

## Description of Work

### **Notice of Intent Filing** 47 Spy Pond Lane (Lot 2/Lot B) Arlington, MA

#### EXISTING CONDITIONS

The 47 Spy Pond Lane property consisted of an existing single family house located on the north side of Spy Pond Lane, above the southern Bank of Spy Pond. Currently, the original dwelling has been demolished, and the foundation for a new single family home has been constructed. Framing and construction is ongoing atop of the newly poured foundation. The following photos show the condition of the lot on February 17, 2020:





## WETLANDS DELINEATION

### Wetland Resource Areas on the Lot

The wetlands on the property were delineated by Mary Trudeau in the early spring of 2016. Portions of the delineation were revised in response to comments from the Conservation Commission during an earlier filing for the property. Statutory wetlands on, or adjacent to, the property include Bordering Vegetated Wetland; Bank; Land Under Waterbody; and Bordering Land Subject to Flooding. Jurisdictional buffer zones have been calculated from the Bank of the waterbody, the Bordering Vegetated Wetlands, and/or off of the wetlands on the adjacent Lot 1/Lot A. This delineation was affirmed in the Superseding Orders of Conditions issued for the development of Lots 1/2 (A/B) in 2016, and subsequently in the Orders of Conditions issued by the Arlington Conservation Commission in 2019 under the local wetlands bylaw.

For the purposes of this filing, the mean annual high water level has been estimated at between elevations (3 and 4). This corresponds to the first discernable break in slope observed at this site. FEMA has determined the 100 year flood elevation to fall along the Bank of the Pond, but does not give a specific elevation on the maps for this site (attached). This delineation was also affirmed in the Superseding Order of Conditions issued by the Department, and the subsequent local Orders of Conditions.



## WORK INCLUDED IN THE NOTICE OF INTENT

### Construction of a Single Family Dwelling

Work included in this Notice of Intent consists of the construction of a single family home located on a portion of the property. This work is currently regulated under an Order of Conditions issued under the local Arlington Wetlands Protection bylaw. The expiration of the Superseding Order of Conditions in December of 2019 has left this project in need of an Order of Conditions issued under the Massachusetts Wetlands Protection Act.

At the time of the expiration, the applicant had poured the foundation for the new home, and had begun framing the structure. With the agreement of the Arlington Conservation Commission, the applicant has permission to continue the framing and structural work atop of the new foundation. The applicant has agreed to defer any earthwork, and ceased all other activities on this site, until the Arlington Conservation Commission has issued an Order of Conditions under the Massachusetts Wetlands Protection Act. The following photos show the current stockpiling of building materials outside of jurisdictional areas, and the ongoing work atop the new foundation:



With the exception of plantings within the 0 to 25 foot buffer zone, the application does not include any changes in the landscaping within seventy feet of the Bank resource area. The applicant is proposing the installation of the storm water infiltration system within the Adjacent Upland Resource Area, but no portion of this system is located within 65 feet of the wetlands associated with the Pond. As agreed, the sizing of the system reflects the larger footprint dwelling proposed in earlier filings.

## MITIGATING MEASURES

### RESTORATION OF THE 0 TO 25 FOOT BUFFER ZONE WITH NATIVE SHRUBS

The application includes a restoration plan designed to remove lawn areas, and restore a thicket type vegetation to the 0 to 25 foot buffer zone. This plan includes the planting of a variety of native, woody shrubs within the 0 to 25 foot buffer zone, leaving only an eight foot wide foot path open between the 25 foot buffer zone line and the waterbody.

Shrubs will be planted at 6'-10' foot centers, and will consist of the following varieties of woody plants:

The following plants have been included in this planting area:

(10)	Sweet Pepperbush	(Clethra alnifolia)
(10)	Arrowwood	(Viburnum recognitum)
(10)	Silky Dogwood	(Cornus amomum)
(5)	Witch hazel	(Hamamelis virginiana)
(3)	Shadbush	(Amelanchier canadense)
(30)	Lowbush Blueberry	(Vaccinium angustifolia)

As a portion of this lot includes an area of "Bordering Vegetated Wetland" within the existing lawn area, plantings listed above and planted in this portion of the lawn, will restore a Bordering Vegetated Wetland plant community to the resource area. The applicant estimates the square footage of this wetland restoration to be approximately 278 square feet, and the square footage of buffer zone restoration to be approximately 875 square feet. The wetland restoration portion of the restoration will be planted with Arrowwood Viburnums (FACW). The remainder of the proposed planting will be spread across the restoration area.

### CONSTRUCTION OF FREE STANDING STONE WALL AT 25' BUFFER ZONE

The applicant will construct a free standing, field stone wall, with a height of at least 2.5 feet along the 25 foot buffer zone. The wall will begin 2 feet to the south of the northern property line, and run southerly to the edge of the 8' foot wide pedestrian walkway straddling the property line between Lots 1 and 2.

## DOCK RELOCATION

The project locus currently has a small wooden dock, currently located on Lot 1. The applicant agrees to pursue a waterways license modification to relocate the dock to run perpendicular to the property line between lots 1 and 2. This will allow the dock to be accessed by the walking easement, straddling the property line between lots 1 and 2.

## STORMWATER MANAGEMENT SYSTEM

The proposed site plan includes mitigation for the increased surface water flows and impervious surfaces on the site. The proposal includes a subsurface infiltration system designed to capture and infiltrate roof runoff, via a closed gutter system. This mitigation is proposed outside of the 0 to 50 foot buffer zone, and provides recharge capacity for the development. The system was designed and sized to accommodate the original foot print of the home proposed for this lot, and has not been reduced in size for the currently proposed footprint. This results in approximately ten percent excess capacity within the system for each of the design storm events.

## EROSION AND SEDIMENTATION CONTROLS

Prior to any construction on the site, the limit of work line will be created through the use of a row of 12 inch diameter filter soxx filled with composted wood mulch, backed by an entrenched row of siltation control fencing. The controls will be used to insulate the various work areas from the down gradient wetlands, and will be maintained throughout the construction process. It is expected that a filter soxx will be set along the 25 foot buffer zone. As work areas vary during the construction, additional check dams and barriers may need to be added to protect recently graded areas. The photo below shows the installation on the site:



Stockpile areas for the spoils on this site are currently set upon a portion of Lot 1. While the proposed foundation work resulted in temporary or short term stockpiles of earth materials, the applicant will have covered the spoils with tarps and has set erosion controls at both the 25 foot buffer zone and above the top of the Bank of Spy Pond. Long term stockpiles will be bounded by staked straw bales or wattles, and excess soil materials will be hauled from the site. The surface of the work area will be loamed, planted and/or hydro seeded at the completion of the construction, and erosion controls maintained throughout the winter months.