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Title: STATUS UPDATE AND CONSIDER APPROVAL OF ADDITIONAL FUNDING FOR PROJ. 919: WILMINGTON AVENUE INTERCHANGE MODIFICATION AT THE I-405 FREEWAY (CITY COUNCIL)

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Attachments: 1. Exh No. 1 (Location Map), 2. Exh No. 2 (Exist and Future), 3. Exh No. 3 About CPUC, 4. Exh No. 4 Minutes 2012 MAY 15 CC Item 6, 5. Exh No. 5 Reso 18-150

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11/7/2018	1	City Council		

Report to Mayor and City Council

Wednesday, November 07, 2018

Discussion

SUBJECT:

STATUS UPDATE AND CONSIDER APPROVAL OF ADDITIONAL FUNDING FOR PROJ. 919: WILMINGTON AVENUE INTERCHANGE MODIFICATION AT THE I-405 FREEWAY (CITY COUNCIL)

I. SUMMARY

The Carson Successor Agency and the City Council are undertaking Project No. 919: Wilmington Avenue Interchange Modification at the I-405 Freeway (Exhibit No. 1). The project includes the construction of a new northbound on-ramp, widening Wilmington Avenue from 223rd Street to 220th Street, modifying the existing southbound on-ramp, and constructing a right-turn lane from Wilmington Avenue northbound to 223rd Street eastbound by widening the existing bridge over the Dominguez Channel (Exhibit No. 2). The project also includes a renovated grade crossing and Union Pacific Railroad (“UPRR”) Road right of way (UPRR).

Staff is providing update on the project and requesting the City Council and the Successor Agency Board to authorize additional funds in the amount of \$1,500,000 to complete the project. There is no impact to the General Fund with this funding request. The contractor has completed 95% of the project. Project completion has been delayed since February 2018 to resolve a complex UPRR grade crossing signal communication issues between UPRR and Caltrans. Changes in the design by the California Public Utilities Commission

resulted in additional grade crossing work costing \$605,000. The City agreed in 2014 to reimburse UPRR for the “actual costs” of the crossing upgrade.

There are additional new requirements of traffic loops, pavement markings, and regulatory signs in addition to labor costs. Unexpected costs from new Caltrans requirements including crash cushions and the relocation of a traffic controller and modification to a concrete barrier wall at \$790,000. There are also additional costs from the extended construction management due to the grade crossing delay, plus time-related delays from the contractor.

II. RECOMMENDATION

TAKE the following actions:

1. AUTHORIZE additional funds in the amount of \$1,500,000 to cover payment for additional invoices from UPRR, and change orders due to the preemption system required to complete Project No. 919: Wilmington Avenue Interchange Modification at the I-405 Freeway.
2. APPROPRIATE \$500,000 from the Measure M Fund account; \$500,000 from the Measure R Fund account; and \$500,000 from the Cooperative Agreement Bond to augment the amount currently budgeted for Project No. 919: Wilmington Avenue Interchange Modification at the I-405 Freeway.
3. WAIVE further reading and ADOPT Resolution No. 18-150, “A RESOLUTION OF THE CARSON CITY COUNCIL, amending the FY 2018/19 budget in the Special Revenues Fund to increase the Project 919 budget by \$1,500,000.

III. ALTERNATIVES

1. DO NOT AUTHORIZE additional funds in the amount of \$1,500,000 to cover construction delays, change orders, and payments for a variety of project related items required to complete Project No. 919: Wilmington Avenue Interchange Modification at the I-405 Freeway.
2. TAKE another action the City Council / Successor Agency Board deems appropriate consistent with the requirements of the law.

IV. BACKGROUND

In February 2018, the contractor completed approximately 95% of the improvements per the original plans and specifications including changes due to field conditions and changes as requested by other agencies such as California Department of Transportation (Caltrans). As the contractor nears completion, Union Pacific Railroad (UPRR) has also completed the majority of their scope of work at the railroad grade crossing on Wilmington Avenue adjacent to the I-405 freeway southbound on/off ramps. UPRR’s scope of work had significant improvements at the crossing that involved new safety features, such as several warning beacon lights, audible devices, and a gate-down mechanism that provides a safer

area for pedestrians and motorists.

UPRR

Though UPRR's improvements are substantially complete, they are currently not in operation due to the incompatibility with Caltrans' traffic controller cabinet. Since UPRR's new improvements are not in operation, only two temporary warning beacon lights are being utilized for each traffic direction along Wilmington Avenue at the railroad crossing. Per UPRR safety standards, every thru-lane must have a dedicated warning-signal. Staff proposed some alternatives and requested that UPRR consider opening all thru-lanes, but the requests were denied, therefore both number one lanes for the southbound and northbound directions are delineated and remain closed. Several traffic cones and a few arrow boards are in place to redirect motorists to use the other two lanes that are open for thru-traffic.

Since the UPRR signal equipment is immediately adjacent to Caltrans right-of-way which has several traffic signals owned and operated by Caltrans, both UPRR's safety components and Caltrans' traffic signals must have a preemption system in place that would allow automatic communication and synchronization with each other in order for all the safety features to function.

CPUC

The California Public Utilities Commission (CPUC) oversees the safety of railroads, rail transit systems, and rail road crossings in California. One of their transportation responsibilities as highlighted in the attached (Exhibit No. 3) includes safety of all rail road crossings in California, including the power to evaluate their design, location, terms of installation, operation, maintenance, use, and warning devices.

In 2016, CPUC issued a directive to Caltrans requiring a more robust preemptive system than what Caltrans had originally approved to be implemented for this project. The City's contractor placed the conductors per plan, however current CPUC requirements requires additional conductors and additional regulatory signs which were not identified by Caltrans until most of the improvements had been constructed and the issue became more apparent when Caltrans and UPRR were requested by the City to begin system operation. The CPUC's new requirements caused design revisions to the 2012 Caltrans approved plans.

Aside from the additional conductors that need to be added and pulled through the electrical conduit, a variety of traffic control devices and components shall be reflected on the revised plans as required by Caltrans and CPUC. As it is, there are not enough electrical conductors in place between the controller cabinets of Caltrans and UPRR in order for the safety features to be in operation. On the bright side, the conduit installed per plan has enough room to accommodate the additional conductors, which makes the issue much easier to resolve.

CALTRANS

As it has been with this project, there are several agencies involved in the approval process, which has had an impact on the completion date due to a long period of review by such agencies. With regards to these recent items, Caltrans is one of the essential agencies for approval of proposed improvements within their right of way.

Since the discovery of these recent requirements and proposed changes, the City's design engineer has been in constant communication with Caltrans staff, and has been diligently working on revising the plans to incorporate the preemption system as well as various traffic control devices and pavement markings that were not part of the original approved

plans and scope of work.

Staff and the design engineer have had an extremely challenging series of exchanges with Caltrans staff. Over a few months there were numerous discussions and several meetings about a new traffic signal device that Caltrans staff was adamantly requiring. The primary function of the new traffic signal would be for a pre-signal system at a very short intersection bounded by the railroad and the southbound on/off ramps at Wilmington Avenue. The new traffic signal would involve installation of a new steel pole with an extended mast arm adjacent to the railroad and the I-405 southbound on-ramp, directed at northbound traffic on Wilmington Avenue. The new signal was estimated to be very costly and extremely difficult to install due to a very limited area for its proposed location. Most importantly there is a minimum 16-week lead time to fabricate the signal pole and the associated mast arm. It was proven to Caltrans staff that the pre-signal system was not pragmatic or conducive to the site condition nor was it required based on the guidelines of the California Manual Uniform Traffic Control Device (CMUTCD), or CPUC and UPRR. Caltrans staff still insisted on installing such a device, which caused a delay in completion of the plan revisions. City staff ultimately elevated this unwarranted requirement to upper management at the Caltrans District office, and were eventually successful in obtaining a variance to not install the pre-signal device.

The design engineer continues to communicate with Caltrans staff to incorporate all other traffic control devices and pavement markings in the revised plans, although some are not fully warranted or required by the CMUTCD. The revisions are expected to be completed in the next few weeks.

Recent meetings and discussions with UPRR senior-level staff along with Caltrans staff at the district office and headquarters in Sacramento has provided clarifications and directions to revise the previously approved plans to reflect the necessary improvements that would satisfy requirements by CPUC, Caltrans and UPRR.

Remaining Items

The revised plans based on the Preemptive system requirements generated additional various traffic safety features that need to be installed in order to satisfy the requirements of CPUC and Caltrans. These roadway traffic features involve placement of several traffic regulatory signs, pulling additional conductors, modification of curb ramps, painting of pavement markings, fabrication and installation of an additional signal head along with traffic loop detectors and slight adjustments to warning-beacon lights. UPRR crews will eventually come back to the site to move a few interim devices to their ultimate location and complete electrical wiring to put the system in operation. Soon after all the changes are in-place, and all warning-signal lights, traffic signals and other warning devices have passed inspections and the system is in operation, UPRR will allow for all lanes to be open for thru-traffic. Aside from these preemptive items, there are a few punch list items from Caltrans that need to be addressed, such as adjustment to a concrete barrier wall located adjacent to the 405 southbound on-ramp; placement of crash cushions at the end of the concrete barrier, and relocation of traffic controller cabinet. The contractor was requested to provide a cost estimate based on a set of revised plans that reflects the necessary additional items as mentioned above. The estimate was negotiated down to \$789,464 by the City's construction management firm, Hill International.

The construction management firm's last contract amendment was based on a completion date of June 2018, including post-construction items. Unfortunately, due to the additional unforeseen work dictated by other agencies which have temporarily halted the completion

of the project, the City needs to continue the construction management services from Hill International, to oversee the construction of the remaining items. The construction management firm has requested an additional \$40,000.00 that will cover the substantial estimated hours of inspection and coordination required to handle the remaining work which must be conducted at nights and/or the weekends in order to efficiently conduct the operation as well as to lessen the impact to traffic during the day.

The most unexpected and considerable additional cost is associated with outstanding invoices from UPRR totaling \$604,716.00. These additional expenses from UPRR are based on actual site visits, inspections, and mobilizations by UPRR crews beyond the original estimate indicated in the 2014 Agreement between UPRR and the City. Funds allocated for UPRR based on the original estimate are nearly exhausted. Pursuant to the fully executed agreement between the City and UPRR, the City agreed to reimburse the railroad for one hundred percent of all actual costs; and UPRR is now seeking additional compensation to complete the remaining work.

To accommodate the bridge expansion at the southeast corner of 223rd Street and Wilmington for the roadway widening and also the new bridge overpass the Dominguez Channel for the new northbound onramp, portions of Los Angeles County Flood Control District's (LACFCD) right of way had to be acquired. On May 15, 2012, the City Council approved Item No. 6 (Exhibit No. 4) approving the Plans, Specifications, and Estimate (PS&E), and appropriated funds for payment to LACFCD for the acquisitions of the necessary right of way parcels. Plat maps, legal description and appraisals are being finalized, and soon the City must render a payment in the amount of \$5,800.00 to finalize the Plat Maps, legal descriptions and appraisals, and \$61,900 to acquire the appropriate parcels.

On April 18, 2017 City Council authorized additional funds to cover construction delays, change orders, and payments for a variety of project related items required to complete Project No. 919. The additional appropriation was used to cover various unforeseen issues which led to delays in the contractor's original schedule due to constant interruptions. These delays resulted in extended equipment rentals and additional overhead expense by the contractor. The delays also caused extension to the construction management services that provided construction inspection, public outreach and management of the documents, information and data. The additional appropriations were used as it was intended for and to date, the actual expenses are within the provided funds.

If the City Council approves the requested appropriations, the contractor will order materials, and coordinate subcontractors to remobilize to the jobsite and address the remaining items. The contractor has estimated that the remaining work will take approximately 2 to 3 months from start date, after the contractor has obtained the materials for the remaining work. Once all of the remaining improvements have been completed and all inspections and punch list items have been thoroughly reviewed and verified, staff will present an agenda item to accept the project as complete.

The anticipated timeline for the completion of the project is as follows:

Approval of Plan Revision	Mid-November 2019
Procurement of Materials	6 to 8 week lead time
Remobilization for Construction	Mid-January 2019
Completion of all Remaining Items	April 2019

V. FISCAL IMPACT

This is a multi-year project for which funds are budgeted each fiscal year in the Carson Successor Agency bond fund account; the state-funded Metropolitan Transportation Authority (MTA) - 2007 Call for Projects; the Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU) federal funds; and the Federal Interstate Maintenance Discretionary funds. Actual expenditures to date total \$36,914,365, including the \$2,470,886 FY17-18 appropriation approved by City Council on July 16, 2018.

The total project completion cost including design, construction, construction management, utility relocations, and right-of-way acquisition is now estimated to be \$38,416,245. If the City Council adopts proposed Resolution no. 18-150 (Exhibit No. 5), funds should be appropriated from Measure M, Measure R and the Cooperative Bond Agreement at \$500,000 from each fund to Project 919. Please note that if previously appropriated project funds had continued to be carried-over from the original appropriation dates, the amount requested would be \$278,300 as opposed to \$1,500,000.

VI. EXHIBITS

1. Location Map (pg. 7)
2. Existing and Future Layout (pg. 8)
3. CPUC's Responsibilities (pg. 9-11)
4. Minutes, May 15, 2012, Item No. 6. (pg. 12)
5. Resolution No. 18-150 (pgs. 13-14)

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