

Llano Trunk Rehabilitation Phase 1 Staff Briefing

Board of Public Utilities

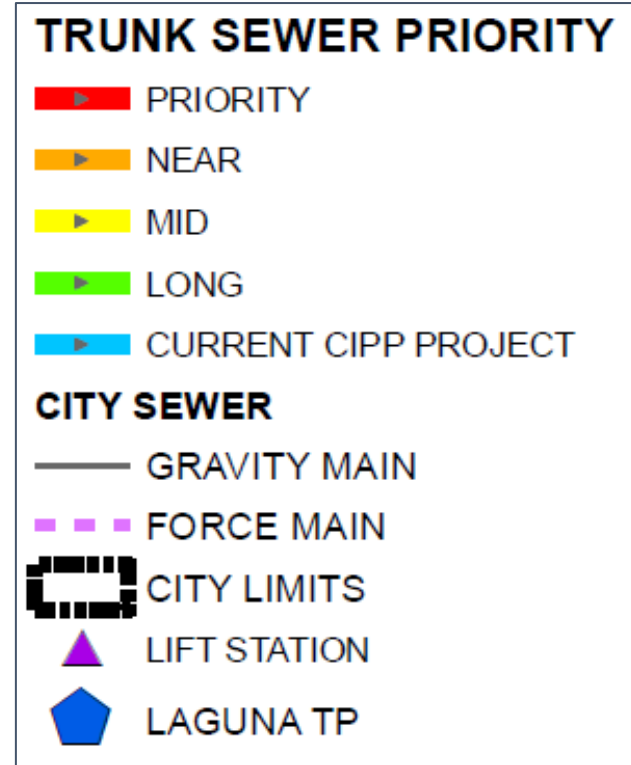
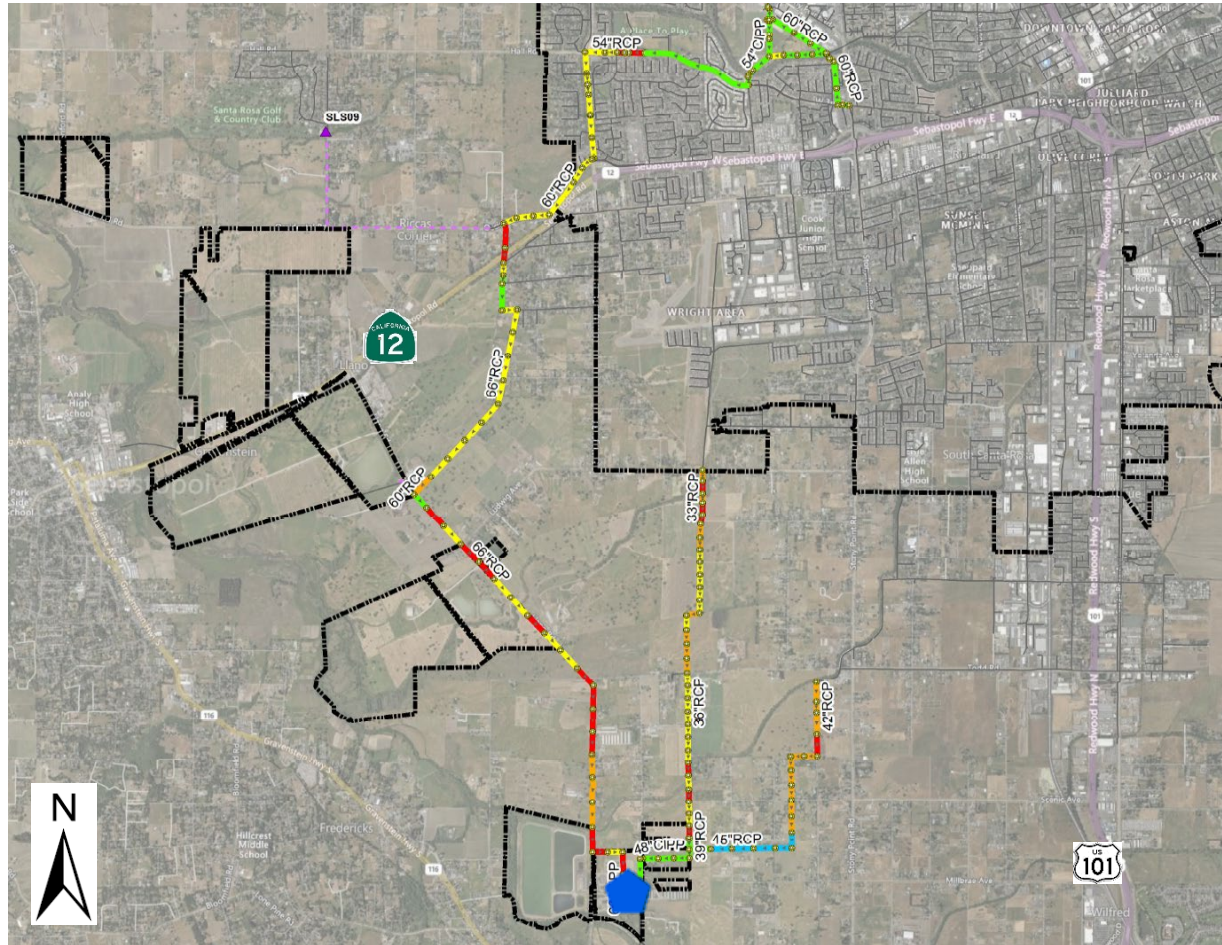
December 4, 2025

Presented by Richela Maeda, Supervising Engineer

Presentation Outline

- Project Background
- Location and Scope
- Environmental Compliance & Permitting
- Project Delivery Method
- Environmental Compliance during Construction
- Bypass Pumping
- Cured-in-Place Pipe Lining
- Total Project Cost
- Lessons Learned

Project Background

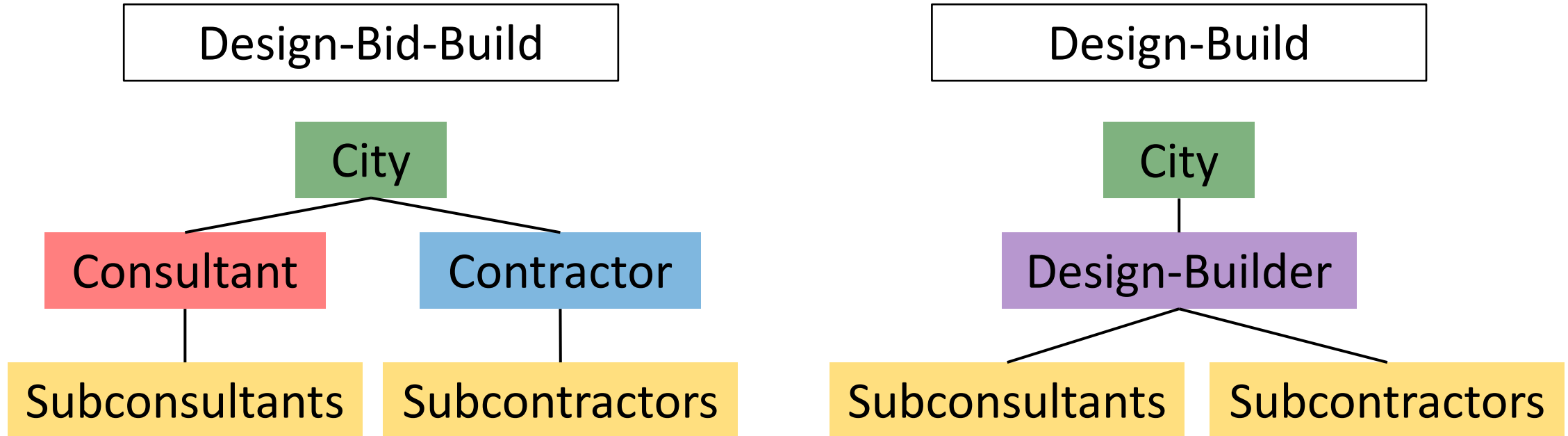


Location & Scope

- 8,100 linear feet of 66" diameter pipe
- 15 manholes
- 16 million gallons per day



Project Delivery Method



- Design-build is qualifications-based
- Design-build allows for early involvement from the contractor

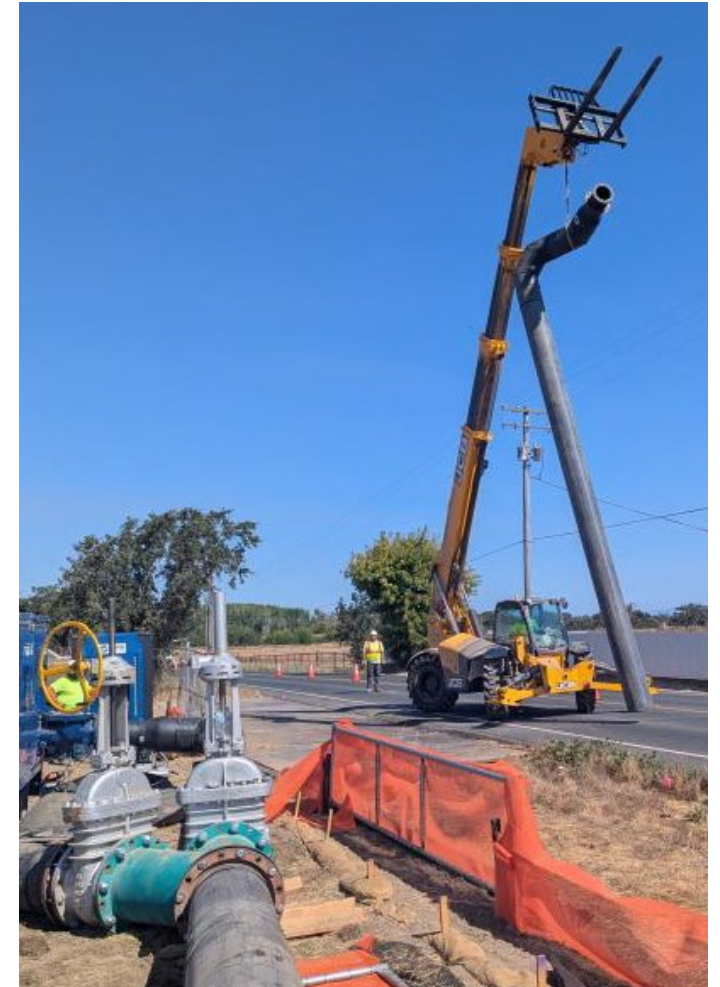
Environmental Compliance & Permitting

- Initial Study / Mitigated Negative Declaration
- Consultation with the Federated Indians of Graton Rancheria
- Permits through California Department of Fish and Wildlife, Regional Water Quality Control Board, and County of Sonoma
- Purchase of mitigation credits for California tiger salamander
- Temporary construction easements

Environmental Compliance



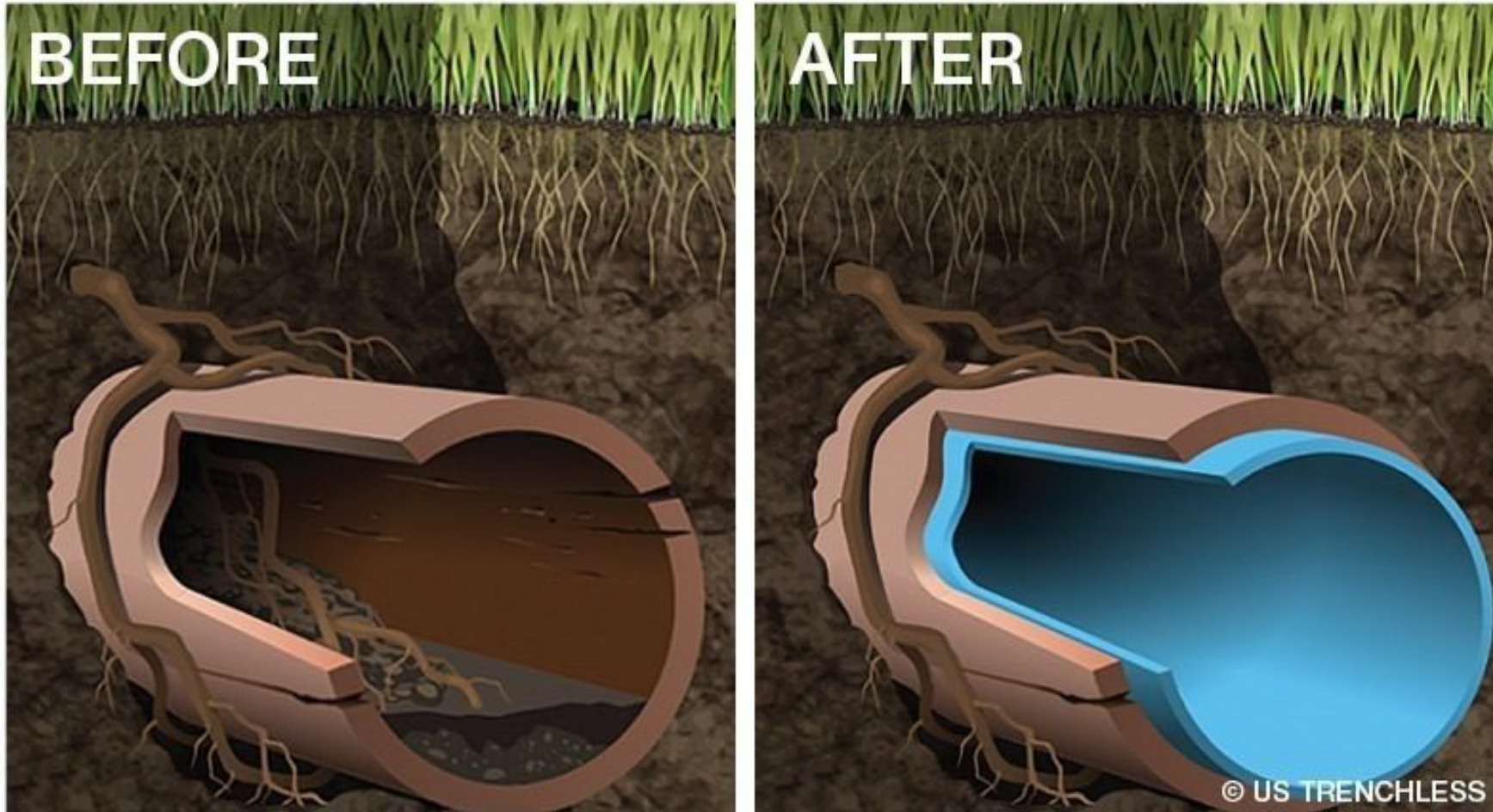
Bypass Pumping



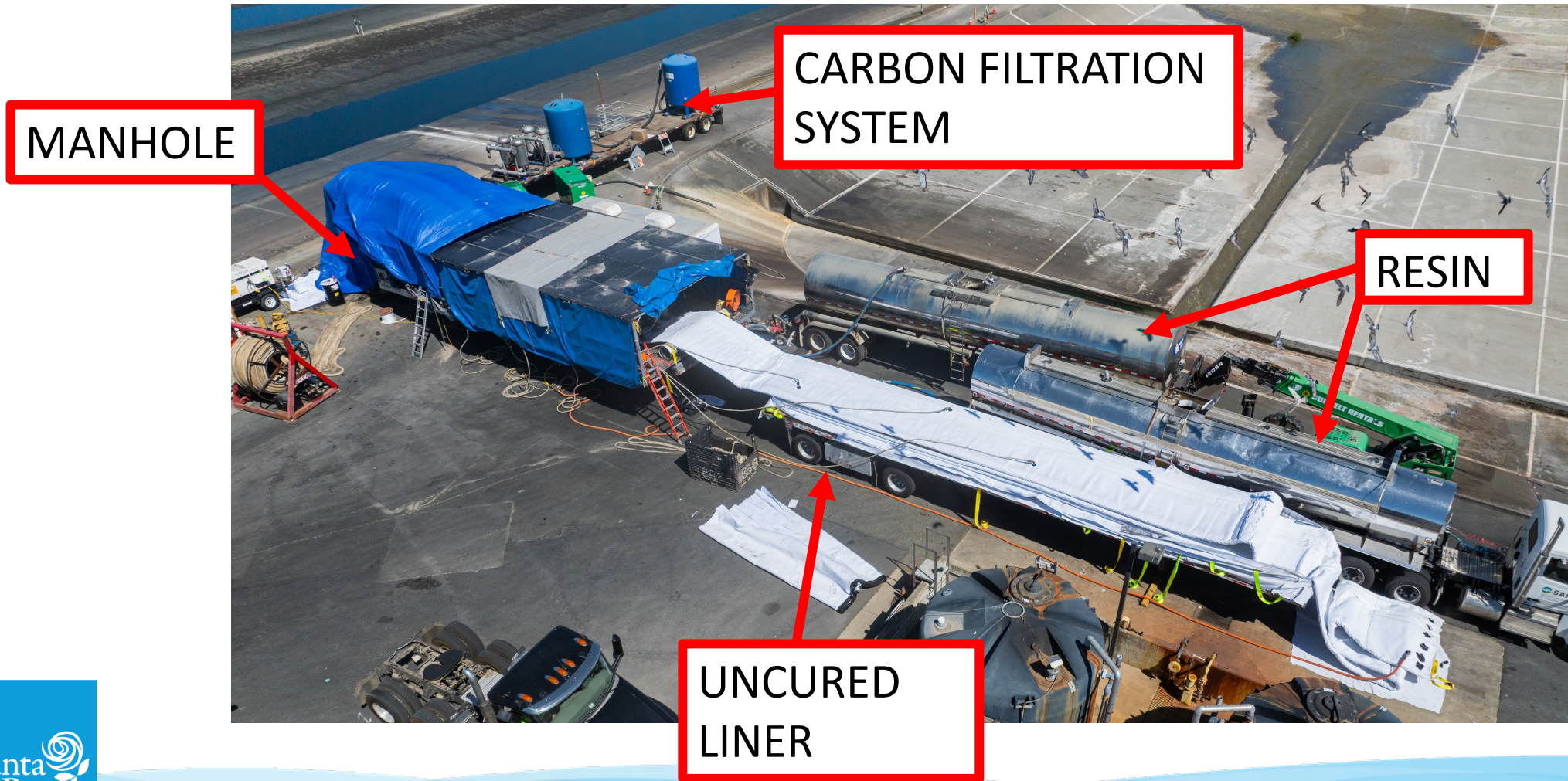
Bypass Pumping



Cured-In-Place Pipe Lining



Cured-In-Place Pipe Lining



Cured-In-Place Pipe Lining



Total Project Cost

Item	Cost
City Staff Planning, Design, and Environmental	\$ 406,000
Design & Environmental Contract	\$ 1,433,000
Mitigation Credits	\$ 1,096,000
Construction Contract	\$ 14,705,000
15% Construction Contingency	\$ 2,206,000
Construction Cost Peer Review Contract	\$ 20,000
Engineering Services During Construction	\$ 711,000
Construction Mgmt & Inspection Contract	\$ 628,000
City Construction Mgmt & Inspection	\$ 118,000
Total	\$ 20,917,000

~\$18.5M

Lessons Learned

- Design-build can be a successful delivery method
 - Heavily dependent on the team
- Design-build can expedite the schedule and facilitate early collaboration
 - Involve subcontractors early
- Provide buffer for project boundary in environmental permits
- Provide additional staff before disassembling bypass

Thank You