INDIANA LOCAL ROADS

AN INDIANA LOCAL TECHNICAL ASSISTANCE PROGRAM NEWSLETTER

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Children at Play

How to Respond to Requests for Non-Standard Signs

INDIANA LOCAL TECHNICAL ASSISTANCE PROGRAM

The mission of the Indiana Local Technical Assistance Program (LTAP) is to foster a safe, efficient, and environmentally sound transportation system by improving the skills and knowledge of local transportation providers through training, technical assistance, and technology transfer.

https://www.purdue.edu/inltap/

ON TO THE NEXT PURDUE ROAD SCHOOL!

Indiana LTAP celebrated another successful Purdue Road School. Along with the Indiana LTAP room, our staff could be found all over the conference. Staff presented and facilitated many sessions.

- "INDOT and LTAP Innovation and Collaboration" - Todd May (INDOT) & Jennifer Sharkey (LTAP)
- "Indiana LTAP Municipal CDL Training Program" - Richard Domonkos, Jack Bell, Meredith Camp (LTAP)
- "How to Make Indiana LTAP's Road Scholar Program Work for Your Local Agency" - Tyler Rankins (City of Greenfield), Meredith Camp (LTAP), & Richard Domonkos (LTAP)
- Pat Conner facilitated discussions three sessions in the Pavement Track

To learn more about this year's Road School, find out more about future Road Schools (as information is added), and download speaker presentation slides, please visit: https://roadschool.purdue.edu

Mark you calendar for the next Road School: March 12-13, 2024

Ashley Watson
LTAP COMMUNICATIONS SPECIALIST

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INLTAP UPDATES

MARK YOUR CALENDARS!

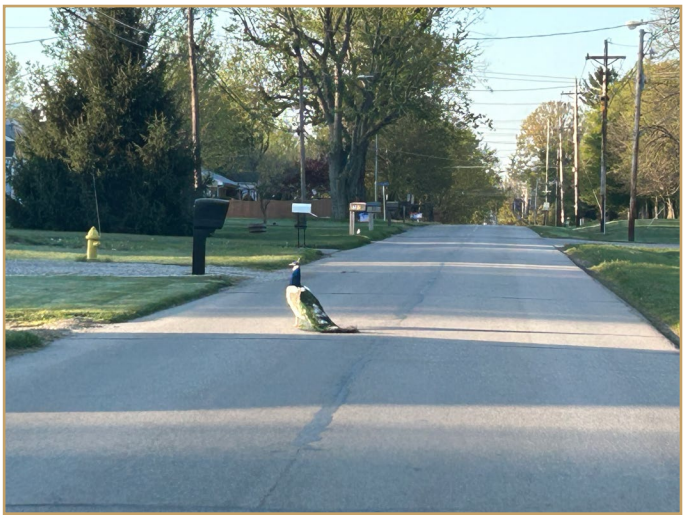
Visit purdue.edu/inltap/training for more information about these events and registration.

Date	Event	Location
June 2023	PASER Workshops	4 locations
July 11, 2023	Stormwater Drainage Conference	Purdue
Sept. 6 & 7, 2023	Snolympics	Tippecanoe County Fairgrounds, Lafayette

INDIANA LTAP ON THE ROAD

Indiana LTAP employees travel all over the state of Indiana, snapping pictures along the way. Here are a few of our favorite photos captured by LTAP employees this past April.

Lead Transportation Safety Engineer Laura Slusher captured rural traffic in Daviess County.



Senior Transportation Specialist Meredith Camp captured one of the peacocks of the Frankfort Parks Department. The peacocks are free range and like to explore the city during the day before returning home to the Petting Zoo.

Children at Play

How to Respond to Requests for Non-Standard Signs

BY LAURA SLUSHER, PE

INDIANA LTAP LEAD TRANSPORTATION SAFETY ENGINEER

Traffic signs are installed on our roadways for many reasons. Signs help us obey the laws, find our destination, and keep us from running off the road. Warning signs alert us to unexpected conditions on the roads. Signs help us to be safe whether we are a motorist, bicyclist or pedestrian.

Many agencies receive requests for "Slow Children", "Children at Play", or "Slow Children at Play" signs. At first glance it seems logical to install these signs. After all, children play near the road and shouldn't there be some warning given to drivers? But do they really help? Are these signs OK to use?

The first place to look for advice is the Indiana Manual on Uniform Traffic Control Devices (MUTCD). This is a manual that provides standards and guidance on how to use traffic signs and which signs are appropriate. Indiana law requires the use of this manual for all roads open to public travel. Part 2 of the MUTCD discusses the function and purpose of acceptable signs on all types of roads.

Unless under the advice of an engineer, an agency should only use standard signs found in the Indiana MUTCD. "Children at Play" signs are not included in the Indiana MUTCD and therefore are non-standard signs.

SIGN ALTERNATIVES

W11-2

W15-1

W11-9

There are several reasons why "Children at Play" signs are non-standard and shouldn't be used on the roadways. Here are a few of them:

- The Traffic Control Devices Handbook from the Institute of Transportation Engineers (ITE) states, "Caution-Children at Play or Slow Children signs should not be used since they may encourage children to play in the street and may encourage parents to be less vigilant." "Children at Play" signs give parents a false sense of security in letting their children play in the streets."
- Motorists should expect children to be at play in all residential areas, and the lack of signing on some streets may indicate otherwise.
- These signs have no legal basis for determining what a motorist should do. They are unenforceable and act as another roadside obstacle to pedestrians and errant motorists.
- Use of these non-standard signs may imply that the involved jurisdiction approves of streets as playgrounds, which may result in the jurisdiction being vulnerable to tort liability.
- These signs do not provide guidance to motorists as to a safe speed or provide information on what action to take.
- "Children at Play" signs may be designed to look like warning signs – a yellow, diamond-shaped with a black legend. However, in many instances, this sign has a non-standard shape and color. Warning signs provide information on the specific location of the hazard (pedestrian crossing, curve, etc.). "Children at Play" signs do not give a specific location; they merely tell the driver that kids may be near the road somewhere.
- Research studies have shown that "Children at Play" signs do not reduce traffic speeds or make drivers more observant.

Other Non-Standard Signs

In addition to "Children at Play" signs, local agencies may get requests for other signs pertaining to children. There are no MUTCD-designated warning signs for deaf, blind or autistic children. While some agencies do install these signs due to public pressure, they are likely not effective and not used for the same reasons mentioned above for the "Children at Play" signs. In addition, there is a general lack of understanding by motorists of how they should react to a deaf/blind/autistic children sign. Nearly 30 percent of tort liability cases filed against roadway agencies pertain to signs. When installing signs that do not follow the guidelines in the Indiana MUTCD, agencies are increasing their liability should a child be hit on their roads.

So what should you do?

There are alternatives that may work in some instances. The playground sign (W15-1) is an appropriate sign to use when a designated children's playground is adjacent to the roadway. Also the pedestrian crossing sign (W11-2) should be used to warn motorists in those locations where children and others frequently cross the road. A Handicapped Crossing sign (W11-9) may be used at the location of a crossing point regularly used by handicapped pedestrians, similar to a Pedestrian Crossing sign (W11-

2) placement. A fluorescent yellow-green background may be used for all three of the signs listed here.

It can be difficult to say no to residents when these non-standard signs are requested. Therefore, local agencies should determine and document a general policy regarding these non-standard signs before the requests are made. Residents who make these sign requests can then be sent a copy of the agency's policy. Your local agency's website would be another good way to disseminate the policy.

If your agency has any questions regarding proper sign use, or understanding the Indiana MUTCD, contact the LTAP HELPERS Engineer Laura Slusher at 765-494-7038 or lslusher@purdue.edu. ///

ROAD SCHOOL INNOVATORS

Indiana LTAP and INDOT teamed up to acknowledge and honor transportation creativity.

A collaboration

People's Choice Award

INDIANA TRANSPORTATION INNOVATORS

Indiana Local Innovation Masterminds
INDIANA LTAP

Innovation Champions
INDOT

Indiana LTAP's Jen Sharkey (left) sits with INDOT Regional Innovation Coordinator Rhoni Oliver (middle) and INDOT Director of Innovation Todd May (right).

The innovation programs of Indiana LTAP and INDOT joined together to recognize the transportation innovators of Indiana at this year's Purdue Road School.

INDOT and Indiana LTAP each host their own individual competitions. INDOT's Innovation Champions honors INDOT employees who challenge traditional ways of thinking about transportation. Indiana LTAP's Local Innovation Masterminds shares new processes, tools, or pieces of equipment that locals have developed to make an operation easier, safer, more efficient or more affordable. *To learn more about each program, visit page 10.*

Both groups, wanting to give innovators and their creative solutions a larger platform, joined together to create an additional award to be showcased at Purdue Road School each year with this year being the inaugural year.

Submissions from each award were combined and shared with Purdue Road School attendees in a booklet. After reviewing the booklet, attendees were directed to vote online (or in-person) for the People's Choice Award.

Voters received cookies for participating.

Two Programs, Tons of Creative Solutions

Indiana LTAP's Innovation Program is a newly developed program to identify, vet, implement, and recognize ideas, processes and tools specifically generated by local agencies that improve construction, maintenance, contracting, inspection, and all other related highway and street department activities.

How It Works

Indiana LTAP is gathering input from ALL levels of local government agencies to identify and share those innovations that exist in every highway and street department. Has your department created a new process, tool, or piece of equipment that has made an operation easier, safer, more efficient or more affordable?

Triangle of Impact

Great innovations in transportation use the Triangle of Impact, turning the gears of safety, economic vitality, and quality of life. Innovations can increase the safety of the traveling public or construction workers on the jobsite. Innovations can also reduce costs, saving taxpayer dollars, allowing: government agencies to invest funds into other services, highway street departments to perform more work, and employees to have a more competitive salary. Finally, innovations can improve quality of life, providing better service to the community, attracting visitors, and making work easier or more fun. The opportunities are limitless!

The individual gears of the Triangle of Impact turn together to make a great innovation. For example, making a job easier will improve the safety of the work, giving less room for error; it will reduce costs because the labor will take less time; and it will improve quality of life because a less difficult job will make the lives of workers easier.

Indiana Innovation Masterminds

Indiana LTAP has launched the Indiana Local Innovation Masterminds Challenge to celebrate successful ideas utilized in our local transportation agencies. This contest is open to innovators in Indiana town, city, and county government entities. Applications are taken all year round! To learn more about the innovation program and the masterminds application, visit: purdue.edu/inltap (Innovation tab).

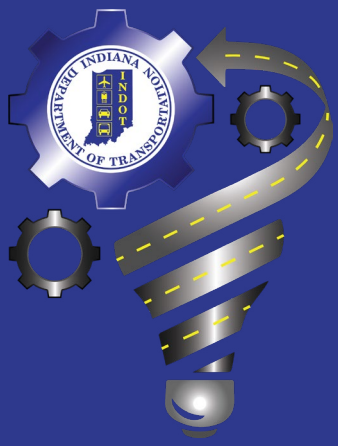
INDOT employees are challenging traditional ways of thinking in transportation planning, financing and construction in favor of inventive ideas and innovative solutions, especially if those ideas save money and manpower. These initiatives have enabled INDOT to deliver outstanding results at all levels – in transportation engineering, planning and operations.

INDOT's Research and Development Division supports innovation by conducting cutting edge research and working in close collaboration with Purdue University's School of Civil Engineering.

The Innovation department is focused on new practical ideas and technologies. They gather information and input from the grassroots level and all levels of INDOT. The focus is on solutions while fostering an environment of idea sharing and statewide implementation. The Innovation department is solutions based and keenly focused on quickly implementing ideas.

INDOT's Innovation Committee receives submissions from each of its districts, awarding Innovation Champions each year.

https://www.in.gov/indot/current-programs/innovative-programs/



INDOT's Todd May (far right) awards Hamilton County innovators Bob Davis (left) and Bradley Davis (middle).

...and this year's People's Choice Award goes to...

Hamilton County

The people voted and chose Hamilton County's Underbody Truck Wash as the most innovative project for 2023. Winners were awarded during the "INDOT and LTAP Innovation Collaboration" session on Wednesday, March 15th.

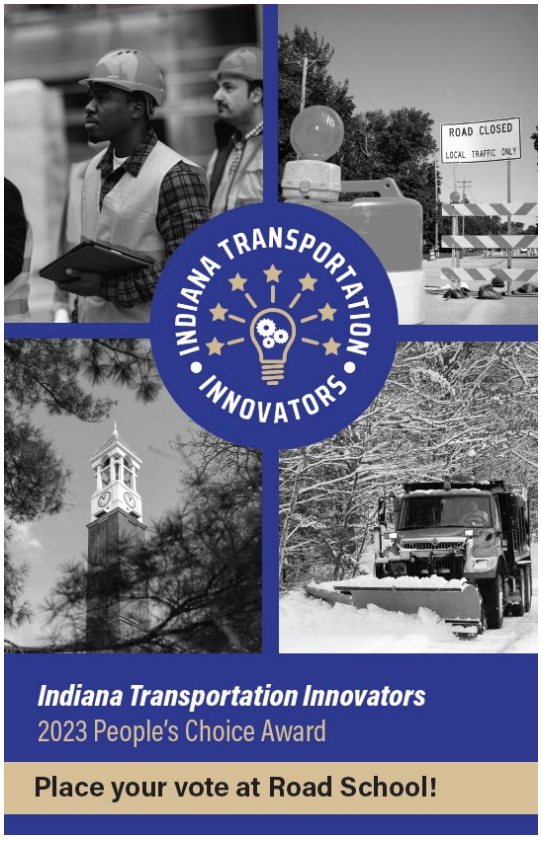
Underbody Truck Wash

Problem: Cleaning underneath vehicles/ equipment

Solution: 3" metal pipe, 9' long. Cap on one end & elbow w/ firehouse coupler on other. 3/16" holes drilled in center of pipe at different angles

Benefit: Cleaner truck/equipment that yielded longer life span of service and cleaner work environment for mechanics

Cost: Under $1,000



Be inspired!

View the 2023 People's Choice Booklet for pages of innovative solutions. Maybe your idea will appear in 2024 booklet!

Snowplow Simulator Wows INDOT Testers

LTAP's Jack Bell (third from right) poses with the LaPorte District's (from left) Mason Mills, Dave Mullaney, Jim Rotzien (top), Al Rodwell, Ann Geiger, Damon Daniels, and Austin Carpenter.

A snowplow simulator drew rave reviews from INDOT employees who tested it Feb. 15.

"Wow, this is cool — while sitting in the chair, I can actually feel the road," said LaPorte District Safety Training Coordinator Ann Geiger.

"Yeah, it's realistic — not just some smooth road underneath you," said LaPorte District Rochester Unit Highway Technician Dave Mullaney. "Plus, the visuals and graphics are spot-on. Look at that car; it just passed me and got between me and the lead plow. Now, that's realistic."

District personnel from the LaPorte and Greenfield districts tested the simulator at the Indiana Local Technical Assistance Program (LTAP) office in West Lafayette during the month of February as part of a research project that could result in simulators being located at INDOT district locations.

Geiger and Mullaney were reacting to the day's first snowplow module, a rear-plow operation. The next module consisted of how braking at 45 mph varies with different road conditions: dry, wet, snow, and black ice.

"I can feel the different road conditions under the tires, and it's so real!" said LaPorte District CDL Trainer Al Rodwell, who guided the simulated plow properly except during the black-ice scenario, in which he wiped out.

Interstate highway with wing plow and tow plow configurations were next.

"Amazing — this isn't just duplicating the rear-plow module; it feels totally different and accurate, like I'm in a tow plow," said LaPorte Unit Highway Technician Austin Carpenter.

Carpenter wasn't imagining things. The simulators can match INDOT's truck controls and feedback so that it responds like an actual truck. When simulator users lower a blade, make a turn, or encounter new conditions, they feel it in the steering wheel. The seat platform is mounted to move and adjust so the driver feels like they are in a truck cab.

LTAP Graduate Student Jack Bell manipulated the simulator to a dozen other modes for interstate, rural, and city road

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environments. He toggled the simulator from snowplow operations to defensive driving modules for snowplow drivers. Bell also maintained an operator station, where he could adjust the modes to different scenarios. At times, Bell added more snow and deer to the situation.

LaPorte District Safety Director Jim Rotzien requested a night scene.

"Yep, this is exactly what it looks like in our neck of the woods while night plowing," said an impressed Rotzien. "Woah, you turned the mirrors off so I can't see out of them! The ice and snow will do that to mirrors in the middle of our shift while we're out on the roads. This is great practice."

INDOT employees' feedback was documented by Bell and LTAP Program Manager Rich Domonkos to be shared with Research & Development Director Barry Partridge, Statewide Safety Director Mike Lane, Deputy Commissioner of Operations J.D. Brooks, Deputy Commissioner of People Services Angela Roosa, and others. The project is in conjunction with Purdue University and the Joint Transportation Research Program.

In December, INDOT personnel tested a different vendor's simulators mounted in training trailers; many of the staffers who assessed those also tried out the LTAP-purchased simulator. "We are working on approval to purchase two simulators for INDOT locations so we can focus on developing full plans for utilization," said Lane.

Once a decision is made regarding the best manufacturer, more driver feedback will be collected to determine which modules would combine to create the best training for INDOT.

Because LTAP wants city, county, and municipalities to have access to simulators, it's possible that — if both organizations eventually purchase simulators — they could be used by both INDOT and local government employees at our district locations with each group assisting in course development.

"What if there were a common driver course on snowplows without needing to have a truck on the road to accomplish that training?" said Lane. "The potential savings in time, fuel, and equipment maintenance could be felt across the state while improving performance during snow removal from the interstates to your hometown."

Lane and Partridge emphasized how snowplow and defensive driving simulators would be especially helpful for new plow drivers and transfer drivers.

"Transfer drivers drive a truck only during the winter and often get called into action during our worst storms," said Lane. "Simulators provide a method for employees, who do not drive regularly, to sharpen their skills and stay comfortable with the controls and the driving characteristics of the trucks."

On Feb. 15, Plymouth Unit Highway Technician Damon Daniels, a new hire last fall, appeared extremely studious. Because of the light snow season leading up the session, he had plowed snow just once. He said experiencing a dozen modules in standard plow, wing plow, and tow plow configurations was invaluable.

Rotzien and Partridge said they can understand why Daniels felt that way.

"You can't teach someone to plow snow when there's no snow," said Rotzien. "New drivers participate in snow training in the fall, but the first time they plow will be in an actual snow event with a newly acquired CDL."

Partridge said: "Simulators could provide a realistic experience that the new driver could navigate before getting behind the wheel of a snowplow. The training and safety implications are enormous, and future opportunities almost endless." ///

Dave Mullaney (top photo) tests the snow-plow simulator. LTAP's Jack Bell (right photo) watches Al Rodwell operate the simulator.

WELCOME ROB HART

OUR NEW MULTIMEDIA DESIGN LEADIS NO STRANGER TO INDIANA LTAP.

Tell us a little bit about yourself.

I was born and raised in Mishawaka, Indiana. I grew up an avid Purdue fan...not surprising considering my parents met at Purdue Northwest (formerly Purdue North Central) where my father played basketball and mom was a cheerleader. Ultimately, I earned my Bachelors' Degree in Telecommunications from Purdue University in 1998 and received my Masters in Instructional Design following the Covid-19 pandemic.

I now live in Lafayette, Indiana with my wife Heather and our three cats (Boomer, Jasmine, and Mini-Furry). Our two sons Cody and August have finished school and now work in Indianapolis and Lafayette respectively.

What relationship did you already have with Indiana LTAP and how will this continue in your new position?

Prior to joining Indiana LTAP, I served as a Producer/Director in Purdue's Multimedia Production department for 19 years. That role allowed me to hone my craft at scriptwriting, storyboarding, digital editing, compositing, and graphic design. I've also worked as the Instant Replay operator for Purdue Football, Basketball, and Volleyball games since 2006.

By 2017, Indiana LTAP had become one of my favorite recurring clients. Over the years I helped them create a series of Temporary Traffic Control videos, assisted with the production of the Road Scholar lecture series, and recently designed promotional animations for the Local Innovation Masterminds initiative. It wasn't long before Indiana LTAP occupied my entire project load as a Producer/Director.

Now, as the Lead Multimedia Designer for Indiana LTAP, I'm able to continue using those multimedia skills to better serve my Indiana LTAP colleagues and by extension, the local agencies they support. In addition, the promise of a Hybrid Learning Classroom poses exciting new challenges as well as training and engagement possibilities.

How do you hope to apply your skills to helping local agencies?

Naturally I plan to continue using my production experience to help guide Indiana LTAP's strategic initiatives, whereby local agencies are the inherent beneficiaries.

Moreover, the installation of a new Hybrid Classroom will offer both "in-person" and "remote" opportunities for LTAP-sponsored events. Thanks to a robust infrastructure of multiple HD cameras, ceiling microphones, and large screen monitors, attendees will be able to interact via two-way video/audio and share instructional materials and multimedia...while a behind-the-scenes Producer alleviates any technical concerns (so presenters can focus on presenting).

Overcoming geographical barriers and classroom space constraints, this flexible hybrid model allows for a wider pool of participants. Attendees and special guests can participate remotely if they choose – appearing onscreen in the actual classroom and able to interact with all attendees. And there's also potential time and cost savings by eliminating travel/lodging expenses.

What's your favorite video you have created for LTAP so far?

That's a tough question. There have been a lot of fun projects over the years. I enjoyed helping Jennifer Sharkey with the Innovation animations this past year. I'm also proud of the short promotional spot that Meredith Camp and I created for Indiana LTAP's upcoming "2023 Snolympics" event at the Tippecanoe County Fairgrounds this September.

How do you spend your time outside Indiana LTAP?

My wife and I enjoy traveling, streaming TV shows, and going to the movie theater. Personally, I prefer creative writing, playing music, graphic design, swimming, and gazing at the starry night through my Celestron telescope. Since 2005 my father and I have recruited family/friends to embark on hiking/camping trips to different U.S. National Parks. And I'd be remiss if I didn't admit my affinity for Purdue athletics, the Miami Dolphins, the Beatles, Star Wars, and those classic 1930s Universal Monster movies. ///

LTAP Spring 2022 Newsletter

FINAL THOUGHTS

WAIT, BEFORE YOU GO...

ROAD SCHOLAR CORE COURSES

All the Road Scholar Core Courses are now online! *Learn more here: purdue.edu/inltap/road-scholar*

OBTAINING RECORDS

To get your LTAP records and certificates, go to: https://inltaptraining.azurewebsites.net/

After logging into the database, select "My Credits" from the left side. For each event, you will see a small medal Icon on the right under actions. Select that icon and your certificates should download as a PDF suitable to save and print. There is also an option of downloading a CSV transcript.

*If you have never logged in before select the "Forgot your password?" link. Enter your work e-mail address and select "Send Reset Link." Follow the e-mail instructions to create a new password and gain access to the database.

**Emails from the system come from indianaltaptr@gmail.com

INDIANA LTAP IS ON LINKEDIN

Find us at https://www.linkedin.com/company/Indiana-ltap

PUBLICATIONS TO CHECK OUT

The Excel version of the 2023 LTAP Directory is ready for download. *Visit purdue.edu/inltap/resources/publications*

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July 11, 2023
Save the date for the next Stormwater Drainage Conference

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