LEC WETLANDS WILDLIFE WATERWAYS

M E M O R A N D U M

DATE: October 9, 2020

TO: Newbury Zoning Board of Appeals

FROM: Ann M. Marton, Director of Ecological Services

RE: Comprehensive Permit Application and Site Plan Peer Review
Village at Cricket Lane, Newbury, Massachusetts

LEC File#: ToNew\17-300.02

LEC received and has reviewed the following materials for compliance with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40, the *Act*) and the implementing Regulations at 310 CMR 10.00 (the *Act Regulations*), the DEP Stormwater Management Policy relative to protection of Wetland Resource Areas, and other Best Management Practices for design and construction:

- The Village at Cricket Lane 55R Pearson Drive, Peer Review Response Letter prepared by Ranger Engineering Group, Inc. dated July 2, 2020; and
- 40B Comprehensive Permit The Village at Cricket Lane, Byfield, MA Plan Set (Sheets 1-19) prepared by Ranger Engineering Group, Inc., dated January 22, 2020, last revised August 17, 2020.

LEC restates and incorporates by reference our prior April 29, 2020 Peer Review Memorandum and provides the following clarifications or responses to the aforementioned peer reviewed materials.

1. 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 1,565[1]± square feet (SF) and between the westerly property boundary and flag E19 encompassing 475± SF for a total of 2,040± 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 Peer 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 and new 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).

[1] Sheet 3 refers to 1,565 SF while all other plan sheets refer to 1,564 SF. Please reconcile this difference on all the plan sheets including the impact tables on plan sheet 16-Wetland Details.

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 E10 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.

3. Please explain your rationale for continuing to provide 610 SF of Wetland Replacement south of flags E19 and E16 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.

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.

5. 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.

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.

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.

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

   > "The limit-of-work line for Basin P1-2 extends very close (within 3-7 feet) of the BVW between flags D14 to D19 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].

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 P1-2 and P3-2 (see LEC February 8, 2018 Memorandum comments #7 and #8)".

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.

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 both of these 'parcels.' The filing should be corrected to include both parcels at a total of 16.36± acres."

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 1 and Presby System 2 extend at least 5 feet into the setback. Please locate the *entire* septic system outside the 100-foot setback to the Vernal Pool.

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 both of these 'parcels.' The filing should be corrected to include both parcels at a total of 16.36± acres.

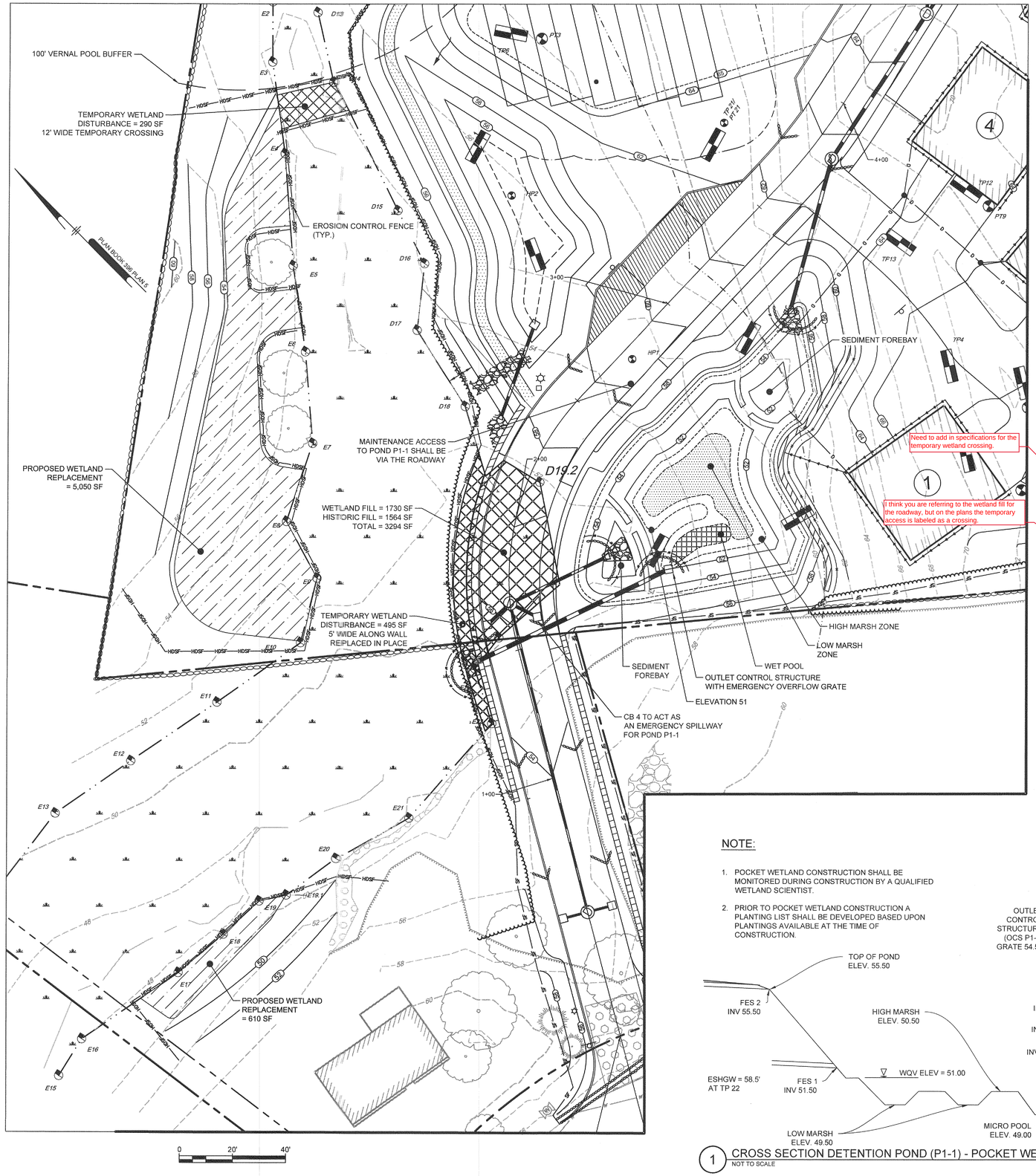
14. LEC remains concerned that the Applicant has designed Pond P1-1 as a wet pond to hold water at all times to provide stormwater treatment. It is important to avoid standing water for any extended period of time within the stormwater basins to prevent vernal pool species from attempting to breed within the stormwater basins. Please explain why you have selected this type of design for Pond P1-1 versus a traditional extended detention basin that will drain following storm events.

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.

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?

Attachment A

Peer Review Comments
The Village at Cricket Lane
Wetland Details (sheet 16)
Last revised 8/17/2020



POCKET WETLAND DESIGN	
DRAINAGE AREA	62,234 SF
WETLAND AREA	1,570 SF
SURFACE TO WATERSHED RATIO	.03
LENGTH	90 '
WIDTH	10 '
L TO W RATIO	9:1
SURFACE AREA ALLOCATION	
WET POOL	165 SF (10.5%)
LOW MARSH	710 SF (45,2%)
HIGH MARSH	695 SF (44.3%)
WATER QUALITY VOLUME ALLOCATION	
WET POOL	330 CF (18.9%)
LOW MARSH	347.5 CF (19.9%)
HIGH MARSH	1065 CF (61.1%)
ESHGW	53.0'

WETLAND SEED MIX		
COMMON NAME	AMOUNT	SUPPLIER
NEW ENGLAND WETMIX	1.0 LB./2500 S.F.	NEW ENGLAND WETLAND PLANTS, INC
NEW ENGLAND LOGGING ROAD MIX	1.0 LB./2200 S.F.	NEW ENGLAND WETLAND PLANTS, INC

ACCEPTABLE WETLAND REPLACEMENT PLANTINGS		
	SCIENTIFIC NAME	COMMON NAME
	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY
	ILEX VERTICILLATA	WINTERBERRY
	CLETHRA ALNIFOLIA	SWEET PEPPER BUSH
	ACER RUBRUM	RED MAPLE
	QUERCUS RUBRA	RED OAK
	QUERCUS ALBA	WHITE OAK
	PINUS STROBUS	WHITE PINE
	TSUGA CANADENSIS	EASTERN HEMLOCK

WETLAND REPLACEMENT NOTES:

WETLAND FILL AREA:	1,730 SF
HISTORIC FILL AREA:	2,039 SF
TEMPORARY DISTURBANCE:	785 SF
TOTAL REQUIRED REPLICATION AREA:	4554 SF
PROPOSED REPLACEMENT AREA (x1.5):	3,769 (5653) SF

This is a bit confusing since you are not provide 1.5:1 mitigation. How about instead listing the amount of replacement area and adjusting the multiplier to match?

PLANTING NOTE:

1. NEW ENGLAND WETMIX TO BE USED WITHIN WETLAND REPLACEMENT / RESTORATION AREA.
2. NEW ENGLAND LOGGING ROAD MIX TO BE USED FOR UPLAND AREAS.
3. MULCH WITH STRAW IF SEEDING PERFORMED AFTER JUNE 15TH.
4. PLANTS TO BE 2'-3' TALL, 1.5" CALIPER CONTAINER GROWN (MIN. 5 GAL.)

PERFORMANCE SPECIFICATIONS

1. Erosion Control Location and Delineation of Work Areas

   A silt fence shall remain as the lower limit of work until the ~~restored area is~~ stabilized. The upper limit of ~~restoration~~ shall be marked with stakes 20 feet apart prior to performing ~~restoration~~ activities.
   ^ the wetland replication/restoration areas are ^ wetland replication area
   wetland replication

2. Excavation and Stockpiling of Mineral Soil from Wetland Replication Area

   From the Wetland Replication Area as marked, all existing vegetation, with particular focus on invasive species, shall be cleared except for the individual species which are noted on sheet ~~15~~ 16 and other native species. Existing vegetation to remain shall be protected by encircling with silt fence. All mineral soil shall be excavated to subgrade elevation, or as otherwise directed in the field. Excavated mineral soil may be stockpiled onsite. No heavy equipment shall pass the line of erosion control during this work.
   ^Topsoil and

3. Excavation of Topsoil from Wetland ~~Crossing~~ fill Area

   From the Wetland ~~Crossing~~ fill Area, all topsoil shall be excavated down to the elevation of the topsoil-subsoil boundary as determined in the field. All remaining vegetation shall be excavated with the topsoil. No heavy equipment shall pass the line of staked erosion control during this work. Topsoil removed from the wetland ~~crossing~~ fill area shall be reused in the wetland replication area.

4. Placement and Grading of Topsoil in Wetland Replication Area.

   The topsoil in the wetland replication area shall be graded roughly to the elevation of the adjacent wetland. Topsoil shall be finish graded by hand to elevations as shown on the sheet 15, or as otherwise directed in the field.

6. Revegetation with Indigenous Wetland Plant Species

   The excavated topsoil placed in the wetland replication area contains dormant seeds, roots and rhizomes of indigenous vegetation. When this soil is relocated and finish graded, germination and growth of the plant material within will result. In order expedite this natural process, container-grown wetland plant stock will be planted in the wetland replication area according to the plant list provided. Following planting of container grown stock, the wetland replication area will be seeded with a mixture of herbaceous wetland plant species to augment development of wetland vegetation and provide initial vegetative stabilization for erosion control. A light mulch of clean, weed free straw shall be spread on the surface of the seeded area to allow erosion control during the establishment period.

7. Relocation of erosion control

   Following planting and seeding of the wetland replication area, a second line of silt fencing with compost filter tubes shall be installed along the new limit of work. This work is intended to reduce or prevent erosion of the newly-planted replacement wetland. Upon installation of a second erosion control line, remove initial erosion control along wetland replication area perimeter.

8. Onsite Supervision

   During construction of the wetland replication area and the fill area, the work will be under the direct supervision of a ~~registered professional engineer or~~ wetland ~~specialist~~. scientist.

9. Replacement of Unsatisfactory Plantings

   survival of planted woody vegetation and 75% herbaceous cover

   75% ~~healthy foliage~~ shall be assumed satisfactory evidence of growth after two growing seasons. All dead or unsatisfactory plants shall be removed and replaced in kind and size by the contractor with plants as originally established under this specification and planting plan. Any substitutions of plant material which may be necessary or desirable after the first growing season must be approved by the permit-issuing authority prior to replacement.

Please provide specifications for restoring the temporarily impacted wetlands at the base of the wall.

I don't see how any other vegetation can remain with the proposed grading.

You skipped removal and stockpiling of the topsoil. Please add this in.

Plans don't appear to account for this stockpiling and you should not clear any more trees or vegetation than necessary to create the replication area, but soil could be transported to the main portion of the site for stockpiling. Please clarify.

You need to add some specifications for the organic content for the wetland soil and topsoil mix to be placed in the replication area.

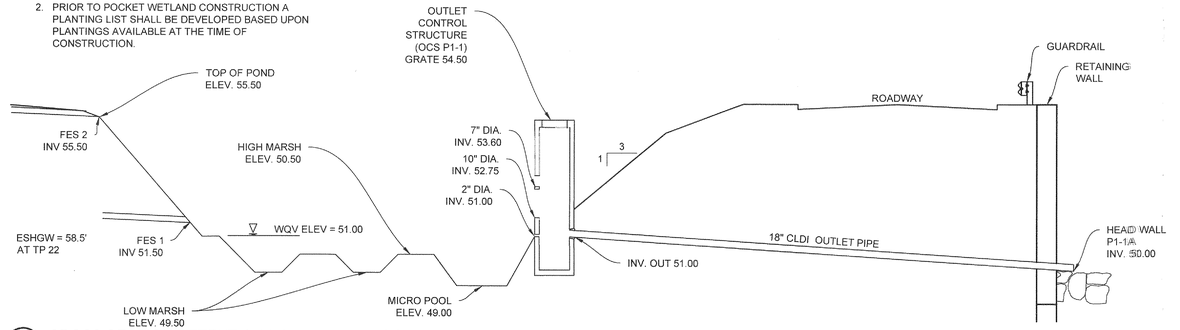
You also need to save some of the topsoil from the temporarily impacted area along the base of the retaining wall to back fill and restore the 495 SF at the base of the wall. Please add in this accomodation.

Need to add in specifications for the temporary wetland crossing.

I think you are referring to the wetland fill for the roadway, but on the plans the temporary access is labeled as a crossing.

NOTE:

1. POCKET WETLAND CONSTRUCTION SHALL BE MONITORED DURING CONSTRUCTION BY A QUALIFIED WETLAND SCIENTIST.
2. PRIOR TO POCKET WETLAND CONSTRUCTION A PLANTING LIST SHALL BE DEVELOPED BASED UPON PLANTINGS AVAILABLE AT THE TIME OF CONSTRUCTION.



1 CROSS SECTION DETENTION POND (P1-1) - POCKET WETLAND
NOT TO SCALE

NOT FOR CONSTRUCTION

Ranger Engineering Group, Inc.
13 Branch Street, Suite 101
Methuen MA, 01844
Tel: 978-208-1762
rangereng.com

COMMONWEALTH OF MASSACHUSETTS
BENJAMIN C. OSGOOD JR.
CIVIL
No. 45681
REGISTERED PROFESSIONAL ENGINEER
8/19/20

THE VILLAGE AT CRICKET LANE
BYFIELD (NEWBURY), MA 01922
ASSESSOR'S MAP R-20 LOT 75

WETLAND DETAILS

CRICKET ROAD DEVELOPMENT, LLC
92 MIDDLESEX ROAD
TYNGSBOROUGH, MA 01879

NO.	DATE	REVISIONS	BY
2	09/17/2020	REVIEW COMMENT REVISIONS	BCO
1	09/02/2020	REVIEW COMMENT REVISIONS	BCO

PROJECT	15-1516
DATE	2020-08-10
DRAWING SCALE	AS NOTED
DRAWN BY	OMR
APPROVED BY	BCO

CS6031

SHEET 16 OF 19

Q:\R\PROJECTS\CRICKET DEVELOPMENT\DESIGN_PLIB\LSHC6031.dwg PLOTTED: 8/18/2020 2:33 PM, BY: Olin Richter PLOTSTYLE: TTI Eric NCS.stb PROJECT STATUS: —