



July 8, 2023

Mr. Joshua Wernig, Chairperson
Wayland Zoning Board of Appeals
Town of Wayland
41 Cochituate Road
Wayland, MA 01778

Re: Tetra Tech Comments
Comprehensive Permit (40B) Peer Review
St Ann's Village
Wayland, Massachusetts

Dear Mr. Chairman:

Tetra Tech (TT) has reviewed the most recent submittal materials for the above-referenced Project to assist the Town of Wayland Zoning Board of Appeals (ZBA) in its Comprehensive Permit review.

Our review is based on materials available on the ZBA's online 40B document file sharing site including the specific documents listed below as well as prior and collateral project information also available through the ZBA webpage.

- A plan set titled "St. Ann's Village Wayland, MA" dated June 26, 2023 under cover sheet prepared by The Architectural Team (TAT) hereafter referred to as "The Preliminary Plans"
- A "Stormwater Management Report" dated June 27, 2023 prepared by Samiotes Consultants Inc. for the Planning Office of Urban Affairs St. Ann's Village Project.
- A "Transportation Impact Assessment" for Residences at Saint Ann – 124 Cochituate Road dated May 5, 2023, prepared by Vanasse Associates Inc. (VAI).
- A "Wetland Delineation Report" for 124 Cochituate Road, Wayland dated April 24, 2023 prepared by Environmental Consulting & Restoration, LLC (ECR).

In our opinion the Project, as presented in the above-referenced submittals, represents a well thought and reasonable application of the Comprehensive Permit process and is capable of meeting applicable wetland, wastewater, and construction related permit requirements provided the comments and conditions noted below are addressed. Although we have identified several items that need to be addressed prior to construction, we are confident they can be addressed during subsequent state permit review and final design due to the Project's restrained density and robust setbacks.

Given the number and range of comments and the potential that their resolution will result in noticeable changes to the Project, we recommend any condition approving the Project include a condition requiring the applicant to submit a set of "Final Site Plans" to the ZBA for review prior to submitting a building permit application. The "Final Site Plans" will be reviewed to (1) confirm compliance with Comprehensive Permit conditions, (2) confirm the Project has received required state/federal permits and (3) confirm any resulting changes are consistent with the approved Preliminary Plans and should, at a minimum:

1. Include any proposed site plan and/or building changes (elevation/floor plan) made at the discretion of the Applicant.

2. Incorporate any changes resulting from Notice of Intent review by the Wayland Conservation Commission.
3. Incorporate any changes resulting from Wastewater Disposal Permit review by the Wayland Board of Health.
4. Provide proof of coverage under the NPDES General Permit for Stormwater Discharges from Construction Activities (CGP) and incorporate any changes or controls included in the Project's Stormwater Pollution Prevention Plan (SWPPP) required to comply with the CGP.
5. Demonstrate compliance with applicable provisions of the Massachusetts Stormwater Management Handbook.
6. Include a Construction Management Plan detailing proposed staging and phasing of construction and addressing the scope described in the related comment below.
7. Address comments noted in this letter.

The following are our specific comments for consideration by the Board. The comments are organized by submittal and include a recommendation of conditions to be incorporated into any decision approving the Project where applicable. In our opinion the Project has adequately demonstrated consistency with Comprehensive Permit design criteria and any outstanding technical comments can be addressed within the context of the as-submitted design.

Comments

Project Cover (Sheet T0.01)

1. Project Cover is dated June 26, 2023 with no revision date despite multiple submissions between June 26 and June 27th. The sheet includes a "Submissions" listing but it's unclear how/if this applies to document identification. We recommend the Board clearly identify any plans referenced in its decision to avoid potential confusion and that any future submittals include a unique identification for each submittal.
2. Recommend "Comprehensive Permit Plans" be added to the Cover Sheet to clearly identify the scope of review and applicability on any future submittals.
3. Sheet titles and numbers listed on the Project Cover Sheet are slightly different than those noted on included sheets. Please address in future submittals.

Site Preparation Plan (Sheet D-1.1)

Although there appears to be adequate space on land owned by the archdiocese to safely construct the Project, a significant portion of that space is off the identified project parcel, and we anticipate land outside the lease parcel will be needed to support construction. We recommend any decision approving the project include a condition requiring the Project to provide a Construction Management Plan (CMP) for review by the Board prior to submitting a building permit application. The CMP should demonstrate how the work will be managed and performed and shall include at a minimum

- Owner and Contractor contact information
- Hours of Operation
- Construction Phasing
- Hoisting Operations and Safety Controls
- Provisions for Emergency Access During Construction
- Site Construction Offices
- Contractor/Worker Parking

- Site Security and Control (fencing)
 - Waste Management
 - Temporary Bathroom Facilities
 - Stormwater Pollution Prevention Plan (SWPPP)
 - Dust and Noise Mitigation
4. The Site Preparation Plan is relatively basic and includes what appear to be some extraneous lines/symbols. However, the Project will require review by, and an Order of Conditions from, the Wayland Conservation Commission and/or the Massachusetts DEP pursuant to requirements of the Massachusetts Wetlands Protection Regulations (310 CMR 10). That review encompasses all material protections of the environment including stormwater management during and after construction and protection of sensitive environmental resources and habitats. The Board can be reasonably assured that review will ensure adequate protections are in place. We recommend any decision approving the Project include a condition requiring the Project to obtain an Order of Conditions demonstrating compliance with applicable provisions of the Massachusetts Stormwater Handbook and provide proof of coverage under a NPDES Construction General Permit prior to the start of construction or initiation of significant pre-construction activity.
5. We recommend any content included on the Final Site Plans be consistent with that shown on Notice of Intent Plans approved by the Wayland Conservation Commission and address the following comments from our review of the Preliminary Plans:
- a. Erosion control barrier should terminate at right angles with the proposed construction entrance.
 - b. Remove extraneous lines showing proposed pavement limits.
 - c. Clearly show how/where curb will be removed and/or replaced including provisions for sawcut and repair of adjacent pavement.
 - d. Show proposed construction fence location (including gates) and provisions for emergency or non-project access.
 - e. Items designated as demolished or removed should be removed from subsequent plans to avoid confusion.

Site Layout and Grading (Sheet C-1.1)

6. Plan is labeled as "Site Layout and Grading" but does not provide any information on proposed grading. Please address sheet labels to accurately reflect content in future submittals.
7. The wall layout shown is not practically achievable. Note indicates "modular block wall with guardrail" when, to our knowledge, no such system exists, and additional space will be required to meet manufacturer's required guardrail offsets. For example, "Redi Rock" walls, which are typical modular block walls used in similar applications, require a minimum 3' guardrail offset from the back of wall. Considering the Redi Rock wall blocks are 3' wide and require a 3' offset from back of wall to guardrail and timber guardrail is 2' wide and typically offset 2' from face of curb, suggests the minimum curb to face of wall dimension of 10' where only 2' is provided in some areas. Eventual resolution of this will likely push actual wall layout further into the wetland buffer but should not materially impact the functionality of the design. We recommend any decision approving the Project include a condition requiring the Final Site Plans to include a plan and detail of proposed walls showing any required guardrail/fence/light pole offsets and stamped by a Massachusetts registered professional engineer.

8. Snow storage areas shown are impractical and not large enough to accommodate the snow volume that should be reasonably anticipated for the extent of paved surface area. However, due to the Project's relatively low density and generous setbacks, there are several opportunities within the Project site to comfortably meet snow storage needs if considered during the final design. Ideal areas for storage include the area north of the emergency access drive and the area east of the church as well as other small areas around the site. We recommend the two areas noted for snow storage NOT be designated as primary storage locations given they are poorly suited and that alternate areas be identified on the Final Site Plans and that those areas are coordinated with the Landscape Plan.
9. We recommend any decision approving the Project include a condition requiring the following comments be addressed in the Final Site Plans.
 - a. Accessible parking spaces shown do not appear to meet requirement for proximate location to the principal use. This will likely require the spaces to be moved closer to the proposed church crosswalk and/or rectory entrance and an accessible route provided.
 - b. Parking spaces extend into the expected vehicular travel path which will likely require the elimination of 2-3 parking spaces. We recommend the Board require the Project to provide adequate space for typical/emergency vehicle turning movements and prepare a Fire Truck Access Plan demonstrating all Wayland Fire Department apparatus can navigate through the site without obstruction and to demonstrate proposed parking spaces do not encroach on areas intended/required for vehicle travel.
 - c. There is no distinction between Project dedicated spaces and those designated for church or rectory use. Final Plans should clearly distinguish between the two and show related signage or pavement markings.
 - d. Show emergency access gate(s) and/or signage/pavement markings to preclude non-emergency use of the emergency entrance and confirm acceptability with Fire Department.
 - e. Eliminate unnecessary/redundant guardrail near the northeast corner of the building. In our opinion guardrail is not required to protect 3:1 slope.
 - f. Clarify material of construction for all sidewalks. Notes indicate "concrete sidewalks" without distinguishing between "cement" and "bituminous" concrete and in some cases no material is noted.
 - g. Notes suggest bollards will be placed in front of the dumpsters which seems unworkable given bollards would prevent movement of dumpsters and restrict gate operability.
 - h. Extent of sidewalk is unclear, particularly along the north side of the building. Recommend sidewalk along west side of building extend to the emergency access drive to provide a viable connection with sidewalk along the east side of the building.
 - i. Light poles are shown in locations that either obstruct a parking space or don't meet expected wall offset requirements. Light poles should be located outside the required space dimension.
 - j. Dead end parking aisle back-out areas typically have a minimum depth of 5' but are shown at 3' which in our opinion is not adequate. We recommend 5' be required particularly given the lack of available bumper overhang due to wall and guardrail placement.
 - k. Plans should clearly indicate the limits of any paving including sawcut limits for all pavement joints and trenches.
 - l. If specific line-types are used to denote site features (ie. guardrail, fence...) those line-types should be included in a legend or otherwise clearly noted on the plan and details provided showing material of construction.

Utilities and Stormwater Management (Sheet C-2.1)

10. Plan is labeled as "Utilities and Stormwater Management" but includes no substantive stormwater related information. Please address sheet labels to accurately reflect content in future submittals.
11. At least one proposed light pole is shown within the limits of the wastewater leach field. Lighting layout should be coordinated to avoid placement of light poles within the limits of the proposed disposal area. Given the type and height of fixtures proposed, we don't expect any required layout changes to result in substandard light conditions or adverse light spillage.
12. Plan has been modified to include proposed location of a generator and transformer on the south side of the proposed facility which is well removed from any abutters and unlikely to result in any noticeable noise impacts. Both the transformer and the generator are enclosed within a fence. However, no information has been provided indicating proposed fuel source or operating expectations. We recommend any decision approving the Project include a condition requiring the generator to be fed by natural gas and limiting use to emergency situations only.
13. We recommend any decision approving the Project include a condition requiring the following comments be addressed in the Final Site Plans.
 - a. Final Plans should show all underground utility connections to and from the proposed generator and transformer and any other utility routing conflicts should be resolved.
 - b. Show all underground drainage pipes and structures to prevent potential conflicts. Suggest using thin line-type to distinguish proposed secondary information from primary information and that gray lines only be used to indicate existing conditions.
 - c. Turn off parking lot striping layers in east lot to avoid confusion with other sheet content.
 - d. Remove items that have previously been designated for demolition to avoid confusion with proposed content.
 - e. Consider consolidating septic tanks rather than providing an additional tank at the church. Consolidating tanks will eliminate wall penetration.
 - f. Wall utility penetrations should be made at right angles to the wall.
 - g. Indicate measures for protection of rectory water service from proposed sewer crossing.
 - h. Confirm proposed vertical granite curb does not extend into or otherwise impact function of the soil absorption system trenches or otherwise adjust curb selection and show on plans.

Stormwater Management and Grading Plan (Sheet C-3.1)

14. Almost the entire parking area outside the rectory flows toward an uncurbed, unprotected slope and is directed toward the proposed transformer and generator location. We recommend any decision approving the Project include a condition that design of this area be revised to capture and convey runoff from the parking lot to the drainage system without creating a risk of eroding slopes or directing flow toward electrical equipment.
15. Grading noted on plans exceeds 5% in several areas of proposed parking and includes an area where slope exceeds 7%. Please note, parking lot slope is typically limited to 3% max to avoid car doors swinging open under their own weight or otherwise requiring a great deal of force to open when opening against the slope. We recommend any decision approving the Project include a condition limiting slope of parking spaces to a maximum of 3%. Please note, this limit would not apply to areas exclusively used for vehicle travel.

16. The proposed design incorporates impermeable barriers to protect wall systems from potential impacts from stormwater infiltration systems. We recommend any decision approving the Project include a condition requiring the proposed barrier comply with Mass DEP Guidelines for Design and Installation of Impervious Barriers and Slope Stabilization for Title 5 Systems and wall system manufacturer's requirements.
17. Based on the reported Test Pit results, Infiltration System 1 extends into groundwater. While we understand Estimated Seasonal High Groundwater (ESHGW) was determined as a function of test pit depth and we expect actual ESHGW to be much lower, documentation provided does not demonstrate compliance. This issue will likely be addressed during Conservation Commission's review of the Notice of Intent, but we recommend any decision approving the Project include a condition requiring the Project to note all test pit results on the Final Plans and demonstrate compliance with required offsets to ESHGW.
18. Proposed grading indicates only a small area will drain to DCB3 and DCB5 despite both locations being proposed to have double catch basin grates. Final Site Plans should confirm grate selection is consistent with drainage area and if double grates are required, we recommend they be arranged in line with the curb rather than extend into the travel way.
19. The plan shows Detention Basin 1 surrounded by "Guardrail" line-type which we expect was intended to indicate a fence, but no information is provided indicating material of construction, height or means of access. In our opinion enclosing the basin within a fence is unnecessary and inconsistent with maintaining the site's natural setting. We recommend the basin NOT be surrounded by a fence or other enclosure.
20. We recommend any decision approving the Project include a condition requiring the following comments be addressed in the Final Site Plans.
 - a. Proposed parking lot grading should be developed in a manner that provides a reasonably achievable grading pattern. Grading pattern shown is virtually impossible to construct as shown.
 - b. Specify finish concrete elevations for all concrete pads.
 - c. Area drain AD1 drains only a tiny area. Recommend it be removed and the small island graded to drain to the adjacent parking area.
 - d. Clearly indicate limits of 4" curb reveal and note location of transition from 4" to 6" reveal.
 - e. Recommend showing other proposed underground utility information in a thin black line-type to identify/avoid potential routing conflicts.
 - f. Show outside dimension of below grade drainage structures to confirm adequate space available at location shown. For example, WQU1, WQU2 and OCS2 appear likely to encroach on infiltration systems.
 - g. Update all drainage design modeling to reflect final proposed grading pattern and collection system routing.

Civil Details (Sheet C-4.1)

21. Very few construction details are provided describing the type and quality of site improvements. Final Site Plans should include details of all proposed site features and utility installations. We recommend any decision approving the Project include a condition requiring site and utility work to be constructed per applicable Town design requirements and all details of construction be provided on the Final Site Plans.

Overall Proposed Landscape Plan (Sheet L1.01)

22. The Plan provides a robust plant schedule well-suitable to the site layout and supplementing the extensive wooded area designated to remain. We recommend any decision approving the Project include a condition requiring the Project to provide, at a minimum, landscape improvements comprising the plant list shown on the Preliminary Plans.
23. Some proposed landscaping appears to conflict with underground utilities. Most notably, the root zone of the Hornbeam proposed in the main aisle parking island will likely encroach on the subsurface leaching system. Such conflicts should be addressed on the Final Site Plans.
24. We recommend the planting layout along the emergency access drive be modified to provide a large open area suitable for snow storage.

Exterior Elevations (Sheets A4.01 and A4.02)

25. Building elevations accurately reflect the information shown on the site plans and described in supporting documentation.

Sketch of Proposed Lease Area (Sheet EX-1)

26. We are confused about several aspects of the information provided. Although we expect none to have a material impact on the design of the Project, we offer the following comments hoping they can be clarified in the Final Site Plans to support current Chapter 40A, Section 3 status or the 40B site control requirements
- a. The rectory, and all its parking, is within the Project's proposed lease line.
 - b. The septic system and stormwater management systems are shared systems located wholly within the lease area and serve the Project as well as the church and rectory. We recommend the Board include a condition requiring all system maintenance to be the responsibility of the Project.
 - c. Given the lease line and the work extends onto the adjacent archdiocese property, we recommend Final Site Plans include survey coverage extended to include the parcels impacted and that a zoning summary table be provided for the entire assemblage.
 - d. The proposed lease line extends beyond the principal subject parcel.
 - e. The work shown on the Preliminary Plans includes improvements extending beyond the proposed lease line.

"St. Ann's Village Lighting" (Photometric Plan)

27. The Photometric Plan shows a practical and efficient light layout with very little spillage into adjacent areas. Although some adjustment to light locations may be required to address utility or other similar conflicts, we do not expect any substantive impact. We recommend any decision approving the Project include a condition requiring the Project to maintain light levels and proposed fixture heights as shown on the Photometric Plan.

Stormwater Management Report (June 27, 2023)

28. Although the proposed design includes required components and improved stormwater quality, in our opinion the modeling analysis provided does not comply with the Massachusetts Stormwater Handbook

and conclusions stated in the report are not accurate. However, while some system redesign is required and will likely result in larger infiltration systems, we expect those changes can be made without substantial impacts to Project scale or layout. The following must be addressed in Final Site Plans

- a. The model for Infiltration Systems 1 and 2 uses an 8.27 in/hour exfiltration rate (sandy soils) when test pit results indicate Loamy Sand and Sandy Loams which require using much lower rates. The model should be modified to use exfiltration rates matching soil characteristics of the most restrictive layer beneath the systems.
 - b. Additional test pits are required to meet Stormwater Handbook requirements and to confirm adequate separation from ESHGW and required minimum thickness of permeable soil layer. The results of all test pits should be included on the Final Site Plans.
29. The model assumes infiltration over the entire bottom area of Infiltration System 1 however the "DoubleTrap" system proposed has a predominantly solid bottom and relies on small circular openings to allow flow into the infiltrating layer. These small openings are the first areas to accumulate sediment thereby restricting flow out of what is a large concrete vessel. If the DoubleTrap system is used, we recommend the model apply the lower of (1) exfiltration at 8.27 in/hr applied over the area of the openings or (2) exfiltration at rates prescribed in the Rawls Rate Table included in the Massachusetts Stormwater Handbook for the most restrictive soils beneath the system.
30. We anticipate grading changes are required to address prior comments. Final Plans and supporting analysis should be coordinated and consistent.

Traffic

31. The Traffic Impact Assessment (TIA) was thorough and complied with applicable standards and demonstrated the Project is not likely to have a significant impact on traffic signal function. We recommend any decision approving the Project include a condition requiring the Project to incorporate the TIA recommendations and address the comments provided below.
32. There is no sidewalk on the Project side of Cochituate Road and crossing at this location can be difficult. We recommend any decision approving the Project include a condition requiring installation of a sidewalk extending south from the Project along the east side of Cochituate Road to the existing sidewalk near the aqueduct trail unless otherwise directed by Town departments.
33. The Traffic Impact Assessment (TIA) indicates certain movements at the Cochituate Road/Old Connecticut Path signalized intersection operate above capacity at LOS F during peak hours with or without the Project. We recommend the Applicant work with the Town to identify potential traffic signal timing improvements that may reduce delays at the intersection.
34. The TIA indicates Applicant will implement a transportation demand management (TDM) program at the site. Additionally, the Site Plans provides for two electric vehicle (EV) charging stations to reduce greenhouse gas (GHG) emissions. Tetra Tech also recommends Applicant work with the Town to finalize the specific elements of the TDM program as a condition of approval of the Project.
35. The Site Plans do not include a truck turning analysis of emergency vehicles at the site. Tetra Tech recommends the Applicant demonstrate that emergency vehicles can adequately maneuver into and out of the site as well as circulate through the site. Additionally, the Applicant should review the site plan with the Wayland Fire Department to ensure that safe and efficient access to the site will be provided.

36. The Site Plans show an exterior (short-term) 7-bike capacity rack to be located near the southwest corner of the proposed building and floor plans indicate interior, secured bike storage will be provided. We recommend any decision approving the Project include a condition requiring indoor bike storage area to accommodate electric bicycles including additional protection to contain potential battery fires and precluding storage and/or charging of electric bicycles within individual units.
37. We recommend the Applicant designate a centrally located, on-site pick-up/drop-off area in the vicinity of the main building entrances.
38. The TIA recommends the existing trees and vegetation located within the sight triangle areas of the Project site driveway should be selectively trimmed or removed and maintained to provide the necessary sight lines for the driveway to operate in a safe manner. We recommend Sight Triangles at all driveways including the northerly driveway (acts as a de facto Project driveway) be shown on the Final Site Plans.

Wetlands

39. Wetland report was comprehensive and Project documentation appears to accurately reflect resource area boundaries subject to regulation. The report does not address either the presence or lack thereof of Riverfront Area despite the USGS maps showing a solid blue line between the two ponds on site which typically indicates a "perennial stream". Based on information provided by the design team and project topographical plans, it's reasonable to conclude that the connection between the ponds is not perennial and therefore no Riverfront Area exists. However, final determination of the resource area boundary is within the jurisdiction of the Wayland Conservation Commission and its responsibilities under state wetland regulations.
40. Project results in no disturbance and/or alteration of any wetland resource area and only disturbs a very small percentage of the associated buffer zones or local 30' no disturbance zones.
41. The site does contain a "Potential Vernal Pool" which is not "certified" and as such is not subject to regulation under 310 CMR 10.00. However, based on our estimates the Project will disturb less than 5% of the land adjacent to the potential vernal pool and will not significantly alter contributing drainage areas and the thereby well below any recognized standard for substantive impact.

In closing we find the Project has been responsibly and thoughtfully designed and has adequately demonstrated it can be constructed generally as shown on the Preliminary Plans provided it (1) obtains wetland impact and wastewater disposal review/approvals required under Massachusetts State Regulations 310 CMR 10 (Wetlands Regulations) and 310 CMR 15.00 (Title 5 Wastewater Regulations) and adequately addresses the comments listed above. If you have any questions or comments, please feel free to contact me at (508) 786-2230.

Very truly yours,



Sean P. Reardon, P.E.
Vice President