Member Roundtable Discussion

Presenters: Please allocate 5 minutes for presentation and 3 minutes for Q&A

Presentation Order

1.   Georgia DOT
2.   Indiana DOT
3.   Iowa DOT
4.   Kansas DOT
5.   Maryland DOT
6.   Michigan DOT
7.   Minnesota DOT
8.   Missouri DOT
9.   Nevada DOT
10. New York DOT
11. Ohio DOT
12. Pennsylvania DOT
13. Tennessee DOT
14. Utah DOT
15. Virginia DOT
16. Washington DOT
17. Wisconsin DOT

Georgia Department of Transportation

Dolores Uttero
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OVERVIEW

- Post: 50% staff back at TMC Monday through Friday

  - Staff back on weekends as of 4.16

- TMC Con Ops – April 2022

- Next Generation ATMS

  - Would replace existing NaviGAtor ATMS

  - Skyline VSS

- CHAMP, TRIP Expansion

- 511GA Upgrades

  - Website, IVR, App

  - 511 Call Operator, HERO, CHAMP, SigOps

  - Video

OVERVIEW

- **Traffic-Vision**
  - Deployed 500+ licenses
  - Using heat maps to identify hot spots as well as areas where major incidents occur.
- **Carbyne**
  - Deployed to all districts, operators getting more familiar with software
  - Challenge: Making sure operators get in habit of using the software
- **Pilot Projects**
  - Smart Sequential Road Flares (Pi-lit)
  - Impact Detection Systems (Pi-lit)

Carbyne C-live Measurements

Month	Call Vs C-Live Time	C-Live vs Verification Time	Call vs Responder Time	C-Live vs Responder Time	Call to Verification Time
DECEMBER 2021	0:19	0:23	0:45	0:35	0:51
JANUARY 2022	0:10	0:03	0:52	0:40	0:11

Statewide Operations Summary

Statewide Operations Annual Report

GDOT — Georgia Department of Transportation

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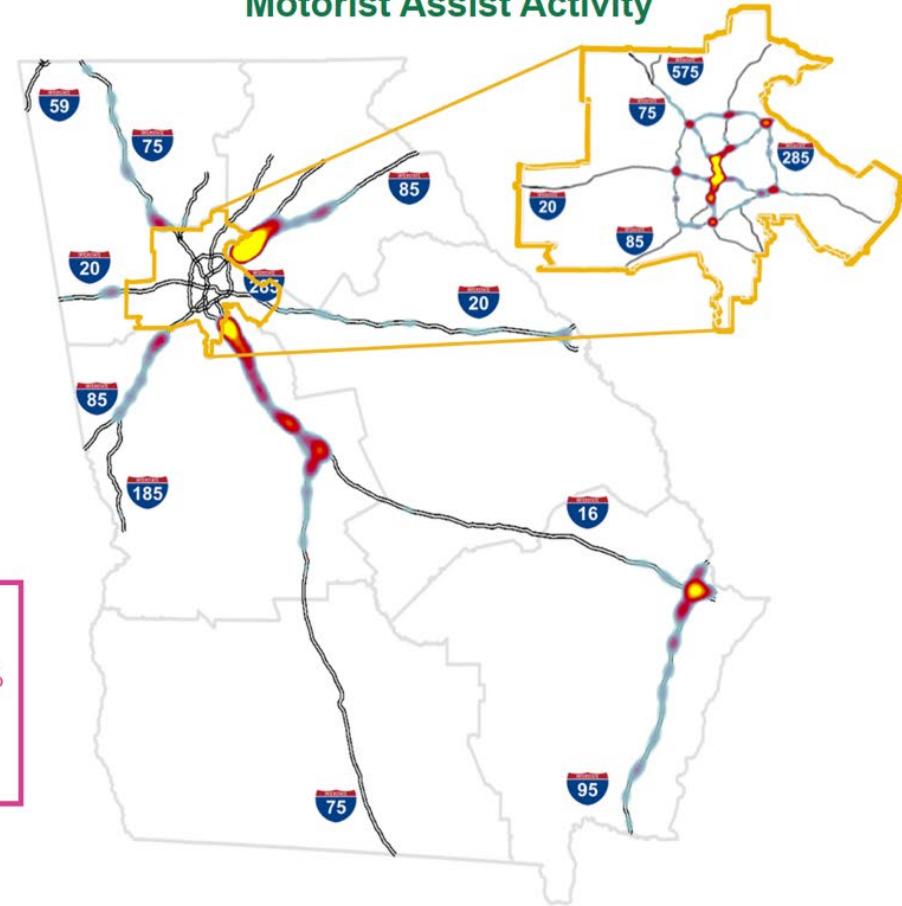|	Statewide Total Events	TMC Assisted Events	CHAMP Events	HERO Events
	459K	**136K**	**261K**	**61.9K**
2020 to 2021	▲ 4.3%	▲ 7.9%	▲ 3.6%	▼ 0.6%
2019 to 2020	▲ 8.9%	▼ 11.1%	▲ 27.6%	▼ 26.7%

An ▲ icon indicates a percentage increase, a ▼ icon indicates a percentage decrease.

Year ▼	Statewide Total Events	TMC Assisted Events	CHAMP Events	HERO Events
2021	458,846	135,840	261,109	61,897
2020	439,182	125,123	251,760	62,299
2019	400,284	138,988	182,339	78,957

In 2021, the number of total events was 13% higher than pre-pandemic (2019) levels.

Out of the 2021 Statewide events, 8.2% (16.2K) were high severity events.

TMC Assisted Events are those that are confirmed traffic events that are not assisted by HERO or CHAMP services.

Motorist Assist Activity

The heat map represents concentrated areas where assistance was provided to 129,000 motorists.

QUESTIONS?

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Indiana Department of Transportation

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INDOT Traffic Management Center / ISP Post #52

Gary Traffic Management Center

INDOT Moving Deeper into Active Traffic Management

1. Active construction contract I-465 Indianapolis Southeast Side to add ramp metering and variable speed limits

2. Ongoing project I-80/94 Northwest Indiana design stage to add ramp metering, variable speed limits and hard shoulder running

3. Completing deployment of communications to traffic signals across the state 1700 currently connected. All connected in next 2 years.

INDOT Northwest TMC

INDOT Indianapolis TMC

Questions for the TMC PFS States

- How do you manage your variable speed limits, human in the loop or software? Which software?

- How do you manage ramp metering, human in the loop or automated? Which software/hardware?

- How do you manage the hard shoulder running? What software? Is the staff dedicated to the shoulder running or do all operators run the system?

- What I the age of your TMC?

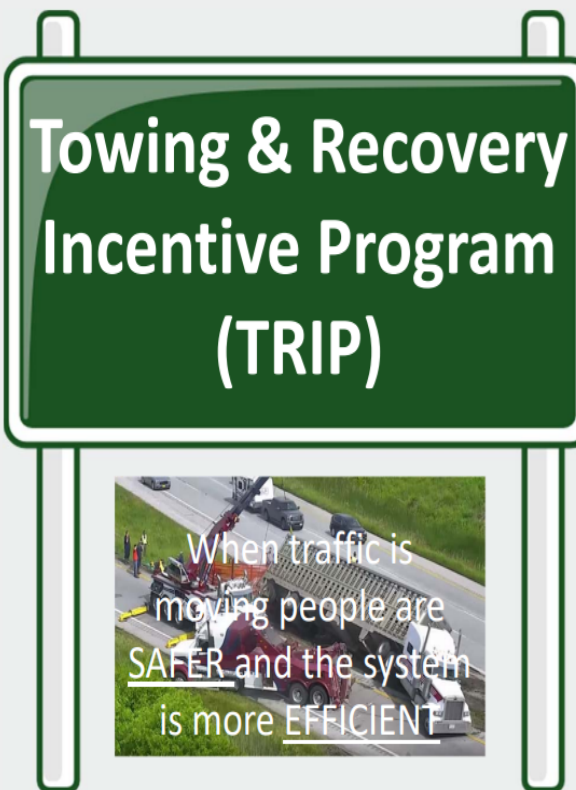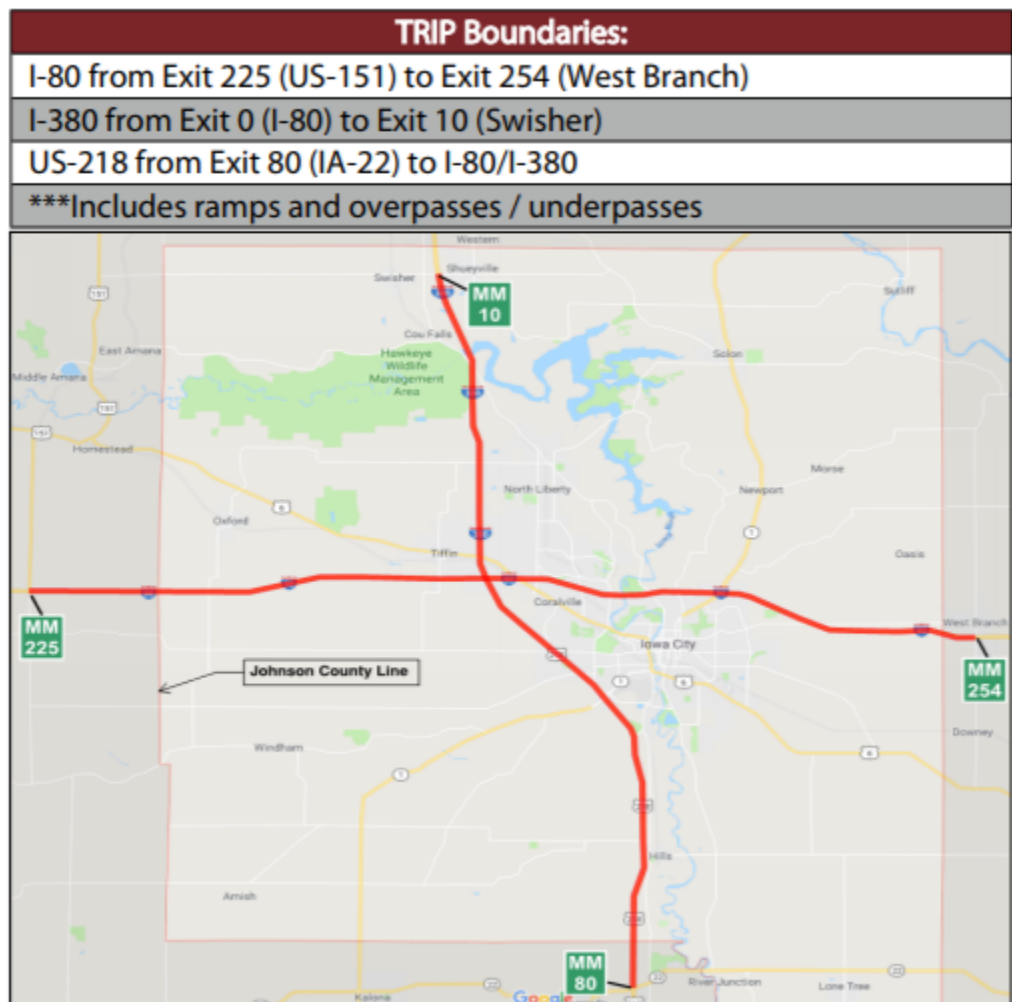- What is your TMC design?

Iowa Department of Transportation

Ashley Hochberger
TMC and Highway Helper Program Manager
Ashley.Hochberger@iowadot.us

Iowa DOT: Topic for Discussion

- Towing Recovery Incentive Program (TRIP):

1 Iowa's TRIP will provide monetary incentives for the quick clearance of large commercial vehicle incidents in designated areas.

2 TRIP is designed for safe, quick clearance of commercial vehicle incidents to reduce congestion, crashes and secondary incidents and improve incident management.

3 TRIP guidelines ensure proper heavy-duty equipment are dispatched to large commercial vehicle incidents that have a significant impact on major interstate traffic.

Iowa DOT: Topic for Discussion

TRIP Boundaries:
I-80 from Exit 225 (US-151) to Exit 254 (West Branch)
I-380 from Exit 0 (I-80) to Exit 10 (Swisher)
US-218 from Exit 80 (IA-22) to I-80/I-380
***Includes ramps and overpasses / underpasses

IOWA DOT
GETTING YOU THERE

Towing & Recovery Incentive Program (TRIP)

When traffic is moving people are SAFER and the system is more EFFICIENT

Event Type 1 – Dry Run

Iowa DOT would pay a **Flat Rate Service Charge of $600** if:

1. The tow company is contacted by the TMC, mobilized, and arrives at the crash scene with required equipment and personnel within:
   - 45 minutes between 6:00AM and 7:00PM Monday – Friday
   - 60 minutes anytime outside of these time and day boundaries

   AND

2. The Company's towing and recovery services are not needed

Event Type 2 – Successful TRIP Tow

Iowa DOT would pay an **Incentive Payment of $2,500** if:

1. The Tow company is contacted by the TMC, mobilized, and arrives at the crash scene with required equipment and personnel within:
   - 45 minutes between 6:00 AM and 7:00 PM Monday – Friday
   - 60 minutes anytime outside of these time and day boundaries

   AND

2. The Tow Company has completed the removal and clearance of all crash scene vehicles, cargo, debris, and non-hazardous vehicle fluids from all travel lanes and opened them to traffic within **90 minutes** after the official notice to proceed (NTP) was given by the Incident Commander.

If any additional special equipment were needed and coordinated with the on-scene Incident Commander and arrives on-scene within the required response time, an additional **$1,000** would be offered for a **Maximum Incentive Payment of $3,500** for one TRIP incident.

Iowa DOT: Topic for Discussion

- Additional information:

TRIP will benefit emergency responders, and the traveling public, by facilitating the quick clearance of large commercial vehicle incidents, resulting in a reduction of congestion and secondary incidents. Quick lane clearance and the reduction of congestion will significantly reduce the delay costs to the traveling public and the freight industry.

Iowa DOT:

- Contact:
    - Ashley Hochberger
    - TMC & Highway Helper Program Manager
    - Iowa DOT
    - Ashley.Hochberger@iowadot.us

Kansas Department of Transportation

Slade Engstrom
Principal/Senior Vice President - TranSystems
sgengstrom@transystems.com

KDOT: Topic for Discussion

- Topic of Choice:

- Obtain Feedback – Images on DMS sign – MUTCD implications; use

  - Implementation of Queue Warning System
  - Queue Warning System Graphic
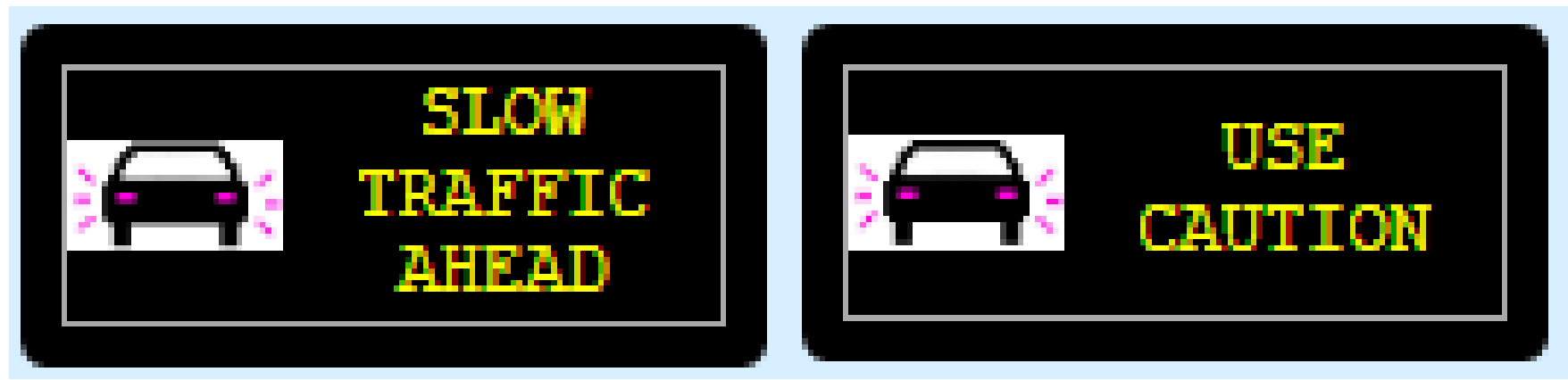
KDOT:

- Contact:
  - Slade Engstrom
  - Principal/Senior Vice President - TranSystems
  - Kansas Department of Transportation
  - sgengstrom@transystems.com

Maryland Department of Transportation

Jason Dicembre
Director - MDOT SHA
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MD DOT SHA: Topic for Discussion

TMC Staffing

- o MDOT SHA currently utilizes a mixture of permanent SHA and private consultant staff
  - Office reorganization had assumed converting TMC staff to full consultant
- o Recent develops in establishing a new contract will not allow for a full conversion

- o Office Reorganization included establishing a new classification to account for operating ATM Systems and signals within the operations center by operations staff
  - This plan is still moving forward

- o Working to convert Statewide Operations Center to new classification
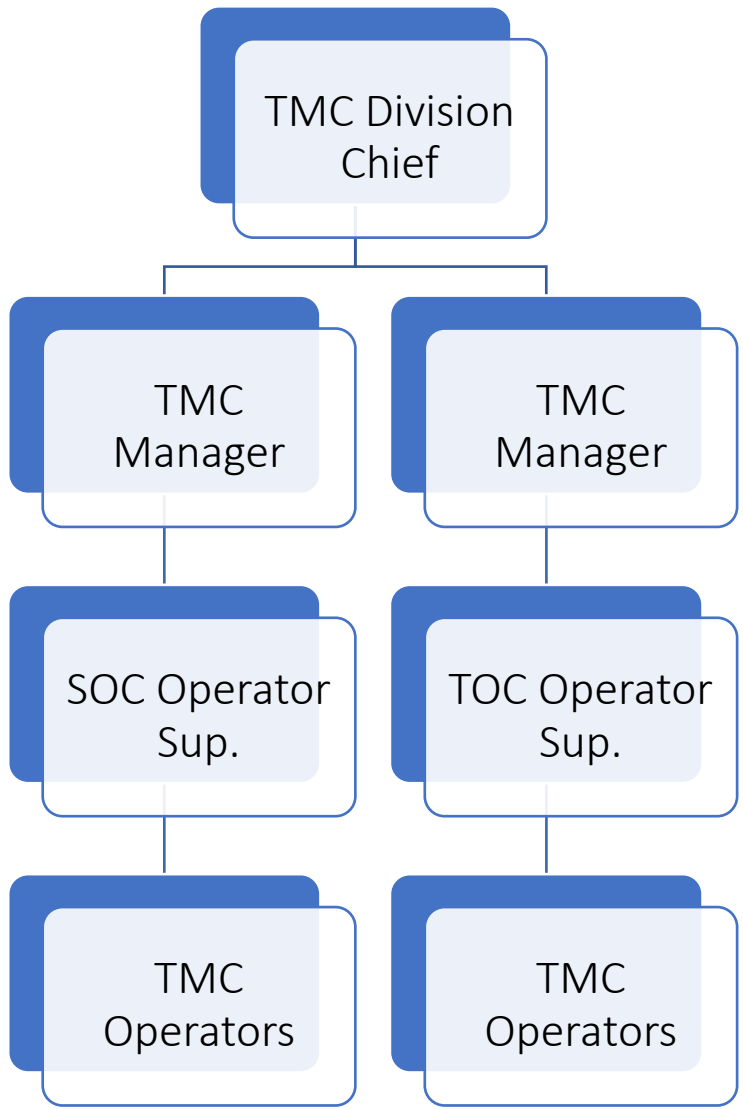- o Regional Centers would remain traditional role

- o Have others experienced pivots such as this and what lessons did you learn when having a mix of State/Contractual, or, converting back to PINs?
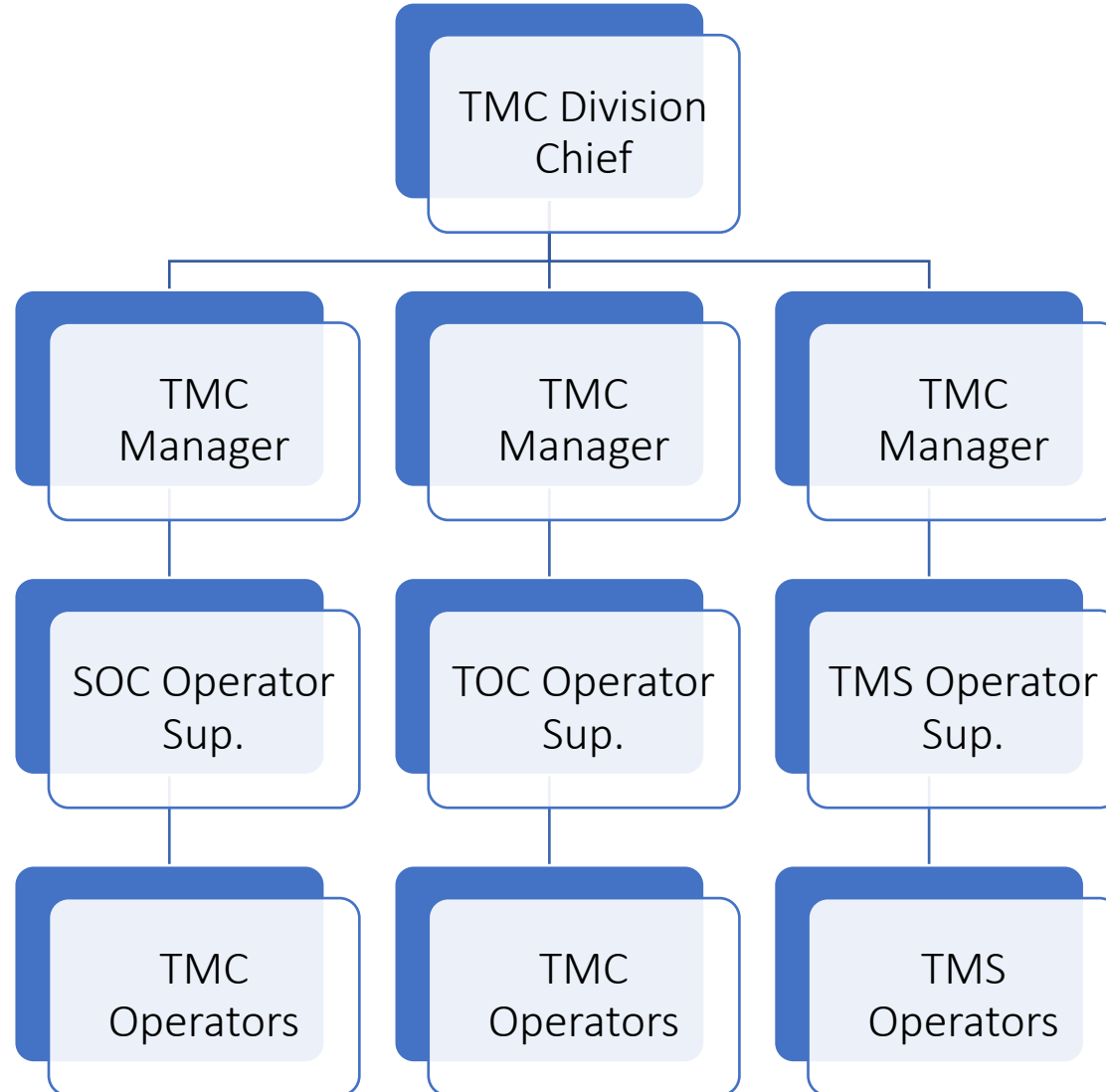
MD DOT SHA Topic for Discussion

MD DOT SHA TOPIC FOR DISCUSSION

MD DOT SHA TOPIC FOR DISCUSSION

MD DOT SHA:

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  - Director
  - MDOT SHA
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Michigan Department of Transportation

Suzette Peplinski
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Michigan DOT: Topics for Discussion

- RWIS system expansion and actuated weather messaging
  - Using ESS data in ATMS for actuated weather messaging
  - Growth in RWIS statewide. Started in Superior/North (through 2016) then Southwest/Grand, A total of 56 ESS now active.
    - Current projects installing more in Grand, and now in Bay/Metro.

- Wrong way driver installation – tried something new that didn't work.
  - Installed mainline detection/notification so we don't need it on every ramp.
    (9 interchanges in 4 miles)
  - Future: looking at video detection/analytics on mainline (?)

- Smart Work Zone Demo – using Work Zone Data Exchange
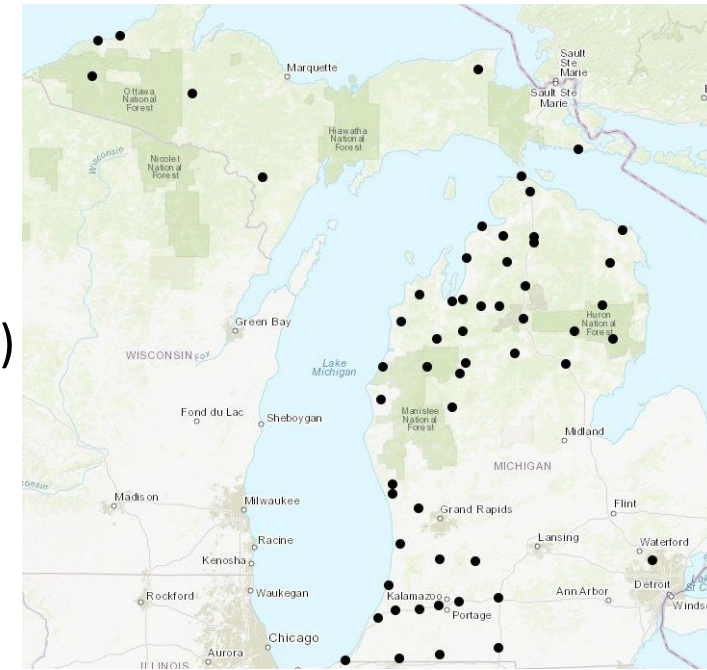
Big Work Zone Challenges for IOO's

Long Mapping Process

Inconsistent Standardization

Manual Process

Benefits Of Smart Work Zones to IOO's

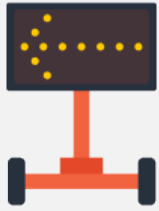Improved overall safety of the roadway and work zone

Improved MDOT work zone data quality

Improves automated driving systems (ADS) by recognizing when road construction is active

Commercial Vehicle FMCSA Grants

Connected Traffic Control Objects

Vendor Backend Data Aggregation

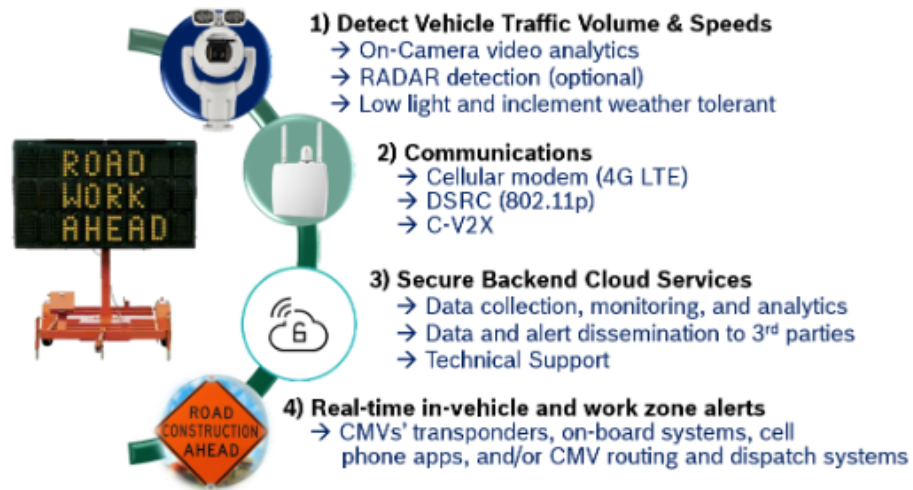Agency Backend Data Publication

CMV Data Distribution Mediums

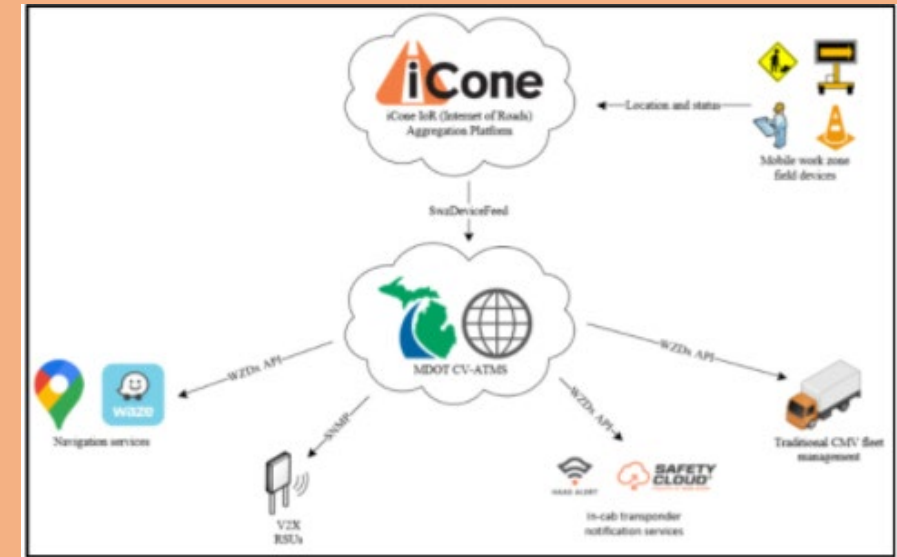Real-time In-vehicle And Work Zone Alerts

MIXON HILL | HNTB | MH CORBIN | MICHIGAN STATE POLICE | INTEGRAL BLUE COMMUNICATIONS ENGINEERING & SYSTEMS INTEGRATION

Kimley»Horn of Michigan, Inc. | iCone IoR - Internet of RoadWork | VER-MAC | MACOMB COUNTY MICHIGAN | ROAD COMMISSION for OAKLAND COUNTY | PK CONTRACTING PARTNER BY CHOICE. SAFETY BY DESIGN. | HAAS ALERT

Safety Alerts for Work Zones (SAFZONE)

Figure 6: Safety Alerts For work ZONE (SAFZONE) system overview

1) **Detect Vehicle Traffic Volume & Speeds**
   → On-Camera video analytics
   → RADAR detection (optional)
   → Low light and inclement weather tolerant

2) **Communications**
   → Cellular modem (4G LTE)
   → DSRC (802.11p)
   → C-V2X

3) **Secure Backend Cloud Services**
   → Data collection, monitoring, and analytics
   → Data and alert dissemination to 3rd parties
   → Technical Support

4) **Real-time in-vehicle and work zone alerts**
   → CMVs' transponders, on-board systems, cell phone apps, and/or CMV routing and dispatch systems

- FMCSA grant awarded in 2021
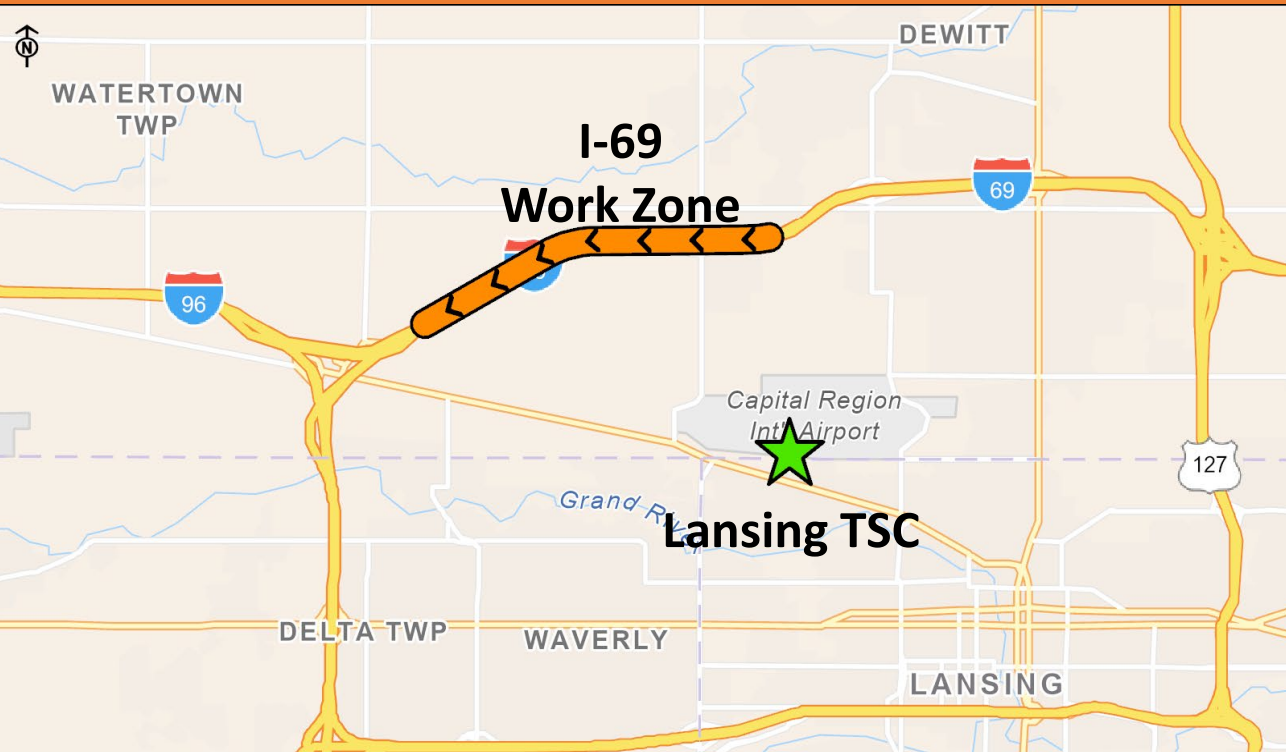- Improving static work zones

Partnering Automated Work Zones (PAWZ)

- Interstates 94, 96, 696, 75, and 275
- Improving mobile work zones for CMV

Work Zone Data Exchange Demonstration
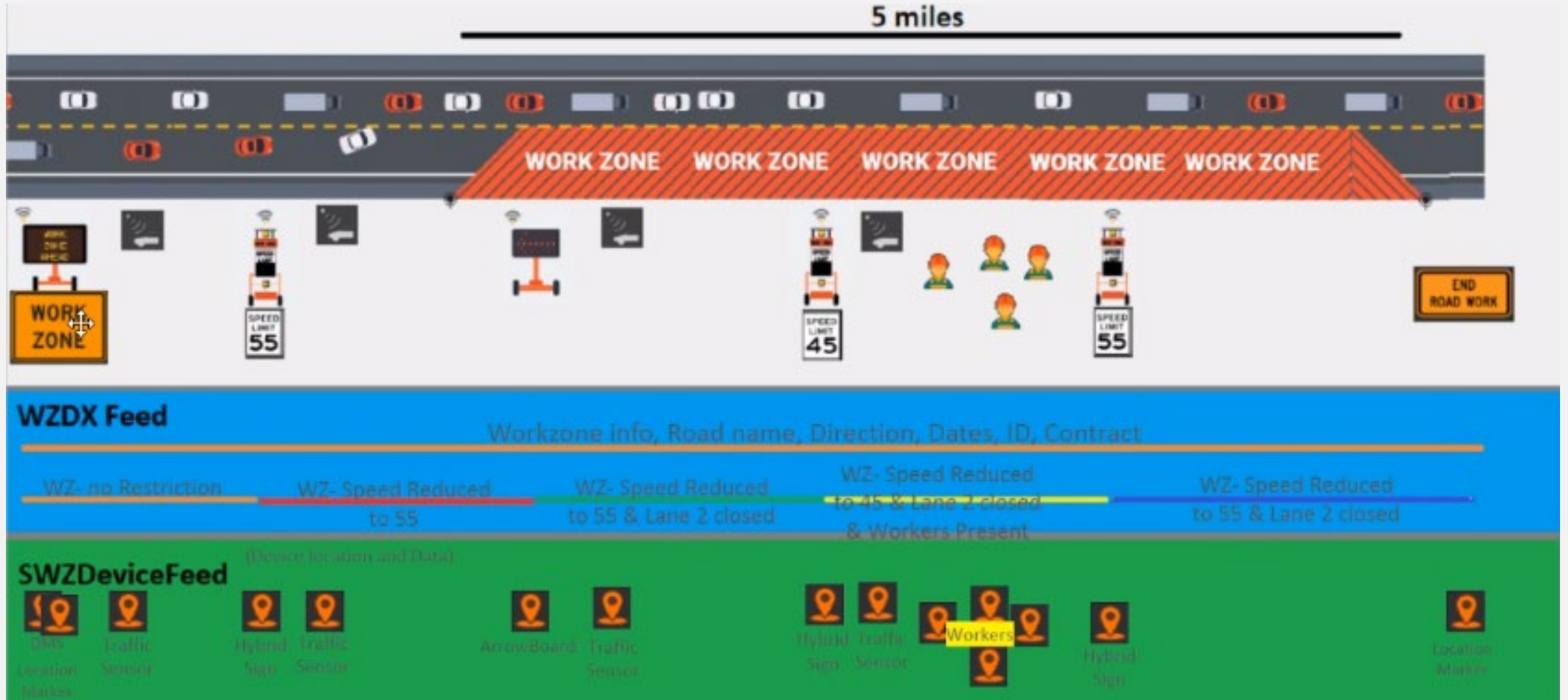
Demonstration took place In November 2021

I-69 Work Zone

Lansing TSC

MICHELE MUELLER
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Smart Work Zone Devices on I-96

- Next demonstration Spring 2022
- I-96 Flex Route project
- Testing for different conditions
- Testing road workers vests

MICHELE MUELLER
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NEAR REAL-TIME WORK ZONE ALERTS

Work Zone Data Exchange Feed

Michigan Dept of Transportation: Additional Info

- ESS snapshots available on MI Drive = www.Michigan.gov/drive

- Request for info from team:

    MDOT is working on a TSMO Training Hub. Will include links for relevant training resources. Does your agency have any publicly available training related to TMCs, or other TSMO topics?

Michigan Dept. of Transportation

- Contact:

  Suzette Peplinski

  Region Traffic Safety &

     Operations Engineer

  MDOT – West Michigan TOC

  Peplinskis@Michigan.gov
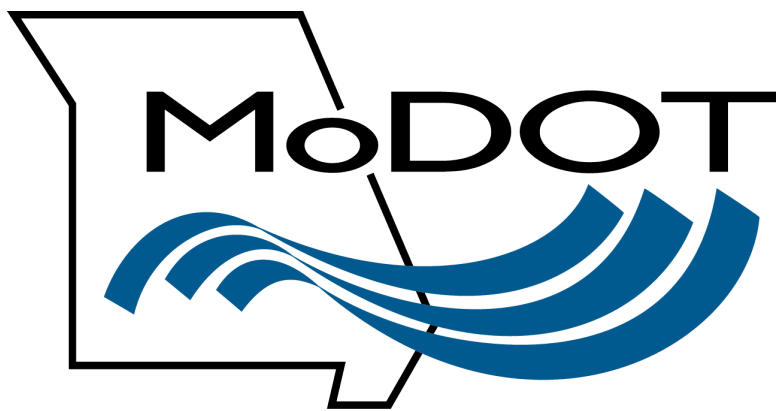
Minnesota Department of Transportation

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Video

Missouri Department of Transportation

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MoDOT: Using Additional Traffic Platforms with ATMS

I-270 North Design-Build Project

- Project team desired to test new technologies to improve operations during multi-year construction with permanent lane closures
  - o Original idea: Predictive analytics and improved incident detection
    - Waycare Technologies traffic management platform (now Rekor One)
  - o Supplemental: ATCMTD grant to expand scope and improve performance
    - Predictive road weather data: Integrated Modeling for Road Condition Prediction (IMRCP)
    - Expanded data sources for analytics engines: CV data from third parties, telematics from OEMs
    - Video analytics: TrafficVision

MoDOT: Using Additional Traffic Platforms with ATMS

- Additional information
  - o I-270 Project Site: http://www.i270north.org/
  - o Rekor Site: https://www.rekor.ai/
  - o IMRCP Phase 3 Report: https://ops.fhwa.dot.gov/publications/fhwahop20062/index.htm
  - o TrafficVision Site: http://www.trafficvision.com/

MoDOT: Using an Additional Traffic Platform with ATMS

Contacts

General Information:

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Nevada Department of Transportation

LaShonn Ford
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Nevada Department of Transportation: Topic for Discussion

- **Topic of Choice**: Advanced Traveler Information System (ATIS) and Advanced Traffic Management System (ATMS) Upgrade

  - Nevada Overview

  - Existing Condition

  - Procurement Methodology

  - System Goals

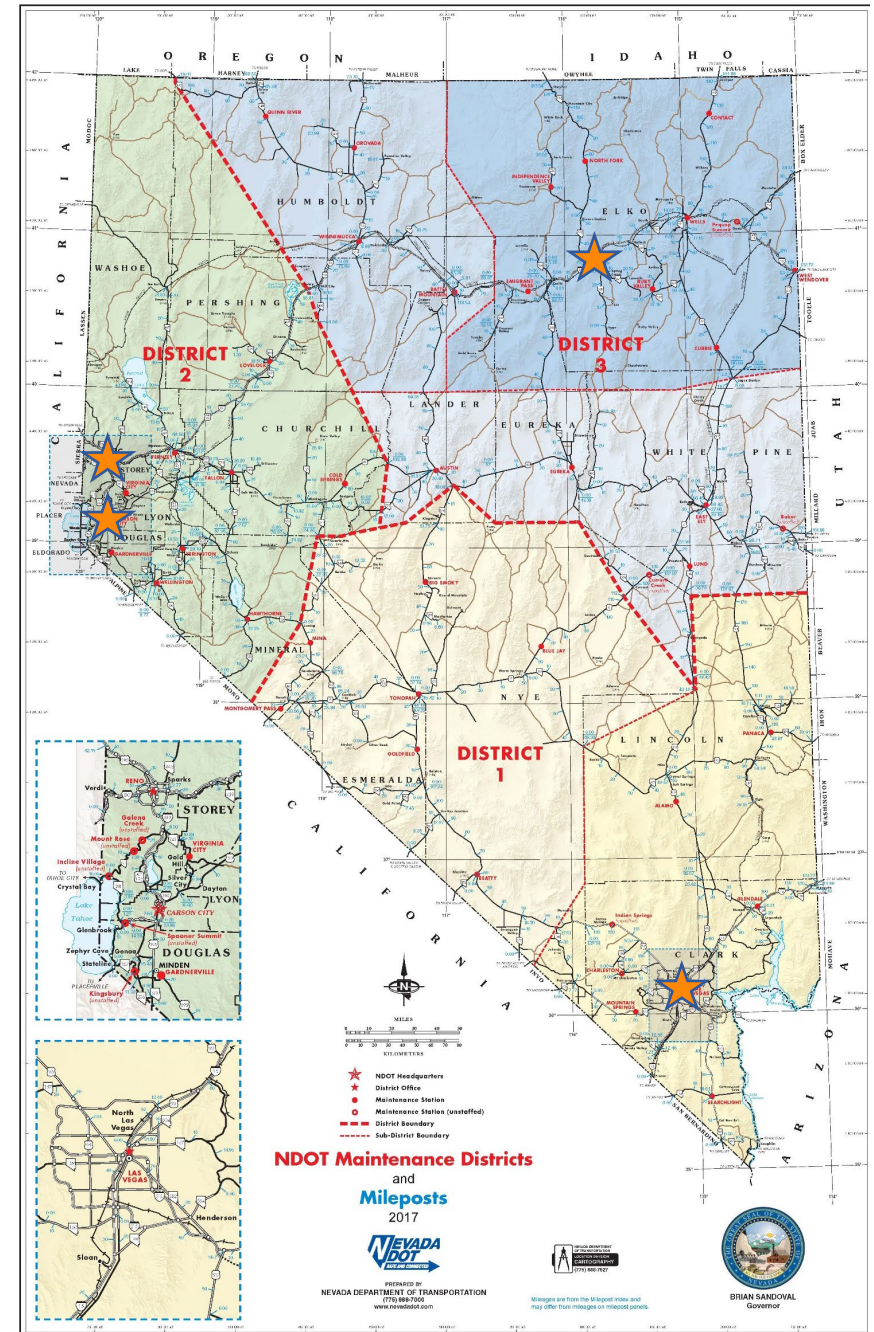**Nevada Department of Transportation: Topic for Discussion**

Nevada Overview:

- NDOT HQ in Carson City

- District 1 – HQ in Las Vegas
  - Co-Located TMC with RTC-FAST and DPS

- District 2 – HQ in Reno, Nevada
  - Road Operation Center (ROC)

- District 3 – HQ in Elko, Nevada
  - Road Operation Center (ROC)

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Nevada Department of Transportation: Topic for Discussion

- **ATIS Existing Condition**
  - ATIS has been in place since 2013
    - Website
    - Interactive Voice Response (IVR) phone system
    - Mobile application wrapper

  - Vendor: ICX Transportation Group

Nevada Department of Transportation: Topic for Discussion

- **ATMS Existing Condition**
    - ATIS has been in place since 2015
        - Active Traffic Management (ATM)
        - Dynamic Message Signs (DMS)
        - CCTV Cameras
        - Road Weather Information Sensors (RWIS)
        - Ramp Meters
        - Flashing Beacon Control
        - Travel Times

    - Vendor: Kimley-Horn (KITS)
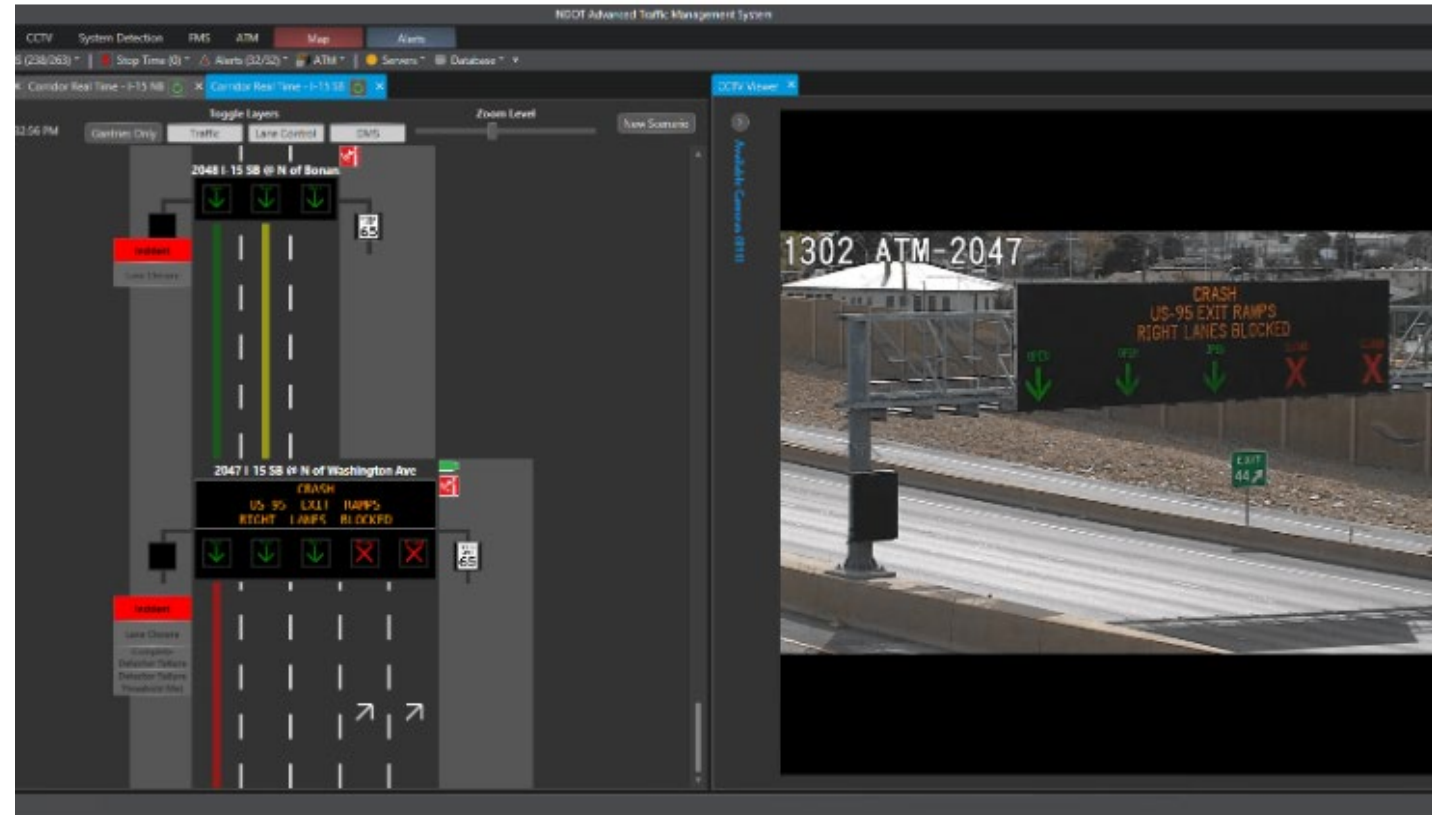
Nevada Department of Transportation: Topic for Discussion
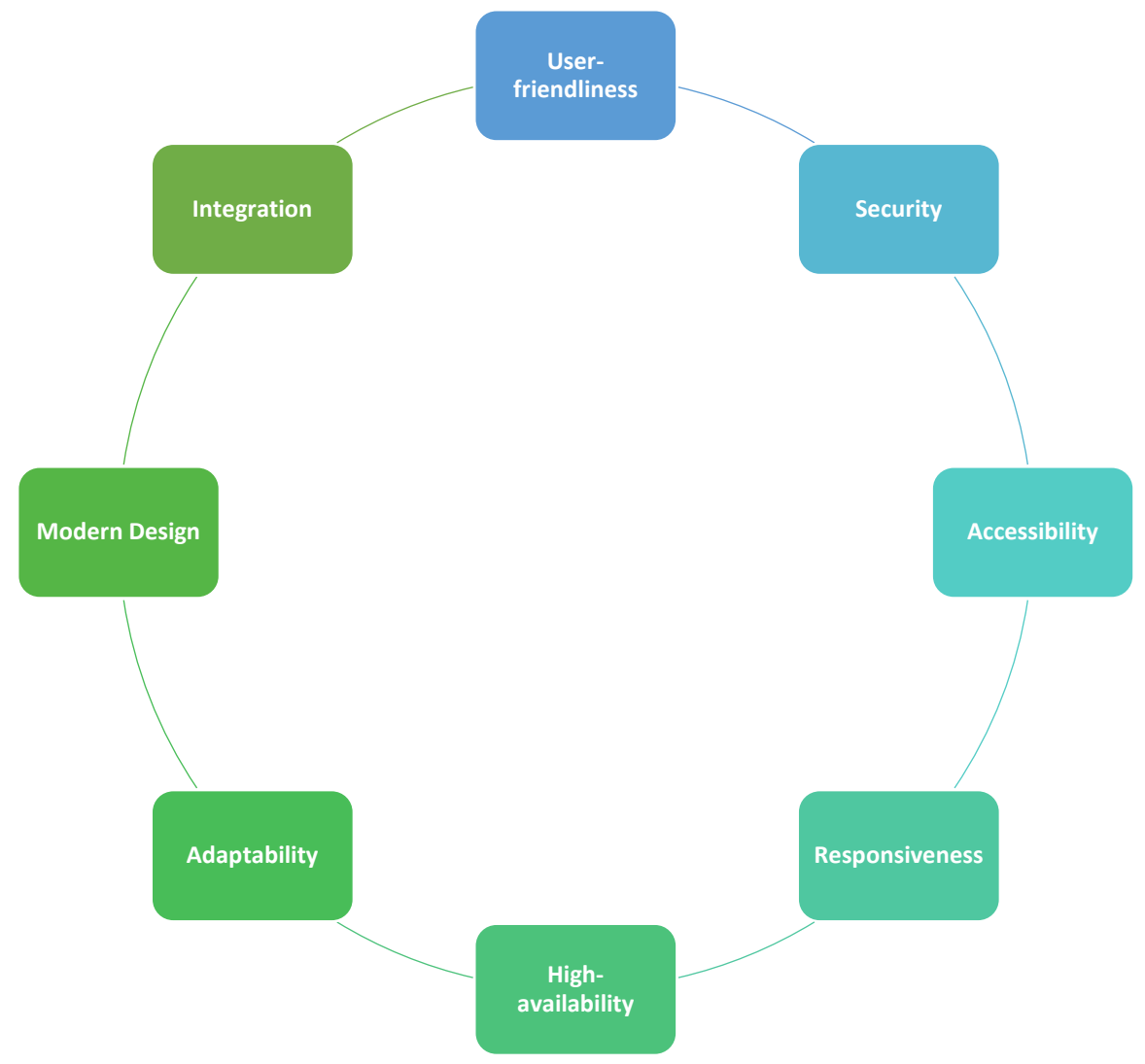
- **Procurement Methodology**
  - Stakeholder Engagement
  - User story style requirements
  - Separate Request for Proposals
  - Interviews
  - Hands-on demo environment
  - Diverse committee
    - ROC Supervisors
    - ROC Technicians
    - IT personnel
    - Project Managers

Nevada Department of Transportation: Topic for Discussion

- **System Goals**

Nevada Department of Transportation:

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New York Department of Transportation

John Bassett, P.E.
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NYSDOT – Key Issue #1

Title: Bridge Hits on Parkways

- Challenge: Excessive and repetitive problem with trucks hitting bridges on parkways – Robert Moses

- Issues addressed: How to prevent trucks from entering Parkways and, if they do, how to get them to stop before hitting the overpasses

- Action pursued: Upgrade to signing at every entrance. Specialty pavement markings. Installation of Trigg OH Detection system at worst actors.

- Results: Reduction in Bridge hits – but the problem is not solved

- Lessons learned: Some people just don't pay attention no matter what! Box truck rentals add to the problem. Language barrier is not necessarily an issue.   Need to get vertical clearances to wayfinder apps...**WZDx effort**

Bridge Hit Surveys - Parkways

TIMES	Number of occurrences	%
00:00-00:59	15	3.36%
01:00-01:59	10	2.24%
02:00-02:59	9	2.01%
03:00-03:59	12	2.68%
04:00-04:59	8	1.79%
05:00-05:59	16	3.58%
06:00-06:59	22	4.92%
07:00-07:59	13	2.91%
08:00-08:59	17	3.80%
09:00-09:59	22	4.92%
10:00-10:59	24	5.37%
11:00-11:59	22	4.92%
12:00-12:59	30	6.71%
13:00-13:59	25	5.59%
14:00-14:59	20	4.47%
15:00-15:59	20	4.47%
16:00-16:59	15	3.36%
17:00-17:59	23	5.15%
18:00-18:59	18	4.03%
19:00-19:59	23	5.15%
20:00-20:59	26	5.82%
21:00-21:59	26	5.82%
22:00-22:59	18	4.03%
23:00-23:59	13	2.91%
TOTAL	447	

LOCATIONS	Number of occurrences	%
Bronx River Pkwy	40	10%
Cross County Pkwy	5	1%
Hutchinson River Pkwy	247	63%
Palisades Parkway	1	0%
Playland Parkway	12	3%
Saw Mill River Pkwy	70	18%
Sprain Brook Pkwy	5	1%
State Route 104	1	0%
State Route 12	1	0%
Taconic State Parkway	4	1%
East Main Street (CT)	7	2%
Total	**393**	

LOCATION on HRP	Number of occurrences	%
East 3rd. Street Bridge N/B	16	7%
East 3rd. Street Bridge S/B	2	1%
East Lincoln Ave. S/B	14	6%
East Lincoln Ave. N/B	2	1%
Mill Road N/B	9	4%
Mill Road S/B	0	0%
Wilmot Road N/B	36	16%
Wilmot Road S/B	2	1%
Weaver Street - New Rochelle N/B	13	6%
Weaver Street - New Rochelle S/B	3	1%
Mamaroneck Road N/B	15	7%
Mamaroneck Road S/B	37	17%
North Ridge Street S/B	13	6%
North Ridge Street N/B	2	1%
King Street NY 120A N/B	53	24%
King Street NY 120A S/B	5	2%
Total	**222**	

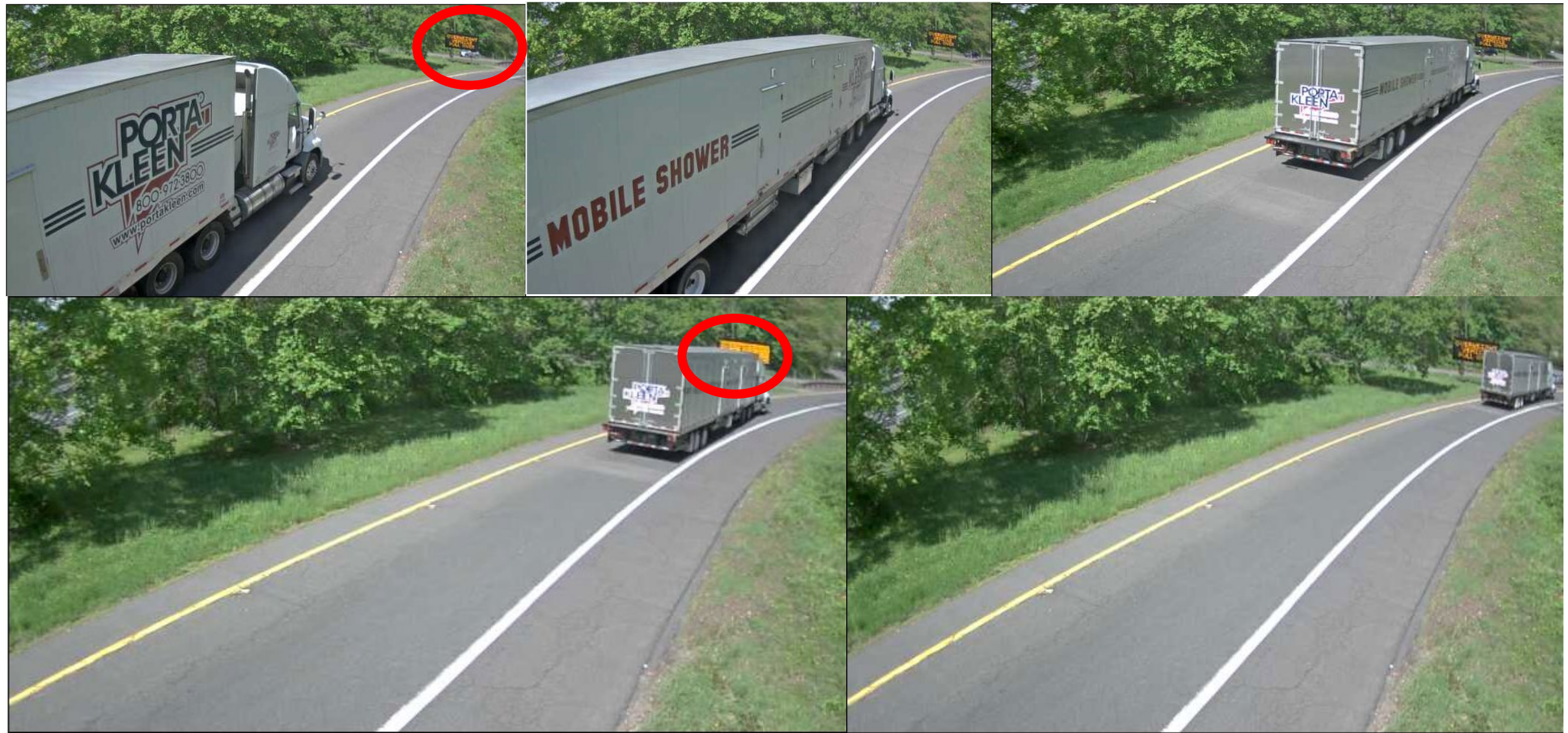# PAVEMENT MARKINGS

Detector Heads by Trigg

Multicolor V.M.Sign – Black & Amber

This Message is no longer used. It should be "**LOW BRIDGE AHEAD**" "**TRUCKS EXIT NOW**" or "**TRUCKS PULL OVER**"

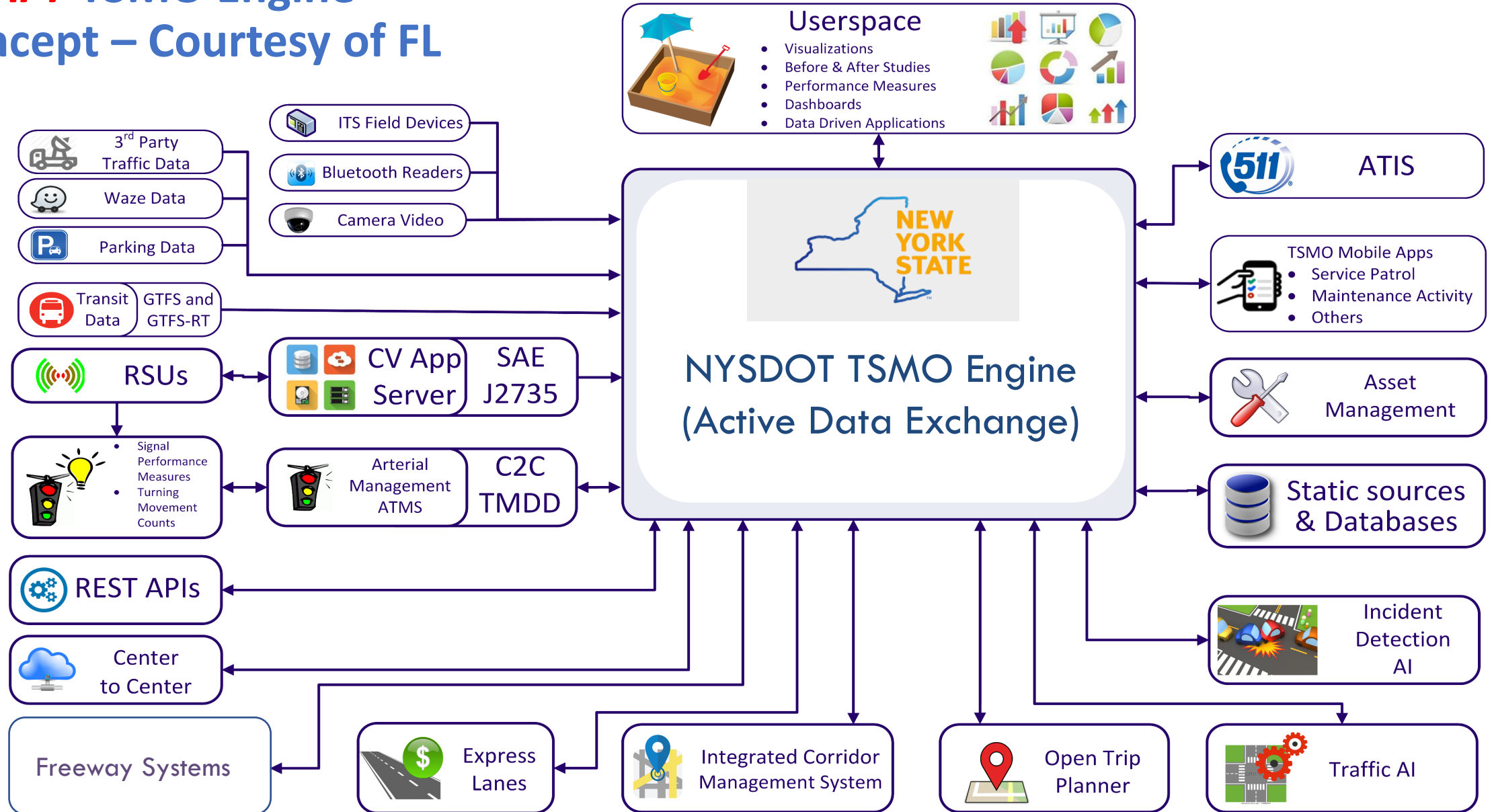# Trigger sends email/snap shots to TMC & WCPD

NYSDOT – Key Issue #2

Title: Coping with Data Flood – TSMO Engine;

- Challenge: How to effectively leverage the valuable data collected by the Dept for disparate purposes.

- Issues addressed: Integration of many varied data sources

- Action pursued: Preparing an RFP to hit the streets in the next couple of months for services to pull all this together. Looking at baby steps in the early stages.

- Results: TBD

- Lessons learned: So far:

  - There is a wealth of data out there.

  - Biggest need that the Dept is not setup to solve (yet) – we need a team of Data analysts, data scientists, data manipulators… Civil Service is our biggest roadblock

  - Look for a "services integrator" rather than a monster system

  - Need to build "enthusiasm" for the value of this effort – Else others are "too busy"

DRAFT TSMO Engine Concept – Courtesy of FL

Userspace
- Visualizations
- Before & After Studies
- Performance Measures
- Dashboards
- Data Driven Applications

NEW YORK STATE

NYSDOT TSMO Engine (Active Data Exchange)

- 3rd Party Traffic Data
- Waze Data
- Parking Data
- Transit Data / GTFS and GTFS-RT

- ITS Field Devices
- Bluetooth Readers
- Camera Video

RSUs

CV App Server / SAE J2735

- Signal Performance Measures
- Turning Movement Counts

Arterial Management ATMS / C2C TMDD

REST APIs

Center to Center

Freeway Systems

Express Lanes

Integrated Corridor Management System

Open Trip Planner

ATIS 511

TSMO Mobile Apps
- Service Patrol
- Maintenance Activity
- Others

Asset Management

Static sources & Databases

Incident Detection AI

Traffic AI

Title: Project Green Light

Challenge: Upgrade all signals for the future: Connected Vehicles, Pedestrians, Transit Users

- Issues addressed: Mobility improvements for all with Safety improvements

- Action pursued:
  - Communication to all 6000+ signals across the state utilizing non-intrusive detection (Miovision & Gridsmart).
  - Leverage real-time traffic volumes, speeds, turning movements, and ped calls to signals.
  - Transit Signal Priority
  - Traffic Systems Management Center - Virtual?

- Results: TBD

- Lessons learned:
  - Build support from the ground up - Signal technicians thrive on the added challenge
  - Communication Costs can be signficant

PROJECT GREEN LIGHT

Summary & Project Closeout

September 2021

Office of Traffic Safety & Mobility
Transportation System
Management & Operations Bureau

NEW YORK STATE OF OPPORTUNITY | Department of Transportation

NYSDOT – Key Issue #4

Title: ATMS Upgrade

- Challenge: Existing systems are disparate and reaching End-of-life (10 Individual TMCs)

- Issues addressed: Can't integrate separate systems. Varied SOP's and different capabilities. Data collection and analysis needs to be improved.

- Action pursued: Looking at new direction: Open Source. Cloud Based system. Service vs System. RFP draft has begun

- Results: TBD

- Lessons learned: TBD

Ohio Department of Transportation

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TMC Supervisor
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Ohio DOT: Topic for Discussion

- **Topics of Choice:**
  - **Color DMS**
    - **Any states using it for more than travel times and route shields for incidents?**
    - **Feedback/lessons learned?**

  - **TRIP-lite**
    - **Utilized private towing companies for disabled auto / crashes in work zones. Any states have a similar program?**

  - **I-275 Smartlane**
    - **Adding hard shoulder running in Cincinnati based on success of I-670 smartLANE**
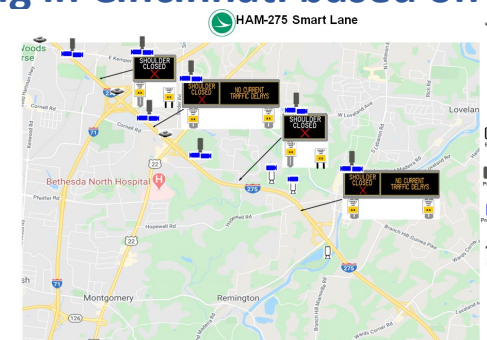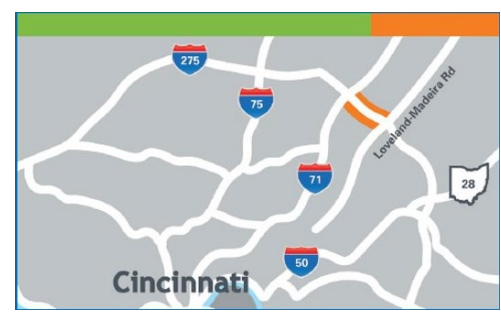
  - **Wireless emergency Alerts (WEA)**
    - **How many other states implementing?**
    - **If so, how many times have you used it so far?**
    - **Lessons learned?**

Ohio DOT: Topic for Discussion

- **What's some typical monthly reports you generate for your TMC?**
  - **What data do you track that provides useful feedback (i.e., total incidents, incident type, etc.)**

- **Have you made any TMC adjustments post pandemic?**
  - **100% in office or hybrid?**
  - **Schedule adjustments based on volume/peak hour changes**
  - **Traffic pattern changes?**
  - **Anything else?**

- **ATMS upgrades – OHGOInsight - external events integration (Waze, Turnpike, FSP, OSHP CAD, etc.)**
  - **Useful data vs. duplicate data**
  - **Lessons learned / Feedback**

Ohio DOT: Topic for Discussion

- **Updates to Ohio's travel information site - OHGO**
  - **Inrix dangerous slowdowns (will warn motorists of slowdowns along personalized route)**
  - **Maintenance vehicles / snowplow locations**
  - **Do other states have similar features?**
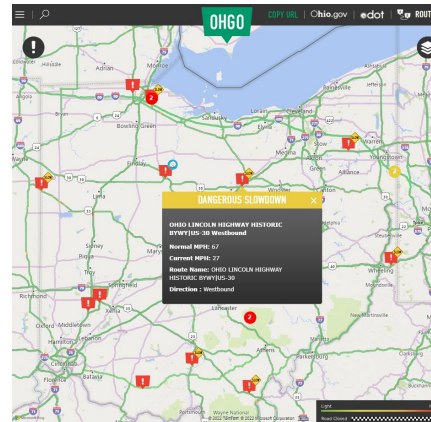
- Additional information:
- Ohio TSMO Dashboards | Ohio Department of Transportation
- Ohgo || Real-time Ohio traffic

Ohio DOT:

- Contact:
  - Dominic L. DelCol
  - TMC Supervisor
  - Office of Traffic Management
  - Dominic.Delcol@dot.ohio.gov

Pennsylvania Department of Transportation

Ryan McNary
Manager, Traffic Systems and TSMO Performance
rymcnary@pa.gov

- **Lane Reservation System**
  - **Work Zone Conflict Monitoring and Manager**
  - **FREEVAL-PA Integration**
  - **Mobile Application**
  - **Available to Internal and External Partners**
  - **Events can be entered on PennDOT and Local Roads**

- **Additions we added to the scope**
  - **WZDx Feed for Mapping Companies**
  - **Flexible Data Lake that can fuse real-time data from field/vehicles to make Operations decisions**
  - **Predictive Analytics**
  - **Visualization of a variety of internal and external data sources**
 - **Cloud Expandability**
  - **Florida DOT Partnership**

Lane Reservation System/Event Management Module

Lane Reservation Input

Work Zone M   FREEVAL-PA

Conflict Monitoring

External Application
Mobile Friendly Reservation and Field Verification Tool (iPAD)

PennDOT Work Zone Data Exchange

Producers
- ATMS
- GIS Server
- Other PennDOT Systems
- Third Party Data Sources

Data Ingestion
Data PII Elimination
Data Filtering
Data Fusing/Transformations
V2X Data Lake

WZDx Feed & Historical Work Zone Data

Infrastructure Cyber Security

Consumers
- PennDOT Systems
- USDOT
- Map Developers
- Researchers
- OEMs, Tier 1 Providers, Aftermarket & Fleets

Data Sharing
WZDx Data Feed Out Virtual CMS

Data Ingestion
Real-time Data Ingestion (CAV/Dectors)
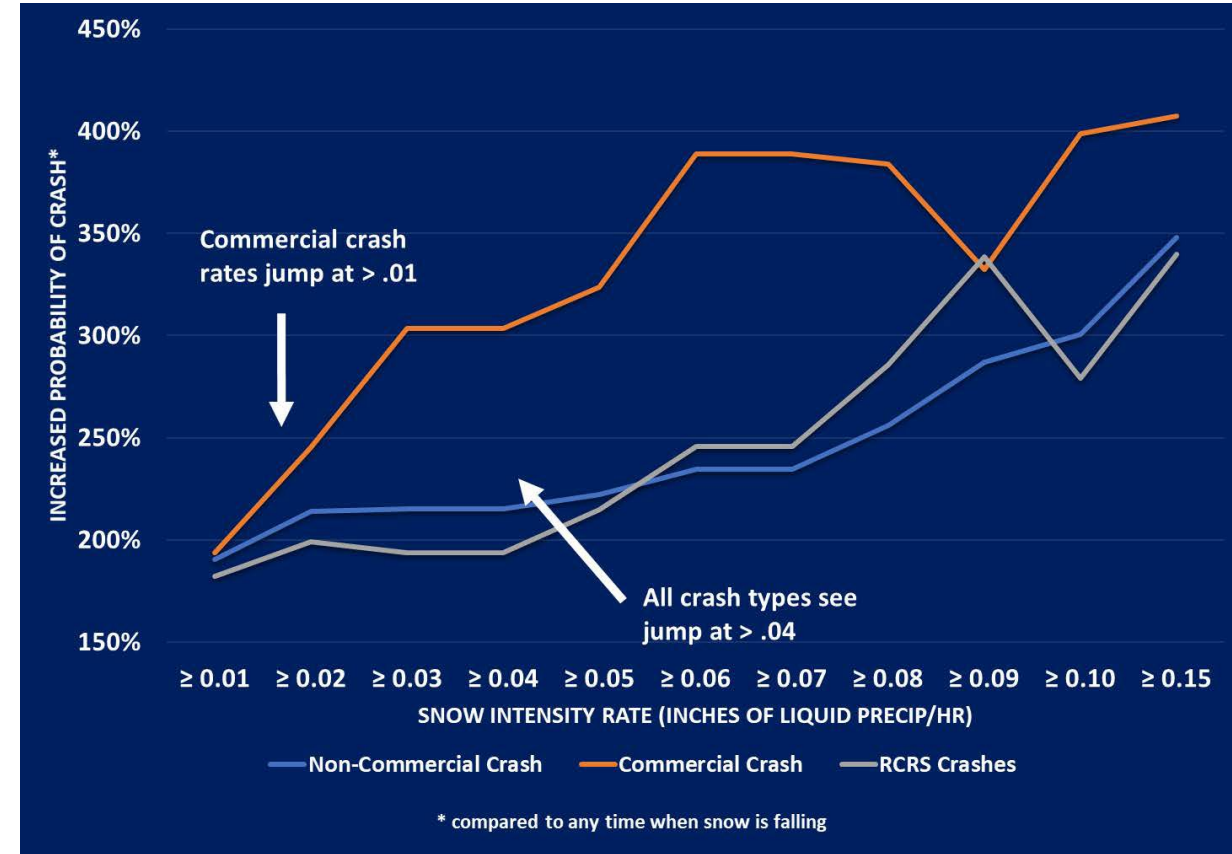
Virtual HAR

ATMS

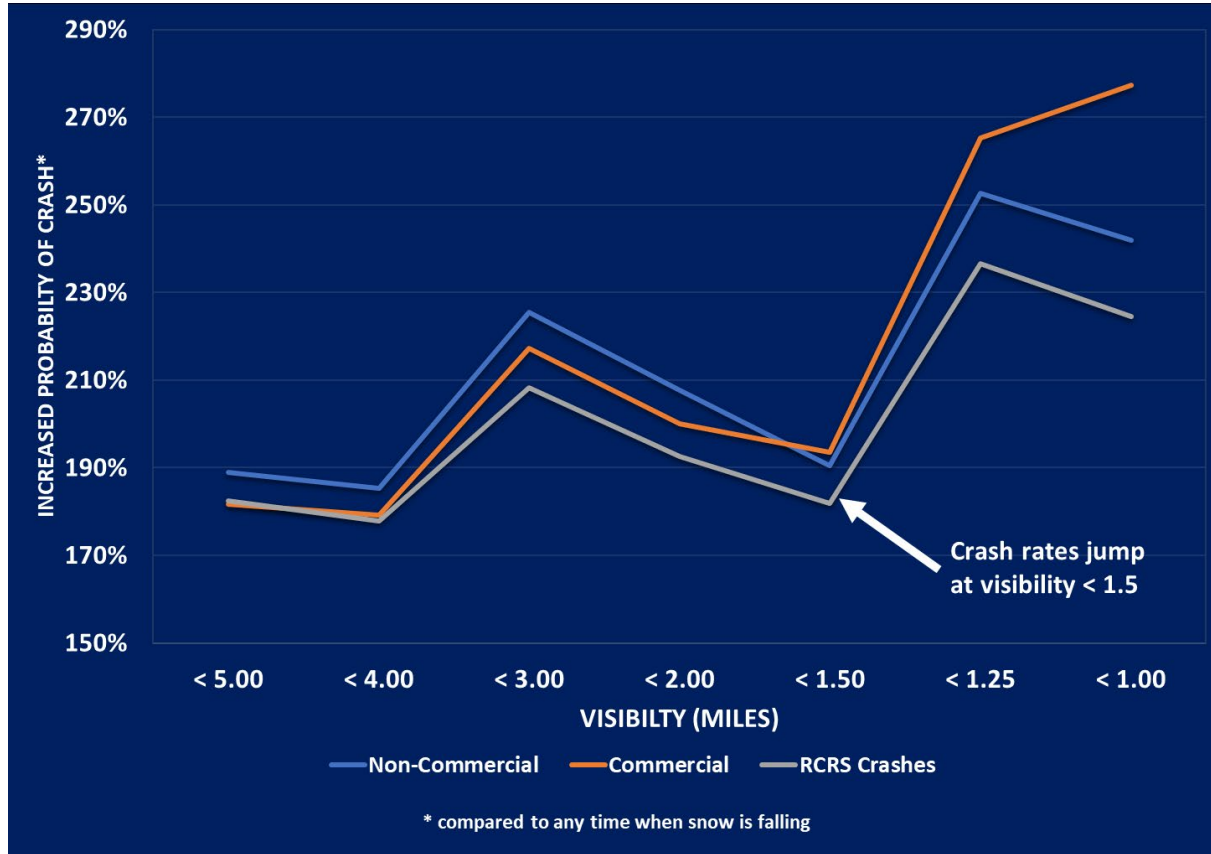**511PA Website** with voice

IVR – Priority Floodgate

Geofenced **DriveMode Voice Alert**
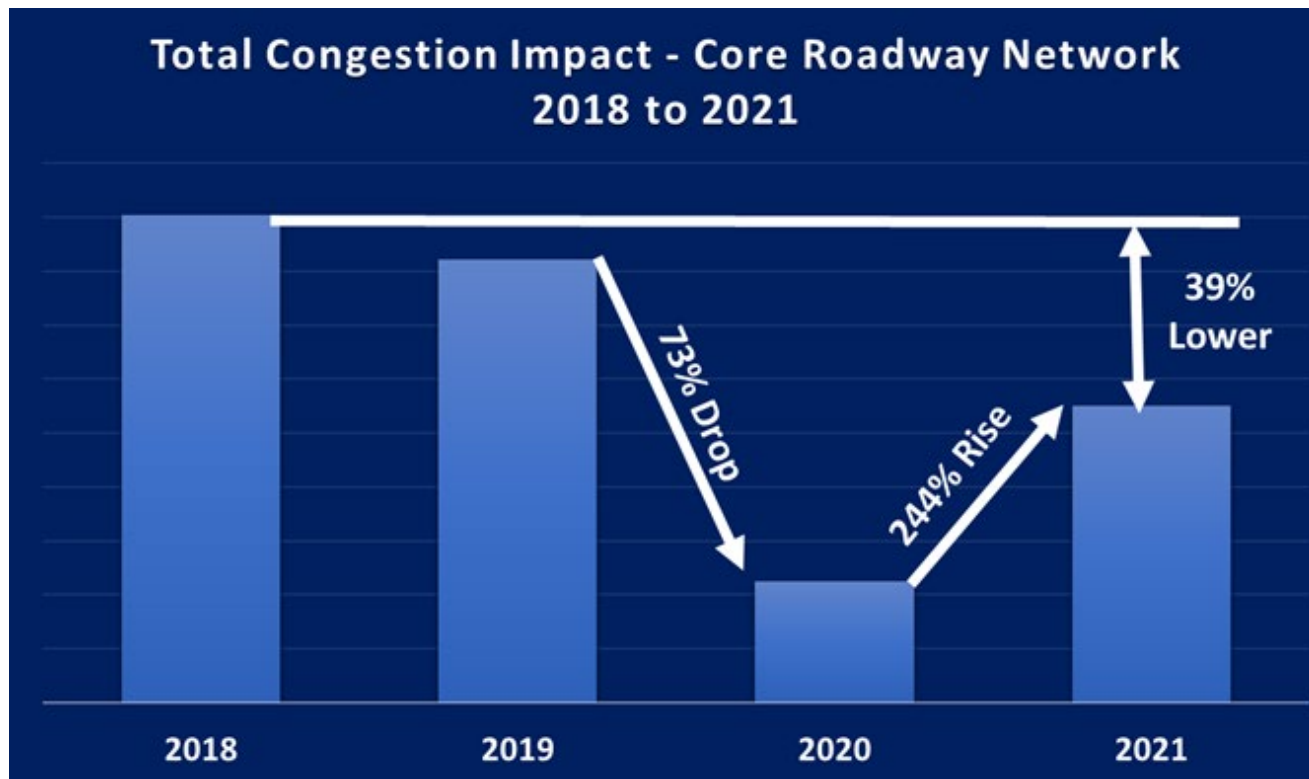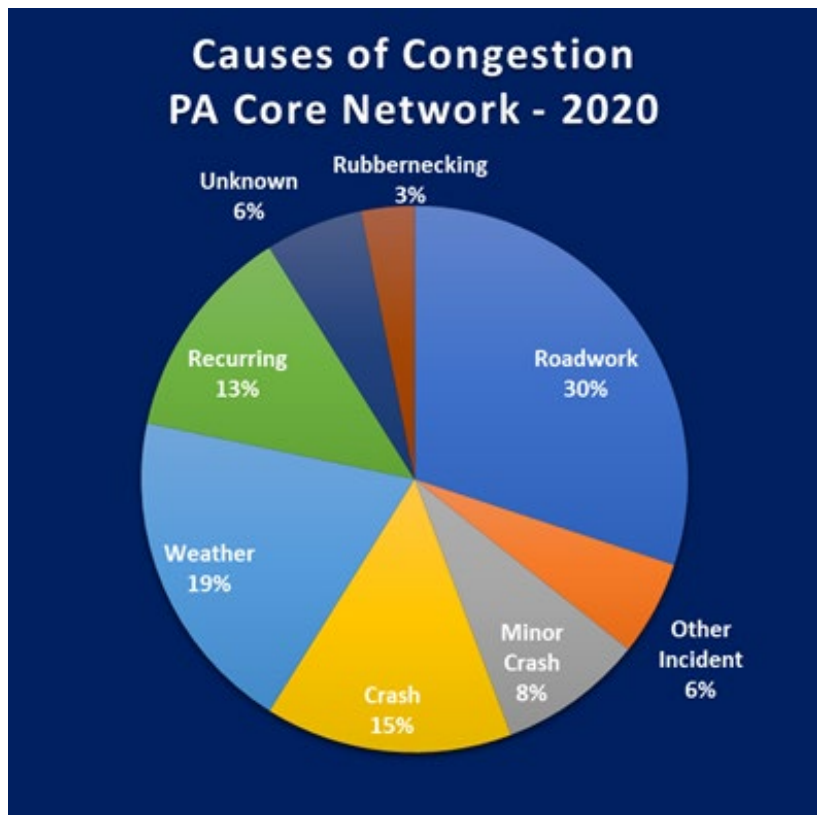
Geofenced **Push Notifications** with voice
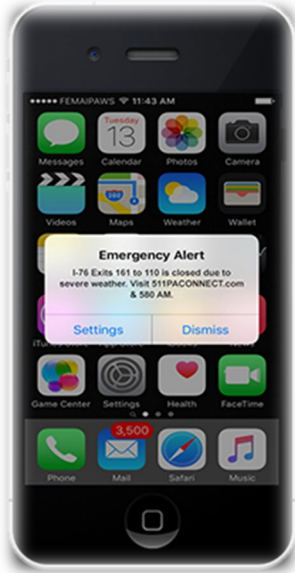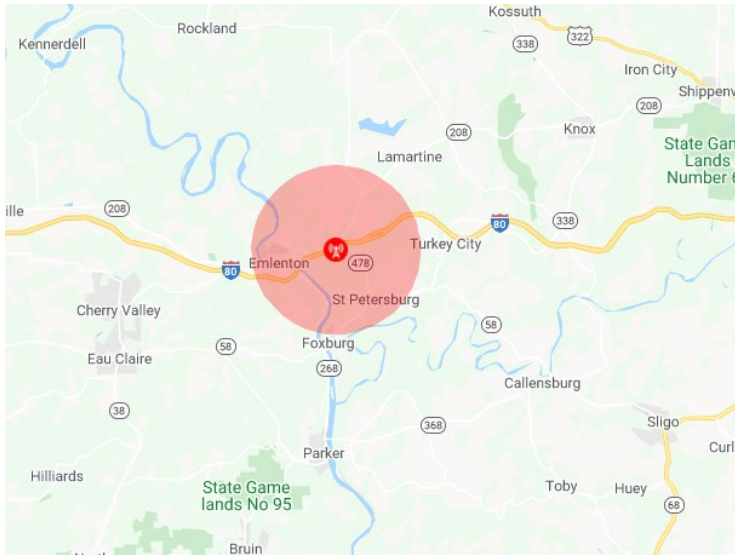
Defining Whiteout Conditions for RWIS Readings

The complete 6th Edition report is available, along with all previous reports, at
www.penndot.pa.gov/TSMO

6Th TSMO Performance Report

The complete 6th Edition report is available, along with all previous reports, at
www.penndot.pa.gov/TSMO

PennDOT

- Contact:
  - Ryan McNary
  - Manager, Traffic Systems and TSMO Performance
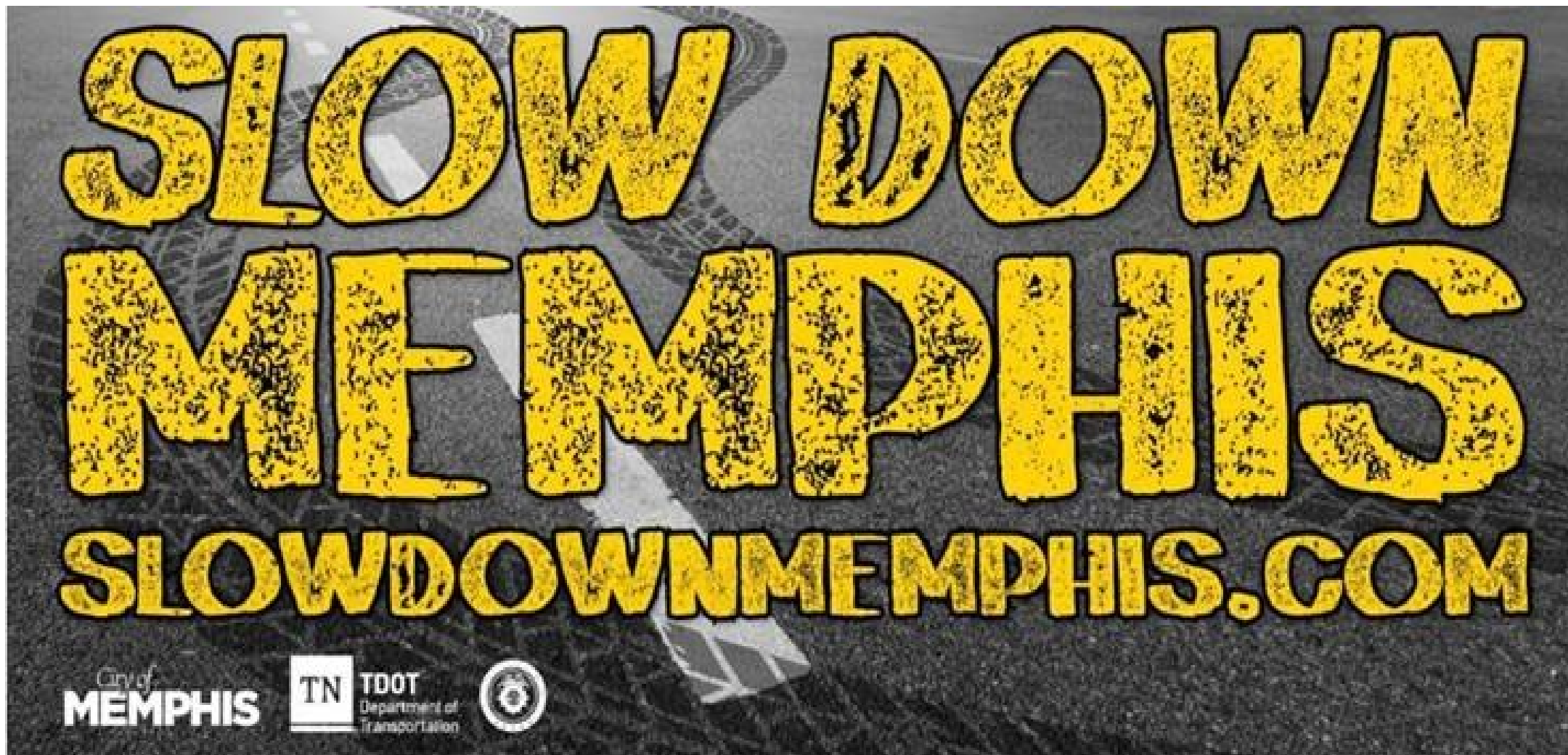 - PennDOT
  - rymcnary@pa.gov

Tennessee Department of Transportation

Brian White
TMC Manager
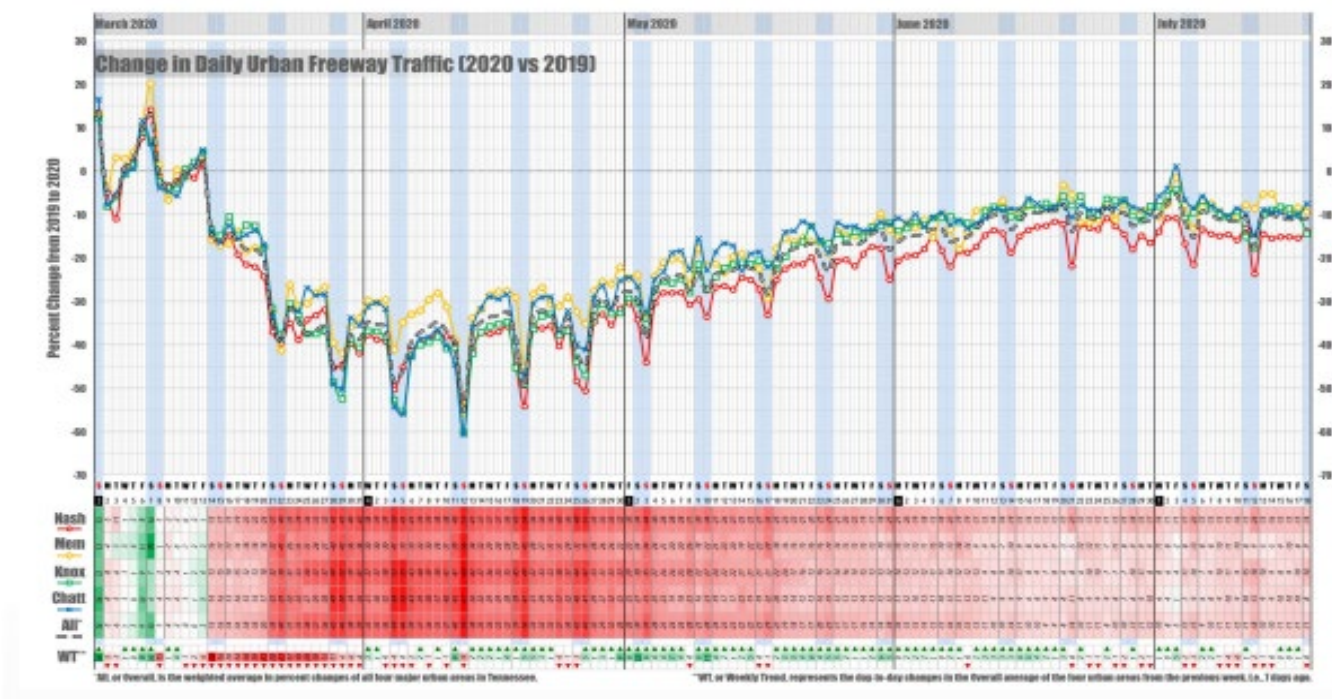**Brian.White@tn.gov**

TDOT: Topic for Discussion

TDOT: Topic for Discussion

Impacts of COVID-19 Travel Patterns

Provided by Nathan Vatter

TDOT: Topic for Discussion

Implemented Messages

TENNESSEE FATALITIES

2019 YTD 1,132

2020 YTD 1,210

SHELBY CO. FATALITIES

2019 YTD 154
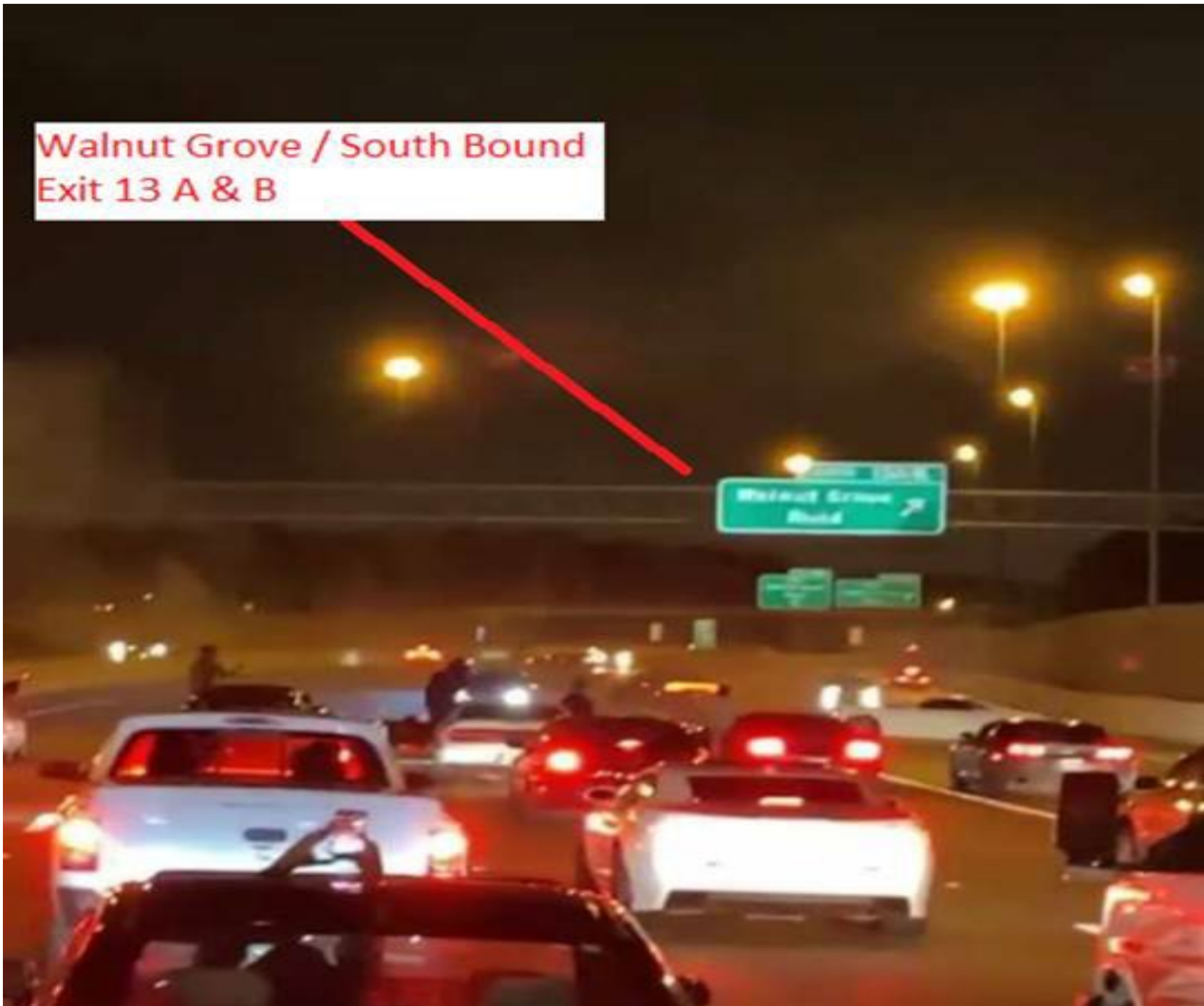
2020 YTD 244

TDOT: Topic for Discussion
"Markings of a Culprit"

TDOT: Topic for Discussion
"First siting of the Culprit"

TDOT: Topic for Discussion

Guilty Culprit

TDOT: Topic for Discussion

Slow Down Memphis Mission

3 Components

- Inform (bring awareness)
- Educate
- Enforcement

TDOT: Topic for Discussion

- Slow Down Memphis Mission
  - Educate
    - Radio Commercials
    - TV Commercials
    - Advertising on streaming services such as, but not limited to: ESPN, YouTube, Firestick, RoKu

TDOT: Topic for Discussion
2020 Region 4 Fatality Totals 402 vs 321 (2021)

	2020	2021	YTD Diff
District 1-Knoxville	129	167	38
District 2-Chattanooga	95	124	29
District 3-Nashville	239	257	18
District 4-Memphis	235	246	11
District 5-Fall Branch	97	123	26
District 6-Cookeville	63	57	-6
District 7-Lawrenceburg	53	74	21
District 8-Jackson	100	75	-25
Total	1,011	1,123	112

TDOT: Topic for Discussion

"Slow Down Tennessee"
"Slow Down Memphis"
Questions?

Tennessee Department of Transportation

Contact:

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Utah Department of Transportation

John Leonard
TMD Operations Engineer
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UDOT: Topic for Discussion

- UDOT ATMS RFP

UDOT: Topic for Discussion

Need for new ATMS

- UDOT Traffic Operations Center is currently using TransCore/TransSuite as an ATMS
  - Current ATMS system performs basic functions well but has limited features
  - Our version is no longer supported by TransCore and is fully maintained by DTS staff at TOC
  - Updates to the system add more complexity and can be costly
  - We have been pushing thresholds of what the TransSuite system can manage with cameras and devices
  - TOC staff are now managing more than 20,000 incidents a year/have increased needs for a system that reduces inefficiencies and increases workflow

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UDOT: Topic for Discussion

RFP Process

- Creation/writing of RFP including requirements for new system and for vendor submissions
- Open submissions for RFP
- Initial screening of vendor submissions and narrowing of field to qualified/best submissions
- "Sandbox" testing of finalist vendors using their ATMS systems
- Final interviews with vendors to review findings and implementation processes
- Selection of ATMS vendor and implementation of new system including testing and training

UDOT: Topic for Discussion

RFP Testing

- UDOT received 12 different vendor submissions for the RFP and narrowed the field down to 4 finalists that met most needs/wants for our ATMS
- The 4 finalists presented their unique systems and created a sandbox demonstration for the RFP team to test for 6 weeks
- Testing included using the sandbox systems to go through each line item of the RFP to see if they met specified criteria
- Testing also included Control Room Operators going through common scenario simulations in the sandbox and completing surveys for each system for feedback

UDOT: Topic for Discussion

RFP Final Interviews
- UDOT is currently hosting final interviews with each vendor
- Final interviews include Q&A sections covering the following:
  - Software Architecture
  - Implementation plan and strategies
  - Future maintenance, updates, tech support
  - Cloud hosting, licensing, 3rd party licensing

UDOT: Topic for Discussion

Next Steps

- RFP Committee will select a vendor for our ATMS and start the software delivery process
- Integration process will take ~1.5 years to complete
- Integration will include:
  - Developing an overall project plan
  - Building custom system architecture based on UDOT needs
  - Integrating data and migrating devices
  - Testing of full system and training before go live
  - Go live/transition from old system to new

Utah Department of Transportation

- Contact:
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  - TMD Operations Engineer
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Virginia Department of Transportation

Ali Farhangi, PE
State Operations Engineer
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Project Highlight: Statewide Towing Recovery & Incentive Program Contract

- Statewide Contract began May 2021 with coverage on I-81 and I-95 joining the existing program in VDOT's Central Region since 2018

- Since 2018 there have been more than 800 TRIP activations – with nearly 700 resulting in incentives being paid out.

- Benefits of the new expansion on I-81 includes reduction in response times & clearance times as well as improved relationships with incident responders

I-81 TRIP Performance Stats

Region		# of Activations
NWRO	Incentive	124
	No Incentive	7
	Dis +	1
	Canceled	6
SWRO	Incentive	184
	No Incentive	5
	Canceled	5
Grand Total		332

Average Roadway Clearance Time (minutes)

	2018-2019	2019-2020	2020-2021	2021-2022
NWRO	115	112	95	88
SWRO	146	125	113	88

Before TRIP

During TRIP

VDOT: List of Accomplishments & Ongoing Activities

- 17 jurisdictions have PSAP connections to VDOT and an additional 3 jurisdictions are in the process of getting connected.
- Regional Multimodal Mobility Program (ICM) in Northern Virginia has been funded and various activities are under procurement.
- TSMO strategic plan has been drafted, Program & Organization Review is underway. Service Layer Plans have been initiated.
- I-95 Variable Speed Limit (Fredericksburg) is ongoing.
- 5 of 5 TOCs have been integrated into the ATMS. The final facility switched over in Fall 2021 and transition to the cloud is underway.
- VDOT is Deploying OPSInsight to manage VDOT Fiber Assets. Field data collection and upload to continue through 2022.

VDOT's Strategic Plan for Transportation Systems Management & Operations (TSMO) – Version 1

DRAFT – April 2021

RM3P

Travel Decisions Powered by Data

Virginia Department of Transportation

Questions?

Contain to obtain additional information:

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Washington Department of Transportation

Vinh Dang
Freeway Operation Engineer
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WSDOT: Virtual Coordination Center project

- **Multi modal integrated corridor management**

- **Total funding $8.3 mil.**
  - $4.6 mil. cash (FHWA, WSDOT, Challenge Seattle)
  - $3.7 mil. in-kind from public and private partners

- **Agile software development process**
  - Iterative process with rapid deployment of prototype & quick user feedback
  - Stakeholder engagement and ownership
  - Regular and collaborative trouble shooting, making correction / adjustment

- **Three waves of development**
  - Shared situation awareness
  - Collaborative congestion management
  - Coordinated public information

WSDOT: Virtual Coordination Center project

Wave 1 - Share situation awareness - prototype

- Integrated flow maps from partner agencies
- Integrated incident and dispatch feed
- Live feed / streaming from incident site

Wave 2 - Collaborative Congestion Management – under construction

- Multi-agency action logs
- Develop and improve the "play" templates
- Collaborative strategies

WSDOT: Challenges

- **New TMC - Co-locate or not**
  - Some existing TMC are currently co-located with Washington State Patrol
  - Collocation might face challenges following successful hybrid operation

- **Traffic Management software and application**
  - In the cloud or local?
  - "zero trust" in the cloud?

- **Personnel – Human Resource**
  - Pay scale
  - Work environment
  - Employee development and retention

Wisconsin Department of Transportation

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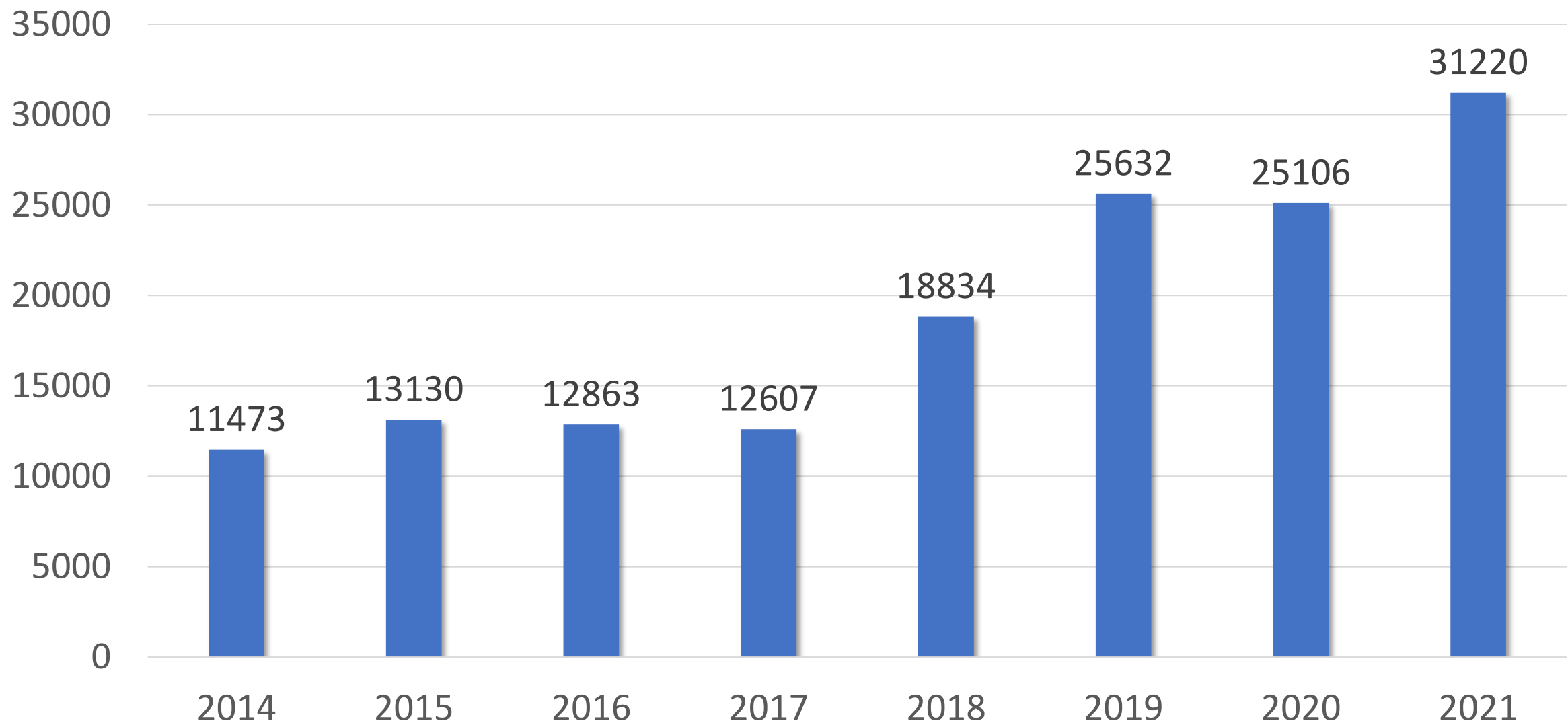
WisDOT: Topic for Discussion

Maintaining Quality While Increasing TMC Activity

Approach:

- Time utilization: Free up on sight manager and shift supervisors, to perform quality reviews
- Staffing: Added a new position – Traffic Operations Specialist – Primarily handles all video requests and most ITS maintenance reporting
- Training/testing: Bi-annual in-person training, traffic incident evaluations, certification training
- Communications: monthly all-staff meetings, weekly operations management meetings
- ATMS Development and system maintenance: collaborative outreach with developer on enhancements and maintenance

Wisconsin TMC - Total Incidents by Year

Wisconsin Department of Transportation

- Contact:
  - o Dan Schultz, PE
  - o Control Room Engineer
  - o Bureau of Traffic Operations
  - o dan.schultz@dot.wi.gov