

NEW YORK STATE ASSOCIATION OF MPOs

GIS WORKING GROUP MEETING October 25, 2021 10:30am – 12:00pm Zoom VIRTUAL SESSION

MEETING NOTES

Participating

- Bennett Lauren, OCTC
- Coleman Zachary, OCTC
- Debald Mark, DCTC
- Deshaies Jason, SMTC (Co-Chair)
- Frasier Andrew, SMTC
- Gorgan Tara, DCTC
- Haynes Andrew, NYSDOT
- Hunt Kevin, NYSDOT Main Office
- Kone Alex, GTC
- Kemble Pat, NYSDOT
- Lambrix Jay, ITCTC
- Mance Jack, A/GFTC
- McAllister Korey, NYSDOT
- Patel Munnesh, NYMTC
- Quackenbush Jeff, HOCTC (Chair)
- Rigolino Devin, DCTC
- Rossi Mike, NYSDOT
- Seyfried Ashley, BMTS
- Smith Kim, GBNRTC
- Stass David, UCTC
- Taylor Courtney, ECTC
- Tortora Chris, GTC
- Tylutki Erin, HOCTC

1. NYS GIS Activities Update

Hunt provided a status update on NYSDOT GIS activities over the past 15 months or so including the NYSDOT Roadway Inventory System (RIS), Roadway Data Mart (RDM) and other GIS services available to external users including MPO staff and other partners. A copy of the PowerPoint presentation prepared by NYSDOT is attached.

 Kemble discussed the updates to the old Road Inventory System (RIS) which included a variety of roadway attributes but was not connected to GIS. The new roadways and highway platform is fully integrated with GIS. All the data is migrated into the new platform at this time, and it was expected to go live on October 25, 2021. This new platform RIS 2.0 uses the Smart Entry Engine (SEE) application that allows users to edit multiple attributes at one time. The roads and highway network are in GIS format. Kemble also mentioned that the GIS IDs were replaced in the RIS 2.0 with Route IDs as defined in roads and highways. However, there was some loss of "intelligence" between different components as they were migrated to an enterprise system.

- Roadway Data Mart (RDM) GIS services will be set up here for MPOs to access and view data. Traffic and pavement data will also be integrated in the RDM. This replaces RIS 1.0 which provided an annual snapshot and connected the attribute data to GIS. Roadway network data would be updated on a weekly basis. Hunt clarified that RDM was separate from RIS 2.0, and it was not going live on October 25, 2021.
- Hunt provided an update on the Crash Location Engineering, Analysis and Reporting (CLEAR); Capital Projects; AgileAssets EAM System; Highway Work Permits; and Right of Way applications.
 - Crash Location Engineering, & Analysis Repository (CLEAR) This application, will replace Accident Location Information System (ALIS), Safety Information Management System (SIMS), and Post Implementation Evaluation System (PEIS). The CLEAR app is comprised of four different apps including Interactive Crash Location (ICL), Interactive Crash Editor (ICE), Crash Data Viewer (CDV) and CLEAR Safety that are close to production by end of 2021. Each of the four apps serve specific purposes. Other components and modules would be added throughout 2022. The CDV will provide most if not all the functionality that ALIS offers. Hunt mentioned that Robert Zitowsky would be the NYSDOT contact to get more information on CLEAR. Frasier pointed out that the GIS Working Group (WG) had received some updates in late August 2021 by Andrew and Robert. Stass noted that the Safety WG was being provided updates for input and quality control purposes.
 - Capital Projects A public facing webpage called Projects in Your Neighborhood is available with limited geographic attributes. Project locations are identified as points and lines including bridges. It should be noted that the bridges are line features based on decks, but these locations are still being verified.
 - AgileAssets Enterprise Asset Management (EAM) Program A major platform upgrade affecting various components of the Maintenance Management System (MMS) was completed a few months ago. Approximately 1,500 users were added and all of the daily reporting from the old system was migrated to MMS. Hunt reported that the transition was successful. However, since AgileAssets does not have a data warehouse, the NYSDOT was working to consume and publish data as GIS layers.

- Highway Work Permits Project is close to getting into production in 2022. This system is a full automation of working permits with geospatial components and GIS functionality to review permits.
- Right of Way This project will enhance how ROW information is maintained with geospatial components.

Hunt closed out his presentation with explaining the new organizational structure of the NYSDOT IT department. He also mentioned that the NYSDOT will not upgrade staff to ArcGIS Desktop 10.8.1. The intent is to transition to ArcGIS Pro in 2022.

A list of key questions and discussion items on this agenda item follow:

- Q1. Will the MPOs get review only access or will they have the ability to suggest revisions and updates?
- A1. Yes, the NYSDOT is always open to feedback and will develop mechanisms so that MPOs can provide updates, revisions or corrections to the roadway network, geometry, etc. These changes could be provided using redline or coordinates, screenshot as well as route IDs and measures.
- Q2. How comprehensive is the roads and highways dataset and does it include the nonfederal ("off-system") network?
- A2. The dataset contains polylines for all public roadways in the State of New York. The roadway network data is being updated year-round.
- Q3. Will the data in RDM be available as a service so that it can be linked to the maps?
- A3. Yes, the concept is to make the layers available in RDM as services that can be linked to the map, but it would not be "live". The published data would be about one week old.
- Q4. What time period (i.e., number of years) of data will be available in CLEAR?
- A4. Hunt advised to check with Robert and Sattinger of the NYSDOT on this item.
- Q5. Will ALIS login information be transferred to CLEAR, or will it require setting up a new username and password?
- A5. It was very likely that ALIS information would transition to CLEAR in terms of roles and permission levels since both systems use ny.gov authentication. However, since some of the technology at the backend of ny.gov has changed recently, there could be some technical issues in the translation of information into CLEAR.
- Q6. Does Projects in Your Neighborhood include bicycle projects?
- A6. Currently, it only includes bridge and roadway projects. The system has the capability, but it is driven by the individual project manager.

2. SMTC Story Map Demo

Deshaies provided a demo of the SMTC's Story Map created using ESRI's ArcGIS Online tools and templates. The purpose of this Story Map is to convert SMTC's static Work Products Portfolio into an interactive web-based application. Deshaies highlighted various features of the Story Map that provide project summary and links to access additional detailed project information. He noted that other functionality, such as video and audio files, could be inserted into the Story Map easily using ESRI's templates. In addition, Deshaies explained the Environmental Considerations Map, which was available as part of the Story Map and could be used to identify environmental resources and constraints based on readily available GIS data from various partner agencies.

3. ArcGIS Online Services – Status

Quackenbush reminded meeting attendees that Deshaies and he continue to manage ArcGIS Online account services. He inquired if any GIS WG members had any issues with their ArcGIS Online account. No issues were raised by GIS WG members.

4. Remote Working Experience Discussion

The WG members discussed their experience working remotely in the continuing COVID-19 pandemic environment. Quackenbush stated that all HOCTC staff had transitioned back to working in-person from the office, while Deshaies and Mance noted that SMTC and A/GFTC continued to operate in a hybrid format with staff allowed to work from home and the office on an as-needed basis. Quackenbush inquired if GIS WG members were interested in meeting in-person for the next GIS WG meeting in spring 2022. Mance responded that A/GFTC did not have any travel budget before April 2022. There was consensus to continue to have an option to attend GIS WG meetings remotely. The GIS WG members suggested and Quackenbush agreed to conduct a poll with Jain's assistance to gauge interest for an in-person meeting in spring 2022.

5. ArcGIS Pro/ArcGIS 10.8 Release – Where is everyone regarding Pro/ArcMap?

Quackenbush noted that HOCTC staff had fully transitioned from ArcMap to ArcGIS Pro. Deshaies stated that SMTC was using ArcGIS Pro on all of its new tasks and assignments, while it continued to use ArcMap for legacy projects or if there were technical issues with ArcGIS Pro tools. Lambrix mentioned that ITCTC was still using ArcMap and if they decided to transition to ArcGIS Pro, ITCTC staff would need training.

6. Traffic Count Program – Status Update

Haynes provided a status update on the NYSDOT traffic count program. He explained that the most authoritative data was available from the Traffic Data Viewer (TDV), which was developed and updated last year as part of the System of Engagement project. Given the pandemic, the TDV shows 2019 AADT as the base year as opposed to 2020. While 2020 short counts are available through the DTV, most users prefer to use pre-pandemic data. Further, given the trends in 2021, it was likely that NYSDOT would continue to use 2019 as the base year. Another source for traffic counts will be Roadway Data Mart (RDM) when it becomes available. The RDM will have more data – hourly counts, truck percentage, etc. Haynes reported that the NYSDOT had contracted out traffic counts to different vendors. One of the issues this year (2021) will be data gaps since the contractors had collected data for less than 10,000 locations out of approximately 15,000 count sites (locations). Only 15% of New York City locations were collected and the NYSDOT is in the process of cancelling the contract. For the SMTC and A/GFTC areas, the NYSDOT felt confident that it would be able to provide these jurisdictions with needed traffic data since there were only 170 count locations scheduled.

In addition, Haynes discussed the NYSDOT bike/ped data collection efforts using MetroCount and Eco-Counter devices and the publishing of engineering bulletins on standardized formats for data collection to provide uniformity regardless of who collects the data. Haynes also highlighted a permanent bicycle count location in Albany that uses a MetroCount device as well as a location along NYS Route 5 in Syracuse where a protected bicycle lane was added in the center and the NYSDOT had installed bicycle detectors at this continuous count site location.

The NSYDOT was implementing a new database system, Drakewell, which would eventually replace TDV and supplement RDM. The Drakewell database would be public facing. However, the intent was to register the MPOs as partners so that they could provide their traffic count data, which would go through the same QC processes and be made available through Drakewell. Alternatively, like SMTC and A/GFTC, the MPOs could request NYSDOT to collect traffic counts and make the data available through Drakewell.

A list of key questions and discussion items on this agenda item follow:

- Q1. Does the MetroCount device count pedestrians or just bicyclists?
- A1. The MetroCount counter does not have the ability to count pedestrians. It can estimate pedestrians. None of these technologies counts pedestrians accurately. The NYSDOT was researching other technologies that would be able to accurately count pedestrians.
- Q2. Will the NYSDOT continue to use Traffic Count Editor (TCE) software application for post processing traffic count data?
- A2. Yes, TCE will be available for 2021-2022. Once Drakewell is implemented, its QC processes will be used, and they are integrated with historical data. However, the NYSDOT will continue to maintain and support TCE for agencies that are completely offline and may not have access to Drakewell.
- Q3. Will it be possible to directly import MetroCount to Drakewell?
- A3. Yes, that is the concept.
- Q4. Is it possible to get traffic reports?
- A4. Yes, traffic reports can be obtained through the TDV. Reports will be produced through Drakewell through its mapping portal as well but not in the same format. Further, the new TDV will not have links to reports since most of the data is available to download in various formats and is available on the Graphical User Interface.
- Q5. Can the NYSDOT share its traffic count schedule with the MPOs?
- A5. Yes, the traffic count schedule for year 2022 is anticipated to be finalized by end of December 2021. Once it is final, the NYSDOT will send out the schedule to the MPOs.
- Q6. Can the NYSDOT share updates to its traffic count schedule earlier for any midcourse corrections?
- A6. Yes, the only item the NYSDOT adds to the original schedule is counts that failed in the previous year. For year 2021, this will be a larger than usual list.

7. Pavement Condition Reporting

Rossi explained the current method of collecting pavement condition data using high density lasers and 360° photo logs (i.e., front and sides) to develop federally required metrics. He pointed out that the old method was based on a visual assessment of factors, such as cracking and roughness, and assigning score on a scale of 1 to 10. The new method provides detailed data on linear feet of cracks per 52 feet of pavement segment, extent of cracking within the wheel path, and other data points. The NYSDOT has collected pavement condition data for most of the state and non-state federal-aid system. They anticipate releasing this data to the MPOs by end of October 2021 in GIS shapefile format.

Quackenbush noted that HOCTC was still using DOT's 1 to 10 scale scoring system and assigning ratings (e.g., good, fair, poor). The HOCTC experience was that this scoring system and data continued to be very useful to them at the local/county level. Rossi pointed out that the NYSDOT would not be sharing raw crack data with the MPOs since it would be less than useful. But instead, they had developed an algorithm to convert raw crack data into an equivalent 10-point score, which will be shared with the MPOs.

A list of key questions and discussion items on this agenda item follow:

- Q1. Is there a plan to collect data for local roads that are not on federal-aid system?
- A1. Rossi responded that the NYSDOT mandate was to collect data on the federal-aid system for federal performance reporting at this time. There weren't enough resources to collect data for all the locally owned roads which are not eligible to receive federal-aid funding.
- Q2. What year will the NYSDOT-collected pavement condition data be available for?
- A2. For state-owned roads it will be year 2020 and for local federal-aid system it will be 2019 and 2020.
- Q3. Is it possible for the NYSDOT to provide an overall rating (good, fair, poor) based on all four of the data points collected?
- A3. Rossi clarified that state and federal definitions of good, fair, poor were different. While the NYSDOT would not necessarily provide overall ratings for individual pavement condition rating components, they would be able to provide an overall rating based on federal definition for each 100 feet of pavement segment.
- Q4. What format will the pavement condition data be provided in GIS shapefile or attribute data?
- A4. It will be provided in GIS shapefile.
- Q5. Is it possible to push the date for releasing data by a couple of weeks if the NYSDOT provided scores for federal and state metrics at the same time?
- A5. It would be better for the MPOs to get the state metrics sooner rather than later for use in TIP development.

8. HOCTC Experience with using Drones

Quackenbush shared the HOCTC experience with using drones to collect aerial imagery as well as intersection geometry. He pointed out that collecting data via drone was a relatively

quick method to get accurate and current data for a variety of applications and uses. Further, Quackenbush reported that the Federal Aviation Authority (FAA) had recently changed its rules, which require all drones to be equipped with parachutes should they fly over people or moving vehicles. To comply with this FAA requirement, HOCTC will buy a new drone. Alternatively, it was possible to get authorization starting in May 2022 once existing drones were upgraded with add on features, such as smart IDs and parachutes.

A list of key questions and discussion items on this agenda item follow:

- Q1. Can you use MPO funds to purchase drone equipment?
- A1. HOCTC did not use MPO funds to buy drone equipment. However, it is likely a justifiable expense since data collected via drone could be used for a variety of planning functions and studies, such as intersection geometry and queuing for traffic operations and other analysis.

9. Training Needs?

Quackenbush requested GIS WG members to communicate their training needs to him, Deshaies or Jain so that appropriate training session(s) can be arranged.

The meeting adjourned with the potential for a spring 2022 in-person meeting with web conference capabilities for GIS WG members that cannot or choose not to attend onsite.



NYS ITS Transportation GIS Update

October 25, 2021

October 25, 2021

NYSDOT Roadway Inventory System





Office of Information Technology Services

October 25, 2021



NYSDOT RIS 2.0

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October 25, 2021

Smart Entry Engine (SEE)

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NEW YORK STATE OF OPPORTUNITY. Office of Information Technology Services

GIS ID 100514091 - 100514 09 1 DOT ID Co Order Direction Code

Route ID

Route ID – 100514091 Non-intelligent - Randomly Selected



October 25, 2021

Roadway Data Mart (RDM)



A new data mart for published roadway, pavement and traffic data.

Will be the source for authoritative GIS services.



Questions?

Comments?



Pat Kemble

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518-485-9580



NEW YORK STATE OF OPPORTUNITY. Composition Compositio

CLEAR - <u>C</u>rash <u>L</u>ocation & <u>E</u>ngineering <u>A</u>nalysis & <u>R</u>eporting

CLEAR is the replacement to ALIS, SIMS, and PIES





What are the different CLEAR apps?





CLEAR Crash Data Viewer (currently in QA tier)





CLEAR Safety (currently in QA tier)

| NYSDOT CLEAR Safety | | Help FAQ 온 John Doe ~ |
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| | | * |



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October 25, 2021

Capital Projects - https://www.dot.ny.gov/projects

GIS web service

https://gis.dot.ny.gov/hostingny/rest/services/Projects/CapitalProgramProjects/MapServer





ITS Transportation Projects

Enterprise Asset Management Program (AgileAssets EAM System)

- The Maintenance Management System MMS was put into production in late Summer 2021.
- ITS is working to consume and publish new data from the AgileAssets EAM system.
 - Traffic Signals
 - Work orders
 - Salt Capacities
- Working with NYSDOT continues on processes to collect and maintain "secondary assets" incl signs, guiderail, small culverts, drainage, etc.



ITS Transportation Portfolio Projects

Highway Work Permits – new system will be in production in 2022

Right of Way – modernizing the ROW processes with a geospatial component. RFP has been awarded and the project is getting underway.



ITS Transportation GIS Updates

Late 2020 ITS Reorg

- Technical Resources reporting through the ITS CTO
- ITS GIS reports through "Data Management Services"
- Responsibilities supporting geospatial for Transportation have not changed.
- NYSDOT GIS Users at ArcGIS Desktop 10.7.1.
 - NYSDOT is not likely to upgrade past 10.7.1 for Desktop
- Limited use of ArcGIS Pro by ITS GIS and GIS Coordinators
 - Plan to do more work with ArcGIS Pro in 2022.
- Better Open Data through GIS services?



NYSDOT GIS Map Services - http://gis.ny.gov/webservices/

- Bridges and Large Culverts
- Commercial Vehicle Data Feed (structure and construction restrictions)
- Traffic Signals
- Traffic Data Viewer
- Functional Class
- NYS Bike Routes

https://gis.dot.ny.gov/hostingny/rest/services/Framework/State Bike Routes/MapServer

- Certified Business Enterprise
 <u>https://gis.dot.ny.gov/hostingny/rest/services/Projects/Certified Business Enterprise/MapServer</u>
- Capital Projects

https://gis.dot.ny.gov/hostingny/rest/services/Projects/CapitalProgramProjects/MapServer

