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January 20, 2021  
Via FedEx

Township of Franklin Municipal Building  
Office of Planning and Zoning  
475 DeMott Lane  
Franklin, NJ 07416

Attn: Christine Woodbury, Planning Board Secretary

**Re: Traffic Impact and Parking Assessment  
Proposed Warehouse  
Block 517.01 – Lot 8.06  
401 Cottontail Lane  
Township of Franklin, Somerset County, NJ  
DT # 3532-99-001T**

Dear Ms. Woodbury:

Dynamic Traffic has prepared the following assessment to determine the traffic impact and adequacy of access, circulation, and parking associated with the development of a site located along the southbound side of Cottontail Lane in the Township of Franklin, Somerset County, New Jersey. The site is designated as Block 517.01 – Lot 8.06 on the Township of Franklin Tax Maps. The site is currently undeveloped and it is proposed to construct a 100,125 SF warehouse, consisting of 95,625 SF of warehouse space and 4,500 SF of ancillary office space (The Project). Currently, there is no access provided to the site. It is proposed to construct two full movement driveways along Cottontail Lane, with the northern site driveway for truck access and the southern site driveway exclusively for access to automobile parking.

This assessment documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Projections of traffic to be generated by The Project were prepared utilizing trip generation data as published by the Institute of Transportation Engineers.
- The proposed site driveways were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.

- The parking layout and supply was assessed based on accepted design standards and local requirements.
- Sight distance analyses were conducted at both of the proposed site driveways along Cottontail Lane.

**Existing Conditions**

Cottontail Lane is a Local roadway under Franklin Township jurisdiction with a general north/south orientation. In the vicinity of the site the speed limit is not posted and the roadway provides one travel lane in each direction. On-street parking is prohibited along both sides of roadway. Curb is provided along both sides of the roadway, while sidewalk is not provided along either side of the roadway. Along the site frontage, Cottontail Lane provides a straight horizontal alignment and a slight crest vertical alignment. The land uses along Cottontail Lane in the vicinity of The Project are mixed business and industrial.

**Site Generated Traffic**

Trip generation projections for The Project were made utilizing trip generation research data as published under Land Use Code (LUC) 150 – Warehouse in the Institute of Transportation Engineers’ (ITE) publication, *Trip Generation, 10<sup>th</sup> Edition*. This publication sets forth trip generation rates based on traffic counts conducted at research sites throughout the country. ITE states that office and warehouse developments are generally accepted as a warehouse use if up to 10% of the development is an office use, and if the office use is ancillary to the warehouse use. Therefore, for trip generation purposes the entire development was determined to be a warehouse. The following table indicates the trip generation associated with The Project.

**Table I  
 Trip Generation**

Use	AM PSH			PM PSH			Sat PSH		
	In	Out	Total	In	Out	Total	In	Out	Total
100,125 SF Warehouse	28	9	37	11	29	40	3	2	5

As can be seen above, the proposed warehouse development will result in a maximum of 40 peak hour trips. It should be noted that the number of new trips falls below the industry accepted standard of a significant increase in traffic of 100 trips. Based on *Transportation Impact Analysis for Site Development*, published by the ITE “it is suggested that a transportation impact study be conducted whenever a proposed development will generate 100 or more added (new) trips during the adjacent roadways’ peak hour or the development’s peak hour.” Additionally, NJDOT has determined that the same 100 vehicle threshold is considered a “significant increase in traffic,” hence, it is not anticipated that the proposed development will have any perceptible impact on the traffic operation of the adjacent roadway network.

## Site Access, Parking and Circulation

As previously noted, access to the site will be provided via two new full movement driveways along Cottontail Lane, with the northern site driveway for truck access and the southern site driveway exclusively for access to automobile parking.

The parking lot will be serviced by parking aisles with widths of 26', which meet the Ordinance's minimum requirement of 26'. These aisles will allow for two-way circulation and 90 degree parking. Additionally, the loading spaces will be serviced by aisles with widths of 69.5'. Review of the site plan design indicates that the site can sufficiently accommodate, within paved areas, a large wheel base vehicle such as a WB-67(NJ) tractor with a 53' trailer or firetruck, along with the automobile traffic anticipated.

The Franklin Township Ordinance sets forth a requirement of 1 parking space per 1,000 SF for the first 5,000 SF plus 1 parking space per each 2,500 SF thereafter for warehouse uses and 1 parking space per each 250 SF of usable floor area for office uses. This equates to a parking requirement of 41 parking spaces for the proposed 95,625 SF warehouse space and 18 parking spaces for the proposed 4,500 SF office space, or a total of 59 parking spaces. The site as proposed provides 62 parking spaces and the Ordinance requirement is met.

It is proposed to provide parking stalls with dimensions of 9'x18', which satisfy the Ordinance minimum requirement of 9'x18'. Additionally, the site as proposed provides 14 loading spaces. It is proposed to provide loading stalls with dimensions of 13.5'x60', which satisfy the Ordinance minimum requirement of 12'x48'.

## Sight Distance

Due to the previously mentioned slight crest vertical alignment along the site frontage as well as the proposed truck only site driveway, sight distance analyses were conducted. In order to determine whether the sight distances from the proposed roadway intersection will be acceptable, the American Association of State Highway Transportation Officials (AASHTO) publication, *A Policy on Geometric Design of Highways and Streets* was referenced. Utilizing AASHTO methodology for calculation of sight distance, the intersection sight distances and the minimum stopping sight distances were calculated for each direction at the roadway intersections. The intersection sight distance is associated with the time that it takes a vehicle to make a left or right turn out of the intersecting roadway and get up to the design speed without affecting an approaching vehicles. Minimum stopping sight distance is the distance that it takes for a vehicle traveling at the posted speed limit to avoid an incident. The following is an excerpt from AASHTO relating to sight distances.

*Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersection highway to decide when to enter the intersecting highway or to cross it. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road.*

As previously noted, the speed limit along Cottontail Lane is not posted. However, based upon Section 39:4-98 of the New Jersey Statutes in the absence of a posted speed limit, the statutory speed for a roadway such as Cottontail Lane would be 35 MPH. The following table summarizes the sight distance calculations.

**Table II**  
**Sight Distance Requirements**

Location	Direction	Vehicle at Driveway	Design Speed	Stopping Sight Distance <sup>[1]</sup>	Intersection Sight Distance <sup>[2]</sup>	Sight Distance Available
Cottontail Lane & Truck Site Driveway	NB (looking left from driveway)	Truck	40 MPH	305'	500'	850'
	SB (looking right from driveway)	Truck	40 MPH	305'	560'	650'
Cottontail Lane & Automobile Site Driveway	NB (looking left from driveway)	Automobile	40 MPH	305'	385'	400'
	SB (looking right from driveway)	Automobile	40 MPH	305'	445'	1,100'

[1] = per AASHTO Table 3-1  
 [2] = per AASHTO Table 9-7

As shown in the above table, sufficient intersection and stopping sight distance is provided at both driveways for both directions of travel along Cottontail Lane. As such, the proposed driveway locations satisfy the AASHTO requirements and meets acceptable design standards.

**Findings**

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed 100,125 SF warehouse is projected to generate 28 entering trips and 9 exiting trips during the weekday morning peak hour, 11 entering trips and 29 exiting trips during the evening peak hour, and 3 entering trips and 2 exiting trips during the Saturday peak hour that are “new” to the adjacent roadway network.
- Access to the site will be provided via two full movement driveways along Cottontail Lane, with the northern site driveway for truck access and the southern site driveway exclusively for access to automobile parking.
- As proposed, The Project’s site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles and large wheel base vehicles.
- The proposed parking and loading supply and design is sufficient to support the projected demand and satisfies the Ordinance requirements.
- The proposed site driveways provide ample sight distance to satisfy the AASHTO sight distance standards.

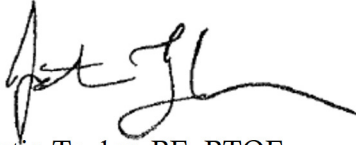
## Conclusion

Based upon our Traffic Assessment as detailed in the body of this report, it is the professional opinion of Dynamic Traffic that the adjacent street system of the Township of Franklin will not experience any significant degradation in operating conditions with the development of the site. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project's needs.

If you have any questions on the above, please do not hesitate to contact our office.

Sincerely,

**Dynamic Traffic, LLC**



Justin Taylor, PE, PTOE  
Principal  
NJ PE License 45988

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Enclosures

c: Jeromie Lange (via email w/encl.)  
Peter Lanfrit/Erin Santora LaGrua (via email w/encl.)  
Jackie Giordano/Tiago Duarte (via email w/encl.)