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*Transportation Engineers and Planners  
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March 11, 2016

**To:** Robin D. Nelson, P.E.  
PACE Engineers  
  
Andrea Flower  
City of Lake Forest Park

**From:** Gary A. Norris, P.E., P.T.O.E.  
DN Traffic Consultants, Inc.

**Subject:** 3803 NE 155th Street Mixed Use  
**Re:** Response to Traffic Demand and Site Access Analysis

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The memorandum was prepared to summarize my comments offered as a "peer review" of the *Traffic Demand and Site Access Analysis* prepared by Michael Read, PE of TENW.

### **Project Understanding**

My understanding of the proposed development is based on the introductory statement in the memorandum from Michael Read, TENW to Adam Lundberg, AML Construction dated March 7, 2016. In the memo, it is noted the development will include 34 residential apartments, 750 square-feet of office, and 44 on-site parking stalls in structured parking and two (2) on-street parking stalls. The memo does not indicate the number of levels of residential apartments which is pertinent in the selection of the land use code for the residential development. The project is expected to include the removal of an existing single family dwelling unit. Sole access to the site will be provided via NE 155th Street to Bothell Way (SR 522).

The *Traffic Demand and Site Access Analysis* is supported by the *Southern Gateway Subarea EIS* prepared by the City of Lake Forest Park and adopted in 2013. The subarea study along with land use zoning, public infrastructure, code amendments, and development regulations govern the development of the 3803 NE 155th Street Mixed Use development.

### **Comments**

The comments are as follows:

#### **1. Traffic Demand Analysis**

The analysis does not provide documentation on how and why the trip generation rates applied to the analysis were determined. A cursory review of the Trip Generation Manual suggest there may be other land use codes, more applicable to this development, which may have the potential of significantly increasing the estimate of site trip generation.

Secondly, the analysis applied average rates for both the residential apartment and office uses. A review of the average size of the development presented for the respective land use codes, indicate the average size of the independent variable is exponentially larger than what is suggested by the proposed development. Typically, site trip generation is higher for a development with a smaller independent variable than developments with higher independent variables. In addition, a review of the Trip Generation Manual User's Guide suggest application of the "fitted curve equation" may be more applicable for this analysis. Application of the fitted curve equation suggests site trip generation higher than what was identified in the analysis.

Based on the foregoing, it is suggested additional information be provided which documents the basis for the trip generation used in this analysis. In particular, documentation supporting the selected land use code and use of average rates should be provided.

## **2. Site Access Analysis**

The analysis suggests the proposed development will have "full access" to the arterial through the ability to make U-Turns 250 feet to the north for exiting traffic and 550 feet to the south for entering traffic. Overall, the analysis suggested "no traffic operational impact analysis is warranted or required" because of the minimal impact. By virtue of congested conditions on SR 522, concern is expressed regarding the ability of traffic to weave across two lanes of Bothell Way and enter the left turn pocket within 250 feet. An analysis of this movement should be provided. The analysis should also consider if sufficient gaps exist in southbound traffic for exiting traffic and northbound for entering traffic to make a U-turn.

## **3. Parking**

The analysis did not identify the basis for the proposed 44 parking stalls with two on street stalls. It is expected there could be some cross over between the office and apartment demand for parking stalls. The analysis should substantiate how the parking supply was identified and any potential reduction resulting from a mixed-use development.

## **4. Pedestrian Access**

A review of the existing roadway serving the site, NE 155th Street, illustrates there are no pedestrian facilities serving the proposed site. It is suggested the City require the applicant provide a pedestrian delineated path along NE 155th Street from the site to Bothell Way (SR 522).

## **Conclusion**

Based on a review of the memo submitted by Mike Read, P.E., the following conclusions are offered:

- Additional justification of project trip generation is required to support the analysis; and
- Site access needs to evaluate the ability for site generated traffic to make U-turns on Bothell Way within the available "weave" distance (250 feet); and
- Justification of proposed parking supply should be provided along with an evaluation of the parking impact of mixed use development in terms of shared parking stalls; and
- City should consider requesting applicant to install a delineated pedestrian pathway from the site to Bothell Way (SR 522)

If you have any questions regarding these comments, please feel free to contact me at (425)765-5721.

Thanks

Gary