

Case Study: Installation of Mainstay Composite Liner in Oakley, CA Steel Lift Station



Contractor: H&R Plumbing
Location: Oakley, CA
Structure: lift station
Date: December 2017

H&R Plumbing was contracted to rehabilitate a badly deteriorated lift station in Oakley, California. High levels of hydrogen sulfide produced a terrible smell and caused extreme corrosion, in many places exposing rebar on the walls. The ceiling and chimney of the lift station were made of steel and included a 4' steel structure meant to protect the pumps and secure the opening of the lift station. Rusted steel in many spots made it clear that these areas were also in need of restoration.



H&R began by pressure washing the concrete walls and removing corroded concrete and contaminants. The steel areas, including the rebar, were prepped by dustless sandblasting with glass media to remove rust and provide a clean surface suitable for repair. Steel surfaces were then primed with Madewell 927 Penetrating Epoxy Primer and coated with Mainstay DS-5 100% Solids Epoxy Coating to prevent future corrosion. Mainstay ML-72 Sprayable Microsilica Restoration Mortar was used to restore the concrete surfaces. Up to 6" of Mainstay ML-72 mortar was applied in some areas where concrete deterioration was severe. Finally, the Mainstay ML-72 mortar was coated with Mainstay DS-5 epoxy to protect the lift station from any future hydrogen sulfide attack. This project was completed in December of 2017.

