

# Roadsoft® Roundup

March 2016, Vol. 16, Issue 1



For Roadsoft help, visit  
the Roadsoft Manual at

<http://roadsoft.org/help>

## Introducing Roadsoft 7.10

The Center for Technology & Training (CTT) is pleased to introduce the newest release of Roadsoft, version 7.10. In addition to the release of Framework 16, Roadsoft 7.10 has many significant module changes. These changes affect the way customers interact with aspects of both Roadsoft and the Laptop Data Collector (LDC). An additional cause for celebration is the release of Roadsoft Mobile for iOS devices into our suite of roadway asset management products.

### Framework 16 and 2015 Crash Data

With the Roadsoft version 7.10 update for Michigan, the basemap framework provided will migrate from the currently available framework (15) to Framework 16; however, Michigan 2015 crash data are not provided with this release.

For Michigan customers, crash data are migrated and then provided in the spring Roadsoft framework release when available. At the time of this publication, the Michigan 2015 crash data are not available for release. The CTT is working with the State of Michigan to provide this data as soon as possible. Watch for news updates on our website for release information.

Customers can expect a similar script and migration process as in previous versions of Roadsoft. Michigan customers on Framework 12 or earlier (or Roadsoft version 7.6.0 or earlier) will not be able to migrate without contacting technical support.

### Crash Module

Safety is always a high order of concern when planning new road development and updating older roads. By design, Roadsoft crash and safety features give customers the tools necessary for making informed safety decisions. In a discussion with Principle programmer Luke Peterson, he described how the CTT has addressed the functionality of some safety tools in the new release of Roadsoft. He said, "The

Crash Module and Safety Analysis forms have an updated interface enabling Roadsoft customers to filter and view more data more efficiently than in previous versions." The updated module and forms align with the same overall design of other Roadsoft modules like road, culvert, and sign.

Many of the updates to the Crash Module wouldn't have been possible without the support of MDOT Traffic & Safety Division. When MDOT saw the need to replace their old internally developed safety management system, they approached the CTT with the idea of incorporating the features of their legacy system in Roadsoft. Once the CTT determined that we could make the additions MDOT needed, MDOT agreed to fund the updates made to the crash and safety elements of Roadsoft. After a trial run with MDOT, these updates are now available for local agency use as well. This functionality is a great example of building enhancements that meet the needs of many agencies.

These updates made to the Roadsoft safety analysis tools offer more intuitive navigation as well as enhanced workability and search functions. This includes a new UD-10 viewer which allows customers to view UD-10 forms without any external programs like Adobe Acrobat, and an updated Collision Diagram feature in Roadsoft. "The new Collision Diagram is built to closely mimic the actual orientation of the intersection for easier interpretation of collisions according to distance from a given intersection," says Peterson. The updated Collision Diagram visually demonstrates the traffic flow more clearly than in previous versions. It is easier to quickly identify inbound and outbound lanes in relation to a given intersection.

These features should make crash reports and safety analysis easier to create, compile, and plan with for all Roadsoft customers trying to make their roads safer.

The Center for Technology & Training at Michigan Technological University publishes Roadsoft Roundup four times a year. To obtain permission to reprint any articles or graphics from Roadsoft Roundup, or to subscribe, please contact the CTT.

**Director:** Tim Colling, Ph.D., P.E.

**Project Leader:** Gary Schlaff

**Principal Programmers:** Nick Koszykowski, Luke Peterson **Software Engineers:** Mary Crane, Byrel Mitchell, Nancy Moore, Mike Pionke, Andrew Rollenhagen, Sean Thorpe

**Civil Engineers:** Chris Gilbertson, Ph.D., P.E., John Kiefer, P.E., Pete Torola, P.E.

**Editor:** Carole Reynolds **Contributors:** Cassandra Matchinski, Stephanie Hubble, Jordan Dagenais

### Center for Technology & Training

Michigan Technological University  
309 Dillman Hall  
1400 Townsend Dr.  
Houghton, MI 49931-1295

Telephone..... (906) 487-2102

Fax ..... (906) 487-3409

E-mail ..... [roadsoft@mtu.edu](mailto:roadsoft@mtu.edu)

Web..... [www.roadsoft.org](http://www.roadsoft.org)

# Roadsoft® Roundup

## Bridge Module in Roadsoft

The Bridge Module has been redesigned in Roadsoft 7.10 to incorporate the standard layout of other Roadsoft modules such as road, culvert, and sign. One new feature added to the bridge module is document attachment support. Customers can now attach related documents to specified bridge assets and manage document attachments for the Bridge Module. Additional data fields and report enhancements have been included in the module which were not available in previous versions of Roadsoft. New data fields include an option to enter a memo; new reports include several new bridge inspection reports.

## Point Pavement Marking Module

Several improvements are now available in the Point Pavement Marking Module in the Roadsoft 7.10 release. Most notably, point pavement marking data can now be collected using the LDC. The Point Pavement Marking Module is new to the LDC, and was requested by Grand Traverse County Road Commission and the City of Ann Arbor. Similar to the guardrail and culvert modules in the LDC, a default marking type can be created and applied for quick and easy data collection. Maintenance can also be documented in the LDC.

In addition to the new module in the LDC, updates to the Point Pavement Marking Module in Roadsoft offer the same look and feel found in the road, sign, culvert, and guardrail modules. Feedback gathered during last April's Roadsoft User Group provided valuable input on new fields that have been added to the module, such as length, marking recession, black contrast, and scheduled replacement and inspection activity. Just like in the LDC, maintenance on individual markings can now be documented in Roadsoft.

## Driveway Module

Collecting driveway data is now more straightforward and visually accurate with the re-designed Driveway Module in Roadsoft 7.10.0. Customers can now draw driveway shapes at the ends of terminal road segments, allowing driveways to be displayed more accurately in Roadsoft. Principal programmer Luke Peterson explained that in the past, driveways were drawn stacked on top of each other when they started at the ends of roads. In Roadsoft 7.10, they can be drawn radiating outward from the end of a road segment. "Now that you can

draw driveways at the end of a road," he says, "you get a more visually accurate picture of, say, a cul-de-sac." Customers with existing driveway data which has been GPS-collected will be re-drawn with the Framework 16 migration.

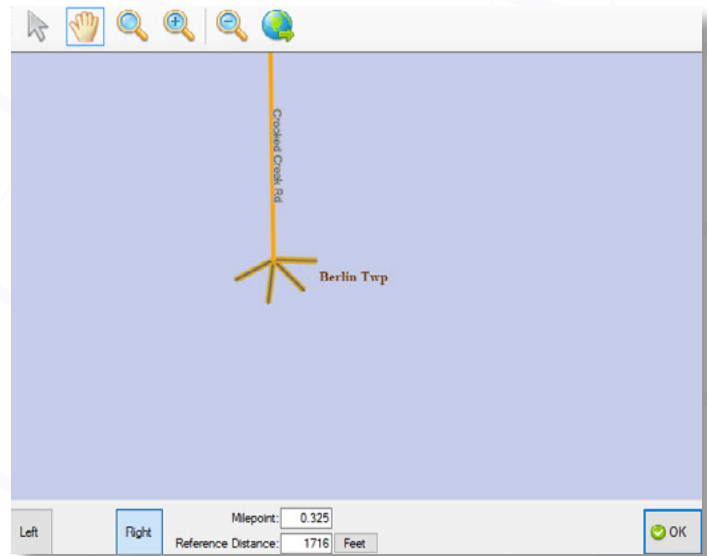
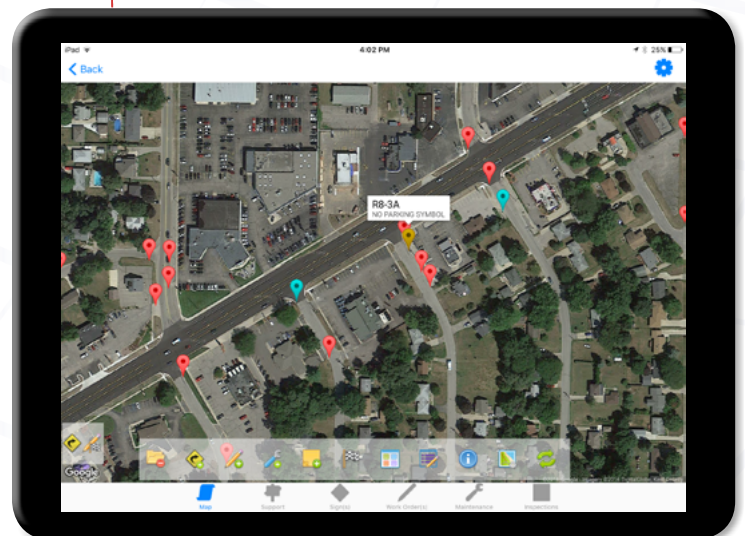


Figure 1: Example of how driveway shapes in a cul-de-sac may appear in Roadsoft 7.10



## Roadsoft Mobile now available for iOS



The Roadsoft Mobile application with a full list of features is now available at no cost for iOS devices in the [App Store](#).

# Roadsoft® Roundup

## Non-Federal-Aid Data Collection

The 2016 data collection season is rapidly approaching. In preparation, the Transportation Asset Management Council (TAMC) is requesting the cooperation of local agencies in the submission of Pavement Surface Evaluation and Rating (PASER) data for the paved non-Federal aid (PNFA) road system. The CTT is reminding local agencies that Roadsoft has multiple options for flagging the PNFA data correctly, making submission simple and transparent.

### A Need for PNFA Data

In July of 2015 the TAMC requested local road agencies submit their optionally collected PNFA to the TAMC annually. TAMC has historically focused its activities on the Federal-aid system to meet the guidance in Public Act 499 of 2002. The guidance not only describes the inclusion of the Federal-aid system, but the inclusion of county and municipal systems.

Following this guidance, in 2009 the TAMC began a policy that annually budgeted limited reimbursement funds for the data collection of PASER data for the PNFA road system. Reimbursement funds under this policy are made available on a first-come, first-serve basis. The TAMC works with local road agencies to support and promote asset management “best practice” principles of the collection of transportation assets, including the collection of PASER data on the PNFA. Many local road agencies have taken part in this reimbursement program to the extent funds are available. The TAMC is also aware of many local road agencies that optionally collect PASER data on the PNFA for their own purposes, without reimbursement from the TAMC.

In July of 2015 the TAMC requested local road agencies submit their optionally collected PNFA to the TAMC annually. The data on the PNFA allows the TAMC to have a better indication as to the status of the State’s PNFA system. Data submitted before December 15th of each year can be included in the TAMC Annual Report. The TAMC is also considering how this data can be supported on the TAMC dashboards, which can assist and be of value to agencies in sharing information on their full network more readily. The cooperation of PNFA data submission by local

agencies in 2015 allowed for opportunities to improve the data submission, and the TAMC is currently reviewing the current PNFA policy.

### PNFA Current Requirements

The collection process is the same for all PNFA roads, regardless of reimbursement status. While local road agencies are not yet required to collect PNFA, agencies will find PNFA data to be useful for agency-specific needs or initiatives. However, for PNFA system data to be accepted by TAMC and included in the TAMC Annual Report, it must meet the following requirements:

- Data collection must be consistent with business rules taught in the annual TAMC PASER training.
- The use of the Roadsoft Laptop Data Collector (LDC) is required.
- Data collectors must be current on PASER training educational requirements consistent with other data collected by TAMC.

### “Flagged” Local Data for the TAMC is Critical

As previously noted, the collection process is the same for all PNFA, regardless of reimbursement status. Therefore, the process for developing a local data collection network in Roadsoft is left up to the local agency’s discretion. The 2016 PASER Training Manual not only contains requirements and guidelines for collecting PASER data (both Federal-aid and non-Federal-aid), but it also provides step-by-step instruction for using Roadsoft and the Laptop Data Collector (LDC) as a part of the process. As local road agencies plan on submitting their PNFA data collection in 2016, the dataset must be “flagged” for TAMC submission. Flagging can occur either during the export process or during the import process. If data are not flagged for TAMC, they will not be received by the TAMC, and will only remain locally in Roadsoft.

### Flagging Data: Exporting from Roadsoft

There are two ways of exporting a PNFA collection network from Roadsoft for use in the LDC. Exporting options are accessible through the TAMC and LDC main menu options:

# Roadsoft® Roundup

Option 1: The TAMC export option allows agencies to collect road ratings and number of lanes only. This option must be used for Federal-aid PASER data collection, but it can also be used for PNFA. Using this option for PNFA collection will flag the data for TAMC submission.

Option 2: The LDC export option allows local road agencies to collect all other data in addition to road rating and number of lanes; this is often used by agencies collecting local data including PNFA PASER data. This option should not be used for Federal-aid data collection. When using this option for local collection, local agencies are asked in Roadsoft whether the collection is for TAMC prior to export completion. Selecting “Yes” flags the network and subsequent data for TAMC submission.

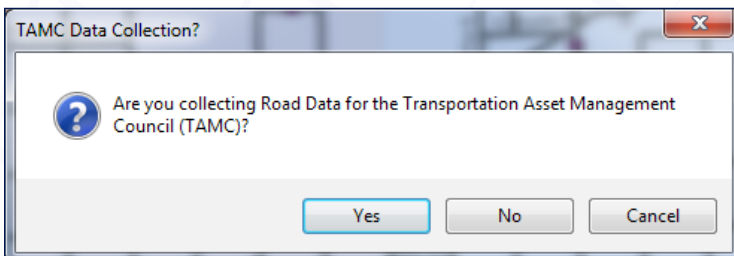


Figure 2: TAMC Data Collection Confirmation

## Flagging Data: Importing the LDC Export File into Roadsoft

Regardless of which export option is used, the general import process of LDC Export files into Roadsoft for PNFA is similar to previous years; however, agencies now have an option to flag the incoming data for TAMC prior to bringing the dataset into Roadsoft. Agencies who may have selected “No” at the time of the export (option 2 above), will have a second chance to flag the dataset for TAMC submission.

It is highly recommended that agencies retain their LDC export files after importing to Roadsoft. In the event that “Yes” was not selected during the initial Roadsoft Export or Import process, agencies who may later wish to flag their non-Federal-aid data for TAMC submission (on the current framework only), can re-import the LDC export file into Roadsoft and select “Yes” at the prompt.

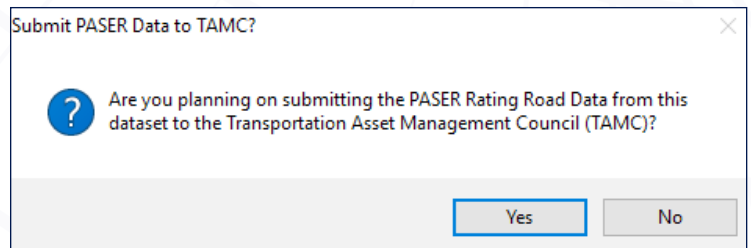


Figure 3: Submitting PASER Data to TAMC

## Collection Support

The Center for Technology & Training (CTT) will continue to assist local road agencies through any issues that may arise with PNFA data submission to the TAMC. The TAMC will continue to review their policy for collection of PNFA data. The TAMC extends their sincere appreciation to local road agencies for their commitment to asset management data collection which helps to enhance the productivity of investing in Michigan’s roads and bridges through coordination and collaboration among State and local transportation agencies. The TAMC is hopeful that 2016 submission of PNFA by local agencies will far exceed any previous submissions.

## What’s New in Roadsoft 7.10?

### [Online Meeting](#)

Tuesday, April 12, 2016

10:00 AM - 11:30 AM

Learn about the latest changes to Roadsoft and the Laptop Data Collector (LDC), including the migration to Framework 16, redesigned modules, and training and tech assist.