

# Congratulations and Welcome

EEL would like to recognize the following employees for their milestone anniversaries with the company: EEL on congratulates Tyler Meyer on earning his CFM license.

10 Yrs: Kyle D. Welte, P.E., CPII  
Senior Project Engineer II

20 Yrs: John T. Whitehouse, P.E., P.L.S.  
Senior Project Manager

Denise M. Thelander  
Accounting Assistant



Welcome to Michael Curtis, Project Technician (Field) and Jake Seger, CFM, Project Engineer in our Civil Group.



## Did You Know?

Brad Sanderson, P.E., Vice President was nominated and awarded the Donald C. Stone Excellence in Education Award from both the American Public Works Association Fox Valley Branch and the Chicago Metro Chapter.



## Enterprises Trivia Challenge

**Q:** What Greek mathematician is considered the founder and father of Geometry?

Send your answer to [eei@eeiweb.com](mailto:eei@eeiweb.com) or fax to (630) 466-6701 by August 15th to be entered in a drawing for a \$50 gift card!



Engineering Enterprises, Inc. (EEI), founded in 1974, is an award winning, progressive consulting engineering firm providing services throughout northeastern Illinois. Our expertise includes water, wastewater, transportation, stormwater, construction management, land surveying, GIS and municipal consulting.

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## Connecting the Elgin Community Via the South Street Roadway Extension

### In this Edition:

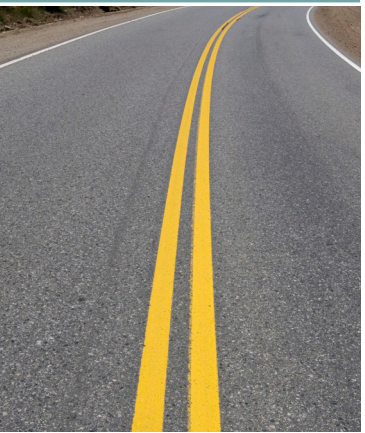
Connecting the Elgin Community Via the South Street Roadway Extension

President's Message

Congratulations and Welcome

Did You Know?

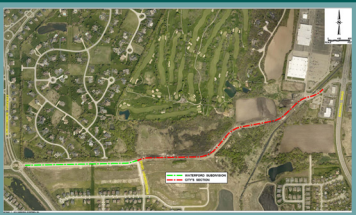
Enterprises Trivia Challenge



The City of Elgin began planning for a major east/west collector connecting Nesler Road and Randall Road as early as 1983; with the 1993 Master Transportation Plan showing a close approximation of today's South Street alignment. South Street would serve as a much needed east/west collector for users whose only other options were Bowes Road and US Route 20 (approximately two miles apart).



The west half of South Street from Nesler Road to Longcommon Parkway (approximately 1.1 miles) was constructed as part of the Providence Subdivision in 2005/2006.



The east half of South Street from Longcommon Parkway to Randall Road (referred to as the South Street Roadway Extension) which was approximately 1.1 miles was comprised of two distinct sections: the portion located within the Waterford Subdivision to be constructed by the developer (Longcommon Parkway to Londonderry Drive) and the remaining easternmost section to be constructed by the City (or the City's section; Londonderry Drive to Otter Creek).

Spring /  
Summer  
2018

# Enterprises

# Connecting the Elgin Community Via the South Street Roadway Extension, Cont'd.

In addition to planning for and constructing a collector road, the City had commissioned a major sanitary sewer improvement known as the Bowes Road Interceptor Sewer Trunk 20 and Win Haven Drive Lift Station Improvements. The improvements consisted of a regional pumping station north of US Route 20 and approximately 9,200 linear feet of forcemain and interceptor sewer flowing south to the east edge of the Waterford Subdivision. Approximately 1,650 linear feet of 24-inch interceptor sewer was slated to run within the right-of-way of the City's section of the South Street Roadway Extension project.

2002 marked the official start to South Street westerly of Randall Road, with the developer purchase of the Waterford Subdivision. However, due to the crash of the housing market in 2008, subsequent litigation with insurance companies to secure City funds to construct South Street, and easement acquisition, the design phase of the project spanned a total of 13 years. During that time, several engineering firms contributed to the overall design of South Street. Construction finally began in the fall of 2015 when the City awarded the project in the amount of \$7.9 million to Copenhaver Construction of Gilberts, Illinois

Construction began in October 2015. With a November 2016 completion date, it was understood that construction had to be continuous through the winter in order to meet the schedule. Despite

having the luxury of building a road in open green space, every bit of that year was needed to finish the project due to various construction challenges.

The biggest hurdle encountered was the soils. Several wetlands and natural overland flow routes had been identified during the early stages of design. Numerous soil borings identified saturated organic soils and high water tables. Traveling from one end of the project via truck or semi was impossible, forcing modifications to construction phasing and scheduling.

Due to the realignment and pavement widening of existing South Street at the east end of the project, a new dual 8 foot x 4 foot box culvert and associated retaining walls were constructed. Soils continued to be a challenge at the box culvert. Existing infrastructure was present at the east end of the project. The box culvert had to be constructed over a truss pipe sanitary sewer, under a gas main and gas service line, and under an active 12-inch water main.



Box Culvert Installation



Truck Stuck in Mud

In addition to soil issues and utility conflicts, the realignment of existing South Street along with the construction of the new box culvert and retaining walls had to be built in phases due to the proximity of the main entrance to the local shopping center; specifically, the Super Target. Closing down the existing portion of South Street in order to construct the improvements was not allowed. Therefore, the box culvert and roadway improvements were built in stages; requiring vehicles, including delivery semis, to be routed through four stages of traffic maintenance to build approximately 200 feet of roadway improvements.

Despite the challenges faced, construction was completed in October of 2016, approximately three weeks ahead of schedule and under budget. When it was all said and done, South Street was comprised of:

- 1.1 miles of roadway with a 12-foot median and 20-foot lanes
- 5,487 feet of bike path (8-foot wide and 10-foot wide)
- 3,500 linear feet of sidewalk (5-foot wide)
- 4,631 linear feet of water main (8-inch and 12-inch diameter)
- 4,877 linear feet of storm sewer (12-inch to 30-inch diameter)
- 1,685 linear feet of sanitary sewer (8-inch and 24-inch diameter)
- 312 feet of precast box culvert (8 feet x 4 feet) with decorative fence
- 198 feet of retaining wall
- 63 LED street lights
- 271 parkway trees + irrigation system
- detention basin with gabion wall



"Ride Down South" Invite

The City hosted a "Ride Down South" before the roadway was officially opened to the public. It was one of the highest attended ribbon cuttings in the City's history.

The project was awarded the APWA Fox Valley Branch Project of the Year Award in the Transportation category of \$5 to \$25M.

EEL's Phase II and III teams can assist you and your community's toughest projects. Reach out to us and learn how we can better your community: **Brad Sanderson** at [bsanderson@eeiweb.com](mailto:bsanderson@eeiweb.com)



Construction Complete

# President's Message



Peter G. Wallers, P.E., CFM

Lead in our water supplies has been a topic of discussion since the Flint Michigan failure hit the news. The Flint problem certainly brought the issue to the forefront; however, the fact is that water suppliers in Illinois have been monitoring lead levels in homes well before the Flint crisis. Most of you are aware that the water provided by the water supplier, whether it be a municipal or private supplier, is lead free. Lead makes its way into our drinking water through contact with lead service lines, lead solder in plumbing, fixtures containing lead components, and brass fittings manufactured prior to the Reduction of Lead in Drinking Water Act in 2011.



Recently the introduction of SB3080, *The Reduction in Lead in Drinking Water Act*, within the State Legislature has drawn quite a bit of attention from the water industry and other interested parties. The bill proposes to require water suppliers to replace all lead service lines in their collective systems. Many details remain to be worked out until the bill is finalized, but we fully expect that lead service line replacements in Illinois will be required.

The water industry fully supports the removal of lead service lines. They also are the first to recognize that this effort will be a significant cost for certain communities and that this issue did not develop overnight and will take time to resolve. Each community will need to consider its circumstances and develop a plan that works for them and conforms to the legislation that is finally passed into law. The public should stay informed and understand that this type of activity could impact water rates.

Even when all the lead service lines are removed, we still must consider that lead service lines are only part of the issue. Building or homes with lead piping, fixtures containing lead components, and lead solder can also contribute to the lead issue. Getting all sources of lead out of the water supply will take a considerable amount of time. Therefore, it is critical that we continue to educate the public and understand that the first and most important line of defense against lead in drinking water is corrosion control.

As a lifelong Illinois resident, there are many things about our state that concern me. However, one thing that I am sure of is that water supply professionals in Illinois are second to none and are doing a great job of providing safe and stable drinking water. Please remember water is our most important resource. It is our job to give the water professionals who supply water to us the tools they need to continue to be successful.