



THE Event For The Utility Infrastructure Industry

Underground Construction Technology
International Conference & Exhibition

Success Using Antimicrobials for MIC Protection

Johnny Love – ConShield Technologies

Van Young – ConShield Technologies



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Microbiologically Induced Corrosion



ANTIMICROBIAL

- **LIQUID ANTIMICROBIAL ADDITIVE**
- **QUATERNARY ORGANOSALINE**
- **HOW DOES IT WORK?**



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Antimicrobials

BREAKS THE CHAIN

**KILLS THE BACTERIA THAT
COLONIZES ON EXPOSED
CONCRETE BREAKING THE
BIOLOGICAL CHAIN OF EVENTS
THAT PRODUCES THE SULFURIC
ACID.**



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CASE STUDIES



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**CITY OF MANSFIELD, TEXAS
LOW BRANCH LIFTSTATION**





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SAWS CHIHUAHUA STREET

SIPHON BOXES





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**City of Carrollton, Texas
Crosby Road Trunk Sewer**





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Trinity River Authority

**Air Release Valve Vault Rehabilitation
Webb Lynn Road – Grand Prairie, Texas**

**Contractor: Acme Utility Inspection
Completion: November 5, 2013**

Lining Materials: AP/M Permaform

**MS-10,000 + ConShield
Cor+Gard EPM
Cor+Roc Composite**



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Before Prep





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After Prep





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Cost of Using Antimicrobials

Thickness of Concrete Structure In Inches	Pricing / Per SF / Surface Area
4	\$1.85
5	\$2.31
6	\$2.78
8	\$3.70
10	\$4.63
12	\$5.55
14	\$6.48
16	\$7.40
18	\$8.33
20	\$9.25
24	\$11.10

Average Cost for Epoxy Liner - \$225.00 VF

4' Diameter Manhole - \$175.00 VF



Who's Using Antimicrobials?

Dallas, TX
Irving, TX
Ft. Worth, TX
SAWS - San Antonio, TX
Round Rock, TX
Waco, TX
League City, TX
Webster, TX
Chicago, IL
Baton Rouge Parish, LA
Kansas City, MO
Miami Dade
Metro St. Louis Sewer District



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Who's Specifying Antimicrobials?

Freese & Nichols

RJN Engineers

CDM Smith

CH2M Hill

Black and Veatch



Why Specify Antimicrobials

- **KILLS THE BACTERIA THAT CAUSES MIC**
- **CAN BE USED IN NEW CONSTRUCTION AND REHABILITATION PROJECTS**
- **IT CAN NOT/WILL NOT**

*** PINHOLE * CHIP OFF * PEEL OFF**

*** WASH OFF * DELAMINATE * BIO DEGRADE**



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QUESTIONS ?