282 Merrimack Street, 2nd Floor
Lawrence, MA 01843
978.794.1792

TheEngineeringCorp.com
Create | Design | Innovate

Ms. Kathleen Colwell
Planning Division Director
Department of Economic and Community Development
41 Pleasant Street
Methuen, MA 01844

August 9, 2022

Re: 46 Old Ferry Road, Methuen, MA
Traffic Engineering Peer Review

Dear Ms. Colwell and Members of the Planning Board:

On behalf of the City of Methuen, TEC, Inc. reviewed documents as part of the civil engineering peer review for the project proposed at 46 Old Ferry Road. Triple G, LLC ("Applicant") submitted the following documents prepared by Fieldstone Land Consultants, PLLC ("Fieldstone"), which were reviewed by TEC for conformance with the City of Methuen Zoning Ordinance, Massachusetts and industry standards:

- *Response Letter to City of Methuen Staff Review Date May 23, 2022;* prepared by Fieldstone Land Consultants, PLLC; June 1, 2022

For consistency, the original comment numbers have been retained from the most recent TEC Peer Review letter on June 6, 2022. The Applicant's responses to the comments are shown as **bold**; TEC's responses are shown as italic.

Upon review of the documents and plans, TEC has compiled the following comments for the Board's consideration:

Traffic Engineering Review

Comment #1: Site trip generation calculations for the proposed use were generated using the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition for Land Use Code 150 – Warehousing. This land use represents many general warehouse uses for the proposed building. The Trip Generation publication has several individual warehouse land use codes if a specific user is known. If the Applicant has an anticipated user, they should discuss any user-specific trip generation. In absence of a defined end user, TEC concurs that the use of this land use code is consistent with the MassDOT Traffic Impact Assessment (TIA) Guidelines and the methods found in the ITE Trip Generation, an industry standard publication for projecting future traffic to be generated by a new development.

Fieldstone: **The end user has not been determined at this time. Therefore, the use of the Land Use Code LUC (150) for the general warehouse tenant is the appropriate code to project trips for the proposed development.**

TEC Response: *No further response required.*

Comment #2: TEC concurs that overall, the project is not expected to significantly cause a noticeable impact to the operation of any Methuen intersections except the Old Ferry Road / Pleasant Valley Street intersection as reported. The Applicant should

discuss whether there are any signage or striping modifications that can be made at this unsignalized intersection to offset the modest demand increases of the project.

Fieldstone: **The Applicant is willing to coordinate with Methuen DPW to install a stop-sign at the Old Ferry Road approach to Pleasant Valley Street.**

TEC Response: *Commitment to coordinate this and other signage or striping modifications should be made a condition of approval.*

Comment #3: Old Ferry Road significantly narrows in width to the north of the driveway for 33 Old Ferry Road, in some locations to less than 20 feet in width. In one location, the roadway is 18 feet in width, with a utility pole at the edge of pavement. This creates a potential conflict point for large trucks traveling to and from the site with passenger vehicles also using Old Ferry Road. The Applicant should discuss the daily number of large trucks that will be generated by the proposed warehouse and the potential for conflicts. The Applicant should coordinate with the City of Methuen to determine what improvements can be made along Old Ferry Road to improve the overall safety of the roadway cross-section and facilitate access/egress to the site.

Fieldstone: **An off-site improvement exhibit plan was submitted as sheet OS-1, page 29 of 29 in the site plan set. The improvements include widening Old Ferry Road through the narrow section. Currently the Applicant is working with the City on the off-site design and improvements. Based on ITE truck trip generation data, the proposed warehouse could generate 90 truck trips over the course of a 24-hour period. Over a 12-hour workday, this would result in an average of 3 or 4 truck trips per hour. Given the industrial nature of Old Ferry Road, this increase is not likely to be noticed by other users on the road who are likely accustomed to the presence of large trucks mixing with passenger vehicles.**

TEC Response: *As a condition of approval, the Applicant should provide information on a plan to DPW related to box widening and resurfacing of pavement in the pinch point area; including, but not limited to, the pavement profile such as need / depth, materials for base, sub-base, and asphalt courses as needed. This more so relates to the box widening portion as described on the plan. The Applicant shall ensure that the cross-sectional dimensions of this area are consistent with a normalized path of travel following general guidance for curvature and tapers.*

Comment #4: The proposed site driveway grade is proposed at 9%, increasing from Old Ferry Road to the parking area. During adverse weather conditions, the safety of vehicles, specifically large trucks, is a concern traveling down the driveway toward Old Ferry Road.

Fieldstone: **The driveway access grade is ultimately a function of the high-pressure gas main that runs through the site and providing appropriate separation over the utility. The maintenance of this access roadway will be important and as such we have added Note #25 to Sheet MP-1 stating that "The site**

will follow standard practices for deicing and snow removal along the site drive to allow for passage of vehicles during adverse weather conditions."

TEC Response: *No further response required.*

Comment #5: The Truck Turning Plan does not illustrate whether the design vehicle can turn into and out of the driveway onto Old Ferry Road without leaving the pavement width.

Fieldstone: **The truck turning plan has been revised with the new site drive layout and shoes the design vehicle turning into and out of the site drive from Old Ferry.**

TEC Response: *Note that trucks travelling down the driveway in opposing directions do conflict along the roadway curvature. Based on the level of truck traffic expected, TEC agrees this would not be a common occurrence. As a condition of approval, the Applicant should provide signage that could be added to the driveway near the curves to denote the narrowness of the driveway and potential for conflict.*

Comment #6: The Truck Turning Plan shows a truck path through the employee parking area in the front of the building. TEC understands that this is to illustrate feasible emergency access to all sides of the building. However, TEC recommends that trucks regularly be routed along the east side of the building to the loading docks to eliminate conflicts between large trucks and passenger vehicles within the parking area.

Fieldstone: **The design plans have been revised to address this concern. Deliveries will primarily be directed to the east. Some trucks may need to utilize the west access to load/unload on the western loading bays. We have proposed signage to make this western side 1-direction flow for trucks in order to limit the number of trucks traveling through the parking area and to limit the truck traffic overall on the west side of the building. A "One way do not enter" sign is proposed near the loading area on the west die and the deliveries with directional arrow is proposed near the parking are to direct trucks towards the eastern access way.**

TEC Response: *No further response required.*

Please do not hesitate to contact me directly if you have any questions concerning our comments at 978-794-1792. Thank you for your consideration.

Sincerely,
TEC, Inc.
*"**T**he **E**ngineering **C**orporation"*

Samuel W. Gregorio, PE, PTOE, RSP1
Project Manager – Transportation Planning & ITS

T:\T0222\T0222.83\Docs\Letters\T0222.83_Traffic Peer Review_#2.docx