

Holland Engineering

QUARTERLY

Government Division News

HEI Assists the City of Holland with Stormwater Master Plan Update

Over the past several years, the Holland area has experienced several major rain events resulting in significant flooding. Wanting to address these issues, and seek an update to the existing 1960 Storm Water Master Plan, the City of Holland solicited proposals for providing a comprehensive new plan.

Holland Engineering (HEI) is pleased to be partnering with Fishbeck, Thompson, Carr & Huber, Inc. to provide engineering and surveying support for the Master Plan Update.

As part of the Project Team, Holland Engineering will utilize its extensive knowledge of the Holland area to perform an inventory and assessment of storm water infrastructure along with the establishment of a city wide benchmark system that will be used for future projects. These services will include surveying the physical location for a majority of the main line "trunk" storm sewer and open drains within the city for incorporation in the City's existing GIS database. HEI will also provide the assessment of the condition of the located structures and piping. HEI is pleased for the opportunity to be part of this project and offer our services to the City of Holland. [↻](#)



Flooding in a Holland neighborhood during one of the spring storm events.

For more information on this project or on our master planning services, please contact:

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Civil Infrastructure Division News

HEI Completes Shoreline Projects

Holland Engineering is in the process of completing several projects along the beautiful, distinctive Lake Michigan Shoreline.

The West Michigan Park Dry Fire Line System has been one of HEI's more unique projects and has now been placed into service after passing final testing and certification. The project was a partnership between the West Michigan Park Association (WMPA) and Park Township whose purpose was to improve the reliability and flow capacity of the water supply system during a fire event within the Association's area. Since many of these historic cottages are located inside the dune area and are accessible only by foot, the standpipe system with its multiple pressurized connection points has the capability to significantly improve the local fire department's response time. HEI was pleased to be part of a project that could potentially help preserve some of our Lake Michigan Shoreline history.

HEI is also in the process of completing a drain extension and dune face



Dry fire line in WMPA (left) and dune erosion above beach area (right)

restoration project along Lakeshore Drive south of the City of the Village of Douglas. The property owners in this area have been continually challenged with dune face erosion. In addition to the erosion being unsightly, it has also displaced the vegetation on the dune face and deposited it, along with soil and rocks, onto the beach. This displacement has created a safety hazard as it has undermined beach access walkways and stairs and threatened the roadway.

HEI worked with the property owners and the Allegan County Road Commission to design and permit a system of cut-off drains to intercept the runoff that was causing the erosion. These cut-off drains are an extension

of an existing county drain system that was installed a few years ago after a major storm caused a portion of Lakeshore Drive to wash away near the project site. Once the drainage issues are addressed, the face of the dune will be restored with native vegetation and natural soil erosion control measures to complete the restoration and stabilization of this very unique and beautiful shoreline area. [🔗](#)

For more information on these projects or on HEI's Civil Infrastructure services, please contact:

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Company-Wide News

Spreading Heat Throughout our Community



Items donated by HEI Staff Members for this year's "Winter Wearables Drive"

HEI employees came together again this year to support the Holland Junior Welfare League with their annual "Winter Wearables Drive."

The Holland Junior Welfare League is a non-profit agency that has been assisting children in the Holland/Zeeland, MI area since 1930. The

"Winter Wearables Drive" collects mittens, hats, socks, underwear, sweatpants and sweatshirts for area elementary schools and distributes them to children who do not have their own. Holland Engineering's employees will be helping in the donations of these items for girls and boys in need of some extra warmth this winter. [continued on page 4...](#)

Energy Division News

HEI Designs Separator Additions for Two Compressor Station Sites


Holland Engineering provided engineering design services to Great Lakes Gas Transmission Company's two separator addition projects.

A new 9-foot, 4-inch diameter vertical gas separator with by-pass piping will be installed in series with an existing gas separator at the Deward Meter Station located in Crawford County, Michigan. In addition, a new 5-foot, 8-inch diameter horizontal gas filter separator will be installed at the Farwell Compressor Station located in Clare County, Michigan.

The design entailed modifications to existing compressor station piping to accommodate the addition of the

separators, as well as the design of the foundations for the two separators. Holland Engineering's design also included hookup of all the necessary instrumentation for the vessels and routing of piping for the separator dump lines. Due to space limitations, an existing liquid storage tank at Farwell had to be relocated and a new foundation design incorporated at this site.

All required instrumentation was wired and routed back to the existing RTU at the instrumentation/control buildings. Since instrument air was not available at Deward, a new gas conditioner system was designed to provide instrument gas for the separator's level controller and over pressure protection devices.

Holland Engineering provided the bid and construction drawings and the contractor's scope of work for both projects. Construction began on October 13th with Deward scheduled to be completed by the end of December 2011 and Farwell by the end of January 2012. HEI was pleased for the opportunity to be involved with both of these projects. 

For more information on these projects, or on HEI's design experience, please contact:

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Energy Division News

HEI Performs Ground Disturbance Scans

Throughout 2011, Holland Engineering has been providing ground disturbance scans to Enbridge at numerous locations throughout Illinois, Wisconsin, Minnesota and New York.

Initially, a majority of these services were provided for Line 6B, the same 30" crude oil pipeline in Marshall, MI which suffered an oil leak earlier this year. HEI was able to complete a list of several hundred digs by providing scanning, staking, surveying and drafting services.

At the clean-up sites, the process involved assessing the area that was previously excavated and disturbed, staking the "scar" to show the contractor what needed to be cleaned,

staking the access road into the site and locating and flagging the existing pipelines within the disturbed area. HEI also scanned, as an extra safety precaution; the entire staked area to find any foreign utilities that may have been missed by the one call. Using GPS, our survey crews were able to survey the staked area and send the data to drafting where a map was created showing the workspace and utilities for contractor use.

In addition to the clean-up site, HEI also provided ground disturbance scans for new dig site locations. Enbridge supplied HEI with "dig sheets" for each location which allowed HEI to stake the anomaly location by coordinates using GPS. Although the overall process was very similar to the clean-up site, it did require more staking and probing. Our survey

crews performed these throughout a variety of different terrains including fields, wooded and residential areas and swamps. Holland Engineering was pleased for the opportunity to assist Enbridge with our surveying and drafting services and always looks for opportunities to assist our clients with our surveying tools and technologies. 

For more information on HEI's pipeline surveying services, please contact:

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In addition to the “Winter Wearables Drive,” HEI also participated for the third consecutive year as a sponsor for DTE’s Annual “Nights of Warm Hearts” fundraiser. The Heat and Warmth Fund (THAW) is an independent non-profit agency that provides low-income individuals and families with emergency energy assistance and advocates for long-term solutions to energy issues. Since its inception in 1986, THAW has provided more than \$102 million in aid to more than 155,000 Michigan households who have found themselves in a temporary crisis. The Night of Warm Hearts Gala Event was held this year on November 11th in Detroit and is a signature event for THAW which will help hundreds of families in the community keep safe and warm this winter. HEI is proud to once again participate in this event and remain involved in the effort to continue helping those families in need throughout Michigan. 

Holland Engineering recognizes the importance to give back to the communities where we live and work.

For more information on the Holland Junior Welfare League please visit their website at www.hjwl.org. For more information on THAW Fund, please visit their website at www.thawfund.org.