



**PROJECT OF THE YEAR:**  
**ENVIRONMENT**  
**\$5 MILLION BUT LESS THAN \$25 MILLION**

# Northside Stormwater Management Project

Managing Agency: Village of River Forest, Illinois  
Primary Contractor: Bolder Contractors  
Primary Consultant: Christopher B. Burke Engineering, Ltd.  
Nominated By: Chicago Metro Chapter

**T**he Northside Stormwater Management Project was a sewer separation project designed to establish separate storm and sanitary sewer systems in the predominantly residential northern portion of the Village of River Forest, Illinois.

In addition to providing flood and sewer backup protection to the 280-acre project area, the project delivered a substantial environmental benefit, as the new dedicated storm sewer system reduces the amount of stormwater flowing into the Metropolitan Water Reclamation District (MWRD) interceptor sewer, which lessens the occurrences and volumes of combined sewage released into the Des Plaines River during rainfall events.

Construction of the project included a new 9-foot by 6-foot outfall to the Des Plaines River with internal energy dissipation, as well as a 9-foot by 6-foot box culvert, over 20,000 feet of storm sewers ranging in size from 12 inches to 96 inches in diameter, large cast-in-place concrete conflict structures, extensive combined/sanitary sewer and water main relocations, sewer and water service replacements, and roadway reconstruction and resurfacing.

Construction of an advance contract was initiated in Fall 2014 and the entire project (Phase 0 and 1) was substantially completed in November 2015, on budget and ahead of sched-



ule through strong coordination and collaboration between the Village of River Forest, CBBEL and many other project stakeholders.

CBBEL led the project from the early development of conceptual improvement plans and budgetary cost estimates to providing full-time construction engineering services for the project. CBBEL and the Village investigated numerous solutions to resolving the problematic street flooding and basement sewer backup issues, including evaluation of alternative routes for the mainline storm sewer, identification of alternative methods of construction and development of a strategic phasing approach for the project construction. The final mainline sewer route, construction methods and project phasing provided the Village with the most economical solution to meet the project's primary objectives.

One of the more significant challenges associated with the Northside Stormwater Management Project was constructing extensive large-diameter underground improvements through an almost exclusively fully-developed, residential neighborhood. The underground improvements constructed included over 20,000 feet of storm sewers as large as 96 inches in diameter, 4,100 feet of new ductile iron water main as large as 16 inches in diameter, 4,200 feet of new PVC sanitary sewer as large as 16 inches in diameter, and the replacement of approximately 275 private water and sewer services. A combination of open cutting and directional bore methods were utilized to complete the project expeditiously while minimizing impacts to the residents and motoring public to the extent possible.