Arthur Katz
2 Stevenage Circle
Rockville, Maryland 20850

Submitted to U.S. Army Corps of Engineers and the Maryland Dept. of Environment
USACE Application Number (NAB-2018-02152) and the MDE Tracking Numbers 20-NT-0114 / 20206064

I urge the Corps of Engineers to reject the Permit Application in its current form for the I-495/I-270 Toll Lanes Project for the reasons explained below.

The current analysis leaves out substantial impacts because it understates the political impetus to extend the current toll lane plan. The physical area of required analysis is therefore understated In the current Maryland Department of Transportation (MDOT) documents.

The project will create an overwhelming congestion chokepoint in Maryland between the I-270 spurs on the beltway and therefore the current analysis is not valid because consequential long-term effects are not described in the ROD and FEIS. The key reality is the congestion chokepoint will be so overwhelming it will create a powerful political impetus to build the remaining toll lanes toward the Woodrow Wilson bridge with its attendant impacts on parkland, wetland, residential land taking. These impacts are not described in MDOT's analysis. In this context the current analysis is inadequate because it is essential examines half the story

In Boston we called this the salami strategy. You break up the project into small pieces, so the public doesn't see the full implication of the current decision in a cohesive whole.

To give you a sense of the problem, if you have ever have driven home from Dulles airport in the evening on the Beltway toward Maryland you will experience a congestion chokepoint as the eastbound toll lanes end. Virginia will happily transfer that mess at the end of its toll lanes to a congestion chokepoint in Maryland between the I270 spurs. That congestion will back up traffic to the I-270/495 split, disrupting both highways (see below).

Just contemplate the massive unacceptable effects of this chokepoint on the homeland security evacuation requirements for populations from DC and Maryland communities south of the Beltway.

Hence the overwhelming political imperative to extend the toll lanes east of the Eastern I-270 spur. In this scenario Virginia gets a partial free ride out of its mess and Maryland will essentially be left holding the congestion bag.

Even the toll lanes in this project are overwhelmed when the lanes end. Based on MDOT own projections it takes 4 minutes over the speed limit to go from George Washington parkway to the I-270 west spur's intersection with the Beltway eastbound. But the last two miles from the I-270 spur to the end of the toll lanes will take 14 minutes. You go from whipping along on the toll

lanes to a screeching halt and crawling along at 8.5 miles per hour the last two miles. If you pay significant toll money and end up in a traffic jam you can imagine the demand to fix the problem and extend the toll lane from the general public but also from influential populations that can afford the toll lanes on an ongoing basis.

Moreover, the way the FEIS and even the ROD portrays the nature of the traffic related impacts obscures the issues and does not allow the public and public officials to appreciate the possible effects

For example,

The ROD document states that along I-270. the current collector-distributor (CD) lane separation from Montrose Road to I–370 will be removed as part of the proposed improvements, page 8. What is not stated in the ROD is the north and southbound CD lanes includes the large concrete support structures for the four interchanges from Montrose to Shady Grove that will have to be removed as part of the elimination of the CD Lane separator. This fact conflicts with descriptions in Table 1, page 9, of the ROD, that only "adjusted interchange ramps to accommodate widened mainline" will be needed. The support structures for the interchange deck will have to be re-constructed to prevent the deck from collapsing. The resulting impacts demolition and rebuilding will be substantial noise, dust, community disruption and local transportation chaos for years. But reading the ROD officials and the public would never understand the reconstruction will be a major project. It is dismissively portrayed in Table 1 as an array of ramp adjustments - completely minimizing the seriousness of the impacts. Just an illustration of the lack of clarity in MDOT's public documents

Further, the current MDOT plan transfers the only south and northbound I-270 HOV lanes to the developer. The rationale is the HOV lanes are restricted lanes already and not available to the general public. But this is a serious mischaracterization of reality. The lanes are restricted only 3 out 24 hours in each direction. The idea that the public is restricted from using the lane anyway so giving it to the toll operator is no big deal is nonsense - you are giving away a valuable public funded property for no cost. The cost of the project to the public is real and exists already.

I will discuss the lack of transparency below in more detail.

First, I want to describe how difficult it was to find the Travel Time Matrix Tables that contain the trip travel times data I used in my analysis. MDOT, has in the FEIS, placed the Travel Time Matrix Tables in Appendix E of Appendix A (an Appendix in an Appendix). Appendix A had 800 pages, The Appendices A-H of Appendix A beginning on page 610 with no page numbers for any of the A-H Appendices and after more than 100 pages without page numbers you will find the Matrix Tables beginning on page 722.

The MDOT process and its elimination of all transit alternatives before any serious detailed studies began, sadly is a reminder of the narrow exclusive 1960s highway-oriented planning process that contrasted with the model of the Boston Transportation Planning Review (BTPR).

An EIS is in a sense similar to signing a consent form for surgery. You expect to be told the major benefits and significant risks – you should have the information in-order to weight your own priorities and decide. As we fast approach the final decision about whether to move forward with the I-495/I-270 toll lane project I believe the Maryland Department of Transportation (MDOT) has failed to provide a clear picture of the costs as well as the benefits – leaving the patient vulnerable.

MDOT has chosen starting and end points of trips that do not illuminate the cost and benefits clearly, used difficult to interprete descriptors such as average speeds instead of travel times and poorly described pertinent data.

MDOT's produced findings that are not internally consistent such as using the average speed as the prime basis of comparisons between the No Build (no toll lanes), the toll lanes. and the General Purpose ((GP) lanes (GP lanes are the free non-toll lanes of the toll road where 85-90% of the total toll road traffic travels) (See Table 4.7 in the Main FEIS report)

Why did MDOT choose average speed? If you are comparing routes to find the best trip does WAZE, Google maps or any GPS traffic model use speed? Of course not, they use travel time. It is more meaningful and much easier to understand.

Compounding this problem MDOT designed its FEIS Tables, so you have trips on I-495 separated from I-270 trips which can be misleading, since many trips of interest involve both I-270 and I-495.

Let's take an important example, but by no means the only one. MDOT's current Preferred Toll Lane Alternative produces a disastrous Chokepoint eastbound on I-495 where 5 lanes become 3 when the two proposed toll lanes end (See attached Map 1).

The congestion produced by the Chokepoint disrupts trips on both I-495 and I-270. The result is the No Build drivers will experience faster round trips compared to those in the General Purpose (GP) lanes of the Preferred Alternative.

But you would never know that from the way MDOT presents the results. The highlighted critical trip from GW Parkway to the West I-270 Spur in the afternoon (PM) MDOT uses average speed to compare travel on the No Build (NB) and GP lanes (first row Table 1).

From the table it would appear both alternatives are at virtually the same speed, 14 and 15 mph. But using travel times tell quite a different story.

In the second row of Table 1 the travel time (from MDOT's own Travel Time Tables) show the No Build (NB) trip travel time is 14.7 minutes, but the GP time is 22.4 minutes - about a 50% increase (longer trip).

Using speed makes a very serious Chokepoint problem for the toll lane alternative disappear. In contrast the GP lanes are projected by MDOT's own data to be 7.5 minutes slower than the No

Build alternative every day. How does MDOT explain this conflict, since both numbers come from the same FEIS document.

Table 1: Trip on I-495 Inner Loop from George Washington Memorial Parkway to I270 West Spur

	No Build (NB)	GP	Toll
Speed mph	14	15	62
Minutes	14.7	22.4	4.1

Examining travel times for the more realistic trip on the Beltway, from GW Parkway to the end of the toll lanes at about the Old Georgetown Road exit (two miles further east along the Beltway than the western I-270 spur), the results reveal the GP lanes are now *10 not 7.5 minutes* slower than the No Build.

More surprising is the trip time on the toll lanes as noted above. Starting from GW Parkway it is a quick 4.1 minutes to the Western Spur, but then it takes 14 minutes to cover the last two miles to the end of the toll road at the Old Georgetown Road exit. You have gone from above the speed limit, at 62+ mph, to a painful crawl of 8.5 mph on the last two miles of the toll road. The toll lanes may be faster overall, but the final 14-minute toll lane trip just emphasizes the overwhelming congestion created by the Chokepoint.

The speed comparison in the FEIS completely obscures the reality of critical congestion impacts for the public, and the officials who must make the final decisions about which alternative to choose.

MDOT creates a confusing description of travel by isolating travel projections to either trips on I-495 or I-270 when many of the most important trips of interest, as noted. involve both I-270 and I-495.

You might think the public would want to know the travel times for No Build and GP *round trips* between I-370, (where the toll lanes begin on I-270) and various exits on I-495 such as George Washington Parkway, Clara Barton Parkway and River Road (see Map 1). The MDOT numbers in Table 2 tell us the No Build (NB) trips could be - 8 to 10 minutes – faster than those in the GP lanes. Just the evening return trips from the three exits back to I-370 indicate the travel time advantage of the No Build is clearly dominant - 9 to 11 minutes.

We already know that the trip along the Beltway from the GW to the end of the toll lanes is 10 minutes faster on the NB vs. the GP lanes.

The cumulative effect of all these various trips is a slower trip home after a long day, certainly not what any driver wants to experience.

The ROD disagrees and states "the results in the FEIS do you show that the travel times for some inner loop trips are longer in the Build General purpose lanes then no build (for example, the trip

from River Road to I-370 takes 26.6 minutes under Build conditions verses 17.0 minutes in the no build}. The reason is that the backups would be so bad in Virginia under the No Build conditions that fewer vehicles would actually get across the ALB during peak hours. This makes some trips in Maryland under the no build look better than they are."

First, the MDOT analysis did not examine or provide in its EIS documents in any detail what is happening during the evening rush hours in Virginia. Second if you examine the travel time provided in MDOT's matrix Travel Time Tables you find the trip from Virginian 173 in the heart of the backup area in Virginia to I-370 for the GP lanes is 38.1 minutes while the No Build trip is 35.5 minutes. The trip from 173 to the old Georgetown Road exit is 40.4 for the GP trip and 36.8 for the No Build. In both cases the time differences may be reduced but the No Build is faster. If the MDOT argument that the supposed dominance of congestion in Virginia for the No Build was operative, we would expect to see the trip times for the GP lanes being faster than the No Build for trips that are well into Virginia congestion. The bottom line is there are many thousands of commuters that use GW Parkway, Clara Barton and River that will do better in the No Build scenario.

There is a fundamental underlying question about the future in this discussion. Is increasing the traffic throughput (number of trips per hour), which almost inevitably results from adding one or two lanes of capacity, the direction we want to go in the future? And what does that mean.

That is a question that has not been thoroughly discussed.

Table 2: Evening Trips and Round Trips from I-370 to the GW Parkway, Clara Barton and River Road exits in minutes based on MDOT's FEIS Travel Time Matrix Tables

PM Trips in minutes	Evening Trip			Round Trip		
	NB	GP	Difference	NB	GP	Difference
GW Parkway to I-370	27.9	36.8	8.9	45.2	52.9	7.7
Clara Barton to I-370	25.1	35.8	10.7	41.6	51;2	9.6
River Road to I-370	17	26.6	9.6	30	39.6	9.6

In some cases, it's what MDOT has not brought to the attention of the public and public officials critical information

The Maryland Department of Transportation has not acknowledged nor seriously discussed in the FEIS or anywhere, the potential achievements of a new traffic management system currently being implemented on I-270 (called the I-270 Innovative Congestion Management Project (ICM)). The ICM should be seen as a proud MDOT accomplishment that will successfully address many of the traffic issues on I-270 over the next 25 years without the MDOT toll lane project.

For example, Table 3 based on MDOT data compares travel times in 2045 for southbound I-270 morning trips from the start of the toll lanes at I-370 to six destinations on both I-270 and on I-

495 including the River Road, Clara Barton Parkway and George Washington Parkway exits (see attached Map 1). Column 1 is the travel times before the pandemic (BP) then the NB and GP times for 2045.

As you can see the No Build is projected to achieve reductions in travel time of a whopping 40 to 60% (quicker trips) compared to pre-pandemic times (BP), beginning now, and persisting through at least 2045.

Table 3. Southbound I-270 Trip from I-370 to Montrose, I-270 Split and West Spur/I-495, River Road, Clara Barton Parkway and the GW Parkway in minutes based on the FEIS

Exits	BP	NB	GP	Toll Lanes
Montrose	16.3	5.8	6.2	4.9
Split	19.8	8.1	9.1	6.2
West Spur/I-495	24.4	10.4	11.3	8.3
River Road	26.2	13	13	9.4
Clara Barton	29.2	16.5	15.3	11.3
GW Parkway	29.9	17.3	16.1	12

The GP times are not significantly better - within a minute of the NB times, slower or faster. These time savings can change the perception of the effectiveness of the current highway, something MDOT seems determined to hide.

The ICM will make a major contribution to reducing congestion on all of I-270, not just the study area. But you would think the ICM never existed.

Despite MDOT's assertion ICM is a short-term fix, the ICM effects will be long term as reflected in the FEIS's own 2045 results.

Finally, there is no real justification for the proposed actions on I-270.

I have already identified the substantially improved travel times for all I-270 trips because of MDOT's traffic management actions as well as the poor travel time performance of the GP lanes vs. the No Build.

But examining the travel time numbers reveal something surprising.

There are two possible combinations of round trips on I-270 between I-370 and I-495. A Southbound morning Trip (AM) from I-370 to I-495, and a Northbound evening (PM) trip from I-495 to I-370 shown in Table 4A and the reverse, a Northbound morning trip and a Southbound evening trip shown in Table B.

What is obvious is that the round-trip times for the No Build, General Purpose (GP) and Toll lanes for the most heavily used Southbound AM/Northbound PM trip (Table 4A) are virtually the same - 24 .1, 25.8, 25.6 minutes. The same is true for the Northbound AM/Southbound PM trip (Table 4B) – 16.7 17.2 and 16.5 minutes. In both cases the No Build has faster trips than the GP lanes. Ironically, the toll road going North in the evening is the slowest trip - because you have a mini-Chokepoint as the toll road ends at I-370.

Table 4A: Round Trip in Minutes on I-270 Between I-495 and I-370 – Southbound Morning and Northbound Evening

Direction	NB	GP	Toll	BP
Southbound (AM)	10.4	11.3	8.3	24.4
Northbound (PM)	13.7	14.5	17.3	13.1
Round Trip	24.1	25.8	25.6	37.5

Table 4B: Round Trip in Minutes on I-270 Between I-495 and I-370 – Northbound Morning and Southbound Evening

Direction	NB	GP	Toll	BP
Northbound (AM)	8.1	8.4	8.3	8.1
Southbound (PM)	8.6	8.8	8.2	9.7
	16.7	17.2	16.5	17.8

But to fully appreciate how poorly this project is conceived, note the proposed 14 lanes for the I-270 project under the Preferred Alternative are in residential areas that already have 12 lanes. For comparison, both the New Jersey Turnpike and the Virginia Beltway Toll Lanes – the latter seems to have been adopted by MDOT as its gold standard for planning– have only 12 lanes and significantly they are surrounded by commercial/industrial development. In fact, the ICM project has or will created 7 and even 8 lanes on I-270 by eliminating some breakdown lanes.

So why are we building Toll lanes on I-270 if even the Toll lanes don't improve trip times? Why are we spending hundreds of million dollars to rebuild every interchange in the project portion of I-270 with its inevitable years of disruptions of communities and traffic.

The I-495/I-270 project is poorly conceived and is clearly no ready for prime time. Please reject its application.