

Connecticut Technology Transfer

Fall 2014



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Connecticut Local Road Safety Plans

Of the 21,000 miles of roadway in Connecticut, 82% are maintained by local municipal agencies. In 2013, 50% of roadway departure injury crashes and 26% of fatal crashes occurred on Connecticut's local roads. To make significant progress in reducing the number of crashes, serious injuries, and fatalities in Connecticut, the safety along local roadways needs to improve.

Connecticut has a comprehensive safety plan that provides a framework for reducing highway fatalities and serious injuries on all public roads; this is known as the Connecticut Strategic Highway Safety Plan (SHSP). The SHSP can assist local practitioners in addressing safety on local roads but a locally-focused plan is often needed to address the unique conditions that contribute to safety problems and to assist local practitioners in making



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Safety

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informed safety investment decisions. These challenges faced by local agencies can be addressed through the creation of a Local Roads Safety Plan (LRSP).

A LRSP is a locally-coordinated safety plan that provides a comprehensive framework to identify key safety needs and guide safety investment decisions on local roads.

A LRSP provides an excellent opportunity for agencies at all levels of government (local, state, and federal) and other stakeholders to work together to align and leverage resources and funding to address the safety challenges unique to rural roads.

The LRSP development process involves six steps:

Step 1: Establish Leadership

Successful development of a LRSP depends on fostering leadership and communication among various stakeholders. This can start with the identification of a safety champion. The safety champion advocates for the plan's successful development, implementation, and evaluation. It is also important to establish an LRSP working group. This is the team responsible for developing the LRSP, performing duties ranging from defining each working group member's role to tracking progress after the initial plan is developed. Potential stakeholders could be: Chief Elected Official, Director of Public Works, Town Engineer, Road Supervisor, Chief of Police, and Fire Chief.

2 www.t2center.uconn.edu

Step 2: Analyze Safety Data

Local road practitioners should analyze any available safety data to identify problem areas that will be addressed in the LRSP. Crash data should be used to identify safety issues. Typically, three years of crash data are needed to average out those years of extreme numbers. Connecticut's Crash Data Repository (CDR) is a great tool to help local agencies gather and analyze crash data. The repository can be found at: www.ctcrash.uconn.edu

If crash data is not readily available, other safety-related data or crash risk assessments can help identify safety issues and concerns. Other data may include traffic citations, hospital records, insurance claims, speeds, traffic counts, and in some cases anecdotal evidence from safety partners.

Step 3: Determine Emphasis Areas

The working group should identify emphasis areas consistent with trends identified during the data analysis and the concerns of the various stakeholders. If data is unavailable, emphasis areas may address concerns of the various stakeholders and the community. Local citizens should be given the chance to identify areas of concern. Methods to reach out to citizens may include public forums, open-house meetings, an internet survey, or via a request for comments advertised in the local newspaper.

Some examples of emphasis areas include pedestrians, intersections, roadway departure, impaired driving, distracted driving, aggressive driving, commercial motor vehicles, motorcycles, and improving data.

Connecticut Technology Transfer

This publication is published by the Connecticut Transportation Institute Technology Transfer Center

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Supported through a cooperative effort of the Connecticut Department of Transportation and the Federal Highway Administration's Local Technical Assistance Program (LTAP) to provide information on the latest transportation technology to Connecticut's state and local government officials.

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Step 4: Identify Strategies

Strategies to address emphasis areas should consider the 4 E's (engineering, enforcement, education and emergency services) to comprehensively address safety. Strategies will be based on identifying, categorizing, and reviewing high-priority corridors or intersections for improvements. These are locations where safety improvements are most needed to achieve the goals in the LRSP and can form the basis for system-wide improvement strategies.

Step 5: Prioritize and Incorporate Strategies

The proposed strategies for each key emphasis area should be prioritized by comparing the benefits and costs of implementation. This comparison can help the implementation phase by starting with the strategies that provide the highest benefit (e.g.,

reduction in crashes) for the least cost. However, costs and benefits are not the only considerations. Other considerations for prioritization include the availability of manpower, the schedule for implementation, and the relative importance of each emphasis area. The working group can determine an agreed upon priority for the strategy with these considerations in mind.

Step 6: Evaluate and Update the LRSP

LRSPs should be monitored for progress to ensure implementation of strategies that support emphasis areas and to determine if new strategies need to be considered. This helps provide accountability and can be used to keep stakeholders informed and engaged. Evaluation of the

LRSP strategies should be ongoing to ensure the effectiveness of the projects and the overall plan.

Addressing safety on local roads can be challenging. The development of an LRSP can serve as a cornerstone to building a comprehensive safety program to address the safety challenges on the roadways. Depending on needs and jurisdiction, the LRSP will vary in size and level of detail. The LRSP is a living document and should be revisited as established goals are achieved.



Source: FHWA Local and Rural Road Safety Program, http://safety.fhwa.dot.gov/local_rural/; And Developing Safety Plans: A Manual for Local Rural Road Owners, http://safety.fhwa.dot.gov/local_rural/training/fhwasa12017/.

Connecticut Safety Circuit Rider Program – A Valuable, No Cost Resource

Connecticut's Safety Circuit Rider program at the T2 Center, University of Connecticut, offers no cost technical assistance on roadway safety related issues and would be happy to assist your agency in the development of a LRSP.

Additional resources are available on the Federal Highway Administration (FHWA) Local and Rural Road Safety Program website at http://safety.fhwa.dot.gov/local_rural/

FHWA has created a CD that provides quick and easy access to

the latest information on local roads safety, it can be ordered from FHWA online at http://safety.fhwa.dot.gov/local_rural/training/resourcecd/

The Connecticut Technology Transfer Program is currently developing a Local Roads Safety Plan Workshop. Updated information will be posted on our website at www.t2center.uconn.edu as this training and others in our new Safety Academy become available.

For more information on ways our Safety Circuit Rider can help you

with your local road safety needs, please contact:

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For other Tech and Safety Briefs or more information about the Technology Transfer Center please visit us at:

www.T2Center.uconn.edu

What Is the Crash Data Repository?

The Connecticut Crash Data Repository (CTCDR) is a web tool designed to provide access to select crash information collected by state and local police. This data repository enables users to query, analyze and print and export data for research and informational purposes. The CTCDR is comprised of crash data from two separate sources; The Department of Public Safety (DPS) and The Connecticut Department of Transportation (ConnDOT).

The Purpose of the Crash Data Repository

The purpose of the CTCDR is to provide members of the traffic-safety community with timely, accurate, complete and uniform

crash data. The CTCDR allows for complex queries of both data sets such as, by date, route, route class, collision type, injury severity, etc.

For further analysis, this data can be summarized by user-defined categories to help identify trends or patterns in the crash data.

Congratulations to the 2014 Fall Public Works Academy

Congratulations to everyone who completed the Fall session of our Public Works Academy!

Participants completed six weeks of rigorous training on topics like professionalism in public works, storm clean up, chainsaw and snow plow operation, road fundamentals and work zone safety. For more pictures of our Fall Public Works Academy participants hard at work, visit our Flickr page.



Congratulations to the 2014 T2 Center Program Graduates!

On October 23, 2014, One Hundred and Four state and local transportation professionals officially completed their T2 educational programs, including the Public Works Academy, Road Master, Road Scholar, Legal Traffic Authority and Transportation Leadership programs. This was the first graduation to include graduates from the Transportation Leadership Program.

We are very proud of all who completed these programs and commend them on their dedication to their professional development. Thank you to our keynote speakers: Dr. Kazem Kazerounian, Dean of the School of Engineering, Amy Jackson-Grove, Division Administrator for Federal Highway Administration, James P. Redeker, Commissioner of the CT Department of Transportation and two of our graduates- Joseph Bragaw, Director of Public Works for the Town of East Lyme and Morgan Kennerson, Maintenance Training Coordinator for the CT Department of Transportation.

Special thanks to Shelly Desjardin, our T2 team member, who led the graduation project team and to all of the members of the T2 staff who gave her such great support. For a list of this year's graduates and all of our program alumni, please visit our website at: www.t2center.uconn.edu.



Legal Traffic Authority



Road Master



Road Scholar



Public Works Academy



Keynote Speakers



Transportation Leadership

2014 Connecticut Creative Solutions Award Winners

TOWN OF MONROE - ONE MAN PLOW INSTALLATION TOOL

PROBLEM IDENTIFIED: With only one mechanic in the shop, it is difficult to safely repair plows and change out plow blades when they come in.

SOLUTION: Dave Clark, Monroe's mechanic, came up with the solution after getting some guidance from his colleagues. An overhead crane with a clamp picks up and lowers the plow blade into the handmade tool. It is secured in the tool. The plow is brought in and jacks are installed for safety. The old blade is cut off. The new one is then brought up to the mold board with the tool, two tapered pins are put in bolt holes on the plow and mold board to secure it. Plow bolts are put in and torqued accordingly with a $\frac{3}{4}$ inch impact tool.

For more information about the One Man Plow Installation Tool, use the following link www.T2Center.uconn.edu



TOWN OF EAST LYME - WHEEL HUB STRAP

PROBLEM IDENTIFIED: The Town had an issue with wheel hubs over the last few years. The exterior seals get pulled out in the snow and ice banks. When that happens, they end up removing the hubs, wheels & bearings, clean the bearings and replace the seals and refill the hubs with oil. The hubs get full of water from the snow melting inside the hubs. This is a big deal and has even been required in the middle of a storm.



SOLUTION: They came up with an idea to strap the rubber plugs in the hub housings. They purchased a length of aluminum flat stock and played with the bends until they got it shaped appropriately. The strap goes over the hub rubber seal and keeps them from being pulled out by snow and ice. Two holes mount them and a little hand work makes them fit.

For more information about the Wheel Hub Strap, use the following link www.T2Center.uconn.edu

TOWN OF CHESHIRE - BRAKE DRUM REMOVER AND INSTALLER

PROBLEM IDENTIFIED: Removing and installing brake drums was a time consuming process for the mechanics and presented a back injury risk due to the lifting of heavy parts and equipment.



SOLUTION: Doug Pepe adapted an existing brake drum tool using an old electric sander motor, gears and chains from an old spinner shaft, and a new battery and switch to make it work electrically. The tool is rolled over to the truck and the brake drum is attached to it. Using the switch, the mechanic can easily remove or install the brake drum.

For more information about the Brake Drum Remover and Installer, use the following link www.T2Center.uconn.edu

Town Crier

Stories from our CT Local Agencies



Three-Program Graduate On His Professional Learning Experience

Scott Clairmont, Assistant Superintendent for the Town of Windham since 2006, graduated from three Technology Transfer (T2) programs this October: the Road Master Program, Road Scholar Program, and the pioneer class of the Transportation Leadership Program. As an experienced T2 student and a believer in life-long learning, he reflects on his experience with continuing his education at the T2 Center.



How did you start your public works career?

The Town wanted to hire somebody to serve as Tree Warden and to take charge of the maintenance of the parks, ball fields, and cemeteries. I have a degree in horticulture and a background in landscaping, so I thought I was a good candidate for the job, and applied.

Could you tell me what you do as the Assistant Superintendent?

Work closely with the Superintendent. I assist in supervising day-to-day operations of the public works department—everything from overseeing public works employees, to preparing budgets and making presentations to the council, to resolving resident concerns. I am in charge of

maintaining the town parks and cemeteries. I serve as the town Tree Warden as well as the Recycling Coordinator.

Which of these responsibilities were you most excited about when you started?

I really like being the Tree Warden; it's something a little different. And I've always had an interest in landscaping, so I was interested in the ball field maintenance and trying to provide the best facilities for the residents to play on.

How did you hear about the T2 Center?

The Superintendent informed me about the classes. A couple of the other employees had taken them over the years, and he told me it was a good thing to look into.

How long did it take you to complete the three programs you graduated from?

I've been taking classes since 2009.

What was one of your favorite classes that you took?

I don't know if I can pick just one, they were all really good classes. All of the instructors were very knowledgeable. I've been thinking about this last week, about which one was my favorite, and I can't pick just one. They're all very good classes.

How has taking classes with the T2 Center helped you professionally or personally?

One of the biggest things is I've always disliked public speaking. But taking the classes—they have the communication skills classes, we had

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Graduate

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to do the final project for the TLP program—it all helped me get over that fear of public speaking.

Could you think of an example where a skill you learned in a T2 class has helped you?

Going back to the public speaking, that really helped me out the most because before when I would have to give a presentation or speak in front of a crowd, I would get really nervous. I'd fidget, I'd fumble through my words, and in my opinion it didn't look very professional. Now I can do it with a little more confidence, I can get my thoughts across a little more clearly,



and I think I come across as more professional when I do it.

Do you feel that working with the T2 Center has helped you connect to other people in public works?

Yes, networking is another asset that the programs provide. I've found that in every town, we all deal with the same issues—it's really nice to hear how the other organizations handle them.

What is the #1 thing you've taken away from participating in classes?

In general, I think the #1 thing that I learned is no matter where you are

in your career, it's never too late to learn new things, and there's always room to improve. Between the programs themselves and the people you meet, there's an unbelievable amount of knowledge, resources and years of experience that are just there for your advantage. And you can use it to continue to grow your personal education.

What would you say to somebody who's thinking about their professional development plan?

I would tell them to take as many classes as possible. All of the programs are a tremendous benefit, every one of them is worth it.

If you're considering professional development in 2015, check out our upcoming training opportunities at t2center.uconn.edu/workshopschedule.php