

## CASE STUDY

# 10 Sanitary Sewer Manholes Were Corroded From H<sub>2</sub>S Gas Exposure Over Time.

## FAILED T-LOCK LINED MANHOLES REHABILITATED WITH STRUCTURE GUARD® 100% SOLIDS EPOXY

### VORTEX PRODUCTS & EQUIPMENT USED

- 1 Structure Guard®
- 2 sprayMASTER® II

### THE CHALLENGE

Through routine inspection, a crew from the City of Peoria, AZ Public Works Department identified 10 T-Lock lined sanitary sewer manholes suffering from excessive corrosion and in need of repair and protection. This was a gravity line requiring a lift station to pump to maintain flow. However, once the lift station stops pumping, gases sit in the line until the next time pumping was required. Over the years, the H<sub>2</sub>S gas was able to work its between the liner and walls creating an environment for corrosion.

Hunter Contracting, a trusted infrastructure contractor for the City believed the degraded manholes could be saved and recommended rehabilitation over replacement.

### PROJECT SNAPSHOT

#### PROJECT

City of Peoria Manhole Rehabilitation

#### ASSET OWNER

City of Peoria, AZ

#### PROBLEM

10 T-Lock lined manholes that failed and corroded behind the liner

#### SOLUTION

Structure Guard® 100% solids epoxy utilizing the sprayMASTER® II Polymeric Lining System.

#### PRODUCT MANUFACTURER

Quadex® Repair Materials  
Brocklyn Stone  
VP, Product Development  
brocklyn.stone@vortexcompanies.com  
303-598-3798



Before



After



## CASE STUDY



### THE SOLUTION

Given its years of proven performance and environmental benefits (when compared to polyurethane coatings) Hunter recommended Quadex® Structure Guard® 100% Solids Epoxy. The most time consuming part of the project was the removal of the failed T-Lock.

Over a period of twelve days, all 10 manholes were stripped of T-Lock, cleaned, prepped and then lined with Structure Guard®, which was hand nozzle spray applied to a 250 mil thickness for maximum corrosion and leak protection. Hunter Contracting utilized its sprayMASTER® II Polymeric Lining Rig developed by the Vortex Companies, to perform the job. The sprayMASTER® II is a completely self-contained system built onto a trailer. It's ability to both mix and pump out of the same trailer is not only safer, but requires less equipment and a smaller construction footprint.

### THE RESULTS

Hunter was able to complete the job in less than two weeks. The City would shut down the system for four hours each day to allow Hunter to perform their work. This was during low flow time frames to minimize impact on the nearby citizens. However, by rehabilitating the manholes with Structure Guard®, the City saved thousands of dollars, not to mention time and inconvenience to locals if the manholes had to be dug up and replaced.



### GREENBOOK APPROVAL

Greenbook/City of Los Angeles  
Department of Public Works  
Approves Structure Guard®

City of Los Angeles Approved Products  
Select Lining and Coating