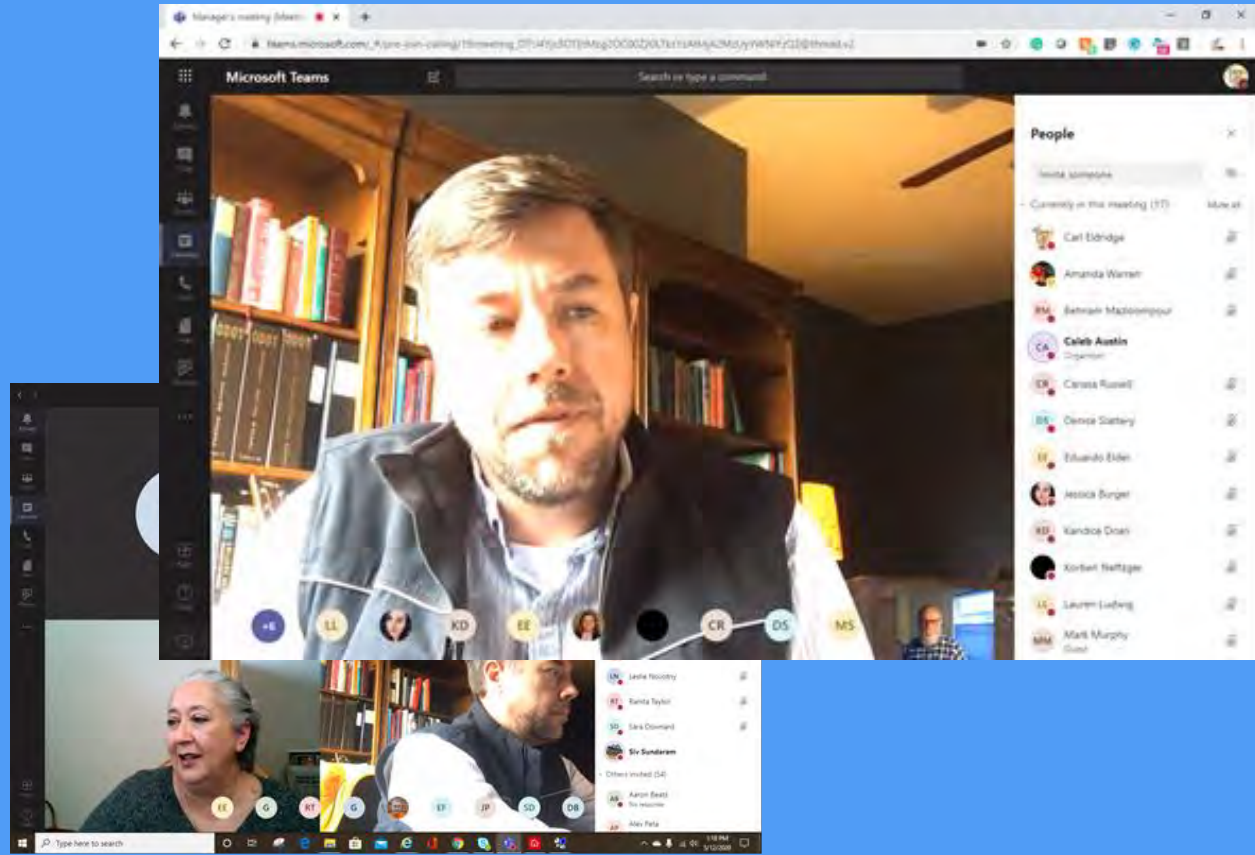




OKLAHOMA Transportation



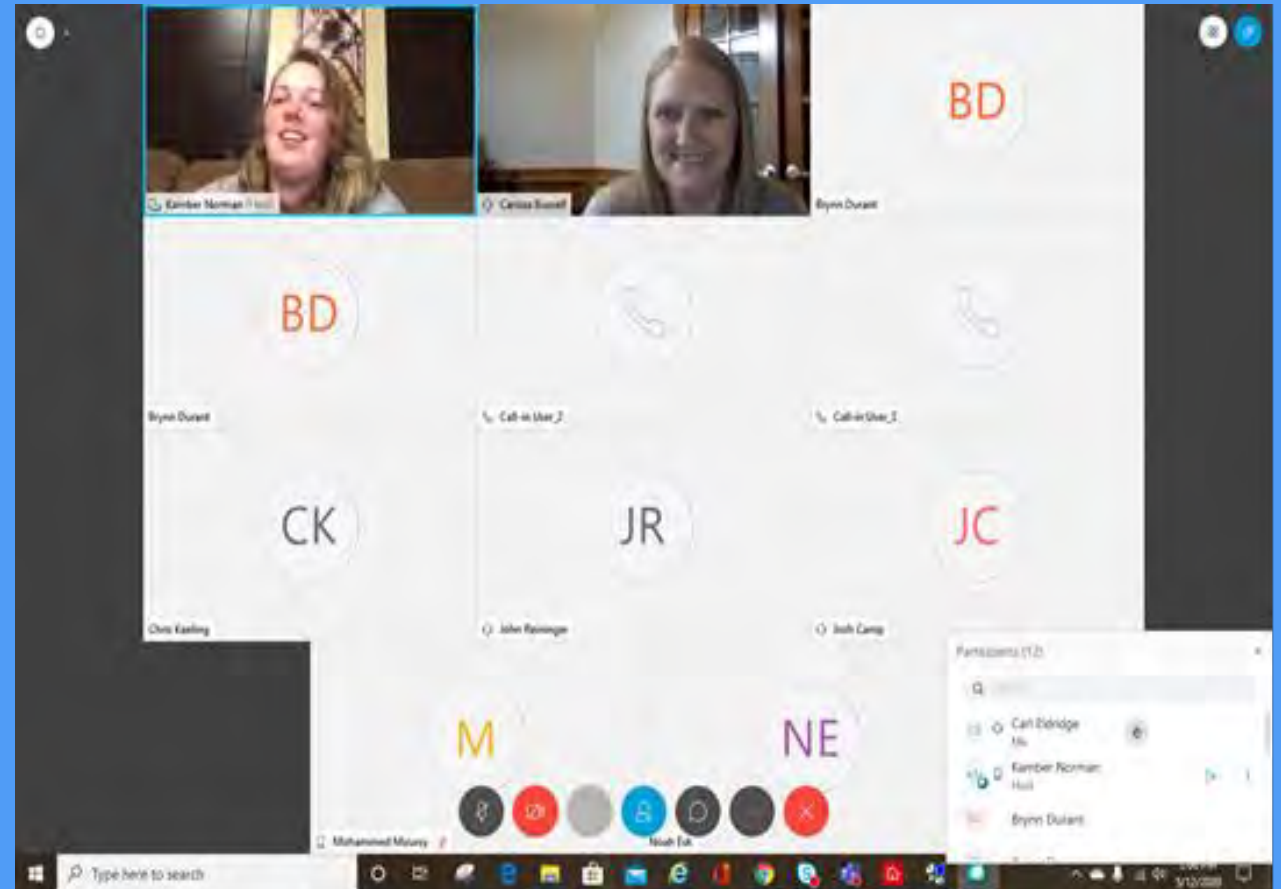
- **TEAMS** – Application that enable us to maintain visual and verbal communication with our managers and staff
- We can share documents and have meetings on the fly
- It also gives us access to other group meetings throughout the Department



Cisco Webex
Software company

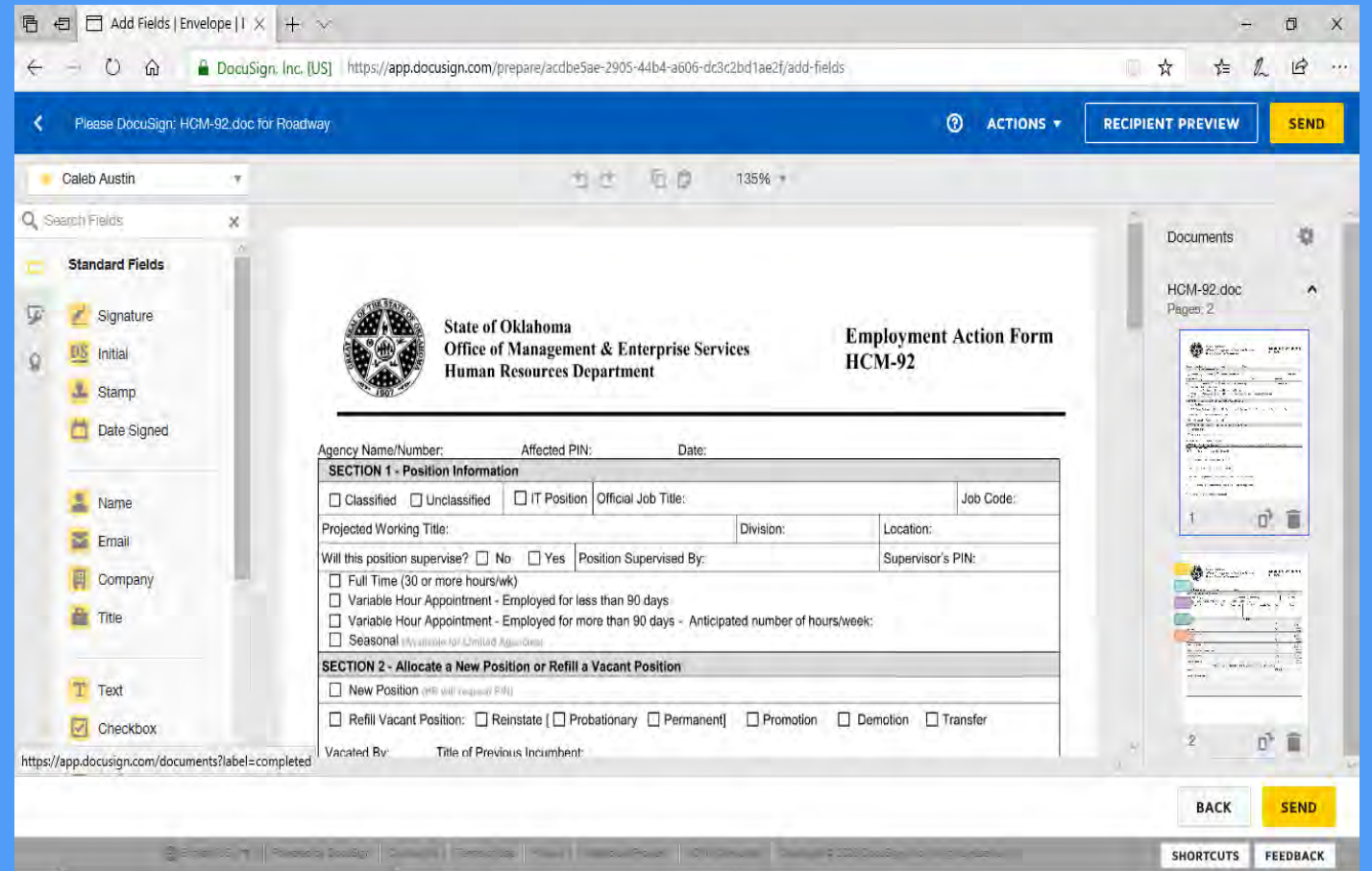


- **Webex** – Virtual meeting room that allow outside participants to collaborate and can be used with “Purple” to assist us in communicating with our members that require ASL interpreting services





- DocuSign – Application that gives a secure way to sign and get documents signed digitally. It can be used in the office or remotely from a phone, tablet, laptop or desktop computer
- It has streamlined ODOT’s ability to move documents through the approval process





Adobe Creative Cloud



Acrobat Pro

- Acrobat Pro – With PDF being our standard deliverable format, we use this application for sharing and redlining
- It has reduced the need for printing paper copies

The screenshot displays the Adobe Acrobat Pro DC interface. The main window shows a PDF document titled "24233(04) Osage - Final Roadway Plan PDF.pdf". The document contains several tables, including "SUMMARY OF SURFACINGS", "SUMMARY OF REMOVALS", "SUMMARY OF DRIVEWAYS", and "SUMMARY OF TEMPORARY DRIVEWAYS". A "PRIME COAT DRIVEWAYS" table is also visible, listing quantities and costs. A summary sheet titled "SUMMARY SHEET ROADWAY" is shown at the bottom right. The interface includes a menu bar (File, Edit, View, Window, Help), a toolbar with various tools, and a sidebar with navigation and tool options. The document is displayed in a multi-page view, showing page 11 of 110.

SECTION	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
ASPHALT	ASPHALT DRIVEWAY	100	SQ YD	1.50	150.00
CONCRETE	CONCRETE DRIVEWAY	50	SQ YD	3.00	150.00
PAVEMENT	PAVEMENT DRIVEWAY	200	SQ YD	0.75	150.00
TOTAL					450.00

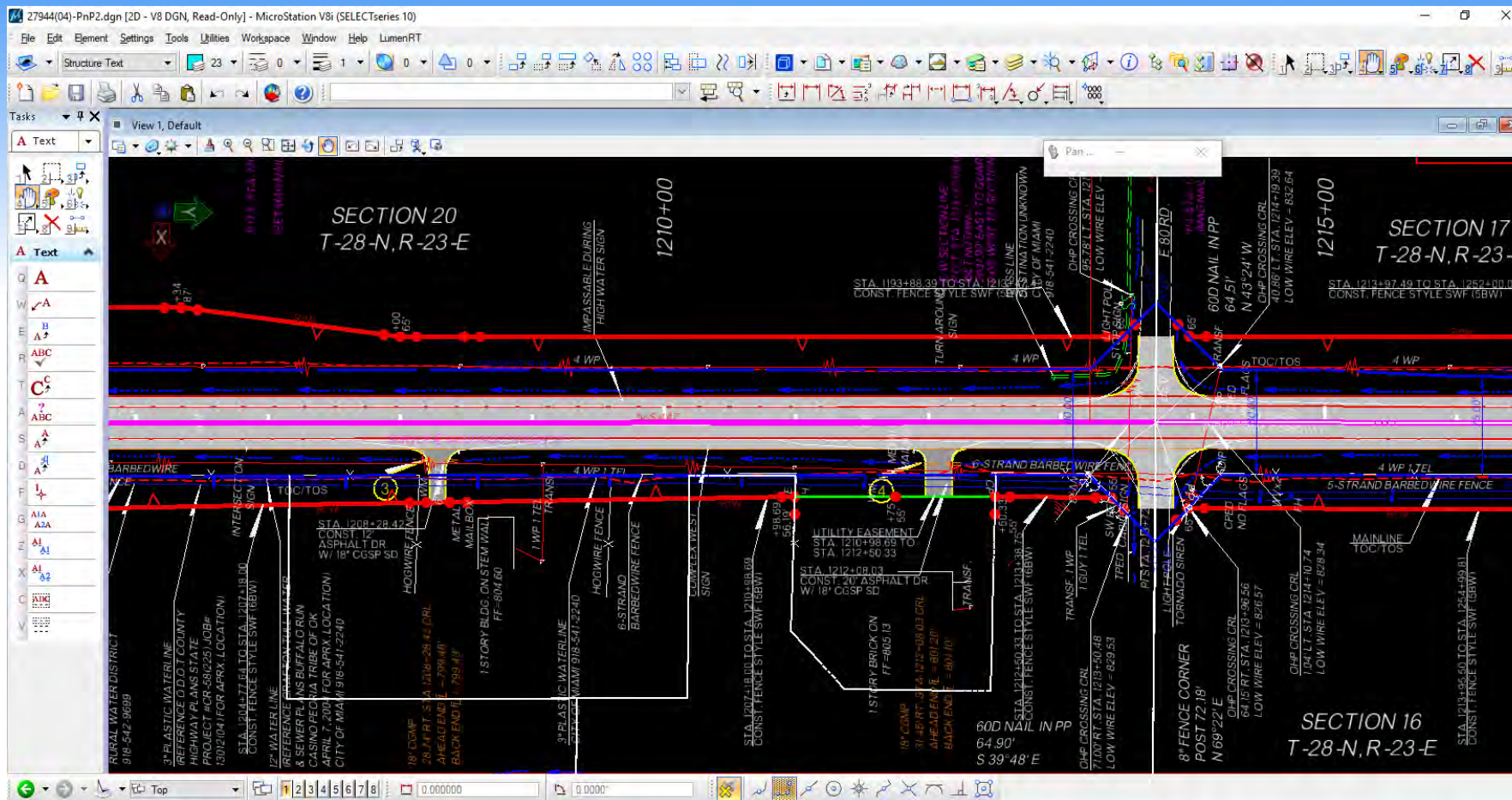
SECTION	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
ASPHALT	ASPHALT DRIVEWAY	100	SQ YD	1.50	150.00
CONCRETE	CONCRETE DRIVEWAY	50	SQ YD	3.00	150.00
PAVEMENT	PAVEMENT DRIVEWAY	200	SQ YD	0.75	150.00
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PAVEMENT	PAVEMENT DRIVEWAY	200	SQ YD	0.75	150.00
TOTAL					450.00

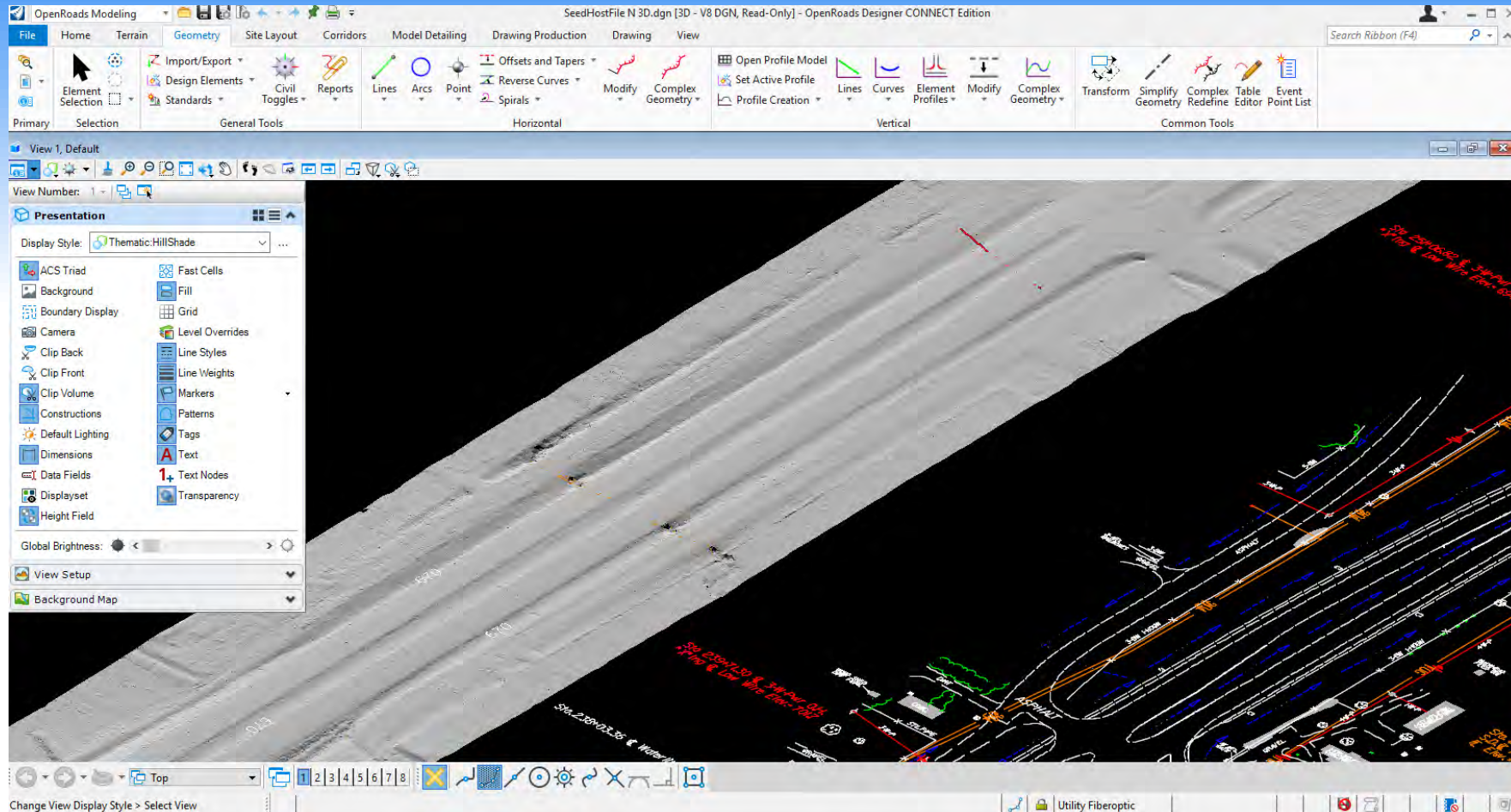


- **MicroStation >> Connect** – CADD (Computer Aided Drafting Design) standard digital platform to create 2D/3D Models for design plans





- **InRoads >> OpenRoads** – Civil design application package that creates intelligent data within the digital platform of our 3D roadway models





- **ConceptStation** – Design application that creates a visual presentation of the proposed designs using our civil design data





- Pavement ME – Used to calculate pavement responses (stresses, strains, and deflections) and combines them with other pavement, traffic, climate, and materials parameters to predict the progression of key pavement distresses and smoothness loss over time

 A screenshot of the AASHTOWare Pavement ME Design 2.5.5 (US) software interface. The window title is 'AASHTOWare Pavement ME Design 2.5.5 (US)'. The interface includes a menu bar, a toolbar, and several panes.

Explorer: Bryan, US69, Main Street, Flexi...

General Information: Design type: New Pavement; Pavement type: Flexible Pavement; Design life (years): 30; Base construction: March 2020; Pavement construction: June 2020; Traffic opening: August 2021.

Performance Criteria:

Performance Criteria	Limit	Reliability	Report Visibility
Initial IRI (in/mile)	63		<input checked="" type="checkbox"/>
Terminal IRI (in/mile)	200	90	<input checked="" type="checkbox"/>
AC top-down fatigue cracking (ft/mile)	3000	90	<input checked="" type="checkbox"/>
AC bottom-up fatigue cracking (% lane area)	25	90	<input checked="" type="checkbox"/>
AC thermal cracking (ft/mile)	1500	90	<input checked="" type="checkbox"/>
Permanent deformation - total pavement (in)	0.8	90	<input checked="" type="checkbox"/>
Permanent deformation - AC only (in)	0.65	90	<input checked="" type="checkbox"/>

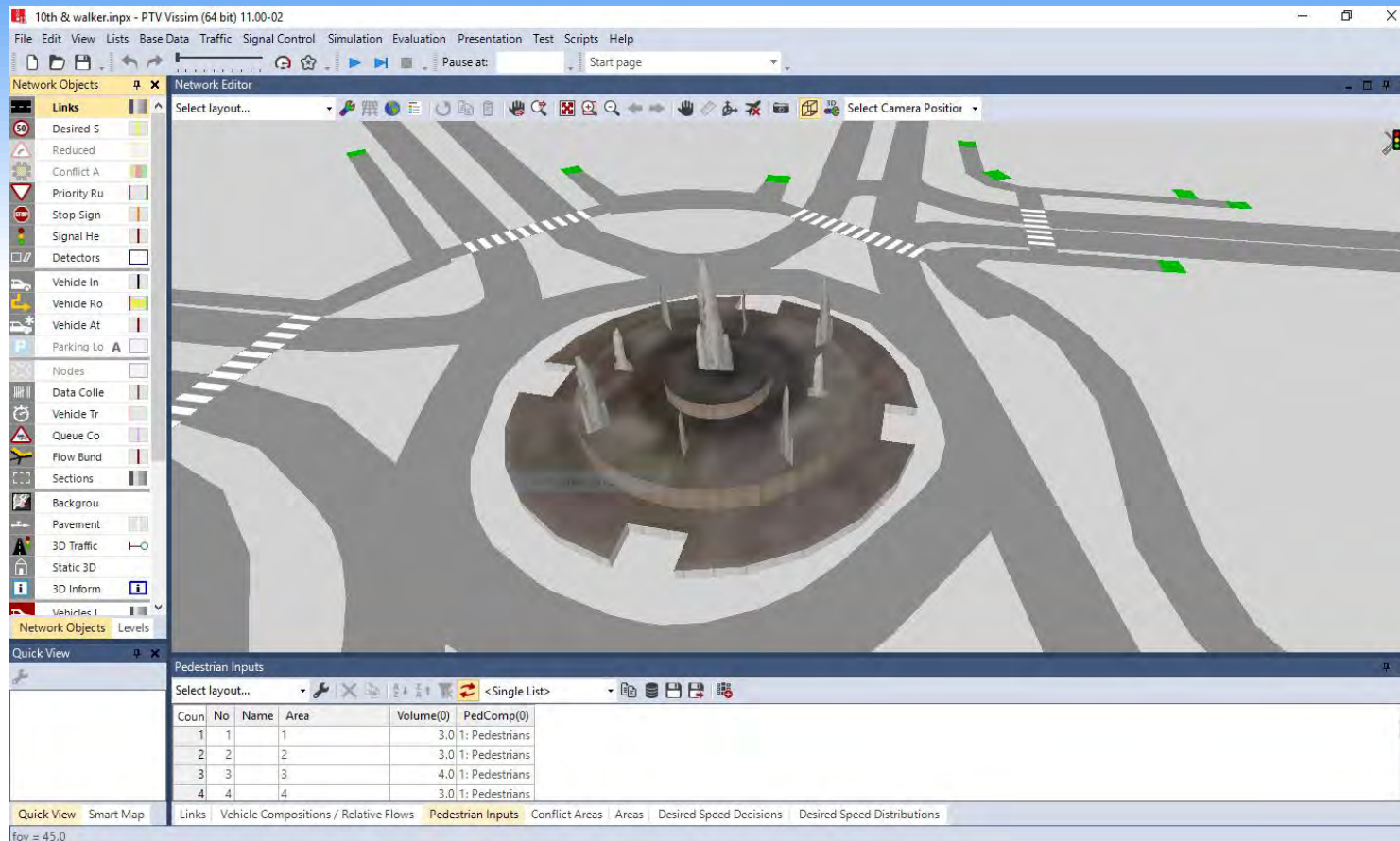
Identifiers: Approver: [blank]; Date approved: 3/22/2018 7:12 AM; Author: [blank]; Date created: 3/22/2018 7:12 AM; Description of object: Bryan, US69, Main Street, Flexible; Item Locked?: False.

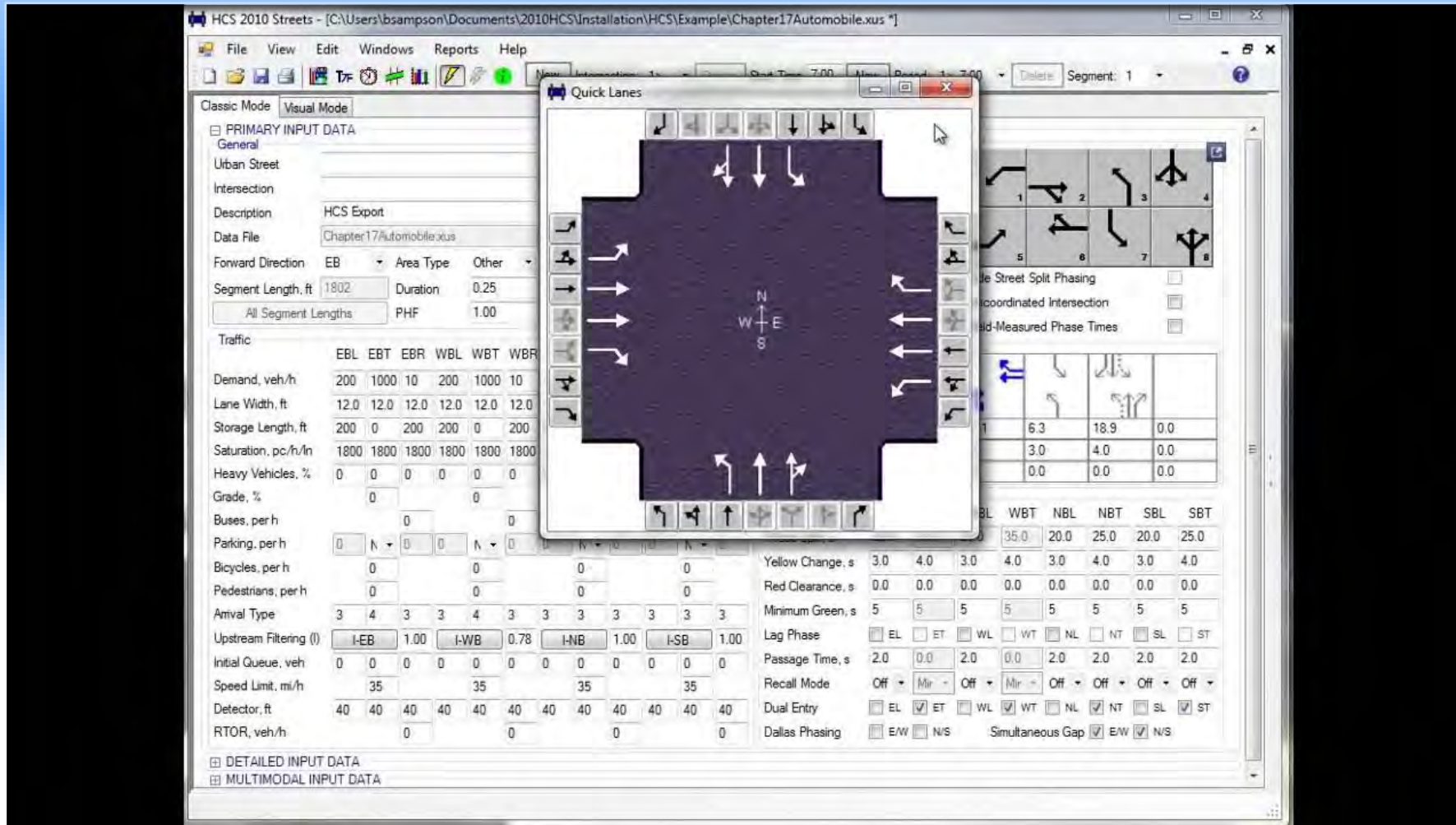
Output: Loaded integrated defaults for "rad.dat".

Error List:

Project	Object	Property
Bryan, US69, Main Street, Flexible	Layer 5 Subgrade : A-7-6	Modulus
Bryan, US69, Main Street, Flexible	New Flexible Pavement-Calibration Settings	Bottom up AC Cracking
Bryan, US69, Main Street, Flexible	New Flexible Pavement-Calibration Settings	AC Fatigue BF1: 5 in.
Bryan, US69, Main Street, Flexible	New Flexible Pavement-Calibration Settings	AC Thermal Cracking
Bryan, US69, Main Street, Flexible	New Flexible Pavement-Calibration Settings	AC Thermal Cracking

- PTV VISSIM– Used for traffic planning and traffic simulation, for making informed decisions about potential improvement projects and weighing the benefit any scenario



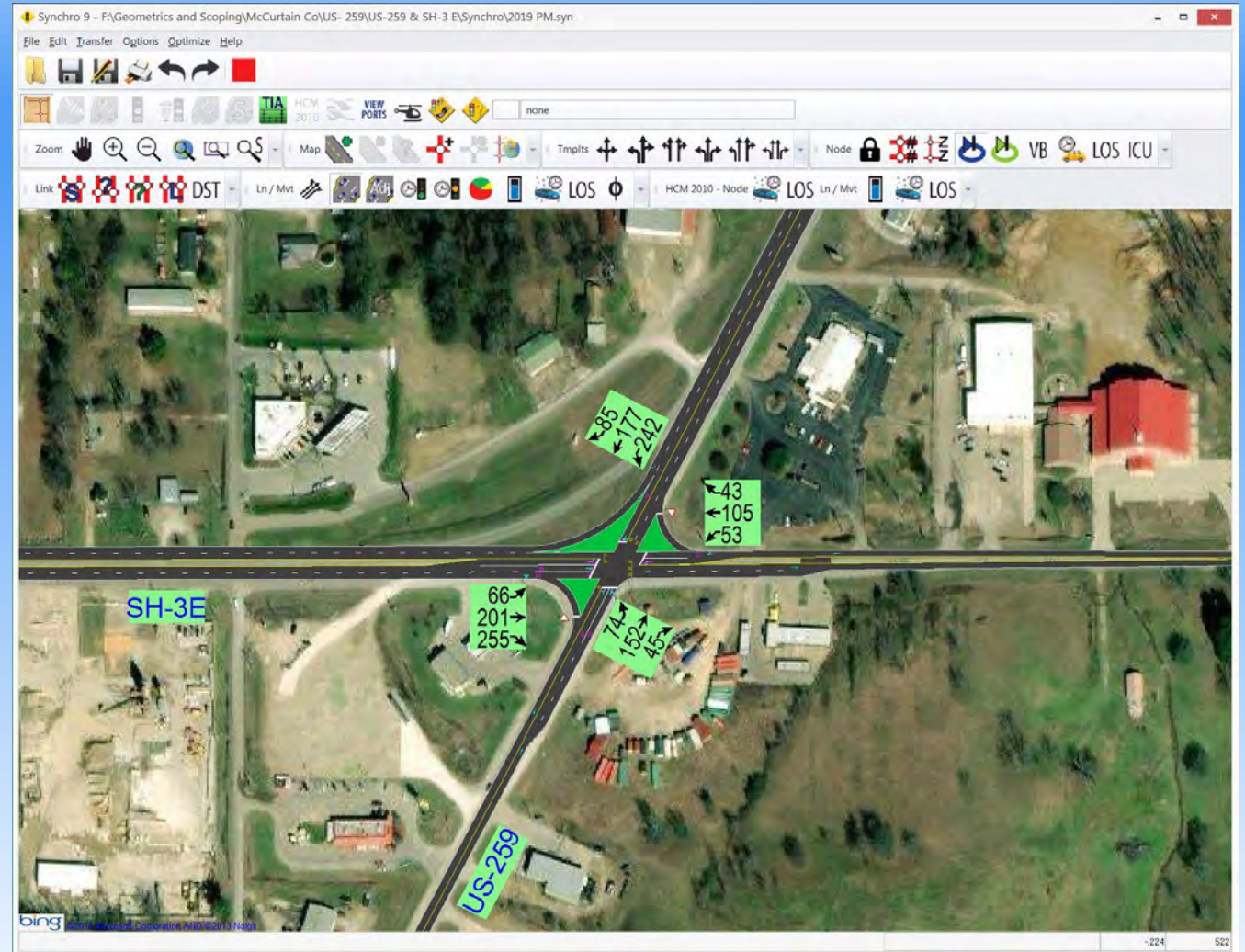


HIGHWAY CAPACITY SOFTWARE

This program is used in operations for traffic modeling and turning movements.

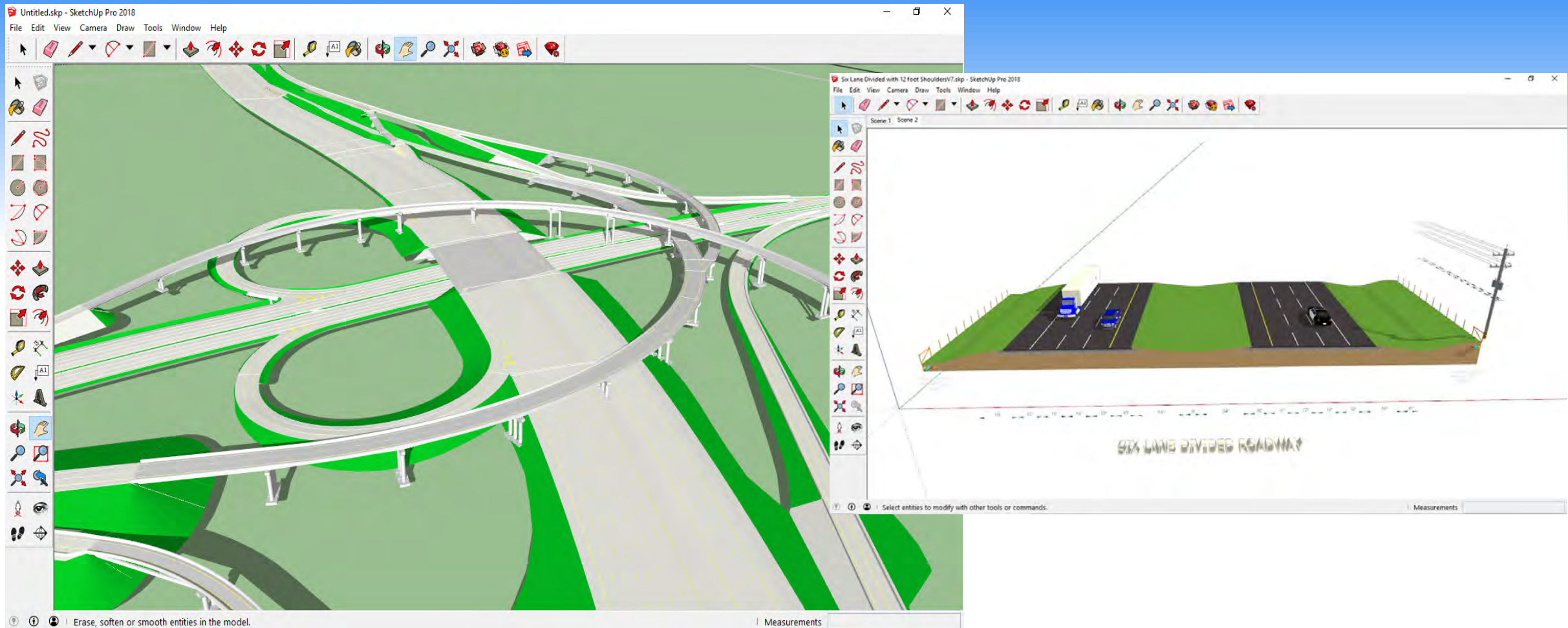
Trafficware

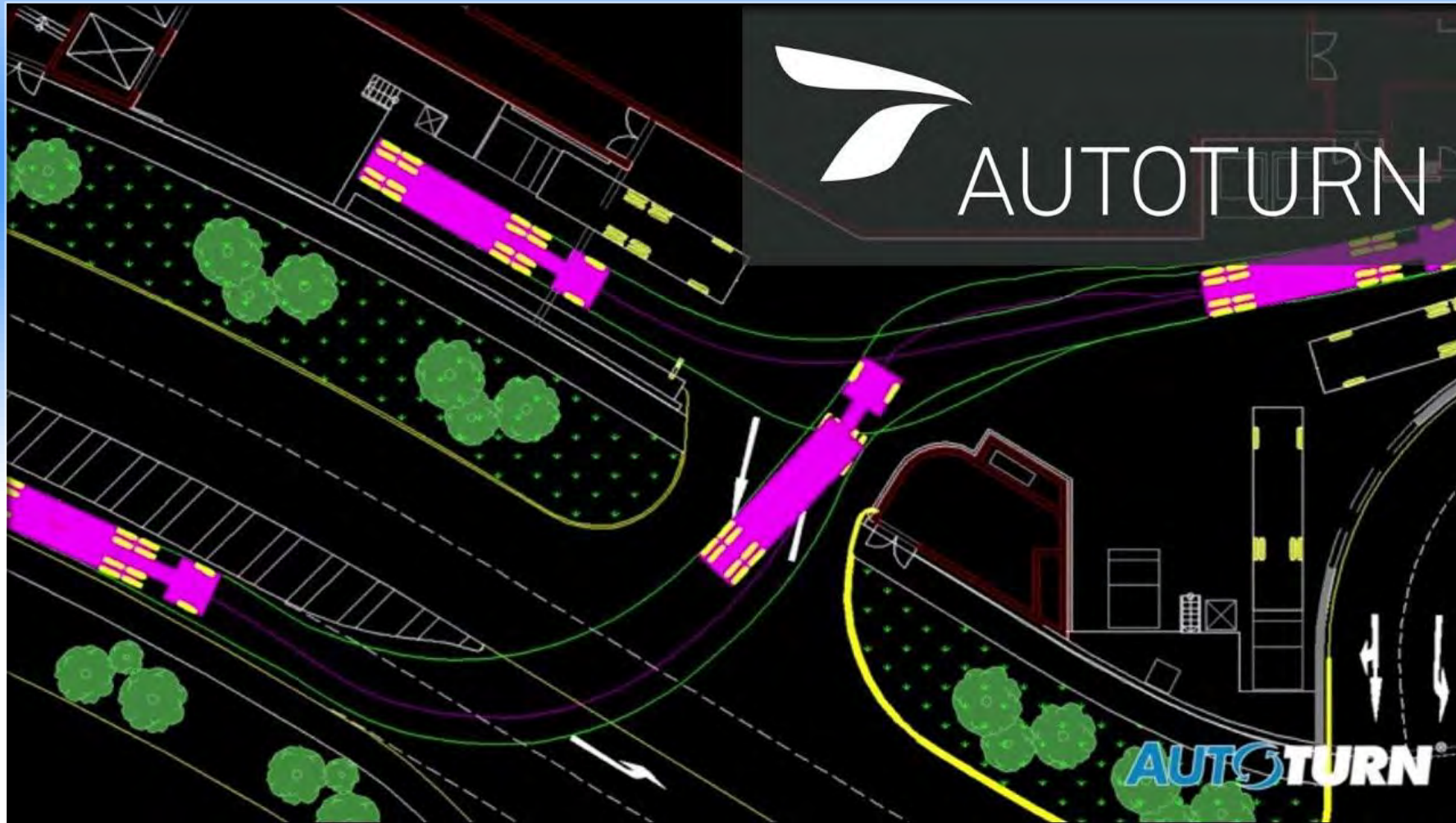
- **Synchro** – Traffic signal timing application that helps Traffic Engineers and transportation planners design, model, optimize, simulate, and animate signalized as well as un-signalized intersections (including roundabouts)





- Sketchup – Utility that bridges several of the applications we use, It assists in the creating of visual 3D models with ease

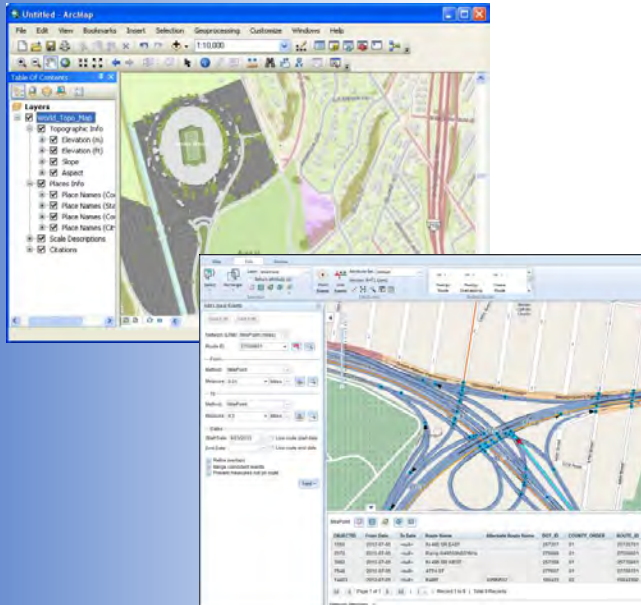




AUTOTURN

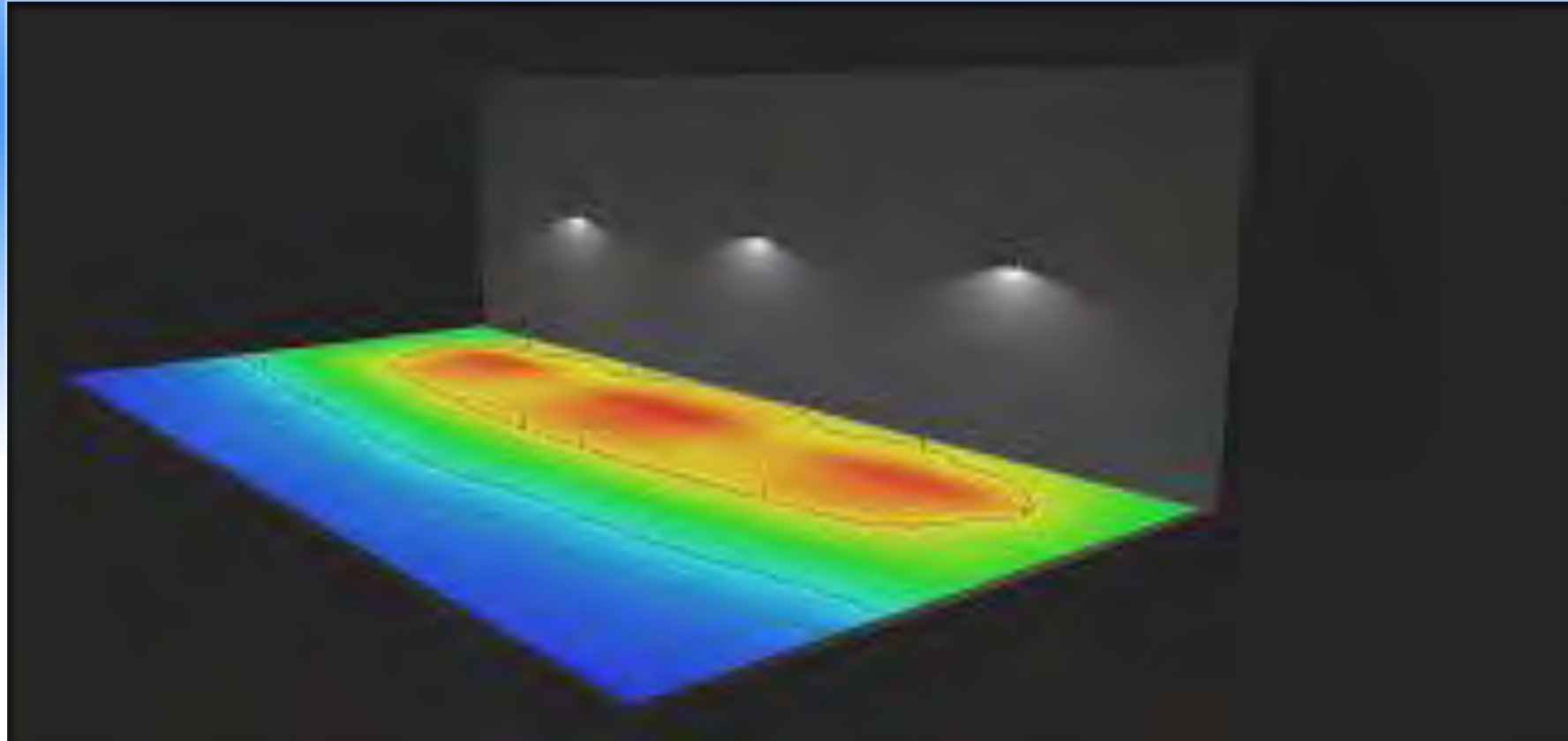
This is used to verify all turning movement can be made comfortably in any intersection modifications.

GIS – In the Office



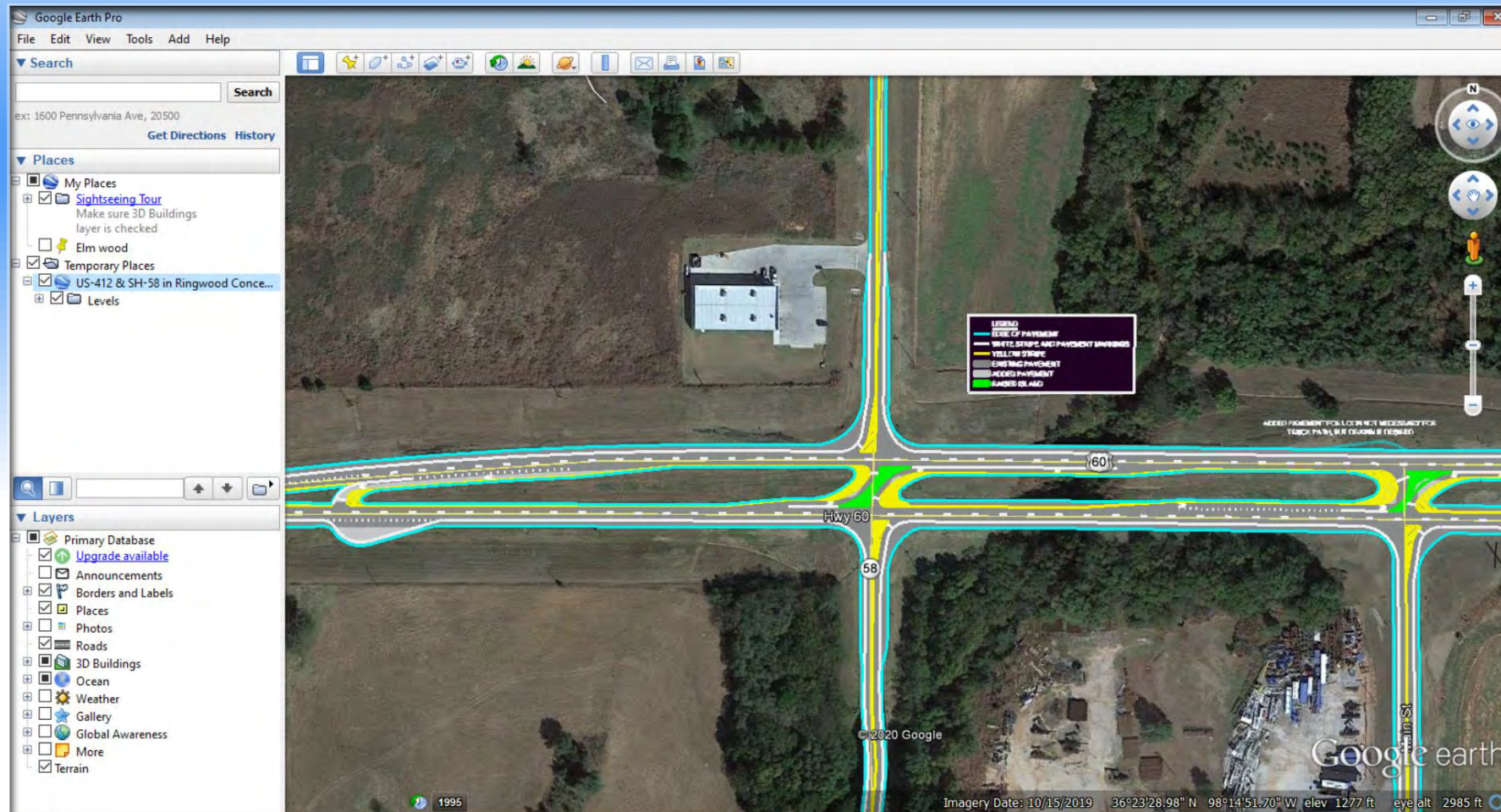
- EsriArcGIS software for maps and analytics
 - Agency's geospatial data starts here
 - Wide range of capabilities
 - Industry Standard
- Esri Roads & Highways software for roadway & LRS management
 - Easy downstream third-party integration (Agile Assets, Deighton, etc.)
 - Better data quality controls
- Transcend transportation data suite
 - Significantly streamlined HPMS submittal
 - Straight line diagramming





VISUAL

Used for photometric design for illumination projects.



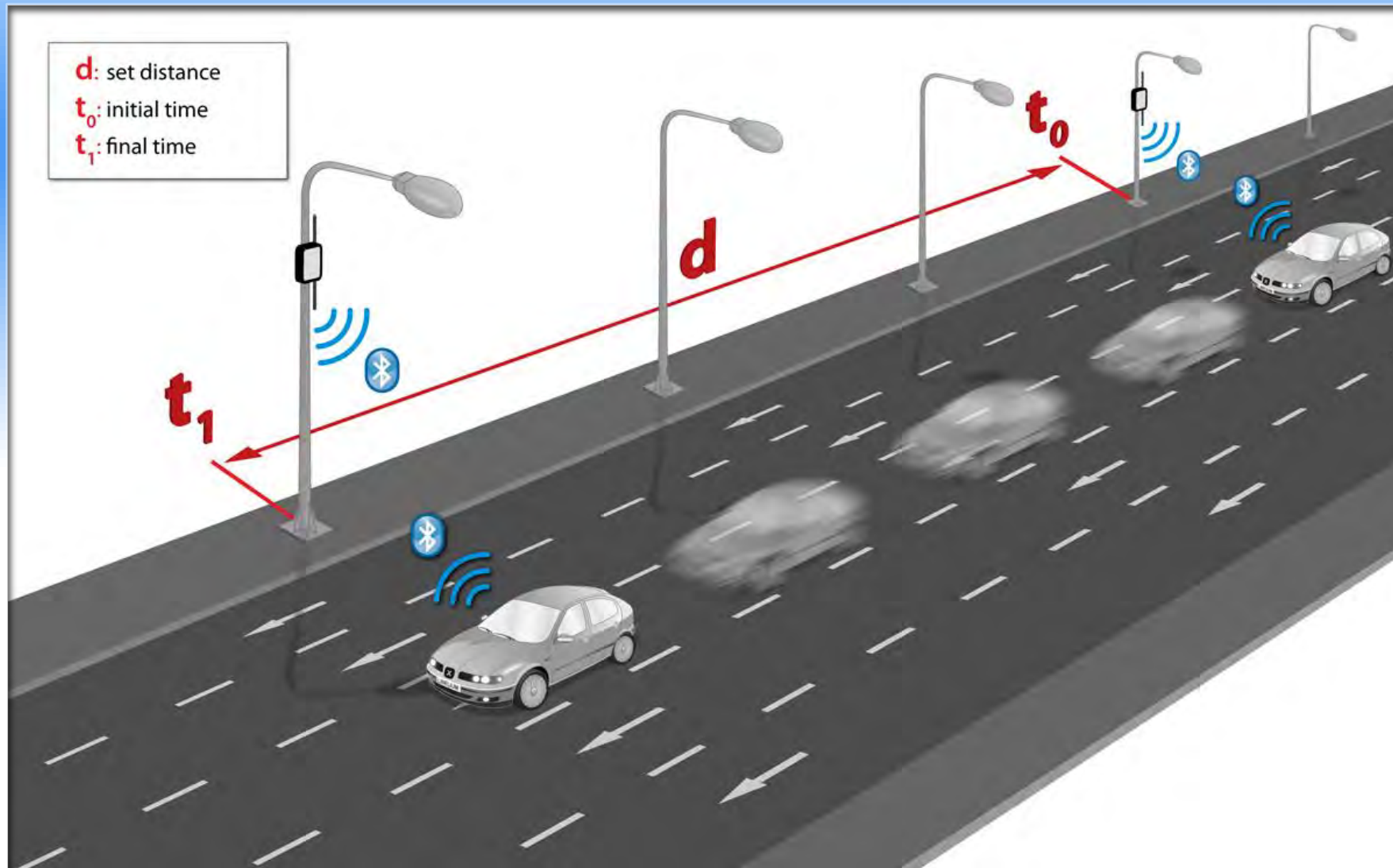
GOOGLE EARTH PRO

This is used to develop and show thoughts and ideas to field division about possible solutions for multiple issues.



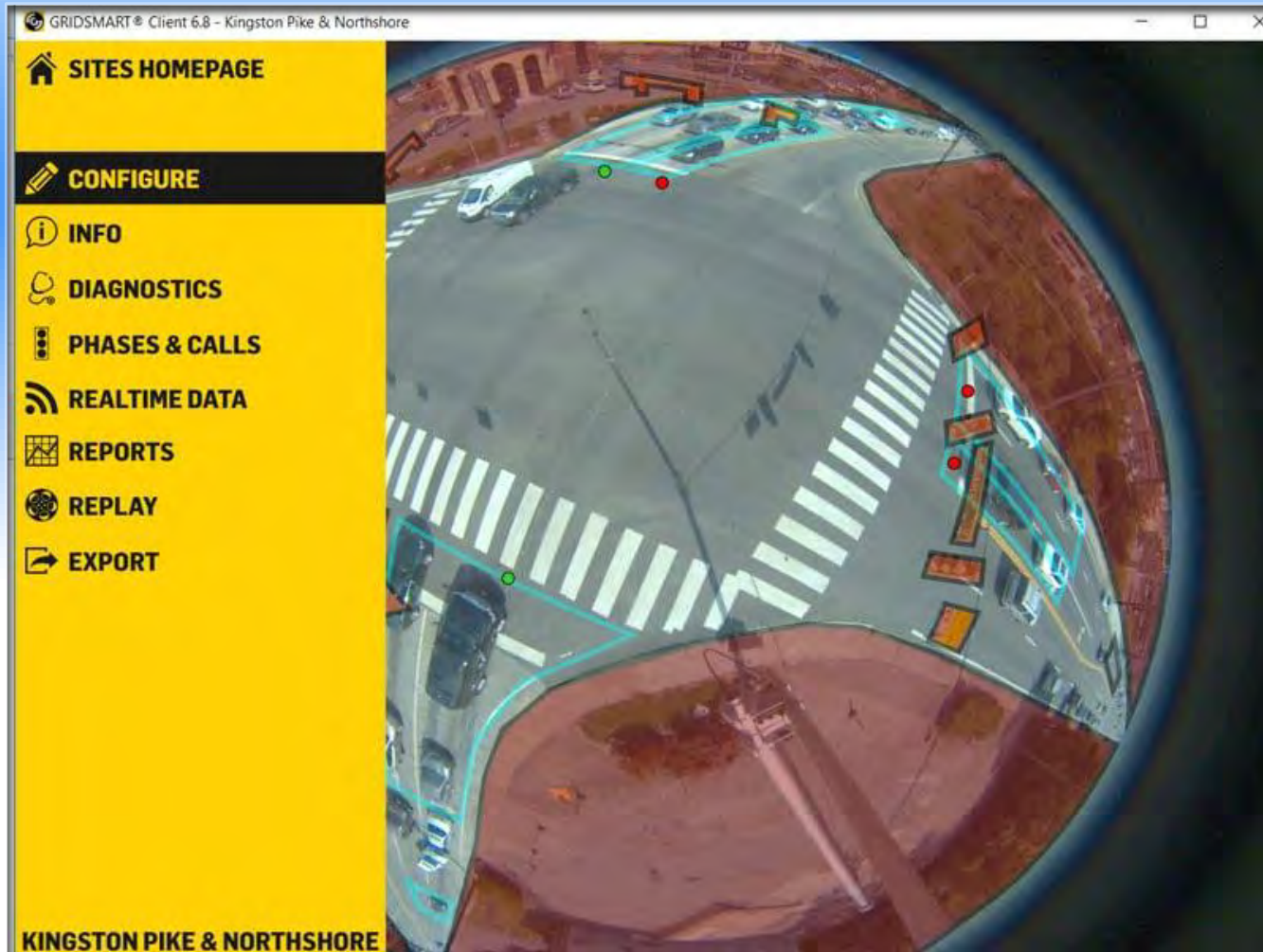
PORTABLE MESSAGE SIGNS

Used to relay messages in work zones especially with smart work zones.



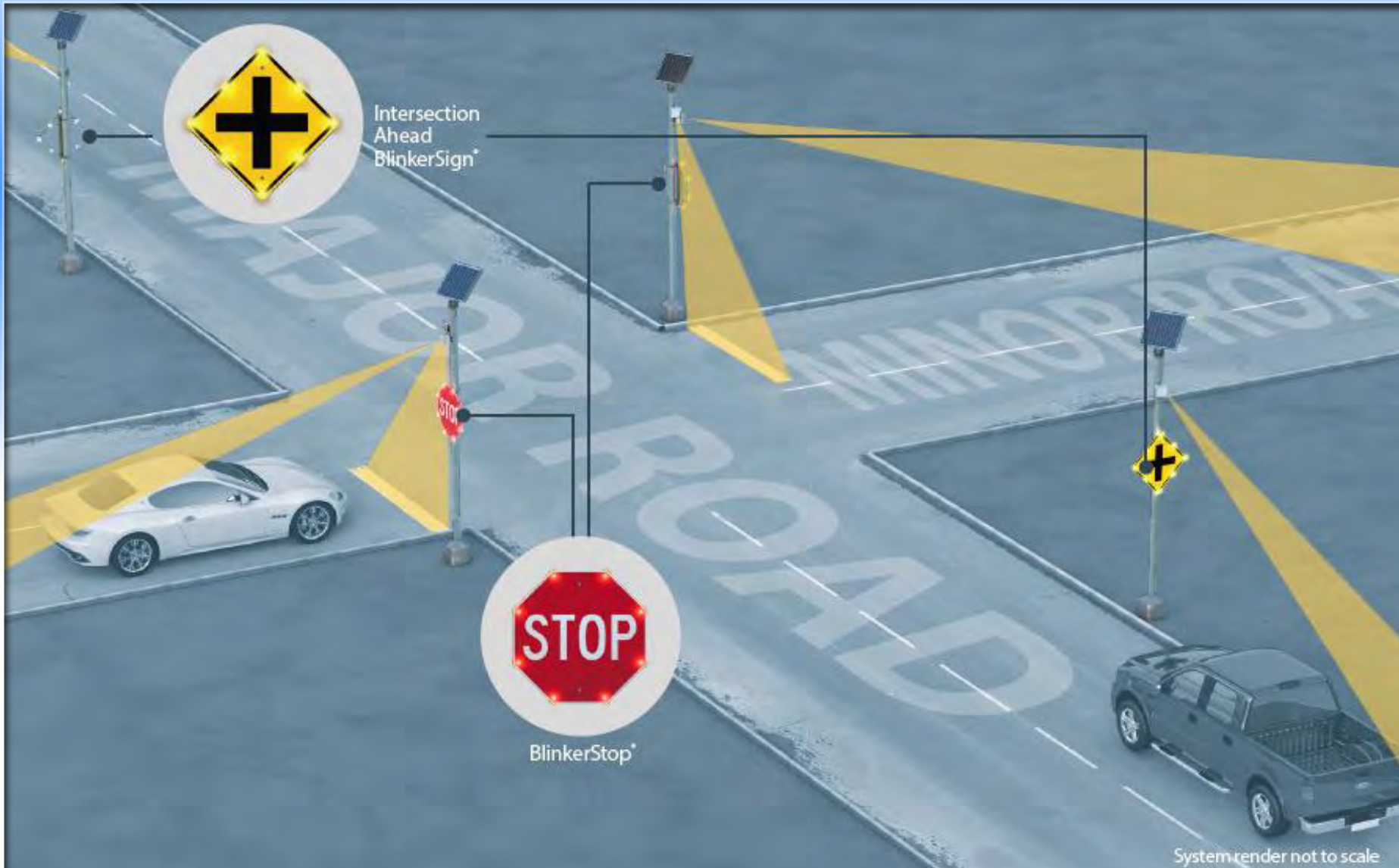
BLUETOOTH SENSOR

Bluetooth sensors can be used to calculate speeds, travel times and congestion relief via travel time information.



GRIDSMART TRAFFIC SIGNAL SYSTEM

We use this product for signal detection and real time year long traffic counts and turning movements at these signal locations.



INTELLIGENT WARNING SYSTEMS

Intelligent warning systems only flash when a potential conflict is present .

The image displays two screenshots of the WAZE PROBE DATA interface. The top screenshot shows a 'Bottleneck Ranking - Using INRIX data' for the period July 1, 2017, to August 31, 2017. It features a 'Ranking/Metric Table' with columns for Rank, Stop, Road Location, Segment, Direction, Average Delay, Total Incidents, Average Delay per Stop, Speed Difference, Speed Penalty, Volume, and Delay Score. Below the table are a 'Location Map' showing a road segment with colored markers and a 'Time Spiral' chart displaying two months of bottleneck data with associated events. The bottom screenshot shows a similar interface for the period November 1, 2017, to December 31, 2017, also including a 'Ranking/Metric Table', 'Location Map', and 'Time Spiral'.

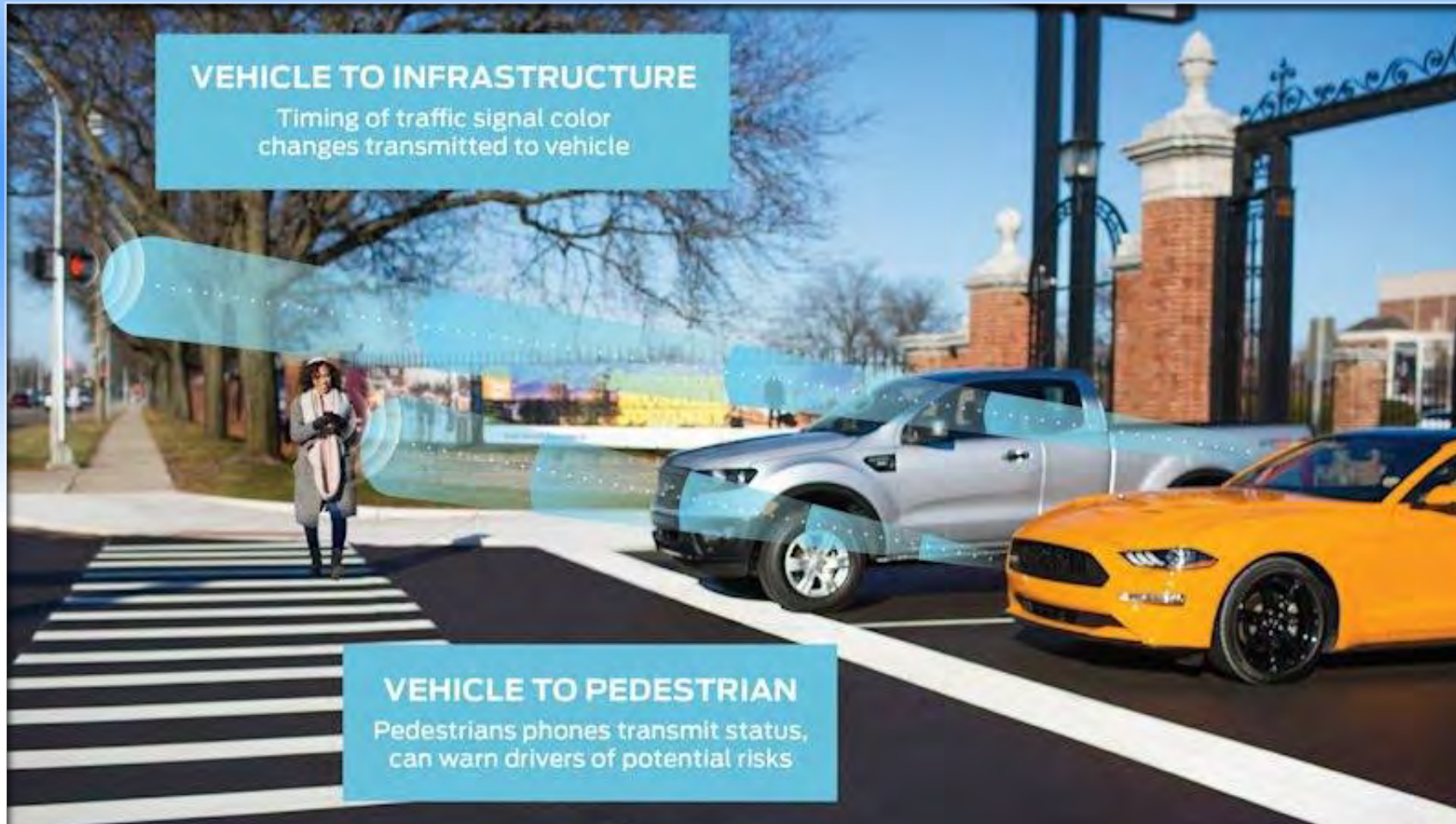
WAZE PROBE DATA

Offers us the ability to verify and check sensor collection data.



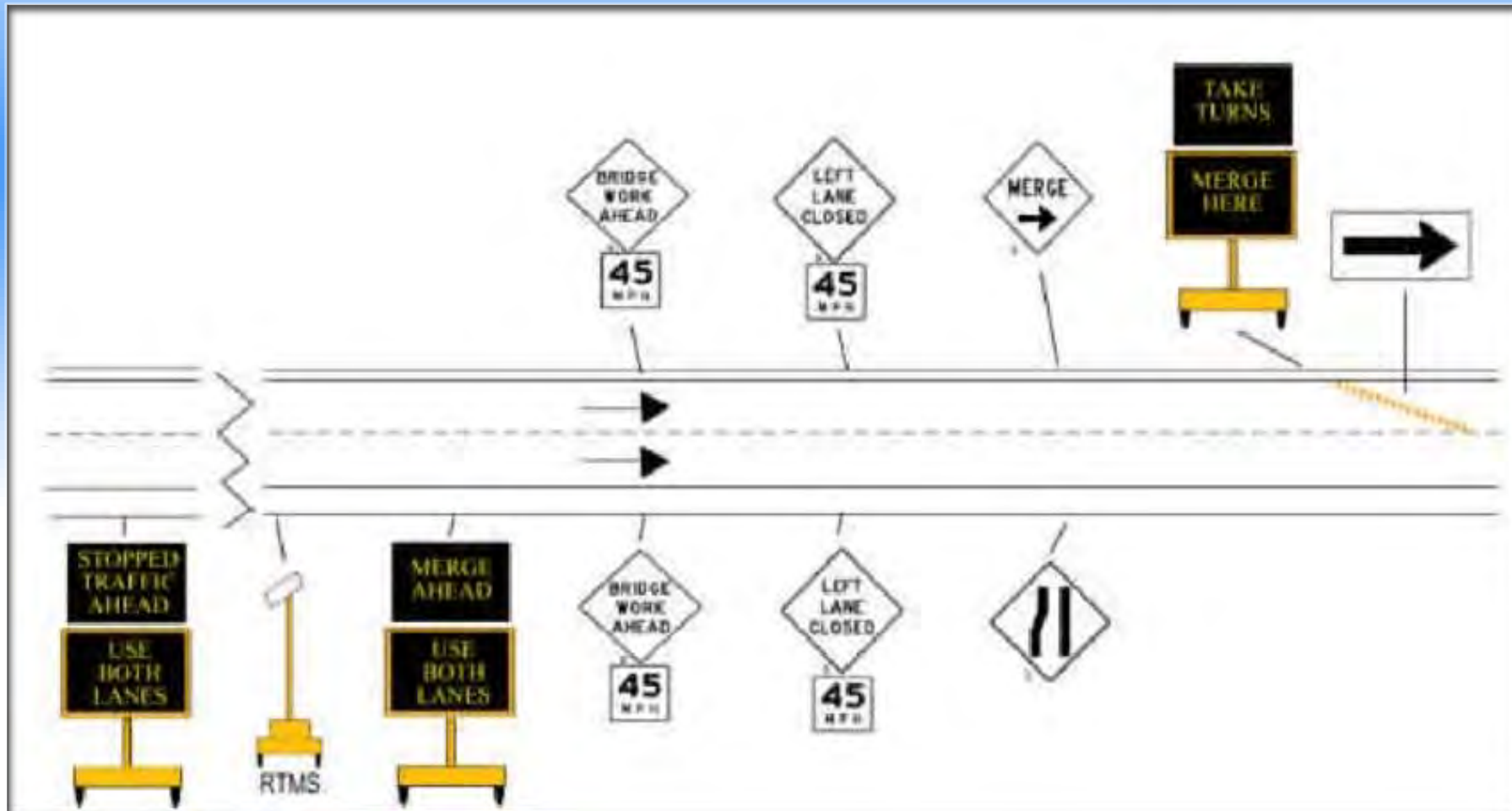
DRIVEWAY ASSISTANTS DEVICE

These will allow a reduction in cost by eliminating temporary signals at driveways.



CONNECTED VEHICLE TECHNOLOGIES

These will allow a reduction in cost by eliminating temporary signals at driveways.



DYNAMIC LATE MERGE

This lets us reduce queue lengths and avoid some secondary incidents.

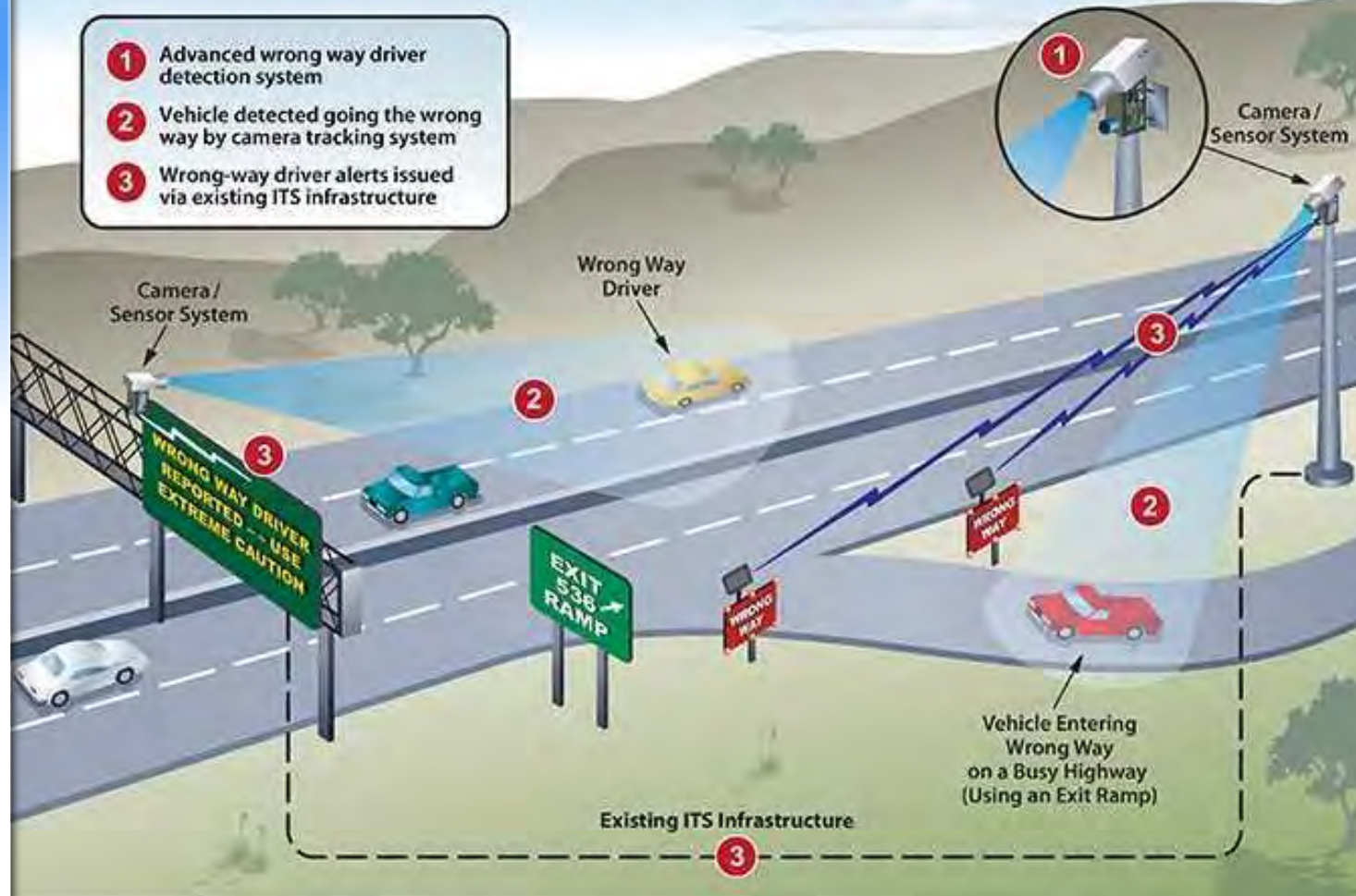


SOLAR POWERED LIGHTING BATTERY AND NET METERING

With copper theft and maintenance concerns solar lighting maybe a tool that can help with both problems. The system shown is a retrofit system that will work on any existing pole.

CAMERA/SENSOR - BASED SYSTEM – WRONG WAY DRIVER ALERT TRADITIONAL INFRASTRUCTURE

- 1 Advanced wrong way driver detection system
- 2 Vehicle detected going the wrong way by camera tracking system
- 3 Wrong-way driver alerts issued via existing ITS infrastructure



WRONG WAY DETECTION AND MITIGATION

FIELD EQUIPMENT

Multi-Station 60



GPS/RTK Base Station



Digital Level

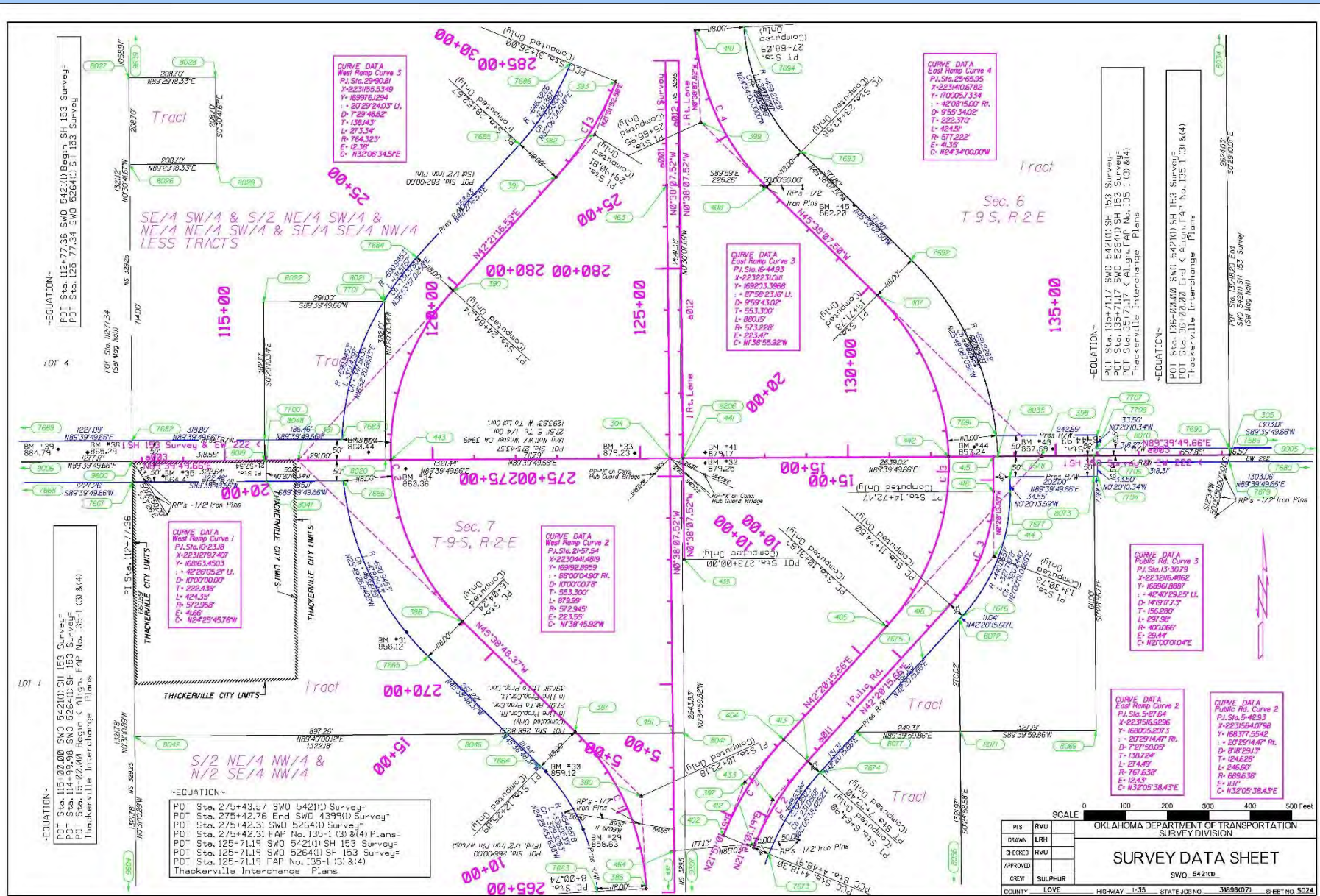


GNSS RTK Network Station

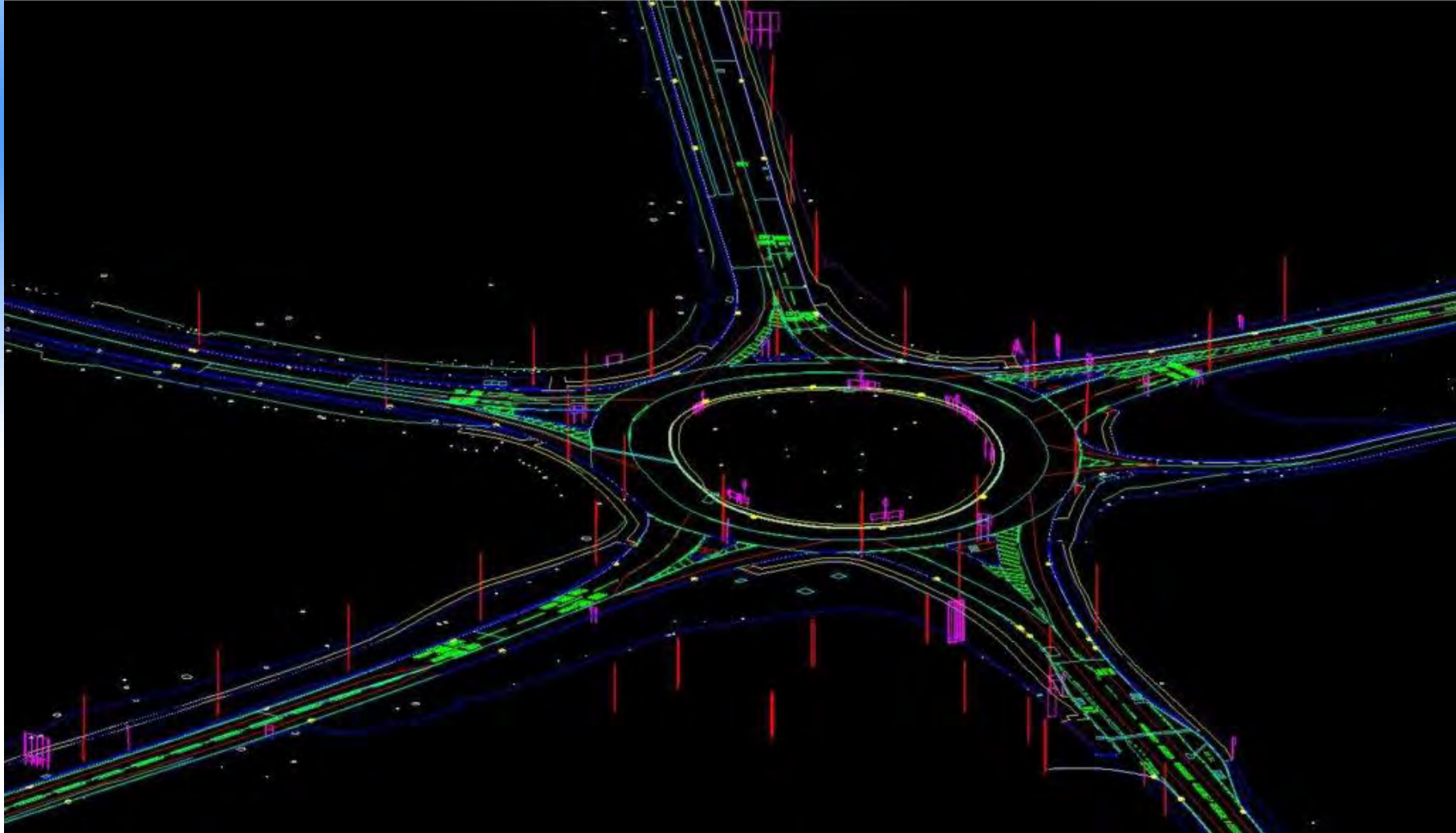


GPS/RTK Rovers

Once edited graphically the Survey is approved and sheet files are created in the Adobe Acrobat format



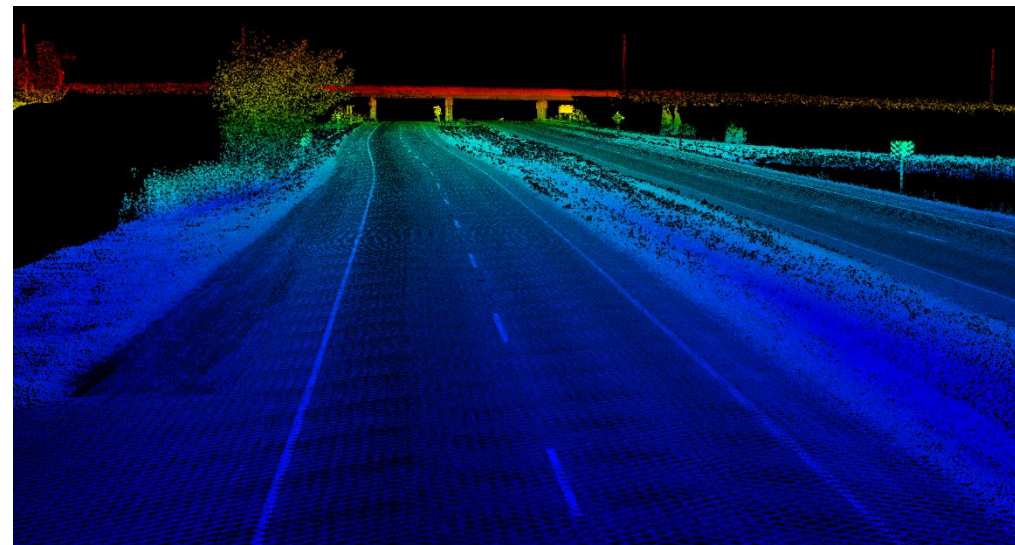
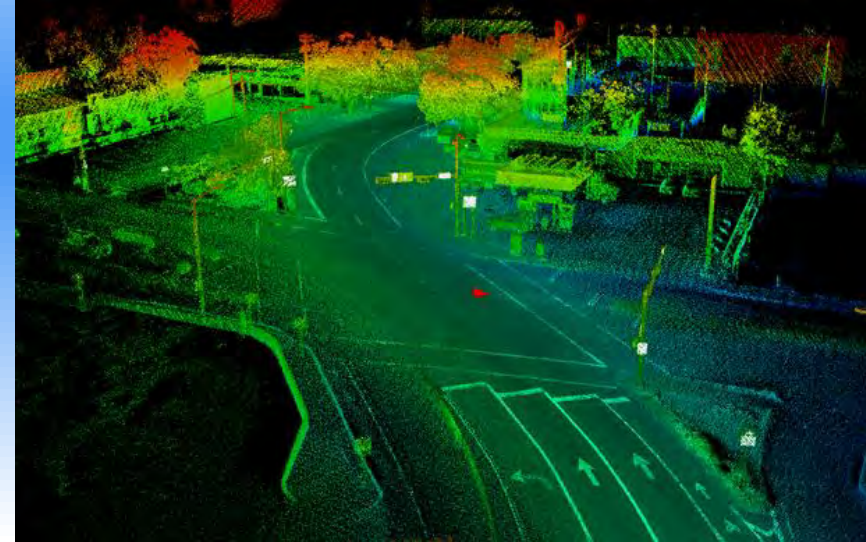
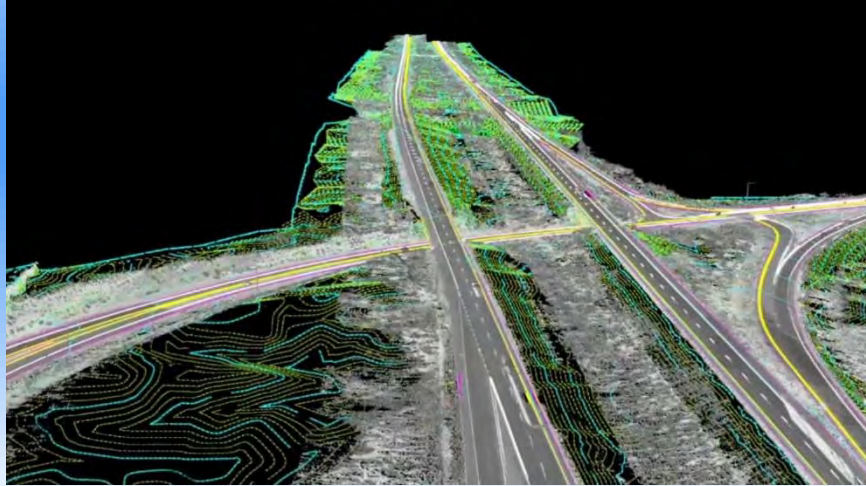
From the point cloud line work is generated and readied for inclusion with the master Design File



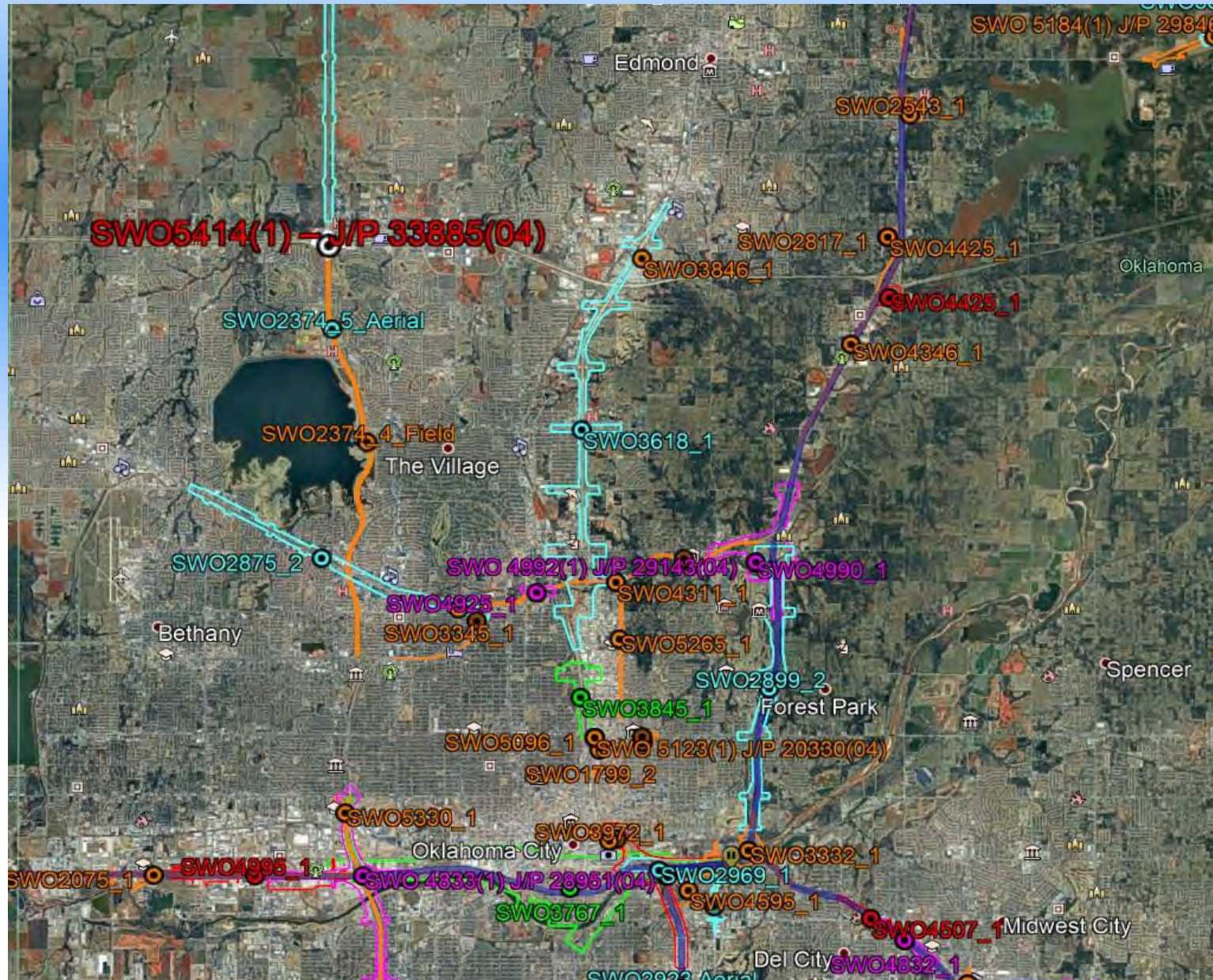
LiDAR collection



Once LiDAR data is collected it is imported into ImageStation and TerraSolid Software for editing



Using Google Earth to retrieve data



GOING PAPERLESS . . .

- **Bid documents (plans and proposals) will be produced and maintained in an electronic format only, unless otherwise requested.**
- **Bid opening reports will be generated and distributed in an electronic format only, unless otherwise requested.**
- **Contracts will be built, executed, and stored in an electronic format only.**

Reducing the use of paper increases efficiency during the bid opening process, and reduces cost to the contractors and the agency.





USING LIVE STREAM TECHNOLOGY, THE DEPARTMENT IS ABLE TO ALLOW ANYONE, ANYWHERE, TO NOT ONLY VIEW MONTHLY PRE-BID MEETINGS IN REAL-TIME, BUT ALSO PARTICIPATE. ALL THAT IS NEEDED IS ACCESS TO THE INTERNET USING A DESKTOP COMPUTER, LAPTOP, OR SMART PHONE.



Office Engineer Division has developed the Prequal Portal.

The Prequal Portal allows contractors to electronically:

- **Apply for prequalification with the Department,**
- **Renew their prequalification,**
- **Update/maintain their business' information/profile, and**
- **Receive alerts and notifications from the Department.**

THE PREQUAL PORTAL

CURRENTLY, THE DEPARTMENT RELIES ON FAX NOTIFICATIONS TO COMMUNICATE LAST MINUTE PLAN REVISIONS TO POTENTIAL BIDDERS. TODAY, UTILIZING THE FUNCTIONALITY OF THE DEPARTMENT'S BIDDING SOFTWARE, THE DEPARTMENT IS NOW ABLE TO POST UP TO THE MINUTE, REVISED BID FILES. THIS APPROACH TO RESPONDING TO LAST MINUTE PLAN REVISIONS FOSTERS A FAIRER COMPETITIVE BIDDING ENVIRONMENT.



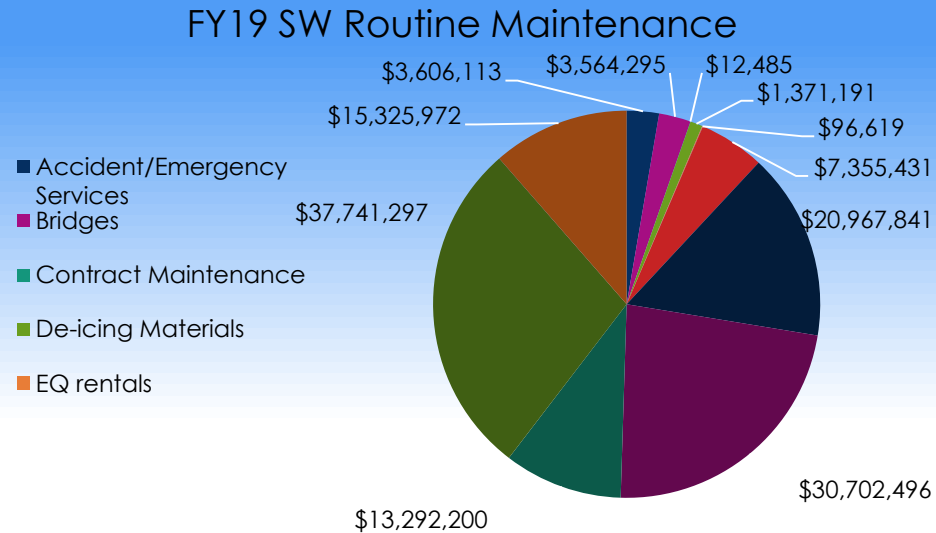
E-Construction with Mobile Inspector and Headlight

Real Time Entry

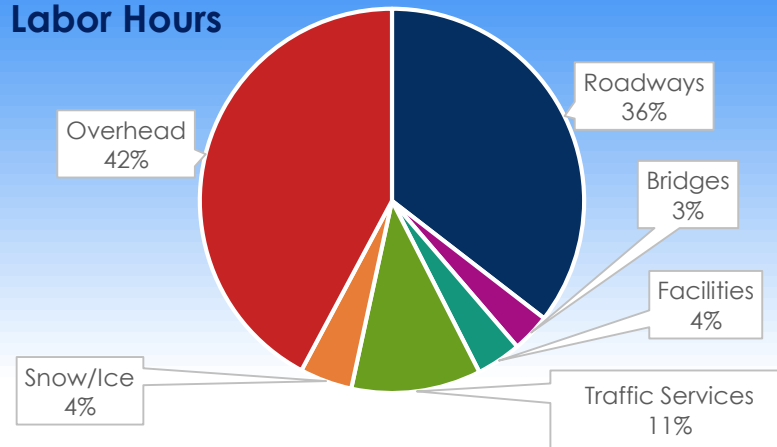
Pay for work
on site as
completed



MAINTENANCE MANAGEMENT SYSTEM

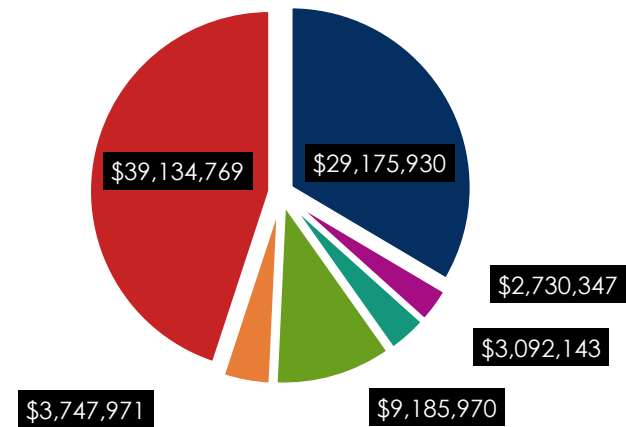


507 Labor Hours



Addressing Executive Level Questions

- 507 Expenditures for FY19
- Labor Distribution
- Labor Costs



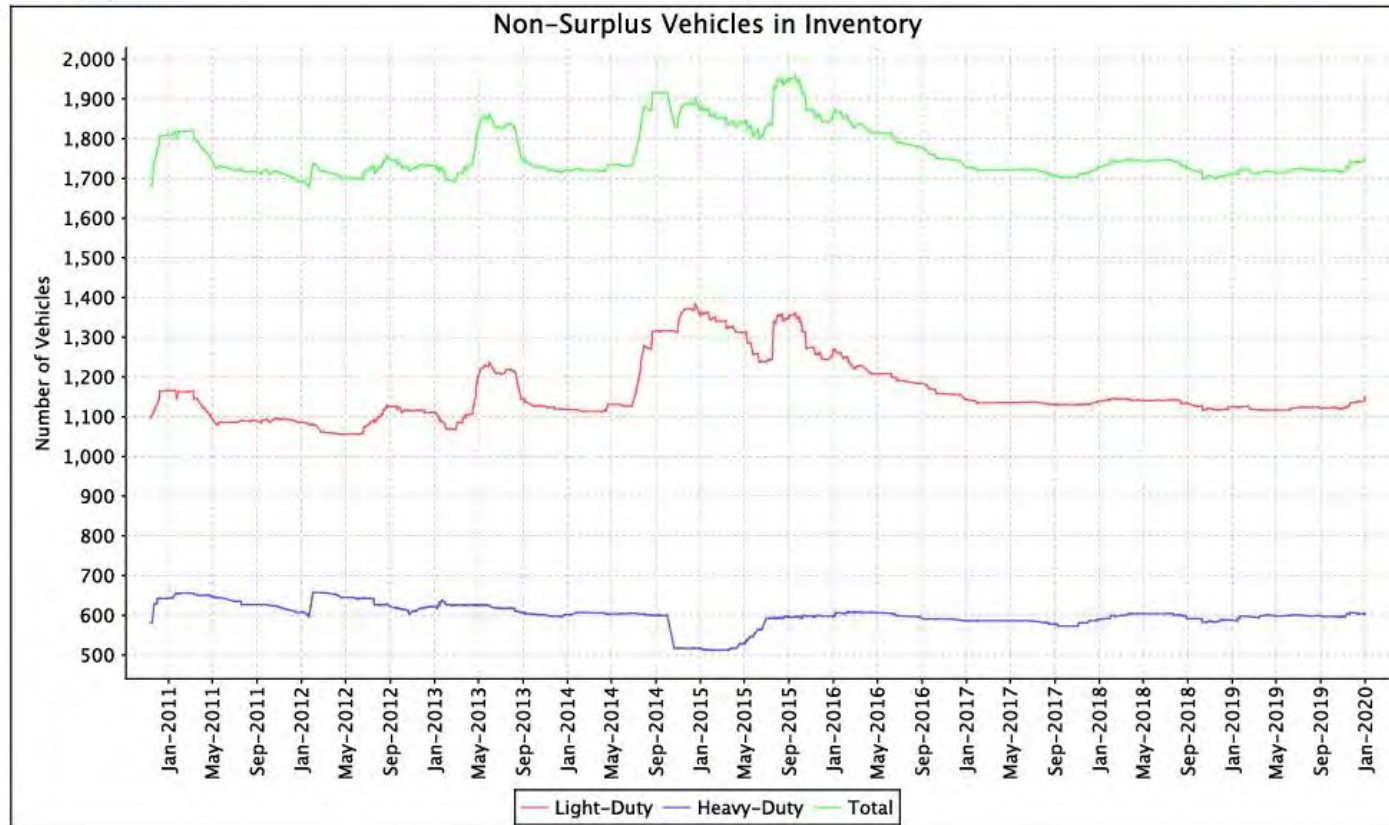
Maintenance Management System



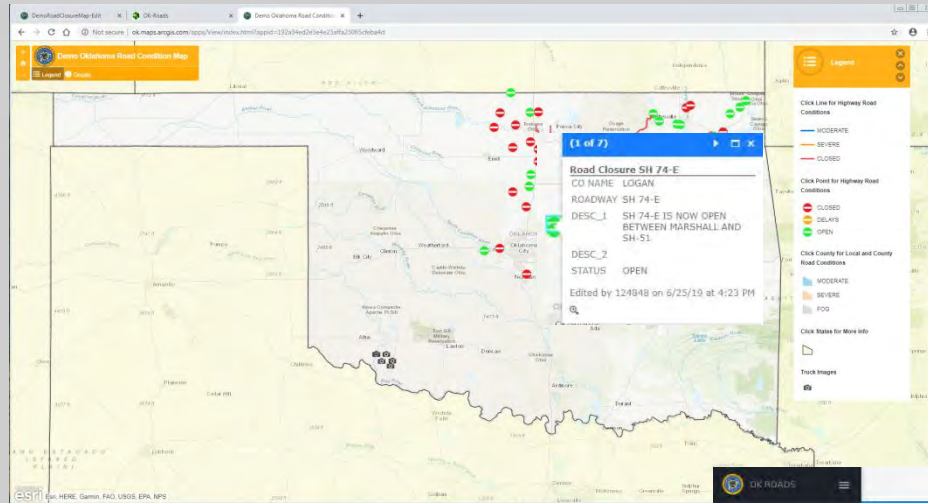
Light-Duty and Heavy-Duty Fleet Inflow/Outflow Report



FOR PERIOD 1/2010 THROUGH 12/2019

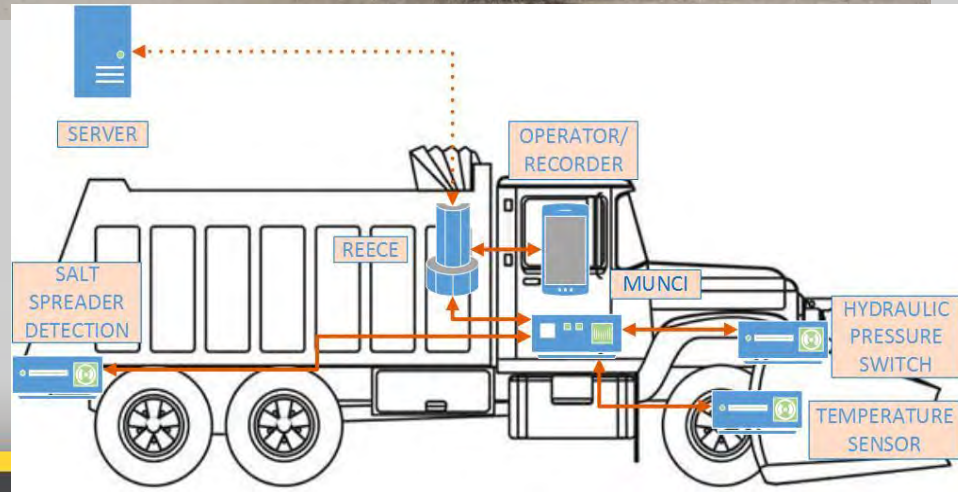
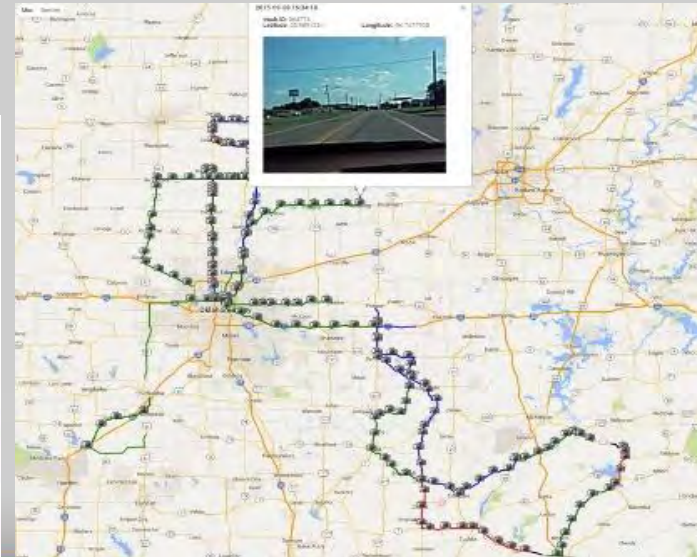


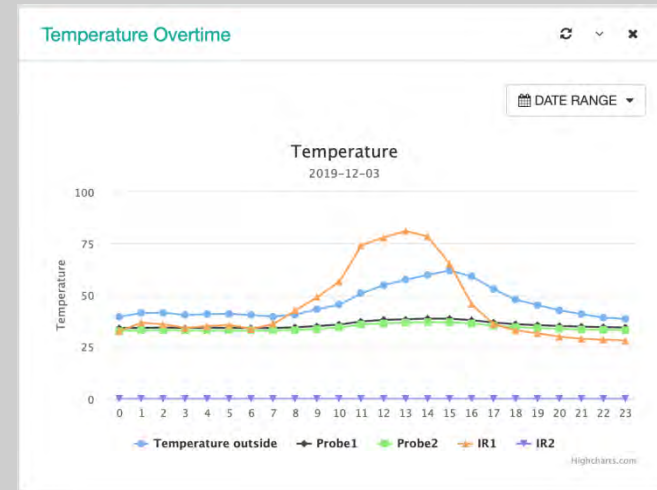
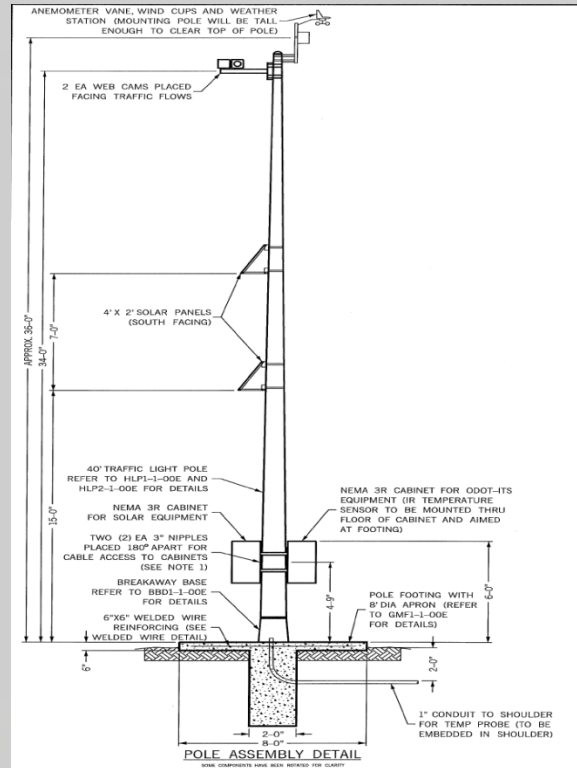
OKROADS



Location	County Roads	County Roads	Highways	Power Limited availability	Light snow	Heavy snow	Snow patches	Blowing snow	Ice/sleet	Wet pavement	Other	Comments	Update
> Division 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update
> Division 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update
> Division 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update
> Division 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update
> Division 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update
> Division 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update
> Division 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update
> Division 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear	Add/View Update

OKTRUCKS





Iteris ClearPath Weather

Tools Post Storm METAlerts Help Logout
📶 📍 ⚙️

State-wide Current View

MDSS Weather Alerts

MDSS Road Alerts

MDSS Blowing Snow Alerts

MDSS Maintenance Alerts

NWS Alerts

Overlay
Hourly Snow
Opacity:

Forecast Sites / Routes
None Road Condition

RWIS
Air Temp

FAA / NWS
Weather / Cloud Cover

Cameras

Convective Outlook

Day 1 Categorical

ROSSTON - US-283 & US-64

Segment: US-283 Pavement

MDSS Weather Alerts

MDSS Road Alerts

MDSS Blowing Snow Alerts

MDSS Maintenance Alerts

NaCl Prewet Salt (w/ Salt Brine) 100 lbs @ Tue Jan 28 05:05 am

NaCl Prewet Salt (w/ Salt Brine) (PREFERRED OPTION) 100 lbs @ Tue Jan 28 07:35 am

Tuesday, Jan 28th 2020: 5:20 am

[View NWS Alerts](#)

Weather

Air Temp	29 °F
Dew Pt	29 °F
Humidity	100 %
Visibility	0 mi
Winds	↙ NNE 16 mph G 23

Accumulation (in)

	- 24 Hr	+ 24 Hr
Liquid	0.00	0.53
Ice	0.00	0.00

70%

Iteris Make Report NWS

TABLE GRAPH HUD 10-DAY MAKE REPORT NWS TEXT

24 Hour Forecast 1 Hour Intervals

Slow Fast

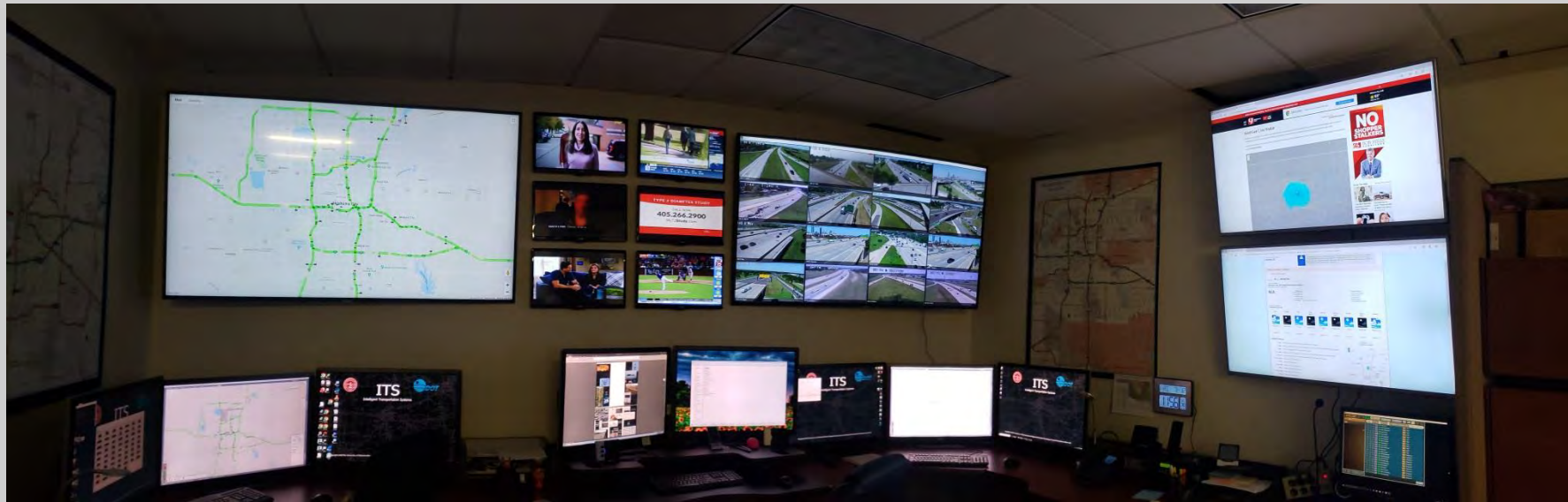
Tuesday January 28 2020 5:20 AM

-24h Now +24h +48h +72h

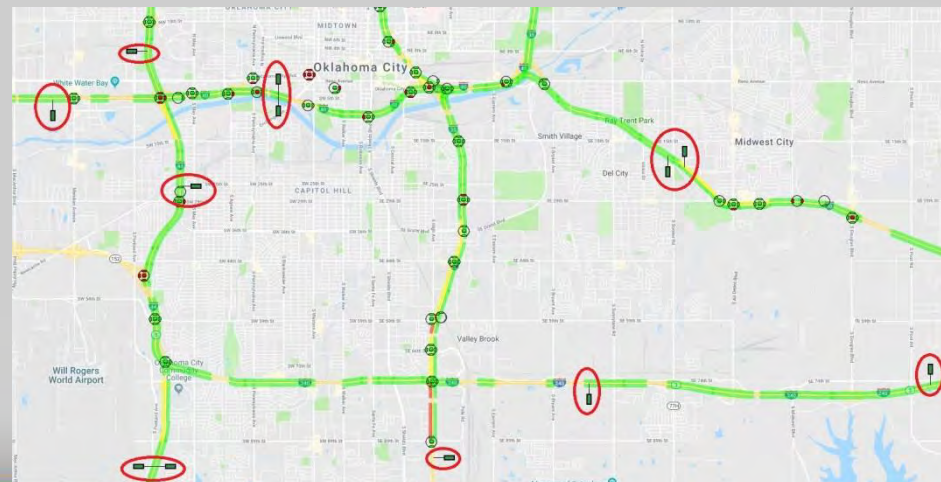
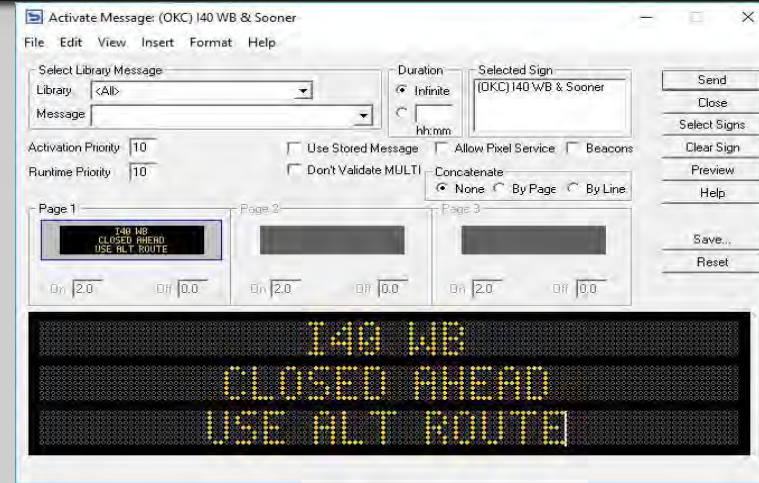
Mapbox © Mapbox | © OpenStreetMap | Improve this map

TRAFFIC AND INCIDENTS

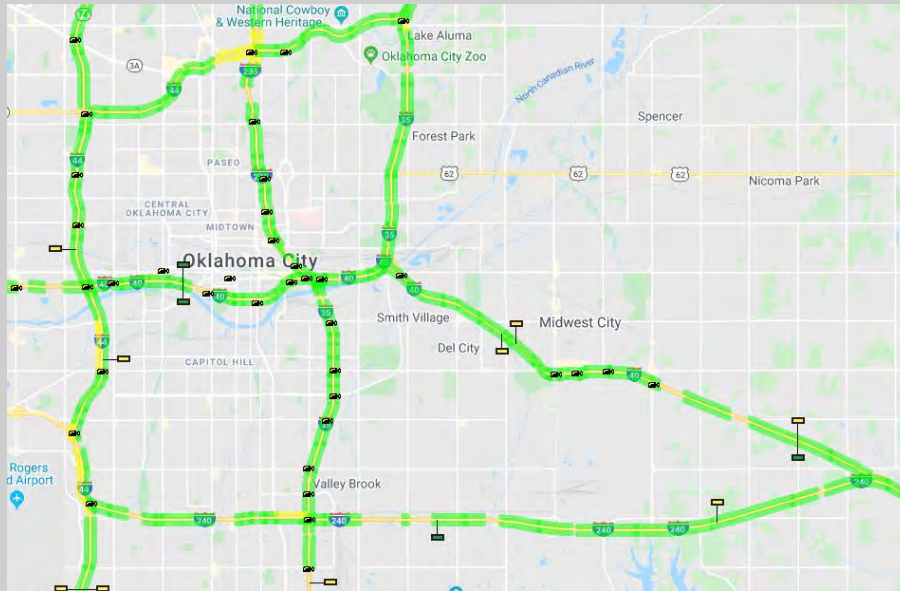
Traffic Operations Center (T.O.C.)



DMS Boards



OKTRAFFIC



Oklahoma City Signs

I-240 WB @ Post TRAVEL TIME TO OKC: 14 MIN 2020-01-22 15:07:41	I-240 EB @ Sunnylane TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:07:45	I-40 WB @ Sooner TRAVEL TIME TO OKC: 12 MIN 2020-01-22 15:07:49	I-40 EB @ Sooner TRAVEL TIME TO OKC: 14 MIN 2020-01-22 15:07:53	I-40 EB @ Meridian TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:07:58	I-44 NB @ S 25th TRAVEL TIME TO OKC: 12 MIN 2020-01-22 15:08:02	I-44 SB @ N 6th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:06
I-35 NB @ S 19th(Moore) TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:10	I-35 NB @ S 80th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:14	Bdwy Ext SB @ Hefner TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:19	I-35 NB @ N 90th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:27	Kilpatrick Tpk WB @ Eastern TRAVEL TIME TO OKC: 10 MIN 2020-01-03 09:21:17	Kilpatrick Tpk EB @ Eastern TRAVEL TIME TO OKC: 10 MIN 2018-10-27 00:55:42	I-35 SB @ N 90th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:40
I-35 SB @ S 25th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:44	I-35 NB @ S 25th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:48	Turner Tpk WB @ OKC TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:53	Turner Tpk EB @ OKC TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:08:57	I-44 EB @ S 96th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:09:10	I-44 WB @ S 96th TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:09:14	I-40 EB @ Anderson TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:10:14
I-40 WB @ Anderson TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:10:14	I-40 EB @ Western TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:06:41	I-40 WB @ Penn TRAVEL TIME TO OKC: 10 MIN 2020-01-22 15:06:46				

Traffic Incident Management (T.I.M.)





OKLAHOMA
Transportation