



November 20 , 2020

Susan Noyes, Administrator Newbury Zoning Board of Appeals 12 Kent Way, Suite 200 Newbury, MA 01922

Re: The Villages at Cricket Lane 55R Pearson Drive Peer Review

Dear Ms. Noyes:

Please accept this letter and the attached wetland replacement report and revised plan sheets as our response to the comments provided by Ann Marton of LEC in her letter dated. October 9, 2020, received October 15, 2020. These responses have been developed by Ranger Engineering Group, LLC as well as Norse Environmental, and Deschenes & Farrell, P.C.

We have provided the comments from LEC with our italicized responses just below each comment.

 Sheet 3 of the Site Plans has been updated to depict the extent of historic wetland filling estimated by Mary Rimmer between flags D21 and E19.1 encompassing square feet (SF) and between the westerly property boundary and flag El 9 encompassing 475± SF for a total of SF of unauthorized historic filling.

The Applicant has declined to depict this historic wetland filling on the other plan sheets (e.g. Sheets 5, 6, 7, 8, 9, 15, and 17) as requested in my April 29, 2020 Review Memorandum claiming that it would be confusing. At a minimum, plan sheets 7 and 16, which depict the required wetland filling for the access road, must depict both the historic wetland filling. Furthermore, sheets 7 and 13 should cross-hatch the footprint of the historic filling that also occurs within the Limits of Work for the proposed access road and revise the plan to account for the full amount of historic and proposed wetland filling within the proposed Limits-of-Work (LOW).

The historic fill areas have been added to plan sheets 7 and 16

2. As requested in my April 29, 2020 Peer Review Memorandum, the Applicant has relocated the wetland replacement area north of the D/E wetland series, roughly between flags E3 and El 0 as discussed during the February 15, 2018 Working Session for Byfield Estates.

The Wetland Details plan (sheet 16) depicts a proposed 5,050 SF Wetland Replacement Area with grading, tree protections to the presumed drip line for 3 existing trees, a Wetland Replacement Planting

Table, Wetland Seed Mix, and Performance Specifications. While this is a vast improvement, the Wetland Replacement Table omits the number of required trees and shrubs to confirm proper planting densities, and includes eastern white pine (Pinus strobus) which is not a wetland plant. Please add tree and shrub quantities and either remove P. strobus or replace with a more appropriate tree species. Additionally, see Attachment A for LEC's markup comments on Sheet 16.

The applicant shall plant the following tree and shrub species in the 5660 s.f. wetland replication area north of the E-series wetland. The trees shall be planted 15 ft. on center and the shrubs 10 ft. on center. A mixture of all the trees and a minimum of (5) different shrub species shall be planted. A total of 26 trees and 54 shrubs shall be planted. Please see the table below:

Common Name	Latin Name
Trees:	
Red Maple	Acer rubrum
American Elm	Ulmus americana
Eastern Hemlock	Tsuga canadensis
Shrubs:	
Arrow-wood	Viburnum dentatum
Swamp Azalea	Rhododendron viscosum
Silky Dogwood	Cornus amomum
Spicebush	Lindera benzoin
High bush blueberry	Vaccinium corymbosum
Common Winterberry	Ilex verticillata

Species selection shall be based on cost and avaiability. In addition, the applicant shall apply a New England Wetmix, provided by New England Wetland Plants, Inc., to initiate growth in the replication area.

3. Please explain your rationale for continuing to provide 610 SF of Wetland Replacement south of flags E19 and El6 in the backyard of the existing dwelling. The proposed Wetland Replacement Area north of the D/E Series appears large enough to cover all of the historic and newly proposed wetland filling. As stated in my April 29, 2020 Peer Review Memorandum, based on the history of filling on this site, and the presence of a retaining wall in the wetland (presumably to create the backyard), the backyard of the existing dwelling does not appear to be an appropriate location for Wetland Replacement.

As suggested by Ann Marton, Director of Ecological Services, and Town of Newbury review consultant, we will eliminate the wetland restoration area south of flags E19 and E16.

4. Please provide a means, methods, and proposed protections to reduce impacts associated with the 12-foot-wide, 290 SF of temporary wetland crossing to access the Wetland Replacement Area. Depending on the vegetative composition within this 290 SF area (has anyone evaluated the viability of crossing at this location?) and the proposed means, methods, and protections, restoration plantings may be required.

Norse Environmental performed a site visit, reviewed the crossing area, and finds that a more appropriate location is 15' south of flag D14 as it requires the cutting of fewer trees and shrubs, but disturbes slightly more wetland area. Please see the photographs below: The applicant will incorporate ground protection mats throughout the temporary wetland crossing to access the wetland replication area. The ground protection mats prevent erosion, equipment from sinking and minimizes disturbance within the resource area. The mats will be placed to avoid damage to the shrub and trees. The applicant will perform this work during dry conditions or typically late summer/early fall depending on the year and precipitation.

Once the 5660 s.f. wetland replication area is created, planted and work is finished, the temporary wetland crossing will be restored. The restoration includes removing the ground protection mats, applying the New England Wetmix (provided by New England Wetland Plants, Inc.) to the area and plantings shrubs. The shrubs shall be planted 10 ft. on center and a total of (3) different shrubs shall be planted within the temporary wetland crossing. Please see the shrub planting table below.

Common Name	Latin Name
Arrow-wood	Viburnum dentatum
Swamp Azalea	Rhododendron viscosum
Silky Dogwood	Cornus amomum
Spicebush	Lindera benzoin
High bush blueberry	Vaccinium corymbosum
Common Winterberry	Ilex verticillata

Shrub Plantings:

Please provide proposed woody plantings, seed mix, and performance specifications for the 495 SF of wetland restoration at the base of the roadway retaining wall between stations 1+25 and 2+15.

The 495 s.f. wetland restoration includes applying the New England Wetmix (provided by New England Wetland Plants, Inc.) to the area and plantings. The shrubs shall be planted 10 ft. on center and a total of (10) shrubs shall be planted. At a minimum (3) different shrub species shall be selected below. Species selection shall be based on cost and availability.

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Shrub Plantings:

Common Name	Latin Name
Arrow-wood	Viburnum dentatum
Swamp Azalea	Rhododendron viscosum
Silky Dogwood	Cornus amomum
Spicebush	Lindera benzoin
High bush blueberry	Vaccinium corymbosum
Common Winterberry	Ilex verticillata

6. I herein restate my April 29, 2020 Peer Review Comment #3:

"The actual limit-of-work/erosion control line for Basin P3-2 extends very close (varies from 3-8 feet) to the BVW between flags C7 to C9; flags C11 to C13; and C18 to C22. LEC recommends increasing the setback between this Basin and the BVW. Otherwise, it does not seem feasible to construct this basin that close to the BVW without impairing or otherwise destroying portions of the BVW.

Based on the current Basin P3-2 limit of work, the clearing of natural vegetation and soil disturbance is likely to alter the physical characteristics of the adjacent BVW by changing the soil composition, topography, hydrology, temperature, and the amount of light received (see 2005 Preamble to the Act Regulations). In accordance with 310 CMR 10.53 (1) the Issuing Authority shall impose conditions to protect the interests of the Act...and may consider the characteristics of the Buffer Zone, such as the presence of steep slopes...and conditions may include limitations on the scope and location of work in the Buffer Zone as necessary to avoid alteration of the Resource Area, including the preservation of natural vegetation adjacent to the Resource Area.

LEC Recommends reconsidering the close proximity of Basin P3-2 to the BVW."

LEC encourages the Applicant to reconsider the close proximity of the toe of slope to the Series C Wetland coupled with the clearing necessary to construct this basin. The Applicant has not adequately responded to our concerns relative to the clearing of natural vegetation and soil disturbance so close to the wetland and the likelihood that it will alter the physical characteristics of the adjacent BVW by changing the soil composition, topography, hydrology, temperature, and the amount of light received.

The drainage is designed to comply with Massachusetts Stormwater Management Standards and the basin is sized accordingly. LEC expressed concern regarding clearing of natural vegetation and soil disturbance and the possibility to alter physical characteristic of the adjacent BVW. Norse Environmental performed a site visit to see if there were any large trees



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that can be saved. Norse identified 11- 6" DBH or larger trees along the edge of or just inside the wetland line between flags C6 and C13 that will be saved and will maintain an overstory along the cleared area. Norse also identified 10 trees near wetland flags C18 through C22. These trees provide an excellent seed and food source for future tree growth and critters. These trees have been added to the plan.

In addition, we are proposing that the backside of the basin be planted and allowed to naturalize. The applicant is proposing the following plantings along the back side of the pond as identified in the table below:

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Common Name	Latin Name
Eastern Red Cedar	Juniperus virginiana
Red Oak	Quercus rubra
White Oak	Quercus alba
Black Oak	Quercus velutina

The trees will be 3-4 ft. tall and planted every 30 ft. along the backside of the basin. A total of 15 trees shall be planted. We have found the smaller plants have a better survival rate than the larger caliper trees, show less planting shock, and provide the same amount of shade as a larger tree in just a few years.

7. The Ranger Engineering Group, Inc. July 2, 2020 letter states that "Additional plantings can be included along the toe of the slope." but has not offered any actual proposal that can be peer reviewed.

Please see the above response, item no.6 and the proposal of additional plantings along the backside of basin P3-2. The additional planting locations have been shown on the Layout and Materials plan and the Grading and Drainage Plan.

8. I herein restate my April 29, 2020 Peer Review Comment #4:

"The limit-of-work line for Basin PI-2 extends very close (within 3-7 feet) of the BVW between flags D14 to D 19 and requires clearing of vegetation along a <u>southern exposure</u>. LEC recommends increasing the setback between this Basin and the BVW. See above comment #3" [now comment #6].

Ranger has reviewed the basin designed to see if it is possible to relocate or shift drainage further away from the D-series wetland. Unfortunately, given the site restraints, subsurface sewage disposal system and limited project roadway crossing the basin cannot be moved or made smaller. The drainage is designed to comply with Massachusetts Stormwater Management Standards and the basin is sized accordingly.



Norse Environmental performed a site visit to see if there were any large trees that can be saved. Norse identified three (3) red oaks ranging in size from 16"-21" DBH and four (4) white oaks ranging in size from 8"-22" DBH. These trees have been shown on the plan and will be saved as noted. The trees provide an excellent seed and food source for future tree growth and critters.

In addition, since the MDFW has not responded to any of our requests for land donation or trail access to their property we can provide additional plantings in this area as well. We propose the following plantings along the back side of the pond.

Trees:	
Common Name	Latin Name
Eastern Red Cedar	Juniperus virginiana
Red Oak	Quercus rubra
White Oak	Quercus alba
Black Oak	Quercus velutina

The trees will be 3-4 ft. high and planted every 30 ft. along the backside of the basin. A total of 14 trees will be planted.

9. I herein restate my April 29, 2020 Peer Review Comment #5:

"Ms. Rimmer's Response #8 (Attachment D) does not provide a convincing argument relative to minimizing or preventing short-term construction related impacts or long-term wetland function impacts to the adjacent BVW relative to construction of Basins PI-2 and P3-2 (see LEC FebrualY 8, 2018 Memorandum comments #7 and #8)".

Unfortunately given the site restraints and requirements to meet the Massachusetts Stormwater Management Standards, the basin must be sited as designed. However, the overall designed has been improved by eliminating the trail access, incorporating plantings and a slightly larger buffer along the D-series wetland.

10. The Applicant has added a "Heavy Duty Silt Fence Barrier" to Detail Sheet 19 and differentiated two types of erosion control along the limit of work, "SF" and "HDSF," but the legend designates both of these as silt fence/silt sock. Please correct the legend to designate "HDSF" as Heavy Duty Silt Fence/Silt Sock.

The legend and the erosion control labels have been corrected.

11. I herein restate my April 29, 2020 Peer Review Comment #7:"The Comprehensive Permit only refers to 55 Rear Pearson Drive, labeled on the plans as Parcel B Assessor's Map R-20 Lot 75 at 15.08 acres. Assessor's Map R-20 Lot 75 also

includes the parcel labeled on the plans as 55 Pearson Drive as 1.28 acres. The Applicant is clearly proposing work, including the entrance road and proposed Wetland Replacement, on <u>both</u> of these 'parcels.' The filing should be corrected to include both parcels at a total of $16.36\pm$ acres."

The comprehensive permit applies only to the parcel of land being developed as part of the comprehensive permit. Because the front lot with the existing house is not part of the permit, that land is not included. Furthermore, by moving the wetland replacement area from the house lot to the permit parcel, work is not proposed on the lot outside of the easement.

When the notice of intent is filed both parcels will be listed as the work area is located on both lots.

12. Thank you for explaining the placement of the primary and reserve septic systems and the typical process for system reconstruction. However, this does not respond to my question, nor does it address the requirement for the leaching beds to be offset at least 100 feet from the Vernal Pool boundary. Based on overlaying plan sheet 9 (depicting the 100-foot setback) onto plan sheet 11 that does not depict the 100-foot setback, both Presby System I and Presby System 2 extend at least 5 feet <u>into</u> the setback. Please locate the <u>entire</u> septic system outside the 100-foot setback to the Vernal Pool. Since the receipt of this letter the septic system design has been approved by the Board of Health. As part of the approval process the plan was reviewed by the manufacturer of the Presby System and they issued a letter stating that the design follows the Massachusetts DEP Approval of the Presby System.

Notwithstanding the above, drafting edits have been made to make the actual system location clearer. The distances are measured from the system sand, not the surrounding title 5 fill sand that is required under and five feet around the system sand.

13. The Comprehensive Permit only refers to 55 Rear Pearson Drive, labeled on the plans as Parcel B Assessor's Map R-20 Lot 75 at 15.08 acres. Assessor's Map R-20 Lot 75 also includes the parcel labeled on the plans as 55 Pearson Drive as 1.28 acres. The Applicant is clearly proposing work, including the entrance road and proposed Wetland Replacement, on <u>both</u> of these 'parcels.' The filing should be corrected to include both parcels at a total of 16.36± acres.

See response to #11 above

14. LEC remains concerned that the Applicant has designed Pond P1-1 as a wet pond to hold water at all times to provide stormwater treatment. It is important to avoid standing water for any extended period

of time within the stormwater basins to prevent vernal pool species from attempting to breed within the stormwater basins. Please explain why you have selected this type of design for Pond PI-I versus a traditional extended detention basin that will drain following storm events.

We disagree with Ms. Marton concern regarding the potential migration of vernal pool species to Pond P1-1. The roadway is designed to minimize impact to the wetland resources and incorporates 6 ft. high retaining walls on the west side of the roadway. The amphibians cannot scale a wall of this height from the D-series wetland to access Pond 1-1.

In addition, the amphibians are unlikely to travel from the A-series wooded wetland to navigate across lawn area, though houses and driveways to Pond P1-1. If the pond does have breeding amphibians, it poses no threat to the critters because it holds clean water long enough to allow breeding, egg laying and larvae to hatch.

15. Thank you for providing an updated Open Space Plan. Please clarify whether this deeding of land has been discussed with the Division of Fish and Game and report on their willingness or desire to accept the land.

Numerous attempts have been made to contact the Massachusetts Division of Fish and Wildlife with no response to our inquiries. If the MDFW is not interested in accepting the land it can be gifted to the conservation commission or retained by the homeowner's association with a deed restriction that it remains as undeveloped open space.

16. Sheet 7 depicts a walking path near the base of the slope for connection to the adjacent Martin H. Burns Wildlife Management Area (WMA) under the care and custody of the Division of Fish and Game. Has the Applicant discussed this connection with the Division of Fish and Game and have they confirmed that such connection is consistent with the use and management of the WMA?

As stated above, we have not received a response from MDFW. The trail can remain as part of the plan or eliminated.

I trust these responses address your concerns. If you need any additional information, please do not hesitate to let us know.

Sincerely,

Benjamin C. Osgood, Jr., PE Sr. Engineer



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PHOTO 1 Current location of temporary crossing which requires removal of one (1) Maple and three (3) American Hornbeam



PHOTO 2 Proposed new location of crossing with no tree removal and only 2 shrubs.



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PHOTO 3 Standing at C18 looking to C23 Numerous trees to remain along the edge of wetland



PHOTO 4 Standing at C6 with C7 and C8 in the distance



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PHOTO 5 Looking into red maple swamp standing near flag C9