



Town of Carlisle
Office of
CONSERVATION COMMISSION
66 Westford Street
Carlisle, Massachusetts 01741

Tel. (978) 369-0336
Fax: (978) 369-4521

MEMO

TO: Carlisle Zoning Board of Appeals
Lisa Davis-Lewis, Chairman

FROM: Carlisle Conservation Commission
Luke Ascolillo, Chairman

SUBJECT: 100 Long Ridge Road, Lifetime Green Homes, The Birches.
Communication regarding recommendation to ZBA for Conditions to the
Comprehensive Permit and the applicant's request for Waivers

DATE: June 9, 2015

The Carlisle Conservation Commission is charged with protecting the public wetland resource areas under the Massachusetts Wetlands Protection Act and the Carlisle Wetlands Protection Bylaw. It is also charged with the management of Carlisle's open spaces acquired under the M.G.L. Chapter 40 Section 8C: Conservation Commission Act. The project under review abuts Conservation Land, encumbered with a Conservation Restriction granted to The Trustees of Reservations.

The public hearing under the Wetlands Protection Act was opened on August 28, 2014 continued to November 6, February 12, 2015 at which no testimony was submitted, and April 9, 2015. That hearing was continued to July 9, 2015. To date, there has been no response by the applicant to the letter sent to him regarding Wetlands Protection Act and bylaw fees.

The applicant proposes a significant amount of construction activity and disruption within the 100-foot Buffer Zone of a Bordering Vegetated Wetland and also in close proximity to that resource area, both are the Conservation Commission's jurisdiction. The Bordering Vegetated Wetland presents as an intermittent stream flowing southerly from the site. The proposed work includes that listed below.

- 1). Tree and vegetation clearing and grading
- 2). Construction of 4 single family homes with walk out basements, first floor decks and driveway access to 2 of the homes
- 3). Clearing, and grading for a fifth single family home.
- 4). Installation of 3 private water supply wells to serve 5 single family homes
- 5). One 2' high stone or block "retaining" wall approximately 55 linear feet in length located behind Unit 15 and approximately 10-15 feet from the Bordering Vegetated Wetland. No plan detail provided.
- 6). Two subsurface liquid propane tanks
- 7). Four subsurface Cultec Infiltration features identified for roof runoff



- 8). Approximately 40' of an outflow conduit and 15 feet of riprap for the stormwater management feature located within the cul-de-sac outside the 100-foot Buffer Zone. All roadway stormwater runoff from the Phase II area not successfully infiltrated by the bio-retention facility, the rain gardens and the Cultec Stormwater Management facility will be directed to this conduit.
- 9). Erosion control barriers consisting of haybale/fabric siltation barrier installed approximately 8 feet at its closest point to the Bordering Vegetated Wetland (BVW)
- 10). Straw wattles imbedded in the soil located behind Units 2 & 3. Grading work is shown beyond the wattles.
- 11). Check dams are shown in two areas within the 100-foot Buffer Zone. No detail is provided.
- 12). Contours detailing the final grade shown between Units 12 through 16 and at the rear show a steep down grade to the siltation barrier providing little to no level area other than in the front of the units. Nothing is proposed to provide access to the open space for the owners.
- 13). Work abutting the Davis Corridor Conservation Land and specifically the Blood Farm Trail consists of clearing, grading and installation of two septic fields.

Waiver Request:

The Conservation Commission requests that the Carlisle Zoning Board of Appeals deny the applicant's request for a waiver from the provisions of local Wetlands Protection Bylaw, Article 13 of the Town of Carlisle General Bylaws.

Bylaw fees: Wetlands Protection Act fees do not fully cover the work undertaken by the Conservation Commission staff to protect the public wetland resource area. The fees were developed to more fully reimburse the Commission and through them, the town of Carlisle and its taxpaying citizens, for work undertaken by the commission. Protection of the wetland resource areas also protects public health and safety.

Notification: At some time during construction and afterward, it may be necessary for the applicant to file a Request for Determination WPA filing for some currently unforeseen purpose. Under the Carlisle Wetlands Protection Bylaw, it is necessary for the applicant to notify abutters to the project. This is not a requirement under the Massachusetts Wetlands Protection Act. If the bylaw is waived, then no such notification would be required.

Fines: Under the Carlisle Wetlands Protection Bylaw, the Conservation Commission is authorized to issue fines for violations of the protected resource area. Considering the proximity of the work to the protected resource area, the Commission requests this authority not be taken away. These fines, authorized by Carlisle Town Meeting are as follows: 1st Offence: \$75.00, 2nd Offence: \$150.00, 3rd Offence: \$300.00, with each day or portion thereof during which a violation continues constitutes a separate offense.

Wetlands status:

The Bordering Vegetated Wetlands shown on the plan submitted by the applicant to the Conservation Commission under the Massachusetts Wetlands Protection Act, along with some of the fees associated with the Carlisle Wetlands Protection Bylaw, were reviewed and altered as necessary during a site visit with the applicant's wetlands consultant, by Dr. John Rockwood, of EcoTec, Inc. during a site visit and resurveyed onto a subsequent plan and used on subsequent plans. The wetland delineation has not yet been formally accepted by the Commission.

Conditions:

The Conservation Commission requests that the ZBA consider the following Special Conditions for the purpose of protection of the identified Bordering Vegetated Wetlands and the Davis Corridor Conservation Land. Absent such conditions within the Comprehensive Permit, the Commission will be faced with an approved plan that will limit its ability to establish mitigating measures with its eventual Order of Conditions.

Conservation Land:

During Construction: There will be no alteration of the Davis Corridor Conservation Land, including but not limited to: damage to the stone wall and vegetation, signs, accumulation of trash including papers, cans, construction materials, entrance to the area by vehicles, stockpiling of any kind and excessive noise. (include spraying for mosquitos?) Prior to initiation of construction there will be a site visit with the contractor and representatives of the Conservation Commission to document the condition of the Conservation Land. A similar site visit will occur following construction and at times during construction when deemed necessary by the Conservation Commission. Any damage and debris existing at that time will be rectified at the applicant's expense.

Following Construction: To maintain optimal wildlife habitat on the Davis Corridor Conservation Land, full cut off lighting, approved by the International Dark Sky Association be used for roadway and outside lighting. No light, including floodlights, shall be directed toward the Davis Corridor Conservation land.

Wetlands Resource Area:

- 1). Prior to construction, the applicant shall provide the Conservation Commission with a final plan approved by all other boards, departments and agencies. At that time the Commission will determine whether changes on that plan that vary from the Conservation Commission's Plan of Record are significant enough to require additional WPA filing.
- 2). Prior to the initiation of construction, all wetland flags will be refreshed, by survey and according to the Plan of Record
- 3). Prior to the initiation of construction, the applicant, engineer and contractor responsible for the work, the building inspector and any other pertinent department representatives shall meet for a preconstruction meeting to review and amended as needed the Construction Sequencing and Construction Management Plans. Contact information for all parties will be provided to the Conservation Commission.

- 4). A review of the erosion control measures will take place with the understanding that these measures may need modification during construction. Extra erosion control measures must be stockpiled on the site for emergency use.
- 5). A copy of the approved Stormwater Pollution Prevention Plan (SWPPP) shall be submitted to the Conservation Commission.
- 6). Dumpsters shall be sited outside the 100-foot Buffer Zone. It is recommended that they be closed at the end of each day and during rain events.
- 7). The construction trailer must be sited outside the 100-foot Buffer Zone and at least 40 feet from the Carlisle Conservation Land
- 8). Any portable toilet facilities shall be located outside the 100-foot Buffer Zone and at least 40 feet from the Carlisle Conservation Land.
- 9). In the event that the final plans continue to show extensive alteration of the 100-foot Buffer Zone, the applicant shall provide funds to be placed in a specific account held by the town for the purpose of engaging a qualified wetland scientist, acceptable to both the applicant and the Commission, to audit the erosion controls as needed, report to the Conservation office any breaches of the siltation barrier, develop, in concert with the Conservation Commission the appropriate mitigation of the breach, monitor its implementation or review with the Conservation commission emergency procedures undertaken.
- 10). Any final approved plan shall provide the following:
 - a). A detail (1" = 10') of the two-foot high stone or block retaining wall located behind Unit 15.
 - b). A detail (1" = 10') of the check dams shown on the plan.
 - c). A plan showing 1-foot contours of the 100-foot Buffer Zone in the work area.
 - d). A plan showing the setback between the haybale siltation barrier and base of the slope located behind the units in the Buffer Zone.
 - e). A plan showing no clearing beyond the siltation barrier.
 - f). Soil stockpiles located outside the 100-foot Buffer Zone
 - g). A Tree Protection Plan. Identification of the trees within the 100-foot Buffer Zone to remain along with a plan to implement protection of the trees and their root systems from damage during construction.
 - h). A planting plan to provide native plants for the area between and behind the units 13 through 16 adequate to provide ongoing protection following construction to the resource area.
 - i). Siltation control that complies with #11 below.
- 11). As detailed above, the Commission has requested of the applicant that the homes and construction activity in the Buffer Zone move further away from the wetland

resource area in an effort to provide the resource area with adequate protection both during construction and afterward. To date this has not occurred and the work area between Units 13 through 16 remains unquestionably close.

The Commission will require the applicant to submit the RUSLE Analysis, part of the Stormwater Pollution Protection Plan (SWPPP), prior to the close of the public hearing on the Notice of Intent. This will provide assurance and evidence of compliance with Condition # 19 of MassDEP's Order of Conditions as related to stormwater management during construction. [The RUSLE Analysis is required to show that the erosion controls provide, at a minimum, the equivalent of a 50-foot, site-specific undisturbed buffer zone protection to water resource areas and is part of the EPA's Construction General Permit (CGP)].

12). The activity associated with installing and testing of the private water supply wells was not included in the Notice of Intent. A description of these procedures shall be submitted to the Conservation Commission. The Commission generally requires the wells to be shown with double bales to protect the resource area during installation. In the event that all wells on the site will be tested simultaneously, a plan showing how the resource area will be protected from sediment must be submitted to the Commission. The Conservation Commission reserves the right to require the applicant to submit a separate Wetlands Protection Act filing for the testing procedures.

13). Conditions that will require:

a). Moving the three water supply wells which serve five single family home out of the 100 foot Buffer Zone of the Bordering Vegetated wetland. Wetlands receive water resources from three sources: precipitation, overland flow of surface water and groundwater discharge. This many wells drawing water from the aquifer for this number of single family homes are likely to significantly reduce the discharge of water to the resource area. This is especially important during drought periods. The applicant should be required to provide the information necessary, subject to peer review, for the Conservation Commission to conclude that no alteration of the resource area will occur because of these wells.

b). Move houses located within the 100-foot Buffer Zone, and their associated tree removal and grading further away from publicly protected wetland resource area to reduce the extent of impact on this resource area.

c). Move the Cultec roof runoff infiltration units further away from the resource area. It is noted that these features are located in close proximity to water supply wells, both within and outside the 100-foot Buffer Zone.

d). Although the applicant is not on the record as providing water softening treatment for the housing being constructed, if the eventual owners choose to install them, discharging the highly salinated water to the Cultec units could alter the water quality in the nearby bordering vegetated Wetlands. This is another reason for moving the Cultec features as noted in 13c above.

e). The conduit installed to discharge the stormwater runoff will from time to time discharge large amounts of water during significant storm events and when upland areas are saturated. This is likely to cause erosion down-gradient from the outlet to the

protected BVW public resource area. This can ultimately cause scour of the resource area and fill the downgradient wetland resource area below. The applicant should provide a plan to avoid, minimize or mitigate these potential alterations to the resource area.

f). Moving the water supply wells, houses, and Cultec roof runoff units will also likely move the propane tanks and portions of at least 15 conduits associated with the installation of these features away from the protected resource area adding further protection to the resource area.

g). Prior to initiation of construction, the trees identified in 10g. above, shall be marked in the field and confirmed by inspection by all parties. Once any tree protection devices are installed, an additional site visit will take place. If during construction any tree previously identified for protection is damaged beyond saving or determined by the contractor as needing to be sacrificed to the project. The Conservation Commission shall be notified and review for approval of provisions made for replacement.