



October 29, 2025

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

Re: 34 Central Street – Residential Development Plans
Response #4 to Engineering Review Comments

Dear Ms. Grubbs:

This letter provides responses to the review letter from Joseph J. Serwatka, P.E. dated October 12, 2025. Comments that were expanded or added have been included in this response letter. The latest comments are shown below in **bold** and Beals Associates, PLLC responses appear in *blue bold italics*.

Site Plan A. Sheet 6 (now sheet 7)

4. The proposed sidewalk is shown extending in Central Street, but a connection to an existing sidewalk is not shown.
The response indicates that the sidewalk would terminate at Central Street.
The response states that “a proposed sidewalk towards and beyond Central Court has been added to the plans”, but nothing is labelled. The board may want any approval to include a condition relative to the offsite work.

Response: Off-site improvements, including the proposed sidewalk, are shown on the Off-Site Improvements Plan (Sheet 18).

16. A vegetation maintenance area is shown in Central Street to maintain sight distance. The plan does not address the party responsible for the maintenance.
The response and plan note that the town will be responsible for vegetation maintenance.

Response: With the driveway on Central Street being revised to entrance only, there is no longer a requirement to remove and maintain the vegetation along Central Street for sight distance.

Plan and Profile, Sheets 8 and 9 (now sheets 9 and 10)

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 watermain should be noted.
Contrary to the response, the type of connection is not noted on the plan, and the existing watermain material is still missing.
The tap and sleeve is called out on the Utility Plan, but the watermain material is still not noted on the plan. It is important for the contractor to know that it is an AC watermain in Central Street.

Response: The size and material (10" AC Water) continues be shown on the Existing Conditions Plan and has been included on the Utility Plan in Note #19. We are in ongoing discussion and field review with Byfield Water regarding the extent of the AV main, and replacement of the existing main pipe along the locus parcel frontage which will likely result in a more modern material such as CLDI or other accepted main material as directed by the Water Department.

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.

The tank has been removed from the profile, and now two forcemain lines are shown out of SMH #3, which would be incorrect. The tank/pump chamber label refers to detail sheet, but nothing appears on the detail sheets. This issue has not been addressed.

The response “labeling has been added and the grading revised as required” appears to be incorrect and does not address the issues. Forcemains are still shown out of SMH 3 and labeled as connected to SMH 4, which is incorrect. SMH 2 is shown connected to SMH 3 which is incorrect. Tank and pump chamber details are provided on the septic plans. Comments are following relative to these plans.

Response: The septic tank and pump chamber locations have been revised along with the profile to match.

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. The response states that “roadway geometry” has been added to the site plans, but this does not appear to be the case. Stations are provided for the roadway, but not horizontal curve information, as would be typical.

The horizontal roadway layout information is now provided on the plans. Of the four horizontal curves in the roadway layout, three have a centerline radius of only 75 feet, and the fourth has a radius of 115 feet. The subdivision regulations, by comparison, require a minimum centerline radius of 100 feet for cul-de-sac roadways, and 200 feet for non-through roadways. More importantly perhaps, the minimum sight distance on horizontal curves is 200 feet, which is critical to drivers recognizing hazards in the roadway. The board may want the engineer to address whether sight distance has been addressed and/or reviewed by the town’s traffic consultant.

Response: The proposed roadway within the development is private and will not become a public road, therefore it does not need to meet subdivision regulations. Travel speeds within the development will be low and the Fire Truck Turning Analysis Plan shows that the fire truck can maneuver though the site.

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.

The response states that plans are being revised to meet the grading requirements. The plans should be

submitted for review.

The response states that “the architectural plans have been revised to meet the grading requirements of the site”, but the following discrepancies are noted relative to building 10. The development plans show finish floor elevations of 76 feet for the building, with garage floors ranging from 73.5 to 72.5 feet from north to south. The architectural plans have the same finish floor elevations, but garage floor ranging from 72.5 to 73.5 feet from north to south, just the opposite.

Response: The elevations on the architectural plans have 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.

The response states that the architectural plans are being revised. They should be submitted when ready.

The response states that “the architectural plans have been revised to meet the grading requirements of the site”. Consider that the proposed deck stairs end at the 3:1 slope around the bioretention area. The board may want the engineer and architect to propose a more suitable design. Also, it is noted that the garage grades shown on the development plans are opposite those shown on the architectural plans.

Response: The stairs and elevations on the architectural plans have been revised.

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.

Same response as above.

The response states that “the architectural plans have been revised to meet the grading requirements of the site”. A rear level walkout to the rear grade is now proposed. It is noted that the development plans show a 3.5ft difference between garage and first floor elevations, but the architectural plans show them at essentially the same grade. The architect and engineer should coordinate on the corrections.

Response: The elevations on the architectural plans have been revised.

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.

Same response as above.

The response states that “the architectural plans have been revised to meet the grading requirements of the site”. It is noted that the development plans show a 2.5ft difference between garage grade and first floor elevation, but the architectural plans show them at similar grades. The architect and engineer should coordinate on any corrections.

Response: The architectural plans have been revised to coordinate with the grades.

18. Building 12 is a type “A” building with first floor walkouts, and a single elevation throughout the length, based on the architectural plans. 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.

The response states, again, that the architectural plans are being revised. They should be submitted when ready.

The response states that “the architectural plans have been revised to meet the grading requirements of the site”. The plans appear to be better coordinated. It should be noted that rear deck stairs on a unit extend almost to the concrete patio of the adjoining unit. This occurs on several of the proposed buildings on the site. The board may want the architect to relocate the stairs so that they remain behind each unit.

Response: Stairs were revised as to not interfere with one another by increasing the riser height slightly and readjusting the landing pads.

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.

Same response as above.

The response states that “the architectural plans have been revised to meet the grading requirements of the site”, but there does not appear to be a building 13 on the current plans. The engineer may want to revise his response.

Response: Building 13 has been removed from the plans.

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.

The architectural plans are being revised. They should be submitted when ready.

The response states that “the architectural plans have been revised to meet the grading requirements of the site”. The building now has a walkout lower level. Bathrooms are shown in the lower level which would be below the gravity sewer elevation. The engineer should address whether sewage pumps pits will be required, and where they would be located as mechanical rooms are not shown.

Response: Sewer ejector pumps will be shown on MEP plans for Building 4.

Utility Plan A and B (sheets 13 and 14)(new)

1. The plan shows a tapping sleeve and gate valve connection to the existing watermain in Central Street, but a detail is not provided. Further, it is my understanding that the water department will require replacement of the existing AC watermain in Central Street as part of the project. This should be shown in the plans.

A detail has been provided. The response states that the limits of AC watermain replacement will be shown on the plans per the water department. The board may want to make this a condition of any approvals.

Response: Limits of AC watermain replacement as part of the project continue to be determined with the Town and will be reflected on the plan once confirmed.

4. The pump chamber(s) will likely require a small structure/shed to house the controls, alarms and backup generator. The engineer should depict these features.

Two 8’ by 10’ +/- pump houses have been shown on the plans. Each structure will likely require an electrical service and meter, along with an above ground or buried propane tank to power the generator.

Response: Electrical service has been shown to each pump house. Additionally, Note #20 on Sheet 13 has been added to clarify the need for an electric meter, underground propane tanks, and an exterior generator.

Lighting Plan, Sheet 10

2. The plan provides for 5 street lights and depicts zero illumination throughout much of the proposed roadway. The board may want this addressed.

The response simply states “this can be reviewed by the board”.

The response states that “the planning board is comfortable with the lighting plan”. The board may want to verify this as the lighting plan shows that much of the site has zero illumination.

Response: As is typical with residential development, lighting is provided at intersections and corners, but the roadway is not lit as a parking lot would be.

Off-Site Improvements Plan (sheet 18) new

2. The plan should include the water main replacement in Central Street as required by the water department.

The response states that this will be shown on the plans once verified. The board may want to make this a condition of any approvals.

Response: Limits of AC watermain replacement as part of the project continue to be determined with the Town and will be reflected on the plan.

One-Way Exit Drive Exhibit Plan (new sheet 18A)

This proposed access should be included in all of the previous plans if it is intended for approval and construction. The board may want the engineer to add this to the plans

Response: While the impacts to the wetland and wetland buffer have yet to be reviewed with the Newbury Conservation Commission or MassDEP, we have added the proposed one-way exit drive to Central Court.

Septic System Details (sheets 20 and 21) new

1. The engineer should address why the septic tank size(s) does not conform to Title 5 requirements. The first tank would have to be sized for 48 hours flow, or 19,800 gallons, and the second tank would be 9,900 gallons for 24 hour flow. The tanks shown are only 4,500 gallons.

The engineer has sized the tanks for their respective daily flows per Title 5. The engineer should review 310 CMR 15.221(7) that says “the top of all system components, including the septic tank, distribution box, pump chamber, dosing chamber and soil absorption system, shall be installed no more than 36" below finish grade”. Based on the proposed inverts and grading, the tanks for field 1 are about 10 feet below grade, while the tanks for fields 2 and 3 are about 6 feet below grade. The engineer should look at bringing the design into compliance with Title 5, as would be typical.

Response: The septic tank locations have been revised to provide between 1 and 5 feet of cover per direction of the manufacturer, Shea concrete. Note #21 has been added to Sheet 13 to confirm that system components (such as lids, risers, covers) will extend to within 3 feet of finish grade.

2. The engineer should address why a dosing (pump) chamber is not shown as required by Title 5. The chamber would have to be sized for the dose plus 24 hours storage, meaning the chamber would be over 10,000 gallons capacity.

The engineer has provided dosing chamber calculations based on having a backup generator for each chamber. As noted above, underground power, electric meter and above or below ground propane tank would need to be shown at each pump house. Also, the dosing tank for fields 2 and 3 shows two forcemains coming out of the tank and going to each field. Typically a dosing chamber has one forcemain and duplex alternating pumps. The engineer should address how the system is designed to work with 2 forcemains, while meeting Title 5 requirements.

Response: A pump design intent note has been added to Sheet 22 addressing two pumps with two force mains dosing two fields.

3. A structure/shed will likely need to be shown to house the pump alarms, controls and backup generator. This should be shown on the plans and details.

A pump shed is shown near each dosing tank to house controls, alarms and backup generator. The backup generator will likely need to be installed outside of the shed for exhausting purposes. Underground electric/meter and propane tank(s) should also be depicted.

Response: Note #20 on Sheet 13 has been added to clarify the need for an electric meter, underground propane tanks, and exterior generator.

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.

The trench has been replaced by a 6" PVC collection pipe, but the pipe will be out of the ground behind building 5, based on the grading.

The response states that "gutter downspouts on Building #5 have been routed to the front of the building to provide cover", but nothing appears to be shown on any of the plans.

Response: Gutter downspouts on Building #5 are shown on the Plan and Profile plan (Sheet 10) and are extended to CB#7.

Thank you for your 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

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Principal