



Memorandum

To: William D. Reimer, LLA, RLA
Director of Landscape Architecture
Matrix New World engineering

From: Frank Miskovich, PE, CME

Date: July 20, 2021

Re: **Traffic Evaluation**
South Hunterdon Regional School District-Proposed School
Main Street (NJ Route 29)
Block 10002, Lot 43
City of Lambertville, Hunterdon County, New Jersey
MCE Project No. 21001.01

It is my understanding that the existing Lambertville Public School is to be renovated. Students from the West Amwell School will be relocated to the Lambertville Public School. USA Architects has prepared a concept plan and you have requested an evaluation of traffic access, circulation, parking, and queuing issues to provide guidance in the development of the site plan. The following is a critique of the concept plan and my overall traffic evaluation of these concerns.

SCOPE OF ASSESSMENT

- Inventory of existing physical roadway conditions and traffic control in the vicinity of the subject site.
- Provide a qualified evaluation of the proposed internal site circulation, parking, and the bus /parent drop-off pickup areas to ensure on-site safety.
- Identify modifications, if appropriate, to address on-site circulation and queuing concerns to assist in the development of the site plan.

EXISTING CONDITIONS

The subject property is known as Lot 42 in Block 10002 per the City tax maps. Access is via a one-way ingress drive and a one-way egress drive towards the northerly portion of the property. There are two full movement driveways at the southerly end of Lot 42 that provide for delivery access to the school and a small parking area for staff. The southerly driveway permits vehicles parking on adjacent Lot 43 to egress the site onto Main Street.

Lot 43 contains a parking area for athletic fields but also provides parking for school staff. A one-way ingress driveway is located at the southerly end of Lot 43.

Main Street is also known as NJ Route 29. The posted speed limit is 25 mph. Main Street provides two lanes of travel with a shoulder/parking lane on the westerly side (opposite site). The easterly side of the street is posted with "No Stopping or Standing Any Time". There is a "End School Zone" posted between Perry and Delaware Street. The streets intersecting Main Street opposite Lots 42 & 43 have pedestrian crosswalk signs installed and painted crosswalks, but the striping is faded.

CONCEPT PLAN

The concept plan illustrates the school "courtyard" in the center of the school will be partially closed for a school addition. The angled one-way ingress driveway will be modified for easier bus access. The other driveways are to remain. The parking areas on both Lot 42 and 43 will be resurfaced and parking spaces delineated with striping. Essentially there is no change to the driveway locations nor operation of the parking areas.

OPERATIONS

The following summarizes my critique of the proposed bus and parent drop-off/pickup areas and operation. From an operational and safety perspective, it is desirable to separate buses from parent drop-off/pickup which the concept plan provides.

Bus Drop-Off and Staff Parking Area

Bus drop-off and pick-up will occur in the northerly parking area. A drive aisle is proposed adjacent to the school building that will function as a fire lane and operate as a bus only lane during school opening and dismissal periods.

1. Lambertville Public School (LPS) currently transports about 10 students in one bus. This ridership suggests smaller school buses. It is not anticipated that bus ridership will increase.
2. The bus only lane is approximately 200± feet long between the entrance and exit drives. This length can accommodate about 7 large and 10 small buses without interfering with the driveway.
3. Given this, the proposed length of the Bus Only Lane is adequate.

Parent Drop-Off/Pickup Lane

The concept plan suggests that the parent drop off and pick up operation will occur in the parking lot on adjacent Lot 43. The following is a summary of the proposed parent drop off and pick up area.

4. The concept plan indicates that the parking field will have 23 parking stalls for staff. The length of the parking area is about 200± feet long between the entrance and exit drives that can accommodate approximately 10 passenger vehicles in a single line.

5. If the driveway that accesses the school loading area is closed during arrival and dismissal hours, and additions 5 vehicles can be accommodated in a single lane (15 vehicles total).
6. With an estimated 15 vehicles dropping off or picking up students, a single lane operation in the parking aisle can accommodate the estimated demand.
7. If there is a need to queue in the two lanes, an operations plan should be developed with the school staff. Staff will need to manage the operation of the parent drop-off pick and pick up area to control the departure parents and if warranted, that of buses. The specific operations will also depend on the number of students that will be bused and dropped off and picked up by parents

PEDESTRIAN SAFETY

While the bus operation is separated from the parent drop-off/pickup operations, controlling how parents drop-off and pick-up students should be further evaluated as the development of the site plan progresses.

8. During pick-up and drop-off operations, staff may need to be present to control the parent vehicles and where and how students will travel between their parents' vehicles and the school. The operations plan will define how this is to be accomplished.
9. The majority of students within Lambertville walk to and from the school. The designated pedestrian crossing or crossings should be better defined on Main Street. The existing crosswalk striping at Jefferson and Delaware Streets are faded. It is suggested that they be restriped and enhanced with transverse markings.

PARKING AND TRAFFIC ACCESS

10. The concept plan indicates a total of 52 parking spaces for staff and visitors. With an estimated staff of about 40, parking is sufficient.
11. With the school modifications, it is not anticipated that travel patterns, both by vehicle, bus, or walking will change dramatically from current travel conditions.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

Since the school is located along a State highway, the Highway Access Management Code (Code) criteria was reviewed to ascertain if the proposed plan will be impacted.

12. Both Lots 42 and 43 are considered conforming lots under the Code criteria. Thus a single two-way driveway or two one-way driveways are permitted for each lot.
13. For the subject property (Lot 42), the concept plan illustrates two one-way driveways which is consistent with the Code criteria. The two curb cuts at the southerly end would not comply. The driveways on Lot 43 are permitted by the Code. The driveway immediately south of the bus

entrance driveway may need to be closed or modified to a one-way driveway if a new permit application is needed.

14. The NJDOT estimates traffic generated by an elementary school based on the total number of students attending the school in determining if a permit is required. A highway access permit is required if the additions/renovations result in an increase of 100 peak hour trips. It is my opinion that the proposed changes to the school will not reach this threshold and thus a new permit is not required. A Letter of No Interest can be requested from the NJDOT if deemed necessary.
15. If during the site design, modifications to the driveways are found to be needed, the Code allows reconstruction of the driveway not exceed five feet from existing conditions without obtaining a new permit. The driveway design will be reviewed in greater depth as the design progresses.

SUMMARY

Below is a summary of key points to consider in the development of the site plan for the new school.

- The concept plan indicates that the parking field can accommodate approximately 10 passenger vehicles in a single line and 20 in a dual lane. .
- If the driveway that accesses the school loading area is closed during arrival and dismissal hours, and additions 5 vehicles can be accommodated in a single lane (15 vehicles total).
- With an estimated 15 vehicles dropping off or picking up students, a single lane operation in the parking aisle can accommodate the estimated demand.
- If there is a need to queue parents in the two lanes, an operations plan should be developed with the school staff on how this will be managed.
- The designated pedestrian crossing or crossings should be better defined on Main Street. The existing crosswalk striping at Jefferson and Delaware Streets are faded. It is suggested that they be restriped and enhanced with transverse markings.
- The concept plan indicates a total of 52 parking spaces for staff and visitors. With an estimated staff of 40, parking is sufficient.
- A highway access permit is not required based on the concept plan since the proposed additions/renovations will not increase by 100 peak hour trips. A Letter of No Interest can be requested if deemed necessary.
- If during the site design, modifications to the driveways are found to needed, the Code allows reconstruction of the driveway as long as it does not exceed five feet from existing conditions without obtaining a new permit. This will be reviewed in greater depth as the design progresses.