



October 8, 2025

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

Re: 34 Central Street – Residential Development Plans
Response #3 to Engineering Review Comments

Dear Ms. Grubbs:

This letter provides an update to our June 10, 2025, and September 5, 2025, responses to the review letters from Joseph J. Serwatka, P.E., originally dated April 10, 2025, and revised on September 2, 2025. The following format is used to track comments and responses:

- Original comments from the April 10th letter are in standard, non-bold text
- Follow-up comments from the September 2nd letter are provided in **bold text** to match that letter.
- Comments that were noted to have been addressed in the September 2, 2025 letter have been omitted for brevity.
- Beals Associates, PLLC responses appear in *blue bold italics*.

Existing Conditions 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.

The note has not yet been revised to state whether the wetland delineation has been approved by the commission.

Response: The wetland scientist’s name (Maureen Harold) and date (October 2024) of delineation and approval by the Conservation Commission (April 15, 2025) have been confirmed and added to Existing Conditions Plans, as shown on the plan set submitted on September 9th, 2025.

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

The response simply states that “this will be discussed with the board”, but does not address whether the information has been added to the plans.

Response: The surveyor has field located the well of the closest abutter on Central Court and added the approximate location of their septic system from design plans. This information has been added to the plans, including the distance from the well to the septic system on Sheet 10. All other abutting parcels either have public water service or wells greater than 100’ from the locus parcel boundary.

Demolition Plan, Sheet 5

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.

The response simply states that “the location of the existing septic system is being determined and will be added if available”. It has been five months since the initial review letter. The location should have been determined by now.

Response: The approximate location of the septic system for the existing house has been added to the plan along with a note for the contractor to verify the location in the field prior to the start of construction.

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. **The label has been revised to refer to sheet 8, but sheet 8 does not show this area. The engineer should address this.**

Response: The callout has been revised to simply state the existing driveway is to be relocated.

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.

Response: A proposed sidewalk towards and beyond Central Court has been added to the plans.

11. Note 3 refers to benchmarks, but no benchmarks are identified on the plan, as would be typical.

The response states that “a benchmark is provided by the surveyor” but does not state where on the plans.

Response: A benchmark is shown on Existing Conditions Plan 1 of 4 on a utility pole at the corner of Central Court.

12. The board may want the engineer to provide a table to demonstrate compliance with the dimensional standards of the MBTA bylaw.

The response simply states that a table will be provided if required.

Response: A memo detailing MBTA compliance has been reviewed and approved by the Planning 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.

The response states that this will be discussed with the board.

Response: This has been reviewed with the Planning Board and they are comfortable with the current design. This has also been reviewed by the Planning Dept’s. Special Projects Planner who concurs the project exceeds the parking requirements for the zone. See comment 1.e. in the 9-30-25 memo from Martha Taylor, AIA to the Newbury Planning board.

Additional comments on plan additions

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.

Response: The responsibility of the vegetation maintenance area in the Central Street right-of-way following construction will be with the Town (see Note 12 on Overall Site Plan).

17. Snow storage areas are located behind vertical curb and/or sidewalks, and will likely have to be mechanically placed there by a skid steer or other equipment.

Response: We acknowledge the snow will need to be placed behind the curb or trucked off site.

Site Plan B, Sheet 7 (now sheet 8)

5. 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.

The response states that proposed elevations have been provided. These appear to be on the grading plans.

Response: These elevations are shown on the Grading Plans.

7. 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.

The response states that the architectural plans are being revised. These should be submitted for review when available.

Response: The architectural plans have been revised to meet the grading requirements of the site. These plans are on file with the Planning Department.

9. 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.

The engineer has not provided a written response, but states that the issue can be discussed.

Response: This has been discussed with the Planning Board and based on several soil exploration pits it seems unlikely that large amounts of ledge removal will be required. Any onsite crushing would only be anticipated to require 3-5 days to complete.

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 watermains 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.

Response: A tap & sleeve connection with an 8” gate valve is called out and the existing 10” water main is shown on Utility Plan A. Ongoing work is being scheduled and will be conducted in coordination with Byfield Water Dept. to make final determination of the extent of the possible AC pipe as soon as possible.

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.

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. **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.**

Response: The roadway geometry is shown on the Plan & Profile 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.

Contrary to the response, I am unable to locate any sprinkler lines to the buildings.

Response: Sprinkler lines to the buildings are not provided. This has been reviewed with the Fire Department and fire hydrants have been located at their direction.

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.

Response: The architectural plans have been revised to meet the grading requirements of the site.

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.

Response: The architectural plans have been 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.

Same response as above.

Response: The architectural plans have been 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.

Same response as above.

Response: The architectural plans have been 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.

Same response as above.

Response: The architectural plans have been 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.

Same response as above.

Response: The architectural plans have been revised to meet the grading requirements of the site.

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

The response states that the grading is correct as shown.

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

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

The response references the previous response to the survey plan, which still did not contain a benchmark. The engineer should specify which sheet has a benchmark.

Response: A benchmark is shown on Existing Conditions Plan 1 of 4 on a utility pole at the corner of Central Court.

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.

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

Response: The architectural plans have been 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.

Same response as above.

Response: The architectural plans have been 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.

Same response as above.

Response: The architectural plans have been revised to meet the grading requirements of the site.

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.

Same response as above.

Response: The architectural plans have been revised to meet the grading requirements of the site.

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.

Response: The architectural plans have been 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.

Same response as above.

Response: The architectural plans have been 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.

The response states that “additional information on the septic tanks, pump station, and electrical fee will be provided”. The board should note that this information was requested 5 months ago.

Response: Additional information on the septic tanks, pump station, and electrical feed has been provided.

Grading, Drainage & Erosion Control Plan A and B (sheets 11 and 12)

These plans appear to have been added since the previous submittal but, as noted above numerous times, the architectural plans are need to verify that the proposed grading works. The architectural plans should be submitted in order to review sheets 11 and 12.

Response: Revised architectural plans were submitted as part of the package on July 22nd.

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.

Response: Tapping sleeve with gate valve detail has been added to Sheet 26. The limits of AC watermain replacement will be verified with the water department and shown on the plans.

2. A label points to a tank and pump chamber, but the noted detail has not been provided.

Response: Septic tank and pump chamber details have been added to the plans.

3. The plans show an abundance of line work, but very scarce labels or descriptions.

Response: Additional labels have been added to the plan for clarity.

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.

Response: Structures to house the controls, alarms, and backup generator has been added to the Utility Plan.

5. The primary septic area depicts two tanks, neither of which appears large enough for the design flows. The first tank would need to be sized for approximately 20,000 gallons, or twice daily flow, while the second tank would be sized for about 10,000 gallons. If tunnel tanks are used the first tank would be nearly 36 feet long, but the tank depicted is only about 17 feet long. A pump chamber would also be required to dose the leach fields. In addition, a structure may be needed to house the controls, alarms and generator. The engineer should address these items.

Response: The septic tanks have been sized to meet the 200% flow criteria for each system.

6. The reserve fields cannot be sized for more than 5,000 gallons per day, per Title 5. The engineer should revise the field sizes to conform to this requirement.

Response: The reserve areas have been revised to limit flow to below 5,000 gpd.

7. The proposed grading removes 5-10 feet of natural soil from the northern side of reserve area #1. The engineer should revise the grading to leave this area considerably intact, or subtract the affected area from the reserve area calculations.

Response: The area has been revised to limit grading in the reserve area. To accommodate this, Unit 5-5 was relocated to Unit 6-4.

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”.

Response: The Planning Board is comfortable with the lighting plan.

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.

The response states that architectural plans will be revised as necessary, but revised plans have not been submitted.

Response: Individual lighting over the garages are screened by the roof overhang.

Planting Plan, Sheets 11 and 12

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

The engineer must have thought I was referring to fire sprinkler plans, but the reference was to any proposed irrigation systems.

Response: Irrigation is not planned as part of the development.

Off-Site Improvements Plan (sheet 18) new

1. The engineer should address whether the DPW has reviewed and commented on the proposed improvements.

Response: DPW has reviewed and provided comments on the proposed project.

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

Response: The limits of AC watermain replacement will be verified with the water department and shown on the plans.

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.

Response: The tanks have been revised to meet requirements.

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.

Response: A dosing chamber has been added to the plans.

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.

Response: Structures to house the controls, alarms, and backup generator has been added to the Utility Plan.

4. The engineer should address whether the separation to groundwater has been increased based on a mounding analysis as required by title 5. The mounding analysis should be provided on the plans.

Response: A mounding analysis has been completed and the field has been raised to accommodate the potential mounding.

5. The 800 gallon pump station has no storage capacity in the event of a power outage. The engineer should address whether a backup generator is proposed, as is typical.

Response: A backup generator is provided within the proposed structure by the pump station.

Construction Details, Sheets 13-15

2. The pavement label refers to NHDOT, which is an error. The pavement spec has been revised to MassDOT, but the pavement thicknesses should be 2.5" binder and 1.5" top course, to meet town requirements.

Response: The pavement thicknesses have been revised.

Additional comments

3. The roadway cross section specifies "sand (where required)" under the roadway gravel. Typically suitable fill or native material would be used as a subbase. The engineer should address why sand is being specified.

Response: The reference to sand has been replaced with suitable fill or native material.

4. The vertical granite curb detail shows no concrete under, and around, the curb. Concrete is basic to the installation of granite curbing. The detail should be revised accordingly.

Response: A revised vertical granite curb detail has been provided.

Erosion Control Notes & Details, Sheet 16

1. The board may want the engineer to provide a section for ledge removal and crushing operations. The response simply states that "this can be reviewed by the board".

Response: This has been discussed with the Planning Board and based on several soil exploration pits it seems unlikely that large amounts of ledge removal will be required.

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.

Response: Gutter downspouts on Building #5 have been routed to the front of the building to provide cover.

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.

Additional soil and perc testing has been conducted. The engineer needs to revise the reserve areas to comply with Title 5.

Response: Additional test pits and percolation tests have been conducted and the septic and reserve septic areas have been revised per additional comments provided via email.

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.

Reserve areas have been added to the plans.

Response: A reserve area with additional test pits and perc tests have been added to the plans and have addressed miscellaneous comments provided via email.

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.

The response states that a septic plan will be provided after and "overall" review by the board.

Response: Septic plans have been provided.

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

Christian O. Smith, PE
Principal