

BUILDING BRIDGES



VOLUME 5, ISSUE 1

SPRING 2010



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DELAWARE COUNTY ENGINEER'S OFFICE NEWSLETTER

WHAT'S NEW AT THE ENGINEER'S OFFICE...

The County Engineer's Office is now accepting credit cards for payment of permit fees and copies of construction bidding documents. A charge must be added to pay the service provider's transaction fee.

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I'm always glad when spring arrives but never more so than this year. The 2009-2010 winter was one of the most severe in recent memory. Our salt usage and overtime hours were at their highest level in over 30 years. The record snowfall and persistent ice storms placed tremendous demands on our resources and our personnel. This winter, we were blessed to be served by a committed group of employees in the county highway department who worked very long hours with minimal sleep, taking valuable time away from their families. These individuals along with those in similar roles at the state, township and municipal level truly are unsung heroes that we too often take for granted.

The arrival of spring also marks the beginning of road construction projects around our region and the 2010 season promises to be a busy one. Work will begin in the next few weeks for the construction of a railroad overpass on Home Road at the CSX tracks between Liberty Road and Sawmill Parkway. The new overpass will be built south of the existing Home Road alignment so that normal two-way traffic can be maintained during construction. Through a companion project, a relocation of the north section of Liberty Road to match the alignment of South Liberty Road will create a new four way intersection with turn lanes and a traffic signal on Home Road. These projects will provide important safety and capacity improvements

to the growing number of motorists in this region of the county (see page 3 for more project information).

A number of other important projects are slated for construction this year all across the county. Information on various Delaware County projects has been compiled in the *2010 Delaware County Road Construction Guide*. This document is available on our web site at www.DelawareCountyEngineer.org. Copies are also available at the County Engineer's Office and the Map Department.

On a personal note, the arrival of spring marks the end of my term as the president of the National Association of County Engineers (NACE). With about 2000 county engineers and road professionals from 31 states, NACE is an organization primarily focused on local transportation issues. This past year our organization has placed a strong focus on working to reduce the amount of time required to construct projects that use federal funds. The prolonged project delivery time is a problem and concern of public officials across the nation. For example, the Home Road Railroad overpass project that I mentioned previously was initiated in 2002. Complying with the myriad of federal regulations and procedures required over 8 years,

just to get to the point of starting construction. Other communities have experienced much longer delays. Our work at NACE in recent years on the issue of streamlining Federal Aid projects has not gone unnoticed. The new Administrator of the Federal Highway Administration (FHWA), Victor Mendez, has announced his goal of reducing the delivery time for Federal Projects by 50%. I am hopeful that this will translate into reduced project delays here and all across the country.

My involvement with NACE has also offered some valuable insights into new technologies and approaches that we have put to work here in our county. Our efforts in applying an asset management approach to constructing and maintaining our county highways is a direct result of lessons learned through NACE. Our resulting pavement preservation program has helped us achieve pavement conditions on our roads that are among the best in the region.

I am grateful for the opportunity to continue serving as your county engineer and I am proud to be part of this wonderful community. I hope you enjoy this edition of *Building Bridges* and I look forward to your questions and feedback.



DID YOU KNOW...

Ohio effectively served as a test ground for many systems of land surveying (the map above shows original survey tract boundaries). The Public Land Survey System, which was later used to divide most of the western United States, is similar to the system used in northwest Ohio, with ranges referenced from a principal meridian (Ohio-Indiana border), 6-mile square townships and 1-mile sections.

... and, in the 12 years prior to the platting of the town of Delaware in 1808 and establishment of streets, the current location of the Engineer's Office (50 Channing Street) would just have been identified as being five acres in the northeast part of Farm Lot 11, Section 4, Township 5, Range 19, of the United States Military Lands.

Ohio's Original Land Subdivisions

When we identify the location of our homes, we usually just refer to our property address, street name, city, state and postal code. But you may be interested to know how people referred to property in the years before zip codes and even named roads.

In the late 18th and early 19th centuries, the territory that is now Ohio was divided into numerous original tracts of land by the federal government and by privately owned companies who purchased the land from the government. Surveyors were sent to Ohio to divide tracts that could be sold to settlers from the East, or given to veterans of the Revolutionary War as payment for their service. Surveyors marked the original tracts with wood stakes, marks cut into trees or with carved stones. Measurements were made using the available surveying instruments of the day—primitive by today's standards—to create an orderly array of parcels of land of known size. At some locations, major rivers such as the Scioto or other geographic features were the boundaries for these tracts.

The original, basic units of land throughout most of Ohio are called Ranges and Townships. The numbered Townships are different from what we now refer to as the named "civil townships", such as Orange, Porter or Radnor that were later formed as divisions of local government (though some still retain the original Township lines). What is now Delaware County actually resides in two of Ohio's original land subdivisions—the U.S. Military Lands

(east of the Scioto River) and the Virginia Military District (west of the Scioto). The U.S. Military Lands were divided into 5-mile square Townships, 2.5-mile quarter townships (also called sections) and finally into Farm Lots which varied in size. The Virginia Military Survey was divided in a less orderly way, with irregularly shaped Lots.

Across Ohio, there were a number of original land surveys such as the Connecticut Western Reserve, Congress Lands East of the Scioto River and the Old Seven Ranges. Since these are the original surveys made by the federal government, any subsequent surveys or descriptions for real property must be made relative to these surveys. In fact, if you have ever bought or sold property, you may have noticed a document included in the deed to your property called the "legal description" which references these surveys. To non-surveyors, it may be meaningless; however, it is critically important in the property transaction because it is the legally accepted way to describe the real property being transferred. Since street names and numbers can be changed from time to time, property deeds must, instead, refer to the original land surveys.

Today's residential subdivisions are a modern evolution of the original land subdivision systems. A tract of land is typically purchased by a developer, surveyed into lots and sold off. If you own a subdivision lot, your legal description refers to a lot number within that subdivision plat which is on file with the Delaware

County Recorder. A plat is a map created by a surveyor laying out the dimensions of lots, streets and easements. It also refers back to the Ohio original land subdivision in which it resides (U.S. Military Lands or Virginia Military Lands). If you live outside a residential subdivision, your deed may contain a "metes and bounds" description, with directional bearings and distances along the boundary of your property with reference to the original Ohio land subdivision.

The County Engineer's Map Department maintains the official tax maps for Delaware County, showing the current owner for every land parcel in the county. The Map Department reviews all legal descriptions when property is transferred, ensuring that they correctly list the dimensions and location of the property. Inaccurate or incorrect legal descriptions create a myriad of problems related to the title, ownership and transfer of land, so Ohio Law requires new legal descriptions to be prepared and certified by a licensed surveyor. Surveyors are trained to correctly interpret legal descriptions along with existing monuments and other boundary evidence to resolve or retrace the original land surveys.

The County Auditor's DALIS (Delaware Area Land Information System) staff also maintains a geographic information system showing land parcel and owner information, as well as many other helpful tools such as aerial photos, appraisal data and school district boundaries—available online at www.DalisProject.org.

Liberty and Home Road Realignment Project

Construction will begin on the realignment of Liberty Road north of Home Road this spring. The \$3.1 million construction project also includes widening of Liberty Road south of Home Road to 3 lanes and widening Home Road to 3 lanes with turn lanes at the park entrance and at the new Liberty Road intersection. This, along with the \$10 million federally-funded railroad grade separation project, beginning this summer, will greatly enhance safety and travel efficiency in the area.

The County Engineer has been implementing a long-range plan developed in the last County Thoroughfare Plan for improvements to the Home Road corridor, in order to provide a safe and functional east-west intra-county travel corridor from Union County to eastern Delaware County. Projected traffic volumes on Home Road are expected to top 25,000 vehicles per day by 2030.

Please visit the County Engineer's website for more information on this project and the



Radnor Road Bridge over Scioto River

Work will begin on the replacement of the Radnor Road bridge over the Scioto River later this summer. The existing two-span steel truss is currently posted with a reduced weight limit of 3 tons. The new bridge will be a three-span steel beam bridge—wide enough to accommodate the agricultural and commercial truck traffic in the area.

At the time of publication, Ohio Public Works Funding has been recommended for this project for up to \$430,000 out of the \$1.7 million construction cost. The remaining costs will be paid for with county road and bridge funds. Construction is scheduled to begin in late July and be completed in December of this year.

Old 3-C Bridge over Hoover Reservoir

The Old 3-C Highway bridge over Hoover Reservoir, located in the Village of Galena, will be rebuilt this summer. This project was one of two Delaware County federal stimulus projects funded through the MORPC allocation of highway stimulus funding. This is a *design-build* project meaning that the design and construction contracts are combined and the

contractor is responsible for developing the final design of the bridge in accordance with contract specifications. The work includes replacing the bridge superstructure and rehabilitating the abutments. New bike-safe bridge railing will compliment the wider deck. Construction will begin in mid-May and be complete by mid-August.

DELAWARE COUNTY ENGINEER'S OFFICE NEWSLETTER



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Project Timelines

Green Cook Road Bridge (S. of Center Village) — *May-July*

Porter Central & Centerburg Intersection — *May-August*

2009 ARRA Resurfacing (continued) — *May-June*

2010 Annual Resurfacing Project — *May-September*

Old 3-C over Hoover Reservoir Bridge (in Galena) — *May-August*

Liberty and Home Road Realignment — *May-December*

Home Road Grade Separation (Railroad) — *June 2010-November 2011*

Warrensburg Road Bridge (W. of SR 37) — *August-October*

Radnor Road Bridge (over Scioto River) — *July-December*

Liberty Road Culvert (at Hawthorn Blvd.) — *June-July*

Panhandle Road Bridge (N. of Case Rd.) — *August-November*

S.R. 3 & Freeman Intersection — *August 2010 to May 2011*

East Orange Road Improvements — *May 2010 to May 2011*

S.R. 315 & Orange Road Roundabout — *Summer/Fall 2010*

Horseshoe Road Bridge (N. of Bishop Rd.) — *Summer/Fall 2010*

Oxbow Road Bridge (E. of Tussic St.) — *Fall 2010/Spring 2011*

County Drainage Maintenance Program

The Delaware Soil and Water Conservation District, in cooperation with the County Engineer, maintains some of the rural drainage ditches, swales and tiles in the county, along with some of the storm sewers and storm water basins within subdivisions. This program of petitioned drain-

age maintenance, authorized through Ohio Revised Code Sections 6131 and 6137, helps ensure that storm runoff does not back up and create drainage problems due to an individual property owner failing to maintain portions of the primary ditches, tiles or sewer pipes. The

cost of maintaining the drainage infrastructure is paid for through property tax assessments on the properties which are served by these drainage systems. An up-front assessment is also paid by the developers of new subdivisions prior to the sale of new subdivision lots.

In 2009, \$385,555 was spent on maintaining 49.54 miles of open ditches, 15.91 miles of tiles, 164.92 miles of storm sewer and 373 storm water basins. This was paid for entirely through the assessments on the 17,261 parcels being served.