

**Town of Pelham, NH**  
**Pelham Conservation Commission**  
**6 Village Green**  
**Pelham, NH 03076-3723**

**SITE WALK OF 03/21/09**

**APPROVED 04/08/09**

Members Present:

Paul Gagnon, Karen Mackay,  
Lisa Loosigian, Glennie Edwards

Members absent:

Paul Dadak

**Map 39 Lots 1-61 & 1-62: Draco Homes, Inc. Gerald Lussier – Dracut Line/Mammoth Road – Proposed 8 Lot Subdivision – Seeking a special permit for wetland crossing**

This case is represented by Bruce Gilday of BAG Land Consultants and Matthew Hamor of Polaris-Hancock Engineering

The site walk was scheduled at the Conservation Commission meeting of March 11, 2009. The members met Mr. Gilday and Mr. Hamor on Clement Road in Dracut, Massachusetts at 8:00 a.m.

The goal of the site walk was to view the area of the proposed wetland crossing. Mr. Gilday and Mr. Hamor showed the Commission the location of the proposed swales and detention basins as well as the waterfront homes locations and the access road to Veteran's Memorial Park (VMP).

A mixed wood forest grows on the site at the present time. The stone wall bisecting the property will be removed and the stone will be reused around the site. There are no vernal pools or additional wetlands on the property. The land slopes gradually from east to west. The intermittent stream crosses the parcel near the center and runs south to north. The stream flows north through VMP then turns west and flows down to Long Pond.

An access road will connect the cul-de-sac to VMP. The road will run from the north side of the end of the cul-de-sac to the main camp building in VMP.

The wetland impact for the project will be 4,915 square feet. The WCD impact will be 4,200 square feet. Hydrological analysis of the wetland and adjacent upland was conducted in order to determine the size of the culverts needed to manage a 100 year storm event. The results of the analysis were reviewed by Stantec. Two, 24 inch culverts will be used to convey water under the roadway. The road level will be raised to about 5 feet above the wetland. The height is needed in order to accommodate the 24 inch culverts, the roadway foundation and the paved road.

The culverts will be installed at grade. A box culvert was not considered for this crossing because of the high cost and increase in impact. The culverts will be laid adjacent to each other at the inlet. Each will be angled to follow the current stream flow. The culvert outlets will be widely separated. The Commission felt this culvert placement would allow the water to flow in its natural channels and maintain as much of the predevelopment wetland in the surrounding area as possible.

A swale will run along each side of the road from the east side of the property to the wetland. The swale on the south side of the road will end at a cross culvert which will direct the water under the road. The water will converge with the water from the north side swale. A stone apron will slow the water and reduce the energy in the water in order to prevent erosion of the slope to the wetland. The water will enter the intermittent stream to the west of the stone apron. The width and length of the apron as well as the stone size was determined by using a formula devised by the state. The design was calculated to dissipate the energy of the water in a 100 year storm.

Detention basins will be placed at the end of the cul-de-sac. The basins will be located to the south, to the north and in the center of the cul-de-sac. These basins will be connected by culverts. Stantec required tight regulation on the project and had the engineers redesign the water treatment systems. Mr. Hamor feels the current proposed system would almost meet low impact development standards.

Motion: (Mackay/Edwards) to recommend the 4,915 square foot wetland crossing, the 4,200 square foot WCD impact and to install the two, 24 inch culverts in a manner which maintains the water flow in the current stream channels

Vote: 4-0 in favor

.Site walk adjourned: 9:30 a.m.

Respectfully submitted,

Karen Mackay,  
Recording Secretary