

MEMORANDUM

Date: January 14, 2022

To Jacki Byerly, Town Planner
Town of Andover
36 Bartlett Street
Andover, MA 01810

From Greg E. Lucas, PE, PTOE, RSP

CC Janes D. Fitzgerald, PE, LEED AP – Environmental Partners, Director of Transportation

Subject 140 Haverhill Street – Trip Generation Peer Review

Environmental Partners (EP) has reviewed trip generation characteristics provided in the November 24, 2021 Traffic Memorandum Update prepared by Bayside Engineering. It is understood that Bayside is preparing a more detailed Traffic Impact Assessment report based on input provided from EP and the Town; since trip generation characteristics are not expected to materially change in that update assessment, these elements are reviewed through this memorandum. EP reserves the right to provide additional comment on trip generation and other site assessment characteristics as part of future review of the updated study.

Project Description

The memorandum provides the following description of the existing site and the proposed redevelopment.

“The site is in the northwest corner of the intersection of Haverhill Street (Route 133) and High Street. Currently, the site consists of Doctors Park I and Doctors Park II. Two driveways currently serve the site, one from Haverhill Street and one from High Street.

The current development proposal consists of construction of two buildings. The first building, consisting of 39,000 gross square feet of space will include a sixty-four (64) bed Acute Treatment Services (ATS) facility and the Clinical Stabilization Services (CSS) facility, to be known as Commonwealth Detox. The second building will consist of a 9,180 square foot (sf) out-patient facility (Topsail) that is currently operating in the existing Doctors Park I building and will be relocated.

Commonwealth Detox will have 34 bedrooms with 64 beds. The first floor will have small offices, a cafeteria and a large group room. The second floor will have a lobby, an exam room, a nurses'

station, two (2) bathrooms with showers, a community room, and several sitting areas. The third floor will have several small offices, two (2) medium size group rooms, a nurses' station, an exercise room, and an open lounge area.

Topsail will have an entrance lobby, several small offices, and group meeting rooms on the first floor. The second floor will have clinical staff offices, a conference room and a staff break room. The basement level will have a lunchroom with a small kitchen area, mechanical room, and access to a terrace at the back of the building.

The Commonwealth Detox facility will provide the medical equivalent of withdrawal and detoxification services (in-patient) and the non-medical component of addressing withdrawal on an out-patient basis. Topsail provides clinical addiction recovery services.

The two buildings will replace the existing Doctors Park I building. Access would continue to be provided by way of the driveways to Haverhill Street and High Street.”

EP finds the overall project description to be accurate.

Trip Generation

Proposed Commonwealth Detox Facility

Bayside notes that available trip generation data published by the Institute of Transportation Engineers (ITE) does not contain trip generation data for the proposed use. The closest land use code (LUC) is Clinic (LUC 630), which EP agrees is not directly applicable to the proposed facility. The unique nature of the Commonwealth Detox facility requires a focused consideration of employees and site operations to determine expected trip generation. Table 1 of the Bayside memorandum summarizes staff, identifying employee type and responsibility. The memorandum also notes that federal regulations establish the staffing requirements for the facility based on the number of beds in the facility. Bayside utilized these expected staffing numbers along with the expected shift schedule to generate trip generation both on a daily level and in the weekday morning and weekday afternoon peak hour. Table 2 summarizes expected trip generation for the Commonwealth Detox facility, showing 148 daily trips, 25 trips (17 entering, 8 exiting) in the weekday morning peak hour and 20 trips (1 entering, 19 exiting) in the weekday evening peak hour.

EP reviewed expected staffing levels and shift schedule, along with worksheets attached to the memorandum, and offer the following comments:

- **Verification of federally-mandated staffing levels should be provided to verify that proposed staffing levels are in compliance with said standards.**
- **The project description identifies outpatient services; however, stated trip generation does not provide any allowance of patient trips except for five (5) patient admissions and discharges per day. Verify that patient-generated trips have been adequately accounted for.**
- **Kitchen/maintenance staff schedules in the worksheet do not match the description provided in the memorandum. Staff are assumed to arrive for a 7:00 AM start time in the worksheet, but the memorandum states that these staff will follow the 9:00 AM to 5:00 PM schedule of other administrative staff. EP notes that this discrepancy results**

in more trips assigned in the weekday morning peak hour, resulting in a conservative estimation.

- **The majority of delivery trips are assumed to occur outside the peak hour. To provide a conservative estimate, an assumption of peak hour delivery trips should be made.**

Proposed Topsail Facility

Similar to the Commonwealth Detox facility, trip generation for the proposed Topsail outpatient facility were determined based on expected number of employees, shift schedules, and expected site operations. Unlike the Commonwealth Detox facility, the Topsail facility is currently in operation in the existing Doctors Park I building, and will be relocated as part of proposed redevelopment of the site. Characteristics of the existing facility operation were utilized to assist in trip generation.

Topsail provides services from 8:45 AM to 3:45 PM daily. While there is potential for other trips to occur within the day, EP agrees with the proposed trip generation methodology which assumes all staff and patient trips arrive prior to the 8:45 AM opening and depart at or immediately following the 3:45 PM closing. Table 4 summarizes expected trip generation for the Topsail facility, showing 80 daily trips, 40 entering trips in the weekday morning peak hour and 0 exiting trips in the weekday evening peak hour. The lack of trips in the evening peak hour is a result of the facility schedule; exiting trips occur prior to the peak hour of adjacent roadway traffic on Haverhill Street.

EP offers the following additional comments:

- **The memorandum describes an evening program which is not identified in the daily trips projected for the facility. While it is understood that this program would not affect peak hour trips, it should be included in the daily trip total.**
- **Clarification should be provided on the peak hours chosen for both the Commonwealth Detox and Topsail facility. The highlighted weekday morning peak hour differs for each facility as shown the supporting worksheets.**

Conclusion

In total, the proposed facilities are expected to generate 228 daily trips, with 65 trips (57 entering, 8 exiting) in the weekday morning peak hour and 20 trips (1 entering, 19 exiting) in the weekday evening peak hour. (These volumes are correctly summarized in Table 5; text presented in the memorandum conclusion does not correlate to Table 5 data.)

It is understood that the initial traffic memorandum dated June 7, 2021 prepared by Bayside Engineering estimated trips assumed to be generated by the existing Doctors Park I building if fully occupied. This estimation utilized LUC 720 – Medical-Dental Office Building; EP confirms the appropriateness of this selected land use code based on the current usage of the building. This estimation resulted in 896 daily trips, with 66 (51 entering, 15 exiting) in the weekday morning peak hour, and 89 (25 entering, 64 exiting) during the weekday evening peak hour. **EP notes that these trip generation estimates may exceed actual existing use, but represent the theoretical number of trips that can be expected to be generated by a similarly-sized fully occupied medical/dental office building.**

Although EP presents comments herein that may result in slight modifications to trip generation assumptions for the proposed Commonwealth Detox and relocated Topsail facilities, we confirm the appropriateness of the stated conclusion in the November 24th memorandum, which states that “(c)ompared to estimated traffic generation from Doctors Park I as a medical office building, the proposed traffic generation is substantially lower and is attributed to the nature of the operations of the Commonwealth Detox and Topsail facilities.”