



**Metro**

Los Angeles County  
Metropolitan Transportation Authority

One Gateway Plaza  
Los Angeles, CA 90012-2952

213.922.2000  
metro.net

**REVISED**  
**CONSTRUCTION COMMITTEE**  
**April 16, 2015**

**SUBJECT: I-5 NORTH CAPACITY ENHANCEMENTS FROM SR-134 TO SR-118  
(FUNDING AGREEMENT NO. MOU.P0008355/8501 A/A5) & I-5 SOUTH  
HOV WIDENING FROM I-605 TO ORANGE COUNTY LINE (FUNDING  
AGREEMENT NO. MOU.P0004292 A/A2)**

**ACTION: AUTHORIZE CONTRACT MODIFICATIONS**

**RECOMMENDATION**

- A. Authorize a Contract Modification No. 14 (a.k.a. Contract Change Order, CCO 14) by Caltrans for Segment 3 construction contract of the I-5 North Capacity Enhancements from SR-134 to SR-118 under the Funding Agreement No. MOU.P0008355/8501 A/A5 in the amount of \$1,920,800 without an increase in the project budget.
- B. Authorize a Contract Modification No. 39 (a.k.a. Contract Change Order, CCO 39) by Caltrans for Segment 3 construction contract of the I-5 North Capacity Enhancements from SR-134 to SR-118 under the Funding Agreement No. MOU.P0008355/8501 A/A5 in the amount of \$850,000 without an increase in the project budget.
- C. Authorize a Contract Modification No. ~~46~~ 60 (a.k.a. Contract Change Order, CCO ~~46~~ 60) by Caltrans for Segment 3 construction contract of the I-5 South HOV Widening from I-605 to Orange County Line under the Funding Agreement No. MOU.P0004292 A/A2 in the amount of \$3,500,000 without an increase in the project budget.

**ISSUE**

Metro provides programming and partial funding for the I-5 North Capacity Enhancements from SR-134 to SR-118 and the I-5 South HOV Widening from I-605 to Orange County Line through two MOUs with the State of California, Department of Transportation (Caltrans). The I-5 North Capacity Enhancements and I-5 South HOV Widening Projects were designed by Caltrans, and construction management is administrated by Caltrans. Contract modifications exceeding \$500,000 require Board authorization per the Staff Delegations of Contract Action Approval and Award Authority Memo, dated February 23, 2010.

## **BACKGROUND/DISCUSSION**

The I-5 North Capacity Enhancements project is divided into five segments:

Segment 1A :	Widen I-5 for HOV lane from SR-118-SR-170. Reconstruct I-5/SR-170 mixed flow connector. Construct soundwall.
Segment 1B :	Install Changeable Message Sign (CMS) along I-5 at Los Feliz Blvd.
Segment 2 :	Widen I-5 for HOV lane from SR-170 to Buena Vista Street
Segment 3 :	Widen I-5 for HOV lane from Buena Vista to Magnolia. Reconstruct Burbank and Empire Blvd. interchanges
Segment 4 :	Widen I-5 for HOV lane from Magnolia-SR134

The I-5 South HOV Widening project is divided into five segments:

Segment 1 :	Widen I-5 HOV/Alondra Boulevard Bridge
Segment 2 :	Widen I-5 HOV/Valley View Avenue Bridge
Segment 3 :	Widen I-5 HOV/Rosecrans Avenue and Bloomfield Avenue Bridges
Segment 4 :	Widen I-5 HOV/Imperial Highway and Pioneer Boulevard
Segment 5 :	Widen I-5 HOV/Florence Avenue Interchange

This board report involves Segment 3 in both I-5 North and South Projects.

### **CCO 14 – I-5 North Capacity Enhancements**

CCO 14 is for the delay entitlement on Segment 3 of the I-5 North Capacity Enhancements. Construction was suspended due to the prerequisite that utilities be relocated. A determination of 268 working days delay is warranted in conformance with the Contract Standard Specifications and Contract Special Provisions.

Caltrans awarded this contract on November 29, 2012 and fieldwork was anticipated to begin on February 13th, 2013. Caltrans and the contractor agreed to modify the start date to April 22, 2013 due to late Storm Water Pollution Prevention and Protection (SWPPP) & Critical Path Method (CPM) Schedule submittals. However, Caltrans suspended construction commencement as of April 22, 2013 due to unresolved utility conflicts with entities (including AT&T, City of Burbank, Southern California Gas Company, etc.) within the project limits. On May 20, 2014, Caltrans commenced the construction activities per the Contract. The Time Impact Analysis (TIA), dated October 7, 2014, was submitted by the contractor, which was verified and accepted.

Therefore the Contractor is entitled for the time extension and compensation due to the 268 working days delay from April 22, 2013 through May 19, 2014. The contract price of "Time Related Overhead" (TRO) in the Contract Items is \$7100 per day. The total compensation is \$1,902,800 per the contract document.

Authorization of CCO 14 in the amount of \$1,902,800 will allow Caltrans to close out this dispute, to offer the entitlement to the Contractor and to minimize increasing project costs. The total cost of the CCO does not require an increase in the overall budget as it will be funded from the current project budget.

#### CCO 39—I-5 North Capacity Enhancements

CCO 39 is to procure and install the Positive Train Control (PTC) systems to support the temporary rail operation upon construction completion of the shoofly track and permanent rail operation upon construction completion of the mainline track and related works in Segment 3 of the I-5 North Capacity Enhancements.

PTC system implementation is programmed in the original scope of this project through the Construction and Maintenance Agreement between Caltrans and SCRRA (Southern California Regional Rail Authority) for the Empire Avenue project. This task originally was undertaken by SCRRA as a right of way phase project cost. Due to the utility relocation-related project delay, it has become more cost and time effective to add the implementation of PTC task into the construction contract of Segment 3 in I-5 North Capacity Enhancements through a contract change order. This proposal will provide the following benefits:

1. Removal of the requirement for the prime contractor to provide a 90 day work window for SCRRA PTC activities, allowing the contractor more flexibility in scheduling activities and improving delivery time;
2. Opportunity for one team to install both signal and PTC infrastructure concurrently, potentially reducing overall cost and time for labor and equipment;
3. Reduction of coordination through SCRRA and associated time and cost in executing and managing additional task orders, work schedules, invoicing, flagging provision etc.

Authorization of CCO 39 in the amount of \$850,000 will allow Caltrans to move forward with the project in compliance of the PTC regulations without further delay, and will minimize any project cost increase. The total cost of the CCO does not require an increase in the overall budget as it will be funded by the shifting of funds from the right of way phase of work to the construction phase of work.

#### CCO 60—I-5 South HOV Widening

CCO 60 in Segment 3 of I-5 South HOV Widening is to address the pile driving operations at Rosecrans Undercrossing, Abutment 3 and Bloomfield Undercrossing, Abutment 1 which are in conflict with the newly installed Southern California Edison (SCE) Overhead Power lines. This operation is anticipated to start in the beginning of May 2015. The option of splicing the piles to avoid this conflict was considered at the

early stage of the project and the contractor was to give an estimate for accomplishing this change. However, it was determined much later that this option would not be feasible because the different hammers considered did not have the required energy to drive the piles. Therefore, there are two viable options listed:

Option 1: Stack the SCE lines on the street side of the poles and drive the piles from the embankment side of the poles:

Rosecrans Undercrossing, Abutment (Abut) 3, to be performed in Stage 3  
SCE is receptive to de-energizing and moving the existing overhead lines (Transmission, Distribution and Communication) outside the foot print of Rosecrans Undercrossing, Abut 3 footing, to the mast arms on the street side of the poles which is on the opposite side of existing steel poles. All pile driving work shall start and complete before the July 4<sup>th</sup> weekend, since it is not likely that power outages will occur during peak demand summer season (July through October). The Contractor will have to drive piles from the embankment side of the poles (approach-end of the bridge) and not from the street side as planned. This will cause the Contractor to incur additional costs associated with additional shoring and significant earthwork to install and remove the crane pads, and to provide access to the job site for the pile driving equipment. The Contractor submitted a preliminary cost estimate of \$1.4 million for Stage 3 construction only.

Rosecrans Undercrossing Abut 3, to be performed in Stage 4  
Less shoring and earthwork would be required at this stage. However, pile driving under de-energized and temporarily relocated overhead lines similar to Stage 3 construction is still required. A preliminary cost estimate from the Contractor is around \$600,000.

Bloomfield Undercrossing Abut 1, to be performed in Stages 3 and 4  
This is similar to the work at Rosecrans Undercrossing, Abut 3, but is less intensive. This would also require additional shoring and significant earthwork to install and remove the crane pads as well as additional costs to access the job site for pile driving equipment. A preliminary cost estimate for both stages is around \$1,500,000.

Total Estimated Cost for Option 1: \$3,500,000

Option 2: Install a Temporary Shoofly System by Edison at Both Locations:

This option requires SCE to install a temporary shoofly at each location and to remove the transmission, distribution and communication lines at Rosecrans Undercrossing and the distribution lines at Bloomfield Undercrossing completely out of the way of the pile driving operation during Stages 3 and 4. A preliminary cost estimate of SCE costs to perform the shoofly work at both locations for Stages 3 and 4 is estimated at approximately \$1,500,000. This option might require the contractor to perform some support work (field or administrative support). A preliminary cost estimate is \$1,000,000. SCE, however, could not provide the fixed schedule to perform this work due to its existing workload priorities and the complexity of this change. This uncertainty initiates

a possible project right of way delay of 6 to 12 months. The associated delay cost is estimated at \$1,000,000.

Total Estimated Cost Option 2: \$3,500,000 (\$2,500,000 + \$1,000,000 possible delay cost)

Caltrans is still continuing to work with SCE on Option 2 to secure a fixed schedule of installing the temporary shoofly system in order to eliminate \$1,000,000 of the possible delay cost from this change order.

Authorization of CCO 60 in the amount of \$3,500,000 will allow Caltrans to move the project forward without the delay. The total cost of the CCO does not require an increase in the overall budget as it will be funded by the project budget.

### **DETERMINATION OF SAFETY IMPACT**

There is no impact to safety by approving this action.

### **FINANCIAL IMPACT**

The funding of \$15,000,000 of Proposition C 25% Highway (bonds) for FY15 for the I-5 North Capacity Enhancements project is included in Account 54001 - Subsidies to Others, in cost center 0442, under project number 410001 Freeway, Task 008355 and the funding of \$45,000,000 of Measure R 20% Highway for FY15 for the I-5 South HOV Widening project is included in Account 54001 - Subsidies to Others, in cost center 0442, under project number 410001 Freeway, Task 004292. The changes identified herein will not increase the project budget for the current fiscal year because the local funding is only a portion of the total project programmed funding. Since this is a multi-year contract/project, the Managing Executive Officer will be accountable for budgeting the cost in future years for LACMTA's share within the existing project budget.

### **ALTERNATIVES CONSIDERED**

If the MTA Board does not authorize this CCO, the construction cost and project budget will likely further increase due to construction delays.

### **NEXT STEPS**

Immediate action is desired for this Board Report. As stated, the contracts are currently in construction and delays to concurrence of these modifications could cause additional costs to the contract.

Prepared by: Victor Gau, Senior Engineering Manager, Highway Program  
(213) 922-3031  
Gregg Magaziner, Executive Officer, Highway Program  
(213) 922-7337  
Gary Sidhu, Managing Executive Officer, Highway Program  
(213) 922-6840

*B. Pennington*

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Bryan Pennington, Executive Director  
Engineering and Construction

*Arthur T. Leahy*

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Arthur T. Leahy  
Chief Executive Officer