



October 27, 2021

Mr. Doug McLean
Principal Planner
Cranston City Hall
869 Park Avenue
Cranston, RI 02910

Re: Proposed Warehouse Development
200 Comstock Parkway, Cranston, RI
Responses to Traffic Peer Review Comments

Dear Mr. McLean:

BETA Group, Inc. (BETA) is pleased to submit the following responses to review comments received from the City's Peer Review consultant, Fuss & O'Neill for the above referenced development project in the City of Cranston. We offer the following responses to address these comments:

Review Comments

3.0 - Existing Conditions

3.3 – Traffic Flow Data

1. The 2021 traffic count data in Appendix A only includes automobile and truck traffic. We request that pedestrian count data be included in the appendix as well if it is available.

Response: Pedestrian count data obtained as part of this study has been provided in the updated report Appendix.

4.0 – Safety Analysis

2. We concur with all other safety recommendations in this section.

Response: No Response Required.

5.0 - Impact Analyses

5.1– Trip Generation

3. The proponent uses ITE Land Use Code 150 "Warehousing" to determine that the proposed development is expected to generate 46 vehicle trips (35 entering, 11 exiting) during the morning peak hour, and 52 trips (15 entering, 37 exiting) during the afternoon peak hour. This land use code may be expected to provide a reasonable estimate for the trip generation of this development, and trip generation has been calculated correctly based on the development square footage. However,

the number of anticipated peak hour trips does not appear to be aligned with the proposed 217 employee/visitor parking spaces on site.

It is recommended that the proponent consider reducing the number of employee parking spaces on site, as the proposed parking seems excessive compared to the trip generation.

Alternatively, if the number of proposed employee/visitor parking spaces on site is required for facility operations, the predicted trip generation may be too low. If this is the case, a more accurate trip generation estimate should be calculated using the number of employees at the facility, or by representing the facility with a different industrial land use code.

Response: We agree with the above statement relative to the appropriate land use and that the resulting anticipated trips are consistent with what can be expected to be generated during peak traffic conditions for this site. The number of parking spaces provided is consistent with industry standards requirements for warehouse type facilities and requirements of other RI communities for the proposed building sizes. The appropriate amount of parking for this land use is important to compete with other locations in the state to market the site with flexibility given there is no known end user at this time.

In an effort to provide a conservative capacity analysis of future conditions and to be consistent with the submitted documents, we have updated the report to also use an employee based independent variable to generate site trips. This analysis is provided to demonstrate a worst case future operational condition at the study intersections with the higher trip values. Based upon this analysis the study intersections are anticipated to operate in an acceptable manner.

5.2 – Future Traffic Volumes

4. The conditions analyzed include the 2021 existing condition and the 2024 Build condition. In order to determine the impact of this development, the 2024 Build condition must be compared to a 2024 No-Build condition. Comparing the future Build condition to the existing condition may incorrectly attribute the impact of ambient traffic growth to the proposed development.

It is also recommended that the proponent contact the City of Cranston to determine if any other approved developments in the area should be considered in the development of the No-Build condition.

Response: Due to the small-scale of the proposed warehouse development and time frame to approve and construct, coupled with the lack of traffic growth anticipated during this period, it was determined that a Future No-Build condition analysis was not warranted for this project. It is estimated that future base traffic should be similar to current traffic conditions upon completion and occupancy of the facility. This was confirmed through our coordination with the City Planning Department where no new developments impacting traffic in this area of the community are currently proposed or anticipated in the foreseeable future.

5. A computer drafted volume figure should be provided of the 2024 No-Build Traffic Condition for comparison with the Build Condition.

Response: The figures presented in the report provide the reader with graphic presentation of existing and future build conditions to define the estimated changes at the study intersections

if the project were to be constructed. Detailed turning movement figures identifying each study intersection and the period reviewed, Existing and Future Build conditions are provided for the technical reviewer in the Appendix.

6. A computer drafted volume figure of the anticipated trip distribution percentages should be provided for clarity

Response: Trip distribution percentages are referenced in the body of the report for a general description of the anticipated site traffic demand flow distributions. Detailed trip distribution volume figures are provided in Appendix C as part of the Trip Generation section for the technical reviewer. The figures clearly define estimated traffic volumes entering and exiting the site at specific driveway locations and study intersections.

5.3 – Operational Analysis

7. Capacity analysis should be updated to include the 2024 No-Build Condition.

Response: See Response to Comment No. 4.

8. It is reasonable to conclude that HCM analysis over represents vehicle delay for eastbound vehicles at the intersection of Western Industrial Drive and Comstock Street, and the stop-delay study has been performed correctly.

However, an estimate of delay must be provided for the No-Build and the Build Conditions. The analysis indicates that the delay on the eastbound approach more than triples from the existing to the Build condition. Given that the average delay measured in the existing condition indicates that the westbound left turn movement operates at LOS E, it is reasonable to expect significant delay at this approach in the Build condition.

Response: The Existing and Future Build analysis have been calibrated and updated to reflect the observed field conditions documented in the Delay Study completed by our office at the study intersection. The updated analysis provides a more reasonable delay estimate at the study intersections and were determined to be acceptable as discussed in the report.

9. MUTCD signal warrant analysis should be performed to determine if a signal may be warranted at the intersection of Comstock Parkway and Western Industrial Drive.

Response: This intersection would likely satisfy Warrant 3 – Peak Hour, but this single warrant is not justification for installation of a traffic signal as delays are acceptable and no traffic congestion occurs at the junction. The off-peak Western Industrial Drive volumes are estimated to be low, not meeting warrant volume thresholds of 80 to 100 vehicles per hour for a four to eight hour period. In addition, off-peak delays at this intersection were observed to be minimal.

10. Table 4 – Level of Service Summary (Future Build Conditions) does not include results for the site driveway westbound right turn. The proponent should include results for this movement.

Response: The site driveway is a single lane approach where the delay presented is an average of all approach movements, the table has been updated to reflect this condition.

11. The peak hour factor at the intersection of Comstock Parkway and Western Industrial Drive is not consistent for all movements at the intersection under the Build condition in the afternoon peak hour. Per the HCM, 6th Edition, the overall intersection peak hour factor should be used for each movement.

Response: The peak hour factor (PHF) for this time period has been updated and provided in the final report.

12. The proponent states that 30 and 20 percent of site generated traffic is expected to be truck traffic during the morning and afternoon peak hours, respectively. However, the heavy vehicle factor used in analysis for traffic entering the site and exiting the site is two percent. Analysis should be updated using the appropriate heavy vehicle percentages.

Response: The future build condition analysis has been updated to reflect the proper heavy vehicle percentages and provided in the final report.

13. The proponent states that capacity analysis is performed using HCM methodology, however the capacity analysis worksheets in the appendix for the signalized intersection of Comstock Parkway and Plainfield Pike do not appear to include HCM analysis. HCM capacity analysis worksheets should be provided for this intersection.

Response: The industry standard Synchro software program used for this study utilizes HCM methodologies in the analysis procedures, though it is more robust in the calculation process of certain applications. The Synchro output was provided in the Appendix, but for clarity, the HCS output results from this program are provided in the updated report.

Should you have any questions or require additional information or copies of the updated report, please contact us at your earliest convenience in order to facilitate review of the application.

Very truly yours,
BETA Group, Inc.



Paul J. Bannon
Associate

cc: file