



Fontenelle Park Green Infrastructure Project

Fontenelle Park, Omaha, NE

City of Omaha CSO Program and Omaha Stormwater Program



SITE AND PROJECT SUMMARY

The Lake James to Fontenelle Park CSO project is part of the City of Omaha’s Combined Sewer Overflow (CSO) Long-Term Control Plan (LTCP). The Project consists of sewer separation and existing lagoon expansion to reduce sewer backups and street flooding within the local watershed, and ultimately reduce stormwater runoff into the combined sewers to help reduce CSOs to the Missouri River. The sewer separation project area encompasses Fontenelle Park and Lake James Park and consists of 473 acres of predominantly residential property generally bordered by Browne Street on the north, Fontenelle Boulevard on the east, NW Radial Highway on the south, and 52nd Street on the west.

The Fontenelle Park Lagoon is situated within a low area on the north side of the park. The expanded lagoon will have a surface area of approximately 8 acres. Wetlands (0.63 acres) are proposed around the perimeter of the lagoon and sediment forebays (totaling 0.2 acres) are proposed on the west and south end of the lagoon. The project improvements will provide additional stormwater storage and attenuation during storm events. The upstream sewer separation will collect stormwater and convey the flows to the lagoon where the peak flows will be attenuated before being diverted back into the combined sewers. It is proposed to divert the lagoon outlet flows to the future Paxton Boulevard Stormwater Conveyance Sewer and implement real-time control infrastructure for the lagoon during a future project.

The sewer separation in the upstream sub-basins utilize an “inflow reduction” approach which optimizes the existing and proposed sewer systems and provides cost savings over complete separation, while still meeting the overall CSO Program water quality goals and helping to reduce sewer backups within the local watershed. The proposed sewer separation approach is to provide new storm sewers and extend existing storm sewers in the targeted sewer separation areas.

Construction of the project in Fontenelle Park began in March 2017 and was completed in the Spring of 2018. Construction for the sewer separation portion of the project is expected to begin Spring 2018 under a separate contract.



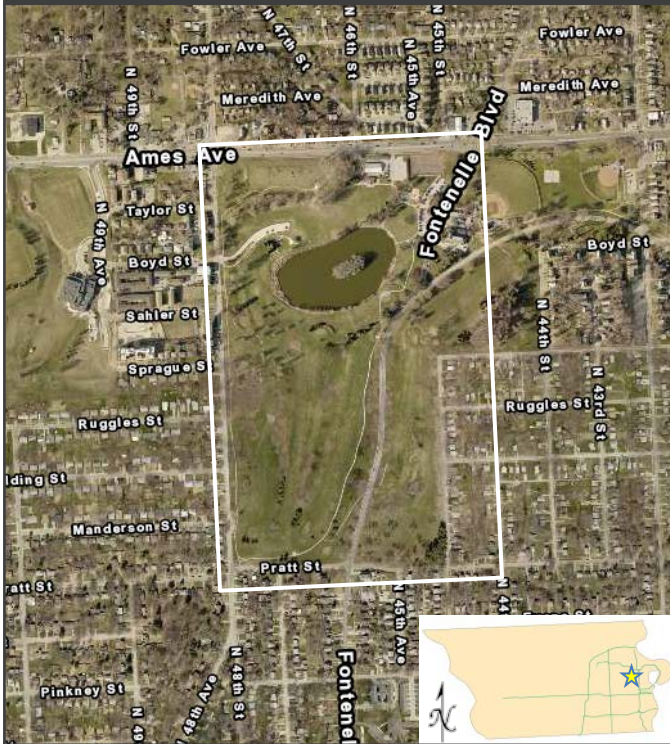
FONTENELLE PARK LAGOON IMPROVEMENTS

DESCRIPTION	EXISTING	PROPOSED
Available Stormwater Storage Volume (from normal pool)	12 acre-feet	31 acre-feet
Lagoon Footprint (at normal pool)	6.5 acres	8 acres
Max Lagoon Depth (at normal pool)	6.5 feet	10.5 feet
Average Lagoon Depth	Approx. 2.5 feet	Approx. 7 feet
Range of Pipe Sizes (Diameter)	-	15 to 72-inch
Length of Pipe	-	8,800 feet



DESIGNED BY	CONSTRUCTED BY
Black & Veatch; Infrastructure Engineering; Vireo; RW Engineering; Terracon; TREKK; EmNet	Hawkins Construction Company (Fontenelle Park Lagoon Improvements project)

SITE LOCATION – 4405 Fontenelle Blvd



BEFORE PHOTOS FOR SITE



PROJECT LAYOUT

