February 13, 2020

Mr. Jason T. Sciullo, P.E., P.P.  (via email: jsciullo@sciulloengineering.com)
Sciullo Engineering Services, LLC
9615 Ventnor Avenue, Suite 3
Margate, New Jersey 08402

Re:   Air Quality Report
      Land Rover Expansion
      Block 133.01, Lot 1
      Block 135.01, Lots 9 & 10
      Block 148.01, Lot 12
      Haddonfield Road (CR 644) and Sherwood Avenue
      Cherry Hill Township, Camden County, New Jersey
      SA Project No. 19070-A

Dear Jay:

In response to the request of Cherry Hill Township, Shropshire Associates LLC has prepared this Air Quality Analysis for the above-referenced auto dealership redevelopment. The proposal is for the redevelopment of the existing 9,073 square foot (SF) Land Rover dealership to build a new 44,027 SF of auto dealership and service area. In addition, the proposal is for the expansion of the site to include a new display/customer parking lot next to the main building along Sherwood Avenue and an auxiliary parking lot across the street from the main facility at the Wynwood Avenue/Mercer Street. This auxiliary lot will be for dealership inventory and employee parking.

Our office has previously prepared a Traffic Engineering Assessment report dated October 1, 2019 that was submitted to Cherry Hill Township and utilized as the basis for the preparation of our Air Quality Report detailed below.

NJDEP Protocol

The New Jersey Department of Environmental Protection (NJDEP) outlines an air quality evaluation protocol in *Air Quality Analysis for Intersections*. NJDEP requires dispersion modeling to demonstrate that the National Ambient Air Quality Standards (NAAQS) for carbon monoxide will not be exceeded due to the additional traffic to be generated by a proposed development. As per N.J.A.C. 7:27-13.5, carbon monoxide concentrations shall not exceed 35 ppm for one-hour average concentrations and 9 ppm for eight-hour average concentrations.

Levels of service (LOS) results are the basis for determining whether or not an intersection requires dispersion modeling. Generally, a LOS A, B or C indicates that vehicle delays at an intersection are not significant enough to generate excessive CO concentrations. At signalized intersections, any movement that functions at a LOS D, E or F requires CO dispersion modeling. For unsignalized intersections, a LOS E or F on the stop-controlled approaches, and a LOS D, E or F for the major street left-turn movement indicates the need for CO dispersion modeling.
Data Analysis

The intersections to be analyzed for air quality violations are dependent on the levels of service at each intersection. Based on the levels of service presented in the October 1, 2019 Traffic Engineering Assessment report and the NJDEP protocol, dispersion modeling is not required for any of the study locations or site driveway locations in the future conditions.

Conclusion

Based on the levels of service presented in the October 1, 2019 Traffic Engineering Assessment report for the Land Rover redevelopment and the NJDEP protocol, dispersion modeling is not required for any of the study locations or site driveway locations in the future conditions. Therefore, no further improvements are required at the study intersections due to air quality conditions.

Should you have any questions or require additional information, please contact us.

Sincerely,
Shropshire Associates LLC

Nathan B. Mosley, PE, CME
Senior Project Manager

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