



Owings Mills Metro Center

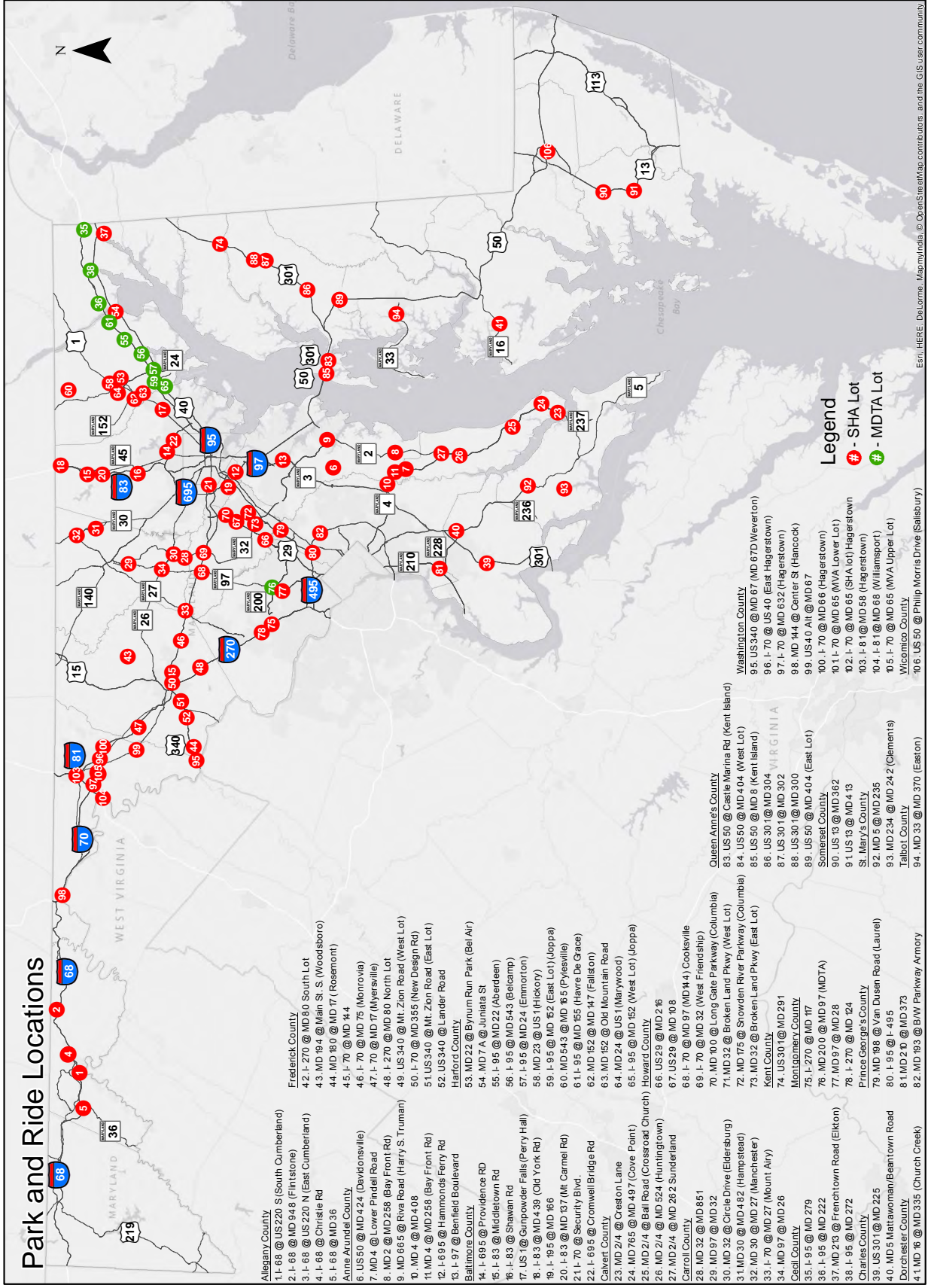
3. MULTI-MODAL

a. Park and Ride

One method to connect motorists to multi-modal transit connections is through a network of park and ride lots. MDOT has established and maintains 106 locations in 20 counties providing over 13,300 spaces. Motorists that park at these lots reduce single occupant vehicles and encourage transit use and ride-sharing. MDOT SHA partners with the Maryland Transit Administration and local transit agencies to encourage transit connections to the lots. The mutually beneficial relationship increases transit trips and reduces congestion. The number of spaces at the park and ride lots range from less than 10 spaces to more than 800 spaces. The two largest lots are along MD 5 in the Waldorf area of Charles County and MD 665 at Riva Road in the Annapolis area of Anne Arundel County. Various minor adjustments have occurred to the number of spaces at various lots statewide due to remarking or other modifications.

Figure II-7 shows the location of all the Park and Ride lots operated by SHA and MDTA in Maryland.

Figure II-7



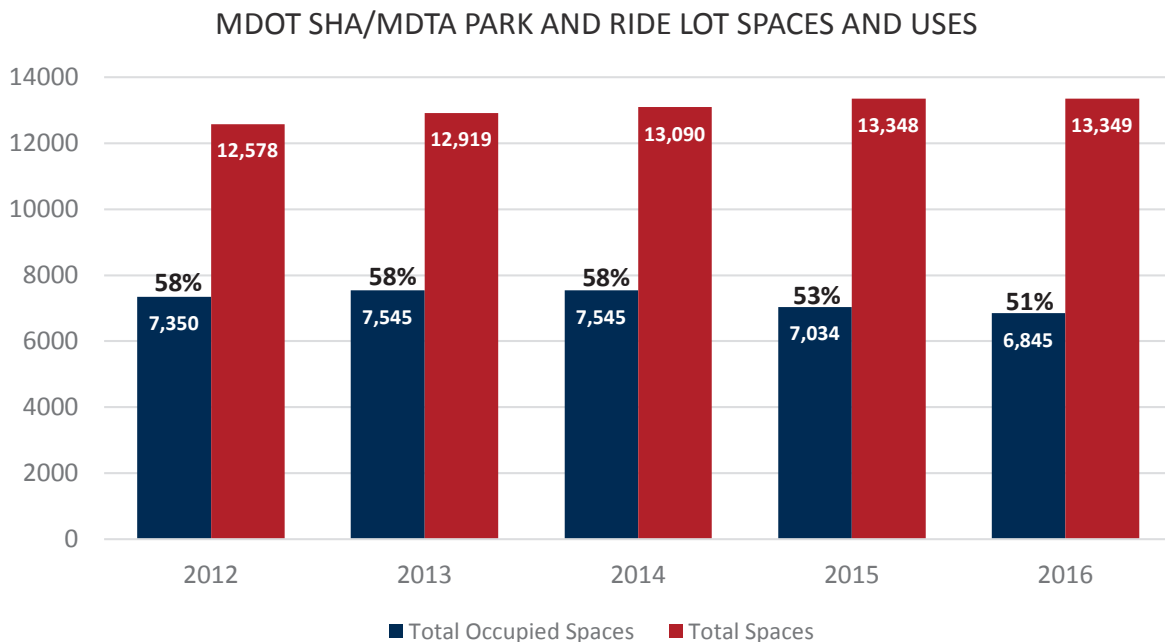
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I-95 @ MD 152

An occupancy survey is performed twice a year (spring and fall) at each park and ride lot to determine trends in usage. Over 6,800 spaces were utilized on a given day accounting for about 51% of the total spaces. The reduction in the price of fuel may have contributed to a reduction in the utilization of the lots as shown in Figure II-8.

FIGURE II-8
MDOT SHA/MDTA PARK AND RIDE LOT SPACES AND USERS



The largest increase in usage at a park and ride lot was at:

- I-270 at MD 117
- US 50 at MD 424

Five park and ride lots had over 20 additional motorists parking at these locations.

Several lots experienced capacity constrained conditions with motorists parking on the grass or in unmarked spaces during one of the surveys. The following locations were at or exceeded capacity during one of the surveys:

- I-68 @ US 220 N (Allegany County)
- MD 2/4 @ Ball Road (Calvert County)
- MD 32 @ Springfield Ave (Carroll County)
- US 340 @ Mt Zion Road (East and West Lot) (Frederick County)

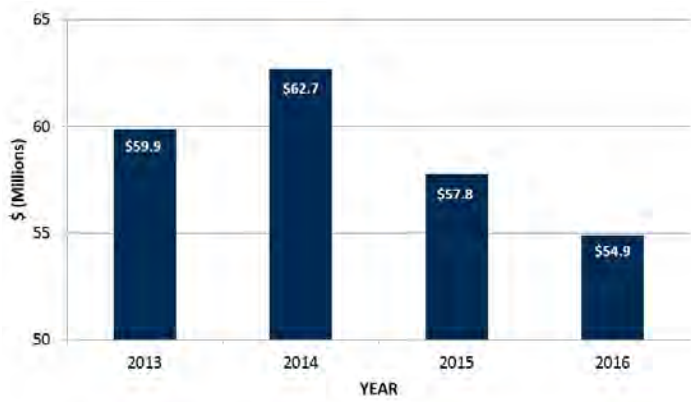
The estimated annual user savings over the past four years is shown in Figure II-9.

In 2016, MDOT SHA/MDTA Park and Ride Program reduced VMT by 101.7 million miles. This resulted in \$54.9 million annual user savings.

In addition to MDOT SHA and MDOT MDTA, other agencies provide park and ride lots. This includes MDOT MTA which provides lots for the MARC commuter trains and bus service, the Washington Metropolitan Area Transit Authority for METRO service, and various counties.

FIGURE II-9

MDOT SHA/MDTA PARK AND RIDE SAVINGS TO MOTORISTS (MILLIONS)



b. HOV Lane Operation (HOV)

High occupancy vehicle (HOV) lanes are utilized to encourage carpooling and reduce the number of single occupant vehicles. These lanes offer a travel time savings for multiple occupant vehicles over single occupant vehicles with the HOV lanes operating at near free flow speeds while the general purpose lanes usually experience congestion and lower travel speeds. HOV lanes, in combination with park and ride lots and transit service, increase person throughput and provide a viable alternative transportation mode for commuters in Maryland. This provides an effective Active Travel Demand Management (ATDM) strategy. In Maryland, vehicles in HOV lanes must have two or more occupants; transit vehicles, motorcycles, or plug-in electric vehicles (permits required) are exempt. There are two HOV locations in Maryland. See Figure II-10. These are along I-270 in Montgomery County and US 50 in Prince Georges County. The I-270 and US 50 HOV lanes are mostly separated by pavement markings from the general purpose lanes although, a few sections along I-270 have a physical separation between the lanes.

The I-270 HOV lanes operate southbound from 6:00 to 9:00 AM and northbound from 3:30 to 6:30 PM while the US 50 HOV lanes function the entire day.

A study was conducted to analyze the performance of the HOV lanes relative to the general purpose lanes. This was accomplished by the Metropolitan Washington Council of Government (MWCOCG) using travel time data from GPS data loggers and analyzing person throughput, and determining travel time savings. Person throughput evaluates the total number of people moved in each lane versus the total number of vehicles. On I-270, the HOV lanes transported approximately 200 to 500 additional people compared to an average general purpose lane.