

April 26, 2023

Mr. Douglas McLean, AICP, Principal Planner  
City of Cranston  
869 Park Avenue  
Cranston, RI 02910

Re:    **Traffic Engineering Review Services**  
      **Knights Corner Development**  
      **1390 Cranston Street**  
      **Cranston, Rhode Island**  
      Pare Project No.: 23079.00

Dear Mr. McLean:

Pare Corporation (Pare) has completed our review of materials associated with the proposed redevelopment of the former Sprague Meeting House facility at 1390 Cranston Street in Cranston, RI. The information provided that was included as part of our review are:

- Traffic Impact Study, Knights Corner Development, Prepared by BETA Group, Inc., dated April 2023
- Plans, including:
  - Architectural Plans (labeled conceptual), prepared by South County Architecture & Design, Inc., dated January 31, 2023
    - Cover Sheet
    - Drawing No. C1.02 – Proposed Site Plan
    - Drawing No. A1.10 – Ground Floor
    - Drawing No. A1.11 – Second Floor
    - Drawing No. A10.01 – Perspectives
    - Drawing No. A10.02 – Rendering
  - Existing Survey Plan, Prepared by National Land Surveyors-Developers, Inc., revised October 25, 2017
  - Concept Plan 02 (labeled draft), Prepared by DiPrete Engineering, dated January 11, 2023

Based on our review, we offer the following comments:

**Traffic Impact and Access Study:**

1. Introduction Section: Appears accurately described.
2. Project Area: Appears accurately described and the study area considered is appropriate for a development of this size.

3. Existing Conditions Section: Appears accurately described and the volume adjustments made are appropriate.
4. Safety Analysis Section:
  - a. The crash analysis appears to have been done in a manner consistent with professional practice.
  - b. The description of stopping sight distance along the study roadway appears accurate.
  - c. There does not appear to be any discussion about intersection sight distance at the site driveways. This analysis should be added.
  - d. While it is agreed that adding dedicated left turn bays to Cranston Street would help reduce the number of angle and sideswipe crashes at the intersection, it is noted that the City is attempting to improve conditions for cyclists in the area. Adding the left turn bays would have the consequence of eliminating the shoulder area in the vicinity of the intersection and decreasing bicycle safety.
5. Impact Analysis Section:
  - a. Trip Generation – Trip generation appears to have been calculated appropriately.
  - b. Background Growth Rate – the background growth rate of 1% per year utilized is conservatively high given the recent population growth rate of less than 0.5% per year.
  - c. Design Year – the 2028 design year is appropriate for this development.
  - d. Outside Developments – It appears the Cranston Print Works redevelopment traffic volumes were added to the future traffic volumes.
  - e. Trip Distribution and Assignment – It appears trips are distributed within the Cranston Street/Dyer Avenue intersection strictly based on existing volumes for each movement. It is likely that users will enter/exit the site at whichever driveway is closest to their residence or the restaurant. So it is likely that the distribution of traffic oriented to/from the east on Cranston Street and to/from the north on Dyer Avenue would be reasonably similar regardless of whether the driver used the Dyer Avenue driveway or one of the two Cranston Street driveways. Yet they are vastly different. Is there a reason this should be expected?
  - f. Capacity Analyses: Based on the worksheets provided, the analyses appear to have been conducted in a manner consistent with standard professional practice. However, the worksheets provided for the Cranston Street/Dyer Avenue intersection do not show information such as peak hour factors and heavy vehicle percentages, which can significantly affect the analysis results. The unsignalized intersection analyses used default values for peak hour factor and truck percentages. This is acceptable as manual turning movement counts were not completed at these locations and that data is not available.

It is worth noting that the results of the analyses for this development are significantly different than the analysis results for the Cranston Print Works project, which showed LOS F conditions on the eastbound approach under build conditions without mitigation. As both of these studies started from the same traffic counts and included the traffic data from both developments, the analysis results should not be significantly different.

Mr. Douglas McLean, AICP

(3)

April 26, 2023

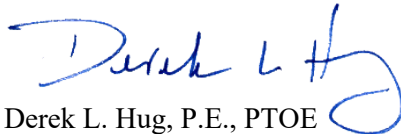
6. Conclusions and Recommendations Section:
  - a. We generally concur that this development is unlikely to have a significant impact on the quality of operations within the study area.
  - b. We agree with recommendation nos. 2 and 3. The reasoning for recommendation no. 1, while sound, is based strictly on impacts to vehicular traffic and does not appear to consider impacts to non-motorized users. The City will need to carefully weigh the impacts to both sets of users before accepting the implementation of this recommendation.
  
7. General: There is no discussion regarding how pedestrians and bicyclists associated with the development will be accommodated. The applicant's engineer should address this.

**Site Plans:**

8. The conceptual plans do not show any pedestrian amenities, such as sidewalks. Future plans should show pedestrian amenities, including accessible accommodations from all doors to parking areas and public rights-of-way.

We hope that this review is helpful in the Planning Commission's review of the proposed development application. If you have any questions, feel free to reach out to me.

Sincerely,

A handwritten signature in blue ink that reads 'Derek L. Hug'.

Derek L. Hug, P.E., PTOE  
Managing Engineer

DLH