



The Orange Brigade



Summer 2011

Logan County Engineer's Office

Volume 39



Coleman's Comments

Greetings from your County Engineer:

The staff of the Logan County Engineer's Office has continued to work very hard to improve efficiency as resources have declined. We are all taking on more duties and responsibilities as we adapt to the current economy. Again this year we have adjusted to a four day work week for the summer. These summer hours reduce mobilization costs and provide some savings in fuel and energy. At the Logan County Engineer's Office we are always looking for opportunities to reduce our costs and improve our level of service.

I am pleased to announce that the Logan County Engineer's Office is going green-er. The Shelly Company has installed a new warm mix asphalt unit in their plant at Northwood. The unit sprays water into the asphalt to create foamed asphalt and allows us to place and compact the mix at lower temperatures. This unit allows them to produce warm mix asphalt instead of hot mix asphalt. Warm mix is produced at approximately 30 degrees Fahrenheit less than traditional hot mix. This process significantly reduces energy consumption, VOC emissions, and loss of light oils in the asphalt. We expect this new process to result in better material with a longer service life in addition to being more environmentally friendly. Adding to our environmental effort, we also utilize 14% recycled asphalt in the mix, which is something that we have been doing for several years now. Warm mix asphalt can reduce fuel consumption and emissions by up to 30 percent. This is another process that adds to our continued efforts over the past several years to reduce, reuse, and recycle.

The one-half percent sales tax for roads and bridges is due to expire in 2012. I have started developing the needs report for Logan County. I have requested input from the county commissioners, township trustees, municipalities, Logan County Chamber of Commerce, and Farm Bureau. So far the feedback has been extremely supportive of the sales tax program and the administration of the funds by the Logan County

Engineer's Office. I definitely want to hear from the residents of Logan County and encourage you to send your comments on the 1/2 % sales tax for roads and bridges to engineer@co.logan.oh.us.

Over the past several months I have worked with the Ohio Council of County Officials to study the Public Employees Pension Plan reform and make recommendations to the state legislature regarding the reform proposals. Work on this legislation is currently on hold while the legislature awaits an independent third party analysis of the Ohio pension funds. Each of the five Ohio pension plans has unique challenges facing them. Our effort at the Ohio Council of County Officials has been to ensure that reform is fair to employees, employers and taxpayers while still allowing us to hire the best candidates available.

We wrapped up a very expensive winter of snow and ice control and quickly moved into a period of extremely wet weather. This past winter season we spent \$565,642.31 which is 50% above average. The highway crews worked 3,651 regular hours and 1,708 overtime hours while fighting snow and ice. We were able to build a saltwater brine pretreatment tank in-house and tried this unit a few times this year. We saved thousands of dollars by building this unit ourselves and hope to utilize it much more in the future. We also purchased a used brine pre-wetting tank to mount on a truck and wet the salt at the spinner. This process helps the salt begin to melt snow and ice much faster and we noticed a significant difference where it was used. We also tried a product called Clearlane, which is salt that has been pretreated with Magnesium Chloride. This product can melt snow and ice at much lower temperatures than plain rock salt.

As winter wrapped up, we experienced severe flooding on February 28. Bridge 105-2.07 was washed out and significant damage was caused at other structures. We spent several weeks cleaning the flood debris and repairing damage from this storm. Then we experienced record rainfalls throughout April and May that delayed much of our preparation work for the summer paving and chip-sealing programs. Fortunately, our summer construction is well underway now.

Sincerely,
Scott C. Coleman, P.E., P.S.

Innovative Bridge Research Program

A future Logan County bridge to be a first on the Federal Highway System!

By Todd Bumgardner, General Superintendent

In June of 2011, the Logan County Engineer's Office was awarded \$229,700 in federal funds through the Innovative Bridge Research and Deployment Program.

Bridge 174-0.56 over the Onion Ditch located in West Liberty by Lions Park will soon be the first virtually 100% Recycled Thermoplastic Bridge on the federal highway system. Our project was awarded the federal funding based on the use of innovative "green" materials and "rapid build" techniques to design and construct a bridge that will progress this new technology.

In early 2010, Scott Coleman, Logan County Engineer, challenged the engineering staff to come up with a unique proposal for the Onion Ditch Bridge. Our search led to finding the federal funding program, researching innovative materials, developing a preliminary design, assigning a design-build cost then submitting the federal application.

Only 16 projects nationwide were recognized for their innovative merits and were awarded federal dollars through this program in the 2010 round of funding. We are fortunate to have this opportunity and very excited to build this unique bridge in what we think is a special location in our county. Look for continued updates in our coming newsletters.

Storm Water and Sediment Control in Logan County

By: Bryan Dhume, P.E., Assistant Engineer

This past spring was exceptionally wet with record precipitation in many parts of Logan County. According to the Miami Conservancy District, DeGraff and West Liberty both set records with 8.68 inches and 8.66 inches of rain, respectively during the month of April. The month of May produced records in Bellefontaine with 8.43 inches of rain and again in West Liberty with 9.97 inches. With the record precipitation came significant storm water runoff, including flooding on roads never seen before. Fortunately, while the county road system did not make it out unscathed, only one structure required major repairs, that being the bridge on CR 105 at Northwood.

A major contributor to storm water runoff is land development that increases the impervious area on a site. In addition, construction activity on a site can cause increased soil sediment in the storm water. The Logan County Stormwater and Sediment Control Regulations were adopted by the Logan County Commissioners in 1997, in part, to address these issues. Per the regulations, part of their purpose is "to establish standards, principles, and procedures by which Logan County can regulate construction oriented, earth-disturbing site development activities which cause or may cause adverse on-site impacts of accelerated surface water runoff, soil erosion, and sediment deposition, and thereby prevent an increase in existing off-site impact potentials at lower elevations for sedimentation of lands and drainageways, siltation of drainage waters, and the flooding of watercourses."

The Logan County Engineer's Office administers these regulations by reviewing storm water and sediment control plans and calculations for a project, issuing the Stormwater and Sediment Control Permit, and then conducting on-site inspections to ensure the project is being built per the approved plans. Any necessary changes or additions to the approved plans during construction due to unforeseen storm water and erosion issues are addressed during the site inspection process. Projects currently under construction include three RV parks on the north side of Indian Lake, a harbor and boat dock project near Moundwood Ramp at Indian Lake, a residential subdivision on the east side of Indian Lake, and an expansion at Honda Transmission Manufacturing.



TARGET SAFETY...



By: Todd Bumgardner, General Superintendent

As of June 23, 2011, a few safety milestones were achieved since our last newsletter by the staff of the Logan County Engineer's Office, Highway Department, Map Room and Building Authority. Here are the awesome stats our team have posted since our last injury accident.

INJURY-FREE:
2 YEARS
505 WORKING DAYS
156,176+ WORKING HOURS

This is quite an accomplishment that every employee in our group has played a part in achieving. While we can not relax the push to continue our safety program, we must take the time to congratulate ourselves on a job safely done.

Regardless of the statistics, dollars spent, and time set aside for our safety program; everyone in our organization has gone home for over two years safely, uninjured, and ready to spend time with family and friends.

HEAT EXHAUSTION

Do you know the signs & what to do?

During the hot summer months, it is important to know the signs of heat exhaustion and how to protect yourself and your family. The Ohio Department of Health and WebMD offer valuable information at their websites: www.odh.ohio.gov and www.webmd.com.

Symptoms of Heat Exhaustion:

- * Heavy sweating
- * Paleness
- * Muscle cramps
- * Tiredness
- * Weakness
- * Dizziness
- * Headache
- * Nausea or fainting

Treatment for Heat Exhaustion:

- * Drink plenty of fluids and avoid alcohol and caffeine
- * Remove any tight or unnecessary clothing
- * Take a cool shower, bath, or sponge bath
- * Apply other cooling measures such as ice towels or fans

If relief is not obtained within 30 minutes, seek medical attention as untreated heat exhaustion can lead to heat stroke or other medical conditions.

Preventing Heat Exhaustion:

- * Stay in an air-conditioned environment when the heat index and air temperature is high. The heat index is a measurement of how hot you may feel when relative humidity is 60% or higher.
- * Avoid direct sun exposure from 10:00 A.M. to 4:00 P.M., when the sun's rays are strongest.
- * Wear lightweight, light-colored, loose-fitting clothing along with a wide-brimmed hat.
- * Drink extra fluids before you are thirsty. Sport drinks with electrolytes may be a good choice.
- * Remember your sunscreen with a SPF (sun protection factor) of 30 or higher that includes protection from UVA and UVB (ultra-violet A and B rays).



Employee Spotlight



RECENTLY RETIRED

Charles “Butch” Banning
Ditch Superintendent
29 Years of Service



Butch joined the Engineer’s Office on March 29, 1982 as a Highway Worker 1. He quickly learned all facets of the operation and advanced through the ranks. Butch knows every tile, culvert, ditch and bridge in Logan County. He is a fearless guy who would take on any challenge or critter issue with skill and pride. Often known as the “prankster”, his sense of humor and knowledge will be missed. Butch will be enjoying his retirement with his wife, Jane, two children, and five grandchildren. ***Congratulations, Butch!***

VOLUNTEER OF THE YEAR

Mark Dearwester
Route Marker 2
Traffic Department

The city of Bellefontaine Parks and Recreation Board chose Mark Dearwester as the *2011 Volunteer of the Year*. Mark has been dedicated to the Saturday Recreation Program from January through March each year for children in Kindergarten through sixth grade. Mark coordinates with 10 different coaches to teach children the fundamentals of various sports. For nine years Mark has served as the head of the Adult Softball League. Mark has also volunteered as the Head Coach for his son’s baseball team. He has donated countless hours to benefit families in our community. Mark is a stand-out in fundraising for charities and local families. ***Congratulations, Mark!***

2011 COLLEGE INTERNS

Eight college-bound or current college enrollees have joined our team this summer. They are assisting all departments of the County Garage and help to maintain our high efficiency during the busy construction season.

1st Row (L-R): Julianne Minnich, Kerstin Harmon, Grace Yoder, James Elizondo.

2nd Row (L-R): Michael Elizondo, Jeremy Clifton, Christian Newlon, & Joshua Harford.

Welcome aboard!!!



PROMOTIONS

Todd Bumgardner was promoted to General Superintendent in July of 2011.
Jayma Burkhammer was promoted to Tax Map Draftsperson 2 in April of 2011.
Elliott Fullerton was promoted to a Highway Worker 2 in May of 2011.

Congratulations to these employees for their hard work and dedicated service to the residents of Logan County, Ohio!