



Casa Loma Siphon Barrel No. 1 Seismic Upgrade Pipe Procurement

Engineering & Operations Committee

Item 8-4

December 9, 2019

Current Action

- Award \$9,237,782 contract to Kubota Corporation to provide Earthquake Resistant Ductile Iron Pipe
- Award \$6,134,207.50 contract to Northwest Pipe Company to provide steel pipe
- Authorize \$300,000 increase to an existing agreement with Carollo Engineers to provide technical support during pipe procurement

Distribution System



Background

- 148-in diam. concrete pipe constructed in 1935
- Source of CRA supply to Lake Mathews
- Multiple repairs to address leaks over the years
- Continued ground displacement anticipated
 - Subsidence
 - Seismic events



Alternatives Considered

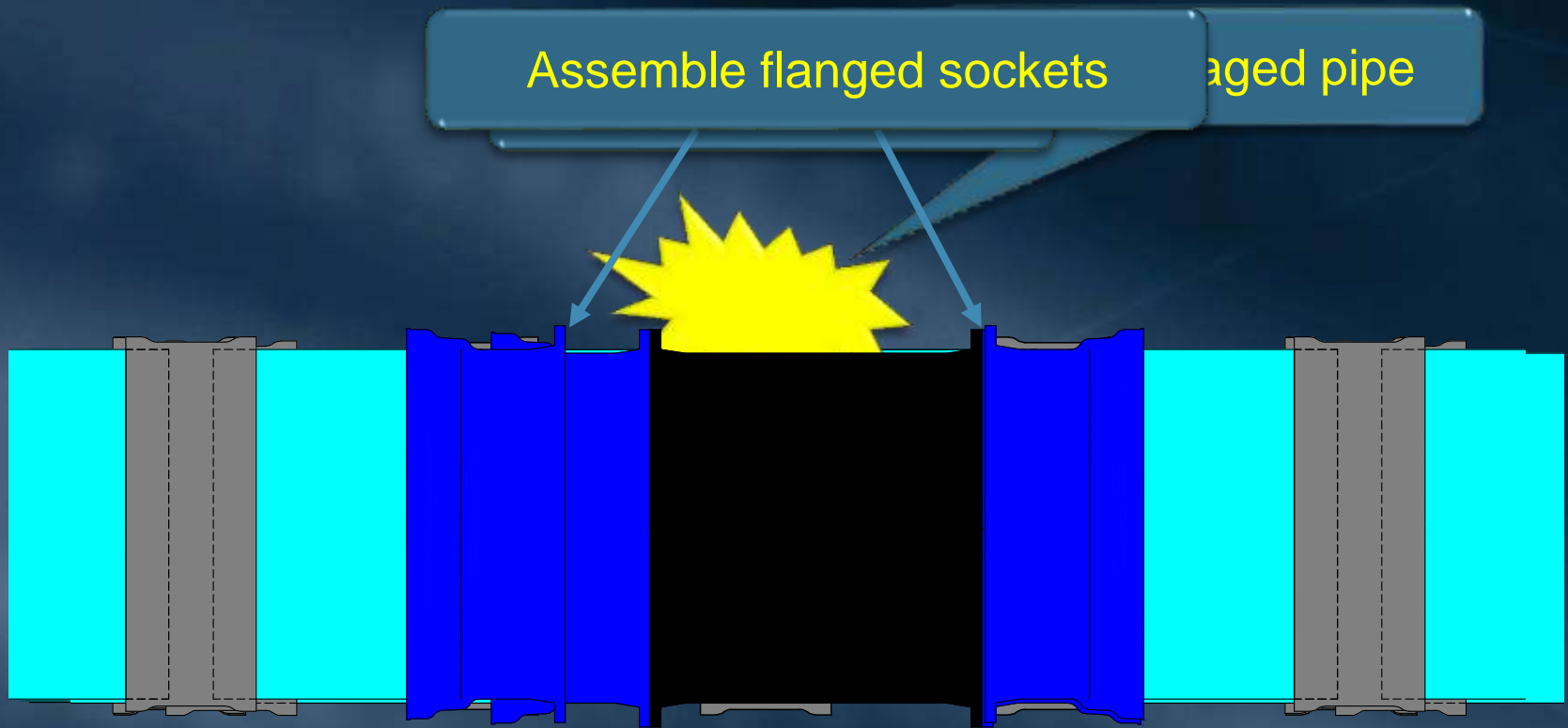
- Replace with steel pipe
 - Addresses persistent leakage short term
 - Inadequate flexibility for continuing settlement & significant displacement from a potential seismic event
- Replace with ERDIP & steel pipe combination
 - Optimize design to determine the most cost-effective option and reliable configuration

Mitigation Strategy

- Earthquake Resistant Ductile Iron Pipe (ERDIP)
 - Developed by Kubota Corp.
 - Absorbs large displacements
 - Only supplier of large-diam. ERDIP to US
 - May 2018 Board authorized design
 - Nov 2019 update to E&O Committee



Planning for Future Repairs



Scope of Work

- Pipe Manufacturers
 - Fabrication and delivery of ERDIP & specialty pieces
 - 954 feet of 104-inch diameter
 - Fabrication and delivery of steel pipe & fittings
 - 500 feet of 148-inch diameter
 - 150 feet of 104-inch diameter
- Carollo Engineers, Inc.
 - Review submittals
 - Respond to requests for information (RFIs)
- Metropolitan
 - Fabrication inspection
 - Contract administration & PM

Procurement of ERDIP

- Specifications No. 1968
 - Negotiated with supplier
 - No advantage in competitive procurement
 - Metropolitan Admin. Code Section 8140(1)(d)
- Award of Procurement Contract
 - Kubota Corporation
 - Amount: \$9,237,782
 - Comparable to similar projects
 - Does not include sales & use taxes imposed by State of California



Procurement of Steel Pipe

Bid Results

Specifications No. 1978

Bids received:	November 6, 2019
No. of bidders:	2
Low bidder:	Northwest Pipe Company
Evaluated low bid:	\$6,109,207.50 ¹
Other bid:	\$6,113,534.59 ²
Estimated Range of Costs:	\$5.5 million to \$6.6 million

¹ RBE Reduction Credit \$25,000 applied. Actual bid amount: \$6,134,207.50

² Bid deemed non-responsive

Agreement with Carollo Engineers, Inc.

- Engineer of record for project
- Scope of work
 - Provide technical support during pipe procurement
 - Review submittals
 - Respond to RFI's
- Estimated cost of services: \$300,000
- SBE participation: 25%
- Agreement amendment to an amount NTE \$2.5 million

Allocation of Funds

Procurement contracts

Kubota Corporation	\$ 9,237,782
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Northwest Pipe Company	6,134,208
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Labor

Contract admin., PM & submittals review	84,000
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Fabrication inspection	647,000
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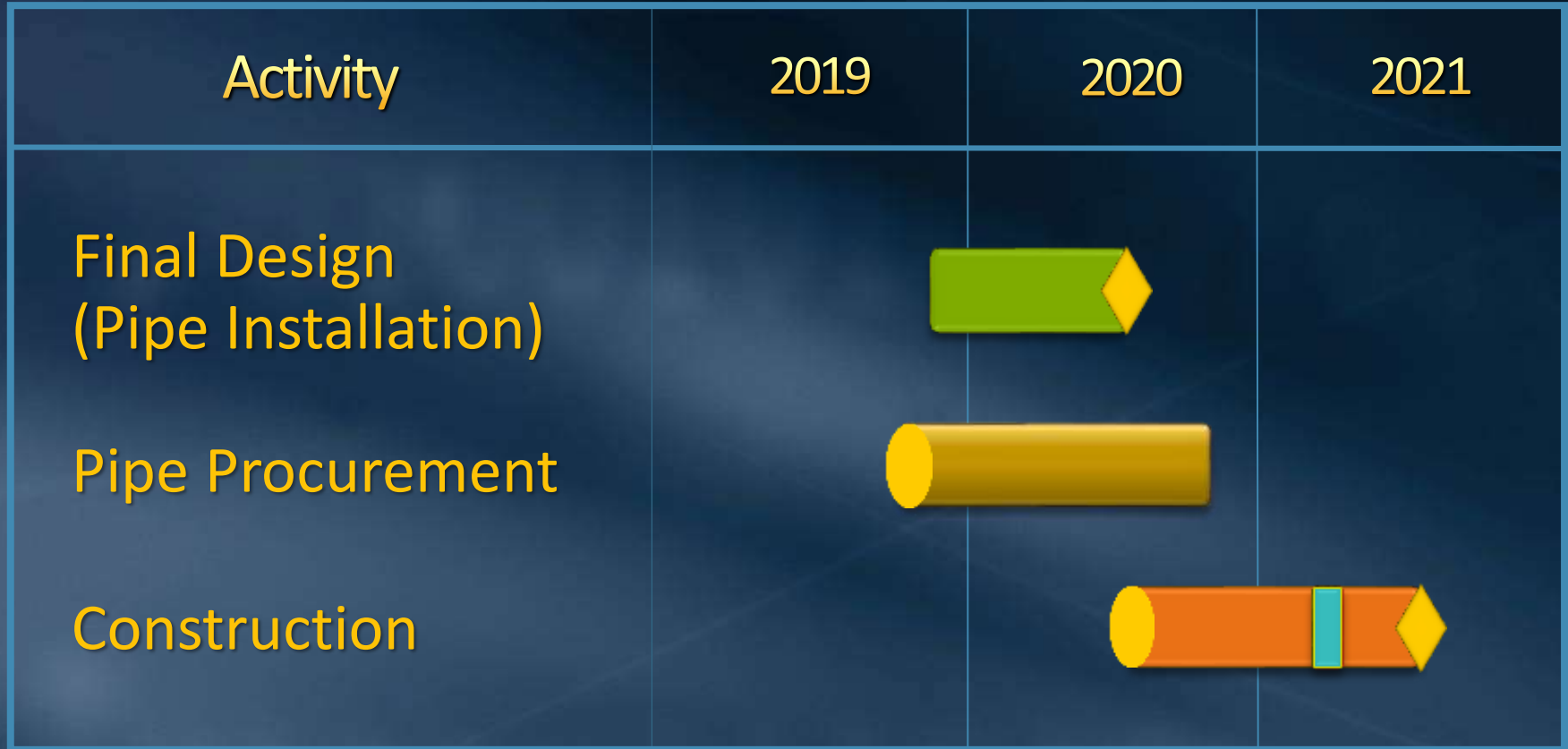
State sales & use tax	584,029
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Professional Services (Carollo Engineers, Inc.)	300,000
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Remaining Budget	512,981
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Total	\$ 17,500,000
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Schedule



Design



Board Action



Procurement



Completion



Construction



CRA Shutdown

Board Options

● Option #1

- Award \$9,237,782 procurement contract to Kubota Corporation to furnish ERDIP;
- Award \$6,134,207.50 procurement contract to Northwest Pipe Company to furnish welded steel pipe; and
- Authorize a \$300,000 increase to an agreement with Carollo Engineers, Inc., for a new not-to-exceed amount of \$2.5 million

● Option #2

- Do not proceed with this project at this time

Staff Recommendation

- Option #1

