



Trautwein and Alessandro Sewer Force Main Emergency Repair and Rehabilitation

Public Works Department

City Council
April 18, 2017

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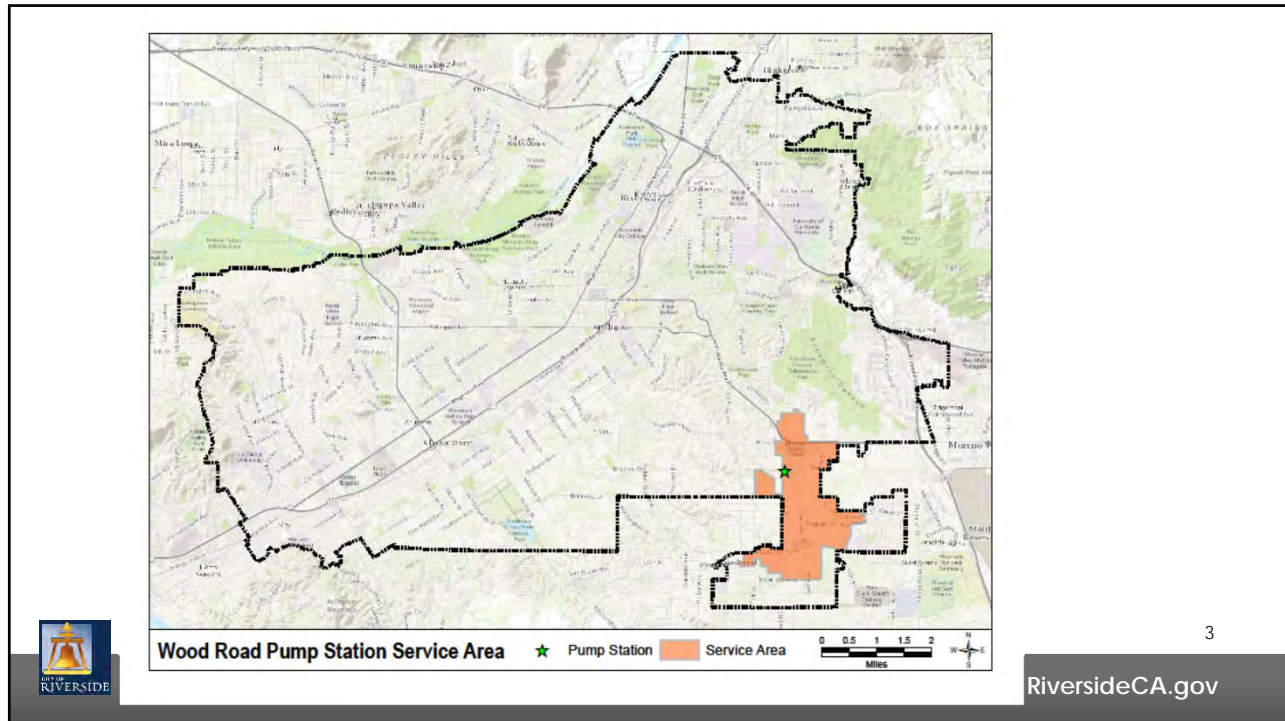
BACKGROUND

1. Wood Road Sewer Pump Station and Trautwein & Alessandro Force Main installed in 1987 – 30 years ago.
2. City's Largest Sewer Pump Station at about two million gallons per day.
3. Force main is about 8,200 feet long and under low pressure conditions moving wastewater uphill from the Wood Road station to Trautwein to Alessandro to the Barton Street intersection - At this point turns downhill to gravity sewer.



2

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DISCUSSION

1. Have experienced two recent ruptures of the force main in the past five months
 - a. Saturday March 18, 2017 – 650,000 gallon spill with 72% recovered
 - b. Sunday December 4, 2016 – 1.5 million gallon spill with 79% recovered
2. Both ruptures are the result of lateral cracks on the crown (top) of the pipeline as a result of interior deterioration.
2. Such a condition is not expected. Pipeline is at about one-half of its expected service life.



DISCUSSION

Pipeline lateral crack



5



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DISCUSSION



6



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DISCUSSION

1. Staff hired Carollo Engineers to evaluate the situation and provide recommendations on a pipeline remediation plan.
2. March 30, 2017 memo from Carollo Engineers states the pipeline is in overall poor condition and is in grave danger of imminent failure and recommends immediate rehabilitation.
2. Staff concurs with this finding based on poor overall condition, two recent and similar failures, public health and environmental risks where escalating regulatory fines could occur with more failures.



7

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RECOMMENDATIONS

That the City Council:

1. Adopt the attached Resolution waiving the formal bidding requirements and declaring the sewer force main repair an urgent necessity for the preservation of life, health and property, in accordance with the City Charter section 1109;
2. Approve a contract in the amount of \$57,145.52 with CP Construction for the March 18, 2017, force main spot repair;
3. Authorize the City Manager, or his designee, to execute the contract with CP Construction;



8

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RECOMMENDATIONS CON'T.

That the City Council:

4. Authorize a sole source design/build contract to a qualified, experienced and available contractor to complete an immediate rehabilitation of the entire sewer force main estimated to cost in the range of \$2,500,000 to \$3,500,000 depending on the determined method; and
5. Authorize the City Manager, or his or his designee, to execute the design build contract for the rehabilitation work.

