



## DuPage County Public Works

# 2015 APWA Project of the Year Less Than \$5 Million – Structures

## Vactor Receiving Station

### Project Background

The DuPage County Public Works recently completed construction of the Vactor Receiving Station Improvements at the Woodridge Greene Valley Wastewater Treatment Facility, located at 7900 Illinois Route 53 in Woodridge, IL. The project provided a cost effective method of waste disposal for surrounding municipalities that need to dispose of operational waste. The facility was designed such that multiple Vactor trucks can access the storage facility and empty their contents into dewatering containers. The dewatered material can then be transferred to a roll-off dumpster and hauled to a landfill. It also included a truck wash for cleaning after drop-off. This new facility eliminates outdoor waste handling activities, providing safe, year-round operation for DuPage County. The Vactor Station is the first of its kind in the state of Illinois.

Trotter and Associates, Inc. (TAI) of St. Charles, Illinois provided design and construction phase engineering services, working in conjunction with Kluber Architects + Engineers of Batavia, Illinois who provided mechanical, electrical, structural, and architectural services. Schramm Construction Corporation, also of St. Charles, Illinois, was the selected Contractor for the Vactor Receiving Station Improvements.

This project represented a joint effort between several governmental agencies and departmental divisions, providing for a truly collaborative and inclusive environment. The design process for the Vactor Receiving Station spanned multiple years as the project team weighed a number of alternative designs and construction locations. The improvements were funded by the DuPage County Department of Public Works in conjunction with the Department of Transportation. A Salt Storage Facility, originally anticipated to be constructed simultaneously with the Vactor Station, was put on hold, necessitating a redesign of the site improvements to allow the Vactor Station to be constructed alone.

In an effort to reduce the financial burden to the Owner, Trotter and Associates, Kluber, and Schramm Construction performed Value Engineering of the Vactor Receiving Station Improvements after the contract was awarded. These efforts reduced the overall project cost by nearly \$100,000.00 while maintaining the same safety standards and providing a project meeting all of the County's expectations.

### Project Schedule

Harsh winter weather conditions required that the original final completion date of January 18th, 2014, be revised to May 30th, 2014, as approved by DuPage County. With this extension, the project was successfully finished on-time without putting workers in a hazardous working environment or jeopardizing quality of the construction product.

- Initiation of Project July 2013
- Completion of Design August 2013
- Construction Contract Award September 2013
- Substantial Completion May 2014
- Final Completion May 2014



**Kluber**  
Architects + Engineers

**SCHRAMM**  
CONSTRUCTION CORPORATION  
COMMERCIAL • INDUSTRIAL





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### Construction Management

Regular construction meetings were held throughout the project to address progress and any issues that arose. Trotter and Associates provided a resident engineer to observe the progress of the project as construction took place, which included the production of weekly construction reports outlining progress of the work each week with site photos and all work performed by the contractor and subcontractors. DuPage County, Trotter and Associates, and Schramm Construction worked in close coordination to address any issues or conflicts that arose during construction.

Several of these issues resolved during construction were related to the discovery of unforeseen subsurface conditions. Portions of previously abandoned and partially demolished structures and utilities were found throughout construction. The site was previously used for sludge drying and disposal, the piping and underground storage of which was largely left intact while the above grade features were removed. The presence of sludge and other organic material below grade required the removal of significant swaths of subsoil in order to provide the requisite bearing capacity. Working together, the project team was able to overcome these issues with minimal time losses.

### Safety Performance

There were no lost-time injuries that occurred over the duration of this project. Contractors administered their standard safety program throughout the duration of construction, which included on-site safety training and regular safety inspections. Overall, the completion of this project provided a safe means of waste disposal for surrounding municipalities. Additionally, due to the harsh weather conditions over the winter months, DuPage County granted a time extension request that allowed final completion to be revised to May of 2014. This relieved workers from having to work in below-freezing conditions that pose a serious safety hazard.

### Environmental Protection

Care was taken to adhere to all IEPA guidelines in the design of this facility. Given that the nature of the facility is dealing with disposal of municipal waste, it was ensured that all environmental regulations, permitting procedures, and standards related to this were followed. This included installation and monitoring of soil and erosion control devices adjacent to Crabtree Creek.

Previous operations included depositing the material into open air bunkers. Dewatering relied upon evaporation. After it dried it was loaded into trucks and transferred to a landfill. The completed project allows Vactor waste to be deposited into dumpsters, dewatered and then transported offsite without onsite handling. The Vactor Receiving Station allows all activities to occur within a closed environment with any liquid waste sent directly to the wastewater treatment facility. Any water used to rinse equipment inside is non-potable, which is then returned to the plant. During the ribbon cutting ceremony, the IEPA commended the County on their improved operation in reducing exposure of waste to the environment.

The project included green infrastructure in the form of bio retention basins and vegetated filter strips to provide volume and pollution control from stormwater runoff. These are placed on opposite ends of the site and intercept stormwater runoff from pavement and roof drains.

