



Metro

Los Angeles County
Metropolitan Transportation Authority

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**CONSTRUCTION COMMITTEE
MARCH 20, 2014**

**SUBJECT: I-5 NORTH CORRIDOR CAPACITY ENHANCEMENTS FROM SR-134
TO SR-118 (FUNDING AGREEMENT NO. MOU.P0008355/8501 A/A4)**

ACTION: APPROVE RECOMMENDATIONS ON CONTRACT CHANGE ORDERS

RECOMMENDATIONS

- A. AUTHORIZE Chief Executive Officer (CEO) to approve Contract Change Order (CCO) No. 73 by Caltrans for Segment 1A of the I-5 North Capacity Enhancements from SR-134 to SR-170 under Funding Agreement No. MOU.P0008355/8501 A/A4 in the amount of \$549,792 which will result in an overall savings to the contract of \$1.2 Million.
- B. AUTHORIZE CEO to approve CCO No. 81.5 by Caltrans for Segment 2 of the I-5 North Capacity Enhancements from SR-134 to SR-170 under Funding Agreement No. MOU.P0008355/8501 A/A4 in the amount of \$686,585.47 without an increase in the project budget to continue soundwall construction work.

ISSUE

Metro provides programming and partial funding of the I-5 North Corridor Capacity Enhancements from SR-134 to SR-118. Staff is currently in the process of amending the funding agreement per the November 2012 Board Action Attachment B. This action re-directed \$105,880,000 in funding from the I-5 North Corridor to the I-5 South and 405 Sepulveda Pass projects. The programmed funds to be issued in Amendment Number 5 are shown in Attachment A. While this contract is administered by Caltrans, as the funding agency, staff is closely working with Caltrans to monitor the contract's progress in an effort to keep contract modification to a minimum and diligently manage the project's budget.

Many challenges have arisen during construction of Segments 2 and 5 due to survey and design inconsistencies, gas, water, electrical, telecommunication, and sewer utility conflicts, in addition to differing site conditions. These issues have resulted in several change orders and project delays.

This board report seeks to 1) provide an update on the projects financial status since the Board action in 2012, 2) authorize two change orders, and 3) explain current issues

that have arisen on the I-5 north corridor and identify mitigation strategies to address the financial impact of future delays, change orders and claims.

DISCUSSION

The I-5 North Capacity Enhancements project is comprised of 5 segments which will widen the I-5 for the construction of one High Occupancy Vehicle (HOV) Lane in each direction from SR-134 to SR-118, a total of approximately 12 miles. The I-5/SR-170 mixed flow connector will be reconstructed and a new I-5/SR-170 HOV to HOV connector will be constructed.

Both Segments 1A and 2 are well under construction and substantial completion of construction work is estimated to be in late 2014. Segment 1B is completed. Construction on Segments 3 and 4 has not yet started and Segment 5 is in the early stages. The estimated start of construction for Segments 3 and 4, which are combined into one single contract, is April 2014, with an estimated substantial completion in 2017. The estimated substantial completion of Segment 5 is in late 2016. Segments 3, 4 and 5 involve complex utility relocation and coordination issues and are prone to significant schedule delay risks. The following table provides a summary of the status of each segment.

Segment No.	EA	Location/Description	Budget (8355 A/A-5) (\$ thousands)	Construction % Work Completed	Substantial Completion
1A	1219U	Widen I-5 for HOV lane from SR-118-SR-170. Reconstruct I-5/SR-170 mixed flow connector. Construct soundwall.	223,388	72	Fall 2014
1B	3P601	Install Changeable Message Sign (CMS) along I-5 at Los Feliz Blvd.	500	100	completed
2	1218V	Widen I-5 for HOV lane from SR-170 to Buena Vista Street	99,848	86	Winter 2014
3 and 4	1218W	Widen I-5 for HOV lane from Buena Vista to Magnolia. Reconstruct Burbank and Empire Blvd. interchanges	405,575	0	Fall 2017
5	12184	Widen I-5 for HOV lane from Magnolia-SR134	115,808	40	Fall 2016
Project Total			845,119		

Segment 1A –CCO 73

CCO 73 is for work performed on Segment 1A. This segment is 72% complete. Item No. 115 "Replace Concrete Pavement" was under-run by more than 25% of the engineer's estimate. According to the Contract Special Provisions section 4-1.03B(2), if a contract item is decreased by more than 25% of the bid, the contractor is entitled to an adjustment to the contract item price. The primary reason for allowing price adjustments is to minimize the cost effects of price uncertainty for certain materials. Caltrans calculated that for this item, the maximum allowable adjustment is \$549,792. This CCO will compensate the contractor in that amount.

Although there is a cost to the contract for this adjustment, the overall result is a savings to the contract. The contractor bid the item work for 10,000 M³ at \$400/M³. The total cost for this item would have been \$4,800,000. According to diaries and receipts, the contractor however, only used 6,354.6 M³ at \$400/M³ and was actually paid \$3,050,208. This payment triggered the adjustment due to the reduction in bid price exceeding 25%. Therefore, the contractor will be compensated, via CCO 73, the maximum allowable item adjustment. By paying less than the bid amount for this item, there is an overall item savings of \$1,200,000 (see calculations below).

	Budget	Expenses	
Total Bid Item #115	\$4,800,000	\$3,050,208	Actually paid for Item #115 (36% reduction)
		<u>\$ 549,792</u>	CCO 73 Allowable Adjustment paid
		\$3,600,000	Total Paid for Bid Item #115
Savings (Budget-Expenses)	\$1,200,000		

The savings for this bid item will be managed by the resident engineer and tracked. The savings will be accessible to the project contingency at the end of the job.

Segment 2 –CCO 81.5

CCO 81.5 is for work performed on Segment 2. This segment is approximately 86% complete. In October 2012, CCO 81 was issued for soundwall (SW) 537 footing design changes for a net cost of \$86,585.47 (after credits were taken for reductions in contract item work). Discovery of additional varying soil conditions and utility pole interferences required further modifications to the foundation design. The additional cost to complete the necessary modifications to the SW 537 foundation is estimated at an amount not to exceed \$686,585.47. CCO 81.5 does not require an increase in the overall project budget as it will be funded by the project contingency allocation.

Segment 5 – Current Issues

Segment 5 is currently 40% complete by work, but is experiencing delays. These delays were primarily caused by inconsistent surveys, design issues, and utility conflicts discovered in the field. Caltrans has been working with the contractor on these issues and they have issued various change orders to fix issues in the field. Metro staff and Caltrans are in the process of identifying the magnitude of the overall impact and will return in the May 2014 Board for a full report. The primary issues are as follows:

Survey/Design/Utility Issues

The survey data used to design the project was inconsistent and adjustments were made in construction. As a result of re-surveying and re-designing in the field, several problems have ensued: 1) earthwork calculations have been drastically overestimated and adjustments need to be made and 2) utility conflicts have emerged that need resolution. Caltrans has made tremendous effort to re-survey, re-design and pre-

emptively address these problems in the field; however, the problems have caused an impact to the contract's original bid and resulted in delays.

Cost Impacts Due to Delays

There were delays in the beginning of the project due to un-relocated utilities. This caused bridge girder manufacturing delays due to the loss of multiple manufacturers' windows. In the spring of 2013, the contractor demobilized due to an unidentified utility line. The contractor has since returned and is progressing with both item and change order work. With all these delay factors, although some Time Related Overhead (TRO) has been paid, because the contract was not technically under suspension, the contract is also rapidly exhausting the contractual working days. Caltrans is currently in the process of conducting a Time Impact Analysis (TIA) to identify owner-caused delay. If after the TIA is accepted and owner-delay is found, the contract working days may be extended.

Claim Resolution

The contractor has filed 17 Notice of Potential Claims (NOPCs) on this contract due to the problems with surveys, design, utilities, and delays. Caltrans is making efforts to resolve the claims and prevent them from going to arbitration. If however, the identified claims are not resolved; this could result in additional cost to the contract. Once the TIA analysis is performed, Caltrans will know more about how to proceed in claim negotiations.

Caltrans Risk Mitigation Efforts

In an effort to manage and mitigate the schedule and cost risks on the I-5 North Corridor, in February 2014, Caltrans is implementing risk management for the overall construction of this project. A quantitative risk analysis will be prepared and maintained for each of the four segments.

DETERMINATION OF SAFETY IMPACT

There is no impact to safety.

FINANCIAL IMPACT

The funding of \$5,000,000 in FY14 for this project is included in Account 54001 Subsidies to others, in cost center 0442, under project number 410001 Freeway, Task 008355 HOV Lanes on I-5. The changes identified will not increase the project budget for the current fiscal year. Since this is a multi-year contract/project, the Executive Director will be accountable for budgeting the cost in future years.

ALTERNATIVES CONSIDERED

If Metro does not authorize these modifications, the construction cost and project budget may increase due to construction delays.

NEXT STEPS

Given approval of these modifications, Metro staff will work with Caltrans to execute these and future related CCOs. Upon the completion of the risk analysis in May, staff will report back to the Board on its findings.

ATTACHMENTS

- A. Amendment A/A5 – Attachment A Funding Plan
- B. I-5 Corridor Project Funding Plan Changes

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ATTACHMENT A

Summary of I-5 North Funding

ATTACHMENT A/A5
 I-5 HOV Lanes from Rte 118 to Rte 134 (Segment 1 Through 5)
 Call for Projects - Funding Agreement (FA)
 PROGRAMMED BUDGET - SOURCES OF FUNDS

(Call for Projects Budget and Local Match Only)

(Dollar amounts are in \$1,000s)

SOURCES OF FUNDS		Prior	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18*	TOTAL Budget	% of Budget
RIP	Design	27,540						\$27,540	3.3%
	R/W Support	4,435						\$4,435	0.5%
	R / W	11,021	35,659					\$46,680	5.5%
	Construction Support	7,909	14,802					\$22,711	2.7%
	Construction	17,513	82,281					\$99,794	11.8%
Total RIP Funds		68,418	132,742					\$201,160	23.8%
TCRP	Design	12,279						\$12,279	1.5%
	R/W Support	673						\$673	0.1%
	R / W	27,299						\$27,299	3.2%
Total TCRP Funds		40,251						\$40,251	4.8%
RSTP	Design								
	Construction Support		1,456					\$1,456	0.2%
	Construction		31,021					\$31,021	3.7%
Total RSTP Funds			32,477					\$32,477	3.8%
Prop C	Design	60,729						\$60,729	7.2%
	R/W Support	2,989	2,103					\$5,092	0.5%
	R / W	35,244	31,217					\$66,461	7.9%
	Construction Support	19,002	29,287					\$48,289	5.7%
	Construction	10,323	112,924					\$123,247	14.6%
Total Prop C Funds		128,287	175,531					\$303,818	35.9%
SLPP	Construction	25,075	13,061					\$38,136	4.5%
Total SLPP Funds		25,075	13,061					\$38,136	4.5%
CMAQ	Construction Support	14,300	1,244					\$15,544	1.8%
	Construction	36,613	57,492					\$94,105	11.1%
	Total CMAQ Funds		50,913	58,736					\$109,649
ARRA	Construction	40,420						\$40,420	4.8%
Total ARRA Funds		40,420						\$40,420	4.8%
IIP	Design	10,586						\$10,586	1.3%
	R/W Support	1,041	391					\$1,432	0.2%
	R / W		650					\$650	0.1%
	Construction	285	1,142					\$1,427	0.2%
Total IIP Funds		11,912	2,183					\$14,095	1.7%
SAFETEA-LU	Construction	400						\$400	0.0%
Total SAFETEA-LU Funds		400						\$400	0.0%
CMIA	Construction	330	64,383					\$64,713	7.7%
Total CMIA Funds		330	64,383					\$64,713	7.7%
Total Programmed	Design	111,134						\$111,134	13.2%
	R/W Support	9,138	2,494					\$11,632	1.4%
	R / W	73,564	67,526					\$141,090	16.7%
	Construction Support	41,211	46,789					\$88,000	10.4%
	Construction	130,959	362,304					\$493,263	58.4%
Total Programmed Funds		366,006	479,113					\$845,119	100.0%

* Current Call requires a 20% local monetary match for the Call for Projects program

(Dollar amounts are in \$1,000s)

**Metro**Los Angeles County
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metro.net**PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 14, 2012****SUBJECT: INTERSTATE 5 CORRIDOR PROJECT FUNDING PLAN CHANGES****ACTION: APPROVE RECOMMENDATION****RECOMMENDATION**

Authorize the programming of \$178 million in new State Highway Operation and Protection Program (SHOPP) funding and bid savings on the I-5 North at Empire Project, as shown in Attachment A, to address requests by the California Transportation Commission and Caltrans related to the I-5 South and I-405 Sepulveda Pass Projects, according to the following:

- A. This project is being managed by Caltrans. The project is two-thirds state-funded and one-third Metro-funded; and
- B. The recommended action will not delay or reduce any Los Angeles County project.

ISSUE

On October 24, 2012, the California Transportation Commission (CTC) approved a \$72 million reduction of their Proposition 1B Corridor Mobility Improvement Account (CMIA) funding commitment to the Interstate 5 South project. A similar December 5, 2012 CTC action is pending to reduce CMIA funding by \$35 million on the I-5 North project. Additionally, CTC and LACMTA joint action is required to redirect an additional \$71 million in savings on the I-5 North project. The State has agreed to replace this funding with a like amount of SHOPP funds on these and other projects. This replacement funding will keep all CMIA projects funded but require the transfer of local funds by Metro.

Metro staff and members of the Board of Directors strongly urged the CTC to work with staff to prevent the loss of up to \$178 million in funding crucial to the completion of the I-5 South corridor project. In response, the CTC and Caltrans have committed to:

- Replace \$69 million in CMIA reductions to I-5 South with a combination of SHOPP commitments directly to I-5 South (\$35 million), indirectly through a funding exchange with the Interstate 10 Puente to Citrus project (\$34 million);
- Replace the remaining \$3 million in CMIA reductions to I-5 South with rescinded federal earmark funding;
- Redirect \$26 million in I-5 North CMIA funds to Interstate 405; and
- Jointly redirect \$71 million in I-5 North savings to I-5 South project needs.

In total, the CTC/Caltrans response to Metro efforts restores \$168 million of the \$178 million potential loss, leaving almost \$10 million without a mutually agreeable solution at this time.

DISCUSSION

The I-5 Corridor extends from the Kern County Line in the north to the Orange County Line in the south. The I-5 North and South projects aim to close gaps in the carpool network as well as provide additional lane capacity. In 2008, Metro entered into a funding agreement with Caltrans to help fund the I-5 South Project, which extends from I-605 to the Orange County Line. Metro share is approximately one third of the total project cost. By making Metro whole, except for the almost \$10 million loss, the CTC and Caltrans are maintaining their commitment to these projects. Going forward, Caltrans must manage project costs, excess land sales, and identify additional funding to maintain the State's two-thirds commitment to the project.

Without the redirection of \$26 million in I-5 North CMIA funds to the I-405 project, the loss experienced by Metro would have been almost \$36 million, instead of \$10 million. The only mutually agreeable approach to this \$36 million in CMIA funding was a transfer back to the I-405 of \$26 million of CMIA bond funds from the I-5 North to the I-405 Sepulveda Pass HOV lane project. The \$26 million figure is the amount of CMIA funding remaining in Los Angeles County that is subject to a state law enacted to implement the federal 2009 American Recovery Reinvestment Act (ARRA). Under this state law, CMIA funds freed-up from the I-405 project must remain in Los Angeles County. However, these CMIA funds expire on December 31, 2012, a hard deadline imposed by voters in Proposition 1B. The funds are needed on the I-405 project for lane standardization and access improvements that the design phase showed to be necessary. No other mutually agreeable use of these expiring funds could be found in the time available.

DETERMINATION OF SAFETY IMPACT

The reprogramming of funds will have no impact on the safety of Metro's patrons or employees. The lane standardization and access improvements on the I-405 project will improve the safety of that project.

FINANCIAL IMPACT

Funding for the I-5 South Project is currently included in the \$23.5 million FY13 budget in Cost Center 0442 (Highway Capital), Account 54001 (Subsidies), Project 410001 (Widening, Orange County Line – Route 605 with Carmenita Interchange). Since the delivery of the projects will extend beyond FY13, the cost center manager and the Executive Director, Highway Program, will be responsible for project budgeting in future years.

Impact to Budget

The sources of funds for this project are CMAQ, CMIA, Grandfathered State Transportation Improvement Program, Interregional Transportation Improvement Program, Measure R 20% Highway Funds, Proposition C 25%, Regional Improvement Program, State and Local Partnership Program, and Traffic Congestion Relief Program. No other sources of funds were considered as these funds have been identified for this project.

ALTERNATIVES CONSIDERED

None of the alternatives considered enjoy three party support, CTC, Caltrans, and Metro. Metro staff originally sought to directly retain the CMIA funds on the I-5 corridor but failed to find a way to make that concept work given the State's highly structured transportation funding silo policies. Staff even considered leaving the \$26 million on the table instead of transferring it to the I-405 project, but determined doing so would force us to pick-up costs from another Metro funding source instead. In summary, Metro staff is not recommending any other alternative because doing so would unwind the complex three-party negotiations that led to the retention of \$168 million of the up to \$178 million of State funding originally put at risk by strict State transportation funding policies.

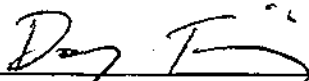
NEXT STEPS

With the approval of the recommendation, staff will work with Caltrans and the CTC to reprogram the available funds to the I-5 South and make other necessary funding exchanges, budget actions, and funding agreements to make the three-party arrangement work.

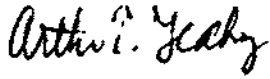
ATTACHMENT

A. Summary of Proposed CMIA Savings Exchange and other Programming Actions to Preserve Funding for Critical Highway Projects

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Attachment A

**Summary of Proposed CMIA Savings Exchange and Other Programming
Actions to Preserve Funding for Critical Highway Projects**
Figures in (\$000's)

Project Funding Source/Programming	Current Programming	Proposed Programming	Change
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Key to Text

I-5 North Burbank/Empire Segment

1 Interregional Improvement Program	\$ 14,042	\$ 13,270	\$ (772)
2 Regional Improvement Program	\$ 157,193	\$ 120,850	\$ (36,343)
3 State Proposition 1B SLPP	\$ 20,000	\$ 12,937	\$ (7,063)
4 Proposition C 25%	\$ 169,058	\$ 142,353	\$ (26,705)
5 Subtotal	\$ 360,293	\$ 289,410	\$ (70,883)
6 CMIA	\$ 99,100	\$ 64,103	\$ (34,997)
7 Total	\$ 459,393	\$ 353,513	\$ (105,880)

← "\$71 M"

← "\$35 M"

I-10 Puente to Citrus

8 CMAQ	\$ 139,000	\$ 104,800	\$ (34,200)
9 Interregional Improvement Program	\$ 9,512	\$ 9,512	\$ -
10 Regional Improvement Program	\$ 38,142	\$ 38,142	\$ -
11 SHOPP	\$ -	\$ 34,200	\$ 34,200
12 State Proposition 1B SLPP	\$ -	\$ -	\$ -
13 Traffic Congestion Relief Program	\$ 157	\$ 157	\$ -
14 Proposition C 25%	\$ -	\$ -	\$ -
15 Total	\$ 186,811	\$ 186,811	\$ -

I-5 South Segment 2

16 CMAQ	\$ 77,439	\$ 111,639	\$ 34,200
17 Federal Demonstration Funds	\$ -	\$ 3,297	\$ 3,297
18 Interregional Improvement Program	\$ 17,443	\$ 17,443	\$ -
19 Regional Improvement Program	\$ 106,136	\$ 142,479	\$ 36,343
20 SHOPP	\$ -	\$ 28,000	\$ 28,000
21 State Proposition 1B SLPP	\$ 36,156	\$ -	\$ (36,156)
22 Traffic Congestion Relief Program	\$ 103,660	\$ 103,660	\$ -
23 Proposition C 25%	\$ 5,799	\$ 60,887	\$ 55,088
24 Total	\$ 346,633	\$ 467,405	\$ 120,772

← "\$3 M"

I-5 South Segments 3 and 4 (Partial Project Programming Information)

25 CMIA	\$ 314,600	\$ 242,600	\$ (72,000)
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← "\$72 M"

I-5 South Segment 5

26 Interregional Improvement Program	\$ 11,326	\$ 11,326	\$ -
27 Regional Improvement Program	\$ 51,278	\$ 51,278	\$ -
28 SHOPP	\$ -	\$ 7,000	\$ 7,000
29 State Proposition 1B SLPP	\$ 26,500	\$ 41,529	\$ 15,029
30 Traffic Congestion Relief Program	\$ 955	\$ 955	\$ -
31 Proposition C 25%	\$ 108,161	\$ 108,161	\$ -
32 Total	\$ 198,220	\$ 220,249	\$ 22,029

**Summary of Proposed CMIA Savings Exchange and Other Programming
Actions to Preserve Funding for Critical Highway Projects**
Figures in (\$000's)

Project Funding Source/Programming	Current Programming	Proposed Programming	Change
I-405 Sepulveda Pass			
33 ARRA	\$ 189,900	\$ 189,900	\$ -
34 Federal Demonstration Funds	\$ 117,000	\$ 117,000	\$ -
35 RSTP	\$ 10,100	\$ 10,100	\$ -
36 CMIA	\$ 614,000	\$ 640,100	\$ 26,100
37 Traffic Congestion Relief Program	\$ 90,000	\$ 90,000	\$ -
38 Proposition C 25%	\$ 13,000	\$ 13,000	\$ -
39 Total	\$ 1,034,000	\$ 1,060,100	\$ 26,100

"\$26 M"

Exposition Light Rail Transit Phase II⁽¹⁾⁽²⁾			
40 Regional Improvement Program	\$ 47,800	\$ 47,800	\$ -
41 State Proposition 1B PTMISEA	\$ 48,900	\$ 48,900	\$ -
42 State Proposition 1B SLPP	\$ -	\$ 28,383	\$ 28,383
43 Local Agency Contribution	\$ 45,400	\$ 45,400	\$ -
44 Measure R	\$ 813,700	\$ 813,700	\$ -
45 Proposition A	\$ 238,000	\$ 238,000	\$ -
46 Proposition C 25%	\$ 115,300	\$ 86,917	\$ (28,383)
47 Total	\$ 1,309,100	\$ 1,309,100	\$ -

Total Funding All Projects			
48 ARRA	\$ 189,900	\$ 189,900	\$ -
49 CMAQ	\$ 216,439	\$ 216,439	\$ -
50 Federal Demonstration Funds	\$ 117,000	\$ 120,297	\$ 3,297
51 Regional Surface Transp. Impvt. Prog.	\$ 10,100	\$ 10,100	\$ -
52 CMIA	\$ 1,027,700	\$ 946,803	\$ (80,897)
53 Interregional Improvement Program	\$ 52,323	\$ 51,551	\$ (772)
54 Regional Improvement Program	\$ 400,549	\$ 400,549	\$ -
55 SHOPP	\$ -	\$ 69,200	\$ 69,200
56 State Proposition 1B PTMISEA	\$ 48,900	\$ 48,900	\$ -
57 State Proposition 1B SLPP	\$ 82,656	\$ 82,849	\$ 193
58 Traffic Congestion Relief Program	\$ 194,772	\$ 194,772	\$ -
59 Measure R	\$ 813,700	\$ 813,700	\$ -
60 Local Agency Contribution	\$ 45,400	\$ 45,400	\$ -
61 Proposition A	\$ 238,000	\$ 238,000	\$ -
62 Proposition C 25%	\$ 411,318	\$ 411,318	\$ -
63 Total	\$ 3,848,757	\$ 3,839,778	\$ (8,979)

"Almost \$10 M"

- 1) Funding exchange is to be in an up-to amount of \$28.383 million
- 2) Rail car funding not included here.