

September 29, 2023

Mc. Rachel Benson, Director of Planning & Economic Development Planning & Community Development Town of Wrentham 79 South Street Wrentham, MA 02093

### RE: Response to Traffic Peer Review Comments 10 Commerce Boulevard, Wrentham, MA

McMahon, a Bowman company (McMahon) is in receipt of the comments provided by Environmental Partners (EP) dated September 11, 2023 for the Traffic Impact Study (TIS) dated May 2023 for the proposed gas station and convenience store development located on 10 Commerce Boulevard in Wrentham, Massachusetts. Additional comments on the TIS received from Chappell Engineering Associates, LLC (CEA) dated September 13, 2023 on behalf of the counsel for 574 Washington Street, LLC and Helping Hands of America Foundation, Inc., who operate businesses in the vicinity of the proposed gas station and convenience store development have also been received. McMahon has provided responses to the each of the comments provided by EP and by CEA below.

#### **Environmental Partners Comments**

Comment 1: The TIS shows that the collected traffic volumes were seasonally adjusted upwards based on historical data at one of the Massachusetts Department of Transportation (MassDOT) continuous count stations located on Interstate 495 (I-495). EP notes that seasonal adjustment should be primarily based on the Weekday Seasonal Factors report according to MassDOT guidelines 1, which indicates traffic volumes collected during the month of April experience higher than average volumes for the roadway classifications within the study area, and therefore no seasonal adjustment was necessary. However, since we would not anticipate a significant change to the findings based on this adjustment, EP does not request further revision.

Response 1: No additional analysis required. Comment resolved.

Comment 2: No backups have been provided in the TIS for the presented crash data summary and calculated crash rate for our review. However, EP's independent research into the MassDOT crash data portal found similar results to the information presented in the TIS, indicating the crash rate at the study intersection is expected to remain below the Statewide and District 5 averages.

Response 2: No additional analysis required. Comment resolved.



Comment 3: As detailed in the TIS, the Project involves development of Lot 1 of Wrentham Business Center project, with Lot 2 already constructed and in operation as the Supercharged Entertainment facility, and Lot 3 consisting of a warehouse and minor office component, currently approved by the Wrentham Planning Board. The Project along with the Lot 3 development have been stated in the TIS to be constructed concurrently, and trip generation for both developments have been accounted for under the Build Conditions. This methodology is unconventional in that other developments outside of the subject development are typically accounted for under No-Build Conditions to allow for an evaluation of the impacts of the subject development alone. While EP takes no exception to this methodology given the background and planned concurrent construction of the two developments, we note that the presented results do not provide a basis for comparison of the subject Project impacts independent of all other developments.

Response 3: Due to the timeline of the projects and the proposed signalization at the intersection of Washington Street (Route 1) at Hawes Street/Commerce Boulevard, the proposed development of Lot 1 is intertwined with the proposed warehouse development on Lot 3. Therefore, no condition presenting separate analysis for just the Lot 1 gas station and convenience store has been presented in the TIS. Comment resolved.

Comment 4: The traffic signal warrant analysis has been performed under the assumption that Commerce Boulevard contains an exclusive left-turn lane and a shared through/right-turn lane. Considering the volume of the right-turn compared to the minimal through movement volume on this approach, the shared through/right-turn lane is anticipated to operate as a de-facto right turn lane, in which case the right-turning volume should be excluded from the analysis. It is our understanding that there has already been extensive coordination between the project team, the Town of Wrentham, and MassDOT, and that MassDOT had previously approved the methodology to perform the warrant analysis. As this falls under MassDOT jurisdiction, we assume this has been and/or will be reviewed by MassDOT as the project moves forward; verification from the Town is recommended. Response 4: The right hand lane for the westbound Commerce Boulevard approach is projected to be primarily right turning vehicles. For the purpose of the signal warrant analysis, McMahon considers the inclusion of right turns volumes in the analysis as applicable due to the relatively high volume and speed if vehicles on Route 1. It is anticipated that the majority of right-turning vehicles from Commerce Boulevard would require the signal in order to complete their turning movements safely. As noted by the peer reviewer, the project team is in coordination with MassDOT who will continue to provide guidance on the details of analysis and design of the proposed signal.

Comment 5: EP notes that Table 2 of the TIS does not include the capacity analysis for the Washington Street southbound left, which operates at a LOS F during the weekday morning peak hour under Existing and No-Build conditions, and a LOS B or better during the weekday evening and Saturday peak hours under Existing and No-Build conditions.

Response 5: No additional analysis required. Comment resolved.



Comment 6: The TIS presents the Build Conditions analysis under a signalized scenario only, and does not provide analysis for the Build Conditions under an unsignalized scenario to compare to the Existing and No-Build Conditions. This methodology is unconventional in that the Build conditions typically account for the additional traffic volumes of the development with no mitigation to allow for a comparison to the Existing/No-Build Conditions under the same scenario and a comparison to a Build with Mitigation condition that includes proposed improvements, such as signalization. Given the prior coordination involving MassDOT and the Town of Wrentham for signalization of the study intersection, EP notes the following comparisons of traffic operations but we do not request further revision of the TIS:

- Under No-Build conditions, the Commerce Boulevard approach is expected to operate at a LOS E during the weekday morning peak hour and a LOS F during the weekday evening and Saturday peak hours. Under an unsignalized scenario, it would be anticipated that the Build conditions will likely operate at an unacceptable LOS F during all peak hours with additional delay and queueing.
- The Build conditions (with traffic signal mitigation) would provide an improvement to the traffic operations, with most movements operating at an acceptable LOS D or better during all peak hours. As outlined in the TIS, the Commerce Boulevard left-turns (during the morning and evening peak hours) and the Washington Street southbound left-turns onto Commerce Boulevard (during the morning peak hour) are anticipated to operate at a LOS E. We note that McMahon presented signal timings that prioritized the operations along Washington Street and will be updated as necessary as the project moves forward under MassDOT review.

Response 6: The proposed signalization at the intersection of Washington Street (Route 1) at Hawes Street/Commerce Boulevard is considered integral to the continued development along Commerce Boulevard. As such, no condition which includes the proposed development but not the proposed traffic signal was provided in the TIS. No additional analysis required. Comment resolved.

# 7. The site plan shows a total of 25 parking spaces provided for the Project. The number appears to be lower than the minimum required spaces by the Town of Wrentham Zoning Bylaws, which would require one (1) space per pump and four (4) spaces per 1,000 square feet of convenience store.

Response 7: Based on the requirement of one parking space per pump (6 pumps) and 4 spaces per 1,000 square feet of convenient store (4,500 square feet) the total number of required parking spaces is 24 spaces. The project proposes 25 fulfilling the Bylaw requirements.

## 8. The site plan shows the western site driveway is 20 feet wide, which is narrower than the minimum of 22 feet required by The Town of Wrentham Zoning Bylaws.

Response 8: The western site driveway has been widened to 22 feet in width and is depicted in the revised plan set.

## 9. EP recommends providing a continuous pedestrian connection between the sidewalk along Commerce Boulevard and the convenience store.

Response 9: A continuous pedestrian connection between Commerce Boulevard and the convenience store has been provided on the east side of the parking area and is depicted in the revised plan set.



10. The site plans did not provide truck turning templates for emergency vehicles and fuel refilling tanker trucks, and as such, no review of these items has been performed. We remain available to perform a review of these items if requested.

Response 10: Truck turning templates for emergency vehicles and fuel refiling tankers has been provided in the revised site plan set.

#### **Chappel Engineering Associates Comments**

Comment A: The study area evaluated as part of the May 2023 traffic impact study included only the intersection of Route 1 with Commerce Boulevard and Hawes Street, with Commerce Boulevard serving as the sole point of access to and from the proposed gas station and convenience store via Route 1. In conjunction with the project, a new traffic signal is proposed at this location, which would be coordinated with the upstream and downstream intersections of Route 1 with Thurston Street and Madison Street.

It is recommended that the applicant expand the study area to include the signalized intersections of Route 1 with both Madison Street and Thurston Street, as well as the unsignalized intersection of Thurston Street with Hawes Street. As the two identified traffic signals are proposed to operate under coordinated traffic signal operations with the proposed traffic signal at Commerce Boulevard and Hawes Street, evaluation of both project-related traffic impacts, and the impact of any proposed modifications to the current signal timing and phasing at these locations to allow for coordinated operations, should be identified.

Response A: Analysis of the Washington Street (Route 1) corridor between Madison Street and Thurston Street was included in the Supplemental Final Environmental Impact Review (SFEIR) provided to the Massachusetts Environmental Policy Act (MEPA) office dated September 2023. The SFEIR analysis included the trips associated with the proposed gas station and convenience store development.

Comment B: Of particular concern is whether the introduction of a new traffic signal at Hawes Street will result in new traffic patterns within the study area, including the diversion of current traffic from the Route 1 corridor to Hawes Street to access Thurston Street, or generation of new project-generated traffic along the Hawes Street corridor. The May 2023 traffic impact study indicates no project-related traffic will utilize Hawes Street, either to arrive at or depart from the site, with all traffic instead utilizing Route 1 from the north or south to access the project. As the project includes a convenience store that is likely to draw traffic from the residential neighborhoods on the opposite side of Route 1, it is likely that some level of local traffic will arrive to the site via either Thurston Street or Madison Street, the two residential corridors located north and south of the project that provide signalized access to Route 1.



Should the delays for either existing traffic or project-related traffic be shorter by utilizing Hawes Street as a means of avoiding the traffic signal at Route 1 and Thurston Street, the Hawes Street corridor may become a more convenient travel route both to and from the site, as well as for motorists traveling to and from Thurston Street to Route 1 to the south.

Evaluation of projected future delays at Route 1 and Thurston Street, after accounting for project related traffic increases and any proposed signal timing modifications, will allow for refinement of the trip distribution assumptions, if warranted, to identify any level of current traffic that may be diverted, or project-generated traffic that would use Hawes Street to access the site.

Response B: The trip distribution contained within the TIS is based on existing travel patterns and anticipated vehicle demand. Based on these patterns, only a small amount of the total vehicle trips to the site would be anticipated to arrive or depart the site via Hawes Street, represented with one to two vehicle trips during the peak hours studied. A majority of vehicle trips to and from the site are anticipated to arrive or depart from locations on Route 1 north of Thurston Street or south of Madison Street. Analysis of the project impacts on these signalized intersections is contained within the SFEIR submission related to the overall Wrentham Business Center development discussed in Comment A.

We hope these response to comments provide the requested information for review of the project. Should you require any additional information, please do not hesitate to reach out at 617-556-0020.

Sincerely,

Erin Fredette, P.E. Senior Project Manager