

November 10, 2022

Mr. Mark Keeley  
Traffic Concepts, Inc.  
7525 Connelley Drive, Suite B  
Hanover MD 21076

Dear Mr. Keeley:

Thank you for the opportunity to review the Revised Traffic Impact Study (TIS) and Point-by-Point response prepared by Traffic Concepts, Inc. for Mitchell Property Warehouse Development in Harford County. The Maryland Department of Transportation State Highway Administration (MDOT SHA) has completed our review for the project listed below, and comments are attached.

Mitchell Property Warehouse Development – MD 159  
MDOT SHA Tracking No. 21APHA021XX  
Revised Traffic Impact Study Dated September 28, 2022  
Harford County

Attached is a summary of the report findings, comments, and conclusions. Please submit a revised TIS and updated synchro analysis along with a point-by-point response to the attached comments. Submissions must be made through the MDOT SHA Salesforce electronic submission portal located at the following link, <https://mdotsha.force.com/accesspermit/login>. Please reference the MDOT SHA tracking number on any future submissions. Please keep in mind that you can view the reviewer and project status via MDOT SHA Access Management Division web page at <http://www.roads.maryland.gov/pages/amd.aspx>.

If you have any questions or require additional information, please contact Mr. Teresa Eller via email at [teller@mdot.maryland.gov](mailto:teller@mdot.maryland.gov).

Sincerely,

*Sutapa Samanta*

Sutapa Samanta, P.E.  
Acting Metropolitan District Engineer  
MDOT State Highway Administration  
District 4 – Baltimore and Harford Counties

Attachment

Mr. Mark Keeley  
Page Two

cc: Mr. Bruce Appell, Department of Public Works, Harford County  
Mr. Glen Hebel; Deputy Director, Harford County Division of Highways  
Mr. Alex Rawls; Planner, Harford County Planning and Zoning  
Mr. Steve Walsh; Deputy Director, Harford County Division of Highways  
Mr. Kayode Adenaiya, Transportation Engineer, OOTS, MDOT SHA  
Ms. Obianuju Ani, Transportation Engineer, OOTS, MDOT SHA  
Ms. Rola Daher, Consultant for MDOT, TFAD, MDOT SHA  
Ms. Teresa Eller, Transportation Engineer, District Four Access Management, MDOT SHA  
Ms. Sarah Gary, Consultant for MDOT, TFAD, MDOT SHA  
Ms. Erin Kuhn, Assistant District Engineer for Traffic, District Four, MDOT SHA  
Ms. Tina Saxon, Administrative Assistant, OPPE RIPD, MDOT SHA  
Ms. Lisa Shemer, Division Chief, OPPE, TFAD, MDOT SHA  
Ms. Lisa Sirota, Regional Planner, RIPD, MDOT SHA  
Mr. William Stroud, Assistant Division Chief, TDSD, MDOT SHA  
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Michell Property Warehouse Development  
MDOT SHA Tracking No. 21APHA021XX  
Revised Traffic Impact Study Dated September 2022  
Harford County

Michell Property Warehouse Development report findings and conclusions:

- The development proposes to construct 5,200,000 gsf of warehouse. The property currently has full movement access along Canning House Road and along MD 159 (Perryman Road). A new public road access is proposed to connect MD 159 at the site access to Chelsea Road to allow trucks a second option to bypass residential areas along MD 159.
- The development is proposed to be located at 1714 Perryman Road along the west side of MD 159 (Perryman Road) with a boundary extending from south of Canning House Road and to Fords Lane. The parking lots are proposed to have 3,773 automobile parking spaces and 2,178 trailer parking spaces for a total of 5,951 spaces.
- The study analyzed the following intersections under existing, background, and future conditions:
  - US 40 EB Ramps at MD 22 (Signalized)
  - US 40 at MD 543 (Signalized)
  - US 40 at MD 132 (Signalized)
  - US 40 at MD 7/MD 159 (Signalized)
  - US 40 at Spesutia Road (Signalized)
  - MD 543 at I-95 Northbound Ramps (Signalized)
  - MD 543 at MD 7(Signalized)
  - MD 543 at I-95 Southbound Ramps (Signalized)
  - MD 715 at Old Philadelphia Road (Signalized)
  - MD 715 at US 40 Eastbound Ramps (Signalized)
  - MD 7 at Stepney Road (Unsignalized)
  - MD 159 at Spesutia Road (Unsignalized)
  - MD 159 at Fords Lane (Unsignalized)
  - MD 159 at Chelsea Road (Unsignalized)
  - MD 159 (Old Philadelphia Road) at MD 159 (Perryman Road (Roundabout)
  - MD 159 at Canning House Road (Unsignalized)
  - Chelsea Road at Proposed Canning House Road Relocated/Extended (Unsignalized)

The study submitted by Traffic Concepts concludes that all the key intersections, except two, are projected to operate at levels of service (LOS) “D” or better under future conditions. The intersection of MD 7 at Stepney Road is projected to operate at a LOS “F” during future traffic conditions and MD 159 at Spesutia and MD 159 at Chelsea Road are expected to operate respectively at a LOS “F” and “E” under future PM peak traffic conditions.

MDOT SHA Comments and conclusions:

1. Exhibit 2A shows a second right turn lane to be added to MD 7 westbound at the intersection with MD 543 (intersection #3). However, the Synchro model does not reflect this. Update study to match actual conditions.
2. The proposed mitigation plan on page 46 for MD 159 between intersections (I/S) #13 (Spesutia Road) and #14 (Chelsea Road) calls for I/S #14 to be changed to a Maryland T. We have several concerns about this proposal. First, constructing the raised, channelizing island at I/S #14 will significantly reduce the storage for the downstream left turn for MD 159 at Spesutia Road (Exhibit 11B indicates there will be 562 vehicles making that movement in the PM peak). Additionally, the Maryland T will create a situation where the significantly heavier movement (northbound Chelsea Road to turn left on Spesutia Road) will have to change lanes to enter the left turn lane for Spesutia Road. It is recommended the developer consider other alternatives including, but not limited to, changing the lane assignments of the Maryland T to something similar to the Chelsea Road and Canning House Road design shown on page 47; construction of a roundabout at the Chelsea Road intersection; and/or additional widening and/or other lane assignments at and between I/S #13 and I/S #14.
3. Comment Response 6 states that truck traffic along the residential section of MD 159 will be discouraged, however future synchro models have MD 159 between Canning House Road and Chelsea Rd and Fords Lane utilizing a 15% heavy vehicle percentage.
4. Spesutia Road has 10-15% heavy vehicle percentage in Synchro despite there being a truck restriction on the roadway. Update study reducing the heavy truck usage along Spesutia and distribute the remaining volumes to routes that trucks are not prohibited.
5. Volumes at I/S #15 and #16 in Synchro do not match Exhibit 11B in future with and without improvement in both AM and PM scenarios.
6. At intersection 3, the removal of the free right from Synchro in the future with improvements condition is not accurately modeling the weave between the right turning vehicles and vehicles destined to the I-95 northbound ramp, and also introducing a significant volume imbalance between the two intersections.
7. On page 41, there is a section titled "MD 7 @ Spesutia Road". Update study to show correct intersection, "MD 159 @ Spesutia Road.
8. There are many changes to cycle lengths throughout the study. Queuing results are not comparable when the signal cycle lengths differ. Please rerun SimTraffic with the same cycle lengths for background and future options. If you would like to propose new signal cycle lengths and timings list them as part of your Future with Improvement option.
9. How did you determine the need for an additional right turn lane at MD 543/MD 7 intersection? How did you determine the volume breakdown between the two lanes? What are the LOS for the two options? Another improvement may be more impactful in improving operations at this intersection.
10. MD 7 at Stepney Road intersection does not have a defined lane configuration for the north leg. Did you verify the proposed lane configuration for the Capital improvement?
11. Include in discussion queuing results for unsignalized intersections.

12. Both PM Future SimTraffic models show that at Intersection #13 (MD 159 at Spesutia Road), the northbound MD 159 left turn 95<sup>th</sup> percentile queue approaches Intersection #14 (MD 159 at Chelsea Road). TDS has concerns that a queue this long could interfere with the merge area of the proposed Maryland-T intersection at Intersection #14.
13. The volumes used for the Intersection #14 future condition signal warrant analysis do not take into account diverted traffic for the Canning House Road extension, which is included in the volume development in Exhibit 7c.
14. Signal warrants were prepared for both MD 159 at Spesutia Road and MD 159 at Chelsea Road. Signal warrants were not met for MD 159 at Spesutia Road; however, a supplemental roundabout study was provided and is currently under evaluation. Warrants 1, 2 and 3 were met for the intersection of MD 159 at Chelsea Road; however, MDOT SHA does not recommend the proposed Maryland T or the installation of a traffic signal at this location. Other mitigation alternatives should be considered, as mentioned in comments above.