MD 7 @ Cowenton Avenue

2. DEVELOPER PROJECTS

Mobility improvements are completed by private developers in addition to State/county/local agencies. These are constructed to mitigate the impacts caused by the additional volume of traffic that is generated from these new residential, commercial, office and warehouse developments. Without these improvements, operational issues can result including failing intersections or traffic from turn lanes queuing into through lanes. In order to mitigate these additional traffic volumes, MDOT SHA works with developers to determine the improvements required to offset the traffic the development will generate. The improvements funded by developers range from acceleration and deceleration lanes, to new traffic signals, to minor/major intersection enhancements, to interchange modifications. Developer related capacity improvement projects completed in 2016 include:

- MD 7 @ Cowenton Ave (Baltimore County)
- MD 2 @ Arundel Plaza/MVA Entrance (Anne Arundel County)
- MD 355 @ Urbana Parkway (Frederick County)

The final completed improvements provide a benefit to both motorists accessing the development and drivers that pass through the intersection on a daily basis. These projects improve mobility by decreasing travel times and reducing delays along the corridor.

3. FREIGHT PROJECTS

Improvements in the transportation system for moving freight can be broken down into two types of projects. The first are roadway projects that enhance overall mobility which provide improvements for freight operators. The second includes the programs and projects directed specifically at improving trucking operations. These enhancements aim to keep truckers and other users of the network including autos/bicyclists/pedestrians safe. The challenge is to balance maximizing the mobility of truckers with providing safe facilities for all users.

US 301 South of MD 214

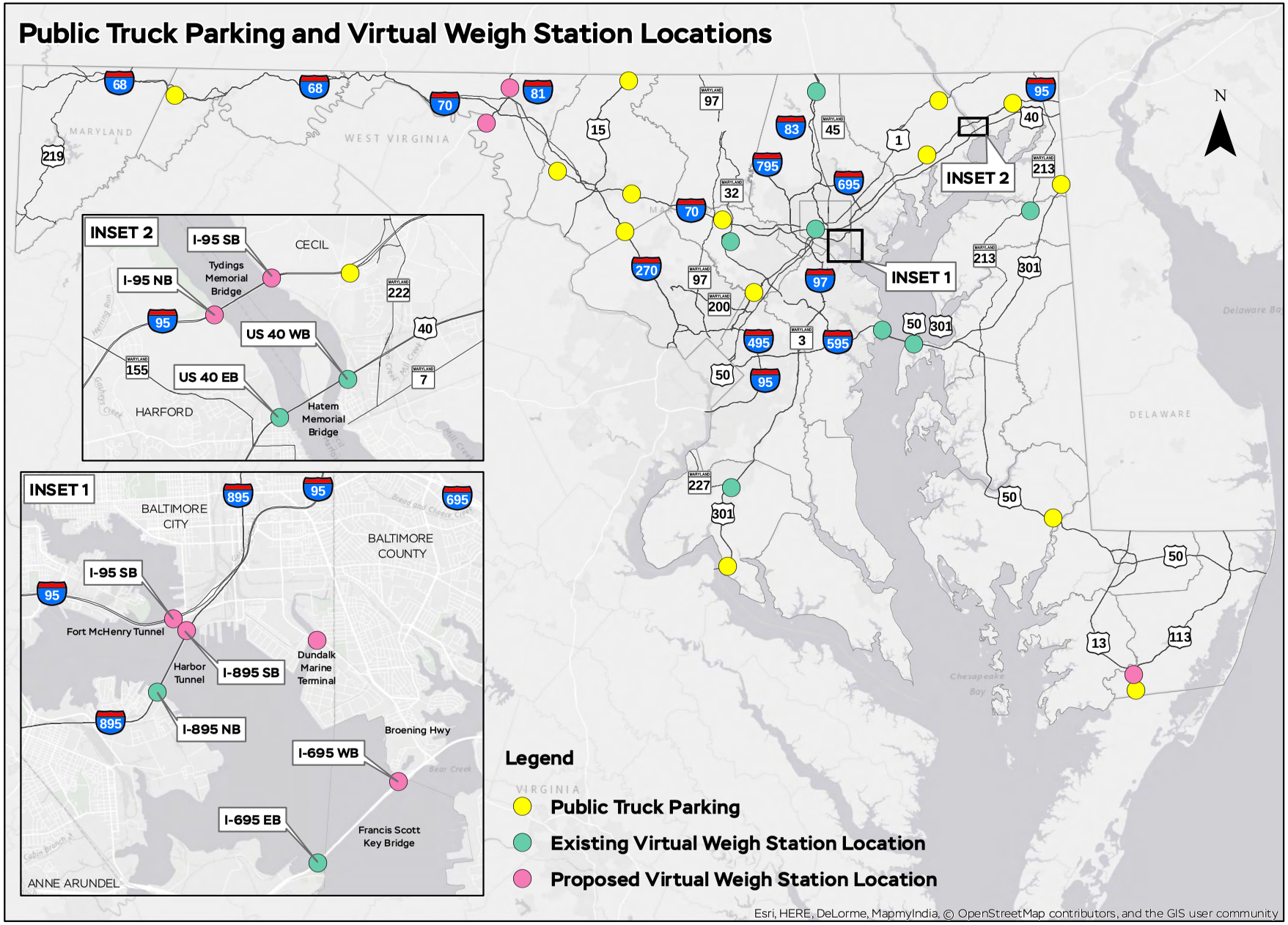
There are several programs established to move freight efficiently. One of the programs managed by MDOT SHAs' Motor Carrier Division is the Virtual Weigh Station (VWS) program. This program uses technology to protect the reliability of the pavement and keep trucks moving smoothly. Maryland's VWS promotes the goals of safety, freight mobility and infrastructure preservation through an automated system of sensors and cameras that record activity of Commercial Motor Vehicles (CMV) traveling at high speeds. The VWS can record the speed, height, and weight of a commercial vehicle without requiring the vehicle to stop, which reduces delay time for compliant vehicles. Overweight vehicles which damage roads and bridges can be identified for possible educational contact or enforcement action. In addition, each VWS provides a volume and classified count including the image of the vehicle. Currently, there are eleven active VWS sites across the state. Six more sites are anticipated to be constructed over the next year with three additional sites planned by 2020. Ten of these sites will monitor Maryland Transportation Authority's bridges and tunnels. Once complete, this will allow for a system that electronically checks a majority of CMV's, intercepts the ones that are unsafe or overweight, and minimizes delay to others operating legally.

MDOT SHA's Maryland One permit system program involves processing applications more efficiently for large size shipments. Shipments that exceed the legal size and weight limits, require special hauling permits. Previously, permit approval could take hours or days depending upon the request. In May 2016, the new automated Maryland One permit system became operational. More than 80% of permit applications submitted with this system are processed in a matter of minutes and without error. Most permits for Superloads up to 200,000 pounds can be issued within two (2) days. The only lengthy process is permitting for megaloads which can exceed 1,000,000 pounds due to the coordination needed by numerous agencies/participants.

Overnight truck parking is a concern and is monitored through a MDOT SHA's Freight Planning Program. Truck parking at rest areas and Welcome Centers provide for safe locations to reduce the potential for crashes between parked trucks and moving vehicles as parking along shoulders of highways and at entrance/exit ramps can create a hazard. The expansion of truck parking was completed at the I-95 Southbound Welcome Center in Howard County and the US 301 Bay County facility in 2015. Design is underway for the expansion of up to 10 spaces at the I-70 Westbound Welcome Center at South Mountain in Frederick County. Public truck parking locations and the location of VMS are shown in Figure II-2.

Nine new virtual weigh stations are anticipated to be constructed by 2020.

Figure II-2


Public Truck Parking and Virtual Weigh Station Locations
INSET 2
I-95 SB
Tydings Memorial Bridge
I-95 NB
US 40 WB
US 40 EB
Hatem Memorial Bridge
CECIL
HARFORD
INSET 1
BALTIMORE CITY
BALTIMORE COUNTY
I-95 SB
Fort McHenry Tunnel
Harbor Tunnel
I-895 SB
I-895 NB
Dundalk Marine Terminal
Broening Hwy
I-695 WB
I-695 EB
Francis Scott Key Bridge
ANNE ARUNDEL
MARYLAND
WEST VIRGINIA
VIRGINIA
DELAWARE
N
Legend
Public Truck Parking
Existing Virtual Weigh Station Location
Proposed Virtual Weigh Station Location
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

I-95/I-495

4. FREIGHT

Truck traffic is vital to the economy but is often perceived negatively by people living near or using the routes these vehicles are travelling on. In order to balance these interests, the Maryland Truck Route System was established and has been utilized since the 1980's. In 2016, the National Highway Freight Network was designated as federal truck highway network under the FAST Act, which replaced the National Freight Network (NFN) from MAP-21 legislation. Under the FAST Act, the National Highway Freight Network included the Primary Highway Freight System, other interstates not on the Primary Highway Freight System and the Critical Rural and Urban Freight Corridors. Each state is required to establish and designate critical urban and rural freight corridors. The National Highway Freight Network includes all interstate routes (481 miles) plus MD 695 and portions of US 50/301. As required by the FAST Act, Maryland must also establish the Maryland Multi-Modal Freight Network, which includes all of the other federal and state freight routes including the intermodal freight facilities in Maryland. These networks were established to improve intermodal movements, improve freight mobility and connections and identify other freight routes experiencing a high-severity index related to truck crashes. The three freight networks are shown in Figure II-15.

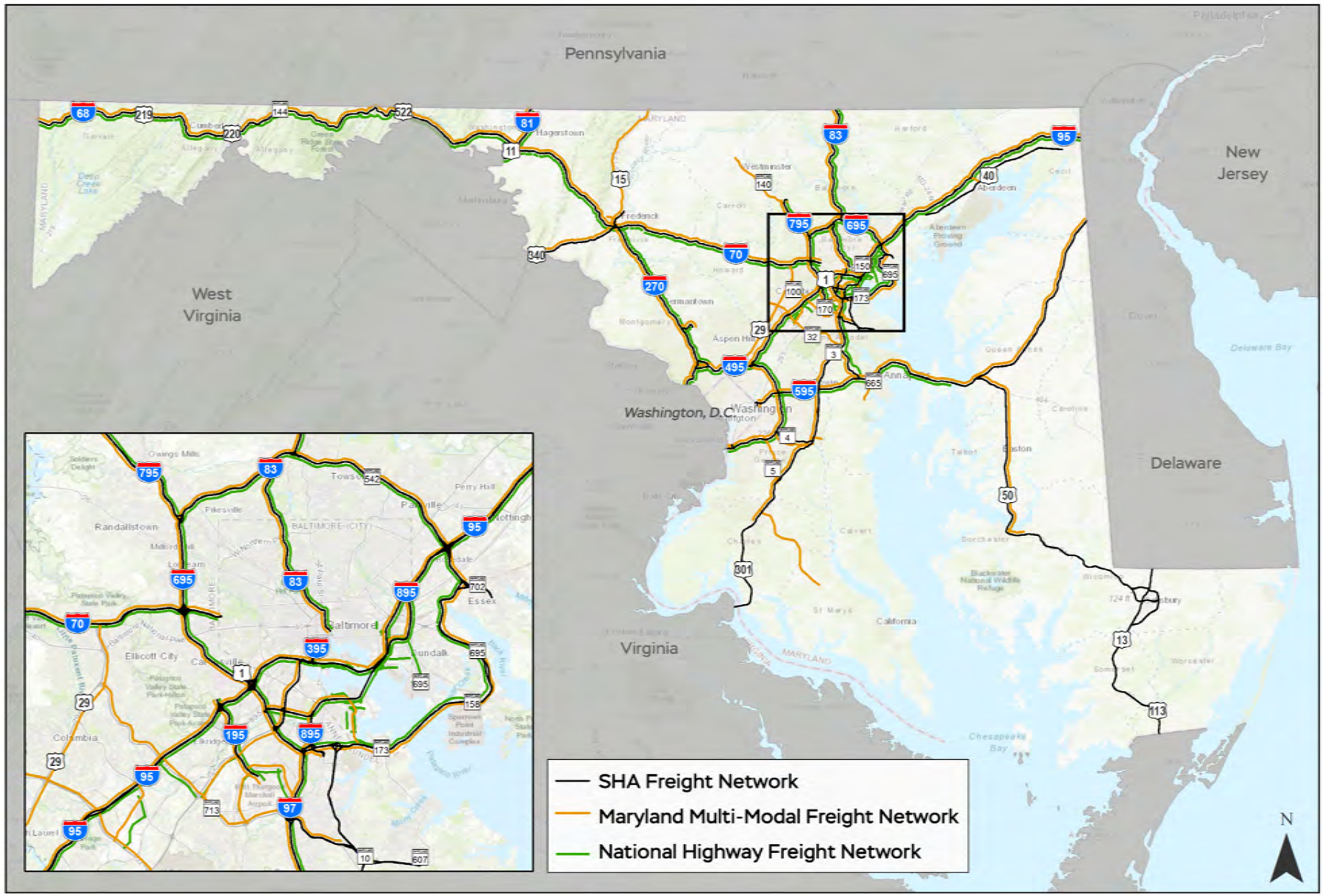
Several programs and policies have been developed to improve freight safety and mobility. These include upgrades to at-grade railroad crossings through the Highway-Rail Crossing Program, programs to construct virtual weigh stations, Commercial Vehicle Information Systems, and Networks (CVISN) facilities to the implementation of the Maryland One Hauling Permit System, and the continual monitoring of truck parking as part of Jason's Law. Jason's Law provides federal funding toward the construction of safe roadside parking lots for truck drivers. This includes assessing truck volumes, developing metrics to measure truck parking, and evaluating the capacity to provide adequate truck parking.

MDOT SHA has several on-going initiatives related to Jason's Law. This includes beginning the design of up to ten additional spaces at the Westbound Welcome Center at South Mountain. In addition, the existing I-95/I-495 site is being evaluated for expansion. Other methods to provide more information and develop more truck parking include:

- Identifying areas along freight corridors that have sizable right-of-way that can serve as a possible truck holding area.
- Investigating P3 truck parking opportunities with developers.
- Researching the use of Truck Weigh in Motion Stations for overnight truck parking when the stations are closed from 7 PM to 7 AM.
- Reviewing possible expansion of park and ride facilities to include truck parking.
- Coordinating with WAZE and other private sector partners to identify locations of available spots.
- Updated truck map that identifies size and weight restrictions.
- Utilizing crowd sourcing data analysis for freight program/ project decision-making.

Among efforts from a planning standpoint are developing an updated Strategic Goals Movement Plan (Maryland's State Freight Plan) including performance metrics for Truck Travel Time Reliability (TTTR), designated Critical Urban, and Rural Freight Corridors and a freight Financial Plan to identify where freight investments will be allocated statewide. This effort coincides with the development of a Maryland Freight Story Map to compliment and provide a visual overview of the updated Strategic Goods Movement Plan. The Maryland Freight Story Map will be an interactive geospatial dashboard which will include areas such as infrastructure access, mobility, and asset management. The updated Strategic Goods Movement Plan provides direction for future transportation investments to enhance the safe and efficient movement of commercial vehicle freight. Next steps include the incorporation of freight into the highway project planning process.

Figure II-15


Pennsylvania
West Virginia
Virginia
Washington, D.C.
Delaware
New Jersey
Philadelphia
Baltimore
Hagerstown
Frederick
Westminster
Aberdeen
Randallstown
Towson
Perry Hall
Essex
Glen Burnie
Elkridge
Ellicott City
Columbia
Laurel
SHA Freight Network
Maryland Multi-Modal Freight Network
National Highway Freight Network
N