

SCOPE OF ENGINEERING SERVICES  
for  
I & I REDUCTION – KELSEYVILLE, CLEARLAKE & LUCERNE  
LAKE COUNTY SPECIAL DISTRICTS (CLIENT)  
prepared by  
BRELJE & RACE CONSULTING ENGINEERS (CONSULTANT)  
August 26, 2025

## PROJECT UNDERSTANDING

The objective of this project is to quickly prepare a comprehensive bid package covering specifications and details for rehabilitation or replacements of six (6) sewer pipelines in Kelseyville, two (2) sewer segments and lift station manhole in Clearlake, and lining three (3) sewer lift stations in Lucerne.

The target sewers in Kelseyville include the following:

- 284 LF of 8-inch VCP sewer along Cole Creek (near 4586 Konocti Road)
- 242 LF of 6-inch VCP sewer along Cole Creek (near 44490 Konocti Road)
- 80 LF of 8-inch VCP sewer along Cole Creek (near 5220 Piner Court)
- 350 LF of 8-inch VCP sewer (near 44465 Sylar Lane)
- 430 LF of 6-inch VCP sewer along Cole Creek (near 5827 Lillian Drive)
- 388 LF and 345 LF of 6-inch VCP between 5693 and 5792 Single Springs Road

All of these sewer lines include 4-inch laterals that will need to be reconnected after lining.

The target sewer system components in Clearlake are all in the same area and include the following:

- 597 LF of 6-inch ACP sewer from the end of Harbor Lane to the lift station MH
- 744 LF of 6-inch ACP sewer from MH 103S in Highland Harbor Drive to the lift station in Harbor Lane
- Lift station manhole in Harbor Lane

Similarly, the connected laterals for the above sewer lines will require reconnection or replacement.

The target lift station structures that need rehabilitation are each near the following locations in Lucerne:

- 8711 Paradise Valley Boulevard
- 8528 Paradise Lagoon Drive
- 8631 Paradise Valley Boulevard

Below is an outline description of each task anticipated to comprise the full Scope of Services for preparing the Bid Package (a single bid package is assumed for all sites).

## SCOPE OF SERVICES

### Task 1 – Preliminary Investigations and Project Development

- 1.01 Visit each targeted sewer improvement location

Site visits will focus on determining the manhole sizes and number of laterals connected to each identified pipe segment, as well as a condition assessment of the manholes to determine the scope and feasibility of rehabilitation. Street conditions and other potential constraints for completing the work will also be noted, with numerous photos taken to document the conditions and to potentially use in the bid package.

1.02 Visit each lift station location

Site visits to each of the three lift stations will be conducted and used to determine lift station size, depth, access, and any constraints associated with the planned rehabilitation. Pump numbers and sizes will be noted, along with any other pump controls or appurtenances. Numerous photos and measurements will be taken of the interiors and surrounding exterior areas. The photos may be used in the bid package, or may be used to help develop details of each pump station.

1.03 Review CCTV footage of sewer mains.

Review CCTV footage and video logs for the targeted sewer mains. Identify defect type, quantity and location for each main.

1.04 Review available sewer and lift station data.

Review GIS data for sewer and lift station invert information. Review any available information regarding flow rates, facility age, or maintenance history.

1.05 Perform field survey.

Identify location and elevation of surface features from sewer system, water system, and any other visible utility features in the vicinity of the targeted sewers.

1.06 Develop rehabilitation or replacement action plan for each facility

Coordinate with CIPP lining and manhole coating system manufacturers and contractors to develop design constraints related to coating and lining systems and methods. Consider CIPP and manhole coating limitations, proximity and frequency of necessary spot repairs and lateral reinstatements requiring excavation, condition of existing manholes, and construction costs to identify which sewer mains are feasible to line, which manholes or pump stations are feasible to rehabilitate, and which may require replacement using open cut or trenchless methods.

Prepare preliminary cost estimate for rehabilitation or replacement of sewer mains, manholes, and pump stations identified as feasible for lining/coating. Prepare recommendations for scope of construction documents and bid alternates and present to LCSD. Coordinate with LCSD to finalize scope of construction documents.

## Task 2 – Prepare Bid Package (CDs)

2.01 Prepare 95% Improvement Plans, Specifications & Cost Estimate (PS&E)

Improvements are anticipated to include CIPP main lining, lateral reinstatement, and manhole and pump station rehabilitation, trenchless main replacement (pipe bursting), and open cut replacement of mains, lateral connections, and laterals where required. Base mapping for the plans would be developed from GIS mapping, field survey data, and aerial photos, with lateral locations indicated based on surveyed cleanouts where available or based on CCTV footage and logs where cleanouts were not present or visible. Drawings for lining and rehabilitation will include only a plan view. Drawings for trenchless replacement may include profiles where critical utility clearances must be verified, and drawings for open cut replacement are anticipated to include plans and profiles.

2.02 Prepare Final Bid Documents

The final bid documents would include improvement plans and a complete project manual with bidder's instructions, proposal form, agreement, general conditions and technical specifications conforming to any requirements of the project funding agreement. The bid documents are anticipated to include a base bid and several bid alternates to allow for optimal use of available funding.

### **Task 3 – Assist with Bidding**

- 3.01 Conduct Pre-Bid Site Review Meeting(s)
- 3.02 Review and Prepare Responses (Addenda) to Bidder Questions (Up to two Addenda)
- 3.03 Assist with bid opening and preparation of a bid tabulation. Review bids for responsiveness and provide a recommendation for award.

### **FEES**

Our fees for this work will be billed monthly on a time and materials basis per the rates provided and included in our On-Call contract with Lake County Special Districts. Estimated fee budgets are as follows:

Task 1: \$57,000; Task 2: \$94,100; Task 3: \$22,300.

A Task, Work Hour and Cost Tabulation is attached and provides a detailed breakdown of fee budgets.

### **SCHEDULE AND ABILITY TO PERFORM**

It is our understanding that there is a time constraint associated with the funding of this project. The funding deadline is end of October, 2025. It is unclear if construction needs to be initiated by then, or completed, however, the following schedule will allow for completion of the bidding and award of the construction contract (potentially) prior to the funding deadline:

Conduct Site Visits	Early August 2025
Prepare 95% Bid Package (CDs)	Early September 2025
Revise per LCSD Review Comments	Mid-September 2025
Bid Advertisement	Late September (Bid Opening Mid-October)
Award to Contractor	Late October 2025
Notice to Proceed	Early November 2025

Construction would likely commence in November with submittals and ordering of linings. Linings delivery generally requires six to eight weeks (or sometimes longer). Lift station structure and manhole rehabilitation or sewer replacement work could begin while the linings are in production. Total construction duration will depend on weather conditions and groundwater depths during the winter, as well as the extent of bid alternates which are included in the construction contract. It is feasible that construction could be completed in Spring 2026.

### **ASSUMPTIONS AND LIMITATIONS**

1. Boundary surveying, record mapping and detailed topographic mapping services are not included. Should the Owner desire definitive survey information other than that which can be provided by direct use of existing documentation, Brelje & Race can provide complete boundary survey and analysis services. Additional fees for these services can be identified following review of existing documentation.

2. Engineering services in support of construction have not been included with this scope and fee. When construction timing and schedule have been further developed, a separate proposal for such services would be prepared upon request of the District.
3. Proposal assumes that property or easement acquisition will not be required to perform design activities and complete construction. Should additional easements be required, modifications to this scope and fee can be made to include such work.
4. Assistance with acquisition of construction or environmental permits is not included. Modifications to this scope of services and fee can be made to include such work should it become necessary.

**I&I Reduction - Kelseyville, Clearlake, and Lucerne  
Lake County Special Districts**  
**TASK, WORK HOUR and COST TABULATION**  
August 26, 2025