UCT educational sessions

COST-EFFECTIVE STRUCTURAL CULVERT POINT REPAIR

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Project Scope

Multiple 24” Diameter x 48” Length Structural Point Repairs to repair offset and disjointed sections of 24” corrugated HDPE Pipe. Problem area was 200’ long, and on a 60% grade

Contractor: Drain Masters, Inc. – Anchorage, Alaska

Project Name: Yosemite Drive Drainage Project

Location: Anchorage, Alaska

Equipment Used

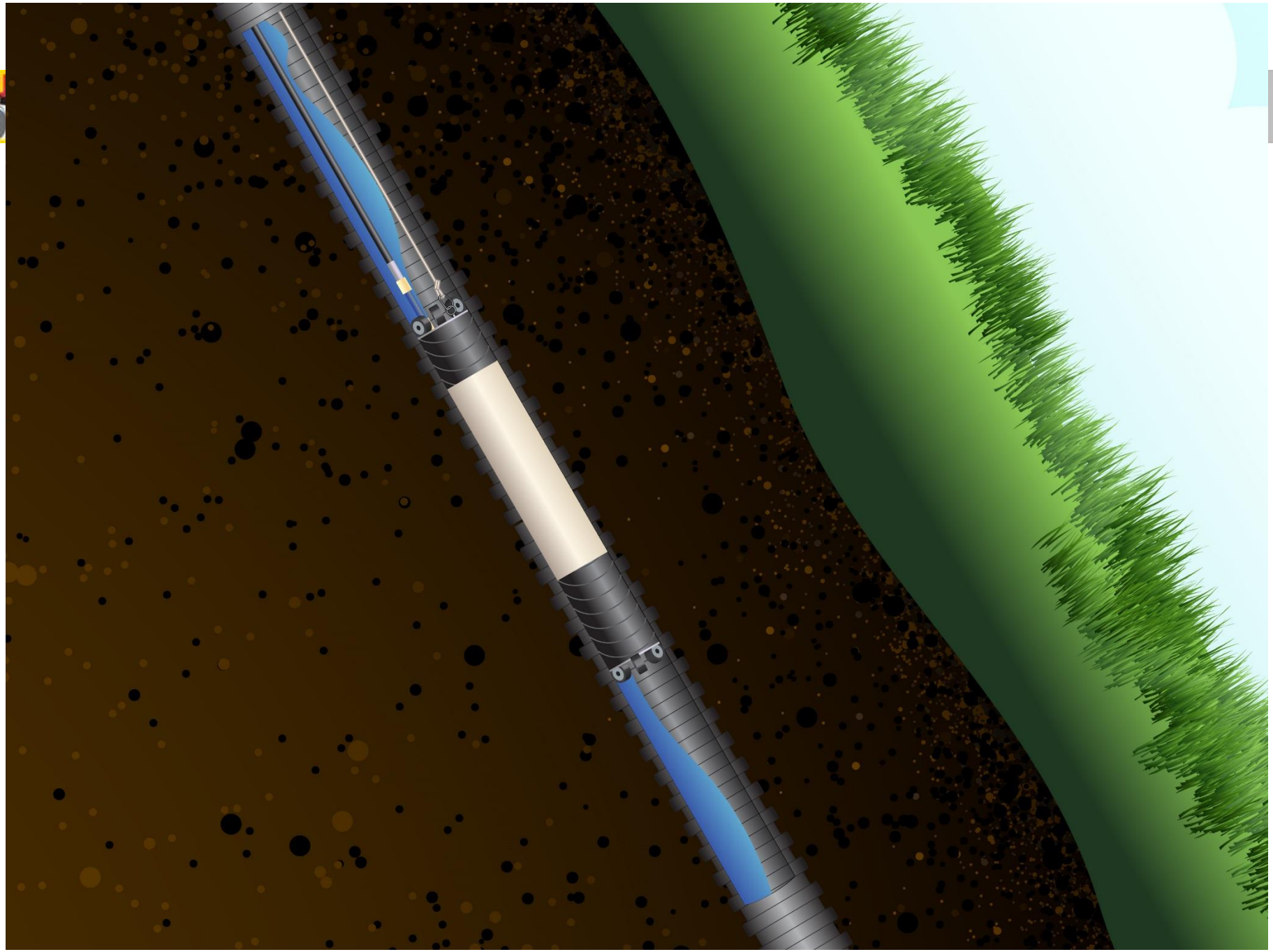
- 18”-24” X 48” Flow Through Packer
- 24” X 48” Structural Point Repair – With Winter Hardener
- Air Regulator
- Portable air compressor

Location

educational sessions

- 200’ Section of 24” corrugated HDPE Pipe
- Multiple disjointed and offset joints – 100% water loss over the 200’ section.
- 60% grade made open trench repairs unfeasible
- Environmentally sensitive area

Sample of before repair



Protective Sleeve

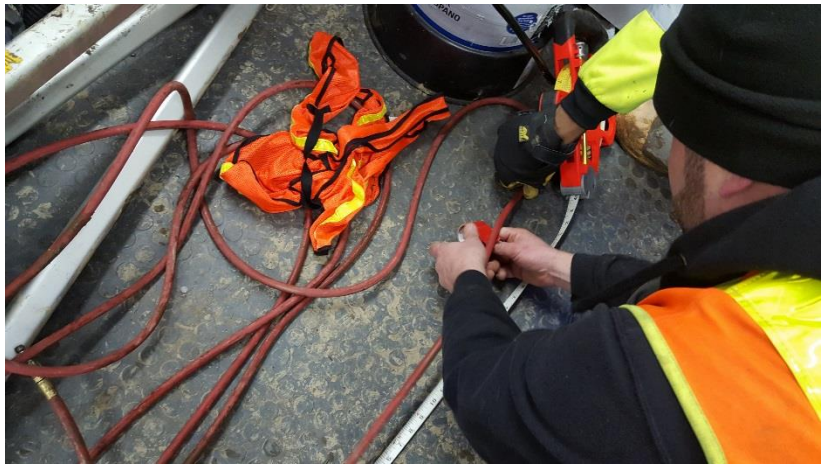
- Protective sleeve is placed over the packer and secured with vinyl tape
- Sleeve is sacrificial and is discarded after initial trial run

Locate and Measure

- Camera is used to identify, and locate the exact position/distance of the section in need of repair

Transfer Measurement

- Measurement is transferred from the camera to the packer air supply



Trial Run

- A trial run is done to identify any challenges in the placement of the packer
- Initial protective sleeve is discarded and a new protective sleeve is placed on the packer

Wet-out of Fiberglass – Side 1

- Premeasured resin bags are mixed and spread on first side of fiberglass

Wet-out of Fiberglass – Side 1

Wet-out of Fiberglass – Side 1

Flip Fiberglass

Wet-out of Fiberglass – Side 2

Fold Fiberglass to Pre Measured Marks

Roll Fiberglass Around Packer

Secure Fiberglass with Provided Zip Ties

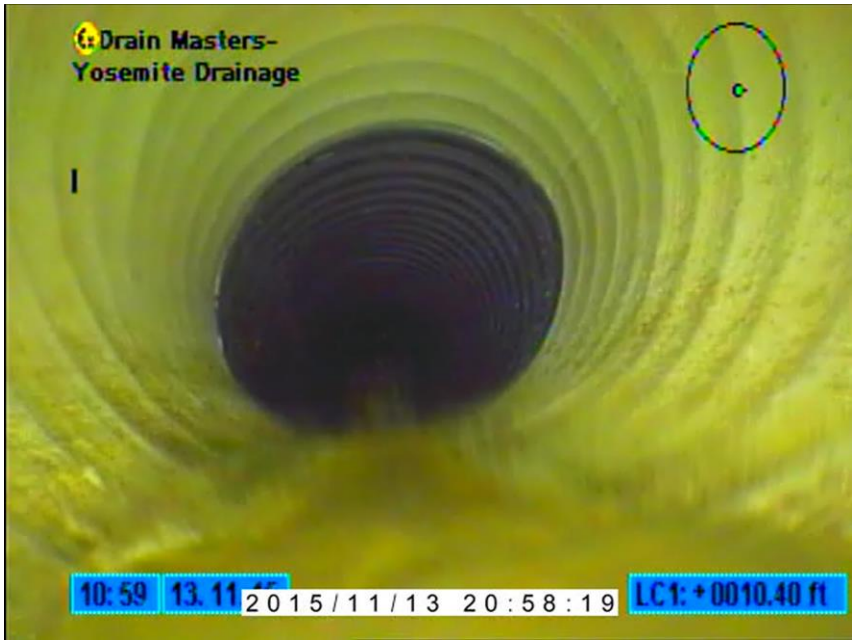
Provided Work Station Used to Cradle Packer to the Pipe

Packer is Lowered, Pulled, and/or Pushed into Place

Completiton

- PSI is maintained during the curing process (1-3 hours)
- After full cure, packer is deflated, and removed
- Final video inspection of repair section is completed.

Before and After



Questions