



PROJECT HIGHLIGHT

FLOOD CONTROL SYSTEM IMPROVEMENTS CITY OF SOUTH ST. PAUL

KEY PLAYERS

Owner: City of South St. Paul,
Metropolitan Council

Prime: Rachel Contracting

Engineers: Toltz, King Duvall,
Anderson and Associates

Foam: Aerix Industries

Ready Mix: Cemstone

JOB FACTS

Density: 30 pcf

Strength: 50 psi min @ 28 days

Job Finished: November 2014



ABANDONED PIPE FILL 48" STORM SEWER

Cellular Concrete Inc. was subcontracted to fill 15,000' of 48" storm sewer with a 30 pcf, 50 psi minimum cellular concrete. Rachel Contracting was the prime on the project and the owner was the City of South St. Paul in conjunction with the Metropolitan Council. These pipes were in a dog park along the river in South St. Paul, access was very limited.

CELLULAR CONCRETE ADVANTAGES

With the total length of the pipeline being 15,000' the number of access points for the grouting process was a large cost and concern. Flowable fill is typically specified for abandonment fill, however the pumping distances for flowable fill are restricted to around 200'. We had two pumps available and were able to fill the 48' pipe in runs of 1000' eliminating around 60 excavations from the project. Cellular concrete pumps very easily and at low pressures. You are only restricted on the volume you can place in around 4 hours. With this project we were able to use two of our pumps simultaneously which brought our placement rate to around 120 cubic yards per hour. We were able to place around 465 yards at a time or fill the pipe in 1000' sections. We did most of this project from a bike path that went through the park. Our pumps are equipped to pump in below freezing temperatures, which gave us the ability to do this in the winter when the ground was frozen. As a result, we did very minimal damage to the bike path.