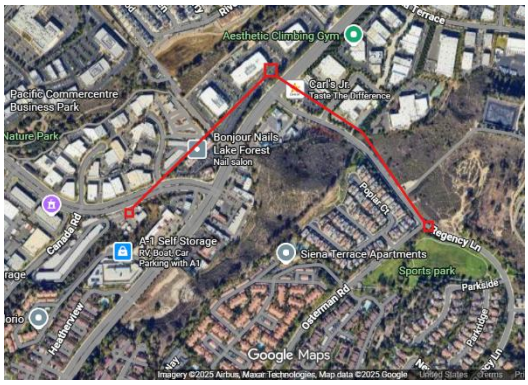
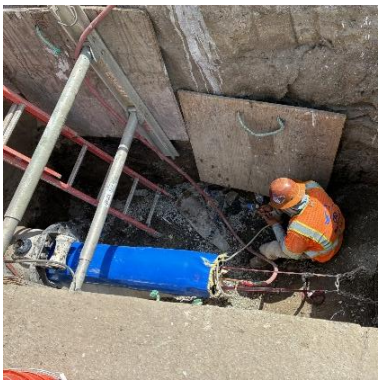
JOB REPORT





HIGH-PRESSURE TRANSMISSION LINE IN TRABUCO CANYON

CLIENT:
Trabuco Canyon Water District

YEAR OF CONSTRUCTION:
2025

TYPE OF CONSTRUCTION MEASURE:
Rehabilitation of over 3,200 linear feet of potable water transmission pipe

OUR SERVICES:
- Supply and delivery of the flexible high-pressure Primus Liner DN 400 (ANSI/NSF 61 approved)
- Supply and delivery of Primus Line high-pressure connectors with ANSI flanges DN 400

SITUATION:
Trabuco Canyon Water District (TCWD) had a potable water pipeline that had been compromised due to age and was decommissioned temporarily. There were mechanical faults causing leaks at the joints of the system with soil erosion and water loss in the section spanning the compromised system. The system was comprised of 3,200 linear feet of Cement Mortar Lined and Coated (CML&C) Steel Pipe with an inside diameter (I.D.) of 16”. The pipeline had one 90-degree bend with an operating pressure of 245 to 309 PSI with a hydrostatic test requirement of 359 PSI. The pipeline began at the Dimension Water Treatment Plant in the City of Lake Forest, traversed uphill, in between businesses and adjacent to a school, then into a business park parking lot where in angled up Regency Drive to a city park.

TECHNICAL DETAILS:

Material of Host Pipe:	Steel
Transported Fluid:	Potable Water
Diameter of Host Pipe:	16”
Operating Pressure:	309 PSI
Primus Line® System:	HD DN 400 / 16" - W
Total Length:	3,200 LF
Number of Sections:	2
Installation Time:	8 days

REHABILITATION SYSTEM:

Primus Line HD DN 400 FFRP and 4 Primus Line DN 400 connectors (4 x high pressure) for reintegration into the existing water main

PROJECT DESCRIPTION:

The contractor, TE Roberts, cleaned both runs of existing pipe of over 1,600’ each using an in-pipe remote-controlled robotic grinder. The first run extended from the Dimension WTP (pit 1) to the business park parking lot (pit 2). The Primus Liner was staged and pulled from pit 2, under businesses and a school, and across a street to pit 1. The liner was then staged at pit 2 for the second run which was under a major street intersection, up a hill and under a local street to pit 3 near the public park.

OWNER FEEDBACK:

“TCWD is very happy with the Primus Line product”, stated Lorrie Lausten, TCWD’s District Engineer. “Due to the location of the pipeline, traditional main replacement would be difficult and cost prohibitive. FFRP with the Primus Liner was chosen because it can be installed by limiting excavations to pit locations, can withstand the higher operating pressure of the transmission main, and was the quickest installation of all options considered. The Raedlinger Primus Line team also provided professional oversight during the installation”.

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Primus Line explained simply:
Watch the video!