

#### **TECHNICAL MEMORANDUM**

To: Florence Dwyer Montgomery County Planning Department

Kwesi Woodroffe SHA

Cc: Penny Evins Holton Arms School
Tracey Fudge Holton Arms School

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From: Lauren Buford

Maribel Donahue

Katie Wagner, PE, PTOE

Exhibit 34

CBA-1174-E

Date: September 12, 2025

Subject: Holton-Arms School - Response to Comments on Second Submission

# Introduction

Gorove Slade submitted an updated Local Area Transportation Report (LATR) ("Second Submission" dated February 24, 2025) on March 5, 2025, for the proposed increase in enrollment at Holton-Arms School in Montgomery County, Maryland. The LATR was reviewed and commented on by the Maryland State Highway Administration (SHA), the Montgomery County Department of Transportation (MCDOT). MCDOT comments were received via email correspondence on March 25, 2025 and SHA comments were received in a letter dated April 10, 2025. A further revised/updated LATR ("Third Submission" dated September 12, 2025) is being submitted with this response letter.

The review comments are presented below in italics, and point-by-point responses are provided in bold.

## **MCDOT Comments:**

1. River Road and Royal Dominion Drive- Westbound Right turn: The report states (Page 21) that the storage is adequate to contain the vehicles where they are not blocked by a through queue. This is not true as the development is adding additional traffic to an already existing condition. The through traffic gets worse due to the vehicles exiting the site downstream from the intersection and merging into the through lanes, which adds more congestion and backups, which in turn makes the condition worse than the existing.

Response: The Third Submission LATR proposes to extend the westbound right turn lane from 210 ft to 500 ft to accommodate additional site-generated trips. Extending the right turn lane further was explored, however, SimTraffic simulations do not show improvements in the westbound right turn queueing with further extension of the westbound right turn lane. The westbound right turn vehicles are contained in the through queue. Additionally, further extension of the westbound right turn lane eliminates the bike lane on River Road.

- 2. The queues exceed storage (even with proposed mitigation) on multiple intersection routes. How are these addressed?
  - Response: The Third Submission LATR includes an enhanced mitigation program that the School is committing to. This includes the restriping extension of the westbound right turn lane at the school driveway, the addition of a northbound left turn lane at Royal Dominion Drive and River Road, signal timing adjustments, and a robust Transportation Demand Management program to reduce the number of trips generated by the increased enrollment.
- 3. Table 8: River Road and Royal Dominion Drive are LOS 'F' under the proposed conditions, which gets downgraded from LOS 'E'. The intersection delay standard per LATR is 80 sec/veh, and per the report, the AM school peak delay is 113.3 sec/veh.

Response: The comment references text in the Second Submission to a delay standard that is not applicable to the review standard for the corridor analyzed for this project. All signalized study intersections are located consecutively along the River Road corridor, delays were analyzed at a corridor level, consistent with page 33 of the LATR guidelines that state the delay threshold applies to the network as a whole; therefore, the delays for the River Road and Royal Dominion Drive intersection have been removed in the Third Submission LATR. As stated above the Third Submission LATR includes an enhanced mitigation program that the School is committing to. This includes the restriping extension of the westbound right turn lane at the school driveway, the addition of a northbound left turn lane at Royal Dominion Drive and River Road, signal timing adjustments, and a robust Transportation Demand Management program to reduce the number of trips generated by the increased enrollment. Please see page 21 of the Third Submission LATR for further details.

4. The mitigation proposed to change the lane configuration to accommodate the "additional" right turn on Royal Dominion Drive and signal timings as proposed does not work. The double right turns will not work, as the report itself states that the through queues extend downstream, and I am not sure how the right turn movements will be feasible. Also, per our Division of Traffic Engineering and Operation (DTEO) comments, this mitigation strategy will not work. See additional comments from DTEO below. We concur with the comments by MDSHA in the letter dated January 24, 2025.

Response: The proposed changes to the lane configuration no longer include double right turns. A revised mitigation package as described above is detailed in the Third Submission LATR.

- 5. Division of Traffic Engineering and Operations (DTEO) Comments:
  - a. MD 190 at Burdette Rd
    - There must be a minimum of 10 seconds of green plus the red and yellow clearances for any proposed splits.
    - ii. The proposed MD 190 left turn lead during the PM peak is not recommended. If implemented, the lead left will need to be protected due to safety concerns (yellow trap). In addition, we did not observe the benefit of the lead-lag phasing on progression.
  - b. MD 190 at Royal Dominion Dr
    - i. There is a major conflict with the concurrent permissive NB lefts and the SB double rights.
    - ii. The proposed phase 8 split is not long enough to cover the pedestrian crossing time.
    - iii. The proposed removal of the side street split phasing will negatively impact the school by making the signal less flexible to accommodate variable traffic demands. In addition, the differences between the SB right and left turn volumes for SB Royal Dominion Dr are not that significant to warrant a change in lane configurations (left/shared left-thru/right to left/shared right-thru/right)

Response: The signal timings and geometry changes described in this comment are no longer a part of the proposed mitigations.

6. Please revise the analysis and update the report based on the comments.

Response: Comment acknowledged.

### **SHA Comments:**

#### **District 3 Traffic Comments**

7. We note that the study conclusions and recommendations with respect to delay are based on the total corridor delay results provided in Table 7. We also note that HCM intersection delay results are presented in Table 8. Based on these results, the projected delay at MD 190 and Royal Dominion Road remains unacceptable under Total Future AM conditions even with the implementation of the proposed lane use and signal timing modifications. SHA requests that further mitigation be recommended to address this issue.

Response: Alternative mitigations (detailed in the Third Submission LATR) have been proposed to address this intersection in coordination with SHA, MCDOT, and M-NCPPC.

- 8. Based on the SimTraffic queueing analysis results presented in Table 9, SHA notes that existing and projected 95th percentile queues significantly exceed the available left and right turn queue storage along MD 190 during AM and PM School Year and Summer School peak at the following intersections:
  - a. MD 190 and Royal Dominion Road
  - b. MD 190 and Burdette Road
  - c. MD 190 and Beech Tree/Nevis Road

SHA notes that the proposed signal timing and lane use modifications at MD 190 and Royal Dominion Road generally reduced the projected 95th percentile queues along the MD 190 study corridor.

Response: Comment acknowledged. In coordination with SHA, the treatment of left turns along the corridor was analyzed and the models and LATR have been updated accordingly in the Third Submission.

- 9. SHA notes that the minor street approach and receiving lanes at MD 190 and Royal Dominion are misaligned. Removal of split phasing for the minor street approaches without aligning the approach and receiving lanes will result in safety issues that are unacceptable to SHA. We request that other options be explored if geometric changes are not proposed to align the minor street approach and receiving lanes.
  - Response: The proposed mitigations in the Third Submission no longer include concurrent phasing at the intersection of River Road (MD 190) & Royal Dominion Drive.
- 10. Please note that coordination will be required with the Montgomery County Transportation Management Center and the SHA signal shop for all proposed mitigations that involve signal timing modifications, signal head replacement, and modifications to existing signal head placement. Traffic signal plans may be required for signal head modifications.

Response: Comment acknowledged. An exhibit depicting the anticipated traffic signal modifications associated with the addition of the northbound left turn at the Royal Dominion and River Road intersection has been included in the attachments to the Third Submission LATR.

### Travel Forecasting and Analysis Division (TFAD) Comments

11. The proposed concept for lane modifications on the southbound approach of the MD 190 & Royal Dominion Drive intersection move the stop bar of the southbound left turn closer to the intersection. Verify that left turning buses from MD 190 can still make the turn into the school.

Response: The proposed mitigations in the Third Submission LATR no longer include this lane modification. AutoTurn exhibits for the River Road (MD 190) & Royal Dominion Drive intersection are included in the Technical Attachments.

#### Traffic Development & Support Division (TDSD) Comments

TSDS has no further comments.