

April 27, 2022

Lafayette Township Land Use Board  
33 Morris Farm Road  
Lafayette, New Jersey 07848

Attention: Stephanie Pizzulo, Board Secretary

Reference: Lafayette Village Major Subdivision and Site Plan  
Block 8, Lots 17.01, 17.02, 18, 26.01, 26.02, 26.03, 26.04, 26.05 & 26.06  
NJ Route 15 & NJ Route 94  
Lafayette Township, Sussex County, New Jersey  
Traffic Review Report

Dear Ms. Pizzulo,

I have reviewed the following regarding the captioned application:

- A Traffic Impact Analysis for “Lafayette Village Associates, Proposed Residential Development, Block 8; Lots 17.01, 17.02, 18, 26.01, 26.02, 26.03 & 26.04, NJ Route 15 SB (MP 17.1) & NJ Route 94 SB (MP 27.5) Lafayette Township, Sussex County, New Jersey”, prepared by Atlantic Traffic & Design Engineering LLC, signed by John R. Harter, PE, and David W. Fahim, PE, dated March 07, 2022.
- A Plan entitled, “Overall Preliminary and Final Site Plan, The Shops at Lafayette, Block 8, Lots 17.01, 17.02, 18, 26.01, 26.02, 26.05, 26.06, Tax Map Sheet 12, Lafayette Township, Sussex County, New Jersey”, Sheet 5, prepared by E&LP, signed by Christopher Nusser, PE, dated October 22, 2021, revised March 07, 2022.

## **Description of Site and Access**

The site in question is located between NJ Route 15 and NJ Route 94 with full movement access driveways to both routes. The site is currently occupied by the Shops at Lafayette, a retail outlet shopping center consisting of 100,847 square feet, an unoccupied high school and a single-family house. The application is for eliminating the high school and the single-family house, constructing four multi-family buildings, and converting 11,918 square feet of retail space to residential units for a total of 132 residential units.

### **Traffic Impact Analysis:**

The traffic impact analysis report was prepared generally consistent with accepted traffic engineering standards and practices and addresses existing conditions, trip generation and distribution, future traffic conditions, capacity analyses, site access and circulation and parking assessment. The following are my comments.

#### **Jurisdiction:**

Both site driveways intersect state highways, Route 15 at the northern end of the site and Route 94 at the southern end. The New Jersey Department of Transportation has jurisdiction over these access intersections, and, therefore, the applicant must obtain access permits from the Department. The Department also has the authority to require improvements to the access driveway intersections as it deems necessary to mitigate the traffic impacts of the proposed development.

#### **Access Classification and Access Level:**

The Access Classification System is an identification system for regulating access to all State highways, based on function, environment, and traffic characteristics. The System identifies both the access level (AL) and the desirable typical section (DTS) for each segment of the State highway system. The access level (AL) identifies the allowable turning movements between a State highway and a site driveway based on the system of classification.

The access level designated for both Route 15 and Route 94 in the vicinity of the site is AL 4. Within an AL 4 highway segment all turning movements may be allowed at a driveway intersection with the left turn movements from the State highway via a left turn lane if warranted by traffic volumes and design requirements. For the purpose of the traffic analysis and this review, it was assumed that a left turn lane at either driveway would not be warranted and thus not required by the DOT

#### **Existing Conditions:**

Existing peak hour traffic counts were conducted at the following intersections in January of 2022.

- NJ Route 15 (Lafayette Road) and NJ Route 94
- NJ Route 15 (Lafayette Road) and Northern Site Driveway
- NJ Route 94 and Southern Site Driveway

With traffic still being somewhat lower than normal, the traffic volumes resulting from these counts were factored to reasonable existing values using pre-pandemic 2019 DOT count data

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from a nearby location and assuming a yearly background growth rate of 1.75% in accordance with the NJDOT annual background growth rates.

This method is acceptable.

### **No-Build Traffic Volumes:**

Existing traffic was grown to the build year of 2024 using the aforementioned yearly background growth rate of 1.75% (rate used for rural minor arterials in Sussex County) for Routes 15 and 94. The unoccupied areas of the Shops at Lafayette (66% at the time of the counts) were also taken into consideration to develop no-build traffic volumes.

This method is acceptable.

### **Trip Generation**

The trip generation volumes presented in the report are in conformance with accepted traffic engineering standards and practices for the uses described, factory outlet center and mid-rise multi-family housing. These uses, however, may not be truly representative of the site's future characteristics.

When the multi-family housing is fully occupied the Shops at Lafayette may take on the character of a standard shopping center and retail area as compared with a factory outlet center. Due to the current occupancy rate of 34%, it is possible that the remaining 66% may become occupied with retail uses more in line with a standard shopping center.

The three-story residential buildings fall into the category of mid-rise multi-family housing. However, the mid-rise category includes three to ten stories. Most multi-family buildings in this category are in urban type locations, where there is access to mass transit facilities such as busses. Although a good deal of the shopping trips may be made internal to the site, most of the work trips and recreation trips will be vehicular and external to the site. Low-rise multi-family housing may be more representative of the type of housing that will occupy the site from a vehicular trip generation perspective.

In an effort to present a conservative trip generation projection for the site, the Shopping Center use (Land Use Code 820) and the Multifamily Housing Low-Rise use (Land Use Code 220) were used to develop trip generation as follows:

**Haps Peak Hour Trip Generation  
 Existing Development vs. Proposed Development**

Land Use	Weekday Morning			Weekday Evening			Saturday Midday		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
<b>Proposed</b>									
Shopping Center (88,929 sf)	45	39	84	176	198	374	204	196	400
Low-Rise Multifamily Housing (132 units)	19	55	74	54	35	89	48	45	93
<b>Total Proposed</b>	<b>64</b>	<b>94</b>	<b>158</b>	<b>230</b>	<b>233</b>	<b>463</b>	<b>252</b>	<b>241</b>	<b>493</b>
<b>Existing</b>									
Shopping Center (100,847 sf)	51	44	95	201	224	425	232	222	454
150-Student High School *	30	12	42	9	18	27	9	6	15
Single-Family House	0	1	1	1	0	1	1	1	2
<b>Total Existing</b>	<b>81</b>	<b>57</b>	<b>138</b>	<b>211</b>	<b>242</b>	<b>453</b>	<b>242</b>	<b>229</b>	<b>471</b>
<b>Trip Generation Difference</b>	<b>-17</b>	<b>+37</b>	<b>+20</b>	<b>+19</b>	<b>-9</b>	<b>+10</b>	<b>+10</b>	<b>+12</b>	<b>+22</b>

\* Trip generation was determined from actual school records, 12 busses/vans per day and 18 staff members who drove to school every day.

**Trip Distribution**

Trip distribution was determined by assuming that the site generated traffic would be oriented to the adjacent roadway network based on existing travel patterns.

This method is acceptable.

**Analyses**

The results of the capacity analyses presented in the report show significant delays at the northern site driveway during the weekday evening and Saturday mid-day peak hours. The northern site driveway approach to Route 15 will operate at level-of-service F, with a 101.5 second average delay during the weekday pm peak hour, and at level-of-service F, with a 513.9 second average delay during the Saturday mid-day peak hour. When using the more conservative trip generation volumes presented above, the average delays are greater for the site driveway approach. It should be noted that the left turn movement into the site from Route 15 will operate at good levels-of-service during all peak hours with average delays of less than 10 seconds.

When using the more conservative trip generation volumes presented above, the left turn movement into the site will still operate at good levels-of-service with average delays at 10 seconds.

## Conclusions

As evidenced by the capacity analyses presented in the traffic impact analysis report, there will be delays on the northern driveway approach to Route 15 during both the weekday pm and Saturday mid-day peak hours. The delays will be extensive during the Saturday peak hour, with the average delay expected to be several minutes if the “Shops at Lafayette” shopping center becomes fully occupied and active.

There are two improvements that could be made to the northern driveway that would significantly improve the capacity of the driveway approach to Route 15. They are:

- Widening of the driveway approach to two lanes, a left turn lane and a right turn lane:  
Due to the wide shoulder on Route 15, right turning vehicles from the driveway onto Route 15 could move up slightly when looking for a gap in the Route 15 southbound traffic and, therefore, have clear vision (not blocked by left turning vehicles from the driveway) to make the turn.
- Lessening the upward slope of the driveway approach:  
The existing slope of the northern driveway approach is approximately 6-7%. The capacity of an unsignalized stop controlled approach is very sensitive to upward slope. The steeper the slope the less the capacity and, therefore, the greater the average delay. If the base of the driveway in the parking lot area could be raised, even a foot or two, it would have a significant effect on improving the capacity of the driveway approach to Route 15.

The southern driveway approach to Route 94 will operate at acceptable levels-of-service and reasonable average delays (in the worst case less than 30 seconds) during all peak hours. The left turn movement from Route 94 into the site will also operate at acceptable levels-of-service and average delays of less than 10 seconds during all peak hours.

It should be noted that any potential delays with the exiting left turn movement out of the northern driveway may be alleviated by drivers choosing the southern driveway to exit the site onto Route 94 and then making a left turn at the intersection of Route 94 and Route 15 to go north on Route 15.

During the remainder of an average day, outside of the peak hours mentioned above, the site access driveway intersections with Route 15 and Route 94 should operate at good levels-of-service and acceptable average delays.

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If you have any questions, please do not hesitate to contact me. Phone: 908-510-3038; Email: [bwlublanecki@gmail.com](mailto:bwlublanecki@gmail.com).

Very truly yours,

**LUBLANECKI ENGINEERING, INC.**

*Walter M. Lublanecki*

Walter M. Lublanecki, PE  
President

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