



MEMO

To: Michael Kelly, P.E.
From: Frank D. Dobiszewski, P.E. PTOE
Date: September 10, 2021
Subject: RUSSO ACQUISITIONS, LLC
Preliminary and Final Site Plan Application
Proposed Industrial Warehouse
1000 MacArthur Boulevard
Block 135.01, Lot 65
Township of Mahwah
Docket No. 620
Our File No. MAES-2065

The revised documents submitted by the Applicant have been reviewed and consist of the following:

Traffic Impact Analysis

*Prepared by: Atlantic Traffic & Design Engineering, LLC,
Original report dated May 27, 2021
Revised September 3, 2021*

- The report includes narrative and results of the roadway network in and around the proposed site. The network was created using the Synchro/SimTraffic software package. As part of the review, the files created and used by Atlantic were requested to assist in the review. These files were received and were able to be read. When imported into Synchro, the files were checked using the program's error routine. As you can see in the attached screenshot, a number of errors were flagged by the program. These should be reviewed and addressed by Atlantic, since it is not known if said errors do/will have an impact on and individual node and/or the overall network results.

This comment has been satisfactorily addressed.

- According to the NJDOT's Safety Voyager website, a number of crashes in and around the site have occurred. A crash summary is attached. The report should be revised to determine if any safety measures are needed to reduce and/or mitigate these crashes.

Atlantic Traffic's breakdown of the crash data provided by Mahwah's Police Department and Boswell indicates that there is no pattern or singular cause that could be mitigated. This comment has been satisfactorily addressed.

- The report should include an evaluation on whether or not acceleration and deceleration lanes for the site's access point are required, as stipulated under §22-6.2e. These may be required since the number of heavy vehicles projected to use the site will be prevalent.

Atlantic Traffic stated that acceleration/deceleration lanes are not proposed. Discussions with regard to this item have taken place between the Applicant, their professionals, Boswell, and Mahwah Police. These were reviewed during a telephone conference that took place on September 9, 2021 (see below).

- The trip generation methodology employed for the study follows standard and accepted industry practice and no exceptions are taken.

Statement of Observation – No Reply Needed.

- The parking generation methodology employed for the study follows standard and accepted practice and no exceptions are taken.

Statement of Observation – No Reply Needed.

- Split optimizations were selected as part of the analyses for all intersections. Optimization should only be selected at locations where changes are proposed. A table should be included for existing splits and proposed splits for the intersections analyzed.

Atlantic Traffic provided an explanation on the methodology for its analyses. The combined use of Synchro's optimization routine with manual fine-tuning at the intersections within the immediate adjacent intersections is reasonable to mitigate projected traffic impacts. This comment has been satisfactorily addressed.

- Proposed changes to the splits at intersections studied will require review, approval, and implementation by the respective agency who owns the signals.

Statement of Observation – No Reply Needed. Atlantic Traffic has acknowledged that any changes to signal timing need to be reviewed and implemented by the agency having jurisdiction.

- Lead/lag optimization should not be included in the analyses, since only lead turn phases are being used.

Atlantic Traffic provided an explanation on the methodology for its analyses. This comment has been satisfactorily addressed.

- The intersection phase recalls should be adjusted to reflect actual operating conditions.

Atlantic Traffic revised this parameter in its analyses. This comment has been satisfactorily addressed.

- Results from the analyses indicate a number of locations where the existing and/or future queue lengths may be significant. In these instances, clarification should be provided on the impacts on the roadway network around the site. The clarification should also include if these situations can be mitigated.

Atlantic Traffic has provided clarification on which movement approach(es) can be improved with re-assignment of phase splits, in particular, the westbound approach at the MacArthur Avenue/Ridge Road intersection. This comment has been satisfactorily addressed.

- Intersection phase assignments should be checked to ensure that NEMA phasing is coded, such as dual-ring, quad-left. In reviewing the assignments, it appears that non-NEMA phasing has been coded, which is not supported in Synchro.

Atlantic Traffic revised this parameter in its analyses. This comment has been satisfactorily addressed.

Plan Set

Prepared by: Bohler Engineering, dated May 27, 2021

NOTE: COMMENTS MADE BY THE MAHWAH POLICE DEPARTMENT ARE PART AND PARCEL TO THE COMMENTS LISTED BELOW AND MUST ALSO BE ADDRESSED.

- The location of the proposed driveway access off MacArthur Boulevard is on a curve and therefore, not in the most desirable location. The possibility of relocation to a better location should be explored. This is of particular concern given the amount of anticipated truck traffic. If the location remains as proposed, then warning signs, and possibly flashing beacons or similar measures should be added. These would be in addition to the proposed signing.

Two exhibits dated September 3, 2021, were prepared by Bohler Engineering to address this comment. The first is a sight distance plan that plots Intersection Sight Distances and Stopping Sight Distance derived from AASHTO guidelines. The second is a profile plan showing the sight distance along MacArthur Boulevard relative to passenger car driver eye height and tractor trailers approaching and departing the crest of the vertical curve on MacArthur Boulevard in the vicinity of Grandview Lane. These were reviewed during a telephone conference that took place on September 9, 2021 (see below).

- Area(s) for snow stockpiling should be depicted.

Atlantic Traffic acknowledged this comment. When a revised plan set is issued, the area designated for stockpiling should be shown, in addition to the note that is being added.

- It appears that there are separate site access points for trucks and smaller vehicles (cars). Signing should be provided to direct truck traffic to the appropriate driveways.

Atlantic Traffic acknowledged this comment. When a revised plan set is issued, directional and appropriate warning signs will be shown. The signage in combination with the driveway design has to prevent trucks from making a left turn out of the site.

- The proposed guiderail needs to be designed and placed in accordance with current and accepted design standards, including end treatments, length of need, etc.

Atlantic Traffic acknowledged this comment. When a revised plan set is issued, guiderail will be shown and design calculations provided in support of the proposed layout.

September 9, 2021 Phone Conference Call

Attended by: Russo Development, Boswell Engineering, Bohler Engineering, Atlantic Traffic, Mahwah Police.

The comments and concerns that arose during the conference call are:

- The driveway width, combined with the curb return/flare needs to be designed so trucks exiting onto MacArthur Avenue do so without tracking or encroaching onto the adjacent through lane. A turning path for a WB-67 design vehicle should be overlaid to demonstrate the design accomplishes this objective.
- The above-ground cabinets for communications may need to be relocated, due to their close proximity to the proposed driveway off MacArthur Boulevard. The concern is trucks tracking over the curb returns and striking the cabinets as they exit the site.
- Areas along the site frontage that need to be cleared to achieve adequate sight distance needs to be shown. In areas of dense growth with an adequate buffer, consideration should be given to removing the trees rather than removing low branching limbs to an 8-foot underclearance.
- An agreement should be developed to establish responsible parties for clearing, removal, and maintenance of the trees and landscaping in the median along MacArthur Boulevard, both initially, in perpetuity, or set timeframe.
- If the existing median is reduced in width, the new dimension needs to fall within acceptable limits as defined in the AASHTO Roadside Design Guide.
- The feasibility of relocating the proposed driveway to the extreme southern end the site should be revisited.
- Adequate sight distance for vehicles making and/or queued to make left turns into Grandview Lane and Glasmere Road needs to be demonstrated. Of particular concern is the potential for trucks queued to turn left into the site blocking the line of sight for vehicles turning into these roadways.