

Roads and Highways, Act-51 Changes, and Roadsoft Annual Delivery

What is Roads and Highways, and how is it different than classic MGF?

- Roads and Highways is a GIS solution for managing and maintaining linear referenced data.
- Extension for ArcMap and ArcGIS Enterprise.
- Event data stored in the database is managed in sync with the LRS network changes.
- System of record for LRS transportation attribute data.
- Road centerline geometry and attribute data in R&H is managed temporally throughout the year instead of annually.
 - Applications that integrate directly into R&H are able to get updates as soon as the line work is drawn in and a PR is assigned.
 - “LIVE” editing and viewing

Resources we use as part of R&H

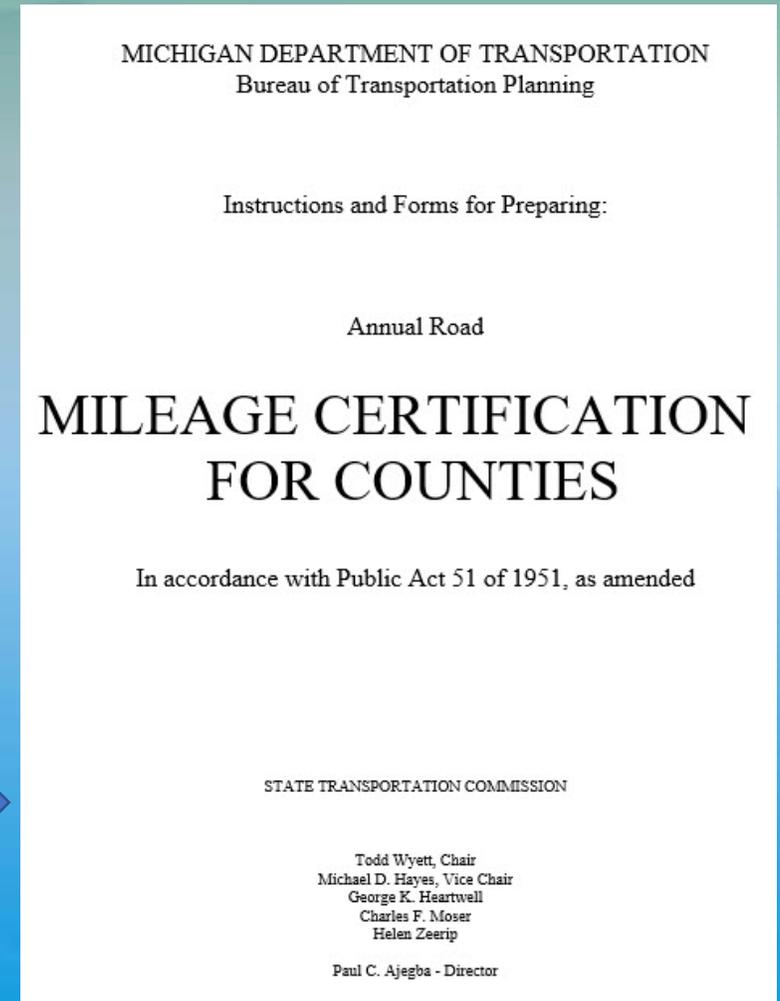
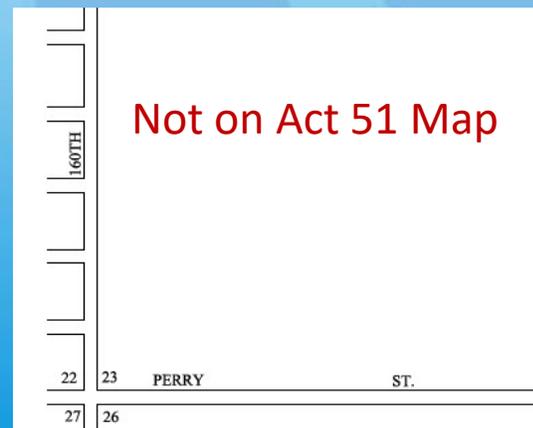
- ArcMAP – LRS Editing, some system maintenance, and data validations.
- Event Editor – web based application that allows business data (event data) to be maintained on the network.
- Workflow Manager (WMX) – Automates the workflows for editors.
- ArcGIS Online (AGOL) – Cloud based software we use to share R&H map data out to the public.
- ArcGIS PRO – Certain data processing and models are run in this version of ArcGIS. The future of R&H is moving to PRO.
- Imagery for capturing road changes and corrections (MiSAIL and NearMap)
- Survey grade GPS antenna for drivelines

How is R&H Maintained?

- We add or change roads as new construction or corrections are needed. Most common road changes on the local system come from Act-51 certification process. We also track the Roadsoft correction request.
- After LRS edits are made, we use workflow manager and some built in scripts to generate communication to event editors.
- Event editors create jobs where they can edit their data where changes are needed.
- Some data, such as AADT, is loaded in using an append tool on an annual basis.
- We run tools that can help validate that data is correct, the most common of which is data reviewer.

How Do I Get an Act 51 Road Added/Deleted?

- Is the desired add/delete shown correctly on your Act 51 map?
 - If not, then you need to submit the desired change to MDOT during the annual Act 51 mileage certification period
 - All approved Act 51 changes automatically have a job created for them in R&H and are then passed to Roadsoft



How Do I Get an Act 51 Road Added/Deleted?

- Is the desired add/delete shown correctly on your Act 51 map?
 - If it is on your Act 51 map already, just send us a correction request form via Roadsoft (MDOT Act 51 staff receives them directly)
 - Or, email me Patrick Allen, allenp@michigan.gov
- Types of corrections Act 51 staff can make via R&H (to match your Act 51 map)
 - Add or delete roads
 - Correct classification (Primary/Local)
 - Correct Road Names
 - Other miscellaneous discrepancies
 - All corrections are passed to Roadsoft



Framework Correction Request on FW20 - 09/01/2020

Requester: [REDACTED]
Title: Marquette Center

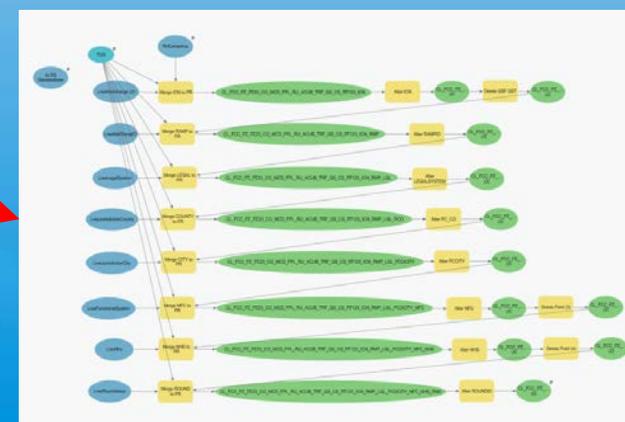
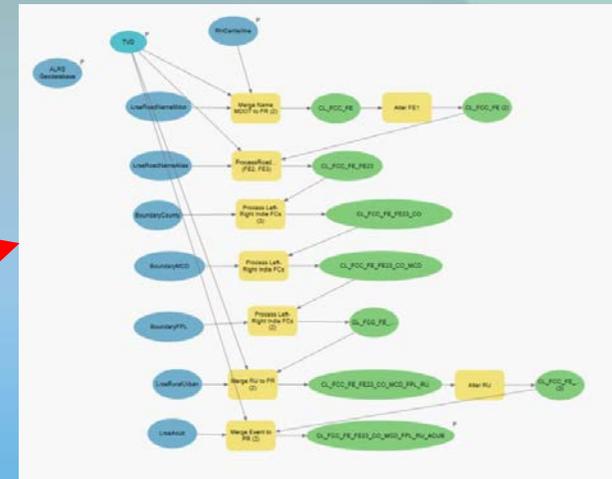
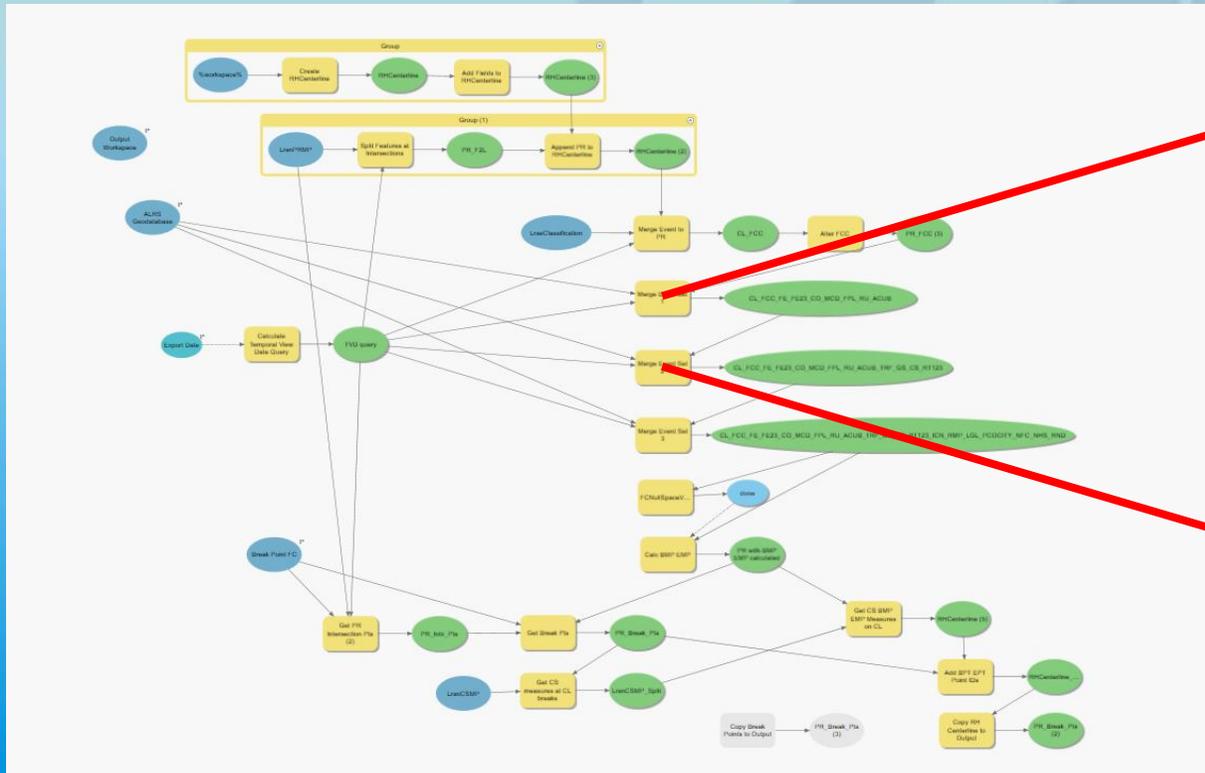
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Description:
Marquette Center, Erie Twp. Marquette Center from Streetman Rd. north westerly to M 125 (South Dixie Hwy) was abandoned in 2008 and removed from Act 51.
Please see Monroe County Act 51 certification Map page County wide 46 for details

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Roadsoft Annual Delivery

- After all of our LRS data and event data has been edited and validated we run two primary models for the Roadsoft annual delivery:
 - Roadsoft Centerline Model
 - Roadsoft Migration Model



Roadsoft Annual Delivery

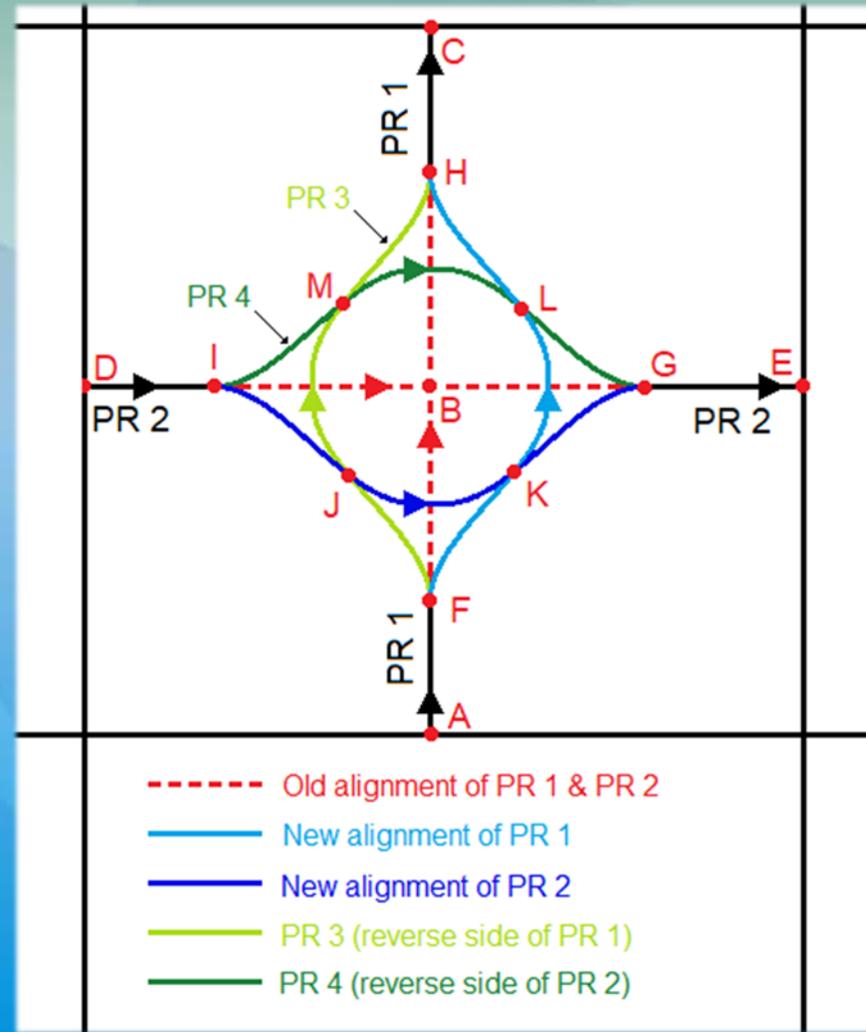
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Roadsoft Annual Delivery

- Migration File

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NEW LRS Open Data Page and Updated Next Gen PR Finder



Michigan.gov
Michigan Department of Transportation

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Michigan Linear Referencing

Michigan's Road, Rail & Trail Networks

The Michigan Department of Transportation (MDOT) manages several Linear Referencing Systems (LRS) for the State including the Physical Road (PR), Control Section (CS) and Route networks. These networks include Michigan's Roads, Rails, Trails & more. MDOT also partners with the Michigan State Police (MSP), Department of Natural Resources (DNR), Department of Technology Management & Budget (DTMB) and others to manage the Michigan LRS.

- GIS UNIT LRS Team**
Michigan Department of Transportation
Road & Highways 2020 Metadata
Data dictionary for the LRS networks and attribution.
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- PR HELP**
NextGen PR Finder Help
Instructions and visuals on how to use the Next Generation PR Finder.
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- PR**
Map Application
v17 PR Finder
Interact with MDOT's Linear Referencing Systems and Identify Mile Points.
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- PR**
Next Generation PR Finder
Interact with MDOT's Linear Referencing Systems and Identify Mile Points.
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Download LRS Data on Open Data

Live LRS data can be found in the Next Generation PR Finder above.

Version 20 MDOT R&H:

- CS-MP (Route File)
- PR-MP (Route File)
- MDOT R&H All PR's (Segmented Attribution File)

LRS Open Data Link: <https://lrs-mdot.hub.arcgis.com/>