

Autumn 2003

AROUND OHIO WITH KEM

Sept. 12 - Nov. 1

Fallen Timbers Corn Maze shaped
in the Ohio Bicentennial Logo
Waterville

Sept. 26 - Nov. 2

Fright Fest
Six Flags, Aurora

Saturdays in Oct.

October Fall Fun
Malabar Farm

Oct. 17 - 26

Boo at the Zoo
Columbus Zoo

Oct. 25

Harvest Barn Dance
Malabar Farm

Nov. 9

Family Fair
Sheffield Village



If you have
an event you
would like us
to list in the
Winter Issue
please send
it to info@kemccartney.com

KEM PROFILE



James D. Mawhorr

Jim Mawhorr joined the KEM team in May of 2001. As **Vice President of Transportation**, Jim maintains the roadway, bridge and construction management projects. Major projects Jim is currently involved with include

the widening of S.R. 611 in Sheffield; reconstruction of Colorado Ave. that will be completed in October 2003; as well as the reconstruction / relocation of access for the O'Possum Run Rd and S.R. 13 intersection.

Jim received his Bachelor of Science Degree from the **University of Toledo** and shortly thereafter obtained his professional engineer's and professional surveyor's license. But his interest in engineering began at an early age because of his father's work in the construction industry.

Jim's wife, Diane, of almost **30 years** is a school teacher at Plymouth Middle School. Together they have three wonderful daughters, Amy, also a Civil Engineer; Julie, a Graphic Designer and Kimberly, a school teacher at Crestview Elementary.

When he is not in the office reviewing plans, attending meetings or driving to Lorain, Jim can be seen on the golf course, rain or shine.

KEM

Established 1978

K.E. McCartney & Associates, Inc.

ENGINEERS | PLANNERS | SURVEYORS

CONSULTING WITH KEM

KEM IMPROVING SHENANDOAH

Innovative community sewer could be model for other rural Ohio communities.

KEM made the headlines mid-summer for plans made to improve the Shenandoah sewer system. KEM was hired by the Richland County Commissioners to develop a plan for a decentralized community sewer system for the Village of Shenandoah.

The Ohio EPA drafted an order requiring a community sewer system in the low to moderate income village populated by only 37 homes and businesses. The large cost of a typical centralized sewer system has prevented many low populated areas from constructing their sewer systems.

Standard sanitary sewer systems built for larger communities consist of pipes leading from houses to a wastewater treatment plant, with the treated effluent



being discharged to a stream. But the proposed Shenandoah system, designed by KEM, is much less expensive. It includes smaller sewer lines, trapping of sludge in septic holding tanks, treatment of the liquid effluent by a peat filtration system and final discharge to a large leaching tile field.

The Commissioners view the Shenandoah plan as a possible pilot project that many small rural communities can model and tailor to their needs.

KEM also proposed a funding package to help the community pay for the project. The proposal included \$400,000 State Issue 2 grants and loans, a \$600,000 CDBG Water and Sewer Grant and a \$19,000 OWDA (Ohio Water Development Authority) Loan.

KEM Adds GIS Mapping Services

To better assist clients in complying with state and federal requirements, KEM has added **GPS surveying** and **GIS mapping** to our line of services. KEM is utilizing Global Positioning System surveying equipment to conduct sub-meter and sub-centimeter accuracy mapping services.

Digital mapping is created from the survey data utilizing ESRI ArcGis mapping software and AutoCad software to produce highly detailed and accurate infrastructure mapping. These mapping products have an endless array of possible applications such as inventorying infrastructure to meet GASB requirements, storm water management, tracking sewer conditions, water distribution master planning, land planning and project tracking to name a few.

By adding GIS services **KEM is meeting our goal of taking care of the client and their every increasing technical demands.**

