

Tisdale Drive Apartments

February 28th 2025

George Chimento, Chair

Zoning Board of Appeals

Dover, MA 02030

Re: Tetra Tech Peer Review Letter 1

81-85 Tisdale Drive 40B

Dear Mr. Chairman:

Please consider this letter as the Applicant's formal response to Tetra Tech Peer Review Letter 1, dated January 16th, 2025. The format of this response is to provide narrative answers to each of the individual comments (copied herein in *Italics*), with reference to relevant drawings/updates, where appropriate. A set of revised plans and the Stormwater Report will be presented to accompany this response.

Tetra Tech Comment: *The plans and supporting materials were understandable and provided for a good basic understanding of major project components. However, the civil-related submittal materials included fundamental design issues and lacked detail typically provided and required for our review. At a minimum, we expect the Applicant to provide enough information to determine the Project, as shown, is constructible in compliance with applicable regulations and standards so the ZBA can proceed based on the expectation what is shown is achievable. What has been provided does not meet that minimum requirement.*

Applicant Response: We have endeavored to address specific issues raised through the comments and provide any information deemed missing.

Tetra Tech Comment: Plan Content, Coordination and Organization – *The civil plans were difficult to understand, lacked content needed to effect a thorough review and most importantly depicted a proposed building that was inconsistent with that shown on the architectural plans. We request future submittals be more clearly presented and organized to support review by the Board and the public.*

Applicant Response: We have endeavored to address this issue.

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Tetra Tech Comment: Stormwater Design and Documentation – The stormwater system shown is aggressive with nearly no room for adjustment, but no documentation has been provided demonstrating the system's ability to comply with Massachusetts Stormwater Handbook. At a minimum, the Project should provide documentation clearly demonstrating how the system meets applicable performance standards (ideally a Stormwater Management Report).

Applicant Response: A Stormwater Report has been submitted to accompany this response demonstrating the system's ability to comply with Massachusetts Stormwater Handbook.

Tetra Tech Comment: Emergency Access – The plans do not appear to show adequate access for emergency vehicles. We request the applicant provide a figure showing how the Dover Fire Department, using its largest vehicle, will enter Tisdale Drive from Route 109 and travel to and through the site without interruption and without having to perform an awkward turnaround to access and leave the site. This information is needed to demonstrate that the proposed building and site can be safely and effectively served by Dover first responders without major modification to building design or site layout. We recommend the applicant (1) coordinate with the Dover Fire Department to identify the appropriate vehicle to use in the analysis and to determine minimum access requirements of the Department, (2) modify the site plan to accommodate identified vehicles and required access, and (3) prepare a Fire Truck Access Plan using accepted design software clearly demonstrating adequate space exists to accommodate vehicle movements without interruption. The Fire Truck Access Plan should include, at a minimum, dimensions of design vehicle, tire path and swept path of vehicle bumper.

Applicant Response: A Fire Truck Access Plan, sheet C-8, has been submitted to accompany this response demonstrating that the proposed building and site can be safely and effectively served by Dover first responders without major modification to building design or site layout. The applicant has met with and reviewed the plans for the project with Dover Fire Department on Feb 27th, 2025. The Fire Department officials appeared comfortable with the site plans as reviewed. The applicant has requested a letter from the Fire Department in this regard.

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Tetra Tech Comment: Wastewater Disposal – The Project will require an on-site wastewater disposal system capable of discharging 8,800 gallons per day. The submittal includes conceptual designs of two potential systems including a “Presby System” and a “T5 Septic”. The Presby system is an alternative/innovative technology.

Applicant Response: Note. No comment.

Tetra Tech Comment: Water Supply – The submittal includes a will serve letter from the local water company. The ability to serve the project from a public water supply is a significant benefit and avoids risks associated with serving such a concentrated population from a private well. Based on the letter, it appears that adequate supply exists to meet proposed demands and adding rate payers to a small water system is a benefit as it provides additional revenue for system operations and safety improvements distributing that burden over a larger service base. The Project has not provided any detail on available water distribution infrastructure in Tisdale Drive nor demonstrated the new demands can be met without negatively impacting existing users. At a minimum the Project needs to show the size and location of existing water mains in Tisdale Drive and in Route 109 at Tisdale and provide recent fire flow test data from a hydrant test near the Project.

Applicant Response: The applicant has received an updated Will Serve Letter, copy attached, from Aquarion Water. This “Will Serve” is contingent on the completion of necessary upgrades to the Aquarion Water system. The applicant understands the possible implications and risks relating to any guarantees that required upgrades will take place and is happy to include a condition that all Aquarion requirements be in place as necessary to provide a reliable water connection to the property.

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Plan Comments

Existing Conditions Plan (C-1)

Tetra Tech Comment: The Existing Conditions Plan is very rough and lacks important information and professional endorsement. Given the nature of the Project and the extent to which it requests relief from local regulations and standards a clear understanding of existing conditions on the Project Site and the adjacent public way as well as the relative location of key features on abutting properties will be critical. We request of the Existing Conditions Plan to be improved as noted below.

Applicant Response: In response to the comments on Existing Conditions Plan (C-1) the applicant has revised plan C1 and added an additional site plan C1A (Scale 1:50) to the submission.

1) Tetra Tech Comment: The Existing Conditions Plan is not endorsed by a licensed land surveyor and does not include labeled property line bearings. Given the proposed project density and extent of work it is critical that the boundary shown is accurately defined by a licensed surveyor and confirmed boundary shown on the plans. Please update the plan to include at a minimum, surveyor reconciled bearing and distances for all property lines, vertical datum reference, scale bar, and endorsement by a Massachusetts licensed surveyor as to the source and reliability of information shown.

Applicant Response: The comment above has been addressed on the revised plan C1 and new plan C1A.

2) Tetra Tech Comment: The plan does not clearly distinguish which parcels comprise the project assemblage. The subject assemblage should be clearly distinguishable as a single line on all sheets and individual parcels and internal lot lines should be provide as well.

Applicant Response: The comment above has been addressed on the revised plan C1 and new plan C1A.

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3) **Tetra Tech Comment:** *Coverage should be expanded to include at a minimum the approximate location of structures on abutting properties (or any others within 100 feet of the subject parcel), extension of contour coverage at least 10 feet onto abutting property (inferred from MassGIS LIDAR information if necessary), existing tree line and location of specimen trees (or trees greater than 24" in diameter), all utility and roadway infrastructure and topographical information for the complete width of the public right of way including descriptions. All information provided should be assigned to and endorsed by qualified professional.*

Applicant Response: The comment above has been addressed on the revised plan C1 and new plan C1A.

4) **Tetra Tech Comment:** *No information is provided regarding proposed tree clearing, demolition or anticipated methods for pre-construction erosion and sedimentation control. We recommend the applicant include this information on the existing conditions plan to prove that required perimeter controls and temporary basins fit within the available property and proposed construction footprint.*

Applicant Response: The existing conditions plans show all trees currently on the property. Trees to remain are shown on the Landscape Plan. The remainder of the comment is addressed on sheet C2 – Site Plan / Proposed Erosion Control which the applicant believes to be a more appropriate location for this information and would like to retain.

5) **Tetra Tech Comment:** *The plans show an extensive program of subsurface investigation, but no results have been provided. We request the Applicant include test pit logs in the plans and that logs include the performance date as well as the name and qualifications of the person reporting the results. Care should be taken to ensure all elevations reference the same vertical datum and that the datum be referenceable (not assumed for Project).*

Applicant Response: Soil testing documentation has been submitted as part of this response.

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6) **Tetra Tech Comment:** Recommend locations of any trees larger than 12" in diameter be shown on the plan.

Applicant Response: The comment above has been addressed on the revised Existing Conditions Plans.

Site Plan Proposed Erosion Control (C-2)

7) **Tetra Tech Comment:** We recommend the applicant include this information on the existing conditions as these measures will be installed prior to the start of demolition or construction.

Applicant Response: The applicant's preference is to maintain Site Plan Proposed Erosion Control (C-2) for clarity.

8) **Tetra Tech Comment:** A separate Layout Plan should be provided showing proposed surface finishes and demonstrating that space allocated to those finishes is sufficient to accommodate the intended objective. At a minimum, we expect the Layout Plan will provide enough information to show how the site will be used and accessed by the residents and that surface improvements shown are coordinated with the construction and maintenance needs of underground infrastructure.

Applicant Response: A Layout and Proposed Utilities Plan (C-5) is included in the submission which we believe addresses the comment above. Assuming "residents" to refer to future residents of the property.

Site Plan Grading & Drainage (C-4)

Tetra Tech Comment : The plan is difficult to read and understand and only shows very basic details describing site grading and intended stormwater management strategy. Given the number of technical issues that need to be addressed between the septic system and the stormwater design, we question if adequate area exists on site to meet applicable standards and design requirements.

Applicant Response: Please refer to specific responses below which address this comment.

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9) Tetra Tech Comment: *The legend does not match linetypes used in the drawing. Legend and drawing lines should be fixed in future submittals. Please use consistent and clear labeling and take care to make sure linetypes match those noted in the legend and that all acronyms and abbreviations are defined.*

Applicant Response: The comment above has been addressed on the revised plan C-4.

10) Tetra Tech Comment: *The plan shows a wall at the east end of the building that is not shown on other plans. Any walls or other substantial site features should be shown on all plans and coordinated among disciplines.*

Applicant Response: The comment above has been addressed on the revised plan set.

11) Tetra Tech Comment: *Some contours don't appear to tie-out properly and we question if the grading along the "Vounatsos" parcel can be constructed within the limits of the subject parcel.*

Applicant Response: This comment has been addressed on the revised plan C-4.

12) Tetra Tech Comment: *No information has been submitted demonstrating the design shown meets applicable standards. Please provide documentation showing intended system performance consistent with performance standards and the Massachusetts Stormwater Handbook.*

Applicant Response: Stormwater Report submitted under separate cover.

13) Tetra Tech Comment: *Several wall types are shown. Please describe each wall system and ensure space allocated is sufficient to install and maintain the wall.*

Applicant Response: There are two wall types proposed currently, a large format segmented block wall at the Basin Area and smaller stone landscape walls. Refer to C-13 for wall details.

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14) Tetra Tech Comment: *Provide calculations demonstrating proposed catch basin location are capable of meeting at least the 10- year design storm.*

Applicant Response: Catch basin runoff computations have been provided under separate cover.

15) Tetra Tech Comment: *Catch basins are shown connected in series which is not allowed per the Stormwater Handbook. Please address in future submittals.*

Applicant Response: This comment has been addressed on the revised plan C-4.

16) Tetra Tech Comment: *The grading plan suggests underground infiltration systems will be constructed in areas of fill supported by retaining walls. The design documentation will need to address how proposed retaining walls and the noted impervious barrier will manage hydrostatic loads from infiltrating stormwater without allowing breakout or excessive loading of the wall. Please note the impermeable barrier shown does not extend the full length of the wall.*

Applicant Response: See detail sheets C-13. Barrier expanded to encompass three sides per basin location.

17) Tetra Tech Comment: *Please specify the "Stormwater Treatment Unit" proposed for this application and be sure model can treat volume anticipated and in the orientation shown.*

Applicant Response: Please refer to Stormceptor Type 1200 detail on Sheet C-9 as provided by manufacturer.

18) Tetra Tech Comment: *Grading shown does not appear to comply with requirements for accessible slopes. We recommend the applicant include this information on the existing conditions as these measures will be installed prior to the start of demolition or construction.*

Applicant Response: The applicant is requesting clarification on this comment as it is not understood.

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19) Tetra Tech Comment: Note wall heights on plan. Preferably by labeling top and bottom of wall at representative locations.

Applicant Response: Wall heights for Retaining Walls has been addressed on the revised plan C-4.

Layout and Proposed Utilities (C-4A) (now C-5)

The plan provides for a basic understanding of major project components. However, the plan provides only basic information and lacks design detail typically provided for review.

Applicant Response: Please note that this plan is now C-5. The plan has been revised to address the comments above.

20) Tetra Tech Comment: Building shown does not match architectural drawings.

Applicant Response: The plan has been revised to address the comment above.

21) Tetra Tech Comment: It would be helpful to have parking space dimensions and totals provided on the plan along with a comparison to the number of spaces required for the proposed use.

Applicant Response: Dimensions & parking comparisons have been added to the plan.

22) Tetra Tech Comment: Please label proposed setbacks and provide a summary comparing proposed setbacks to those that are required under current zoning.

Applicant Response: Setbacks & summary have been added to the revised plan.

23) Tetra Tech Comment: The plan shows a proposed fire system storage tank. Please provide documentation as to its sizing and operation parameters.

Applicant Response: Proposed fire system storage tank location is shown. This sizing is based on a proportionally larger tank than that used at an adjacent property for a slightly smaller property. System engineering, final tank sizing and operation parameters will be provided as part of complete construction level documents that will be required for a future Building Permit.

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24) Tetra Tech Comment: *The proposed layout does not appear to provide adequate accommodation for fire trucks to navigate through the site or that the space provided is adequately setback from the building to serve its intended function (access too close to tallest side of building). Applicant should coordinate with the Fire Department and provide access as requested and/or required. A Fire Truck Access Plan should be provided showing how responding apparatus will navigate the Tisdale Drive and the site including areas of proposed vehicle staging during response.*

Applicant Response: An Emergency Vehicle Access plan C-8 has been submitted as part of this response. The applicant has met with Dover Fire Department to review the proposed plans.

25) Tetra Tech Comment: *The plan shows light fixtures in locations different than shown on the Lighting Plan. Please ensure all information is coordinated among disciplines.*

Applicant Response: Plans have been updated to show correct lighting locations.

26) Tetra Tech Comment: *Curb should have a minimum radius of 2'.*

Applicant Response: All curbs are 2' radius or larger.

27) Tetra Tech Comment: *Please show and describe proposed signage including stop signs and any facility sign.*

Applicant Response: Sign locations have been added and labeled. Final signage to be designed and approved later in the process.

28) Tetra Tech Comment: *All building access points should be shown on the plan. Currently only the main entry is shown.*

Applicant Response: The plan has been revised to address the comment above.

29) Tetra Tech Comment: *Snow storage areas are shown on the plans but do not appear to provide adequate space to serve the areas requiring removal. Please provide a justification*

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for the areas provided and including a description of how snow will be managed along the emergency access drive without impact to abutting property.

Applicant Response: Additional snow storage areas have been added to the plan. A snow removal plan will be developed to control the management of snow removal on the property.

Site Plan Proposed Presby System (C-5)

30) Tetra Tech Comment: *This plan and the associated details are not relevant to Comprehensive Permit review, and we recommend removing them from the set.*

Applicant Response: Site Plan Proposed Presby System (C-5) has been removed from the plan set has now become Layout and Proposed Utilities (C-5).

Site Plan Proposed T5 System (C-6)

Tetra Tech Comment: *The septic system design provided does not appear to meet basic standards and submittal materials lack critical information needed to validate the proposed design. Correction of these issues will likely result in a larger system footprint potentially impacting the proposed facility layout.*

Applicant Response: In accordance with MassDEP standards for Alternative Systems with General Use-Section II, Item (6) c and d, a “design” was not completed. The area of the full-size SAS (including reserve) has been delineated and not compromised in the site development.

31) Tetra Tech Comment: *Lines are barely readable. Recommend all proposed work be shown as black lines and all existing conditions information be shown in gray to assist in review.*

Applicant Response: The plan has been revised to address the comment above.

32) Tetra Tech Comment: *No soil testing logs have been provided to confirm adequate separation from groundwater or other related design information. Please provide a copy of test pit results for all locations shown on the plans.*

Applicant Response: Soil testing logs have been submitted as part of this response.

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33) Tetra Tech Comment: *No Reserve Area is shown on the plan. New septic system designs must include "a reserve area sufficient to replace the primary absorption system" and there does not appear to be adequate space for a reserve area on site. Please provide a design meeting standards.*

Applicant Response: A Reserve Area is shown on the plan.

34) Tetra Tech Comment: *Please clarify why separate septic tanks are proposed for each side of the building and confirm the pump chamber is sized to serve a pressure dose system as required for systems over 2,000 gallons per day.*

Applicant Response: A separate septic tank for each wing is proposed due to differing elevations, to reduce interior plumbing depths and run lengths run to exterior discharge points. Confirming that the pump chamber is sized adequately to serve a pressure dose system.

Site Plan Proposed Presby Details (C-7)

35) Tetra Tech Comment: *These details are not relevant to Comprehensive Permit review, and we recommend removing them from the set.*

Applicant Response: Site Plan Proposed Presby Details (C-7) has been removed from the plan set has now become Layout and Septic Details (C-7)

Septic Details (C-8)

36) Tetra Tech Comment: *Only details of the Title 5 compliant design should be provided to confirm the Project is eligible for an alternative technology.*

Applicant Response: The plan has been revised to address the comment above.

37) Tetra Tech Comment: *Be advised, the separation from Estimated Seasonal High Groundwater (ESHGW) must include consideration of the groundwater mounding. It does not appear the design includes consideration of the groundwater mound. Please provide documentation showing a Title 5 compliant system can be constructed within the available footprint.*

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Applicant Response: The “Design” includes an initial estimated mounding of 1.1’ based on current conditions.

Drainage Details (C-9 & 10)

38) Tetra Tech Comment: *Gray lines are difficult to read. Please use black lines in future submittals.*

Applicant Response: The plan has been revised to address the comment above.

39) Tetra Tech Comment: *Confirm rated capacities of the Stormceptor units are not exceeded based on the proposed layout.*

Applicant Response: The treatment model has been upgraded based on the manufacturer’s recommendations. The single model type is proposed.

40) Tetra Tech Comment: *Plans only indicate a Type B structure is proposed. If Type A structure is not proposed, please remove detail from the plan set.*

Applicant Response: The plan has been revised to address the comment above.

41) Tetra Tech Comment: *Design documentation is required to confirm details shown meet standard.*

Applicant Response: A Drainage Report has been submitted as part of this response.

Site Details (C-11 & 12)

42) Tetra Tech Comment: *Gray lines are difficult to read. Please use black lines in future submittals.*

Applicant Response: The plan has been revised to address the comment above.

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43) Tetra Tech Comment: Plans should clearly indicate where details apply. For example, a timber guardrail detail is provided but no guardrail is shown on the plans. Please coordinate the details with the plans and ensure plans clearly reference the correct detail.

Applicant Response: The plan has been revised to address the comment above.

44) Tetra Tech Comment: Details of any proposed wall systems should be provided.

Applicant Response: Wall details are provided in Sheet C-13.

Landscape Plan (L-1)

Tetra Tech Comment: The Landscape Plan appeared to be well thought and appropriate to the application and suggests a robust assortment and density of site landscaping. Tree sizes are specified at 3-inch caliper which is also appropriate. However, there is no outdoor recreation space shown suggesting residents will have no programmed or otherwise useable recreation space that is not above a wastewater or stormwater disposal field. This issue will be addressed in detail as part of the architectural review being conducted by Davis Square Architects to which we defer.

45) Tetra Tech Comment: Plans should show at least 10 feet of abutting property to ensure that as plantings installed along the project boundary grow, they will not impact abutting property.

Applicant Response: The plan has been revised to address the comment above.

46) Tetra Tech Comment: Show the location and design of the proposed facility sign.

Applicant Response: Proposed location of sign added to plan. Final design to be provided for review at a later stage.

47) Tetra Tech Comment: Provide a detail of the “reinforced grass”.

Applicant Response: The product type is specified on Sheet C-4 and has been added to this plan.

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48) Tetra Tech Comment: *Planting is proposed within an area designated as a drainage swale and near a wall on the Grading and Drainage Plan. Confirm the swale and planting are coordinated or otherwise revise the plan.*

Applicant Response: The plan has been revised to address the comment above.

49) Tetra Tech Comment: *Show all proposed walls.*

Applicant Response: The plan has been revised to address the comment above.

50) Tetra Tech Comment: *Show proposed light fixtures.*

Applicant Response: The plan has been revised to address the comment above.

51) Tetra Tech Comment: *Show proposed snow storage areas.*

Applicant Response: The plan has been revised to address the comment above.

Lighting Plan (L-2)

52) Tetra Tech Comment: *Parking lot light fixtures are proposed at the end of a parking stall.*

Please coordinate placement so that the fixtures are adequately protected from damage and placement does not reduce effective parking stall dimension.

Applicant Response: The plan has been revised to address the comment above.

53) Tetra Tech Comment: *The plan shows light fixtures near the property boundary and light levels shown suggest light spill onto abutting property. Design should be modified to ensure no light spill onto abutting property and demonstrated on the photometric plan.*

Applicant Response: The plan has been revised to address the comment above.

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Stormwater Report

Tetra Tech Comment: No stormwater report or similar documentation has been provided. As such there is no way to confirm the designs shown meet applicable standards.

54) Tetra Tech Comment: Provide documentation demonstrating the drainage design meets applicable standards.

Applicant Response: A Stormwater Report has been submitted as part of this response.

Traffic Report

Tetra Tech Comment: The Traffic Report was professionally prepared, well organized and addressed traffic related project impacts in a manner consistent with applicable guidance and expectations. We concur with the report's fundamental conclusion that the project can be "accommodated within the confines of the existing transportation infrastructure". However, the plans do not show enough of Tisdale Drive or its other curb cuts to assess adequacy to convey additional project vehicular, pedestrian and bicycle traffic. We expect to have comments once that information is provided.

Applicant Response: Existing Conditions Plan C-1A has been provided to address this comment.

55) Tetra Tech Comment: The report describes a secondary emergency access not shown on the Site Plans.

Applicant Response: The secondary emergency access refers to the grass paver driveway provided at the rear of the property.

56) Tetra Tech Comment: The report indicates 66 parking spaces will be provided when the Site Plan shows only 64.

Applicant Response: The revised plans now include for 75 parking spaces improving the parking situation further on the property.

57) Tetra Tech Comment: The report indicates a pick-up/drop-off area is provided at the front of the building. No such accommodation is shown on the site plan.

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Applicant Response: The pick-up/drop-off area refers to circular driveway at the front of the property.

58) Tetra Tech Comment: *We request that sight distance triangles be shown on at least the Project Site Layout Plan along with a note specifying that it must be maintained as necessary to ensure minimum required sight distances are met.*

Applicant Response: The requested information has been added to the Landscape Plan (L1).

59) Tetra Tech Comment: *We recommend the ZBA include a condition requiring implementation of the Transportation Demand Management (TDM) measures listed in the Traffic Report in any Comprehensive Permit approval.*

Applicant Response: Note. No comment.

Construction Management Plan

60) Tetra Tech Comment: *The documentation submitted does not include any information on construction staging or temporary controls to manage runoff during construction. We recommend the ZBA request the Applicant to provide a Construction Management Plan clearly describing how construction on such a limited site will be accomplished without risk to abutters or the use of the Tisdale Drive right of way. At a minimum, the CMP should show the proposed building footprint and limit of excavation, construction trailers, contractor parking, construction dumpsters, emergency access, material/soil stockpile areas, delivery/turnaround area, crane staging area (if applicable) and construction period erosion and sedimentation controls meeting requirements of the USEPA NPDES Construction General Permit.*

Applicant Response: Some of this information is included on Sheet C-2. The applicant is happy to provide a CMP at the appropriate time.