

Smart Delaware

Delaware's Integrated Transportation Management System

Gene Donaldson, DeIDOT



Delaware Department
of Transportation

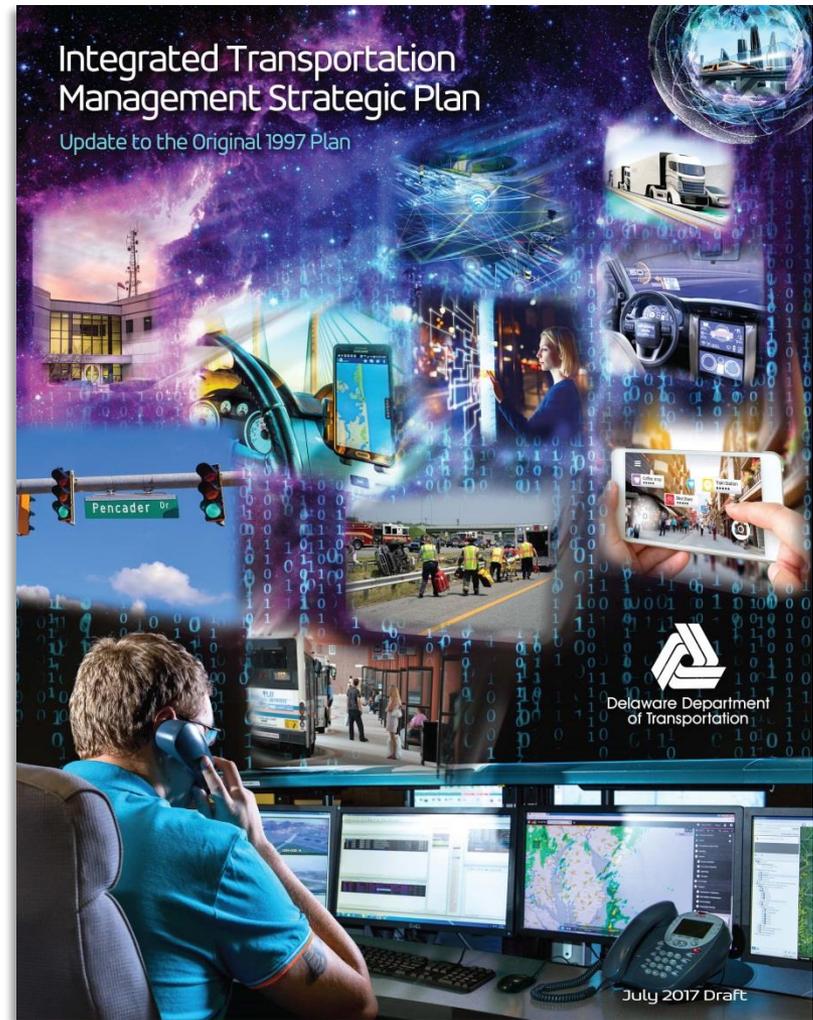
Integrated Transportation Management Strategic Plan (1997)

- Required a foundation for a shared mission and vision between all of Delaware's Transportation Management System stakeholders.
- The plan defined Delaware's Transportation Management:
 - Mission
 - Vision
 - Goals
 - Strategies for Implementation
- Defined a Statewide Transportation Management Program managed from a central transportation management center (TMC).



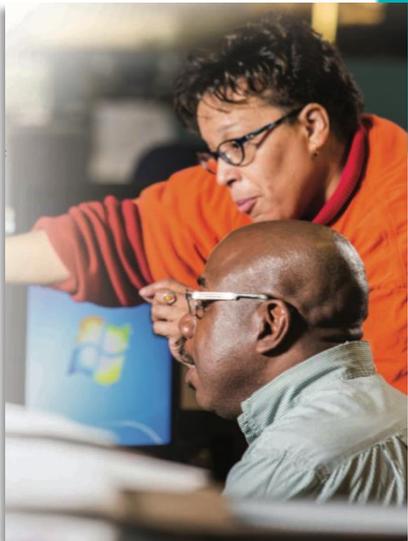
DeIDOT ITMS Strategic Plan

- 2017 update to the ITMS Strategic plan
- Addresses Connected and Autonomous Vehicles

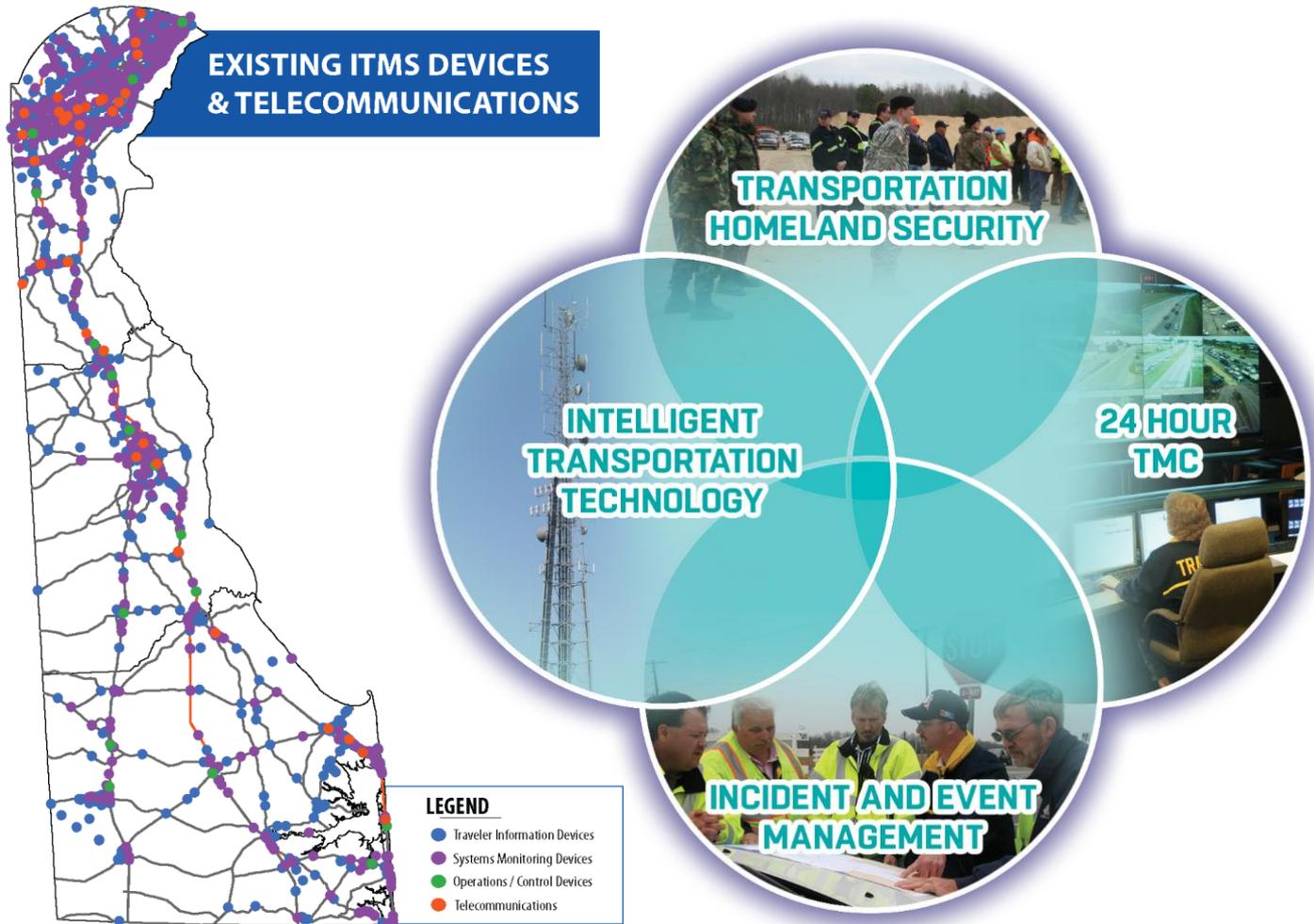


How is DelDOT Unique?

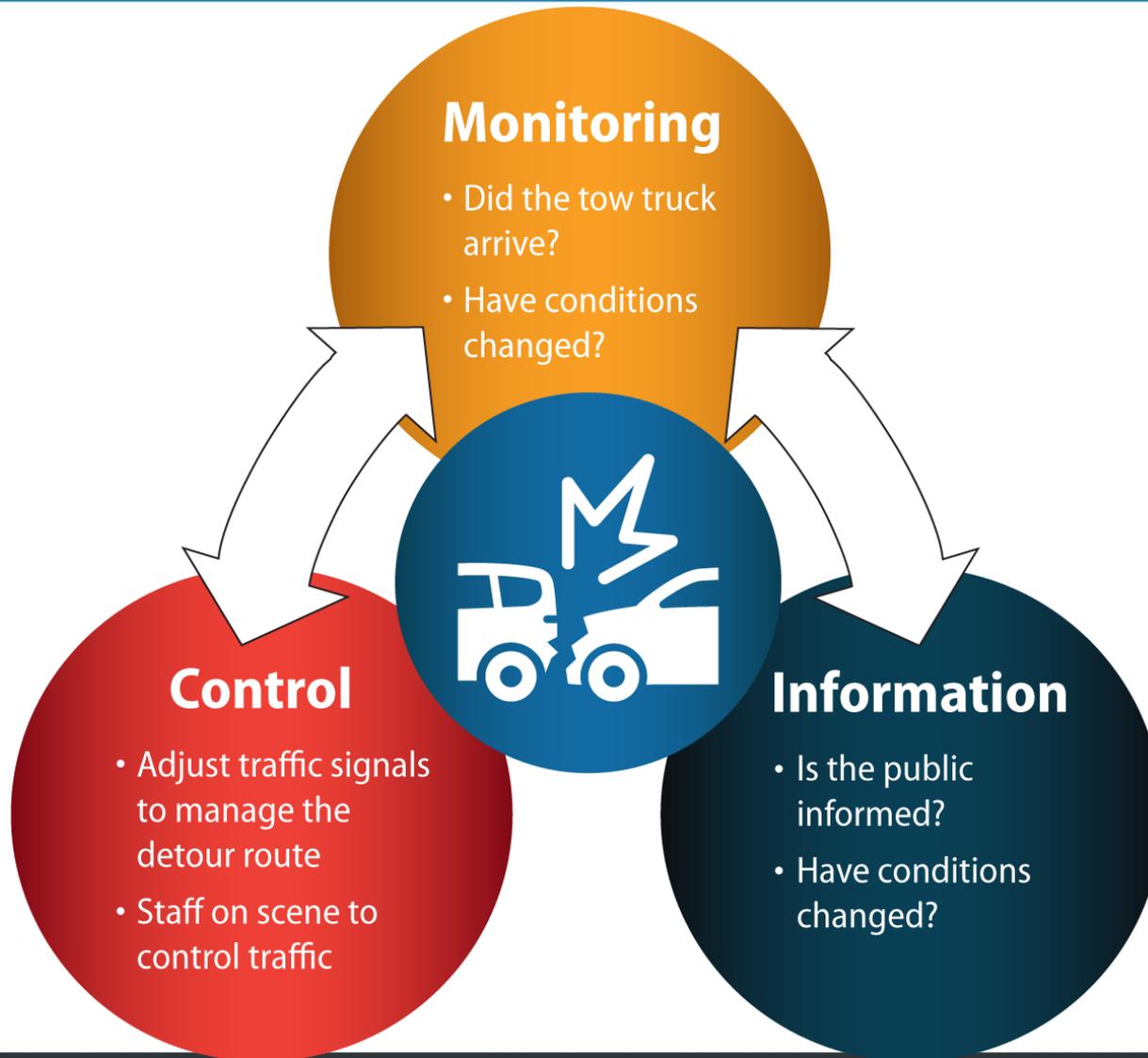
- Owns 90% + of roads
- Owns most traffic signals
- Operates the transit system
- Operates the tolls
- Truly multimodal
- Integration of planning and operations



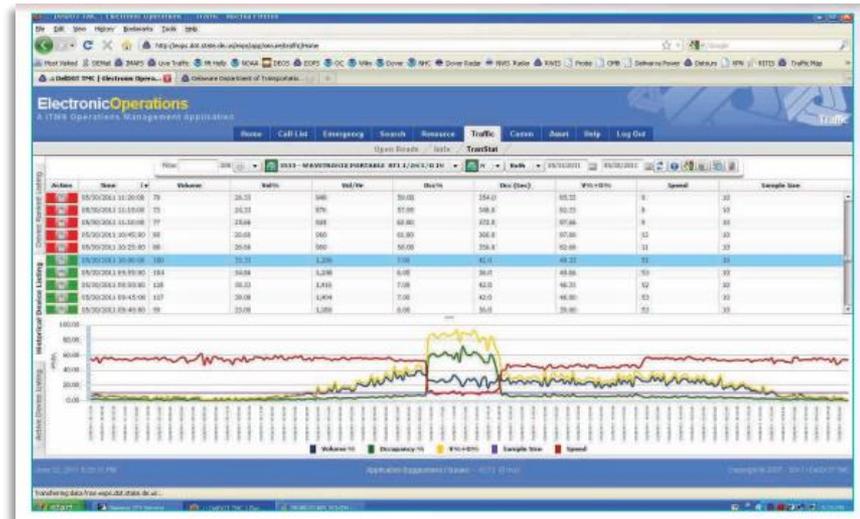
Integrated Transportation Management System



Three Critical Functions of ITMS



Integration of Operations and Planning



Smart Delaware: The Next Phase of ITMS

- A constant data-exchange between all modes
- Efficient transportation management decisions
- Reduced accidents, less congestion, reduced energy consumption, fewer emissions and improved travel times
- Enhanced mobility for all

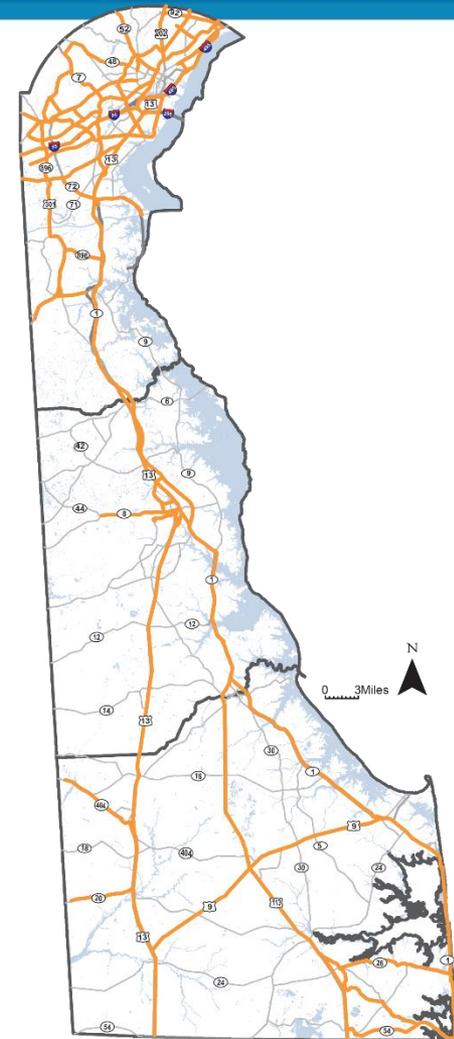


USDOT Smart City Expected Outcomes:

improve safety * enhance mobility * enhance ladders of opportunity * address climate change

What Can We Leverage?

- Existing Telecommunications Network
- Existing Delaware Transit Corporation Integration
- Existing Traffic Signal and ITS Device Integration into TMC
- Mobile App



LEGEND
— All Miles with ITMS Coverage

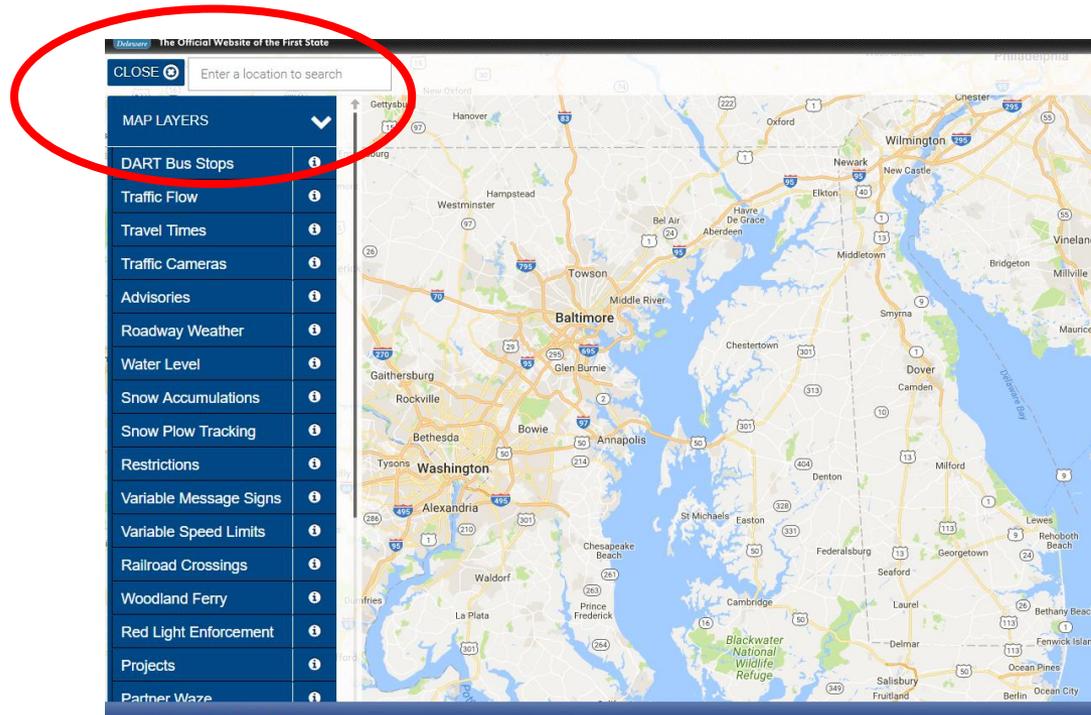
ITMS Interactive Map

www.deldot.gov

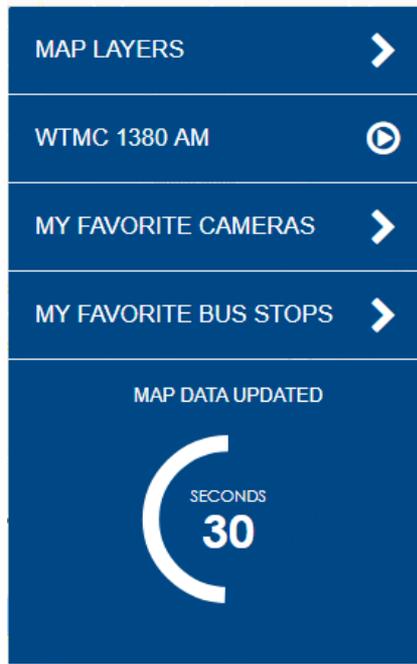
The screenshot shows the homepage of the Delaware Department of Transportation (DelDOT). At the top, there is a navigation bar with the State of Delaware logo and the text "The Official Website of the First State". Below this is the DelDOT logo and the text "DEPARTMENT OF TRANSPORTATION Excellence in Transportation Every Trip · Every Mode · Every Dollar · Everyone". A search bar and a "State Services & Information" dropdown menu are also present. A "Contact DelDOT" button and a "Select Language" dropdown are located on the right side. The main content area features a large image of a red car with its interior open, and a text box titled "ADVISORY COUNCIL ON CONNECTED AND AUTONOMOUS VEHICLES" with a "READ MORE.." link. Below the main content is a row of eight icons representing various services: Interactive Maps, Traffic Cameras, Road Conditions and Advisories, DelDOT Gateway, Toll Rates, Report an Issue, Projects, and WTCM 1380AM Live Traffic Updates. At the bottom, there are three main navigation tabs: "DOING BUSINESS", "PUBLIC INVOLVEMENT", and "QUICK LINKS". Under "DOING BUSINESS", there is a link for "BID INFORMATION" which is circled in red. Under "PUBLIC INVOLVEMENT", there is a dropdown menu for "PUBLIC WORKSHOPS". Under "QUICK LINKS", there is a link for "EMPLOYMENT".

www.deldot.gov/map

Map Layers



WTMC, Favorites



DART Bus Stops

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |

Bus Stop Contact

WRANGLE HILL PARK & RIDE / DMV ☆

Bus Stop ID: 3576
Bench: No
Shelter: Yes

Routes Serving This Stop
25, 44, 53

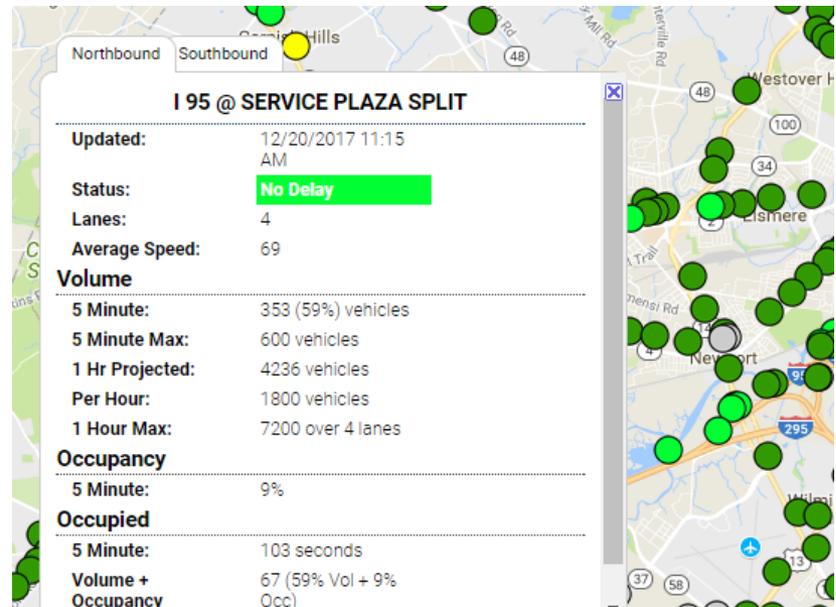
Next Arrival Times For
Route 025 (Delaware City/DuPont Highway)

Bus Estimated Arrival time not available

| Estimated | Scheduled | Destination |
|-----------|-----------|---------------|
| 11:28AM | 11:25AM | Wilmington |
| | 11:28AM | Delaware City |

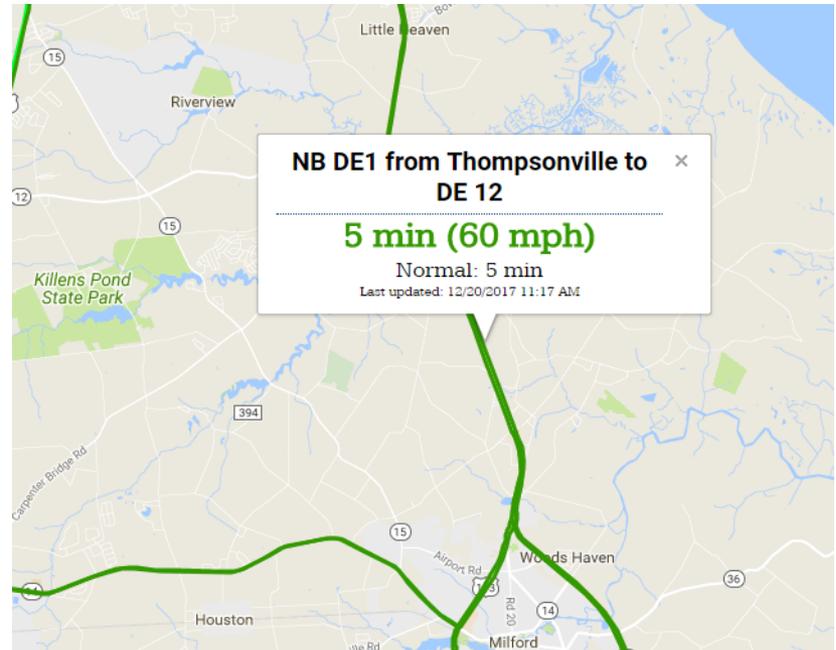
Traffic Flow

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Ways | ⓘ |



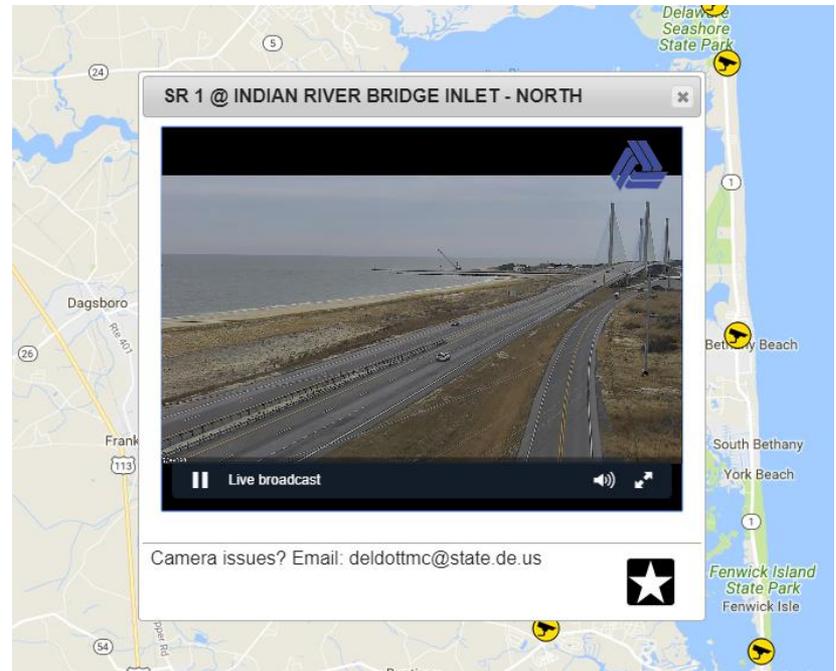
Travel Times

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | i |
| Traffic Flow | i |
| Travel Times | i |
| Traffic Cameras | i |
| Advisories | i |
| Roadway Weather | i |
| Water Level | i |
| Snow Accumulations | i |
| Snow Plow Tracking | i |
| Restrictions | i |
| Variable Message Signs | i |
| Variable Speed Limits | i |
| Railroad Crossings | i |
| Woodland Ferry | i |
| Red Light Enforcement | i |
| Projects | i |
| Partner We... | i |



Traffic Cameras

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |



Advisories

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | i |
| Traffic Flow | i |
| Travel Times | i |
| Traffic Cameras | i |
| Advisories | i |
| Roadway Weather | i |
| Water Level | i |
| Snow Accumulations | i |
| Snow Plow Tracking | i |
| Restrictions | i |
| Variable Message Signs | i |
| Variable Speed Limits | i |
| Railroad Crossings | i |
| Woodland Ferry | i |
| Red Light Enforcement | i |
| Projects | i |
| Partner Ways | i |

Construction

Details: E EVANS RD BTW US-13 & TURKEY POINT RD THERE ARE INTERMITTENT LANE CLOSURES FOR CONSTRUCTION UNTIL 1PM

County: Kent County

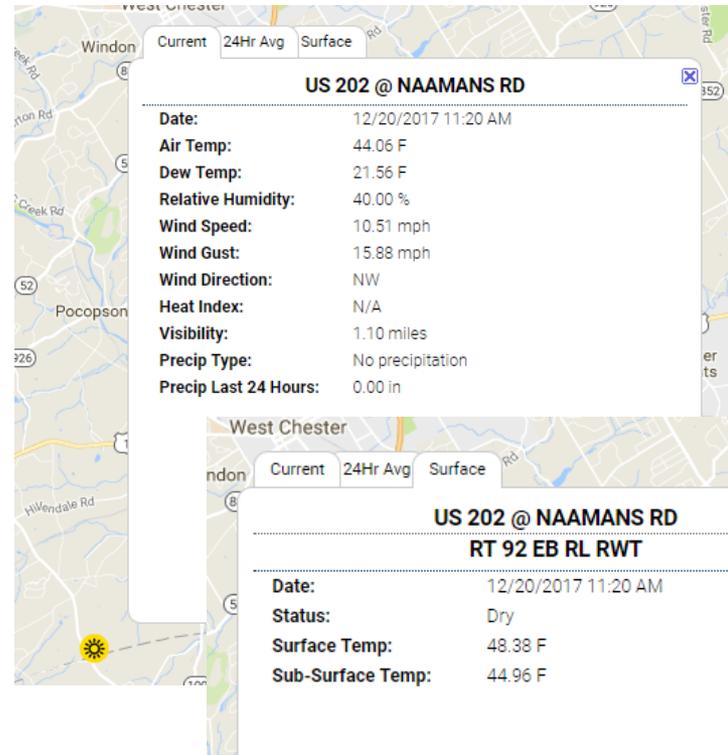
Effect: PLEASE USE CAUTION & FOLLOW PERSONNEL ON SCENE

Impact: EXPECT DELAYS

Timestamp: 12/20/2017 8:33 AM

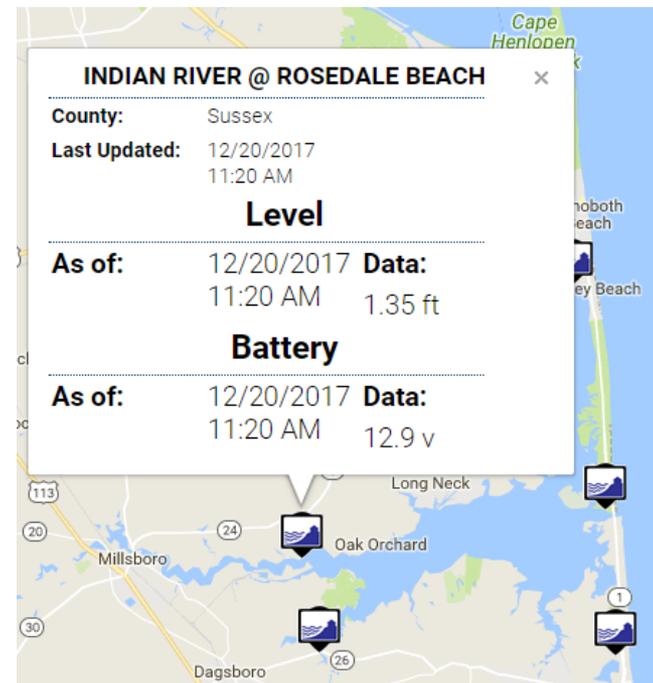
Roadway Weather

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |



Water Level

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |



Snow Accumulation and Snow Plow Tracking

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |

Restrictions

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |

Scheduled Restriction

Duration: 09/14/2017 12:00 AM to 12/29/2017 12:00 AM

County: Kent County

Location: Slaughter Station Road between Hourglass Road and Hartly Road

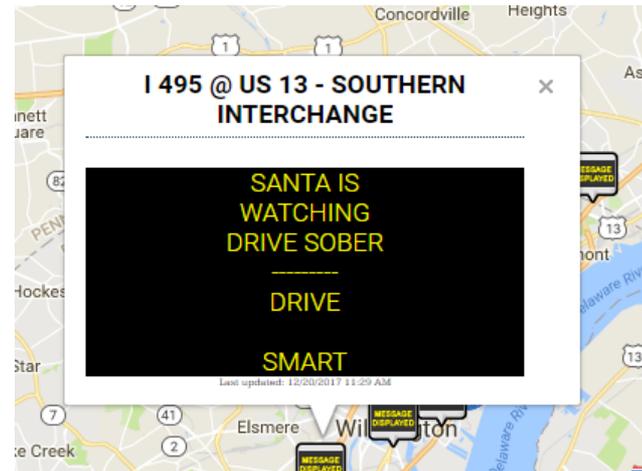
Impact: Restriction

Condition: Intermittent lane closures from 7 a.m. until 5 p.m. for patching and overlay.

More Info:

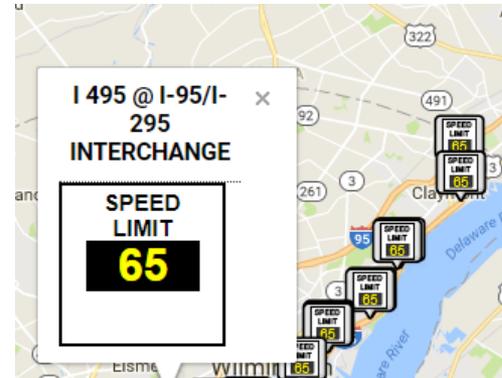
Variable Message Signs

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | 1 |
| Traffic Flow | 1 |
| Travel Times | 1 |
| Traffic Cameras | 1 |
| Advisories | 1 |
| Roadway Weather | 1 |
| Water Level | 1 |
| Snow Accumulations | 1 |
| Snow Plow Tracking | 1 |
| Restrictions | 1 |
| Variable Message Signs | 1 |
| Variable Speed Limits | 1 |
| Railroad Crossings | 1 |
| Woodland Ferry | 1 |
| Red Light Enforcement | 1 |
| Projects | 1 |
| Partner Waze | 1 |



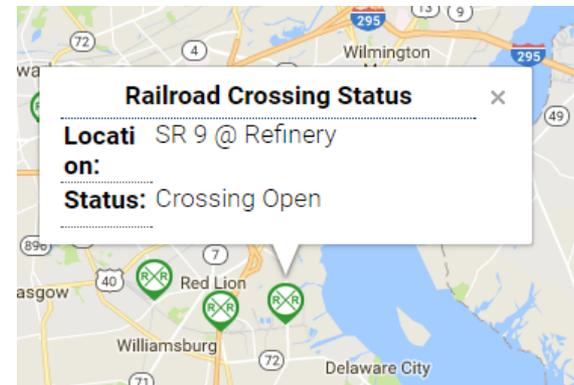
Variable Speed Limits

| | |
|------------------------|---|
| MAP LAYERS | ▼ |
| DART Bus Stops | i |
| Traffic Flow | i |
| Travel Times | i |
| Traffic Cameras | i |
| Advisories | i |
| Roadway Weather | i |
| Water Level | i |
| Snow Accumulations | i |
| Snow Plow Tracking | i |
| Restrictions | i |
| Variable Message Signs | i |
| Variable Speed Limits | i |
| Railroad Crossings | i |
| Woodland Ferry | i |
| Red Light Enforcement | i |
| Projects | i |
| Partner Waze | i |



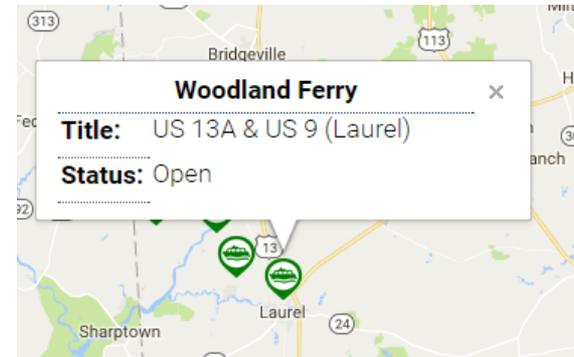
Railroad Crossings

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |



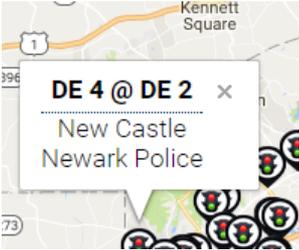
Woodland Ferry

| | |
|------------------------|---|
| MAP LAYERS | ▼ |
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |



Red Light Enforcement

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | 📍 |
| Traffic Flow | 📍 |
| Travel Times | 📍 |
| Traffic Cameras | 📍 |
| Advisories | 📍 |
| Roadway Weather | 📍 |
| Water Level | 📍 |
| Snow Accumulations | 📍 |
| Snow Plow Tracking | 📍 |
| Restrictions | 📍 |
| Variable Message Signs | 📍 |
| Variable Speed Limits | 📍 |
| Railroad Crossings | 📍 |
| Woodland Ferry | 📍 |
| Red Light Enforcement | 📍 |
| Projects | 📍 |
| Partner Waze | 📍 |



Projects

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ① |
| Traffic Flow | ① |
| Travel Times | ① |
| Traffic Cameras | ① |
| Advisories | ① |
| Roadway Weather | ① |
| Water Level | ① |
| Snow Accumulations | ① |
| Snow Plow Tracking | ① |
| Restrictions | ① |
| Variable Message Signs | ① |
| Variable Speed Limits | ① |
| Railroad Crossings | ① |
| Woodland Ferry | ① |
| Red Light Enforcement | ① |
| Projects | ① |
| Partner Waze | ① |

The image shows a map interface with a pop-up window for a specific project. The map background shows a road network with labels like 'Brackenville', 'Hillsdale Mill Rd', and 'Hoopes Reservoir'. A yellow pin icon is placed on the map, and a white pop-up window is overlaid on it. The window has a title bar with 'Project' and 'Timeline' tabs. The main title of the window is 'T201707702 - Bridge Deck Sealing, FY18'. Below the title, there are several fields with labels and values: Primavera #, Description, Justification, Status, Representative Districts, Senatorial Districts, County, Phase, and Category.

| T201707702 - Bridge Deck Sealing, FY18 | |
|--|---|
| Primavera #: | 16-19853 |
| Description: | Minor concrete repairs and applying a Silane sealer to various bridge decks & parapets. |
| Justification: | Concrete deck & bridge rail sealing using silane to protect and extend the life of the concrete deck as part of our Bridge Preventative & Preservation Program. |
| Status: | Active |
| Representative Districts: | 19,12 |
| Senatorial Districts: | 7,9,4 |
| County: | Statewide |
| Phase: | Advertised / Bid / Award |
| Category: | Bridge |

Partner Waze

| MAP LAYERS | |
|------------------------|---|
| DART Bus Stops | ⓘ |
| Traffic Flow | ⓘ |
| Travel Times | ⓘ |
| Traffic Cameras | ⓘ |
| Advisories | ⓘ |
| Roadway Weather | ⓘ |
| Water Level | ⓘ |
| Snow Accumulations | ⓘ |
| Snow Plow Tracking | ⓘ |
| Restrictions | ⓘ |
| Variable Message Signs | ⓘ |
| Variable Speed Limits | ⓘ |
| Railroad Crossings | ⓘ |
| Woodland Ferry | ⓘ |
| Red Light Enforcement | ⓘ |
| Projects | ⓘ |
| Partner Waze | ⓘ |

