

Ms. Karen Joseph
Town Planner
Town of Scituate
600 Chief Justice Cushing Highway
Scituate, Massachusetts 02066

September 28, 2023

Re: 817 Country Way
Traffic Engineering & Parking Peer Review

Dear Ms. Joseph and Members of the Board:

On behalf of the Town of Scituate, TEC, Inc. (TEC) reviewed documents as part of a traffic engineering peer review for the proposed multi-family residential development located at 817 Country Way in Scituate, Massachusetts. Option C Properties, LLC (the "Applicant") submitted the following documents, which TEC reviewed for conformance with the Town of Scituate Zoning Bylaws, MassDOT guidance, and generally accepted traffic engineering standards:

- *Country Way Estates* Site Plans, prepared by Grady Consulting, L.L.C, revised June 19, 2023
- *Transportation Impact Assessment*, prepared by Vanasse & Associates Inc, dated May 2023
- *Country Way Estates* Public Benefit Improvement Plan, prepared by Grady Consulting, L.L.C, dated February 2, 2023

For consistency, the new traffic and parking related comments are numbered after the original comment numbers. Upon review of the documents and plans, TEC has compiled the following comments for the Board's consideration:

Traffic Engineering Comments

55. The Traffic Impact Assessment (TIA) included the following intersections within the study area:

- Country Way at the Proposed Site Driveway
- Country Way at Henry Turner Bailey Road / Gannett Road
- Route 3A at Henry Turner Bailey Road

Based on the scale of the planned redevelopment and the expected trip generation, TEC concurs with the Applicant's study area. *No response required.*

56. The Applicant's traffic volume counts, including Turning Movement Counts (TMCs) and Automatic Traffic Recorder (ATR) data, were conducted at the study area intersections in February 2023 when schools were in session. The recorded volumes were increased to account for a seasonal adjustment to attain average annual conditions. *No response required.*

57. The February 2023 traffic data considers the currently underutilized MBTA Commuter Rail station and parking lots with the understanding that MBTA ridership is still recovering from the impacts of the COVID pandemic. Although this may suggest the use of a slightly higher ambient growth rate (higher than 1% per year) for traffic in the immediate vicinity of the site, it would only minimize the difference between the projected 2030 No-Build (future conditions without the project) and 2030 Build (future conditions including the project) scenarios. TEC does not believe this will have a material influence on the traffic engineering findings. *No response required.*

58. 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 the residential developments typically overlap with the peak hours of the adjacent street system. *No response required.*
59. The TIA presents motor vehicle crash data for each study area intersection. The crash data indicates the number, type, and severity of crashes at the study area intersections between 2016 and 2020 obtained from MassDOT crash portal. The TIA stated that that the intersection crash rates are lower than the MassDOT District 5 and Statewide averages and no notable safety trends were identified that require further investigation. TEC concurs with the crash analysis methodology and findings based on the compiled data. *No response required.*
60. Site trip generation calculations for 55 residential dwelling units were generated based on the ITE *Trip Generation Manual, 11th Edition*, Land Use Code (LUC) 221 – Multifamily Housing (mid-rise) because the Applicant is proposing 4-story structures. TEC generally concurs with this methodology and selection of LUC 221 as the ITE *Trip Generation Manual* is an industry standard and the latest edition was utilized. The site plan currently depicts only 52 units. The total peak hour trips (the sum of all entering and exiting traffic) will equate to an average of one trip every three minutes. The traffic generated by the proposed project was reasonably distributed onto the adjacent roadway system based on the Journey-to-work data by the U.S. Census Bureau for persons living in the Town of Scituate and the current travel patterns for Country Way, which is consistent with industry standards for new projects. *No response required.*
61. The Build traffic volumes were grown to 2030 to cover 7-year planning horizon from time of data collection (2023). TEC concurs with this methodology as 7-year planning horizon aligns with MassDOT Transportation Impact Assessment (TIA) Guidelines. *No response required.*
62. TEC generally concurs with the results of the capacity and queue analysis provided as part of the TIA utilizing Highway Capacity Manual (HCM) 6th Edition methodology for the unsignalized intersections. The 2030 Build condition shows acceptable levels of service and maintains low delays in relation to the No-Build scenario. *No response required.*
63. The TIA documented the 85th percentile travel speeds along Country Way, which are noted to be 37 MPH northbound and 35 MPH southbound. These travel speeds were measured by the ATR in February 2023. The measured speeds are higher than the posted speed limit of 30 MPH on Country Way. The sight distances reported in Table 9 of the TIA for the intersection of the intersection of Country Way and the proposed site driveway do not appear to be accurate. Although the TIA references the American Association of State Highway and Transportation Officials (AASHTO) guidelines, the traffic engineer's assessment does not use acceptable criteria for the vantage point of a vehicle seeking to enter Country Way from the proposed site driveway. VAI considered a vantage point only 9 feet away from the edge of Country Way, which is not an appropriate location.

The current driveway geometry and the sight line obstructions created by the topography and retaining wall on the abutting property to the south (#809 Country Way) presents a significant and constant obstruction to sight lines and will likely create an unsafety access condition for the Applicant's project. TEC recommends that the Applicant adjust the site design and/or work with the abutting property owner to modify their site to provide sight lines that exceed AASHTO's minimum recommended criteria for 37 miles per hour, or preferably 40 miles per hour. This equates to a sight line requirement of at least 305 feet when measured from the

middle of the approaching northbound lane on Country Way to a vantage point that is 14.5 feet behind the existing edge of Country Way at the Applicant's proposed driveway. *This is a significant design issue that the Applicant should address before the Planning Board considers approval of the application.*



Site Plan & Benefit Improvement Plan

64. The sight line triangles for the site driveway intersection with Country Way should be shown on the Site Plans 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 36 inches in height or that would otherwise inhibit sight lines shall be promptly removed."
65. TEC recommends that a crosswalk and stop sign with a painted stop bar be provided at the end of the driveway consistent with the Manual on Uniform Traffic Control Devices (MUTCD) standards.
66. The site plans should include sign details specifying a minimum mounting height of 7 feet to the bottom of the sign. This sheet should also include a crosswalk and stop line marking details. A note should be added to the site plans stating the following: "All signs and pavement markings to be installed within the Project site shall conform to the Manual on Uniform Traffic Control Devices (MUTCD) where applicable."
67. A portion of the rear drive aisle and the drive aisle for the 12-space parking lot to the south appear to be 20 feet or less in width. Access to the parking stalls in those areas will be very difficult. TEC recommends 24-foot-wide drive aisles for this site. The parking stalls are currently shown angled in the Applicant's June resubmission. If the parking stalls are not oriented at 90-degrees to the aisle, it will make departure movements from those stalls very

challenging for the future residents on the site. See prior TEC comment #5 that relates to TEC's concerns about the cross-slope grading issues for parking along the northerly edge of the main driveway aisle.

68. A revised truck turning analysis should be provided for a large single-unit (SU) truck (representative of a package delivery truck) and a trash/refuse truck. The turning analysis should demonstrate that the subject vehicles can access and circulate within the project site and access the dumpster enclosure in an unimpeded manner without traversing curb lines and striped parking stalls.
69. The Applicant should consider identifying an area for visitor parking with accompanying signs in a location that is central to the four buildings.
70. The Benefit Improvement Plan currently depicts a limited sidewalk improvement that does not provide a full connection to the site. The proposed 4-foot-wide sidewalk will not meet current standards for the Americans with Disabilities Act (ADA) or the Massachusetts Architectural Access Board (AAB) requirements. Considering the absence of pedestrian accommodations on Country Way in the vicinity of the project site and in front of #809 Country Way, and the likely desire for the project's future residents to walk to the MBTA station or the commercial district to the south, TEC recommends that the Town requires the Applicant to construct a minimum 5-foot wide cement concrete sidewalk with vertical granite curbing between the project site and the current sidewalk terminus that lies approximately 580 feet south of the site driveway. This multi-modal improvement will likely require coordination with one or more property owners that have frontage along Country Way due to potential temporary and permanent easements for the sidewalk, driveway transitions, or grading behind the sidewalk.

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

Sincerely,
TEC, Inc.
"The Engineering Corporation"



Peter F. Ellison, PE
Director of Strategic Land Planning



Kevin R. Dandrade, PE, PTOE
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