



Modern Roundabout works for City of Marquette

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The City of Marquette collaborated with MDOT to construct a roundabout in Marquette. This roundabout was the first in the Upper Peninsula, and was initially resisted by the public. Years later, this project demonstrates how effective communication with local officials and the public can smooth the transition of new or unfamiliar technologies into public roads.

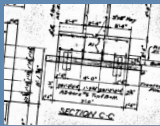
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Marquette is enjoying improved safety and operations with the new modern roundabout at US-41/M-28 and Front Street. This is the first modern roundabout in the Upper Peninsula, and was installed to remedy the confusion and disruption caused by the old intersection.

While attending Michigan Tech, I would frequently drive through the old US-41/M-28 and Front Street intersection. Being from downstate, I negotiated this intersection—an unusual combination of yield, merge, stop, and uncontrolled—with trepidation. There were concerns regarding traffic backups on some approaches, as well as concerns about safety. In the early years this intersection design seemed to handle the traffic volumes, but as the volume increased the number of conflicts became too great. The time had come for something new at US-41/M-28 and Front Street.

As early as 2001 the City of Marquette had a report that identified roundabout variations for this intersection. According to Director of Planning and Community Development Dennis Stachewicz Jr., the roundabout was in the City of Marquette's Master Plan in 2004. In August 2007 the Michigan Department of Transportation (MDOT) brought DLZ Michigan, Inc. on board to conduct a study of the US-41/M-28 and Front Street intersection. Roundabout design is one of DLZ's specialties.

According to Stachewicz and City Engineer Keith Whittington, the intersection improvement study was based on future (2030) operations, specifically traffic projections based on growth. With an increase in traffic volumes the existing intersection would experience massive backups. It was not

a viable option to keep the existing intersection configuration.

DLZ Michigan studied using a traffic signal or a roundabout, and compared them based on operations, safety, and cost. The study concluded that the roundabout was cheaper and safer, offered better traffic operations, and had more aesthetic appeal.

In May of 2008 MDOT was notified that the City of Marquette voted to support the construction of a roundabout at the intersection of Front Street and US-41/M-28. The roundabout was constructed in 2010, and was funded by the American Recovery and Reinvestment Act (ARRA). The US-41/M-28 and Front Street roundabout was designed to address motorist confusion and operational problems; it was not undertaken as a safety project, but it is nonetheless expected to have safety benefits.

What makes a roundabout "modern"?

Most roundabouts in the United States could be considered "modern", meaning that they promote safe and smooth traffic flow by slowing traffic down, but not stopping it. Modern roundabouts accomplish this by requiring vehicles to yield at entry into the roundabout's circle and by including a splitter island which causes traffic to deflect on entry to the circle. Conversely, traffic inside rotaries and traffic circles must yield to entering traffic; also, older roundabouts, traffic circles, and rotaries (other types of circular intersections) do not have the splitter island to deflect and slow traffic.

From a safety standpoint, roundabouts greatly reduce vehicle-to-vehicle and vehicle-to-pedestrian conflict points (see diagrams to the right). Further-

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Greeks, Technology and the Opportune Moment

Hero of Alexandria invented a steam engine—specifically an aeolipile—in first century CE, about 1,500 years before other steam-powered machines. A great deal of innovation went into the idea, but it wasn't actually that difficult to build. Unfortunately, this engine was never applied to practical matters. The argument in Greece boiled down to "Why would we use this engine to accomplish mechanical work? We have slaves to take care of that sort of thing." What Hero lacked was *καιρός* ("kairos"), which roughly translates as "the opportune moment for something". Those who maintain transportation infrastructure also must rely on kairoic timing, such as knowing what fix to apply at the right time. Kairos in our field saves lives, resources and money.

In our headline article, Marquette County Road Commission worked with MDOT not only to fund and construct the first modern roundabout in the Upper Peninsula, but also to handle public push-back against the project. They found order of operations makes a huge difference: while public opinion of roundabouts becomes more positive after the roundabout is instructed, roundabout projects go more smoothly when local officials and the public side with the road commission before construction starts.

The article on the next page describes the timely passing of the torch from one workshop trainer to another. Bruce Higgins, whose name has become synonymous with training motor grader operators, will be retiring as a trainer after 16 years of working with the CTT. He is confident in handing off motor grader training to a very excited and very capable Jeff Shook.

In our third article, we see Ionia County Road Commission work with MDOT to initiate a tried-and-true technology: a geosynthetic-reinforced soil integrated bridge system (GRS-IBS). This technology has been used successfully in other states, but this will be the first time GRS-IBS is used in Michigan. Ionia has laid excellent groundwork for their GRS-IBS project, and all eyes will be them to see if it's finally time for GRS-IBS to arrive in Michigan.

Clearly, Hero did not have the kairoic moment needed to cash in big on the invention of the steam engine. The ability to prepare and execute a project are keys to success, but a project can nonetheless fall short if the timing is not right. While we have no idea what kairos would have done for the aeopliphile, our articles in this edition of The Bridge show technological and institutional change occurring at precisely the right moment, and we can remain hopeful that these innovations will make all the difference.



The Bridge

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About LTAP

The Local Technical Assistance Program (LTAP) is a nationwide effort funded by the Federal Highway Administration and individual state departments of transportation. The goal of the LTAP effort is to foster a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing knowledge of the transportation workforce and decision makers.

Steering Committee

The LTAP Steering Committee makes recommendations on, and evaluations of, the activities of Michigan's LTAP.

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The Center for Technology & Training (CTT) is a part of the Department of Civil & Environmental Engineering at Michigan Technological University in Houghton, Michigan. The mission of the CTT is to develop technology and software, coordinate training and conduct research to support the agencies that manage public infrastructure. In support of this mission, the CTT houses Michigan's Local Technical Assistance Program, which is part of a national effort sponsored by the Federal Highway Administration to help local road agencies manage their roads and bridges. For more information, visit www.MichiganLTAP.org.





Motor Grader Trainer Passes the Crown

Alex Slepak, Technical Writing Intern
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Center for Technology & Training

If you ask anyone in Michigan or Minnesota who to call when it's time to train motor grader operators, the answer is invariably Bruce Higgins. In his 14th year operating motor graders for the Genesee County Road Commission, Bruce was at a Michigan LTAP training event when the room was asked if anyone in the room was close to retirement and wanted to help train operators. A 45 year-old Bruce, who knew he would be retiring in just two years, volunteered for the task.

"I always enjoyed running a road grader," Bruce said. Even though he was retiring, he wanted the opportunity to travel to different local areas in Michigan and meet people with different perspectives. Staff from the Center for Technology & Training, which houses Michigan LTAP, helped him through his initial hesitation in working with new people until Bruce realized that the people he was training were much like the operators he was used to working with every day in Genesee County.

Once he retired, Bruce attended training sessions in Nebraska and Colorado. Bruce and the CTT then collaborated to develop a program they could put on through Michigan LTAP. What they didn't foresee was how well the program would be received and how large it would eventually grow. In his 16 years running trainings, Bruce has run roughly 140 training sessions across Michigan, Minnesota (which also attracts operators from North and South Dakota), Wisconsin, and a six-week stint in Florida. In Michigan, he has trained operators from all but three counties.

"The training works well because it's an outsider coming in," Bruce said. "It can be difficult for people to take instruction from people they know. Outsiders provide a new perspective and voice." One of the most rewarding things Bruce finds in his job is when an older operator tells him, "I didn't

know if I was going to learn anything in here... but I'm happy I came... It was very worthwhile and I want to thank you for that."

Bruce also wants to thank "Michigan Tech and all of the counties that have participated and all of the office people at Michigan Tech. They have been fantastic. I have appreciated the experiences and most of it would not have happened if I hadn't become a trainer for the CTT."

The CTT is very appreciative of everything Bruce has done in not only running but continually developing and advancing the program for the last 16 years. Bruce had told himself that he would keep going with the program as long as he had a drive and a desire, and while his enthusiasm has persisted his age has started to catch up with him. More importantly, the influx of "new, higher-technology" has also caught up to him. "Michigan Tech was getting it set up for me to go train on joystick road graders but a one-week session wouldn't be enough."

Jeff Shook, however, has experience with these new graders, and has been prepared by

want to let retirement get between him and the keys. When Bruce found out that Jeff would be retiring soon, Bruce approached him and asked if he would be interested in taking over the project. Jeff went along on some trainings and enjoyed himself, so last summer Jeff went alone to run trainings for Houghton, Keweenaw, and Dickinson counties to confirm that the job was a good fit for him.

"I'm not some kind of know it all... I'm an operator," Jeff stressed. "I'm not going to come in and say 'this is how you do it' in every situation." He knows that the ideal situation for a road commission is not always the same as the reality. While he is excited to share his experience and how he has adapted, he is still excited to learn what others have done to manage their individual situations.

Over the years, he has run a variety of grader types including Champions, H-Series Caterpillars, and joystick controlled M-Series Caterpillars. When not fixing the roads, he can be seen out on them riding his motor-

"Jeff is an excellent person... I am confident that he can improve what we have built to this point."

Bruce to take the reins of the program. "I've known Jeff for a number of years," Bruce said. "He is an excellent person, an excellent operator, and I am confident that he can carry on and improve what we have built to this point."

Jeff started his career as a mechanic at the Genesee CRC. After seven years, an operator position opened up, and he volunteered for the job. Jeff retired from the Genesee CRC at the beginning of 2014 after 18 years as an operator.

Much like Bruce before him, Jeff also enjoys running the machinery too much to

cycle, perhaps to one of his grandchildren's sporting events. Other times, the motorcycle stays at home so he can fit his golf bag in his car on the way to the course. In the end, he wants people to "know that he is coming across on their level." Jeff, like Bruce, serves as an excellent example of a retiree with the commitment and drive to seek out new opportunities in order to remain involved in the transportation community.

Motor grader training is set up by the CTT at the request of local agencies. If you are interested in motor grader training, please contact us at 906-487-2102. ■

Ionia CRC will replace this bridge on Keefer Highway (coordinates 42.790169, -84.955844) with a geosynthetic reinforced soil (GRS) integrated bridge system (IBS).

Ionia uses GRS-IBS Technology

Katherine Baeckeroot, Technical Writing Intern
Center for Technology & Training

Ionia County Road Commission

This is the first article in a two-part series on Ionia County's GRS-IBS bridge. This article covers the technology and planning involved in the bridge's construction. The followup article will contain information on the project's results and the open house.

This July, Ionia County Road Commission begins an innovative bridge project with technology new to the state of Michigan. The difference between this bridge and traditional bridges is that its abutments will be constructed using geosynthetic-reinforced soil with an integrated bridge system (GRS-IBS). The bridge will be built over the Sebewa Creek, just north of Tupper Lake Road on Keefer Highway. According to the project's chief engineer, Paul Spitzley, this location was chosen because the proposed bridge "is a relatively simple single span local bridge in a rural area- which is ideal for GRS-IBS", and because of the bridge's short abutment height and low stream velocity.

GRS-composed abutments are constructed by using polymeric geosynthetic material (biaxial woven geotextile) that are layered

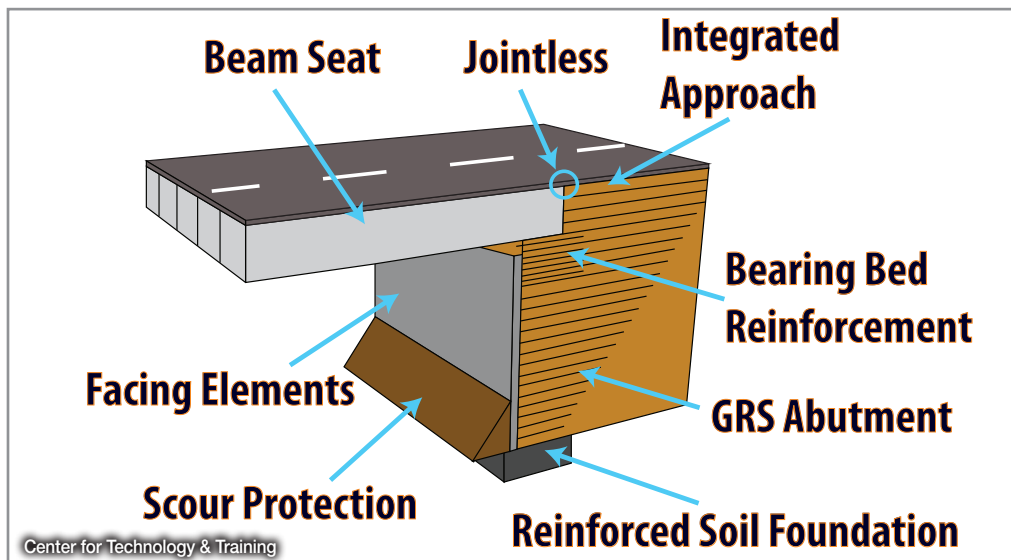
with compacted granular fill. The layers are protected with facing material—usually shotcrete, concrete blocks, or gabions—that provides a hardened facing but are not a structural component. IBS is a construction method used to prevent differential settlement between the roadway and the abutment. Differential settlement causes a bump in the road at the bridge's approach; this bump is a common problem with standard abutment construction. IBS prevents differential settlement and creates a jointless interface (See diagram below), another defining characteristic of the upcoming bridge project in Ionia County.

Another advantage of GRS-IBS is that it's less expensive than traditional construction methods. According to the Federal Highway Administration (FHWA) the cost to build with this method can be 25 to 60 percent lower than traditional construction. Construction time is also improved, potentially reduced to half the time allotted toward traditional substructure construction. This is beneficial to not only road agencies and construction workers, but also the public

as it minimizes the disruption caused by construction closures. Another benefit is that specialized equipment and labor is not a requirement for GRS-IBS. Crews can use simple machinery and tools, which makes it possible for a wide range of contractors and road agency staff to perform construction. The Ionia County construction start date is planned for July 7th, 2014 with a planned construction schedule that should open the bridge to traffic around August 15th 2014.

Scour is a concern for all types of bridges because it can potentially cause localized damage by undercutting the bridge's abutment. It is especially a concern for GRS-IBS bridges because the abutment is made entirely of soil, and scour could potentially cause significant displacement of the abutment material rather than just localized damage. To address the scour concerns on the Ionia County bridge, engineers have taken necessary precautions to safeguard the abutments through the use of good design practices and countermeasures. By analyzing stream flow, ensuring the depth of the abutment is below the potential maximum depth of scour, and monitoring the stream bed, scour threat can be mitigated. One low-cost scour mitigation method is the use of different colored concrete blocks for the abutment facing. The abutment portion that is designed to be covered by soil is constructed with red blocks indicating scour if they become visible.

Ionia County has teamed up with Michigan Department of Transportation (MDOT) to complete the project. MDOT financed the construction site verification and testing with funds from the Federal Highway Administration (FHWA), allocated as a part of the Every Day Counts (EDC) initiative. EDC promotes promising new technologies and Michigan has a goal to adopt these technologies by partnering with





2014 Great Ideas Challenge

To encourage the sharing of best practices and innovative ideas among road agencies, Michigan's LTAP is coordinating its second annual *Great Ideas Challenge* this spring and summer. Entries in the CRAM "Best Practices" and "CRAMmy" competition will automatically be considered for the *Great Ideas Challenge*. The effort is also open to all state, county, municipal, and township road agencies in Michigan.

First place receives \$600 towards registration/travel to a national conference and \$200 LTAP Bucks; the second place receives \$100 LTAP Bucks; other entries are entered for a drawing for \$50 LTAP Bucks. The deadline for entries is May 9.

The first place winner will automatically be entered into the 2014 National Build a Better Mousetrap Competition. Michigan has submitted entries to this competition the last two years, and a Michigan entry has won both years.

Entry forms, prizes, and other details are available at:

www.MichiganLTAP.org/GreatIdeas

CTT Policies Meet New Continuing Education Requirements

Belle Wirtanen, Technical Writer
Center for Technology & Training

Michigan recently followed suit of the majority of states in establishing continuing education rules for professional engineer licensing. A new requirement states that PEs are required to earn 30 hours of continuing education per two-year renewal cycle.

The Center for Technology & Training (CTT) has adapted its policies to align with the new PE rules. Certificates of attendance will be provided for all events that could potentially be used towards continuing education hours. However, licensees are responsible for determining if an event is relevant to their field and can be counted as continuing education.

New webinar policy

Certificates of attendance for webinars were not routinely issued prior to the new PE rules. Multiple people were able to listen in on a single connection because there was no need to verify attendance. The new PE rules have made verifying attendance a priority. The CTT needs to ensure that it has a record

of registration along with evidence of actual attendance. To accomplish this, the CTT has created a new webinar attendance policy for anyone who wants to receive a certificate of attendance. The policy states that an attendee must:

1. Register for the webinar
2. Sign and return the webinar sign-in sheet (provided at the beginning of the webinar) within 24 hours from the end of the event. Sign-in sheets will not be accepted after the 24 hour deadline.

Many times, multiple staff members will share a webinar connection by listening in a general area. In this case, all persons needing a certificate of attendance are still required to register for a connection through the CTT. However, they do not need to log onto the connection as attendance can easily be verified through the signatures provided on the sign-in sheet. Those who do not want a certificate of attendance can listen in on a connection without registering or signing-in.

Find a full set of the new PE continuing education rules, information about the CTT's policies, and a recording of the PE Continuing Education Webinar at

ctt.mtu.edu/ContinuingEducation

Training opportunities

The Center for Technology & Training (CTT) provides numerous professional development opportunities that are applicable to a range of disciplines including road and bridge design and construction, asset management, and construction management. Last year the CTT had 122 classes, with over 4,000 attendees. For a list of upcoming CTT trainings, visit the new online registration page at

ctt.mtu.edu/Training

Upcoming CTT events and information on the online registration system can be found on the back of this newsletter. ■

Updates for Traffic Regulators

The Michigan Department of Transportation (MDOT) has developed two training presentations: "Training for the Traffic Regulator Supervisor" and "Traffic Regulating for the Regulator" that will help prepare traffic regulator workers for the upcoming construction season. The presentations outline work zone requirements set forth in the *Michigan Manual on Uniform Traffic Control Devices (MMUTCD) - Part 6 Temporary Traffic Control*; and the *MDOT 2012 Standard Specifications for Construction*.

Supervisors should use these presentations as part of a training program prior to the start of construction. In conjunction with training, any person working as a traffic regulator is required to study the 2010 edition of the *Michigan Traffic Regulator's Instruction Manual*.

Traffic Regulator Resources

- *Traffic Regulating Instruction Manual, June 2010*
- *Training for the Traffic Regulator*
- *Training for the Traffic Regulator Supervisor*

These and all other necessary traffic regulator training resources can be found on MDOT's website. You can also use the link tinyurl.com/mdrm7gy for a shortcut.

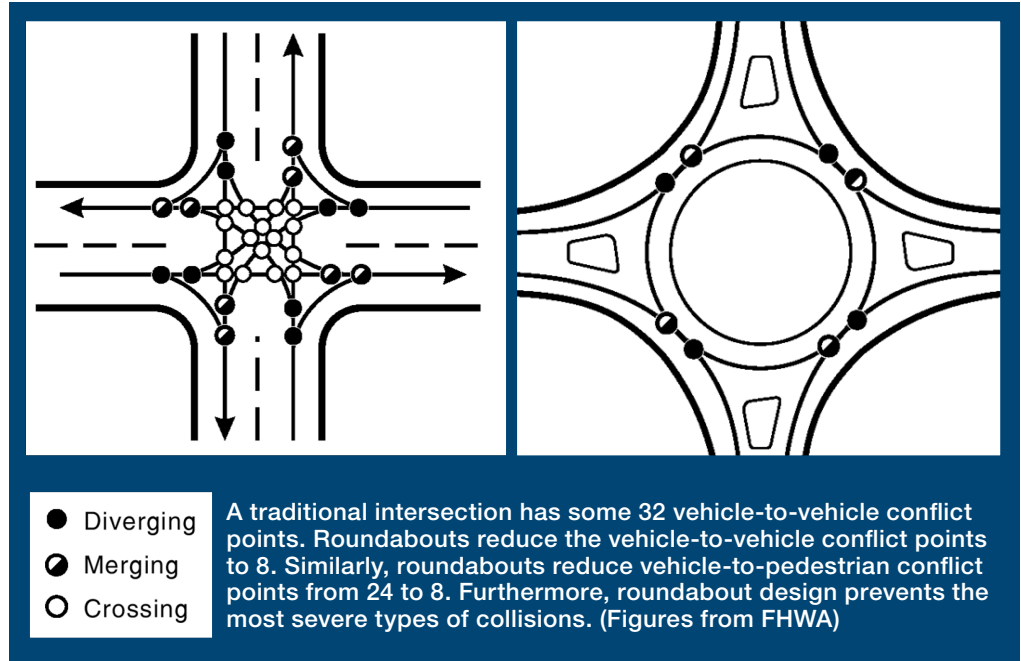
more, the reduced speed of traffic entering the circle and angle of vehicle-to-vehicle conflict points means that crashes are less severe. Specifically, the average roundabout results in a 39% reduction in overall crashes, a 76% reduction in injury crashes, and a 90% reduction in serious injury/fatal crashes, according to a 2000 IIHS study. Other proven benefits of roundabouts include:

- Good traffic flows and low delays
- Visually attractive
- Low maintenance cost
- Easily modified

Modern roundabouts have been widely and successfully applied in Michigan, and more are planned. However, lack of exposure had left the public unconvinced of roundabouts as a safe, effective alternative to traditional intersections.

Working against public resistance

Despite the many advantages of roundabouts, there will be considerable pushback from the public on any roundabout project. According to Andy Sikkema, Manager of the MDOT Ispsheming Transportation Service Center, MDOT went into the Marquette roundabout process not knowing which specific issues and concerns the public would have. In the beginning there was little knowledge of modern roundabouts in the Upper Peninsula, but many locals had heard horror stories and negative information about



There is a definite need to address these myths and educate the public on roundabouts. It is essential that local officials are well-informed before they begin pitching roundabouts to the public. “Those leaders that become well-educated become the ones who will promote the project,” Sikkema said of educating the public about roundabouts. For details on MDOT’s approach to getting local officials on board, see *Easing the Public into Roundabouts* on page 7.

were once seen as inconvenient, but are nowadays ubiquitous. In much the same way, according to Sikkema there is no doubt that “the modern roundabout improves safety and operations.”

A great deal of advocacy for roundabouts already exists, particularly in the form of videos. Sikkema suggests that, prior to the beginning of a public meeting to discuss a roundabout, have a video on how to drive a roundabout, or a video of trucks traversing a roundabout. Videos on how to drive roundabouts are available on the City of Marquette and MDOT websites; a list of these is also available at MichiganLTAP.org/Roundabouts. There are numerous other videos and live feeds available on the internet; even the popular television show “Mythbusters” recently demonstrated the superior traffic flow of a roundabout versus a traditional four-way stop, showing that roundabouts are indeed becoming more familiar to the American public.

Ultimately, within a year of completing a roundabout, most of the public comes around in support of it. A National Cooperative Highway Research Program (NCHRP) study of roundabouts found that prior to construction, 68% of the public was negative or very negative toward roundabouts. Following the construction, 73% of the public was positive or very positive toward roundabouts.

Outcomes

► [Continues next page](#)

“We didn’t want the naysayers to take over before we could get good, positive information out there.”

roundabouts in Wisconsin. Some of the misconceptions included:

- Roundabouts worsen traffic congestion
- Roundabouts are dangerous
- Large trucks, snow plows, and fire trucks have difficulty traveling through roundabouts
- Roundabouts cannot be used on high speed roads
- Roundabouts are the same as traffic circles
- Roundabouts won’t catch on in this state
- It is difficult to remove snow at roundabouts

These myths have been commonly refuted in reports, videos, and other studies. For a list of resources that can be used to remedy these misconceptions, please visit

MichiganLTAP.org/Roundabouts

For the public seeing is believing

Many concerns with roundabouts dissipate with the right information and experience. As a traffic safety engineer, I was concerned at first with how drivers in the US and Michigan would adapt to roundabouts, particularly in regard to driver expectation being violated and concerns about roundabouts on high-speed rural roads. My opinion changed when I observed a high-speed roundabout that had performed well and had no post-conversion crashes.

Change is always difficult, and as such the learning curve for drivers is one disadvantage of a roundabout. But regarding the perceived inconvenience of roundabouts, Sikkema compared the technology to seat belts and other safety equipment. These

So far, the Marquette roundabout is doing its job. There has been no formal post-crash analysis yet, as three years have not yet passed since the roundabout began operation. However, anecdotal information suggests that on average there has been three fewer crashes each year. The traffic levels remain the same, but the delay has been removed.

Meanwhile, concerns raised by an initially skeptical public have not come to fruition. For example, according to Stachewicz, there have been “no problems with snow removal. In fact it might be better than before. The snow plow guys are pretty happy”.

Sikkema concluded by telling me that “some citizens see the benefits” of the roundabout. Meanwhile, Stachewicz has even heard someone say “maybe this wasn’t such a bad idea after all”. We hope that this attitude will catch on: the Upper Peninsula’s second roundabout will be constructed at the 2nd/ 3rd Street and US-41 intersection in Ishpeming, and will also be funded with safety funds. Construction is expected to take place in 2016. ■

Easing the Public into Roundabouts

Andy Sikkema explains that a successful roundabout project isn’t just informing local officials or the public about roundabouts. Local officials have to be on your side and willing to interact with the public as advocates and educators on roundabouts. Once you start meeting with the stakeholders, follow these steps to reach the public:

1. Build alliances with government administrative agencies before you approach elected officials.
2. Build a base of support by organizing the timing of the presentations.
3. Make joint presentation to the City/County Commission and Planning Commission. Explain the problem, possible solutions and recommendations.
4. Get commitments of support from the City/County Commission and Planning Commission – key to winning elected official support.
5. Educate local elected officials about roundabouts and how to present the information to their constituency.
6. Work with stakeholders to disseminate the best information.
7. Meet with local officials to describe the approach and request their support with the public.
8. Prepare and educate key stakeholders before they go to the public.
9. Publicize both the roundabout and the support of the officials for the project.

This proactive stance to public education was imperative, according to Sikkema. “We didn’t want the naysayers to take over before we could get good, positive information out there.” Because of this approach, local officials in Marquette have begun educating the public about roundabouts, public resistance has diminished, and a majority of local citizens see the roundabout as a big improvement. ■

GRS-IBS (from Page 3)

local agencies. “GRS-IBS is a technique that FHWA has been doing a lot of testing on... it’s an EDC initiative that we are very interested in getting installed on local roads,” says Mark Lewis, a bridge management engineer of the FHWA.

According to Dave Juntunen, Bridge Operations Engineer, at MDOT, the GRS-IBS system is a “challenging concept for bridge designers, but we need to be open to these new innovations and give them a chance.” The Ionia County project is the first in the state that uses GRS-IBS, and is a demonstration of advancements Michigan is making in bridge construction and design. This project is being looked at by many as a learning experience that has significant potential to reduce the cost, complexity and time of bridge construction.

MDOT provided technical assistance, hydraulic analysis calculations and geotechnical soil investigations in order to take ad-

vantage of the most current design practices and scour countermeasures. While GRS-IBS offers significant benefits, each bridge site has to be analyzed individually to make sure the technology is appropriate and scour can be mitigated “There’s a lot of guidance for design and construction of these types of bridges and that is key,” says Juntunen.

There are plans to use the Ionia County GRS-IBS project as a learning event by holding an open house during the final stages of abutment construction, jointly hosted by MDOT and Ionia County. The open house will present the details of the project and lessons learned during design and construction, and will discuss the future of GRS-IBS in Michigan. The open house is expected to take place in late July 2014 and will be advertised on the Center for Technology & Training events page. ■



A cross section of a GRS-IBS abutment. The outward-facing brick is a non-structural veneer that protects the inner material.

The Bridge

Bridging the gap between research and practice since 1986

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Michigan's Local Technical Assistance Program
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Upcoming Events

(details at ctt.mtu.edu/training)



In-person



Webinar

²⁰¹⁴ Michigan Bridge Conference

Mar. 18-19 – Bay City

What's New in Roadsoft 7.7

Mar. 25 – Webinar

**FieldManager and Contract Management
Annual Meeting**

Apr. 2 – Howell

EDC Exchange: Intelligent Compaction

Apr. 3 – Lansing & Houghton

Construction Surveying

Apr. 14 – Marquette

Apr. 15 – Antrim

Apr. 16 – Livingston

Apr. 17 – Kalamazoo

**Spring 2014 Transportation Asset Management
Conference**

May 14 – Bay City

CTT Online Registration Coming Soon

The Center for Technology & Training (CTT) is expanding customer services by going online with a new event registration system. Online registration will allow self-registrations and immediate credit card payments or arrangement of check payments through a secure system accessible through the newly redesigned CTT website.

“Online registration will work for all upcoming events anywhere and anytime,” says Carole Reynolds, CRM Administrator/Software Support Analyst at the CTT. Reynolds led the implementation of the online registration system and has worked to ensure a positive experience for customers. “Past registration options were restricted to emailing or calling the CTT during business hours,” says Reynolds. “With online registration, customers will receive registration confirmations immediately, instead of waiting for the CTT to process their registrations and payments.” Often, multiple phone calls or emails are required to process registrations and payments. Online registration will provide a one-stop place where both registrations and payments can be made.

In addition to having a faster turnaround time, online registration provides more-detailed event information, including the number of available seats (registrations), the option of adding the event to a personal calendar, and a Google map of the event location. Online registration will soon be accessible at at

ctt.mtu.edu/training

CTT staff will always be available to answer questions and take registrations directly by phone (906) 487-2102 or email ctt@mtu.edu.