

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

November 24, 2020

Re: 33 Danton Drive, Methuen, MA  
Civil 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 33 Danton Drive. Nabil Boghos, ("Applicant") submitted the following documents prepared by Design Consultants, Inc., which were reviewed by TEC for conformance with the City of Methuen Zoning Ordinance and industry standards and best management practices:

- Site Plan Application, not dated.
- Site Plan for 33 Danton Drive, Methuen, MA 01844, dated November 20, 2020.
- Stormwater Management Report, dated November 4, 2020.
- Design Calculations, not dated.
- Traffic Memorandum, dated November 3, 2020.

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

### **Site Plan Review**

1. TEC understands that the proposed project is within the Limited Industrial District (IL). The Site Plans should be revised to clearly identify the proposed used of the building, consistent with Section V-D, Table of Use Regulations, in the Zoning Ordinance.
2. The project proposes a building with a footprint of 60,200 square feet, resulting in a lot coverage of 44%. Per the Table of Dimensional Regulations, the maximum lot coverage allowed within the Light Industrial zoning district is 35%. TEC understands that the project is currently under review by the Zoning Board of Appeals for the proposed lot coverage.
3. The Title Sheet calls for a 62,000 square foot building within the Zoning Table, which TEC believes is a mistake. The building is drawn with total footprint of 60,200 square feet on sheet C101. The front of the building is 176-feet wide, with the rear being 173-feet wide. The Site Plans should be revised to clearly label the proposed building square footage and the outer dimensions of the building.
4. The Site Plans do not identify any wetland resource areas or buffer zones in proximity to the project. Based on a review of Methuen GIS, it appears that there may be wetlands east of Danton Drive. A filing with Methuen Conservation may be warranted.
5. The Site Plans show a 30-foot wide buffer screen to the residential abutters at the rear of the site (Spencer Street) per Section VI-B.12.(a) of the Zoning Ordinance.

6. As currently drawn, TEC does not believe that the Site Plans reflect a true limit of work at the rear of the property. Additional topography in the wooded area may be required. The construction detail calls for a retaining wall with maximum height of 13-feet, but TEC cannot verify the accuracy of the detail without additional existing topography. In order to construct this wall, a contractor will need to clear and over-excavate behind the wall resulting in clearing/earthwork into the proposed 30-foot landscape buffer.
7. Per Section XII.3.a., the Applicant should "minimize the volume of cut and fill, the number of removed trees 6" caliper or larger, the length of removed stone walls, the area of wetland vegetation displaced, the extent of stormwater flow increase from the site, soil erosion, and threat of air and water pollution". In order to assess conformance with this section, mature trees located within the proposed 30-foot landscape buffer should be located and identified on the Site Plans.
8. A clear limit of work and limit of clearing line should be provided on the Site Plans. The Site Plans show drainage work within Danton Drive, however no paving or trench work is shown within Danton Drive.
9. TEC believes that the site work on 31 Danton Drive (removal of existing pavement, concrete, fencing, landscaping) should be shown on the proposed Site Plans. These improvements should be considered a condition of this project. Permission from the abutting property owner should be provided.
10. The proposed access driveway to the rear of the building is shown as 22-feet in width (minimum). Per Section VIII-B.4., the minimum width of a two-way drive aisle shall be 24-feet. A waiver or relief from the Zoning Ordinance may be required.
11. The Site Plans should show location for signage on the site plan. Signage should be consistent with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD).
12. A stop sign and stop bar should be provided on the site driveway at its access onto Danton Drive.
13. The Site Plans show access to the rear of the building via the existing driveway on 35 Danton Drive. Permission from the abutting property owner should be provided in the form of an access easement. Access to the rear of the building is a key component of the site layout. Without this access driveway, the site would not be compliant with the loading requirements
14. The Applicant should provide a truck turning analysis to prove that adequate access is provided to the rear of the site. The analysis should show the design vehicle accessing the rear of the site, parking in the proposed loading areas, and exiting the site.
15. Applicant should callout the locations of fire hydrants confirmed by the City of Methuen Fire Department.
16. The Applicant calculated parking using the parking requirements for a warehouse land use, or one parking space per 1,200 SF (51 spaces) for the 60,200 SF building. Within the site plan package, the proposed building has been identified as a manufacturing land use, which is defined as an industrial-type use in the Methuen Table of Use Regulations. The Ordinance parking requirement

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for an industrial land use is 1 space per 600 SF or one space per two employees on the maximum shift, whichever is greater. This would equate to 101 parking spaces for the 60,200 SF building. A total of 54 parking spaces are provided on the plan. The Applicant should provide detailed information regarding the number of employees per shift or other site-specific information to quantify anticipated parking demand in order to justify the proposed reduction in parking supply.

17. TEC recommends that the Applicant label the entrance(s) to the proposed buildings to confirm site grading and adequate access is provided.
18. The Erosion Control Plan should provide additional silt socks along the southern property line.
19. Proposed utility plan doesn't show any electric connections to the building. The Site Plans should clearly identify any proposed electrical work.
20. The proposed building includes two "drive in" doors at the rear of the site. This type of garage door will require the installation of floor drains and an oil/water separator prior to discharge to the municipal sewer system.
21. The Site Plans should clearly identify the existing sewer easement on sheet C101 to prove there are no conflicts with the building/easement.

#### **Traffic Impact Assessment**

22. TEC generally agrees with the Applicant's trip generation methodology. The Functional Design Report prepared by TEC in 2016 for the then-proposed traffic signal installation at Danton Drive at Pelham Street projected future volumes through the intersection. The future volume projections included a 225,000 SF manufacturing development at 35 Danton Street. This development was never constructed. The Applicant's proposal is for 60,200 SF of manufacturing space. The traffic projected to be generated by this proposed development is less than previously analyzed within the Functional Design Report. The design year of the Functional Design Report was 2026, or 10 years from the date of the report and showed acceptable operations at the intersection in that future condition. The Methuen Planning Division has indicated that no other developments are planned in the vicinity of the project that may impact the available capacity of the intersection. TEC agrees that the intersection of Danton Drive at Pelham Street has capacity to accommodate this development without impacting the adjacent roadway system.

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.  
*"The Engineering Corporation"*



Peter F. Ellison, PE  
Director of Strategic Land Planning

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