



September 10, 2021

Martha L. Taylor, Town Planner  
Town of Newbury  
12 Kent Way  
Byfield, MA 01922

Re: 105 High Road OSRD  
OSRD Detailed Plan Submission  
Response to August 20, 2021 Peer Review Letter

115 GLASTONBURY BLVD  
GLASTONBURY CT 06033  
860.659.1416

120 MIDDLESEX AVENUE  
SUITE 20  
SOMERVILLE, MA 02145  
617.776.3350

6 CHESTNUT ST  
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197 LOUDON RD  
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603.856.7854

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SUITE 100  
PROVIDENCE RI 02908  
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Dear Ms. Taylor and Members of the Planning Board:

Design Consultants Inc. has received the review letter by Joseph J. Serwatka, P.E. dated September 7, 2021. DCI is providing a written response to the review the remaining comments only below with peer review comment in normal font and *DCI response blue italic font*.

**Title Sheet, G1.11**

All comments addressed.

**OSRD Site Plan, Sheets C1.11/12**

3. The plan notes that the homes and driveways shown are “conceptual”. Given the density of the dwellings, and the “site plan” nature of the plans, the board may want more control over what is constructed. The home/driveway locations directly affect the grading design, which dictates runoff patterns. Without adequate design controls, grading and drainage issues may be created.

The response states that each home will be custom built. It also recommends that individual plans be submitted to the Planning Department for review. The board may want to condition that each dwelling/lot submit a site plan for review/approval.

**The response states that a plot plan showing dwelling, detailed grading, patios and site appurtenances will be submitted for each lot. The plan will ensure that the grading within the footprint, of the lot I assume, matches the required grading outside of the footprint. The board may want to require that the proposed lot plans be drawn at the same scale (1”=20’) as the OSRD plans, that the swales at the rear of lots 1-9 match the OSRD plans exactly, that runoff does not shed onto an abutting lot as depicted by the arrows on the OSRD plans, and that the total lot impervious area does not exceed what is shown for that lot on the OSRD plans.**

*DCI concurs with comment and will provide a 20-scale site plan with each building permit application including grading and site appurtenances. The swale shall be located per the approved site plan. The plan may be reviewed by the Town’s technical consultant conforming compliance with the stormwater system design.*

5. The existing pool on house 10 should be show to verify that the relocated driveway will work. The plan has been revised to show the pool. It should be noted that a proposed dwelling now appears to be depicted over the existing dwelling on lot 10. The board may want the engineer to address the existing dwelling.

**The response states that the existing home on lot 10 is to remain. The board may want to make this a condition.**

*DCI concurs with comment.*

6. One “gas light lamp pole” is shown on each lot, but none are shown at the entrance on High Road. Also, a photometric analysis has not been provided to verify adequate illumination along the roadway. The board may want the engineer to provide this analysis.

The lights have been revised to electric lamp posts, per the response, but no detail or photometric analysis is provided. The plan still does not provide illumination at the site entrance, as would be typical. The response refers to this as the “new normal” due to dark sky compliance. The board may want the engineer to provide adequate illumination for the anticipated residents/owners of the project.

**The response states that the design is consistent with recently approved OSRD projects.**

*The lighting proposed with application is consistent with the recently approved Coleman Road OSRD and Gadsden Lane subdivision roads.*

OSRD Grading/Drainage Plan, Sheets C1.21/22

2. The “conceptual” house locations do not depict and decks, patios or pools that were depicted on the OSRD plans. As this is a site plan, the board may want all of these anticipated features on the plans. Otherwise, the board may want each lot to submit a site plan as they are developed.

As noted previously, the response states that each home will be custom built. The response offers that individual plans be submitted for each dwelling/lot for review/approval by the town. The board may want to consider this option.

**The response states that a plot plan showing dwelling, detailed grading, patios and site appurtenances will be submitted for each lot. The plan will ensure that the grading within the footprint, of the lot I assume, matches the required grading outside of the footprint. The board may want to require that the proposed lot plans be drawn at the same scale (1”=20’) as the OSRD plans, that the swales at the rear of lots 1-9 match the OSRD plans exactly, that runoff does not shed onto an abutting lot as depicted by the arrows on the OSRD plans, and that the total lot impervious area does not exceed what is shown for that lot on the OSRD plans.**

*DCI concurs with comment and will provide a 20-scale site plan including grading and site appurtenances. The swale shall be located per the approved site plan. The plan may be reviewed by the Town’s technical consultant conforming compliance with the stormwater system design.*

3. The swales along the north and south property lines are drainage features and should be identified as such on the plans. It is important to the overall drainage design that these swales be installed and maintained.

The plan has been revised to label “drainage swale”, and a detail has been provided, but a minimum depth should be specified. The proposed swale would appear to severely restrict the use of the backyards on lots 1, 2, 3, 4 and 7 given the proximity to the dwelling and grading requirements. The board may want to require, and I would recommend, that the drainage swales shown on these plans be integrated into any future “site plans” for individual lots relative to location and grading. Otherwise, individual lot designers may be inclined to modify swale location/grading in such a way so that it no longer complies with the original design intent.

**Contrary to what is stated in the response, a swale depth of 8” has not been added to the detail. The last revision date on sheet C5.12 is 8/12/21, prior to the 8/20/21 review letter.**

**The response also states that “all areas that provide stormwater management will be located outside of the exclusive use areas for a homeowner and therefore may not be altered”. The swales are not a listed BMP, but are part of the overall drainage/conveyance scheme presented for the OSRD. This statement would appear to give homeowners the right to modify/remove the swales as they see fit. If this is allowed, there would be much less control over runoff patterns associated with the development, which could easily cause problems. I would recommend, as noted above, that the swales on each lot be required to be shown on each lot in the same location, with the same grading.**

*The 8” dimension was added to the cadd file but not shown on the provided hard copy of the detail sheet. It will be shown on the final Mylars for signature and recording. As stated above DCI concurs with comment and will provide a 20-scale site plan with each building permit application including grading and site appurtenances. The swale shall be located per the approved site plan. The plan may be reviewed by the Town’s technical consultant conforming compliance with the stormwater design.*

7. Roof drains, downspouts and infiltration systems do not appear to be proposed, even though they were mentioned in the OSRD narratives. Without roof infiltration, roof downspouts from higher lots will tend to direct runoff onto the lower, adjacent lot, and so on. I can see this leading to problems between neighbors. If roof infiltration is not proposed, the board may want to require that roof runoff be directed to swales at the rear of the lots, or to the street, not onto adjacent lots.

The response does not address roof infiltration systems that were mentioned in the OSRD narratives, even though they would greatly improve the drainage design, in my professional opinion. The response does state that the current grading plan directs runoff to the front and back of lots but, as previously mentioned, all the lots will be developed individually, so the current plan is conceptual only.

**As noted above, the response appears to state that only the “stormwater management features” (i.e. catchbasins, particle separator, and bio-infiltration basin) will remain unchanged. It appears to indicate that the runoff control/conveyance features (i.e. swales, grading) can be modified/removed as long as the contractor demonstrates “that the design of the home will conform with the stormwater management features as approved”. As noted above, the board may want to require that the swales depicted on lots 1-9 be shown the same relative to location/grading on the individual lot plans.**

*We concur and will provide plot plans with building permit applications showing detailed grading with the swales at the same location.*

8. Similar to roof runoff, the board may want driveway runoff to be directed to the street, rather than onto an abutting lot, to avoid problems due to the density of the project.

The engineer may want to review his response to this issue, as it does not appear to make sense. It reads "the driveways all are all set above the driveway grade with water running back to driveway drainage system either over pavement or over grass".

As noted previously, the driveways shown are conceptual at this point, as each lot will be developed individually.

**See above comments where the engineer continually refers to "stormwater management features" (i.e. catchbasins, particle separator, bio-infiltration basin) that will not be changed, but appears to allow the contractor to modify runoff control/conveyance features (i.e swale, grading) depicted on the OSRD lot plans.**

*DCI concurs with comment and will provide a 20-scale site plan including grading and site appurtenances. The plan may be reviewed by the Town's technical consultant conforming compliance with the stormwater system design.*

9. An infiltration basin is proposed, but only one test pit is shown in the basin bottom. The Policy requires a minimum of three test pits in the basin to verify soil/groundwater conditions. The engineer should provide the additional data.

Two new test pits, TP 21-12 and 21-13, are shown in the infiltration basin, but the soil logs have not been included in the stormwater report.

**The soil logs have been provided.**

*No response required.*

OSRD Drive Profile, Sheets C2,11/12

2. Catchbasins 3 and 4 should be described in the "drainage inverts" table.

The response states that catchbasins 3 and 4 have been added to the profile page, but only CB-3 has been added. Also, the descriptions appear to reference sewer manholes (SMH) rather than drain manholes (DMH). This should be corrected.

**The plan has been corrected.**

*No response required*

Landscape Plan, Sheet L1

1. The plan labels "existing trees to remain" abutting 107 High Road, and on the southerly property line, but proposed grading is shown in these locations. It is, therefore, unlikely that the trees can be saved.

**The response states that the grading has been revised to save most of the trees in this area with the removed trees now called out on the plans. Proposed grading has been removed from behind the retaining wall, but flow arrows are depicted behind the wall. The engineer should address how flow will be diverted without any proposed grading. The proposed retaining wall is shown within 5 feet of existing trees. If the trees are to be saved, typically no work should occur within the dripline of the tree. Finally, the plan does not appear to call out trees to be removed, as noted in the response.**

*The flow arrows shown in this area are a remnant from previous version of the grading plan. The runoff from the rear lot line of 107 High Road will flow down gradient as it flows currently onto the project property. The closest tree is 5 feet from the wall with the remaining trees 6'-15' from the wall. The trees*

*closest to the wall will be evaluated during construction of the wall. The viability of maintaining the trees closest to the wall will be dependent on the extent of root damaged and the species of the tree. The 5 trees called to be removed are shown on the grading and drainage plan. Please note, these 5 trees to be removed are not shown to be maintained on the landscape plan.*

2. A multitude of trees, shrubs and annuals/perennials are proposed but, as mentioned previously, much of the site development is "conceptual". The board may want the engineer to address which portions of the landscape plan are not conceptual, and whether individual lot landscape plans will be submitted as custom homes are proposed.

**The response states that the plantings along the roadway and property lines will be installed per plan, but the lot plantings are "reprehensible" (representative?).**

*No response required, comment just noting a typographical error.*

3. The board may want the landscape plan to address whether all areas will be sprinklered/irrigated to ensure adequate growth.

**The response states that it is anticipated the development will be irrigated.**

*No response required.*

4. The board may want the landscape plan stamped and signed by a landscape architect, as would be typical.

**The plan has been stamped/signed.**

*No response required*

Should you have any questions concerning this review, please contact me at your convenience.

If you have any questions or concerns, please let me know. Our goal is to have the hearing closed at the next planning board meeting on September 15th, 2021.

Sincerely,

*Stephen Sawyer*

Stephen Sawyer, P.E.