



## City of Alameda Manhole Rehabilitation

Alameda, California, USA



Completion Date  
**DECEMBER 2018**

Engineer  
**CITY AND COUNTY  
OF ALAMEDA**

Contractor  
**RANGER PIPELINES**

Products  
**MEGAMIX II WITH BIO-SAN  
C500, CONCENTRATE**

Project Type  
**WASTEWATER COLLECTION  
& TREATMENT**



This project concerned the rehabilitation of 17 existing manholes. 12 of the manholes were brick and mortar construction that required rehabilitation from deterioration due to the corrosive H<sub>2</sub>S environment to which they had been exposed. While the brick showed only minor deterioration the Portland cement based mortar joints were severely corroded. These 12 manholes were rehabilitated using **Megamix II with Bio-San** as an over coating layer to repoint the joints as well as coat the entire surface. Xypex Megamix II with Bio-San is a high strength, chemically resistant thick build repair mortar which is enhanced with Xypex's unique antimicrobial crystalline technology. The other 5 new manholes were new precast and did not expect to encounter the equivalent corrosive H<sub>2</sub>S environment so as a protective measure, two coats of Xypex **Concentrate** were utilized.

The 12 brick and mortar manholes were coated to a thickness of 25 - 37 mm (1 - 1 ½") with Xypex Megamix II with Bio-San to provide a smooth, hard, chemically resistant inner surface with the added benefit of **anti-microbial technology** to stop the formation of acid producing bacteria. This protective re-surfacing rehabilitates and protects the manholes to extend the service life of these important pieces of municipal infrastructure.