We would like to provide a follow up to the article that appeared in Summer 2005 newsletter. The Village of Hoffman Estates has completed the project to evaluate seven prefabricated truncated dome products versus the stamped concrete method. The Village evaluated all products based on their ease of installation and durability over two winter seasons of snow plowing. As part of the evaluation process, the Village created a summary report of the findings, installation and snow plowing movies and pictures. All the contents are available on a CD-ROM that is available upon request. (see editor’s note).

Continued on page 3
The Illinois Technology Transfer (T2) Center along with 57 other Local Technology Assistance Program (LTAP) Centers recently submitted our Program Assessment Report (PAR) to the national headquarters. The PAR is a quantitative evaluation of the services provided to local agencies over the preceding calendar year.

In 2007, the IL T2 Center held 167 training courses covering 39 different topics. We had over 6,100 registrations that resulted in 4,544 students attending courses. This equates to 23,896 participant hours. We expanded the number of courses and topics this year in order to cover more areas of the state. As we develop next year’s training program, the training survey will help identify locations and training needs. If you are willing to host a training course and will ensure 30 – 40 attendees, please contact Roy Williamson at (217) 785-2350 or Roy.Williamson@illinois.gov. This will allow Roy to effectively target training courses to ensure maximum enrollment.

The Illinois Interchange Newsletter is distributed to over 4,000 people including: all county engineers, 1,530 municipalities, 1,468 highway commissioners, and 30 international organizations. Nationally, LTAP Centers’ total circulation includes over 500,000 people. In addition to newsletters, the LTAP Centers distribute or loan publications and videos. In 2007, the IL T2 Center distributed over 5,000 publications, videos, and workbooks.

The IL T2 Center continues to expand our program with the help of Illinois local agencies, the Federal Highway Administration, and the Illinois Department of Transportation. For the complete details on the National LTAP program go to www.ltapt2.org/. Please contact the IL T2 Center with any questions or comments about this report or any other issue.

Kevin Burke III, P.E.
T2 Program Manager
The results from the study have been used in the selection of products for the annual Village Street Rehabilitation Project along with requirements for commercial development throughout the Village of Hoffman Estates. There are a wide variety of manufacturers that offer truncated dome solutions to meet the ADA requirement. Many of these products fit into similar groups based on their material properties. The results of the study are meant as a guide for selecting materials, not specific companies. The material types evaluated include stainless steel, cast iron, hard plastic, fiberglass, granite, pre-cast concrete, and poured-in-place concrete.

A summary table (below) shows the ranking of each product from low to high in each of the categories studied in the evaluation. Based on the rankings, the stainless steel Meta Dome product scored the best overall. However our findings indicated that selecting any of the products would be a better option than stamped concrete based on ease of installation and long term durability. Also, depending on other project goals, such as streetscape design or material consistency, multiple products could be used. One of the most significant results from the project was the relationship between compressive strength and the durability of products, please refer to the graph. It is intuitive to assume that the higher the strength, the more durable the product. However, an interesting observation was the breakpoint of products with a compressive strength less than 10,000 psi and those greater. It doesn’t matter how high the compressive strength is, but simply if it’s greater than 10,000 psi. Brick pavers unfortunately were not included in this study and have a compressive strength of 8,000 psi. It will be important to better understand the durability characteristics of this material, whether it should be grouped with the more or less durable other materials.

When considering a truncated dome product for your local projects, I would recommend selecting a pre-fabricated product that is easy to install and durable. It may cost more initially, but the end results will last long into the future. I hope the results of this project can help in understanding the differences between the material options for truncated domes.

Editor’s Note: Copies of the CD (C005) are available through the Illinois Technology Transfer Center’s Video/Publication Library. Please visit the website at http://www.dot.il.gov/blr/vpform.pdf to obtain an order form.
NACE - RETROREFLECTIVITY

NACE Safety Initiative Leads to Improvement of Traffic Signs

NACE is launching an education and companion grant program with NACE corporate member 3M. This will aid member counties in replacing traffic signs to meet new federal retroreflectivity standards that were recently released by the Federal Highway Administration (FHWA). Counties will be able to apply for one-time grants to significantly reduce the cost in their effort to improve reflective brightness of traffic signs and meet this important safety standard. The NACE safety grant program, in partnership with 3M, the leading maker of reflective safety products, is designed to assist counties by:

• Building awareness of the new federal minimum reflectivity ruling;
• Providing financial incentive to replace non-compliant signs;
• Educating NACE members on compliance requirements;
• Providing training on sign assessment/management methods;
• Sharing best practices among NACE member counties.

“We are excited to offer our membership the opportunity to be on the leading edge of this change to make our nation’s roadways safer,” said George Webb, NACE President and the County Engineer for Palm Beach County, Florida. “Counties manage the majority of highway miles in this country and a brighter, more reflective sign is a positive step toward improving our roadways for an aging population, especially on rural county roads where the majority fatal and life changing crashes occur.”

“Additionally, we are pleased to include an educational website to provide information to our members on the requirements of the new regulatory requirements.”

Each NACE member county will be eligible for one grant to purchase 3M reflective signing material, either fabricated signs or roll sheeting, from participating independent sign fabricators.

NACE enjoys a long history of partnership with industry, government agencies and other associations and had previously partnered with 3M from 2003-2006 in the National Transportation Safety Initiative Program. NACE member counties can learn more about this new grant opportunity by visiting the NACE member exclusive website: http://www.minimumreflectivity.org/index.asp

NACE members can apply for the grant program by visiting the NACE website “Members Only” page at http://www.naco.org/NACETemplate.cfm?Section=Members1&Template=/Security/NACELogin.cfm If you need to obtain your ID and password contact the NACE office at nace@naco.org or call (202) 393-5041.

CALENDAR OF EVENTS

NACE 2008 Annual Conference Portland, OR • April 20 - 24, 2008
APWA IL Chapter Annual Conference Peoria, IL • April 30 - May 2, 2008
IACE Spring Meeting Mt. Vernon, IL • May 7 -9, 2008
APWA Chicago Metro Chapter EXPO Schaumburg, IL • May 21 - 22, 2008
IL Highway Commissioner Summer Seminar Peoria, IL • August 3 - 5, 2008
APWA National Congress New Orleans, LA • August 17 - 20, 2008
IL Public Service Institute (IPSI) Effingham, IL • October 5 - 10, 2008
IACE Fall Meeting Peoria, IL • October 8 - 10, 2008
TOI Educational Conference Springfield, IL • November 9 - 11, 2008
NACE 2009 Annual Conference Peoria, IL • April 19 - 23, 2008
The client requests proposals with cost information from several geo-tech engineering firms to conduct soil borings and tests prior to building a parking lot. After review of proposals, the client contacts several firms and asks them to sharpen their pencils and reduce their costs. Several firms comply with the request. The client selects the lowest bidder and awards the contract. Not long after the parking lots are built, the pavement shows signs of sinking, resulting in standing water in the lot after rains. What happened? Maybe the firm selected wasn’t the best firm for the job. Maybe the low bid offered and awarded required the firm to minimize its services, not conducting enough soil borings. The client saved pennies on the engineering services, but spent dollars rebuilding the lots that failed. Who is served by low bidding design services? Nobody!

In the fall of 2006, the Illinois General Assembly amended the Local Government Professional Services Selection Act, which had been on the books for 19 years, to make it explicitly clear that price should not be requested or considered in selecting design professional firms. The level of support for this issue was significant, as the legislation passed with super majority votes. The Legislature clearly understood the issue, as it was thoroughly discussed in House and Senate Committees and in floor debates. The public is best served when design professionals are selected based upon their qualifications as opposed to a price bid.

Is cost a factor? Of course price is a factor, but only after the firm has been selected, and the client and firm develop a mutually agreeable scope of work followed by fee. At that point, if the client is not satisfied they are getting a fair price, they can simply drop that firm from consideration and move onto negotiations with the next ranked firm. In short, select your firm based upon their qualifications, and then decide to contract with that firm based upon the services they will provide and cost. So, it is very important to consider price at the right stage of procurement.

What does this mean to local governments working on road projects? Well, you should follow Qualifications Based Selection pursuant to the Act. However, the Act exempts home rule units. So, conceivably, home rule units can price bid their design services. Not necessarily, as federal law requires recipients of federal transportation funds to use QBS too. So, while a home rule unit is free to do what they want when using municipal funds, that is not the case when using federal funds. The federal law does not recognize and exempt home rule units.

Why should this matter anyway? After all, using QBS is in the client’s best interest. So, regardless of the law’s application, we urge all clients to use QBS in the procurement of design services.

How can I get help? Downloadable documents are available on our website: www.acec-il.org. Click on the section dealing with how to select an engineering firm. A model guide is available for use and adoption, along with forms, copies of pertinent laws and supporting information.

If you are involved in procurement of design professional services, you need to be knowledgeable of these requirements and properly direct your committees and councils on the legal and best procurement method for selecting design professionals, Qualifications Based Selection.

Mr. Kennedy has been with ACEC-IL for 22 years. He lobbied for the original QBS legislation passed in 1987, and its amendment in 2006. He is available to answer questions and support you in any way possible to help your community adopt QBS procedures. He can be reached at 217/529-7430, or acec-dave@acec-il.org
Jeff worked on the highly successful Dan Ryan expressway reconstruction project from 18th Street and I-57 interchange/Bishop Ford Expressway. The Dan Ryan Expressway project ($975 million) involved two new initiatives for the Department, the On-The-Job Training (OJT) program and the Small Business Initiative (SBI) contracts.

Jeff supervised more than forty construction projects ($275 Million) on the Dan Ryan expressway. Nine of these projects were SBI contracts, which required extra efforts to coordinate and schedule work with the contractor due to the multiple adjacent contracts. Contracts consisted of bridge reconstruction, retaining walls, excavation and drainage, PCC Pavement, traffic interconnect, and installation of HMLT. These projects had an extremely compressed schedule that required day and night work on a highly traveled multilane facility with 300,000 ADT.

Jeff utilized consultant staff to administer multiple concurrent contracts. Jeff’s time management skills are an extremely valuable asset when coordinating and mentoring the OJT in addition to the consultant staff required to perform the daily construction inspection and documentation on a project of this magnitude. Jeff’s efforts in training OJT staff directly resulted in full time employment of four OJT graduates with consultants.

The Dan Ryan project opened 16 days ahead of schedule and received incentives for early completion and consistent pavement thickness. Jeff deserves the Engineer of the Year Award for his outstanding achievements and contributions.

**Engineer of the Year Nominees**

- **Jon McCormick**, Region 2/District 2
- **Steve Ferguson**, Region 2/District 3
- **Sally Turczyn**, Region 3/District 4
- **Tim Brandenburg** (Co-Engineer), Region 3/District 5
- **George Davis** (Co-Engineer), Region 3/District 5
- **Jeff Grandone**, Region 4/District 6
- **Mark Daugherty**, Region 4/District 7
- **Russ Arentsen**, Region 5/District 8
- **Donald Rightnowar, Jr.**, Region 5/District 9
- **Dave Piper**, Safety Engineering, Central Office

**Technician of the Year Nominees**

- **Robert Etzenbach**, Region 2/District 3
- **Darrin W. Davis**, Region 3/District 4
- **Dan Magee**, Region 3/District 5
- **Greg Sparks**, Region 4/District 6
- **Dan Drees**, Region 4/District 7
- **Thomas Venhaus**, Region 5/District 8
- **Barbara Lavender**, Region 5/District 9
- **Walt Zyzieuski**, Design & Environment, Central Office
2007 IDOT CO-TECHNICIAN OF THE YEAR
JAMES PATTON, REGION 1, DISTRICT 1

James worked on the highly successful Dan Ryan expressway reconstruction project from 18th Street and I-57 interchange/Bishop Ford Expressway. The Dan Ryan Expressway project ($975 million) involved two new initiatives for the Department, the On-The-Job Training (OJT) program and the Small Business Initiative (SBI) contracts.

James supervised more than 14 construction projects ($250 Million) on the Dan Ryan expressway. Contracts consisted of bridge reconstruction, retaining walls, excavating & drainage, PCC Pavement, Traffic interconnect, and installation of HMLT. These projects had an extremely compressed schedule that required day and night work on a highly traveled multilane facility with 300,000 ADT.

James was involved in the on-the-job training (OJT) Initiative. James showed leadership and personally assisted with training OJT staff, mentoring them to promote knowledge and good work skills. James’ efforts in training OJT staff directly resulted in full time employment of three OJT graduates with consultants.

James was the lead environmental coordinator contact for the entire Dan Ryan project. He ensured all excavation material was hauled to approved disposal sites. He coordinated and responded to all air quality, vibration and noise inquiries. James has been a key person who helps DOT to comply with all EPA requirements through the entire Dan Ryan Corridor and James played a crucial role to make the Dan Ryan project the most environmentally friendly in the country.

The Dan Ryan projects under James supervision opened 5 days ahead of schedule and received incentives for early completion and consistent pavement thickness. James deserves the Co-Technician of the Year Award for his outstanding achievements and contributions.

2007 IDOT CO-TECHNICIAN OF THE YEAR
DEAN KERNAN JR., REGION 2, DISTRICT 2

Dean has proven to be a dependable and trustworthy, independent employee who is always volunteering for additional duties. Dean performs much of the troubleshooting and maintenance work on the dynamic message signs (DMS) in the District. Dean is a certified trainer for flagging operations and provides training to certify IDOT highway maintainers every fall. Dean also serves as a district-wide trainer for snow and ice removal. Dean’s 22 years of experience as a highway maintainer and Lead-worker lends to the competent training of our new employees.

This year Dean has again served as a representative member for District 2 on the Statewide Snow & Ice Committee, where he is serving as Chairman on the RWIS/Weather Forecasting sub-committee. As Chairman of the RWIS/weather forecasting sub-committee, Dean is an active member on the team that is rewriting the statewide contract for the Department’s weather forecasting. The team is working to get the Department a comprehensive weather forecasting internet site that will eventually replace the need for the separate DTN kiosks in every maintenance yard. Their goal is to integrate a best practices system into our weather forecasting contract.

Dean was the State’s only representative in the international Aurora Program. The Aurora Program is a consortium of public agencies focused on collaborative research, evaluation and deployment of advanced technologies for detailed road weather monitoring and forecasting. Members of Aurora seek to implement advanced road weather information systems (RWIS) that fully integrate state-of-the-art roadway and weather forecasting technologies with coordinated, multi-agency weather monitoring infrastructures.

Through Dean’s hard work, the State of Illinois will not fall behind in the advancement of technology when it comes to weather forecasting. Dean is a well-rounded employee whose hard work, abilities and work ethic benefit the State in multiple areas and deserves the Co-Technician of the Year Award.
IACE ENGINEERS OF THE YEAR

Each year the Illinois Association of County Engineers recognizes certain members who excel at being active in the Illinois Association of County Engineers, active in their community, and exemplary in their work for their county government. The selection for the award is based on a vote by the recipient’s peers who are the IACE members in each respective zone. This year’s awards were presented at the 94th Annual T.H.E. Conference which was recently held at the U of I’s Champaign-Urbana campus on February 26th and 27th.

The 2007 IACE Zone I Engineer of the Year is George P. Meister. George received his B.S. in Civil Engineering from the University of Illinois. George has 5 years experience with IDOT, 5 years as an asphalt contractor, 6 years as a concrete contractor and served as County Engineer of Stark County, as well as Marshall County from 1988 to 1999. George has served as Marshall County Engineer since 1986 to current date in 2005 he was appointed Putnam County Engineer as well as Marshall County. George provides service for approximately 6,100 constituents in Putnam County where Hennepin is the county seat and for approximately 13,200 constituents in Marshall County where Lacon is the county seat. He is responsible for 141 miles of county highway and provides engineering and other assistance for an additional 678 miles of township roads.

The 2007 IACE Zone II Engineer of the Year is Richard Trowbridge. Richard was appointed County Superintendent of Highways in Lawrence County, IL on October 1, 1973. Richard provides service for approximately 15,500 constituents in Lawrence County where Lawrenceville is the county seat. He is responsible for 137 miles of county highway and provides engineering and other assistance for an additional 539 miles of township roads.

The 2007 IACE Zone III Engineer of the Year is Michael K. Riebeling. Michael is the County Engineer for Randolph County and he has served in that capacity since 1990. Michael provides service for approximately 33,900 constituents in Randolph County where Chester is the county seat. He is responsible for 142 miles of county highway and provides engineering and other assistance for an additional 618 miles of township roads.

IACE University of Illinois Scholarship Winners

Each year the Illinois Association of County Engineers awards scholarships to existing University of Illinois Civil Engineering students. The Transportation Group at UIUC I is pleased to announce that the following four students have been selected as recipients for the 2008 IACE Scholarships:

Brian C. Hill, Junior, CEE/Transportation • Dixon High School, Dixon IL
Eunseok Choi, Junior, CEE/Transportation • Naperville North High School
Brett D. Lukowicz, Junior, CEE/Transportation • Hoffman Estates High School
Thomas Radovich, Junior, CEE Structures/Transportation • Woodstock/ Crystal Lake IL
SAFETY CORNER

PERSONAL PROTECTIVE EQUIPMENT (PPE)
PAYMENT STANDARD

• On November 14, 2007 the Occupational Safety and Health Administration (OSHA) announced a new rule clarifying the employer/employee responsibilities for payment of personal protective equipment (PPE).

• The final rule requires employers to pay for almost all personal protective equipment that is required by OSHA’s general industry, construction, and maritime standards. Employers already pay for approximately 95% of these types of PPE.

• This action creates a clear and consistent policy across OSHA’s standards, reducing confusion about the items for which employers are required to pay, and it reduces workplace injury, illness, and death - OSHA estimates that the rule will result in 21,000 fewer injuries per year.

• The final rule does not create new requirements regarding what PPE employers must provide. It does not require payment for uniforms, items worn to keep clean, or other items that are not PPE.

• The final rule contains exceptions for certain ordinary protective equipment, such as safety-toe footwear, prescription safety eyewear, everyday clothing and weather-related gear, and logging boots.

• The final rule also clarifies OSHA’s intent regarding employee-owned PPE, and replacement PPE:

  • It provides that, if employees choose to use PPE they own, employers will not need to reimburse the employees for the PPE. The standard also makes clear that employers cannot require employees to provide their own PPE and the employee’s use of PPE they already own must be completely voluntary. Even when an employee provides his or her own PPE, the employer must ensure that the equipment is adequate to protect the employee from hazards at the workplace.

  • It also requires that the employer pay for replacement PPE used to comply with OSHA standards. However, when an employee has lost or intentionally damaged PPE, the employer is not required to pay for its replacement.

  • The rule provides an enforcement deadline of six months from the date of publication to allow employers time to change their existing PPE payment policies to comply with the final rule.
JOIN US FOR THE CORRIDOR SAFETY SHOWCASE
April 24, 2008 in Portland Oregon

You are invited to participate in the National Showcase of the Corridor Safety Program on Thursday, April 24, 2008 in Portland, Oregon. This one-day event will feature presentations and Q&A with Washington State Corridor Safety Program leaders and local project participants from the City of Vancouver, WA and from Skamania County, WA. The Washington State Corridor Safety Program works to reduce collisions on roadways using low-cost, near-term solutions through the use of partnerships with engineering, enforcement, education, and emergency services. The program is locally coordinated in each community and involves partnerships with local agency governments, interested citizens, businesses, schools, and any other agencies with a vested interest in the safety of their roadways. This showcase will provide an opportunity for information to be shared about how a project is coordinated and completed from the perspectives of engineering, enforcement, and public awareness. In addition, field visits will be conducted to both urban and rural project locations to see improvements that were made and to talk with project participants. This Showcase will run in conjunction with the National Association of County Engineers (NACE) Conference, however registration is an additional $50 per person (includes a box lunch and showcase transportation) and you must register separately to attend. Registration forms and information are available online at www.utahltap.org. Hotel reservations are on your own and can be made at with Conference hotel by calling the Double Tree Lloyd Center Hotel at (503) 281-6111. For further information please call (435) 797-2931 or e-mail utahltap@cc.usu.edu. Information regarding the Annual NACE Conference can be found at countyengineers.org.
T2 TRAINING CLASS SURVEY

It’s Time to Plan the 2008-2009 Training Program

The Bureau of Local Roads and Streets’ Technology Transfer Center is soliciting local agency interest in classes for the October 2008 to April 2009 training program. Please look over the list and indicate those classes of interest to you or your personnel by filling in the blank with an approximate number of attendees your agency would send if the classes were available in your area. This solicitation will be used by the Center in scheduling the 2008-2009 training program. Every effort will be made to locate specific classes in areas showing them the most interest. Classes lacking in interest will be dropped from this year’s schedule.

Please complete this class interest survey and mail or fax it to the Center at (217) 785-7296 by May 23, 2008. If you have questions regarding class content, please call the Center at (217) 785-2350.

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Bridge Construction Inspection (2 days) MUTCD (1 day)
Bridge Inventory Documentation (1 day) OSHA 10-Hour General Industry (1.5 days)
Bridge Piling (1 day) Pavement Construction Inspection (3 days)
Bridge Repair (1 day) Pavement Maintenance (1 day)
Bridge Safety Inspection (1 day) Reclaimed Asphalt Pavement (RAP) (1 day)
Colors (1 day) (prerequisite before taking classes below) Rehab of Streets & Highways Seminar (1 day)

• Managing People Effectively (1 day) Response Handbook for Incidents, Disasters (1/2 day)
• Team Building (1 day) Seal Coats (1 day)
• Cultural Diversity (1 day) Small Drainage Structure Const. Insp. (2 days)
• Conflict Resolution (1 day) Snow & Ice Control (1/2 day)

Confined Space Awareness (2 hours) Street Sweeping (1 day)
Const. Materials Insp. Documentation (1 day) Structure Info & Management Systems (SIMS) (1 day)

Culvert Hydraulics (1/2 day) Surveying I-Beginning (3 days)
Context Sensitive Solutions (1/2 day) Surveying II-Intermediate (4 days)

Documentation (3 days) Surveying III-Construction Staking (3 days)
Erosion Control (1 day) Surveying IV-Map GPS & St. Pl. Coord. (2 days)
Flagger Training (1/2 day) Team Building (1 day)
Hazardous Material-First Responder Awareness (1 day) Traffic Signal Maintenance (1 day)

HEC-RAS (3 days) Trenching & Shoring Safety (2 hours)
Highway Jurisdiction/Transfers (1 day) Work Zone Safety-Crews (1/2 day)
Highway Signing (1 day) Work Zone Safety-Design (1 day)
Highway Engineering Principles (1 day) Understanding Specifications (1 day)
Low Cost Safety Improvement Workshop (1 day) Urban Storm Mitigation/Tree Damage (1 day)
MFT Accounting and Auditing (1 day) Additional Classes

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Contact Person
Agency
Phone Number __________________________ Zip ____________
The Technology Transfer (T2) Program is a nationwide effort financed jointly by the Federal Highway Administration and individual state departments of transportation. Its purpose is to transfer the latest state-of-the-art technology in the areas of roads and bridges by translating the technology into terms understood by local and state highway or transportation personnel.

The Illinois Interchange is published quarterly by the Illinois Technology Transfer Center at the Illinois Department of Transportation. Any opinions, findings, conclusions, or recommendations presented in this newsletter are those of the authors and do not necessarily reflect views of the Illinois Department of Transportation, or the Federal Highway Administration. Any product mentioned in the Illinois Interchange is for informational purposes only and should not be considered a product endorsement.

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