

FIELD REPORT

TIME-TESTED: HDPE TOP CHOICE TO RUN UNDER HISTORIC HIGHWAY



Durable, corrosion-free HDPE replaces aging sewer system under historic highway.

PACIFIC COAST HIGHWAY

The historic Pacific Coast Highway runs along some of the most beautiful coastlines in the United States. Through Newport Beach, California, it's known simply as the PCH. It winds north along the coast through upscale neighborhoods and shopping areas toward Los Angeles. Visitors travel from around the world to cruise the highway and admire the communities nestled into the coastline of the Pacific Ocean.

UNDERNEATH IT ALL

Below the stunning scenery ran a decades-old sewer main, in urgent need of repair or replacement. For a city that relies heavily on the income brought in by tourists, a sewage leak next to the ocean would be catastrophic. The Newport Force Main Rehabilitation project aimed to replace that system before the worst could happen.

ISCO Industries provided high-density polyethylene pipe, McElroy fusion equipment, and expertise for the job.

ISCO representative Joe Chammas added, "It was a high profile job with extensive risk. ISCO's size and national high density polyethylene (HDPE) pipe supply presence was required by the contractor in order to have a truly qualified supplier to support a project of this size and exposure."

PROJECT

Newport Force Main Rehabilitation

LOCATION

Newport Beach, California

PROBLEM

AGING SEWER LINES UNDER THE HISTORIC PACIFIC COAST HIGHWAY IN ORANGE COUNTY, CA.

THE ISCO SOLUTION

LONG-LASTING HDPE PIPELINE AND MCELROY FUSION EQUIPMENT AND EXPERTISE





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PIPE THAT LASTS

HDPE was a clear choice to replace the aging system. “It offers excellent flow characteristics, exceptional corrosion resistance, and the fused-joint system offers reliability,” Chammas explained. “The pipeline will be leak-free, which is crucial because it’s installed under a major historic highway.” ISCO mainly supplied 8,300 feet of 32-inch IPS DR26 and 3,900 feet of 36-inch IPS DR26 along with fittings ranging from 11 ¼ degree elbows through 45 degree elbows, including 22 ½ degree elbows and concentric reducers. ISCO also provided nearly 50 fabricated spooled access tees, ranging in size from 36-inch DIPS down to 32-inch IPS. Not only that, ISCO fabricated stainless steel tops as part of the access tees. “We were able to provide alternative options for fabricating the complicated manway structures that were a major part of the force main pipeline,” said Chammas. “The pipeline size, length, and layout of a double barrel pipeline installed in a single trench required the availability and support of

multiple HDPE fusion machines in order to install the pipeline in a timely manner. ISCO’s large fusion equipment fleet met the contractor’s needs. We never said no and always made it happen.”

ISCO offered corrosion-free, leak-free HDPE, McElroy fusion machines, and fittings all backed by technical expertise that can’t be found anywhere else in the world.

Traffic along the highway was reduced to one lane in each direction to complete the nearly \$40 million project. That’s why longevity was a key factor in selecting the pipe for the job. “Ductile iron, you have joints that could leak. It degrades faster than polyethylene does. With ductile, you always have infiltration. With [HDPE], when you butt fuse, you really don’t have that issue, Chammas explained.

At the end of the day, the City of Newport Beach will never notice more than a lane closure and it will reap the benefit of a reliable, cost-effective sewer system that will last for decades more to come.



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