

Ms. Kathleen Bradley-Colwell
Planning Division Director
City of Methuen
41 Pleasant Street, Suite 217
Methuen, MA 01844

January 5, 2026

Ref. T0222.00.005

Re: Proposed Choice Hotels – 143 Pleasant Valley Street
Civil & Traffic Engineering Peer Review #1

Ms. Bradley-Colwell and Members of the Community Development Board:

On behalf of the City of Methuen, TEC, Inc. (TEC) has reviewed documents as part of the civil engineering peer review for a proposed Choice Hotel at 143 Pleasant Valley Street in Methuen, Massachusetts (“the Project”). The Project consists of removing the existing landscape and overgrown vegetation within 143 Pleasant Valley Street and constructing a 122 room four story Hotel with 129 associated on-site parking stalls. The proposed project provides access to the northern site of the site by constructing a curb cut along Pleasant Valley Street.

TEC reviewed the following materials as part of our peer review:

- *Proposed Site Plans*; prepared by Andover Consultants Inc., dated December 1, 2025;
- *Stormwater Report* prepared by Andover Consultants Inc., dated December 1, 2025; and
- *Traffic Impact and Access Study and Appendix* prepared by Fuss & O’Neill, dated December 1, 2025.

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

Site Plan Review

- 1) TEC acknowledges that the lot meets the minimum frontage requirement but recommends the Applicant revise the requirement within the Zoning Summary Chart to be consistent with Methuen’s bylaws.
- 2) According to Section VIII-B 4.b of Methuen’s bylaws, “At least 5 percent of the interior of any parking lot with 40 or more parking spaces shall be landscaped (i.e. off-street parking areas, with the exception of parking structures, shall be planted with shade trees of a species and size approved by the Methuen Building Commissioner. There shall be a minimum of one (1) tree for each two thousand (2000) square feet of parking area and located as approved by the Building Commissioner...”). TEC recommends the Applicant clarify that this requirement is met.
- 3) According to Section VII-D of Methuen’s bylaws, “No part of any standing sign shall be placed closer to a street lot line than one half the minimum front yard required for the district, or one-half the actual yard between a street lot line and an existing building, whichever is less, but in no case less than 5 feet from the street lot line.”. As proposed, the sign is 9 feet from the right of way. The Applicant should work with the Building Department to determine sign location.

- 4) The following comments are associated with grading throughout the site:
 - a. It appears there is a 76' spot grade at the bottom of curb in the northwest parking area implying a top of curb elevation of 76.5'. With a finished floor elevation of 76', TEC recommends the applicant provide spot grades along the north, west, and southern surrounding areas of the proposed building to ensure positive drainage away from the building.
 - b. It appears there is a 76.9' spot grade at the bottom of the curb in the northwestern corner of the site implying a top of curb elevation of 77.4'. As this spot grade is within the 76' contour, TEC recommends the Applicant provide the 77' contour.
 - c. The 76' contour at the southwestern corner of the site appears to run along the top of the curb implying a 75.5' bottom of curb elevation. With a local high point of 75.9', TEC recommends the Applicant provide spot grades along the curb line to ensure there will be no potential for ponding.
 - d. The 75' contour behind the dumpster pad appears to run along the top of the curb implying a 74.5' bottom of curb elevation. With a local high point of 75.2', TEC recommends the Applicant provide spot grades within the dumpster enclosure to ensure there will be no potential for ponding.
 - e. It appears the proposed structures CB-1 and DMH-1 have a rim elevation above and below the 75' contour they are within. TEC recommends the Applicant revise the drainage structure's rim elevations.
 - f. It appears the slope between the 74' contour and CB 4 is approximately 11%, TEC recommends revising this grading.
 - g. The 74' contour does not appear to tie into the existing grade near the site entrance. Also, near the southeastern corner of the site the contour runs along the top of curb line implying a bottom of curb of 73.5' between the 75' and 74' contour. Please clarify the grading in these areas.
- 5) TEC recommends the Applicant include spot grades for the accessible curb ramps to ensure ADA regulations are met.
- 6) TEC recommends the Applicant include top and bottom of wall elevations for the proposed retaining wall.
- 7) TEC recommends the Applicant provide the invert elevations of the roof drains connecting to CB 3.
- 8) TEC recommends the Applicant provide pipe information for the connection between proposed CB-1 and DMH-1.
- 9) It appears the 15" Roof Drain connecting to the existing infiltration basin may conflict with the pipe between DMH 2 and CB 5. TEC recommends the Applicant provide invert elevations at this crossing to avoid any potential conflict.
- 10) TEC recommends the Applicant use different notations for labeling the existing and proposed drainage structures to avoid identical structure names.
- 11) TEC recommends the Applicant clarify the type of traffic sign being proposed at the site entrance.

- 12) TEC recommends the Applicant include erosion control measures within the plan set.
- 13) It appears the stabilized construction entrance detail does not match what is shown within the site plans.
- 14) TEC recommends the Applicant include a detail for the following items:
 - a. Wire fence
 - b. Doghouse manhole
 - c. Retaining Wall
 - d. Vinyl Rail Fence
- 15) TEC recommends that the Applicant provide an internal crosswalk across the northerly drive aisle, located in advance of the stop line, to connect the west side of the Site driveway at Pleasant Valley Street to the future sidewalk connection along the south side of Pleasant Valley Street.
- 16) The Applicant's engineer should provide a truck turning analysis using a City of Methuen fire apparatus to ensure that emergency vehicles are able to navigate in and out of the site.
- 17) A stop sign should be shown on the Site Plan to control the internal stop line serving the northerly parking aisles.
- 18) The sight triangle areas for the site driveway intersection with Pleasant Valley Street should be shown on the Site Plans to confirm no conflict with the utility pole located on the west side of the Site Driveway along with a note to indicate: "Signs, landscaping and other features located within sight triangle areas shall be designed, installed, and maintained so as not to exceed 2.5- feet in height. Snow windrows located within sight triangle areas that exceed 3.5- feet in height or that would otherwise inhibit sight lines shall be promptly removed."
- 19) A note should be added stating: "All Signs and pavement markings to be installed within the Project site shall conform to the applicable specifications of the Manual on Uniform Traffic Control Devices (MUTCD).

Stormwater Review

- 20) It is unknown when the infiltration basin and associated drainage infrastructure was installed, and no historic test pit information has been provided. TEC recommends the applicant provide test pit and infiltration testing to confirm the groundwater elevation and infiltration rate of the existing basin, in addition to restoration by removing accumulated siltation/debris/vegetation.
- 21) According to the Stormwater Report Narrative, the existing conditions is described as being previously cleared and rough-graded with some drainage infrastructure installed. TEC recommends revising the following in the existing conditions model in HydroCAD:
 - a) Including the existing infiltration basin
 - b) The surface type appears to be modeled as "woods" whereas the narrative states "the Site remains largely bare with compacted soils"

- 22) According to the HydroCAD model, the Applicant has designed the existing infiltration basin with a top elevation of 62'. It appears the top of berm elevation within the existing conditions plan is 61', with no changes proposed. The Applicant should clarify which is correct.
- 23) TEC recommends the Applicant include pipe sizing calculations to ensure the existing and proposed pipes can handle the increase in impervious area.
- 24) According to Massachusetts Stormwater Handbook Volume 2 Chapter 2, "At a minimum, the size the volume of the sediment forebay to hold 0.1 inch/impervious acre to pretreat the water quality volume." TEC recommends the applicant provide sizing calculations for the sediment forebay.
- 25) TEC recommends the Applicant include maintenance measures for the BMP's within the Operation and Maintenance Plan.

Transportation Impact Assessment

- 26) The following intersections were included in the Traffic Impact and Access Study (TIAS) within the study area:
 - Pleasant Valley Street and Old Ferry Road
 - Pleasant Valley Street and 140 Pleasant Valley Street
 - Pleasant Valley Street, Chippy Lane and Choice Fitness DrivewayBased on the scale of the planned development and the expected trip generation, TEC concurs with the Applicant's study area. *No response required.*
- 27) Based on a review of MassDOT's most recent (2024) Weekday Seasonal Adjustment Factors, no seasonal adjustment factors were applied, as October traffic volumes represent above-average conditions for minor arterials. TEC concurs that October generally reflects above-average traffic conditions and finds the decision not to apply seasonal adjustment factors to be appropriate. *No response required.*
- 28) The weekday morning and weekday evening peak commuter hours were studied to determine the project's overall effect on the roadway. TEC concurs that these selected time periods are appropriate as the peak hours of hotel facilities typically overlap with the peak hours of the adjacent street system. *No response required.*
- 29) The TIAS presents motor vehicle crash data for each study area intersection. The crash analysis summarizes the number, type, and severity of crashes occurring at the study area intersections between 2018 and 2022, as obtained from the MassDOT Crash Portal. The TIAS indicates that the intersection crash rates are lower than the MassDOT District 4 and statewide averages. Overall, no notable safety trends were identified during the review period that would warrant further investigation, with only two (2) crashes resulting in non-fatal injuries. *No response required.*
- 30) The Applicant obtained annual traffic growth rate data from the Central Transportation Planning Staff (CTPS), which indicates a modest positive growth rate of 0.32 percent for minor arterials in the City of Methuen. A more conservative background growth rate of 1.0 percent

per year was applied to the 2025 existing traffic volumes to develop the 2032 future year volumes. *No response required.*

- 31) The future year No-Build traffic volumes were reasonably developed by applying a 1.0 percent compounded annual growth rate to the 2025 existing peak-hour volumes and incorporating additional traffic associated with the proposed warehousing development along Old Ferry Road at the study area intersections. *No response required.*
- 32) Site trip generation calculations for the proposed Project were appropriately prepared using the most recently published version of the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 12th Edition*. The footnote on page 19 of the TIAS incorrectly references the *ITE Trip Generation Manual, 11th Edition*. The Applicant applied Land Use Code (LUC) 312 – Limited-Service Hotel, which is applicable to general urban/suburban areas. As the Project does not include a functional hall or event space, the use of LUC 312 is appropriate, and TEC concurs with the Applicant's land use selection and trip generation methodology. *No response required.*
- 33) The traffic generated by the proposed project was reasonably distributed onto the adjacent roadway system based on the existing pattern (49.0% to/from east and 51.0% to/from west), which is reasonable for hotel developments. The peak hour distribution patterns for hotel visitors will likely be highly influenced by wayfinding phone applications, such as GoogleMaps and Waze. Based on evening peak hour congestion on I-495, near Route 213, it is likely that most visitors from the south along I-495 and I-93 will use Exit 104 (Rt 110 - Merrimack Street) to access the hotel. The distribution patterns account for this influence. *No response required.*
- 34) Build traffic volumes were projected to the year 2032 to reflect a seven-year planning horizon from the time of data collection (2025). TEC concurs with this approach, as a seven-year planning horizon is consistent with MassDOT Transportation Impact Assessment (TIA) Guidelines. Note: the language on page 22 of the TIAS is incorrect, as it states an increase of one additional vehicle every 15 minutes. Based on the expected trip generation, the Project is expected to result in an increase of only one new vehicle trip approximately every 3.0 minutes. This is not a level of new traffic that is expected to noticeably affect traffic operations at adjacent intersections. *No response required.*
- 35) TEC generally concurs with the results of the capacity and queue analyses presented as part of the TIA, which utilize Highway Capacity Manual (HCM) 7th Edition methodology for the unsignalized intersections. Although a uniform peak hour factor of 0.92 was used in the analysis, TEC does not expect that this difference will materially affect the overall analysis results. TEC concurs that the volume-to-capacity ratios remain below 1.0, with minimal increases in delay under 2032 Build conditions, indicating that the Project results in minimal impacts to available capacity. *No response required.*
- 36) To assess roadway operations and safety, including available sight distance, the Applicant utilized the 85th-percentile travel speeds along Pleasant Valley Street, which are reported in Table 2 of the TIAS as 42 mph eastbound and 41 mph westbound. In the absence of a posted speed limit along Pleasant Valley Street, these measured speeds exceed the posted speed limit of 30 mph. The travel speeds were collected via ATR data in October 2025.

The intersection sight distances (ISDs) presented in Table 11 of the TIAS were measured at the intersection of Pleasant Valley Street and the Site driveway in accordance with American Association of State Highway and Transportation Officials (AASHTO) criteria for safe operation. TEC generally concurs with the Applicant's sight distance methodology. The ISD looking east from the Site driveway is shorter than the minimum AASHTO requirement; however, the available sight distance along Pleasant Valley Street meets the minimum AASHTO threshold for stopping sight distance (SSD). TEC concurs with the Applicant's recommendation that landscaping be maintained at a height of less than three (3) feet and that no plantings be located within ten (10) feet of the Pleasant Valley Street traveled way in order to preserve adequate sight lines.

- 37) It is important to connect the Project site to existing pedestrian facilities along Pleasant Valley Street and to provide multimodal access between the hotel and the existing MEVA bus stops near the Summit Place driveway. Accordingly, TEC recommends that the Applicant provide an on-site pedestrian connection to Pleasant Valley Street and construct sidewalk along the south side of Pleasant Valley Street, which may require curbline and/or guardrail relocation. In addition, a new marked crosswalk with Rectangular Rapid Flashing Beacons (RRFBs) just east of the Summit Place driveway; and sidewalk and accessible ramp improvements along the north side of Pleasant Valley Street should be considered to provide full pedestrian connectivity.
- 38) TEC is working with the City of Methuen for a culvert reconstruction project under Pleasant Valley Street east of Chippy Lane, which will require a multi-week closure of Pleasant Valley Street during the Summer of 2026. The Applicant should be aware that this may impact the travel patterns during the construction of this project if it commences this year.

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

Sincerely,
TEC, Inc.
"The Engineering Corporation"

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