

# Aurora, Colorado Saves Twin 96" Culverts and Major Arterial Roadway with Trenchless Solution

by Angus W. Stocking, L.S.



Aware of aging and deteriorating infrastructure, The City of Aurora, Colorado contracted with Wilson & Company, Inc. Engineering & Architects, to conduct a comprehensive condition assessment of Aurora Water's corrugated metal pipe (CMP) stormwater infrastructure and assess various rehabilitation methods based on a set of specific criteria with regard to hydraulic capacity, load capacity, and impact on the environment and traveling public. When a pair of 96" CMP culverts under a major arterial roadway at the intersection of Louisiana Avenue and Biscay Street in Aurora CO were found to be severely deteriorated and deemed to be in imminent danger of failure, Wilson & Company made a recommendation to

employ CCCP – Centrifugally Cast Concrete Pipe – for the rehabilitation based on the situational analysis and the City's criteria.

ACE Pipe Cleaning, Inc., a certified applicator of CentriPipe® by AP/M Permaform, a proven CCCP method, was selected from four qualifying contractor bids. The ACE Pipe Cleaning team began the rehabilitation process with

cleaning, invert repair, void grouting, storm flow diversion, and sand bagging to ensure any large storm run-off would not flood the nearby neighborhood. ACE Pipe Cleaning then applied the fine-aggregate cementitious CentriPipe liner, in 1/2" passes to attain the engineered design thickness.

CCCP is a viable and cost-effective rehabilitation method for large diameter CMP. The minimal foot print enables this solution to be used in areas where traffic must be maintained. Rehabilitation utilizing the CentriPipe liner exponentially extends the life of the pipe and results in a structurally sound, smooth, water-tight, structure.

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*96" Round Culvert After Centrifugally Cast Rehabilitation*