



## **Welcome to the Engineering Solutions Team 5 Year Anniversary Newsletter.**

Welcome to all.

Surprising to many of us and mostly to me, Engineering Solutions Team will be celebrating its 5 year Anniversary very shortly. Engineering Solutions Team was incorporated on February 15, 2011.

I would like to thank all clients that have entrusted Engineering Solutions Team to assist with their required Infrastructure Solutions. In particular, I would like to extend a heart-felt thank you to several very loyal clients who have entrusted Engineering Solutions Team from its inception and work together on a regular basis. Developing a Win-Win relationship with these clients has been the most challenging and rewarding experience of my career.

The foundation of the Company is widening. In 2015; Engineering Solutions Team serviced 13 clients, completed 23 assignments, and the circulation of this Newsletter is now approximately 500.

As we all plan our Year 2016; this Newsletter is a summary of our Year 2015.

If you have questions or seek assistance, please do not hesitate to contact us.

Engineering Solutions Team hopes that all enjoy a Happy, Healthy and Successful New Year.

Thank you. Edward Kalina.

**Major Assignments:** The following is the Status of the Most Significant Assignments Completed by Engineering Solutions Team in 2015:

Protecting Public Health - Preserving the Environment

### **WHEATON SANITARY DISTRICT**

#### **Northside Interceptor Sewer – Easement Negotiations:**

The Wheaton Sanitary District [WSD] will be replacing its North Side Interceptor Sewer due to age and condition of the existing infrastructure. The District has determined that replacement along the existing route is not practical due to environmental issues as well as long term maintenance concerns. The District has contracted with Baxter & Woodman Engineers to perform the Phase 2 Design Engineering. Construction is expected to begin in 2017.

The North Side Interceptor Sewer extends northeasterly from the Wheaton Sanitary District Plant to St. Charles Road in Carol Stream. While the original alignment along the creek in low lying areas may have made economic sense at that time, continued development over the last 80 years and current regulatory requirements have created a challenge for reconstruction of the sewer in the same location. The current engineer's estimate for construction is in the neighborhood of \$50,000,000.


The Wheaton Sanitary District has contracted with **THE ENGINEERING SOLUTIONS TEAM** through Baxter & Woodman to perform the negotiations for all easements which will be required for this important project. During 2015 **THE ENGINEERING SOLUTIONS TEAM** successfully completed the negotiations of 24 separate easements.



THE CITY OF BERWYN, ILLINOIS

#### **Various Assignments:**

Engineering Solutions Team performs various on-call assignments for the City of Berwyn. Several of the 2015 assignments include but are not limited to the following:

-  The Construction Engineering Completion of the Renovation and Rehabilitation of both the Oak Park Avenue and Harlem Avenue METRA Stations.



# Recent Solutions



*The Project Site #1: The Oak Park Avenue Station*



*The Project Site #2: The Harlem Avenue Station*

- ✚ The Completion of all required documents and paperwork to realize the approximate \$400,000. FTA Grant that was administered through METRA.
- ✚ The responsible Engineer for the design and construction engineering to re-construct the alley at City Hall.
- ✚ Acting as Owner's Representative for the remodeling of the Berwyn Public Library. The Library is utilizing a Live and Learn Construction Grant from the Illinois State Library.
- ✚ Assist the City Team with engineering reviews of the pending Depot District Renovation Project.
- ✚ Assist the City with the development of various infrastructure development documents.



City of  
**JOLIET**

## CONCRETE REHABILITATION OF THE PRIMARY DECKS AT THE EAST SIDE AND WEST SIDE WASTEWATER TREATMENT PLANTS:

The City of Joliet retained **The Engineering Solutions Team Co.** to perform the required design and construction engineering services to successfully complete the concrete coating of the Primary Decks at the East Side and West Side Wastewater Treatment Plants.

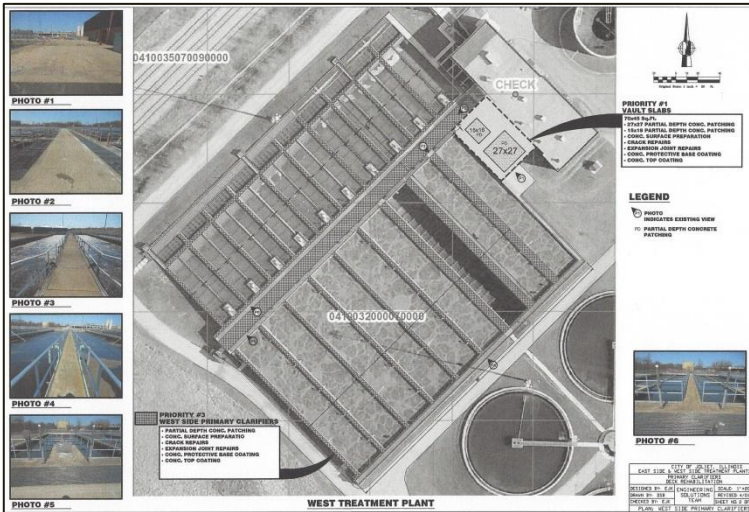
**Original Conditions:** The concrete primary decks were showing signs of aging with discolorations and spider cracking and concrete delamination. The City wanted to rehabilitate these concrete decks and apply a concrete coating to extend the life of these systems.

Through Study spearheaded by **Engineering Solutions Team** it was determined that due to the breathing qualities and moisture movements through the concrete that a very special coating would be required to succeed in this "live" application.

The selected coatings material was a high quality cementitious material that allowed the concrete primary decks to breathe and release the moistures that want to move from the base of the decks to up and out through the tops of the decks.

**Phase 2:** Upon approval by the City; The Phase 2 Engineering was completed in 10 weeks. Plans were developed using Auto-CADD. Pre-Bid Meeting was conducted on June 3, 2015. Bids were opened on June 10, 2015.





PLAN Sheet: West Side Wastewater Treatment Plant



West Side Wastewater Treatment Plant: Concrete Preparation



West Side: Partial Depth Patching and Crack Repair



West Side Wastewater Treatment Plant: Coating Installation

### **Phase 3:** C & T Construction was the low bidder.

The materials used for the project included:

- Partial Depth Patching – ENECRETE DuraQuartz was used.
- The Coatings – ENECRETE DuraFill was used.

The materials used showed strength and were flexible during application. Quality surface preparation is required. C & T Construction performed the described project in a professional and workmanlike manner. The project was completed both on time and within budget.



### **THE WARWICK AVENUE DRAINAGE STUDY:**

**Existing Conditions:** During the larger rainstorms spanning over the last few years the Village of Westmont has experienced some flooding conditions and inadequate drainage characteristics throughout the Village. One particularly troublesome area is located on Warwick Avenue north of Chicago Avenue.



# Recent Solutions



The Village of Westmont Public Works Department met with the **Engineering Solutions Team** to discuss this situation and these conditions. The Village then retained **Engineering Solutions Team** to survey the area, further study the area and develop a report to begin to improve this storm water condition.

The concept is to work to incrementally reduce the storm water load which passes through the sensitive area on Warwick Avenue. It is planned that by reducing the contributory areas that the current storm water relief system will then be able to better handle the lessened required demand.

**Proposed Project Study:** The Study of the Warwick Avenue Storm Water Improvement Program is to encompass the following:

- Topographic Field Surveys.
- Development of Base Sheets to facilitate the Study and Design Processes. Base Sheets will be developed in the AutoCADD environment.
- Geotechnical Investigations and Report.
- Utility Investigations.
- Explore 3 Drainage Solutions Concepts.
- Develop preliminary drawings for the 3 drainage solution concepts.
- Permit Investigations.
- Complete Drainage Study Report. The Completed Report actually examined the costs and benefits of 4 different alternates.

**Additional Engineering Solutions Team 2015 Assignments:** The following are the additional 2015 clients of **Engineering Solutions Team**. Again, thank you for your continued trust and confidence.

- + **College of DuPage:** Phase 2 and Phase 3 Engineering to make storm water and drainage improvements in the PE Switchgear Room.
- + **Downers Grove Sanitary District:** Project Coordination and Cost Analysis to explore converting the Pump Stations to Solar Power.
- + **Downers Grove Township:** Phase 1 Engineering Report for Administration Parking Lot Expansion.
- + **Village of Glen Ellyn:** Assistance with Roadway Lighting Improvements on Roosevelt Road and Assistance with Documentation of Village Owned Easements.
- + **Grundy County Highway Department:** Negotiation of 13 different right-of-way acquisitions on Brisbin Road
- + **Village of Oak Park:** Phase 2 Engineering to make the Main Entrance of Public Works Administration to be ADA Compliant.
- + **City of Rolling Meadows:** Phase 2 Engineering to replace the roof of Pump Station #2. Also, Phase 2 Engineering to construct a new Sewer Storage Building to be located behind Pump Station #5.
- + **City of St. Charles:** Project Manager of the In-House Flow Monitoring Program.
- + **Village of Streamwood:** Phase 2 Engineering for the rehabilitation of the Schaumburg Road Lift Station.

## **Visibility:**

Visibility for Engineering Solutions Team began in excellent fashion in 2015. The APWA Reporter presented the **Engineering Solutions Team** project of "Flood-Proofing the Glen Ellyn Library" as its Cover Article in its January 2015 Edition.





**Engineering Solutions Team** displayed its Booth at the following Trade Shows in 2015:

- American Public Works Association; on May and May 21.
- Fox Valley Operators Association; on August 20.
- Illinois Municipal League; on September 17 & 18.

**Engineering Solutions Team** is scheduled to display the booth and present paper with Nick Gornick [City of Joliet] at 2016 ISAWWA Watercon on March 21, March 22, and March 23.

## **Close:**

Thank you for reading our newsletter. Hope that you found it to be interesting and/or enlightening.

*Hope that all enjoy a Healthy and Productive 2016. We look forward to the opportunity of together exploring your Infrastructure Improvement Programs.*

*Respectfully,*

Edward Kalina, President  
Engineering Solutions Team