



# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE:** NOVEMBER 27, 2017

**ITEM NO:** 7

**SUBJECT:** CONSTRUCTION OF THE JACKSON STREET RECYCLED WATER PIPELINE PROJECT (PHASE I) – BID NO. RPU-7465 – APPROVE THE INCREASED EXPENDITURE OF \$430,000 FOR WORK ORDER NO. 1521905 FOR A REVISED WORK ORDER TOTAL OF \$9,039,000

**ISSUE:**

Approve the increased expenditure of \$430,000 for Work Order No. 1521905 for a revised total of \$9,039,000, which includes all design, construction, paving and construction contingency costs for the Jackson Street 24-Inch Recycled Water Pipeline Project (Phase I).

**RECOMMENDATIONS:**

That the Board of Public Utilities:

1. Approve the increased expenditure of \$430,000 for Work Order No. 1521905 for a revised total of \$9,039,000, which includes all design, construction, paving and construction contingency costs for the Jackson Street 24-Inch Recycled Water Pipeline Project (Phase I); and
2. Authorize staff to issue changes orders in an amount not to exceed \$430,000 to the construction contract with Trautwein Construction, Inc., for the Jackson Street Recycled Water Pipeline Project (Phase I) – Bid No. RPU-7465.

**BACKGROUND:**

On June 12, 2017, the Board of Public Utilities awarded a contract for the construction of the Jackson Street Recycled Water Pipeline Project (Phase I) to Trautwein Construction, Inc., in the amount of \$7,162,460. The City Council, in adopting Resolution 21178, authorizes staff to issue change orders to contracts in excess of \$1,000,000 in an amount not to exceed \$100,000 plus one percent of the original contract price, which here is \$171,624.60. The project will extend the existing 24-inch recycled water pipeline that currently terminates at the intersection of Van Buren Boulevard and Jackson Street to the intersection of Jackson Street and Cleveland Avenue. The work involves the construction of 15,600 linear feet of 24-inch recycled water pipeline along Jackson Street, Magnolia Avenue, and Monroe Street and 3,100 linear feet of 8-inch recycled water pipeline along Central Avenue. Abandonment of 7,000 linear feet of 42-inch and 48-inch techite pipeline along Monroe Street that was previously taken out of service is also included.

This new pipeline will expand Riverside Public Utilities' (RPU) recycled water system by providing recycled water service to customers along its proposed alignment, and it will serve as a backbone for potential expansion of RPU's recycled water system in the future.

Construction of the pipeline began in July 2017 and will take approximately thirteen months to complete.

The project affects both Monroe and Jackson Streets which creates a significant increase in traffic congestion affecting the general neighborhood. The project area is surrounded by many schools and businesses including California Baptist University (CBU), Chemawa Middle School, Sherman Indian High School, and Parkview Community Hospital/Medical Center with three main thoroughfares crossing Highway 91 (Jackson, Monroe and Adams Streets). At times during the construction, portions of Jackson and Monroe Streets are totally or partially closed, resulting in further traffic disruptions to two other schools, Arlington High School and Hawthorne Elementary School. The traffic disruption is further exacerbated by a Riverside County Flood Control Project on portions of Monroe Street adjacent to the RPU project, resulting in partial closures of Monroe Street.

## **DISCUSSION:**

During construction of the project, opportunities to provide additional recycled water service to landscape areas for Caltrans, CBU and public right-of-way have been identified. Installing the recycled water service connections for landscaping conversions and various future expansions at this time would eliminate future inconveniences to residents and businesses by avoiding future work in the street and public right-of-way.

While installing the pipeline the contractor encountered a significant number of unknown utilities and underground structures that required realignment of the pipe which necessitated shifting the bore and jack location along Central Avenue and making field modifications to the steel pipe in Monroe Street. Additional work was also required to abandon the existing techite pipeline in Monroe Street, due to the presence of unknown bulkheads inside the existing pipe. To date, staff has issued \$153,205.01 in change orders to cover the cost of additional work performed by Trautwein, leaving \$18,419.99 in remaining change order authority. Given the age of the streets and the number of unknown utilities already located, staff expects that similar conditions will be encountered as the remaining 60% of the work progresses, potentially resulting in further change orders,

There is potentially \$235,000 in pending additional costs due to construction related issues; \$90,000 stemming from additional excavation pits to abandon the remainder of the techite pipe, \$25,000 on account of additional realignment of the pipeline due to conflicts with gas utilities, and \$120,000 as a result of the installation of additional recycled water services. In an effort to also expeditiously address potential future unforeseen conflicts or issues during the remainder of the project construction, staff requests an additional construction contingency of \$195,000. The total increase in change order authority requested is \$430,000, which is 8.4% of the original contract amount with Trautwein (\$7,162,460). Approximately sixty percent of the work remains.

The following summarizes the proposed increase in expenditures:

<b>Item No.</b>	<b>Description</b>	<b>Cost</b>
1	Additional excavation pits to abandon the remainder of the techite pipe	\$90,000
2	Additional realignment of the pipeline due to conflicts with gas lines	\$25,000
3	Installation of Additional Recycled Water Services	\$120,000
4	Additional Construction Contingencies for Jackson St, Magnolia Ave, and remaining portions of Monroe St.	\$195,000
	<b>Increase to Work Order</b>	<b>\$430,000</b>

Having the additional construction contingency available expedites any needed onsite changes without creating a delay in obtaining additional Board authorization for these changes, which would further exacerbate the traffic disruptions. In an effort to expeditiously address other upcoming construction issues, and to enable staff to quickly respond to these changes to minimize additional traffic impacts, staff requests additional construction contingency to account for potential unforeseen conflicts or other issues during the remainder of the project construction. Approximately sixty percent of the work remains to be completed.

### **FISCAL IMPACT:**

The capital expenditure for the entire project is estimated to be \$9,039,000 which is \$430,000 higher than the original estimated expenditure as summarized in the following table:

Description	Original Cost	Additional Cost	Revised Cost	Percent of Total
Construction (Trautwein Construction, Inc.)	\$7,162,460	\$0.00	\$7,162,460	79.2%
Construction Contingencies	\$171,625	\$430,000	\$601,625	6.7%
City Forces Construction Support	\$200,000	\$0.00	\$200,000	2.2%
Construction Management & Engineering Support	\$224,915	\$0.00	\$224,915	2.5%
Inspection and Geotechnical Testing	\$350,000	\$0.00	\$350,000	3.9%
<b>Increase to Work Order</b>		<b>\$430,000</b>		
Original Work Order amount for upfront Design and Utility Potholing authorized January 22, 2016	\$500,000	\$0.00	\$500,000	5.5%
<b>Revised Work Order Total</b>	<b>\$8,609,000</b>		<b>\$9,039,000</b>	<b>100.0%</b>

Sufficient funds are available in the Public Utilities' Recycled Water Facilities Account No. 6230000-470811.

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