

MEMORANDUM

TO: Keith Trefethen, Arundel Town Manager
Jamel Torres, Land Use Division Director, SMPDC

FROM: William J. Bray, P.E., Senior Managing Transportation Engineer,
Barton and Loguidice, LLC

DATE: July 19, 2024

SUBJECT: BDF Holdings, LLC Development, Heavy Hammer Lane, Arundel, Maine
Traffic Peer Review Memorandum

Barton and Loguidice (B&L) are pleased to submit our traffic peer review comments for the proposed BDF Holdings, LLC development project located on Heavy Hammer Lane in the Town of Arundel. The presented comments are based upon a thorough review of the June 14, 2024 Traffic Impact Study prepared by Sebago Technics, conversations with Jamel Torres, Land Use Division Director with SMPDC and a field review of the existing site. Our review comments are summarized as follows:

REVIEW COMMENTS

1. The list of Other Development projects potentially impacting the study intersection at Heavy Hammer Lane and Alfred Road should be expanded to include major projects in the neighboring City of Biddeford.
2. The Sebago Technics traffic impact study estimated peak hour trip generation for the approved and under construction 6,592sf Trottier Paving Company building applying standard trip rates for a warehouse land-use. Their trip estimates for the proposed 6,592sf building is 2 trips in the evening peak hour. It is Barton and Loguidice's opinion a successful paving company at the peak of the construction season will generate much higher hourly trip volumes than a typical warehouse facility. As such; we are recommending the consultant collect actual field counts at a similar size paving company to establish the peak hour site trip generation for the Trottier Paving Company facility. Separate passenger vehicle and truck vehicle trip rates should be provided. We are recommending a minimum of three separate traffic surveys be conducted for development of the required trip generation rates for the Trottier Paving Company building.
3. Barton and Loguidice request additional detail be provided for the proposed 10,000sf recreational facility. Our questions include:
 - a. Will family members and or other spectators be allowed to attend the sporting event?
 - b. Will game officials manage the sporting event?
 - c. Will food and beverages be served?
 - d. How many staff people will be employed by the proposed facility and what will be their work hours?
 - e. What measures will be used to control the number of players and visitors attending each event?
4. Sebago Technics developed peak hour trip generation forecasts for the proposed 10,000sf recreational facility based upon **Land-Use Code # 493 Athletic Club** as presented in the 11th edition of the Institute of Transportation Engineers (ITE) TRIP GENERATION handbook. The national trip rates applied in estimating

the peak hour trip generation of the proposed 10,000sf building are based upon a very limited number of actual field surveys. The ITE document provides the “average trip rate per 1,000 GFA” for each designated peak hour time period. These trip rates were developed based upon a limited number of surveys conducted in the 1980’s, the 1990’s and 2,000’s. For example, the trip rate listed in the ITE document for a typical Saturday peak hour, which is the time period with the highest predicted level of trip generation, is based upon a single field study. It would be the opinion of Barton and Loguidice the site trip procedures used by the consultant to estimate peak hour trip generation potentially underestimates the actual trip generation of the proposed recreational facility. B&L offers two recommendations:

- a. The Applicant’s Traffic Consultant should reach out to MaineDOT’s Region 1 Traffic Engineer for direction in developing trip generation forecasts for the proposed 10,000sf recreational facility; and or,
 - b. Conduct field traffic surveys gathered at a minimum of three local recreational centers with similar types of facilities to estimate the trip generation for the project.
5. The Traffic Consultant is requested to provide the estimated number of truck trips generated by both the existing and proposed warehouse buildings and the under construction Trottier Paving building. Further, the final site trip projections should provide a table that shows in separate columns the estimated number of passenger vehicle trips for each study hour and the corresponding volumes of truck trips for same peak hour time periods.
 6. The Traffic Study prepared for the Heavy Hammer Lane development, which includes both existing site uses and the proposed development project, is predicted to generate a total of 67 trips in the evening peak hour of the street, 69 trips in the weekday evening peak hour of the site and 88 trips in the Saturday peak hour. These peak hourly trip projections appear to be low, for the stated reasons above. MaineDOT Chapter 305 rules and regulations pertaining to traffic movement permits requires the responsible party for any project “that is projected to generate 100 or more passenger car equivalent (PCE) trips during peak hour of Traffic generation to file for and obtain a Traffic Movement Permit.” Barton and Loguidice recommends the Applicant submit a formal letter to MaineDOT’s Region 1 Traffic Engineer requesting his confirmation on whether a Traffic Movement Permit is required for the proposed Heavy Hammer Lane development.
 7. The submitted traffic impact study includes only the existing unsignalized intersection of Heavy Hammer Lane and Alfred Road (Me. 111). The site trip assignment presented on Figure 3 predicts approximately 44 vehicle trips in the PM peak hour and 45 trips in the Saturday peak hour will travel to/from the east on Alfred Road through the New Road intersection. Barton and Loguidice concurs with the appropriateness of the single study intersection based upon the projected trip generation of the project presented in submitted traffic impact study. However; if the final approved volume of site traffic increases substantially the study area of the traffic impact study should include the New Road @ Alfred Road intersection.
 8. MaineDOT’s most current roadway safety audit for the section of Alfred Road shows the section of Me. 111 does not meet their standards for identification of a high crash location. MaineDOT’s reports shows a total of 16 motor vehicle crashes were reported between 2021 and 2023 for the section of Alfred Road between Drews Mills Road and New Road, with a critical rate factor of 0.63. Further study is not required.

9. Barton and Loguidice field verified the reported vehicle sight distance measurements presented in the traffic impact study of 625 feet left and 1,000 feet plus looking right. MaineDOT issued a Driveway/Entrance Permit for Heavy Hammer Lane on August 15, 2018. Condition #10 of that document requires the property owner to: *"Notify the MaineDOT of a proposed change of use served by the driveway when increase in traffic flow is expected to occur."* The Owner should submit the required written notification to MaineDOT and provide the Town of Arundel with a copy of said letter and all correspondence with MaineDOT that follows.



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