



**Department of
Transportation**

transportation.ohio.gov

ODOT'S TRANSPORTATION DATA

**AMY CODE, ODOT DISTRICTS 7 AND 8
GIS AND ASSET MANAGEMENT COORDINATOR**

THE VALUE OF DATA

- **Accountability**
- **Stewardship, budgeting**
- **Strategic decision making**

= ODOT strives to be data driven



ODOT'S DATA RESOURCES













Examples of data we gather:

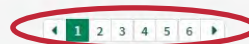
- **Asset inventory:** location, inventory details, and condition data for pavement, bridges, culverts, and numerous other assets
- **Traffic data:** volume, speed, performance, types of vehicles
- **Safety data:** crash details (type, severity, locations of crashes)
- **Project data:** location, project details, funding sources, estimated costs
- **Construction & Maintenance data:** labor, material & equipment costs
- **Environmental data:** locations of streams, sensitive habitat, disadvantaged communities
- **Active transportation:** demand & need, existing paths, plans



ODOT'S DATA RESOURCES

<https://www.transportation.ohio.gov/working/data-tools/all-tools>

 <p>Advertising Device Control ePermitting System This system manages permits for outdoor advertising, including billboards and signs, posted within or along ODOT's right-of-way.</p>	 <p>Approved Environmental Documents An ODOT website that stores and delivers the final environmental documentation for ODOT projects.</p>	 <p>AssetWise AssetWise is the web application where all bridge inventory and inspection data is collected. It replaces the Structural</p>	 <p>AWP Civil Rights and Labor (CRL) Gateway to the tools used to manage contracts, payrolls, base percent goals, on the job trainee goals, and compliance.</p>
 <p>AWP Construction & Materials (C&M) ODOT is transitioning to AASHTOWare Project Construction & Materials to centralize its contract & materials management activities.</p>	 <p>Best Management Practices (BMP) Tool Assists locals with identification and best practices selections for post-construction stormwater decisions.</p>	 <p>Bid Data Item Price Search, Trends & Summaries, Project Profiles, Bid Tabs</p>	 <p>Bid Express Bid Express is used to submit construction project bids online. Download the required bidding software from the Bid Express</p>
 <p>Blackcat Aviation Access to Blackcat Aviation, ODOT's data collection and analysis tool for airports statewide.</p>	 <p>BlackCat Transit Data Management System ODOT's collection of Transit's forms and template via a BlackCat application.</p>	 <p>Bridge Photos Download photos of Ohio's state-owned bridges, collected by county for easy search and association.</p>	 <p>Buckeye Assets Map based filtering of historic and restricted bridges.</p>



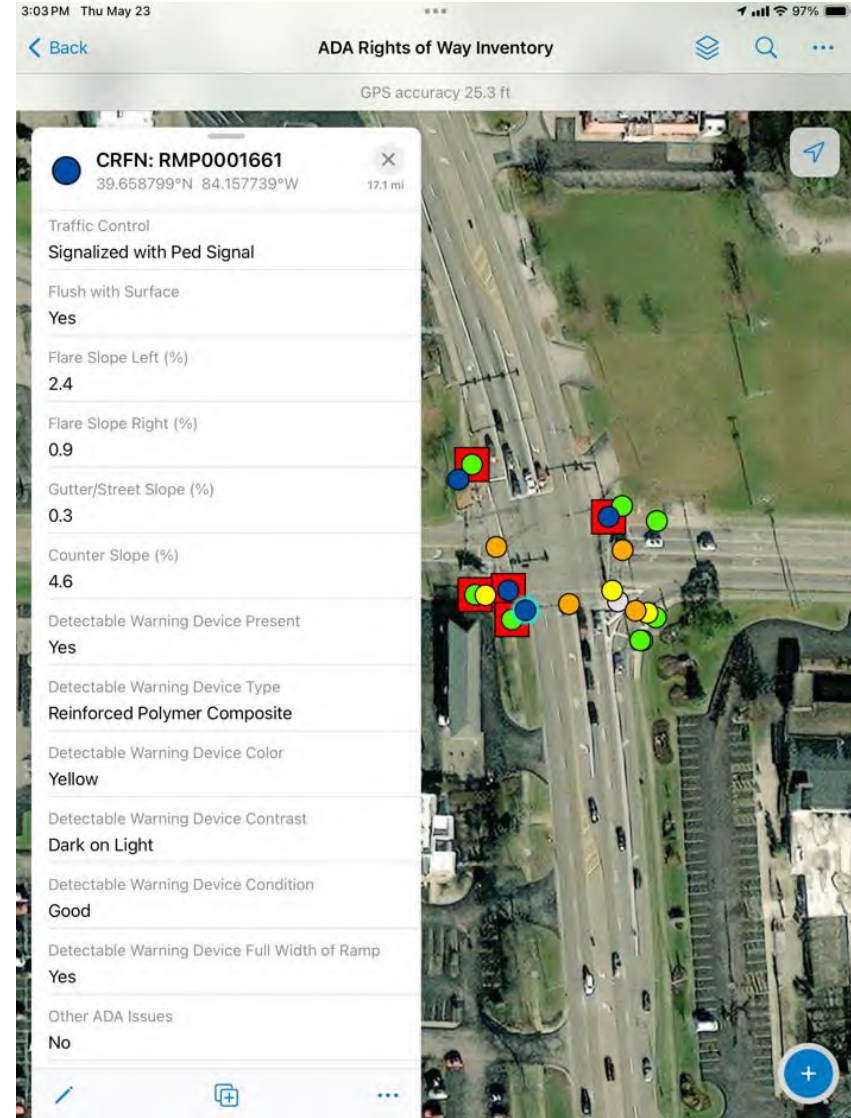
← 6 pages!



ASSET DATA COLLECTION

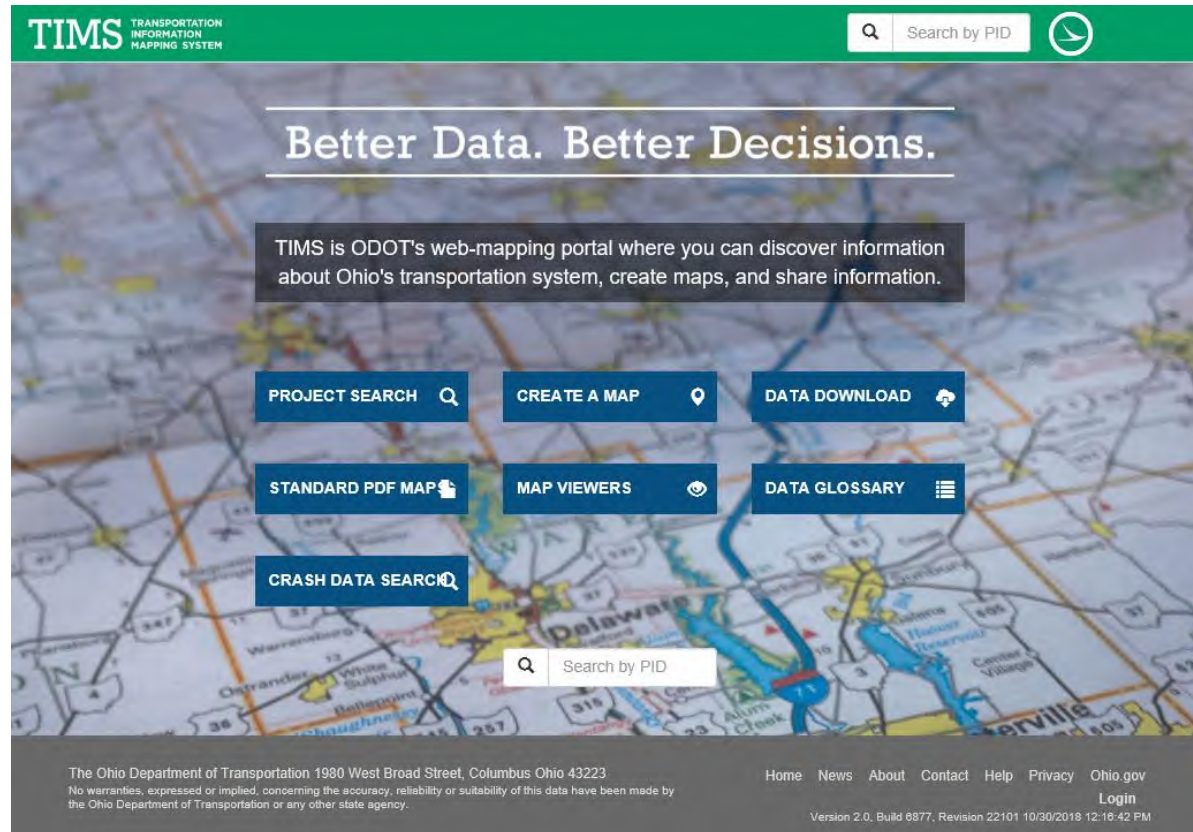
ArcGIS Field Maps and web maps:

- Users at each county and in most departments
- Collect and edit inventory data in field and in office
- Stored in enterprise SQL database
- Customized maps and analysis tools developed by ODOT Tech Services



ASSET DATA: TIMS

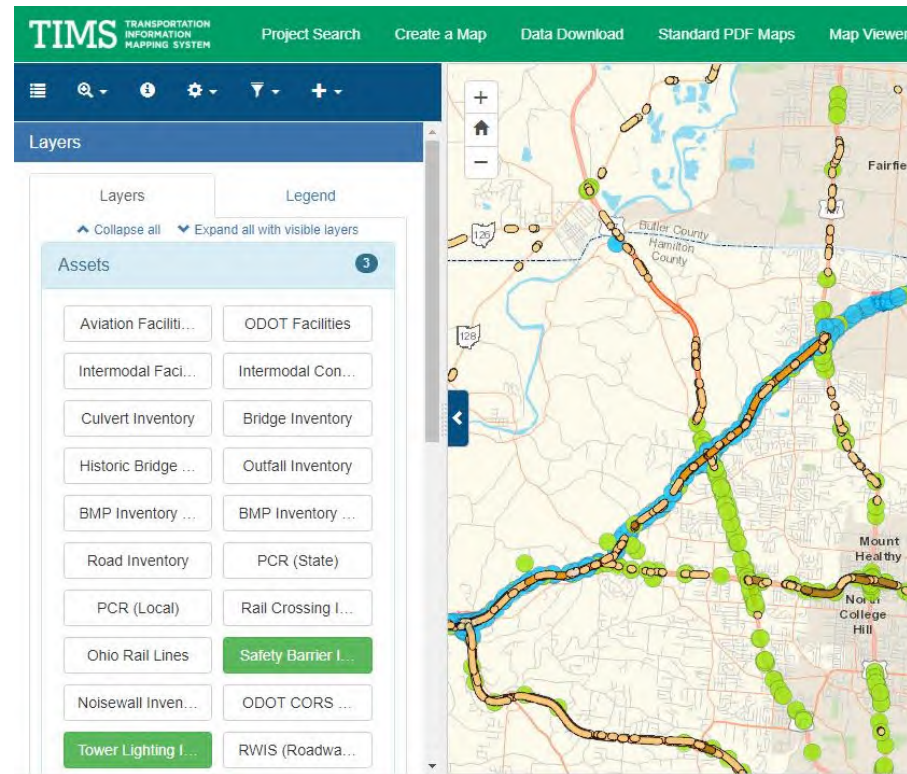
TIMS: gis.dot.state.oh.us/tims



ASSET DATA: TIMS

Data sources:

- Asset data collected with the ArcGIS Field Maps app, imagery, some outside sources
- Boundaries typically come from local governments
- Project data from Ellis



ASSET DATA: TIMS

Data analysis: What assets do we have near a planned project?

- Filter by type or location
 - Can download your filter results, max 500 records
- Identify tool: detailed asset info
- Add your own data (KML, shapefile, Excel)

TIMS TRANSPORTATION INFORMATION MAPPING SYSTEM

Project Search Create a Map Data Download Standard PDF Maps Map Viewers

10 records per page Search: Show / Hide columns Zoom to results Export data

CRS	ODOT_DISTRICT	COUNTY	COUNTY_CD	ROUTE_TYPE	ROUTE
HAM-71-8.709	08	HAMILTON	HAM	IR	00071
HAM-71-9.312	08	HAMILTON	HAM	IR	00071

To Excel
To KMZ/KML
To Shapefile
To Geodatabase

First Previous Next Last

OUTLET_CONDITION	Open
MARKER_CONDITION	Null
ANIMAL_GUARD	Null
MAINTENANCE	None Required
INSPECTION_COMMENTS	Rusted end
INSPECTION_DATE	8/24/2018 2:04:56 PM



ASSET DATA: TIMS

Data sharing:

- Print a pre-formatted map
- Share a link
- Download complete datasets

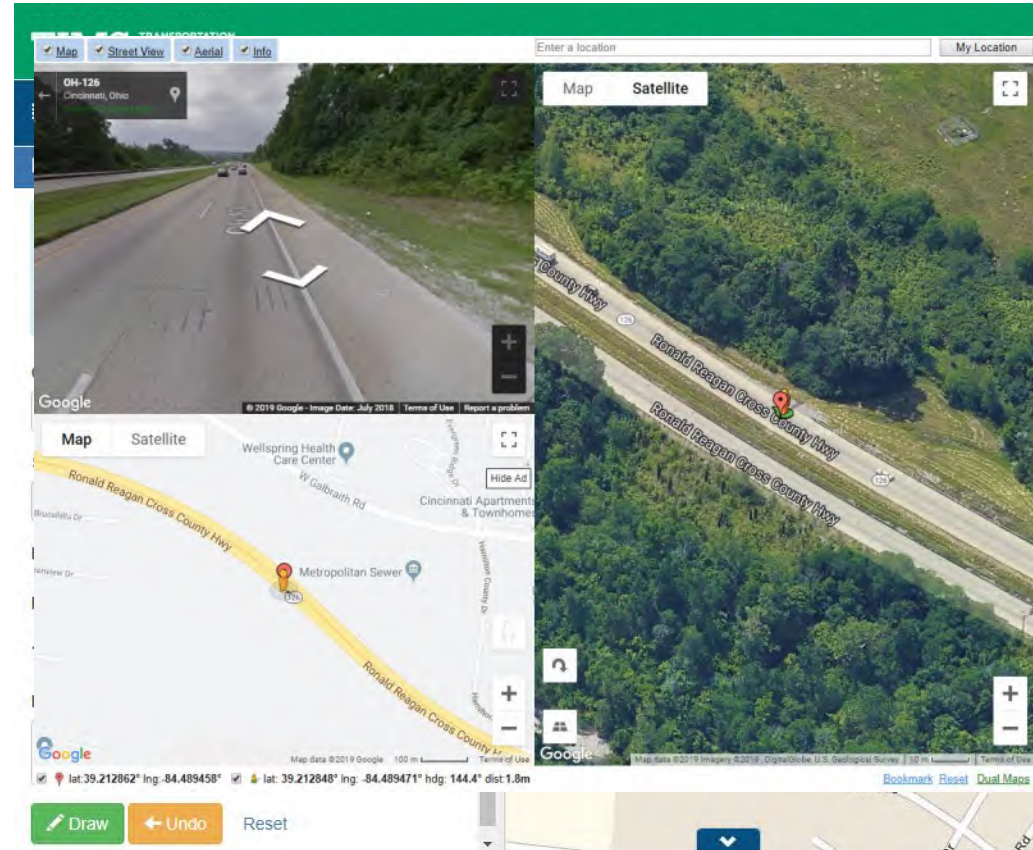
The screenshot displays the TIMS (Transportation Information Mapping System) interface for data download. The header includes the TIMS logo and a search bar. The main content area is titled 'Data Download' and provides instructions on downloading datasets as compressed zip files. A list of data layers is shown, each with a count and a dropdown arrow. An 'Export data' dropdown menu is open, showing options: To Excel, To KMZ/KML, To Shapefile, and To Geodatabase. The footer contains the TIMS logo, a disclaimer, and the date 5/29/2019.



ASSET DATA: TIMS

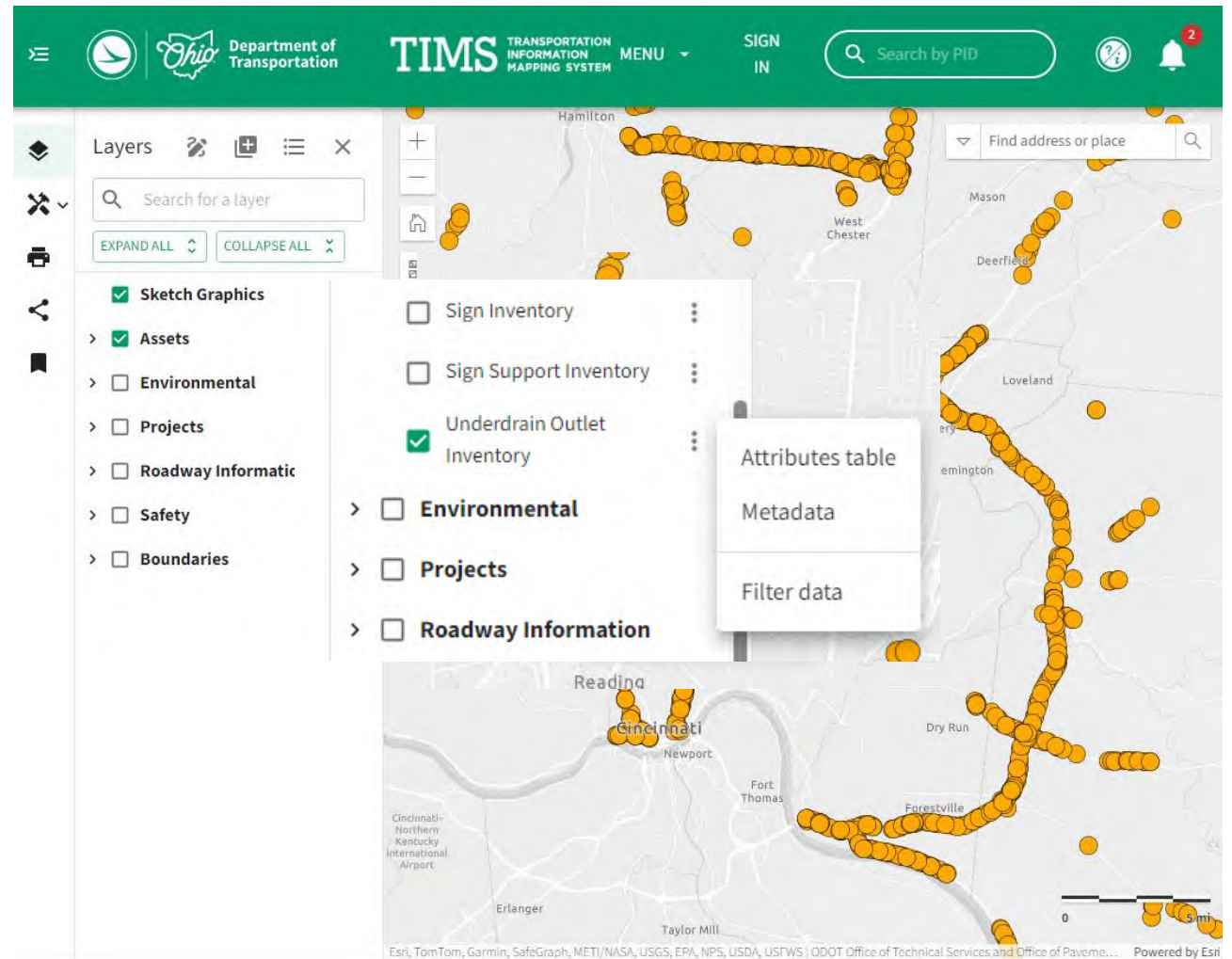
Other tools:

- Find log point
- Draw markups
- Link out to ODOT PathWeb or Map Channel



NEW & IMPROVED TIMS – SNEAK PEEK

- Same features, more intuitive to use
 - Click to identify
 - Right-click for log point info
- Approx. release date: soft rollout this summer, full production in fall 2024
- TIMS “Classic” will remain for time being



ASSET/ROAD PROFILE DATA

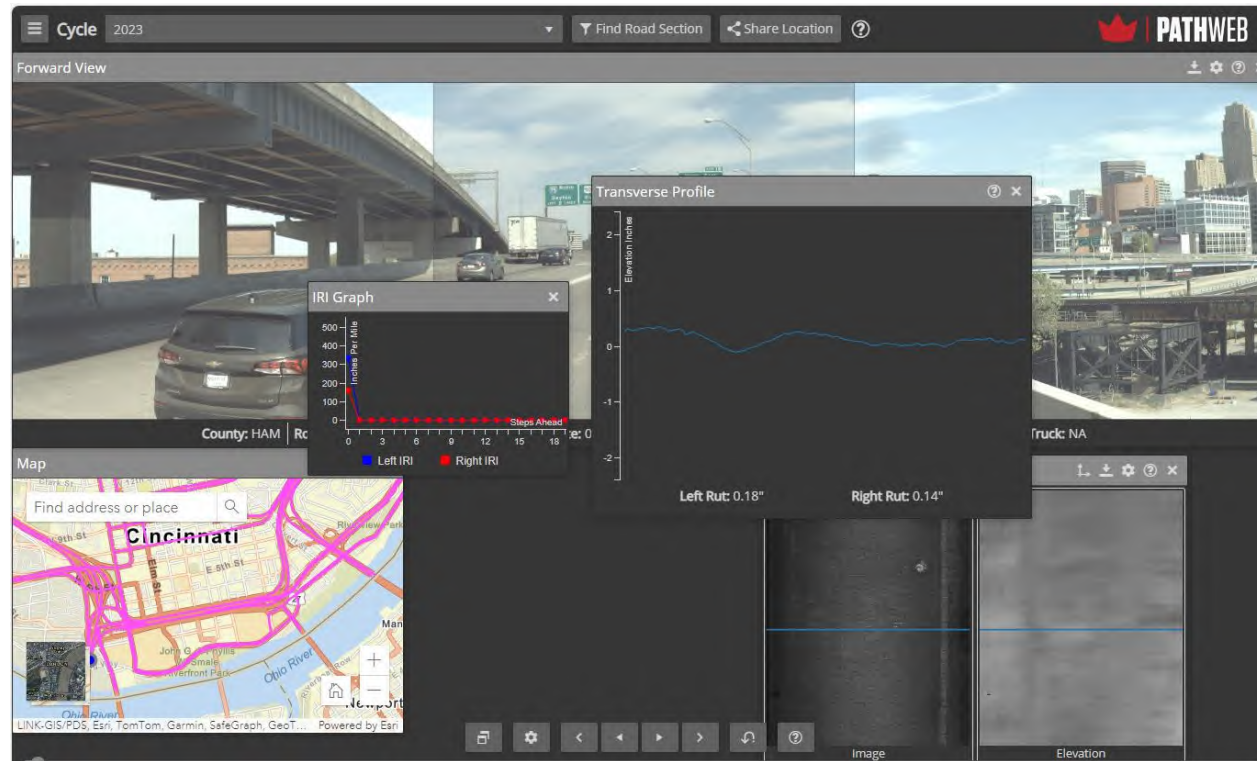
Road profiling van

- Collects hi-res digital photos in 4 directions, every 26.4 ft
- GPS
- IMU (inertial measurement unit) to gather pavement distress data
- 2-year cycle; D7 and D8 in odd years



ASSET/ROAD PROFILE DATA: PATHWEB

Pathweb: pathweb.pathwayservices.com/ohiopublic



PROJECT DATA: TIMS & ELLIS

- Ellis Proj: public-facing project database: ellisproj.dot.state.oh.us
- TIMS Project Search: Search by project details, location, or PID
- Can export data, view in map, or view details

The screenshot shows the TIMS interface with a search bar at the top right. The main content is divided into several sections:

Overview

Project Name	HAM/WAR IR71 19.41/0.00 Gore Ext
Project ID	87399
District (Work Location)	08
County (Work Location)	WARREN
Route Type	IR
Route	00071
Begin Log Point	0.00
End Log Point	0.50
District (Primary PID Location)	8
County (Primary PID Location)	Warren

Primary Work Category	Interchange, Reconstruction
Pavement Treatment Category	
Pavement Treatment Type	
Project Status	Awarded
Project Manager	HIVELY, RICKY M
Contract Type	Standard Build
Letting	ODOT Let
Fiscal Year	2014
FMIS	
STIP	True
Schedule Type	12 Wk Bid

Dates & Numbers

PID Est. Total Construction Cost	\$1,595,755.07
Award Milestone Date	8/8/2013
Begin Construction Date	9/14/2013
End Construction Date	12/17/2014
Open to Traffic Date	10/2/2014
Central Office Close Date	2/17/2017
Reservoir Year	2013
NLFID	SWARIR00071**C

Current STIP Construction Amount	\$3,575,000.00
Preservation Funds	N
Major Bridge Funds	N
Major New Funds	N
Major Rehab Funds	N
MPO Funds	Y
Safety Funds	N
Local Funds	N
Other Funds	Y

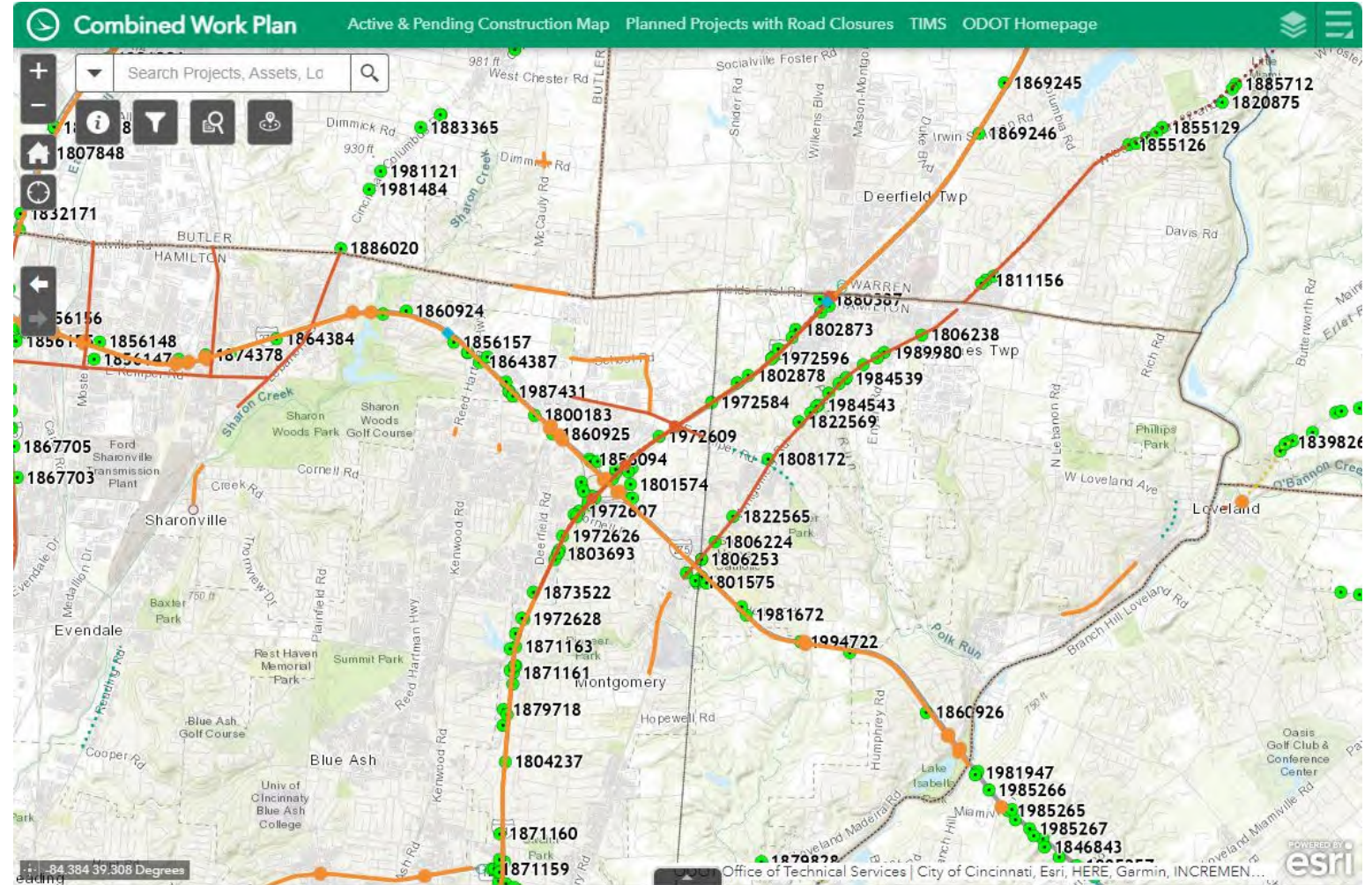
19.41/0.00 Gore Ext



PROJECT DATA: WORK PLAN MAP

6-year capital work plan:
<https://gis3.dot.state.oh.us/d08/MultiYearWorkPlan/>

- Includes operations work plan
- Asset data

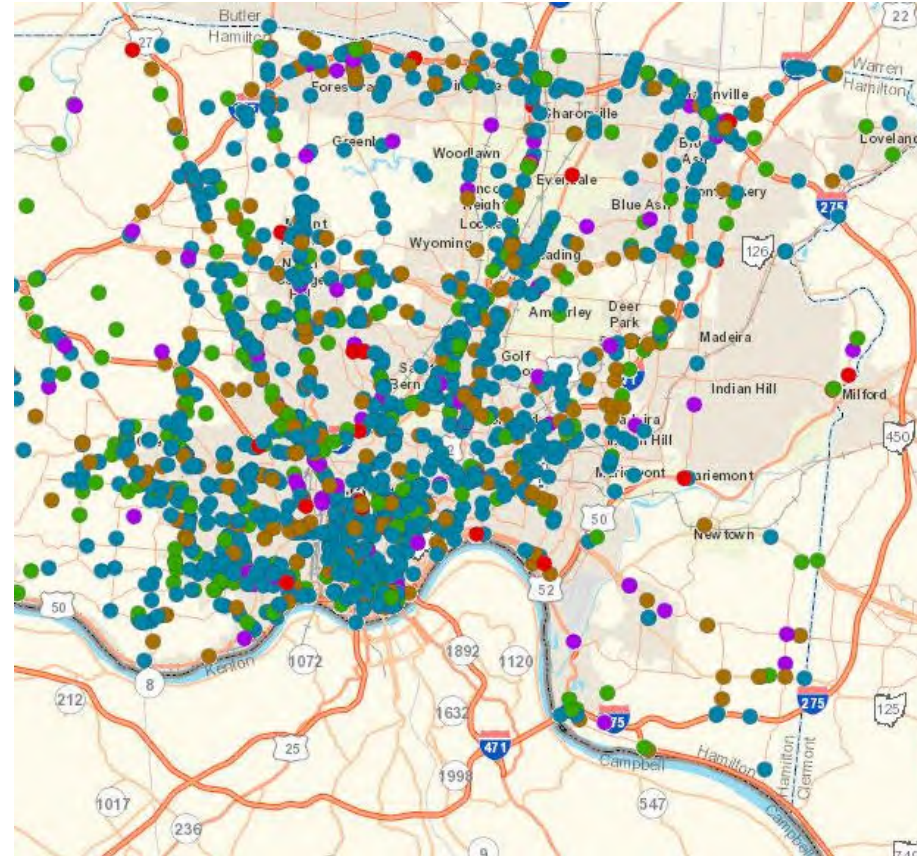


SAFETY DATA: GCAT AND TIMS

GCAT:

gis.dot.state.oh.us/tims/CrashAnalytics/Login

- 10 years of data
- Requires an account – available outside ODOT by request
- TIMS has public data for last 3 years



TRAFFIC DATA: TMMS

TMMS: odot.ms2soft.com

- Permanent stations and short-term counts
- Includes some speed and vehicle class data
- Other data in MS2:
 - Non-motorized traffic counts
 - Turning movement counts
 - Permitted lane closures

Speed Report

Location ID	17331	Located On	READING RD	County	HAMILTON
Counted By	TCDS_Combined		US42 S OF SR561, IN CINCINNATI	Community	CINCINNATI
Start Date	Wed 3/17/2021	Loc On Alias		Station	
Start Time	12:00:00 AM	Direction	2-WAY	Agency	ODOT
Source	TCDS_BIN_IMPORT_COMBINE	Sensor Type	ATR Class		
85%tile Speed	40	Count Status	Accepted	Holiday	No
Pace Speed	30 - 40				
Display Interval:	60 Min				

Directions: **2-WAY** NB SB

Count Navigation: <<< < > >>> Count Type: **SPEED**

Start Time	0-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85+	TOTAL
12:00 AM	0	5	17	57	54	27	15	2	4	0	0	0	0	0	0	181
1:00 AM	0	0	11	46	43	32	8	4	0	0	1	0	0	0	0	145
2:00 AM	0	5	9	34	36	9	10	3	1	0	0	0	0	0	0	107
3:00 AM	0	3	11	29	21	8	5	3	2	1	0	0	0	0	0	83
4:00 AM	0	5	14	34	39	15	10	4	0	0	0	0	0	0	0	121
5:00 AM	1	0	17	68	45	42	18	10	2	0	0	0	0	0	0	203
6:00 AM	1	2	44	133	130	68	30	5	1	0	0	0	0	0	0	414
7:00 AM	2	5	79	238	242	107	44	10	2	0	0	0	0	0	0	729
8:00 AM	5	38	163	324	256	112	52	5	2	0	0	0	0	0	0	957
9:00 AM	1	14	101	320	262	108	41	10	3	0	0	0	0	0	0	860
10:00 AM	2	22	129	299	261	140	53	10	4	0	1	0	0	0	0	921
11:00 AM	2	40	163	383	267	145	38	6	3	1	0	0	0	0	0	1048
12:00 PM	2	29	183	444	350	153	41	11	2	0	0	0	0	0	0	1215
1:00 PM	2	36	208	500	366	155	43	6	1	4	0	0	0	0	0	1321
2:00 PM	3	35	246	524	375	148	52	9	2	1	0	0	0	0	0	1395
3:00 PM	43	132	468	657	354	91	29	5	0	0	0	0	0	0	0	1779
4:00 PM	17	84	329	714	429	147	45	9	1	2	0	0	0	0	0	1777
5:00 PM	16	48	273	632	433	188	64	7	3	1	0	0	0	0	0	1665
6:00 PM	4	47	202	480	317	143	33	14	0	1	0	0	0	0	0	1241
7:00 PM	4	41	157	358	290	116	26	5	3	0	0	0	0	0	0	1000
8:00 PM	0	20	88	275	210	102	26	4	1	0	0	0	0	0	0	726
9:00 PM	1	11	74	165	170	74	18	2	1	0	0	0	0	0	0	516
10:00 PM	4	5	63	177	156	75	12	7	3	1	0	0	0	0	0	503
11:00 PM	0	2	30	126	101	52	15	5	1	0	0	0	0	0	0	332
TOTAL	110	629	3079	7017	5207	2257	728	156	42	12	2	0	0	0	0	19239



UAS (UNCREWED AERIAL SYSTEMS – AKA DRONES)

Ohio UAS Center

<https://drive.ohio.gov/programs/aam/uas/>

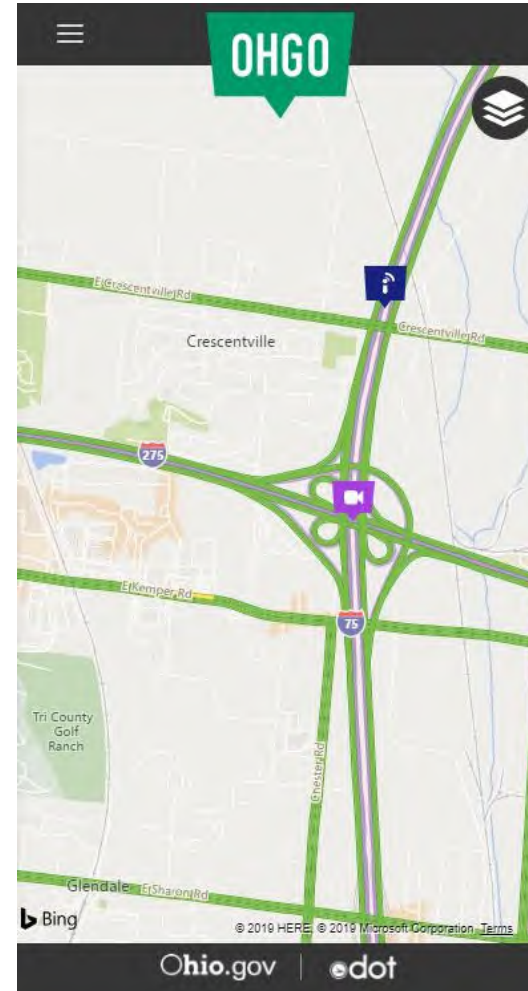
- Manages and performs UAS operations for ODOT
 - Aerial photography, mapping
 - Facility inspections
 - Emergency/incident management
 - Infrastructure, construction, traffic monitoring
- Shared resource for local & state agencies
 - Program development and support
- Research & partnerships: Air Force Research Laboratory, Ohio State University, NASA... more TBA!



REAL-TIME PUBLIC DATA: OHGO

OHGO: www.ohgo.com or OHGO app (Google/Apple)

- Weather sensors
- Cameras
- Delays, incidents, and construction
- Includes active and planned work zones
- API available



TRAINING AND MORE INFORMATION

- LTAP: webinars, in-person training sessions
 - TIMS
 - GCAT
 - www.dot.state.oh.us/Divisions/Planning/LocalPrograms/LTAP
- ODOT Department of Technical Services:
 - <https://www.transportation.ohio.gov/programs/technical-services/tech-services-landing>



QUESTIONS



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THANK YOU