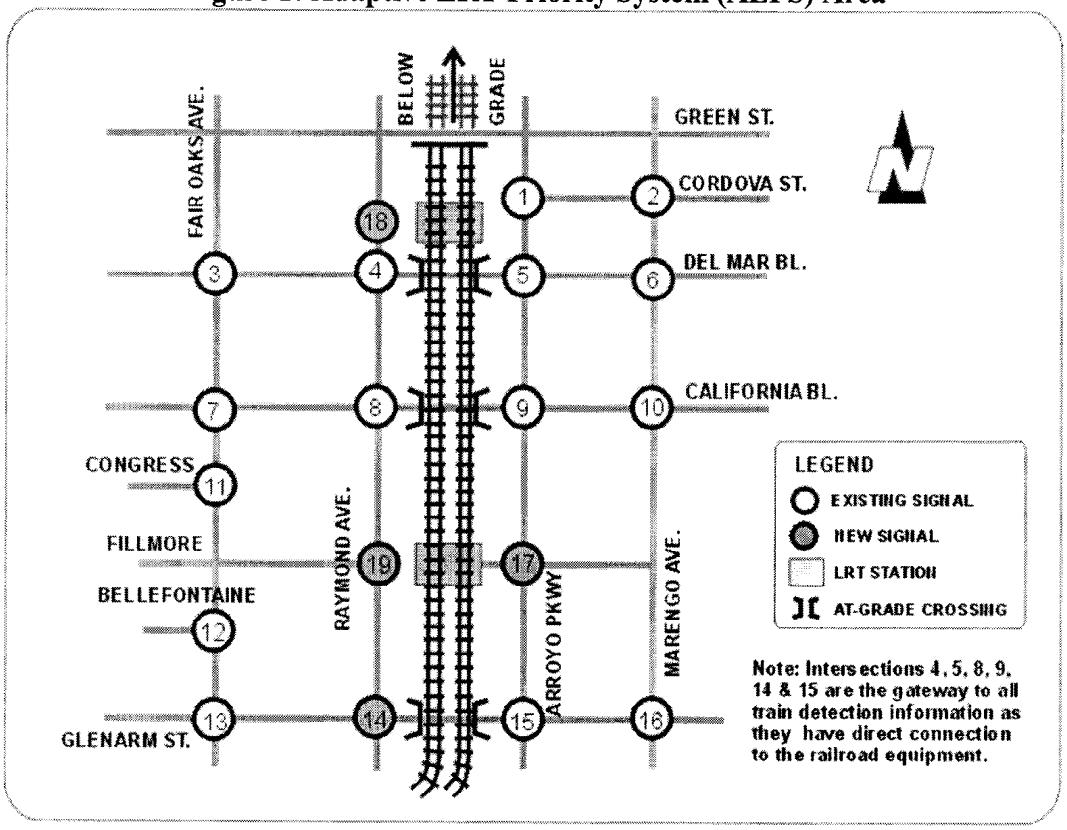
City staff contracted with Siemens Energy & Automation, Inc. (Gardner Systems) to complete a Needs Assessment and Deployment Plan. The Needs Assessment reveals that implementing an advanced traffic control system with the ALPS capability is estimated at $1.5 million, as shown in the following table.

Table 1: Estimated Project Cost (By Category)

Category	Estimated Cost
Hardware purchase and installation	$400,000
Software development and licensing	$440,000
Design, integrations, field tests, administration and contingencies	$660,000
Total	**$1,500,000**

A total of 19 intersections will be included in the ALPS system (see Figure 1). The ALPS will be developed by enhancing an off-the-shelf traffic signal control system so future expansion can be easily achieved. Conceptually, the ALPS will include a variety of intelligent transportation system (ITS) components, such as state-of-the-art traffic controllers, high definition video surveillance and detections, peer-to-peer communications between traffic signals, and field-to-central communications capabilities. The field and central control software will be enhanced to allow for flexible intersection control based on prediction of the train arrivals and traffic demand in real-time.

Figure 1: Adaptive LRT Priority System (ALPS) Area



The final ruling on grade crossings is expected from the PUC in May 2002. In order to assure the ALPS will be fully functional when the Light Rail begins service in July 2003, the RFP needs to be released now. The award of the contract and expenditure of these funds would occur after the award of the contract, and therefore, after the PUC ruling.

Task	Completed By
Council Approves the CIP Amendment	April 8, 2002
Select System Integrator	Late May 2002
PUC Ruling on at-grade crossings	Late May/Early June 2002
Council Approves Contract	June 2002
Project Begins	July 2002
Phase I – Base System Design, Installation & Simulation	Late August 2002
Procure & Install Field Equipments	Late September 2002
Phase II – ALPS Design, Installation & Simulation	February 2003
Operational Testing (Base System)	Late March 2003
Operational Testing (ALPS Module)	Late June 2003
Start of Service	July 2003

Table 2: Tentative Project Schedule

This is a joint project between the City of Pasadena and the Los Angeles to Pasadena Metro Blue Line Construction Authority and its purpose is to coordinate the passage of trains with the adjacent traffic signals. Both the City and the Construction Authority have agreed to contribute $750,000 each. The Construction Authority staff will be recommending the approval of their $750,000 share of this project to their Board in May 2002.

FISCAL IMPACT:

The impact of these recommendations will increase the FY 2002 – 2006 CIP budget by $1.5 million. There are sufficient funds available in the Light Rail Reserve (Proposition A/C) Fund to appropriate $750,000 to the *Pasadena Light Rail Adaptive LRT Priority System (ALPS)* CIP project. The Blue Line Construction Authority staff has agreed to recommend to their board that the remaining $750,000 be provided from funding that was appropriated through Senate Bill 1457 as its fair share to improve traffic flow at and near the At-Grade Crossings.

Respectfully submitted:

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