

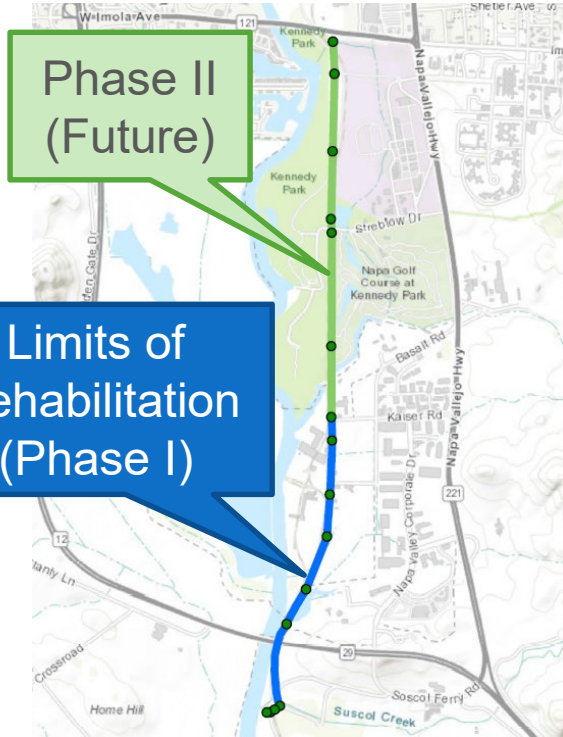


# 66-inch Trunk Sewer Rehabilitation Project (CIP 19701)

Napa Sanitation District  
Board of Directors Meeting  
February 16, 2022

# Project Scope

Structural rehabilitation (CIPP) of downstream 1.3 miles of trunk main (south of Kaiser Road)



# Background - Condition



- Corrosion observed along entire alignment
- Structural deterioration along lower third
- Loss of concrete strength and wall thickness

# Construction - Bypass





# Construction - Excavation



# Construction – CIPP Lining





# Construction – CIPP Lining



# Construction – Before & After







# Change Order Summary

| Item                             | Cost / (Credit)  |
|----------------------------------|------------------|
| Cure Water Filtration            | \$235,305        |
| Pipeline Length Discrepancies    | \$107,406        |
| Additional Trail Restoration     | \$82,750         |
| Remove and Replace Additional MH | \$41,009         |
| Additional Bypass Trenching      | \$25,326         |
| Misc. Quantity Balancing         | (\$72,900)       |
| <b>Total</b>                     | <b>\$418,896</b> |



# Project Financials

| Item                     | Amount                |
|--------------------------|-----------------------|
| Engineer's Estimate      | \$11,600,000          |
| Low Bid                  | \$5,621,944           |
| Change Orders            | \$418,895.91          |
| Change Order %           | 7.5%                  |
| <b>Final Contract</b>    | <b>\$6,040,839.91</b> |
| Project Budget (initial) | \$11,000,000          |



# Lessons Learned

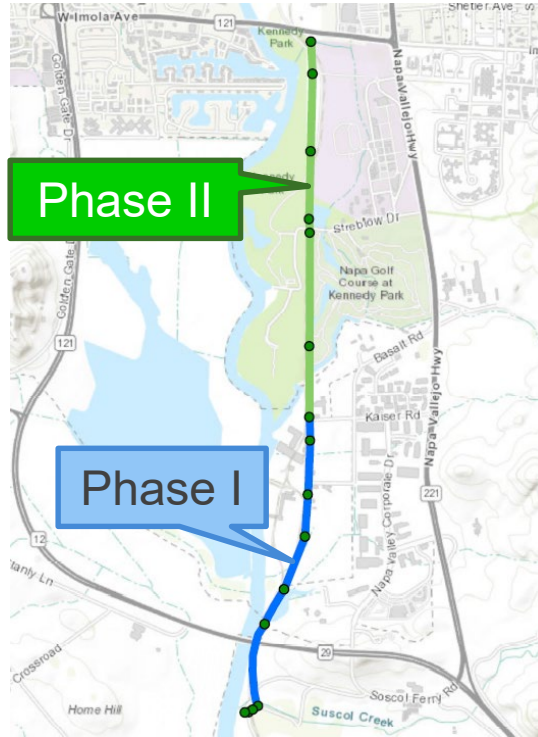
- Filtration for styrene removal
  - Include as part of project bid
- Length measurement precision
  - CCTV footage has inherent error
- Flexible bypass plan was a success
  - Bid for bypass was ~35% lower than estimate
- Hydraulic performance
  - October 2021 storm indicates no negative impact, and possibly an improvement over pre-project capacity

**Project will be featured at 2022 NASTT No-Dig Show**

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# Upcoming Efforts



- Routine cleaning recommended in CSMP
- Phase II project
  - Imola Ave to Kaiser Rd
  - ~8,700 LF (1.65 mi.)
  - Construction in 2028/29

Rehabilitation should reduce cleaning needs due to concrete spalling



# Questions?



# Recommendation

Adopt Resolution accepting completion and authorizing the General Manager to file the Notice of Completion at the Napa County Office of the Recorder for the 66-inch Trunk Sewer Rehabilitation Project (CIP 19701).