



## REHABILITATION OF FOUR ELECTRICAL VAULTS AND MANHOLES

Riverside Public Utilities - Energy Delivery

Board of Public Utilities  
September 25, 2017

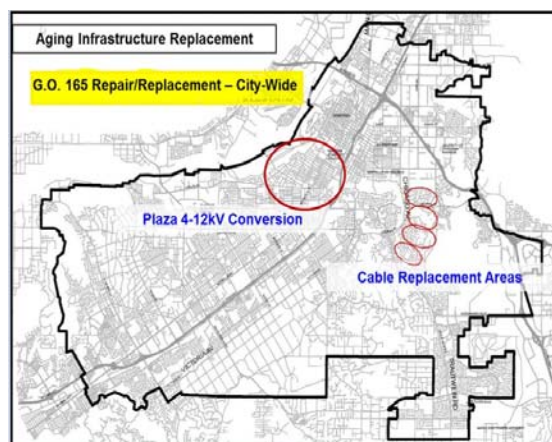
RiversidePublicUtilities.com



1

## BACKGROUND

1. On July 10, 2017, the Board received and filed the planned routine capital project report for projects over \$500,000 for CIP 17/18
2. G.O. 165 Replacements-City-Wide was identified on the report
3. Bid No. RPU 7495 includes four out six underground structures targeted for replacement this fiscal year



RiversidePublicUtilities.com



2

## BACKGROUND

4. GO 165 inspections revealed more than 40 vaults & manholes that are in severely deteriorated condition
5. Rehabilitation or replacement of these structures is needed to maintain public safety & system reliability
6. Repair/Replacement of deteriorated underground vaults and manholes is identified as part of the Utility 2.0 Electric Infrastructure Road Map

RiversidePublicUtilities.com



3

## BACKGROUND - PILOT PROJECT

1. Rehabilitation or replacement of these structures is needed to maintain public safety & system reliability
2. Existing deteriorated underground vault with exposed rebar
3. Rusted cable supports and hardware



RiversidePublicUtilities.com



4

## BACKGROUND - PILOT PROJECT

4. A pilot project conducted in February 2017 showcased the In-Place-Replacement of underground structures
5. Advanced composites mixed to repair and replace failing, cracked structures
6. The process extends the life of the structures by 50-60 years



5

RiversidePublicUtilities.com

## BACKGROUND - PILOT PROJECT

7. Cost Effective
8. Sustainable
9. Requires no street excavation
10. Requires no planned electric service outages



6

RiversidePublicUtilities.com

## BACKGROUND - SCOPE

1. Rehabilitate two (2) underground vaults
2. Rehabilitate two (2) underground manholes
3. RPU crews to move equipment & cables away from interior walls
4. Coordinate with Public Works on Traffic Control
5. 6-8 weeks to complete work

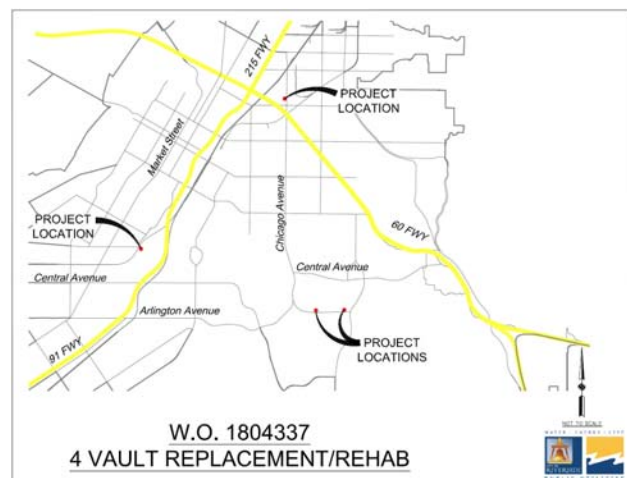
RiversidePublicUtilities.com



7

## BACKGROUND - LOCATIONS

1. M-2839, at Chicago Av n/o Spruce St
2. M-447, at Pachappa Dr. s/o Olivewood Av
3. V-1733 at Country Club Dr. & Via Loma
4. V-1735, at Country Club Dr. & Via Coiba



8

RiversidePublicUtilities.com

## BACKGROUND - BENEFITS

1. Improves electric system reliability and safety
2. Cost effective method of extending the life of underground vaults and manholes
3. No long outages or street excavations required
4. Underground structure repair/replacement times are cut substantially when compared to traditional replacement of entire structure

RiversidePublicUtilities.com



9

## DISCUSSION - CONTRACT BIDS

1. June 30<sup>th</sup>, 2017 – RPU 7495 Bid was posted
2. August 9<sup>th</sup>, 2017 – RPU 7495 Bid closed

Vendors	City Location	Bid Amount	Rank
1. Henkel's & McCoy	Pomona, CA	\$465,539.00	1

➤ Project Engineer's Estimate: \$400,000.00

RiversidePublicUtilities.com



10

## FISCAL IMPACT

Description	Amount (\$)	% of Total
Design, Construction Management, Inspection, Contingency	\$51,554	9%
Construction Contract	\$465,539	84%
Electric Construction Underground	\$39,907	7%
<b>Total:</b>	<b>\$557,000</b>	<b>100%</b>

## RECOMMENDATIONS

That the Riverside Public Utilities Board:

1. Award Bid No. RPU-7495 for the Replacement of Four Electrical Vaults and Manholes throughout the City, to the lowest responsive and responsible bidder Henkels & McCoy, Pomona, California, in the amount of \$465,539; and
2. Approve Work Order No. 1804337 in the amount of \$557,000