



The Edge is a Bulletin prepared by TEC Engineering, Inc. presenting updates on recent developments within TEC to Business Communities, Clients and the General Public.

Summer 2005

## TEC GAINS GIS SPECIALIZATION

TEC is pleased to announce the addition of **Betsy Monczka** to our growing transportation planning staff. Betsy brings to the firm over 7 years of hands-on experience in **Geographic Information Systems (GIS)** and a Master's degree in Geography.



### What is a Geographic Information System (GIS)?

A **Geographic Information System (GIS)** is a computerized information management system that uses map (spatial) locations to catalog, display and analyze data of interest. GIS provides a link between data and location (such as streets within a network, buildings to parcels, or land use to zoning) and layers the information to provide you with a multi-dimensional visual representation of the data.



### What can GIS at TEC do for you?

- GIS Needs Assessments & Implementation Plans
- Data Collection and Conversion
- Inventory Projects - Signage Inventory, Traffic Signal Inventory, Utility Inventory, Parks & Recreation Management Systems, Pavement Management Systems
- Community Planning - Zoning & Comprehensive Plan Maps, Environmental Constraints, Site Selection, Demographic Analysis, Viewshed Analysis
- Traffic Safety Projects - Crash/Incident Location Management Systems
- Custom Application Development

**A GIS is cost effective!** Using computerized methods reduces time required to keep records up-to-date compared to existing manual methods. The shared-use, interdepartmental GIS approach eliminates many redundant work efforts, improving data reliability and data accessibility. This results in lower costs to perform business functions.

Contact Betsy at [betsym@teceng.com](mailto:betsym@teceng.com) or (937) 435-8828 to find out how GIS can be applied to your next data collection or planning project!

## ODOT PREQUALIFICATION TRAINING COURSES

The ODOT Office of Traffic Engineering regularly offers consultant training courses through their Traffic Academy for prequalification in various traffic and roadway engineering categories. TEC would like to acknowledge our staff members who have recently successfully completed these prequalification courses:

### Traffic Signal Design

Michael J. Hafner, P.E.  
Christine Hiller  
Sara M. Kors, E.I.  
Aaron Littman, P.E.  
Fred J. Tito, P.E.  
Edward R. Williams, P.E.

### Safety Studies

Michael J. Hafner, P.E.  
Christine Hiller  
Sara M. Kors, E.I.  
Fred J. Tito, P.E.  
Edward R. Williams, P.E.

### Interchange Justification Studies

Michael J. Hafner, P.E.  
Sara M. Kors, E.I.  
Aaron Littman, P.E.  
Edward R. Williams, P.E.

### Signage & Markings

Valarry Goldfeder, P.S.  
Amy L. Pursley, P.E.  
Edward R. Williams, P.E.

### ROW Plan Development

Valarry Goldfeder, P.S.  
Calvin R. Mason, P.E.  
Amy L. Pursley, P.E.  
Edward R. Williams, P.E.

### Maintenance of Traffic

Valarry Goldfeder, P.S.  
Amy L. Pursley, P.E.  
Edward R. Williams, P.E.

### Roadway/Highway Lighting

Robert W. Fluharty, P.E.  
Aaron Littman, P.E.

### Estimator Software

Christine Hiller  
Sara M. Kors, E.I.  
Edward R. Williams, P.E.

### ODOT PDP Process

Frank Douglas  
Valarry Goldfeder, P.S.  
Calvin R. Mason, P.E.  
Amy L. Pursley, P.E.  
Susan Roschke, Ph.D.  
Fred J. Tito, P.E.

### Categorical Exclusion & Ecological Training

Calvin R. Mason, P.E.

### SWISS Software

Christine Hiller  
Edward R. Williams, P.E.

## Upcoming ODOT Training Courses:

**Interchange Justification Studies**  
10/05/05

**Highway Lighting**  
08/15-16/05

**Safety Studies**  
09/13/05

**Traffic Signals**  
07/28-29/05

For more information or to register, go to:  
[http://www.dot.state.oh.us/traffic/traffic\\_home\\_and\\_related/traffic%20academy.htm](http://www.dot.state.oh.us/traffic/traffic_home_and_related/traffic%20academy.htm)

We encourage the participation of local government officials, our partners in traffic technology and highway safety!

## TEC WELCOMES NEW EMPLOYEES

TEC welcomes the addition of several new employees to the TEC family:



### Calvin R. Mason, P.E., Project Manager

[calvinm@teceng.com](mailto:calvinm@teceng.com)

Calvin joined TEC's Roadway/Highway engineering group in June. Calvin has over 17 years of project engineering experience in highway/roadway, utility infrastructure, and drainage design. Previously, Calvin worked as a Senior Civil Engineer at KZF Design of Cincinnati and The Survey Company of Lawrenceburg, Indiana.



### Salim Hussein, Electrical Engineer

[salimh@teceng.com](mailto:salimh@teceng.com)

Salim joined TEC in April as an Electrical Engineer and is a recent Computer and Electrical Engineering graduate of the University of Windsor (Ontario, Canada) whose area of specialization includes circuits and micro electronics, electro-optics, electromagnetic systems, communication systems, control systems, signal processing, and computer systems and networks.



### Andrea McKinney, Design Engineer

[andream@teceng.com](mailto:andream@teceng.com)

Andrea is a recent Civil Engineering graduate of the University of Cincinnati with over a year of co-op experience with TEC. Andrea will perform field data collection and analysis, traffic impact studies, and safety studies.

## PROJECT SPOTLIGHT

**Dixie Highway Corridor Study: A Plan for Transportation and Traffic Optimization**  
*Summary of Study Recommendations*



Traffic moving smoothly through the approach at Kenton Lands

The **Dixie Highway Corridor Study**, initiated by OKI in 2003

and completed by TEC in June 2005, identified numerous short-term, mid-term, and long-term improvements to increase the level of service and the safety of an eight-mile stretch of the Dixie Highway corridor. The recommendations included changes to the signal timing patterns to improve traffic flow; interconnecting signals to the ARTIMIS system and adding emergency vehicle preemption to promote more effective management of traffic during accidents and safer emergency response; and the implementation of a traffic-responsive, closed-loop traffic signal system. Many of these short term recommendations have already been implemented, and as a result there has been a 10% decrease in overall travel time through the entire 8-mile segment.

To weigh in with your opinion of the effectiveness of the recommendations, visit the project website at [www.dixie-highway.com](http://www.dixie-highway.com) and complete the survey, or email the Project Manager, Edward R. Williams, P.E., at [edw@teceng.com](mailto:edw@teceng.com).



161 NORTHLAND BOULEVARD  
CINCINNATI, OHIO 45246  
513.771.8828 TEL  
513.771.0707 FAX

77 WEST ELMWOOD DRIVE  
SUITE 200  
DAYTON, OH 45458  
937.435.8828 TEL  
937.435.8833 FAX

214 WEST MAIN STREET  
MASON, OH 45040  
513.229.8829 TEL  
513.229.8840 FAX

[WWW.TECENG.COM](http://WWW.TECENG.COM)

EMAIL GENERAL INQUIRIES AND COMMENTS TO: [JENNIFERK@TECENG.COM](mailto:JENNIFERK@TECENG.COM)