Maryland Statewide Truck Parking Study

Project Internal Working Group

July 17th, 2019

Agenda

Introduction

Project Objectives and Work Plan

Setting the Stage

Analysis of Truck Parking Issues

Next Steps

Introduction

- Introduction of in person and webinar attendees

Housekeeping

- GoToWebinar lines will be muted during the presentation– Please use the chat box for comments

- We will be using an interactive polling application for the meeting in addition to GoToWebinar (more information to come)

- Be Safe!! Contact information for the project team will be provided if you are driving and are therefore unable to type or participate in the polls

- **Introduce the Maryland Statewide Truck Parking Study**

- **Present Work to Date and Discuss Early Findings from Analysis of Truck GPS Data**

- **Solicit Feedback from the Internal Working Group Members**

Soliciting your Input

During this session, an audience response application will be used to collect your inputs on the issues related to truck parking as well as the preliminary study findings presented at the meeting.

Voting will be anonymous!

The inputs will be used as talking points, to facilitate discussion around the statewide truck parking supply, demand, and current issues.

When prompted,

Go to **www.menti.com** and use the code 642427

The cumulated results will be visualized on the screen in real-time.

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Project Objectives

The Maryland Statewide Truck Parking Study will provide MDOT with the data, context, and actionable solutions needed to advance priority projects and strategies that improve truck parking statewide.
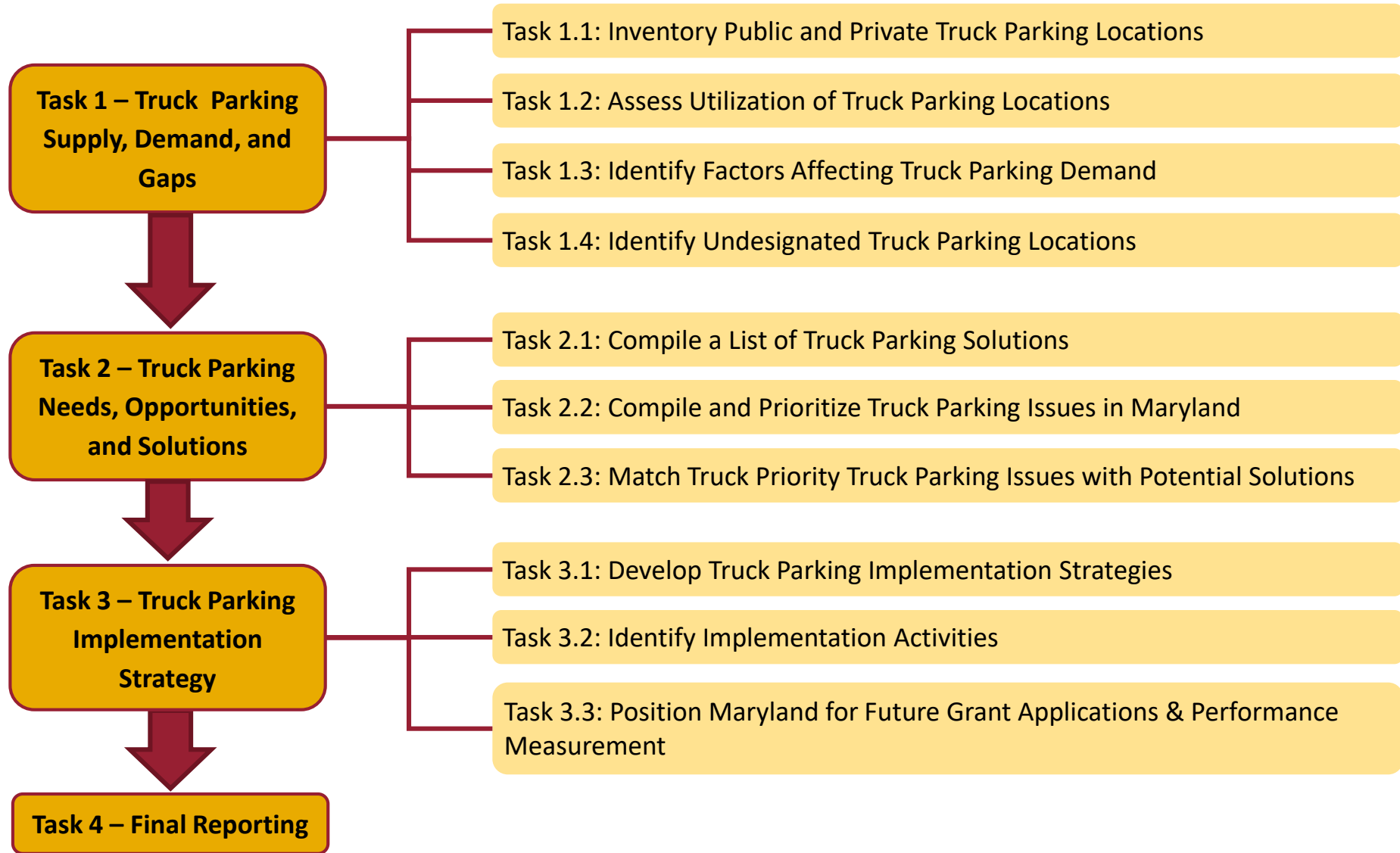
1.) Assess existing truck parking locations and utilization

2.) Assess truck parking needs based on gaps in the system and truck parking demand

3.) Identify truck parking opportunities statewide

4.) Identify funding opportunities including innovative options - exploring P3 and grant opportunities

Study Approach

Task 1 – Truck Parking Supply, Demand, and Gaps

- Task 1.1: Inventory Public and Private Truck Parking Locations
- Task 1.2: Assess Utilization of Truck Parking Locations
- Task 1.3: Identify Factors Affecting Truck Parking Demand
- Task 1.4: Identify Undesignated Truck Parking Locations

Task 2 – Truck Parking Needs, Opportunities, and Solutions

- Task 2.1: Compile a List of Truck Parking Solutions
- Task 2.2: Compile and Prioritize Truck Parking Issues in Maryland
- Task 2.3: Match Truck Priority Truck Parking Issues with Potential Solutions

Task 3 – Truck Parking Implementation Strategy

- Task 3.1: Develop Truck Parking Implementation Strategies
- Task 3.2: Identify Implementation Activities
- Task 3.3: Position Maryland for Future Grant Applications & Performance Measurement

Task 4 – Final Reporting

Identify Truck Parking Supply, Utilization, & Gaps

- Analysis must cover public and private truck parking locations

Define and Prioritize Truck Parking Opportunities & Solutions

- Critical to differentiate the type of project – no "Silver Bullet"

What are you most excited to get out of this study (data, projects, policy)?
Sliding scale 0 (lowest) – 10 (highest)

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Stakeholder Involvement

Soliciting Public & Private Sector Input & Validation

Approaches to Stakeholder Input

- **Working Groups**
- **Surveys**
- **Consultations**
- **Truck Parking Workshop**

Public Sector Input Required

Recurring involvement in the study, two options:
- **Internal Working Group**
- External Working Group

General fact-finding and qualitative insights

One-on-one discussions, as needed

Small group discussions of potential solutions to identify and receive input on addressing truck parking issues in Maryland

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How Familiar are you with Hours-of-Service Regulations and Truck Parking Issues?

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Setting the Stage: Why a Truck Parking Study?

- **Truck Parking is a Top Issue for Truck Drivers**

- **Truck Parking is Critical to Supply Chains (Compliance and Staging)**

- **Truck Drivers in Maryland Face Truck Parking Shortages**
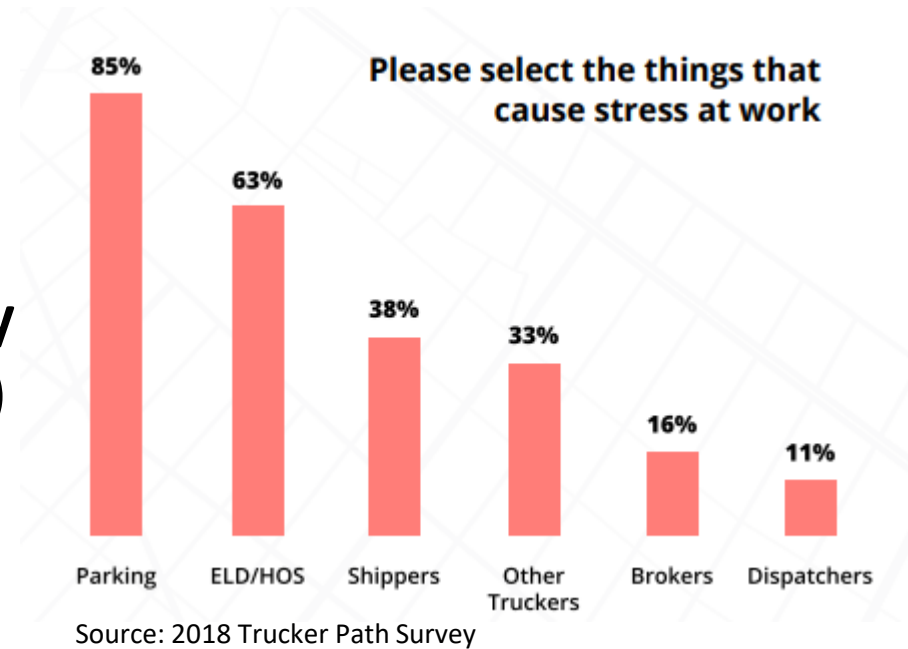
- **Inadequate Truck Parking Negatively Impacts:**
  o Truck drivers – Safety and wages
  o Infrastructure – Ramp and shoulder damage
  o Other roadway users – Parked truck in ROW and fatigued truck drivers

Please select the things that cause stress at work

Parking	ELD/HOS	Shippers	Other Truckers	Brokers	Dispatchers
85%	63%	38%	33%	16%	11%

Source: 2018 Trucker Path Survey

- **Hours of Service (HOS) Regulations are Not New**
  - First regulated in 1938
  - Latest change in 2013
  - Rulemaking is currently under review

- **HOS – Establish Limits on Driving and On-Duty Time**
  - Maximum of 11-hours driving and 14-hours on-duty
  - Required 30-minute break by the 8th hour of driving
  - 10-hours off-duty to maximize drive and on-duty time

- **Drivers Track HOS via Paper Logbooks (old method) and Electronic Devices**
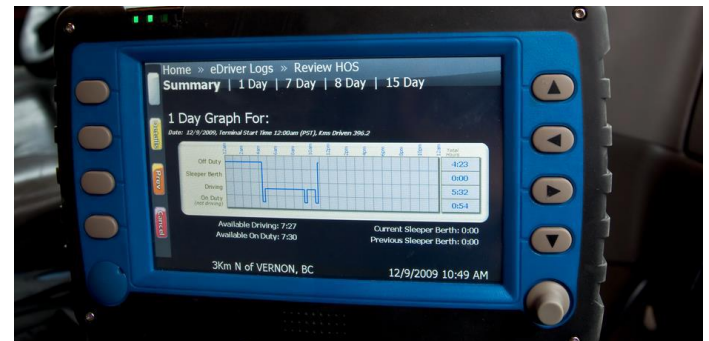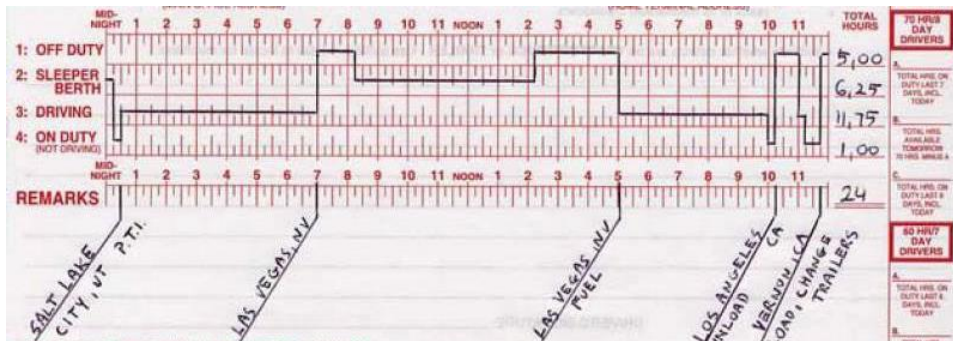
Paper Logs vs Electronic Logging

- **The Latest Change to Truck Parking Demand is the Electronic Logging Device (ELD) Mandate**
  - Deadline for implementation started in Dec. 2017
  - Additional Automatic On-Board Recording Device (AOBRD) replacement deadline in Dec. 2019

How did the ELD mandate affect your ability to find truck parking?

- 1%
- 19%
- 80%

- It is now harder to find truck parking
- I haven't noticed any changes
- It is now easier to find truck parking

Source: 2018 Trucker Path Survey

July 2012 — MAP-21 requires ELDs in most trucks

Dec. 2015 — Final ELD Rule Published

Dec. 2017 — Carriers must have ELDs or AOBRDs

Apr. 2018 — Out of service enforcement begins

Dec. 2019 — AOBRDs must be updated or replaced with ELDs

2017 Maryland Strategic Goods Movement Plan

- **Implementation:** Improve truck parking in Maryland using advanced data analysis to identify parking needs and to partner with Waze and other types of crowd sourcing entities to promote sharing of parking information and additional collection of data.
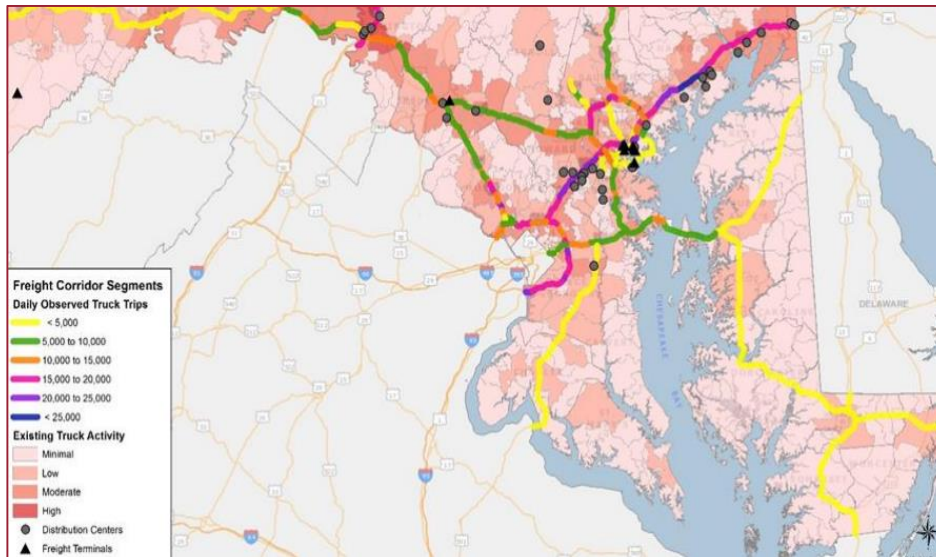
Source: 2017 Maryland Strategic Goods Movement Plan

The Highest Truck Volume and Percentage Locations Are:

- I-95 South of U.S. 50
- I-95 South of MD 175
- I-95 South of MD 543
- I-495 East of MD 650
- I-270 South of Montrose Rd

Existing Initiatives: Maryland Strategic Goods Movement Plan

- Truck parking is an issue for trucks that need to stage in advance of a retailer specified delivery time.

- Insufficient truck parking to meet demand and a projected need in the future.

- The top five high volume locations have consistently included I-95, I-70 and I-68 along with US 301, I-83 and I-270 varying within the list over the last 3 years.

Source: 2017 Maryland Strategic Goods Movement Plan

Existing Initiatives: Maryland Freight Network Truck Parking Survey

- Providing an overview of the overnight public truck parking supply across the state.

- Published for 2012, 2013, 2014, 2016, and 2017. Conducted for 2018, currently in data validation stage.

- The annual survey results consistently listed I-95, I-70, I-68, and I-83 corridors as high truck parking locations.
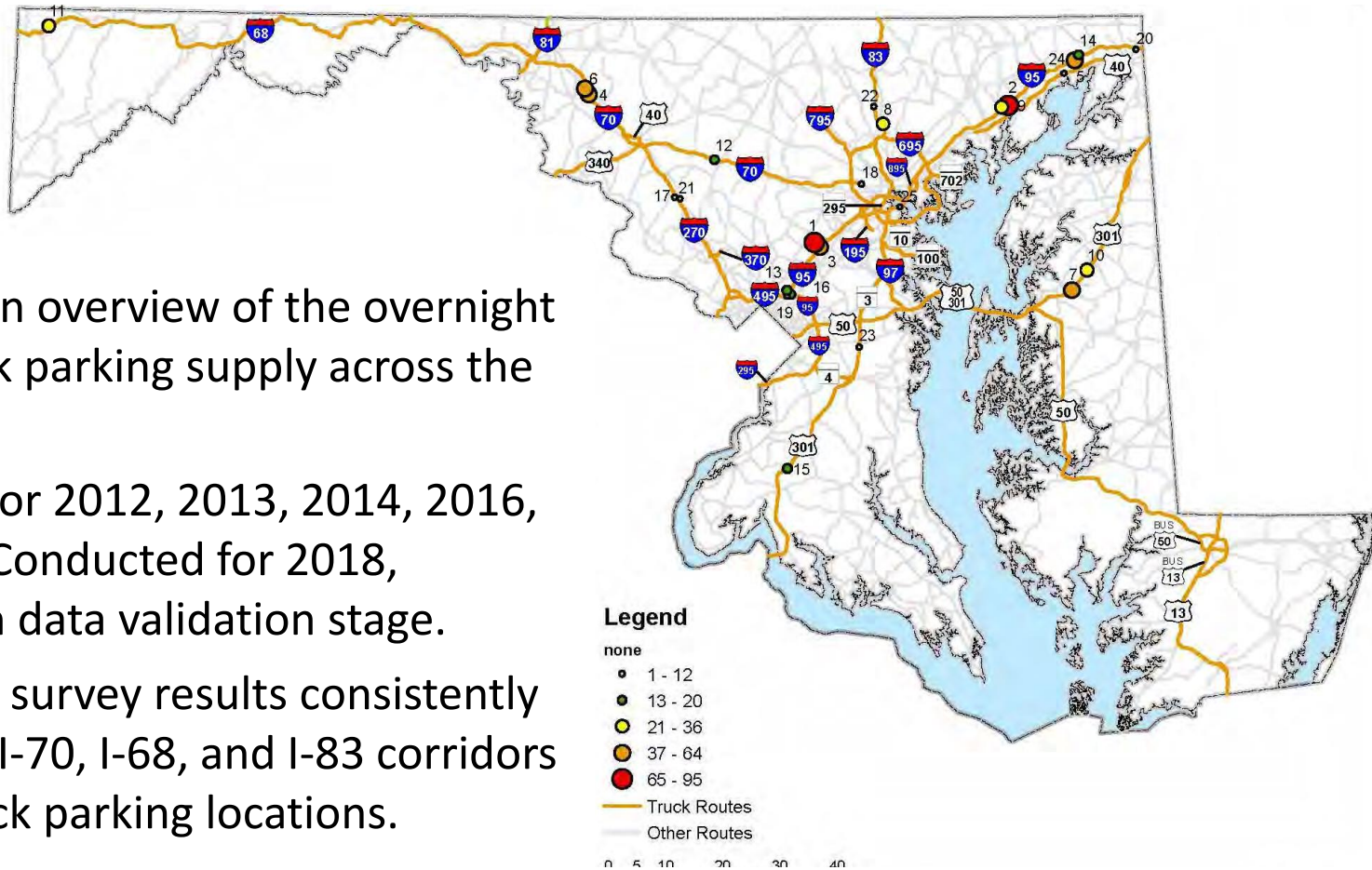
Source: 2017 Maryland Freight Network Truck Parking Survey

Existing Initiatives: I-95 Corridor Coalition

- An alliance of the states crossed by I-95 from Florida to Maine.

- Addressing overnight truck parking issues in the region through sustainable solutions developed in collaboration with Federal Highway Administration (FHWA).

- **Finding:** truck parking issues often span across multiple state boundaries and affect both public and private entity operations.

- **Recommendation:** negative impacts of truck parking shortage should be addressed through innovative solutions involving multiple partners from both public and private sectors.
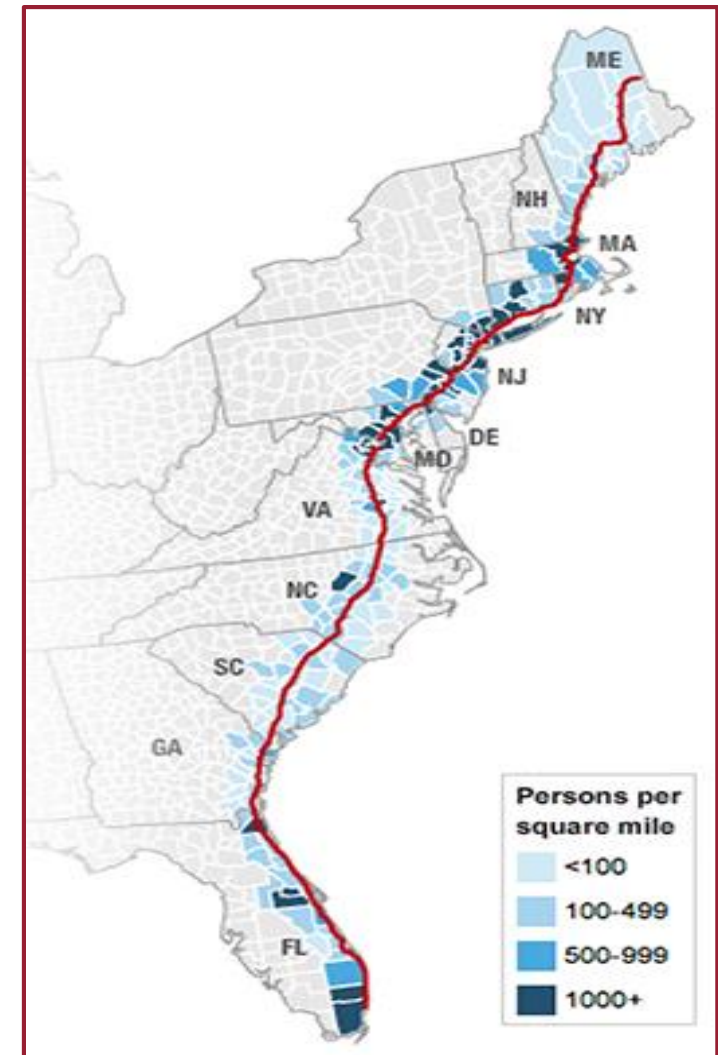
Source: I-95 Corridor Coalition Website.

Existing Role of MDOT in Truck Parking

- **Survey of Internal MDOT Stakeholders**
  - MDOT is engaged in truck parking throughout the organization
  - Highlights the importance of continued internal engagement
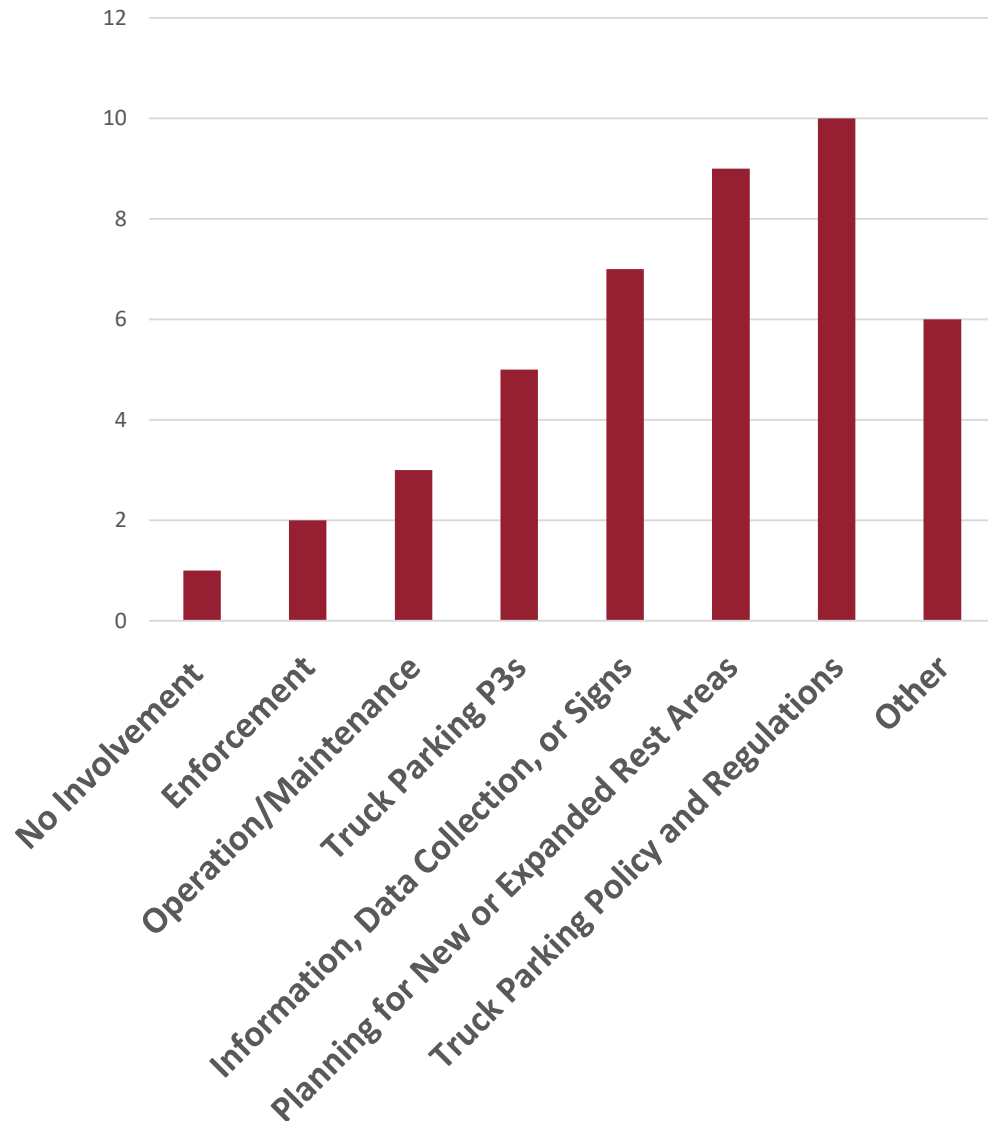
Have we missed any on-going projects, initiatives or existing roles of MDOT related to truck parking?

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Do you need a Ten Minute Break or should we Continue?

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Federal Truck Parking Context: Jason's Law Truck Parking Survey

The Section 1401 of MAP-21, more popularly known as "Jason's Law came into effect in 2012 to address truck parking shortage issue on highways across the nation.

- **Finding:** the private parking locations were primarily full overnight and some reported running at full capacity during the day.

- **Finding:** about 75% of truck drivers and 66% of logistics personnel reported regularly facing challenges with finding safe parking locations when in needs for rest.

- **Finding:** inclement weather, delivery window limitations, lack of funding for enforcement were reported as primary challenges related to truck parking supply and demand management.

Ratio of Private to Public Spaces

Delaware 13, Maryland 36, Pennsylvania 29, New Jersey 42, Virginia 15, West Virginia 45

National Average (8) | National Rank
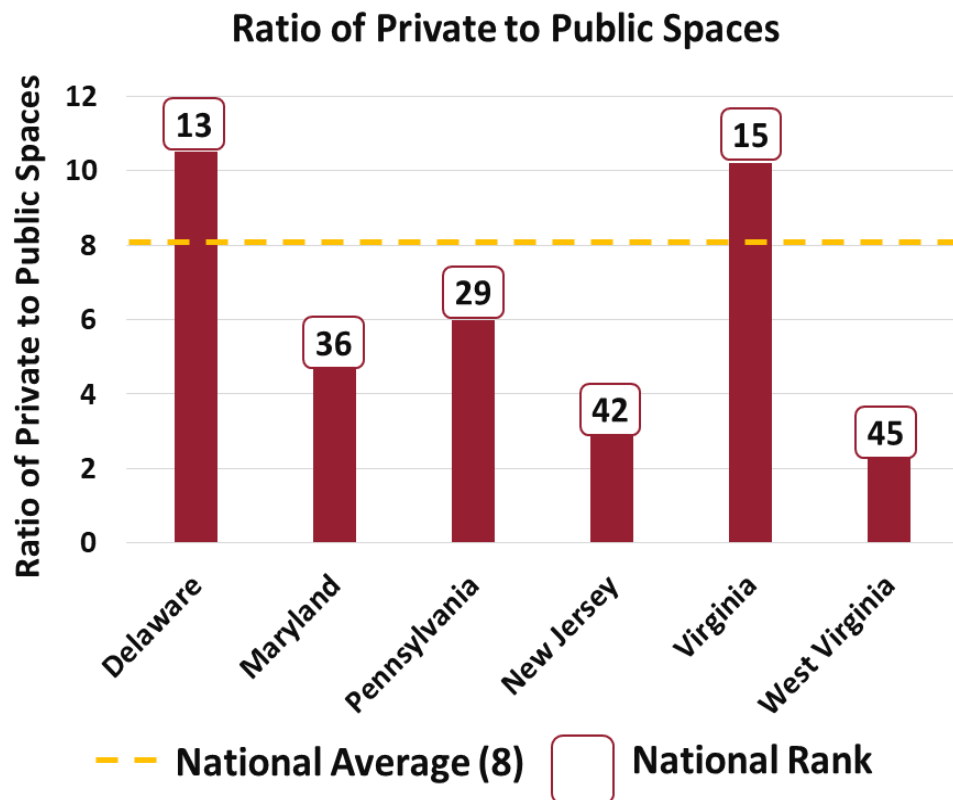
Source: Jason's Law

Truck Parking In Maryland

Truck Parking Issues Result if there is a Real or Perceived Shortage of Truck Parking Supply vs Demand

- **Real Shortage:** Not enough public and private spaces to meet demand

- **Perceived Shortage**: Truck parking spaces are available, but drivers do not know about them

Maryland Truck Parking & Welcome Centers

Legend
- P Welcome Centers
- P Non-Emergency Truck Parking
- P Emergency Truck Parking

Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

	Spaces	Facility Count
Public Truck Parking (24hrs) - 2017	430	13
Public Truck Parking (7pm to 7am) - 2017	166	12
Private Truck Parking Spaces - 2015	2,544	49
Total	3,140	74

Source: Jason's Law and MDOT

Real and Perceived Truck Parking Shortages Result in Undesignated Truck Parking

I-95 Welcome Center Southbound

- Undesignated truck parking is a marker of a truck parking issue

- The project team will use undesignated truck parking and the context surrounding it to identify the cause and guide solutions

Four Months of INRIX GPS Data were used to Identify "Stop Events" Resulting in over 1.9 million Stops
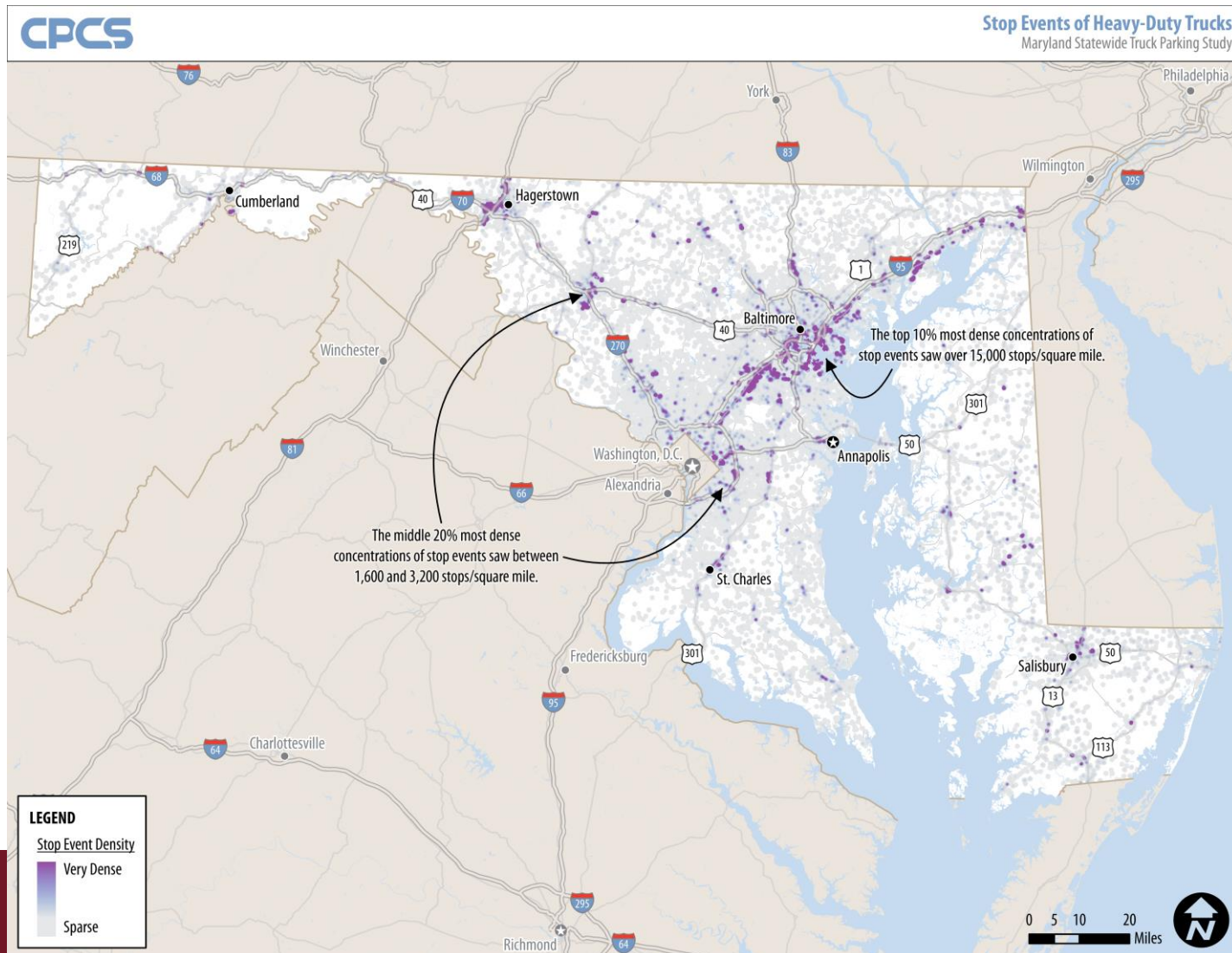
Stop Events include the Origins, Destinations, HOS Breaks, and any other Stop over 30 minutes

- Process used to Classify Stop Events:
  1. Identify parcels associated with freight to designate trucking origins and destinations
  2. Classify portions in MDOT Rest Areas as designated or undesignated
  3. Cluster and manually classify remaining stop events
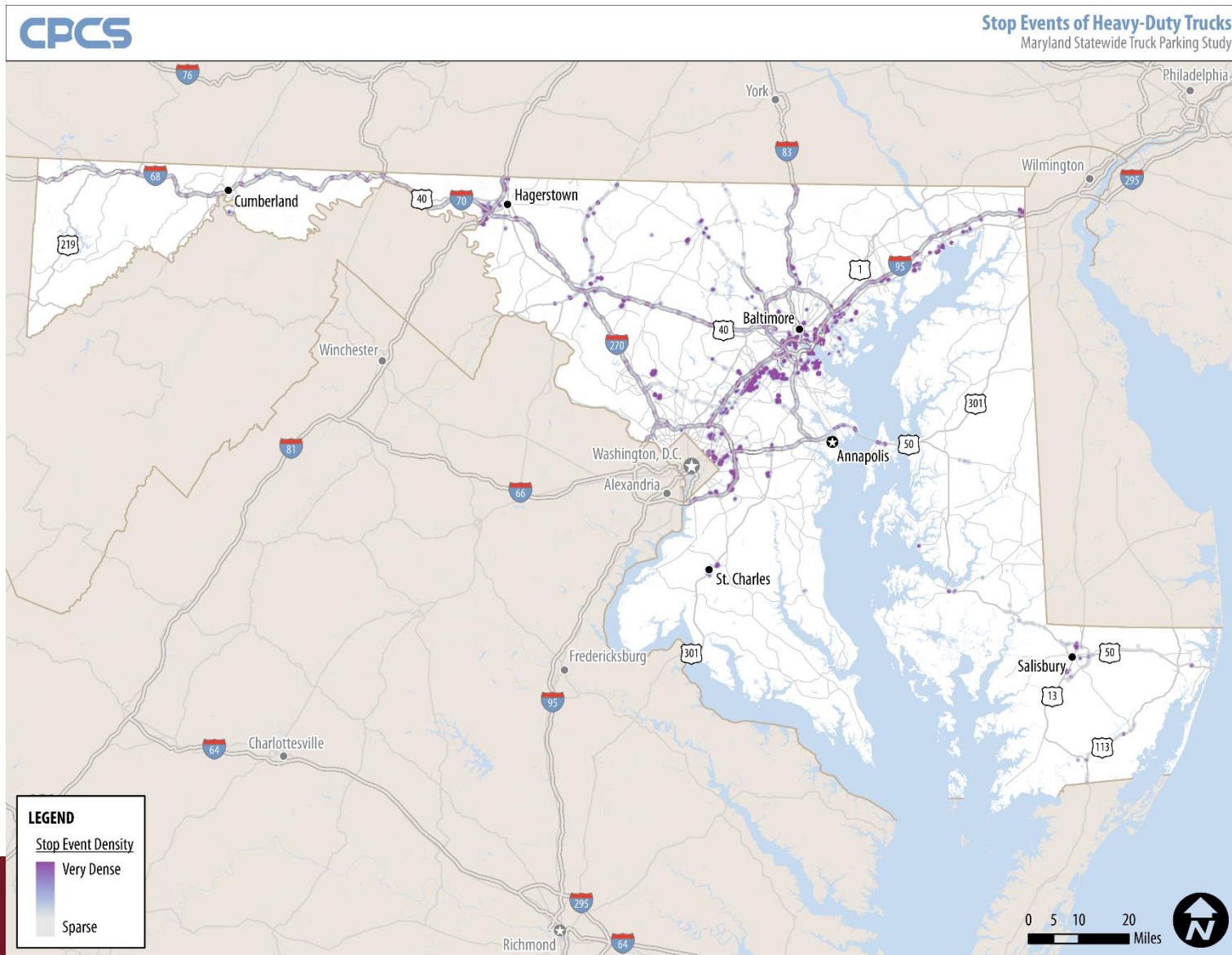
½ to 3 Hours Stopped

3 to 10 Hours Stopped

10+ Hours Stopped
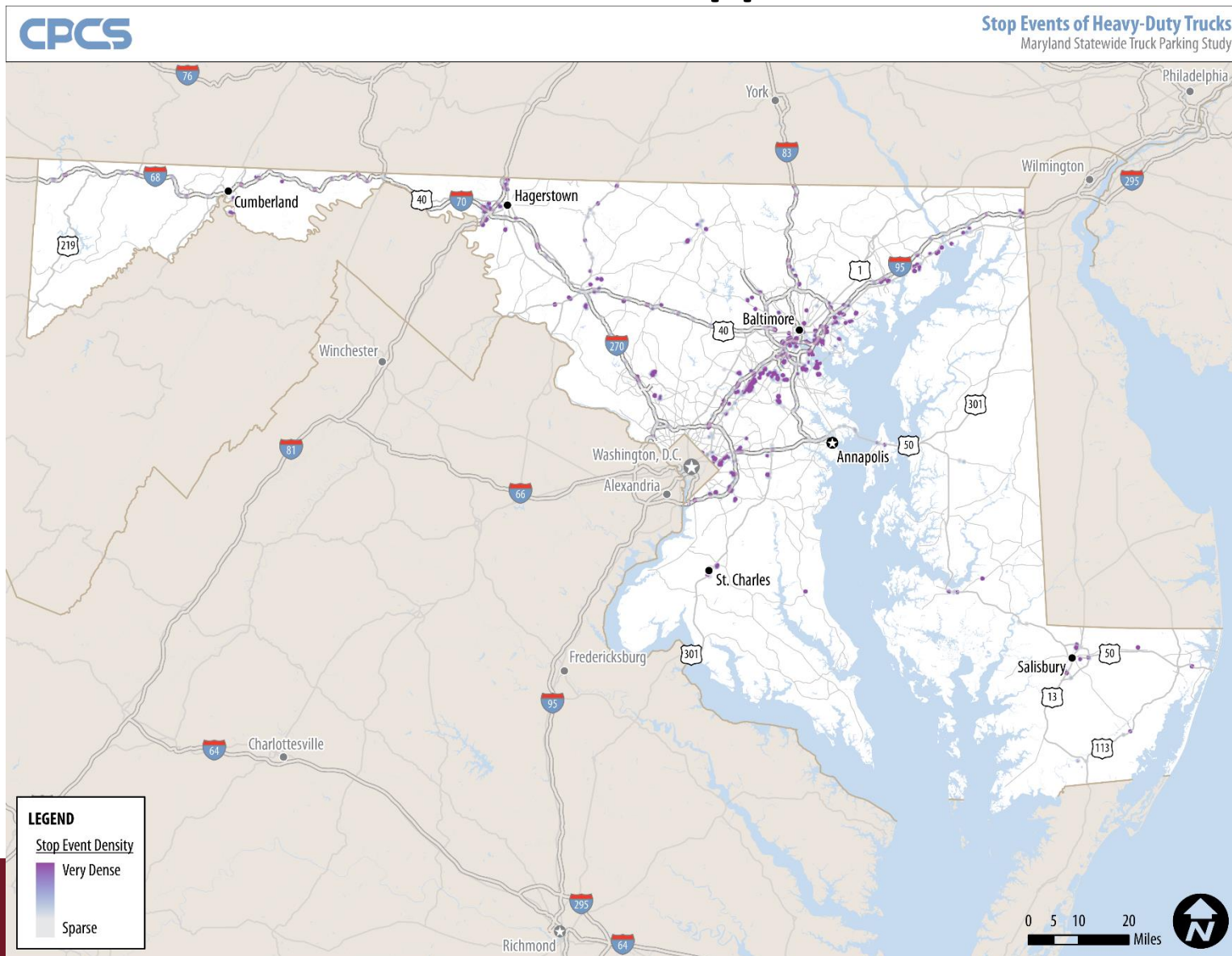
Undesignated Truck Parking Occurs Throughout the State, but is Heaviest on Interstates and Near Urban Areas

- On/Off Ramps are Frequently Used for Truck Parking
  - Interchanges and connectors to rest areas

- Frontage Roads and Connectors to Truck Stops, Hotels/Motels, and Warehouses are Frequently used for Truck Parking
  - The presence of "No Parking" signs vary

- Vacant Lots and "Authorized Vehicles Only" Areas are also Popular Locations of Undesignated Truck Parking

Classification Example – Williamsport, MD

Cluster of Stop Events
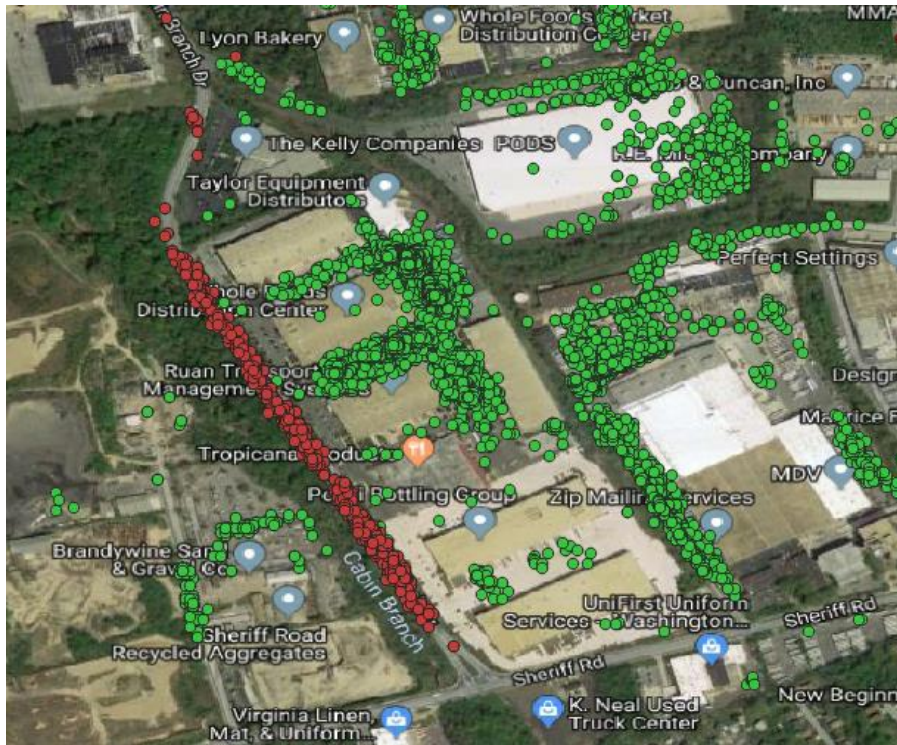
Street View

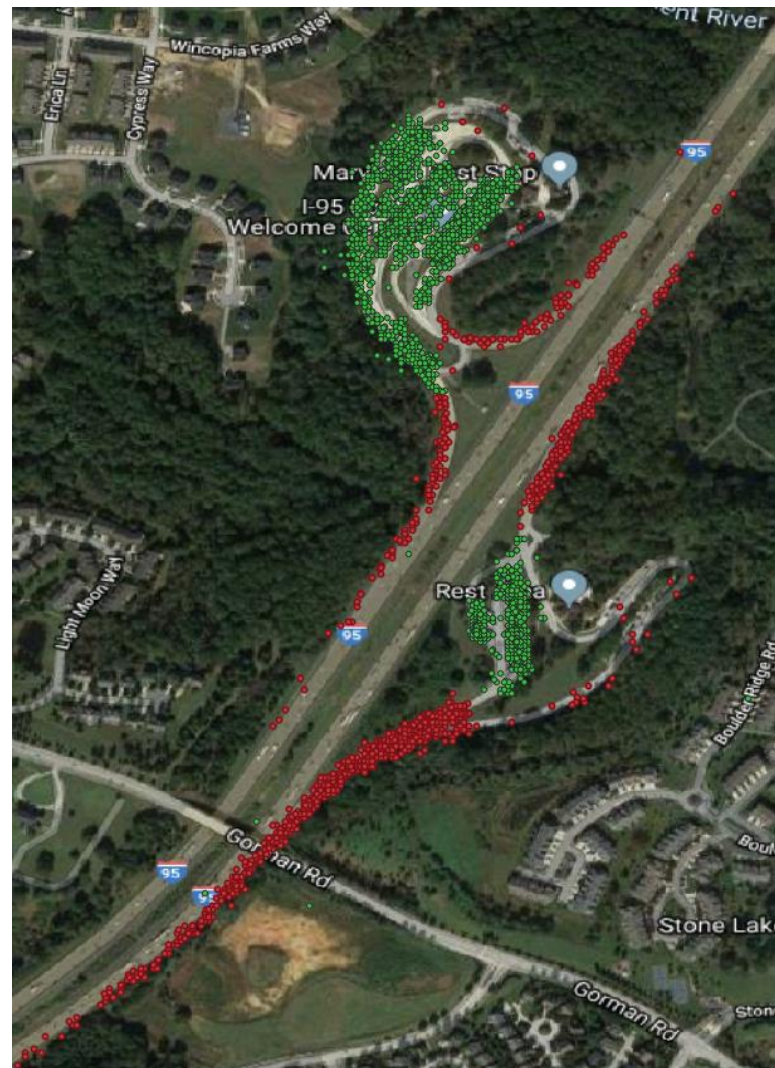

Source: CPCS Analysis of INRIX Data, Imagery ©2018 Google

Cluster of Stop Events

Street View

Source: CPCS Analysis of INRIX Data, Imagery ©2018 Google

I-95 Welcome Center

Truck Stop Events Over 3 Hours

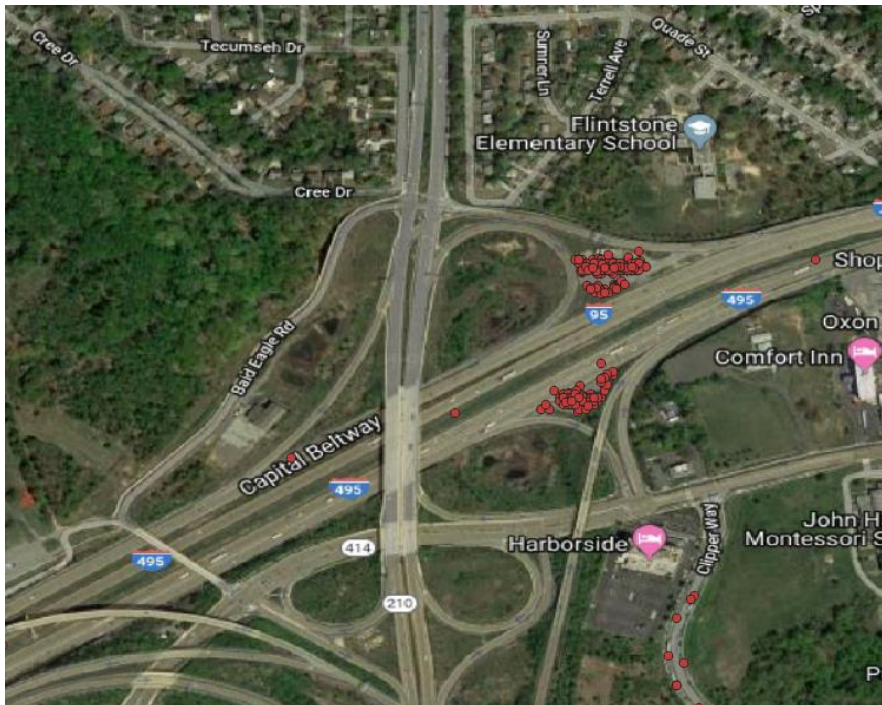- 1,300+ Undesignated Stop Events

- 5,500 Designated Stop Events

Source: CPCS Analysis of INRIX Data, Imagery ©2018 Google

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Cluster of Stop Events

Source: CPCS Analysis of INRIX Data, Imagery ©2018 Google

Southbound Emergency Vehicle Lot

Truck Stop Events Over 3 Hours

- 470+ Undesignated Stop Events

What priority should be given to different types of undesignated truck parking?

Sliding scale 0 (lowest priority) – 10 (highest priority)

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What are Maryland's most pressing truck parking issues and opportunities?

Information Problems

Where are parking locations?	What are parking amenities?	Are spaces available?

Information Solutions
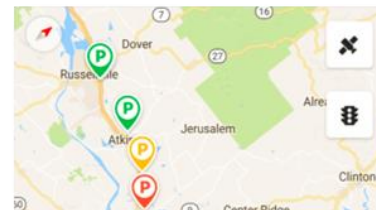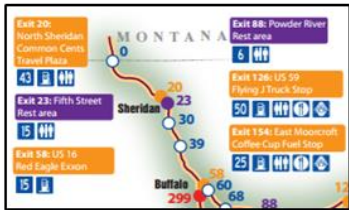
Stand – Alone Solutions		IT Information System Required	
Maps	Fixed Signs	Websites and Apps	Variable Signs

Lower Cost
Less Complex
Short-Term Implementation

Long-Term Implementation
More Complex
Higher Cost

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Add Context to Undesignated Truck Parking Locations and Focus on those that are Most Acute

Compile Truck Parking Needs

Stakeholder Outreach → **Long List of Truck Parking Needs** ← **Data** (Indicators)

Prioritize Truck Parking Needs

Quantitative Criteria | **Stakeholder Input**

Identify Opportunities & Match Solutions

Information | **Capacity** | **Partnership** | **Policy**

■ **Questions or Comments?**

L'Kiesha Markley - MDOT
ADC/Freight Planning Coordinator
C: +1.410.545.5565
LMarkley@mdot.maryland.gov

Donald Ludlow - CPCS
Vice President, United States
C: +1.703.216.2872
Dludlow@cpcstrans.com

Alex Marach - CPCS
Principal Consultant
C: +1.920.737.2980
amarach@cpcstrans.com

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