

Case Study: Centrifugal Application of Mainstay ML-72 Mortar on Horizontal Drainage Pipe



Contractor: H&R Underground

Location: Berkeley, CA

Structure: 50 feet of 24 inch diameter corrugated metal pipe

Year: 2016



Corrosion in corrugated metal drainage pipes can often lead to structural deterioration and eventual collapse. Many owners are solving this problem by cement mortar lining drainage pipes before corrosion becomes detrimental. H&R Plumbing recently performed an application of Mainstay ML-72 Restoration Mortar on 50' of corrugated metal culvert using Madewell's horizontal mortar spinner.

To begin, H&R used a vacuum truck to remove all loose dirt, debris, and corroded material that had settled in the bottom of the culvert. The pipe was so badly deteriorated in some areas that entire sections had rusted through, leaving only the surrounding soil. The work was performed over a weekend to prevent any issues associated with heavy traffic.



After cleaning, H&R Plumbing utilized Madewell's horizontal mortar spinner to centrifugally apply 3/4" of Mainstay ML-72 Restoration Mortar to the inside



diameter of the culvert. This mortar spinner is capable of pulling heavy loads horizontally at a very controlled and slow rate of speed. It pulls a load rated chain using a uniquely constructed air motor, gear, and sprocket set up. The use of a chain for this application means that the pulling device is able to retract long lengths of mortar hose along with the centrifugal mortar applicator.

The successful restoration of this culvert saved the owner the time and hefty cost of replacing the corroded pipe. The use of Madewell's horizontal mortar spinner provided a long term solution to lining long distances of smaller diameter pipe without entry or open cut techniques.