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August 1, 2025

Lara Davis
ZBA Principal Assistant
Zoning Board of Appeals
Town of Southborough
17 Common Street
Southborough, Massachusetts 01772

Re: 250 Turnpike Road, Southborough Comprehensive Permit Plan
Peer review from Howard Stein Hudson

Dear Ms. Davis:

Enclosed are revised Site Plans for this development now with a revision date of 25 July 2025. Also enclosed are copies of a revised Drainage Report for this project now also with a revision date of 25 July 2025.

We revised these Site Plans pursuant to input from the Board, staff, and other reviewers and the comment letter from the peer reviewer Howard Stein Hudson dated 26 February 2025.

I'd like to take this opportunity to briefly explain how we responded to each of their comments. The form that this letter will take is that I will repeat the first line of each of HSH's comments in italics, if the comment can be summarized that briefly, and then respond in normal text.

Based on our review of the referenced documents, HSH offers the following preliminary comments:

Zoning Regulations – Chapter 174

174-6 – Applicability. The applicant has requested a waiver from this section . . .

No response necessary.

174-8(A) Schedule of Use Regulations. The applicant requests a waiver from this section . . .

No response necessary.

174-8(B) Schedule of Use Regulations. The applicant requests a waiver from this section . . .

No response necessary.

174-8.2(C) Prohibited Uses. The applicant requests a waiver from this section . . .

No response necessary.

174-8.2(D) – RA Residence A District – Development Standards

- Building unit #1 is located 2 feet from the proposed side property line where 25' is required.*

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 2

Acknowledged. We have to keep that side property line 50 feet from the contractor's yard building on the adjacent lot.

- *Units 30-32 are all approximately 24-26'± from the rear yard setback where 50' is required.*

Acknowledged.

- *Provide architectural plans to verify building height in accordance with maximum building height of 35 feet / 2 ½ stories (including basement heights per the definition of story) and maximum floor area ratio of 0.18 to which a waiver was requested.*

We are including architectural plans with the revised Site Plans. 79,842 square feet of floor area will be created resulting in a floor-area ratio of 0.35 on this lot.

174-8.9 – WFP Wetland and Floodplain District

- *The proposed development is not located within a FEMA Floodplain so this overlay district is not applicable.*

Agreed. No response is necessary.

174-9.1 - Common Driveways

- *Common driveways serving more than two or more detached single-family dwellings shall not be permitted in any district. Since the plan lists this access from Turnpike Road as a driveway serving 32 units, provide an alternative means of access or a waiver is needed from this section.*

We are requesting a waiver.

174-11 Signs

- *174-11(C)(2)d – a waiver was requested from the requirement that no sign may be illuminated between 10:00p.m. and 6:00 a.m. HSH defers to the board for approval of this waiver.*

No response necessary.

- *174-11(E)(1) – Special Permit – a waiver was requested from this section however it is unclear if this waiver is required . . .*

No response necessary.

174-12 – Parking and loading regulations

- *174-12(C)(2) – Dimensional Requirements for parking . . .*

Architectural plans have been provided showing that in-unit garage spaces are of sufficient dimensions. In addition, we have labeled driveway space available to show that there is space to park another car in front of each unit.

- *174-12(E)(1) – Dwellings: two spaces for each dwelling unit containing one or two bedrooms . . . Confirm the number of spaces by showing spaces at the appropriate size throughout the development.*

This comment has been resolved, no response necessary.

- Confirm that the additional surface spots are located directly adjacent to the 3 bedroom units . . .

This comment has been resolved, no response necessary.

- *. . . Provide a minimum of 23' from the back of curb to face of building along the side of the roadway where the sidewalk is provided . . .*

This comment has been resolved, no response necessary.

- *Provide building architectural plans to verify that the internal parking spaces within the garages are a minimum of 9 ½ feet wide and 18' long*

Architectural plans have been provided confirming that these dimensions are provided.

- *It is noted that the parking provided is reliant on tandem parking for the residents (1 parking within the garage and 1 parking within the driveway). Confirm whether the applicant has considered adding additional visitor parking to avoid people parking on the street for gatherings and holidays.*

We now have 11 overflow or visitor spaces for these 32 units.

- *Verify that the garages and building entrances are accessible in accordance with the state regulations for accessible units.*

The applicant will ensure that the final architectural plans comply with accessibility regulations as applicable.

- *Provide electric charging stations into this layout per new state regulations.*

The regulations appear to require that, in parking areas of 15 or more spaces, at least one space will be made EV-ready. Although we are only creating 11 overflow spaces we will make one of them EV-ready.

- *174-12(G)(1) – Egress*
 - *Any Driveway likely to carry more than 200 trips per average business day must comply with the following criteria within this section on Route 9 . . .*

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 4

The Traffic Report was reviewed separately by another peer reviewer and found to be adequate.

174-12.1 – Outdoor illumination

- *The proposed development is located within the Residence A zone which would be subject to the LZ-1 zoning within 174-12.1(E)(2), however the proposed development does not directly apply to the spirit and intent of the regulations . . .*

The Lighting Plan doesn't reflect that there will likely be lights beside each door helping further define the site. We are trying to be sensitive to the abutters.

- *174-12.1(F) Provide a total site lumen limit calculation per table 1.*

This table has been provided.

- *Provide the appropriate calculations per table 2: Lighting Limits for residential uses.*

This information has been provided on the Lighting Plan.

- *Provide information in compliance with 174-12.1(G-R) to verify compliance with these regulations.*

This information has been provided on the Lighting Plan.

Landscape plan comments have been provided under a separate cover by James Emmanuel, RLA LEED AP from James K. Emmanuel Associates.

The comments from that review were addressed with the previous iteration of the Landscape Plan.

174-13.1 – Concept Plans

- *174-13.1(A) – Applicability. Any use which is designated in 174-8 as being subject to this article required concept plan approval by town meeting prior to being acted upon for special permit approval. It is recommended that the applicant request a waiver from this section.*

We are now requesting this waiver.

174-13.2 – Major Residential Development

- *174-13.2(1) – Applicability. Major residential development, that is, the creation of eight or more lots or construction of eight or more dwelling units within an eight-year period from or on a property or set of contiguous properties in common ownership. It is recommended that the applicant requests a waiver from this section.*

We are now requesting this waiver.

174-13.3 Lower Impact Development

- *174-13.3(C) – Applicability. This bylaw shall be applicable to all new development . . .*

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 5

We are requesting a waiver from this regulation.

Wetland Protection Regulations

170-2 – Jurisdiction. The applicant has requested a waiver from this section . . .

We have revised our waiver request to not be a blanket waiver from the entirety of the Bylaw.

Subdivision Regulations

244-4 – Plan Requiring approval. The applicant is requesting a waiver from this section since the Zoning Board of Appeals is the permit granting authority within all Chapter 40B applications. This waiver request is appropriate.

No response is necessary.

244-6 – Limit on dwelling on a lot. This proposal is to construct 32 townhouse units on a single parcel of land, and this would require planning board approval. The applicant is requesting a waiver from this section since the Zoning Board of Appeals is the permit granting authority within all Chapter 40B applications. This waiver request is appropriate.

No response is necessary.

244-8(B) – Standards of Adequacy. Provide the following information . . .

We propose pavement width and alignment in accordance with the regulations.

Per 4.1.3.1, all plans submitted shall conform to the requirements of the town subdivision rules and regulations 244-10

We added a road profile to the Site Plans and details on sheet D1 address separation of utilities in general and at crossings.

244-10(B)(13) – Dead-end streets. Dead-end streets shall not exceed the lesser of 1,000 feet or the length needed to accommodate 12 lots. Please revise the design or request a waiver.

We revised the design to shorten the main driveway to 982 feet. In regard to the sidewalks, we believe that the reviewer is mistaken in that interpretation of the regulations. Sidewalks steeper than 5% are prohibited where the existing grades are less than that. Applicants are not allowed to arbitrarily create sidewalks at a grade in excess of the ADA standards. But existing grades on this site exceed 5%. From the location of the front of unit 19 to the front of unit 27, for example the existing grade drops 24 feet over 287 feet for an existing grade of 8.4%.

We believe that road design standards are not appropriate measures of a driveway design and this driveway will have a posted 15 mph speed limit sign at the site entrance.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 6

In regard to water and sewer crossings, we have a detail on sheet D1 calling for measures to be taken when 10 feet horizontal and 18 inch vertical separation between water and sewer mains is not maintained. We also added a note to the general notes calling for maintaining 5 foot cover over water mains. In addition, some of the sanitary sewer discharge lines per units were eliminated as the Board of Health requested that we use one discharge line where multiple sewer services would all cross water mains.

We are also requesting a waiver to continue using the existing entrance. It will be resurfaced.

244-10(B)(15) Confirm the adequacy of the town water system for the 32 units which will require 748 GPD of water usage.

We have contacted the Southborough Water Department and will forward confirmation of the adequacy of the Town's system to you.

Provide evidence that water line flushing can occur without erosion.

The proposed hydrant at station 3+20 on the east side of the driveway will be at a lower elevation than the driveway to units 1 and 2 but will be just slightly higher than the catch basin at the low point of the road at station 3+15.

244-10(b)(19) – Provide compliant cross sections per town standards.

The Site Plans include a driveway and sidewalk cross-section on sheet D6.

244-12(A)(2) – Provide a cut-fill analysis for review.

As noted in General Note #6 on sheet D1, this design requires the importation of 36,000 cubic feet of soil.

244-16(B) – Drainage System.

- The HydroCAD modeling lacks a significant level of detail and modeling to verify that the proposed drainage network will work as proposed . . .*

We have added a Supplemental Drainage Report addressing the capacity of the proposed drainage pipe network in even the 100-year storm event.

244-17 – Water Supply and Fire Hydrants.

- Several hydrant locations do not meet the required separation requirements to the proposed sewer infrastructure. Please adjust.*

We moved the hydrant near station 3+10 to station 3+20 and to the other side of the driveway and we moved the hydrant near unit 17.

- The waterline is proposed with a “Y” layout and two dead end stubs. This will lead to frequent purging of the waterline. Please provide a water loop to prevent this.*

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 7

There are no available connection routes to eliminate the dead ends.

244-22 – Curbs and Berms. Curbing shall be straight or radial granite curbing with a seven-inch initial reveal from exposed face above gutter line. Revise details.

We are requesting a waiver to use sloped granite curbing as we believe it is the best choice for combining durability with suitability for residential construction.

244-27 – Special Construction Details. Several buildings have been adjusted or combined to compress the site and help alleviate the steepness of the grading to the abutters. Steep slopes still existing in several locations throughout the site. An in depth review of the additional drainage measures adjacent to the abutters will need to be further evaluated in a subsequent letter

As noted, we made several revisions to building elevations and slopes and also created a drainage swale near the east boundary of the site behind units numbers 3-9. We now call for the 1.5:1 slopes south of unit #12 and north of the septic system, between it and wetland flag C11 to be stabilized with riprap.

We also graded the area south and west of unit 27 to show a swale to direct stormwater away from that unit and toward the wetlands to the north.

Stormwater and Erosion Control Regulations

154-3 – Applicability. The applicant has requested a waiver from the entirety of the Stormwater and Erosion Control Regulations. HSH does not believe that this is appropriate as it is the applicant's duty to work with the municipality to determine which of the sections within the bylaw can be complied with and which would pose a significant hardship on the applicant over and above the state regulations. It is requested that the applicant review the regulations and provide individual waivers from sections that would be required to be waived.

We have revised our waiver request.

7.6(i)(viii) - . . . Please provide the soil logs for the remainder of the test pits performed onsite.

No more response necessary.

7.6(l)(1) – provide detailed cut and fill calculations.

No more response necessary.

7.6(o) – Stormwater and Erosion Control Management Plan. Provide a stormwater and erosion control plan in accordance with 7.6(o)(3-4).

No further response is necessary at this time.

8.1(g) – Post-Development Stormwater Management Criteria for New Developments. Revise stormwater calculations to comply with this section.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 8

We have provided a revised Drainage Report dated 7-25-2025 with these new Site Plans.

Comprehensive Permit Regulations

4.1.2 – The applicant requests a waiver from a complete financial pro forma . . .

No response necessary.

4.1.3.8 – Provide place holder locations of transformers which will be required for construction.

We added transformer locations to the Plans.

4.1.3.13 – Soil logs will be reviewed in a subsequent review.

No response is necessary.

4.1.5 - Provide building architectural plans per this requirement.

We are providing architectural plans per this requirement.

4.1.6 – Comment still outstanding. Traffic study has not been provided.

We have separately provided a traffic report which was reviewed by another peer reviewer for the Town and found to be adequate.

4.1.12 – Prepare and provide an “Environmental Analysis” in accordance with this section for review.

We are providing a revised Environmental Analysis prepared by Goddard Consulting, LLC.

4.1.15 – Prepare a long term monitoring plan per this section.

We submitted a Stormwater Report Checklist including a long term operation and maintenance plan..

6.5 – A swept path analysis was provided based on input from the fire department. Depict the WB-45 profile within the plans and note that this was per the direction of the fire department

A revised Swept Path Analysis Plan now with the profile and dimensions of the WB-45 vehicle shown has been included with the submitted materials.

– Provide a swept path analysis of the largest fire truck for the town through the proposed development to determine the vehicle’s ability to access all units.

This is a WB-45 vehicle according to the Southborough Fire Department.

Sewage Disposal Regulations

223-6(D)(1-10) – provide elevations and dimensions per this section. Certain items appear to be missing.

All required information has been provided on the Plans submitted to and under review by the Southborough Board of Health.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 9

223-29(E) – Leaching Area Requirements – utilizing a design percolation rate of 20 minutes per inch the factor associated with this rate would be 0.50 sf/gal vs the 0.53 rate that was utilized within the design. Please revise the calculations.

We are requesting a waiver from this section. We are meeting the state, title 5 standards and the Southborough Board of Health agent agrees that this is appropriate.

223-29(E) – Leaching Area Requirements – the bottom area of the trench will not be considered without prior approval of the Board of Health. Please provide approval or revise the design calculations.

- Verify that garbage grinders are not allowed within the rental development per note #6 or revise the system in accordance with 310 CMR:15.240(4) and request a waiver per this bylaw.*

Garbage grinders will not be allowed within these units. Trench bottom area is being allowed by the Southborough Board of Health.

Per 223-32 and 15.211 Title 5 minimum setback distance requirements, the project is located within the outstanding resource water of the watershed associated with the reservoir which would be subject to a 100' setback from the soil absorption system from wetlands which border or are tributary to a surface water supply. Revise the septic field location to be outside of this setback from the adjacent wetland systems shown approximately 50' away.

There is no tributary in the area in question on the USGS map of this area, nor on the MassMapper State GIS system or on the Town of Southborough GIS maps. An offset of 50 feet is in compliance with the applicable regulations. The Southborough Board of Health agent reviewing the Plans agrees.

- 15.211 Minimum Setback Distances - Provide a minimum of 20' between the soil absorption system and unit 15 due to basement separation requirements.*

The nearest corner of the septic system leaching area is now 21 feet from the foundation of unit 15.

223-54 – Capacity. A septic tank shall have an effective liquid capacity of not less than 150% of the design flow estimated.

- 223-58 – Tanks in Series. The capacity of the first compartment is at least equal to the requirements in 223-54 or at a minimum the criteria spelled out within 15.224 of the Title 5 regulations. Revise the tank size and/or provide calculations to support the minimum hydraulic detention times required.*

We made the first of the two septic tanks in series a 15,000 gallon tank followed by the second, an 8,000 gallon tank.

Revise outlet tee below flow line per the requirements of 223-62.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 10

We excavated an additional deep hole at the specific location of septic tank #2 to confirm that the proposed outlet is above seasonal high groundwater as required.

223-70 – Confirm that the invert elevation of the outlet from the septic tanks is at least one foot above the SHWT elevation.

As noted above, we excavated an additional deep hole at the specific location of septic tank #2 to confirm that the proposed outlet is above seasonal high groundwater as required..

223-73 – Alternation. Dosing shall alternate when the total volume of waste to be disposed of exceeds 5,000 gallons per day. Alternating siphons and pumps shall discharge to separate disposal areas of equal size. Revise the design to accommodate this.

We are requesting a waiver from this section of the regulations as we believe it complicates this system without providing significant benefit. In our design, the pumps will alternate but there is one soil absorption system area.

223-74 – Capacity. Confirm that the dosing tanks have the capacity to discharge a volume adequate to cover the dosed leaching area to a depth of at least one inch in not over 15 minutes.

This was addressed on the plans reviewed by the Board of Health.

223-87 – Standby power. Provide location and callouts for backup generation, panels, fuel, etc. for when emergency power is needed.

In the General Notes on sheet D1 we call for the provision of a Generac GP6500 generator, or approved equal, for emergency power.

The 2" lateral inverts are noted as being at elevation 309.00. Please confirm this is a typographical error.

This error was fixed on the plans reviewed by the Board of Health.

The finish grade is called out as 310.50. Please confirm this is a typographical error.

We fixed that error.

The 1/8" perforations are listed within the notes as 4' spacing but depicted within the diagram as spaced "5' typ" confirm spacing.

We revised the perforation spacing per review by the Board of Health and it is noted as a 3 foot spacing on both the design procedure notes and the bottom view of the laterals.

Confirm construction and stone standards have been complied with per 223-119 and 223-120.

The design conforms to the applicable portions of 223-119 and 223-120.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 11

223-123 – confirm the grade above and adjacent to the leaching trench slopes at a minimum of 2%.

It does, via the 2% crown of the driveway.

Provide test pit #11 information as it is located within the proposed septic system.

It has been provided with all official and unofficial test results.

The force main pipe size is called out as two different dimensions between the plans and the septic profiles. Please confirm pipe size and material.

The force main is now consistently indicated as a 6 inch diameter.

310 CMR 15.00 Title 5 Regulations

15.212(2) - . . . Please provide a mounding analysis and revise the design of the system accordingly.

A mounding analysis was provided to the Board of Health in its review.

15.220(k) - Provide the location of every water supply, public and private.

- The abutter at 258 Turnpike Road is noted via the well drillers report as having a domestic well on the property. Please locate and depict on the plan.*

The most recent as built plan of that property does not reflect the presence of a well. We visited the abutter's offices and they confirmed that they do not use a well but have a connection to Town water which is corroborated by the presence of a hydrant on their site.

15.221(7) - The top of all systems components, including septic tanks, distribution box, pump chambers, dosing chamber, and soil absorption systems shall be installed no more than 36" below finish grade. The proposed design shows the top of the system approximately 45" below finish grade. Please revise.

We relocated one septic tank and revised the surface grading to avoid excessive cover.

Provide sewer service callouts in conformance with 310 CMR:15.222

We show every individual sewer service line on the Plans now.

15.231 – Dosing Chambers and Pumps. Per the calculations with sheet 2, it is noted that the volume below the pump on is 3,234 gallons however note 5 calculates the total volume within the system which would need to be held per 15.231 is 3,251 gallons. The emergency gallons calculated is within 10 gallons of the requirement. Please increase the pump chamber to accommodate the additional gallons required.

The was also noted by the Board of Health in its review and we revised the plan accordingly.

Confirm venting criteria meets the items spelled out within 15.241

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 12

The plans now show the proposed location of multiple septic system vents per the review by the Board of Health.

Generic Plan Comments

Existing Conditions Plan Comments:

We fixed the issue of the scale of the existing conditions plan inadvertently being slightly reduced.

Site Layout Plan comments:

- *The development has been greyed out within the site plans. HSH will review the plans and calculations to verify that the design has been separated out.*

They have been. We simply show that proposed building and the existing septic system on that lot for context. Also, the drainage system on Lot A discharges to the detention basin near Parkerville Road and located primarily on Lot B. We show it in gray on the revised Site Plans.

- *HSH will review the updated pipe layout in subsequent review.*

No response is necessary.

- *Fences are provided within the revised Site Plan.*

No response is necessary.

Grading, Drainage and Erosion Plan Comments:

- *Some of the basements will be removed and slab construction proposed due to proximity to the SHWT.*

No response is necessary.

- *The sidewalks will be adjusted by the Applicant to meet this requirement.*

We reviewed the regulation in question, 521 CMR 22.3.1 and disagree with this interpretation. It has an exception for sites where the natural topography exceeds one in 20 or a 5% slope. As noted in a previous response, From the location of the front of unit 19 to the front of unit 27, for example the existing grade drops 24 feet over 287 feet for an existing grade of 8.4%. The restriction in the regulations seems intended to prevent developers from creating sidewalk grades greater than 5% where existing grades do not require it. But, existing grades are greater than 5% on this site.

- *The infiltration drywells behind unit 24 and unit 10 show testing in the area but this testing has not been provided to determine SHWT, soil texturing, etc. Please provide soil testing evidence to support this determination.*

We are including all deep hole logs with this submission.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 13

- *The infiltration drywell behind unit 21 does not show testing near the system yet denotes a SHWT elevation within the detail callout. Provide evidence to support this determination.*

We are providing the log of deep observation hole #24 in this area.

- *Provide roof drainage inverts into the infiltration drywells so that the HydroCAD calculations can verify that these systems do not backup the inverts.*

We have included this information on detail sheet D5 which indicates that the inverts of all the downspout connected pipes discharging into it will be 330.50

- *Provide top and bottom of retaining wall elevations.*

We have added this information to the Plans.

- *The proposed limit of work is located outside of the proposed property line. Reduce the limit of work to be located within the property limits.*

The lots are in common ownership. We are proposing a grading and drainage easement on Lot A.

- *The erosion and sediment control plan depicts what looks like haybales as the primary source of erosion control. It is preferred that the straw wattle with silt fence backing be the primary source of erosion control on the site.*

The symbol looks like a straw bale but the detail on sheet D1 shows it is a combination of a straw wattle and silt fence.

- *The erosion control notes state that the entirety of the project including the site entrance and utility work will surpass 5 acres. A phased construction management plan will need to be developed per the Construction General Permit as part of a Stormwater Pollution Plan (SWPPP) filing under MEPA requirements.*

That note was incorrect. The entire area within the limit of work is 3.5 acres.

Detail Plan Comments:

- *It is recommended to expand the site exit construction mat detail to a minimum of 24' in width to accommodate two-way traffic in and out of the site.*

This change was made though we question why tires need to be scrubbed entering the site.

- *Provide test pit information for the drywell infiltration chambers located behind units 10, 24, and 21. Provide a mounding analysis for these systems where less than 4' separation to SHWT and/or ledge is noted from the most restrictive test pit within or near the system.*

We have provided the test pit information and are providing the mounding analysis.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 14

- *Per the stormwater manual, table IB.1, one soil sample for every 5,000 ft of basin area is recommended with a minimum of three samples are required for each infiltration basin.*

We have three deep holes in the area of the primary infiltration system. We have other tests in or adjacent to the footprint of other proposed infiltration structures.

- *The most restrictive test pit (TP 23) for the Retain-it infiltration chambers shows 40" down from an elevation of 320 yielding a SHWT elevation of 316.67'. Provide a mounding analysis for this system.*

We are providing the mounding analysis.

- *Provide overflow outlets for each of the infiltration drywell chambers in case of clogging or other soil restrictions so the system does not only have to rely on infiltration as the primary outlet.*

We added notes to each calling for a 6-inch HDPE overflow pipe.

- *Area drain A is shown as taking a large section of water from the rear of the townhouses 12-17, however the contours depict that the water will be directed mostly at the rear of the units. Revise the grading to reflect the design intent and provide calculations to support this drainage runoff.*

We eliminated the area drains and replaced them with a stone lined swale.

Drainage Comments:

- *HSH will review the comments below based on the revised material and address within a subsequent review.*
- *Subcatchment 7, 8 and 9 are analyzing watershed patterns which are external to the project analysis. Each of these watershed areas will have an intricate system of pipes, manholes, and basins which would need to be quantified to verify if any of the water does in fact make its way into the proposed development drainage network.*

We assume in both pre and postdevelopment calculations that the abutting development's drainage system will adequately convey captured runoff. We've never been asked to prepare an as built survey of abutting developments as part of drainage calculations before.

- *The LiDar imagery located within the pre- and post- watershed maps does not corroborate the detail of pond storage and outlet detail that is modeled within the existing HydroCAD pond nodes 7P and 8P. Provide additional detail on where this information was obtained.*

We revised the modeling of the existing detention pond on the back of #'s 5 and 7 Sarsen Stone Drive using the lidar topography.

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 15

- *The pre-development and post-development watershed maps are difficult to read and hard to understand where the information is coming from. The reaches/analysis points identified within the HydroCAD should be labeled within the Pre- and Post-development watershed maps for clarity.*

We created a separate Offsite Drainage Area Plan to avoid using the Town GIS background on the Pre and Postdevelopment Drainage Area Plans.

- *Please provide pre- and post- analysis points for the abutters to the south and east comparing the existing runoff to the proposed runoff from the new untreated grass areas, roof and reduction of woodland per 154-9(A)(6).*

We added comparison of pre and postdevelopment flows to the abutting property owned by Pendergast & Wittcoff and the property owned by Palmer.

- *Revise the soil and cover information for the existing site wetlands to reflect soil group D and water surface.*

We already describe the indicated water surface areas in both existing detention basins as just that in the drainage calculations. We hesitate to change the description of underlying soils because an area is flagged as wetland. We've never done this previously.

- *Provide a soil listing printout for both the pre- and post- development HydroCAD.*

We added a soil listing printout to the 2-year storm printout for both pre and postdevelopment conditions.

- The area listing depicts a large portion of Subcatchment 7S as HSG D whereas the Wed Soil Survey soils depict this soil as group B.

We made this change as requested.

- *Another approximately half-acre of area is depicted as HSG group D within the pre and post development HydroCAD. Please provide determination for utilizing this group instead of group B or group C as shown within the NRCS Map for the site.*

We corrected that in the revised Drainage Report.

Massachusetts Stormwater Standards and Stormwater Checklist:

- *A Notice of Intent (NOI) Application was not included within the provided material.*
- *It is noted that the project is minimizing disturbance to existing trees and shrubs, however the project appears to be cutting the majority of the upland located within the project site including that which exits within the town no disturbance buffer. Please explain how the resource areas will be protected from erosion and sedimentation*

control and the interests of the Wetlands Protection Act be protected by this project in close proximity to the resource areas.

As noted above, we and the project wetlands scientist are working to address comments from the Conservation Commission's outside reviewer, Lucas Environmental, LLC and will provide a revised Stormwater Report Checklist when that process is closer to completion.

- *Standard #1*
 - *Revise the calculations within the Stormwater Checklist in accordance with Volume 3, Chapter 1, Page 2 of the Massachusetts Stormwater Handbook.*
 - *Provide updated Rip-Rap calculations for each outlet for the revised drainage design.*

We are providing a revised Stormwater Report Checklist.

- *Standard #2*
 - *Standard 2 includes the proposed design for the industrial parcel to the north. As stated above, the 40B rental development should have a drainage design and Site Plan design which stands on its own separate from this development in the event that one or the other is not permitted or constructed at the same time. Revise the calculations provided per the above comments.*

The Contractor's Yard use on the adjacent lot now has Planning Board and Conservation Commission approval we would be remiss to not show it as part of the context of this project.

- *Standard #3*
 - *In general, the site appears that each system which is being utilized for infiltration is being captured into a Contech CDS Filtration Unit prior to discharging into the system.*

No response necessary.

- *Provide the required calculations per the Massachusetts Stormwater Handbook to quantify that the site meets the 44% TSS requirement prior to entering an infiltration practice and provide additional calculations to support the additional drywell systems being utilized for recharge within the site. Provide additional drawdown calculations for the other three drywell systems within the site.*

The smaller infiltration structures are fed only by roof runoff which is considered clean. We have added drawdown calculations requested.

- *Standard #4*

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 17

- *Provide calculations weighted over the site and various treatment trains per the above comments relative to 90% TSS and 60% TP.*
- *Provide BMP specific water quality calculations to verify that each system is treating the required amount that is being directed to that system.*
- *The CDS flow-based sheets are noted to be attached to the document but cannot be located, only the sheets relating to operation and maintenance. Supply information from the supplier that details the removal efficiency for the given flow rates through the pipes for each unit.*
- *The box should be checked within the stormwater checklist to show soils with rapid infiltration rates are being utilized.*

We provided information and revised the form as requested.

- *Standard #5*
 - *The Post drainage maps show that drainage from the proposed contractors yard development within the industrial land to the north flows into the property and into the site's wetlands. It is listed within standard #5 that the proposed residential development is not a land use with higher potential pollutant loads but verify that the proposed industrial development to the north which contributes to the drainage of this site is also not a land use with a higher potential pollutant load.*

The contractor's yard is not a land use with a higher potential pollutant load.

- *It is noted that the Stormwater Pollution Prevention Plan (SWPPP) was included within the stormwater report. Please provide a draft copy for review.*

We will provide a copy of the SWPPP filed with the EPA.

- *Standard #6*
 - *Appropriate BMP's have been used within the proposed design to satisfy this criterion.*

No response necessary.

- *Standard #7*
 - *This project is not a redevelopment as stated within the submittal documents.*

No response necessary.

- *Standard #8*

Lara Davis
250 Turnpike Road, Southborough
August 1, 2025
Page 18

- *The proposed grading and drainage plans depict retaining walls and grading approximately 1' from the side lot lines. The proposed erosion control is proposed at a width of approximately 1.5' with additional space needed to install these measures. Please detail how these measures can be installed in concert with the proposed site features and grading.*

We will create an easement onto the adjacent lot.

- *Standard #9*
 - *Provide all six items listed within the Massachusetts Stormwater handbook Volume 1, Chapter 1, page 23 within the operation and maintenance plan.*

We have done so in the revised stormwater report checklist.

- *Standard #10*
 - *An illicit discharge statement has been provided.*

No response necessary.

If there are any questions, please don't hesitate to contact me. Thank you.

Sincerely,
EXPEDITED ENGINEERING, LLC



James Tetreault, PE, CPESC

Cc: Howard Stein Hudson
FD 250 Turnpike, LLC