

Land Planning • Civil Engineering Landscape Architecture • Septic Design & Evaluation Stratham, NH

June 10, 2025

Kristen Grubbs, Town Planner Town of Newbury 12 Kent Way Byfield, MA 01922

Re: 34 Central Street

Residential Development Plans

Dear Ms. Grubbs:

We are in receipt of a review letter from Joseph J. Serwatka, PE, dated April 10, 2025 and we offer the following responses to the noted comments. Each comment is followed by our response in **bold**.

Existing Conditions Plan

1. The material of the existing 10" watermain in Central Street should be provided, based on water department records.

Response: The material has been added to the plan.

2. Note 3 simply states "wetland flags hung by others". Typically the name of the wetland scientist and date(s) of flagging are provided. The note should also state whether the wetland delineation has been reviewed and approved by the conservation commission.

Response: The name of the company providing wetland delineation has been added. The date of delineation and if they have been approved by the conservation commission will be determined and added to the plan.

- 3. It would be helpful to know if there is an outlet or the wetland system depicted on the plans. Response: An outlet has been added.
- 4. The limits of zone A setback should be depicted on the plans, as would be typical. Response: The zone setback has been added.
- 5. The plans are prepared at 20 scale which are very readable, but the development plans are prepared at 40 and 50 scale making them much less readable. I would recommend that all development plans be prepared at 20 scale, given the size and complexity of the project.

Response: Additional development plans have been provided at 30 scale to increase readability.

6. The board may want the approximate locations of abutting septic systems and/or wells to be shown on the plan.

Response: This will be discussed with the board as suggested.

Demolition Plan, Sheet 5

1. It appears that the zone A line is depicted, but it is not labeled on the plan.

Response: A label has been added to depict zone A line.

2. The plan should depict the location(s) of the existing septic system(s) which may need to be removed and replaced with clean fill.

Response: The location of the existing septic system is being determined and will be added if available.

- 3. A label in Central Street states "ex. driveway to be relocated. see sht P1". A driveway does not appear to be shown on the plan, and there does not appear to be a sheet P1. The engineer should address this. Response: The label has move moved and revised.
- **4.** This comment applies to Christian Smith's stamp, which appears on most plans. The stamp displays number 4603, but Mr. Smith's correct license number appears to be 46403. The stamp and plans should be corrected accordingly so that the correct license number is shown.

Response: The number in the stamp has been revised.

5. An erosion control line appears to be shown at the limits of demolition/clearing, but it is not labeled or described as to type.

Response: The erosion control line has been labeled.

Site Plan A. Sheet 6

- 1. This appears to be a "site layout" plan, but no information or labels are provided. The plan, unfortunately, only serves as a "sketch". Typically, all proposed site features would be completely identified and dimensioned as applicable. Horizontal layout information would also be provided. Response: Site plan a has been revised to include road geometry and setback dimensions.
- 2. The plan should be provided in 20 scale, similar to the existing conditions plans, to be more readable and useful given the amount of information that needs to be depicted.

Response: Additional development plans have been provided at 30 scale to increase readability.

3. A zone A line appears to be shown but it is not labeled.

Response: A label has been added to depict zone A line.

4. The proposed sidewalk is shown extending in Central Street, but a connection to an existing sidewalk is not shown.

Response: A sidewalk runs through the site and terminates at Central Street, where it could connect to a future sidewalk along Central Street.

5. The notes reference the Town of Brentwood. This should be corrected.

Response: The notes have been revised.

6. Note 6 states that a portion of the site lies within the 100 year flood zone. The flood zone should be depicted on the plan, if this is correct.

Response: The note has been revised to note the site is not within the 100-year flood zone.

7. Note 10 appears to refer to a New Hampshire regulation, This should be removed as necessary.

Response: Note 10 has been removed.

8. Property and roadway setback lines appear to be shown, but none are identified. They should be labeled and dimensioned, as would be typical.

Response: Site plan a has been revised to include road geometry and setback dimensions.

9. Street and stop signs would typically be shown on a site layout plan. These should be shown as applicable.

Response: The proposed signs and labels have been provided.

- 10. NRCS soils information is noted on the plan, but no soil lines are depicted, as would be typical.

 Response: Soils information and lines have been included on the Grading, Drainage, & Erosion Control Plans.
- 11. Note 3 refers to benchmarks, but no benchmarks are identified on the plan, as would be typical. Response: A benchmark is provided per the surveyor.
- **12.** The board may want the engineer to provide a table to demonstrate compliance with the dimensional standards of the MBTA bylaw.

Response: A table will be added if required by the board.

13. The architectural plans appear to show that some 3 bedroom units have 2 car garages, while others have only a 1 car garage. The board may want to discuss whether this is adequate.

Response: This will be discussed with the board as suggested.

14. I would recommend that the plans show a minimum of 20 feet from back of sidewalk to face of garage to ensure that vehicles parked in driveways will not extend onto the sidewalk.

Response: All proposed garages are located a minimum 20' from sidewalk.

15. Note 11 states that the "proposed road is to be a public way". Tus is likely incorrect and should be revised.

Response: The note has been revised to state the proposed road as a private way.

Site Plan B. Sheet 7

1. Typically this plan would be called something like "grading & drainage", not "site plan B". The engineer may want to revise the plan title.

Response: The plan name has been revised to Grading, Drainage, & Erosion Control Plans.

2. As with Site Plan A, this plan does not provide any labels or dimensions, and appears to be more of a "concept" rather than construction plan. The engineer should provide adequate information, as would be typical.

Response: See previous response to site plan A.

3. Note 3 refers to "wetland crossings", but none are depicted on the plan. The engineer should address this

Response: The wetland crossing note has been removed.

4. Notes 6, 7, 9 and 10 refer to "phases" and "amenities". The engineer should address these items, as they

do not appear to be depicted on the plan.

Response: The notes have been removed.

- 5. This plan should be presented at 20 scale given the number of items that need to be depicted. Response: Development plans have been revised to increase readability.
- 6. Garage, basement, and first floor elevations should be provided as would be typical, for each unit. Spot grading should also be provided in driveways and around units to demonstrate adequate runoff flows. Response: Proposed elevations have been provided as requested.
- 7. The proposed grading around buildings 5 and 6 is not shown adequately. Response: The grading has been revised as required.
- 8. The architectural plans show that the "B" units have full basements. The plan appears to show proposed grading that would accommodate "walkout" basements on some, but not others. The engineer/architect should address which units will have walkout basements.

Response: The architectural plans are being revised to meet the grading requirements of the site.

9. A "dog park" is shown behind unit 3, but no access appears to be provided, other than down 3:1 slope. The engineer should address this.

Response: The dog park has been relocated to a more accessible location.

10. The site is comprised of an enormous amount of rock and/or ledge which will need to be removed to accomplish the site development, which shows cuts of 15 feet or more. The board may want to discuss whether blasting and/or hammering will be allowed to accomplish the work. Given the close proximity of abutters, either method will likely be noisy and inconvenient. On site crushing of the removed rock will also involve noise and dust. The board may want the engineer to address this issue.

Response: This process can be discussed with the board as requested.

Plan and Profile, Sheets 8 and 9

1. The plan should describe the type of proposed watermain connection to the existing watermain in Central Street (e.g. tap and sleeve). Also, the material of the existing and proposed watermains should be noted.

Response: The connection type has been added and the proposed watermain material.

- 2. The rim elevation of 65.9ft. on DMH#1 appears incorrect. The engineer should check this. Response: The incorrect elevation of DMH#1 has been revised
- 3. The 12" invert into sediment forebay #1 is 60.8ft with a top of pipe of about 62.0ft. The proposed contour is 61 feet, so the pipe will be above ground. The engineer should address this. Response: The grading and pipe length has been revised to provide cover.

- 4. The plan does not show 10 foot separation between water/sewer services to each unit, as would be typical. The engineer should address this.
 - Response: The proposed services have been relocated as required to provide adequate separation.
- 5. The plans appear to show a tank and pump chamber after SMH2, but they are not labeled. They tank is shown improperly in the profile as only extending to the existing grade elevation of about 62 feet, but

the proposed grade in this area will be about 68 feet. The engineer should revise the profile, and depict the actual tank sump depth. Also, a source of power, and possibly a backup generator, may be required to be shown.

Response: Labeling has been added and the grading revised as required.

- 6. The vertical design of the proposed roadway is shown in the profile, but nowhere in the plans is the necessary information for the horizontal design of the roadway. The engineer should address this. Response: The roadway geometry has been provided and added to the site plans.
- 7. The type "A" and "C" buildings have a sprinkler room at one end, apparently for fire sprinklers. The plan does not show water connections to the sprinkler room, as it should.

 Response: The water lines have been added as requested.
- 8. Unit 10, a four-plex, has a walkout first floor and a second floor deck with stairs to the backyard. The backyard is shown as a 3:1 slope starting 10 feet off the back of the building. This will not only shed water directly at the building, but does not provide a useable yard space. The board may want the applicant to address this.

Response: The architectural plans are being revised to meet the grading requirements of the site.

9. Proposed contours 68 and 70 connect to the same existing contour between buildings 9 and 10. This should be corrected.

Response: The grading has been revised.

10. Building 1 is a type "C" with a first floor walkout, but the plans show at least a 4 foot drop from front to backyard. The engineer should address how this will work.

Response: The architectural plans are being revised to meet the grading requirements of the site.

11. Building 2 is a type "B" building with a rear deck at grade, but the plan shows an 8-9 foot grade difference from front to back. The engineer should address how this will work.

Response: The architectural plans are being revised to meet the grading requirements of the site.

12. Building 9 has a 2 foot elevation drop across the front, but the architectural plans do not account for a drop. The engineer/architect should address this.

Response: The architectural plans are being revised to meet the grading requirements of the site.

13. Buildings 8 and 9 have rear 3:1 slopes that would tend to direct runoff at the buildings. The engineer should provide grading to demonstrate adequate surface drainage.

Response: The architectural plans are being revised to meet the grading requirements of the site.

14. Building 7 is a type "B" with rear deck at grade, but the nearly a 10 foot grade difference from front to back. The engineer should address this.

Response: The architectural plans are being revised to meet the grading requirements of the site.

15. The proposed grading at the northeast corner of building 7 is incomplete.

Response: The grading shown is correct as the higher elevations in this area are being removed.

16. Notes 1 and 3 refer to the Town of Nottingham and NHDOT. This should be corrected. **Response: The notes have been revised.**

17. Note 2 refers to benchmarks which do not appear to be shown on the plan.

Response: See previous response for benchmark.

18. Building 12 is a type "A" building with first floor walkouts, and a single elevation throughout the length, based on the architecturals. The plans, however, show a proposed garage grade of about 74 feet on one end, and about 77 feet on the other. The engineer/architect should address this.

Response: The architectural plans are being revised to meet the grading requirements of the site.

19. Building 11 is also a type "A" building, but the grade at one end is about 74 feet, while the other end is about 71 feet. This should be addressed.

Response: The architectural plans are being revised to meet the grading requirements of the site.

20. Building 13 is a type "A" building with a 3 foot grade drop across the building, which does not work with the architectural plans. Also, the proposed 76 foot contour needs to continue around the rear of the building.

Response: The architectural plans are being revised to meet the grading requirements of the site. The 76 contour has been revised.

21. Buildings 5 and 6 are both type "B: buildings with rear decks at grade, but the plans appear to show an 8-10 foot drop from front to rear. This should be addressed. The plans also show the proposed treeline about 15 feet off the rear of the buildings, which will make it difficult to construct the buildings. In any event, the trees and root structure will be too close to the proposed buildings. Damage to the structures will likely occur from falling branches and/or trees.

Response: The architectural plans are being revised to meet the grading requirements of the site.

22. The vertical scale is noted as 1"=45', which would be incorrect.

Response: The vertical scale has been revised.

23. Building 4 is a type "C" building with first floor walkout, but there is an 8 foot drop from front to back that needs to be addressed.

Response: The architectural plans are being revised to meet the grading requirements of the site.

24. Building 3 has a 10 foot grade change from front to back that does not appear to be accounted for in the architectural plans.

Response: The architectural plans are being revised to meet the grading requirements of the site.

25. The plan appears to depict two tanks after SMH7 that are not labeled. These are likely septic tank(s) and/or pump chamber that will be almost 20 feet below proposed grade to accommodate the required flow and size. Proposed underground electric will need to be shown to the pump chamber, and a backup generator will likely be required, which would operate off propane most likely.

Response: Additional information on the septic tanks, pump station, and electrical fee will be provided.

Lighting Plan, Sheet 10

- 1. The lighting legend is so small as to be unreadable. The lighting designer should address this. Response: The lighting legend size has been increased.
- 2. The plan provides for 5 street lights and depicts zero illumination throughout much of the proposed

roadway. The board may want this addressed.

Response: This can be reviewed with the board.

3. Wall mounted lights appear to be modeled over each garage, but the architectural plans only show proposed wall lighting at the entry doors. This should be addressed.

Response: Architectural plans will be revised as necessary.

Planting Plan, Sheets 11 and 12

1. The notes reference "lawn areas", but the plans do not designate turf areas throughout the site.

Response: Areas not called out for particular surface treatment are intended to be lawn areas.

2. The board may want the plans to address whether sprinkler systems will be installed.

Response: Sprinkler systems will be provided if required by fire code requirements.

Construction Details, Sheets 13-15

1. The "typical cross section" detail for the roadway should include state specs for the gravel, as would be typical.

Response: Gravel specification has been added.

2. The pavement label refers to NHDOT, which is an error.

Response: The labeling has been revised.

Erosion Control Notes & Details, Sheet 16

1. The board may want the engineer to provide a section for ledge removal and crushing operations. Response: This can be reviewed with the board.

Drainage Analysis

1. The existing watershed plan shows about 5 separate flow paths for subcatchment 1S, 3 flow paths for 3S, and 2 for 6S. This may be a drafting error as each subcatchment should have one analyzed flow path.

Response: This was a pape-space layering issue, and as been corrected.

2. The report excludes the existing 2 year full analysis and the proposed 2 and 100 year full analysis. These should be included, as would be typical.

Response: Full reports for all storms evaluated are provided as required.

3. The engineer needs to review the times of concentration analysis for the site. As an example, existing subcatchment 4 has an area of 101,256s.f. and a time of concentration (Tc) of 12.9 minutes, but proposed subcatchment 4S, comprised of 60,011s.f of the original area, has a Tc of 22.4 minutes, or nearly double. This is not hydraulically possible, as the same flow paths are used in both, so the post development Tc should be less than pre. This would underestimate the post-development flow when compared to existing conditions.

Response: The Tc's have been reviewed for all subcatchments and revised as necessary.

4. The engineer should provide test pits data in bioretention pond #1 to verify soils and seasonal high groundwater, as required.

Response: Please see test pit log for pit number 25G attached and within the drainage analysis.

5. Soils and groundwater information should be provided at infiltration trench #1 and #2 as required. Also, infiltration trenches are required to be a minimum of 20 feet from any slab/foundation. Further, proposed grading has not been provided at units 5 and 6 to demonstrate that the trenches can be installed as designed.

Response: The proposed drip edge trenches have been removed, and replaced with a 6" PVC collection pipe for the gutter downspouts of units 5-1 through 6-1 which is conveyed to CB #7 & ultimately bioretention pond #2.

6. The required stormwater forms should be submitted demonstrating compliance with the standards. Response: The MADEP Stormwater Checklist and Illicit Discharge Statement have been added as part of the drainage analysis. Ina addition, the stormwater Inspection and Maintenance Manual has been incorporated into the study as well.

Septic Design

1. Soil and perc tests were conducted throughout the site in fall of 2024. The only area, to date, that was judged suitable for a septic system design attempt was the western corner of the site, where the "Pro Septic Field" rectangles are shown. Four test pits and two percs were conducted in this area, and the four test pits are shown on the plan. Unfortunately, two of the test pits are located under a proposed building or outside of the system area, so my recommendation was to conduct additional test pits. The engineer has not yet contacted me to schedule this testing.

Response: Additional test pits and percolation tests have been conducted.

2. The locations of the two perc tests should be shown on the plan to verify that they are located in the proposed system area. If not, additional perc tests may be warranted.

Response: The locations of the perc tests are indicated by the test pit numbers.

3. The 3 fields shown, to my understanding, are just the "primary" leach area for a design flow of 9,900 gallons per day. It is required to also show a "reserve" area of the same size capable of being used should the primary area ever fail. No reserve area has been shown at this point, so adequate sanitary disposal areas are not shown to support the proposed number of units/bedrooms. I have advised the engineer to schedule additional soil/perc testing in order to show a reserve area. It is my understanding that this is being worked on by the engineer. Based on the lack of adequate sanitary disposal areas, the board is advised that the total unit/bedroom count may be more of a "concept" at this time.

Response: A reserve area has been added to the plans behind

4. A septic plan, satisfying Title 5 and Town of Newbury requirements has not yet been submitted for review. This plan would be required to demonstrate that the site can support whatever unit/bedroom count is ultimately settled upon.

Response: A septic plan will be provided after an overall review by the board.

Thank you for your timely and professional review of the submitted plans. We hope the information provided address your concerns. Please feel free to contact our office if you have any additional question and/or comments.

Very Truly Yours,
BEALS ASSOCIATES, PLLC

Christian O. Smith

Christian O. Smith, PE Principal