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October 9, 2020

***Via Electronic Mail and Hand Delivery***

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**Subject: DEP File No. 137-1534 | Additional Information - Notice of Intent for Proposed Seasonal Floating Dock at 767 Monument Street, Concord, Massachusetts | Fenn School - Applicant**

Dear Commission Members:

With collaboration from the Fenn School, Inc. ("Fenn School" or "Applicant"), Epsilon Associates, Inc. ("Epsilon") submits this correspondence and attachments ahead of the Public Hearing for this project scheduled for October 21, 2020.

Based on discussions during the October 7, 2020 Public Hearing for this project we submit the requested additional information addressing the following topics:

- Revised Site Plan – depicting 12-foot wide path instead of path centerline
- Revised Pollinator Meadow Planting Plan
- Updated Dock Management Plan

Those three items are attached to this letter. We look forward to discussing the project at the next Commission meeting, scheduled for October 21, 2020. If you have any questions regarding the project please do not hesitate to contact me at (978) 897-7100 or via e-mail at [ddunk@epsilonassociates.cpom](mailto:ddunk@epsilonassociates.cpom).

**ASSOCIATES**

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Sincerely,  
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cc: MassDEP NERO  
D. Platt, Fenn School

## Proposed Pollinator Planting Plan

The proposed means and methods to establish a plant community to enhance pollinator habitat involves sod removal, soil preparation and seeding with the specified seed mix. Seeds for many of the specified species require overwintering for the seeds to germinate in the spring, thus an autumn seeding is preferred. The soil preparation and seeding would include:

1. Mow the planting area, cutting it close to the ground surface.
2. Remove the sod, i.e. topsoil to the depth of the existing root matrix to ensure all existing plants and soils seedbank is removed.
3. Backfill the planting area with topsoil. Topsoil shall be free of slag, stones 1-in or greater in largest dimension, plants or their roots, sticks, clay clods, toxic substances or any material harmful to plant growth. Topsoil shall be classified as a sandy loam, loam, or sandy clay loam, using the following USDA textural classification system based on the percentage of clay (<0.002mm), silt (0.05 to 0.002mm) and sand (2mm-0.05mm) in the fine earth fraction (<2mm). In addition, the gravel (>2mm) content shall be less than 10 percent.

<u>Texture</u>	<u>Sand</u>	<u>Silt</u>	<u>Clay</u>
Sandy Loam	43-70	0-50	0-20
Loam	23-52	28-50	7-27
Sandy Clay Loam	45-80	0-28	20-35

Topsoil shall contain between 4 and 6 percent organic matter. The organic matter content for topsoil shall be by weight as determined by loss on ignition of moisture free test samples oven dried to a constant weight at a temperature of 100 degrees Centigrade. To adjust organic matter content, the loam may be amended with approved organic amendments.

3. After placing soil lightly compact with a hand roller or with no more than 100 pounds per square foot. Add more soil as need so that lightly compacted soil elevation matches pre-construction elevations. After compaction, scarify the soil surface to roughen the topsoil surface.
4. Seed the area with the specified seed mix. Seed in the autumn. Since this involves full soil preparation, we suggest installing straw waddles along the pollinator meadow wetland margin to prevent sedimentation being transported to the wetland.
5. Recommended seed mix is the Mesic to Dry Native Pollinator Mix w/o Grasses - ERNMX-125 (supplied by Ernst Conservation Seeds) or approved equal. See the seed mix on the following page.
6. Demarcate the outer limits of the pollinator meadow with permanent survey markers (e.g. Feno markers) denoted with "Annual Mow Area - Mow Only Between November 15 and April 15".
7. Install 6-foot "T" stakes with the upper 6-inches painted bright yellow along the outer boundary of the pollinator meadow to be a visible boundary to equipment operators mowing the field to protect the pollinator meadow from mowing outside of the approved mowing season.



**Ernst Conservation Seeds**  
 8884 Mercer Pike  
 Meadville, PA 16335  
 (800) 873-3321 Fax (814) 336-5191  
[www.ernstseed.com](http://www.ernstseed.com)

Date: October 07, 2020

**Mesic to Dry Native Pollinator Mix w/o Grasses - ERNMX-125**

Botanical Name	Common Name	Price/lb
15.00 % <i>Echinacea purpurea</i>	Purple Coneflower	39.60
12.00 % <i>Coreopsis lanceolata</i>	Lanceleaf Coreopsis	26.40
12.00 % <i>Rudbeckia hirta, Coastal Plain NC Ecotype</i>	Blackeyed Susan, Coastal Plain NC Ecotype	22.00
10.00 % <i>Chamaecrista fasciculata, PA Ecotype</i>	Partridge Pea, PA Ecotype	6.60
8.00 % <i>Verbena hastata, PA Ecotype</i>	Blue Vervain, PA Ecotype	35.20
6.00 % <i>Asclepias incarnata</i>	Swamp Milkweed, PA Ecotype	176.00
6.00 % <i>Heliopsis helianthoides, PA Ecotype</i>	Oxeye Sunflower, PA Ecotype	30.80
6.00 % <i>Tradescantia ohimensis, PA Ecotype</i>	Ohio Spiderwort, PA Ecotype	176.00
5.00 % <i>Zizia aurea, PA Ecotype</i>	Golden Alexanders, PA Ecotype	264.00
4.00 % <i>Penstemon digitalis, PA Ecotype</i>	Tall White Beardtongue, PA Ecotype	176.00
3.50 % <i>Aster novae-angliae, PA Ecotype</i>	New England Aster, PA Ecotype	396.00
2.40 % <i>Senna hebecarpa, VA &amp; WV Ecotype</i>	Wild Senna, VA & WV Ecotype	26.40
2.00 % <i>Pycnanthemum tenuifolium</i>	Narrowleaf Mountainmint	154.00
1.60 % <i>Solidago nemoralis, PA Ecotype</i>	Gray Goldenrod, PA Ecotype	396.00
1.50 % <i>Aster umbellatus, PA Ecotype</i>	Flat Topped White Aster, PA Ecotype	396.00
1.30 % <i>Eupatorium perfoliatum, PA Ecotype</i>	Boneset, PA Ecotype	176.00
1.20 % <i>Monarda fistulosa, Fort Indiantown Gap-PA Ecotype</i>	Wild Bergamot, Fort Indiantown Gap-PA Ecotype	88.00
1.00 % <i>Baptisia australis, Southern WV Ecotype</i>	Blue False Indigo, Southern WV Ecotype	88.00
1.00 % <i>Geum canadense, PA Ecotype</i>	White Avens, PA Ecotype	176.00
0.50 % <i>Asclepias syriaca</i>	Common Milkweed	149.60
<b>100.00 %</b>	<b>Mix Price/lb Bulk:</b>	<b>\$95.01</b>

**Seeding Rate:** 4-8 lb per acre with 30 lb per acre of a cover crop (grain oats, Jan 1-Aug 1; grain rye, Aug 1-Jan 1)

Pollinator Favorites; Uplands & Meadows

Contains native forbs common in the Northeast. Excellent for wildlife food and shelter, including pollinators. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

**Price quotes guaranteed for 30 days.**  
**All prices are FOB Meadville, PA.**  
**Please check our web site at [www.ernstseed.com](http://www.ernstseed.com)**  
**for current pricing when placing orders.**

Seasonal Dock Management Plan  
The Fenn School | 676 Monument Street  
Concord, MA

This seasonal dock management plan is prepared to outline foreseeable operation, management and maintenance of the seasonal dock and waterfront area on the Concord River on property owned by The Fenn School. The purpose of the seasonal dock is to protect the natural riverbank from pedestrian traffic over the bank to launch and land canoes. The canoe program at the Fenn School (day school students and summer day campers) is a faculty and staff supervised activity to ensure a safe learning environment. The dock and ramp will be used to safely allow students and camper to enter and exit canoes and to obtain water samples under faculty and counselor supervision. Another important purpose of the dock design is to provide another outdoor classroom space to make sure students can connect and engage with their environment, by allowing them access the water.

The measures described herein were developed to identify operations to protect the natural environment of the Concord River, riverbank and nearshore riparian zone. Because the canoe program is a new and evolving program, the information presented herein is based on the school's experience to date plus anticipated means and methods for managing the seasonal dock. Procedures for deploying and retrieving the docks may change as the school staff become more proficient with this operation.

**Seasonal Dock Use Dates:**

April 1 to November 1

**Dock Equipment, Canoes and Storage:**

The proposed waterfront area and dock will include the following elements:

- Three 6-foot by 8-foot segmental floating dock sections (to form the 6-foot by 24-foot floating dock).
- Access to the dock will be provided by one 5-foot wide by 20-foot long gangway.
- The dock will be held in place in the river by four 1-½ - or 2-inch diameter poles, augered into the river substrate.
- The six canoes in use now are 16-foot (two person) canoes. The program is expected to grow over time to a maximum of up to 22 boats – canoes and possibly kayaks.
- Four timber canoe racks with the capacity to hold six canoes each. These will be located greater than 50 feet from the top of the riverbank, in the vicinity of the existing single canoe rack on-site. Seasonal storage lockers will be co-located with the canoe racks to store personal flotation devices, first aid kit and other necessary supplies.
- One small motorboat, not exceed 14 feet long, and fitted with an electric outboard motor.

During the boating season, canoes and the small safety boat will be maintained onshore when not in use. During the boating season when there are no canoeing activities for extended periods, e.g. vacations, the electric motor will be removed and stored on main campus in the maintenance facilities.

### **Dock Installation and Retrieval:**

Each dock section weighs approximately 250 pounds. Dock sections will be carried to the riverbank and carried over the bank to float in the river. While along the river's edge the sections will be connected following the manufacturer's directions. It is expected the dock will be held in place along the riverbank by tying it off to nearby trees. The gangway will be installed to the middle section. The completed floating dock will be positioned in its designated location. Once positioned it will be held in place by augering (screwing) the poles into the river substrate.

Retrieval will involve tying the dock to nearby trees to temporarily hold it in place. The poles will be removed (unscrewed) from the riverbed and the dock will be pulled alongside the riverbank. In this position the gangway will be removed from the dock. Workers will then de-couple the section and remove them from the river one-by-one. Once onshore the three segments, the gangway and poles will be moved to the off-season storage area.

### **Storm Management:**

Prior to forecasted storms with predicted flooding approximately 4 feet above ordinary high spring water (about a 10-year event) the dock will be tied off to nearby trees. Ropes will be affixed to the dock cleats and tied to nearby trees to provide additional stabilization beyond that provide by the augered posts. After such events the dock will be inspected and if dislodged from installed location will be repositioned to its approved location and re-installed.

Prior to forecasted storms with flooded predicted to be greater than a 10-yr event the dock and gangway will be removed and stored on land beyond the limit of the 100-year flood elevation, approximately 100-feet landward from the riverbank. After flood has receded the dock will be re-installed in its approved location.

### **Off-Season Storage:**

Dock segments, gangway, poles, canoes and safety boat will be stored in the adjacent meadow outside of the 100-foot buffer zone and Riverfront Area. See the attached Figure 1 which depicts the proposed off-season storage area. This location is large enough to store the three segments on the ground with the gangway placed on top plus the four canoe racks loaded with canoes. The electric motor will be removed and stored on main campus in the maintenance facilities.

### **Access Path and Waterfront Area:**

Access to the canoes and waterfront area by students will be on foot on Fenn property. Fenn School students, campers, faculty, staff, administrators, and trustees, as well as certain other neighbors, have been granted access to our property and the river. A Gator, a small four-wheel vehicle, may be used to provide handicap accessibility to the waterfront and for maintenance. The access path and waterfront area will be mowed regularly to maintain a low turf cover for access to and from the canoe launch area.

The path and waterfront will be inspected by faculty / staff at the end of last session of the day and any items (backpacks, sweatshirts, towels, etc.) left behind will be removed and brought to main campus.

The dock will be inspected at least three times per week and any floating debris that collects on the dock will be removed. Trash will be disposed of properly on main campus, and organic matter, e.g. branches, will be moved to the downstream side of the dock so that it can remain in the river system.

### **Boater Safety:**

Students and campers participating in the canoeing program will participate in a safety orientation during their first session. This orientation of:

1. Donning and doffing lifejackets / personal floatation device (PFD)
2. Each student should select and be taught how to select the proper pfd and paddle for their size.
3. Waterfront Safety Rules – rules while on the dock, gangway and shoreline.
4. Parts of boat and nomenclature
5. Boarding and debarking canoes
6. Appropriate movement on the craft - On land students shall demonstrate the three basic canoe strokes and discuss the rules of the river
7. Self-rescue in case of capsizing or swamping of the boat
8. Boating “Rules of the Road”

### **Canoe Area Rules:**

- Anyone on the ramp, dock or in a canoe/kayak must wear a PFD at all times. No exceptions for any reason.
- Two people to remove and return canoe from the storage rack, carry it on the ramp and on dock.
- An adult must be on the dock before any child is on the dock and there always needs to be an adult on the dock when children are on the dock. And there also needs to be an adult on land.
- Safety is most important. Move slowly and ask questions.
- All canoers must maintain eye contact with each other canoes at all times.
- When preparing to canoe only the faculty and staff and those children carrying a canoe or being loaded in their canoe should be on the ramp or dock.
- Canoes shall be held parallel to the dock for loading safely and once in the boat all paddlers should be seated and remain seated at all times. There will be a maximum of three to any canoe. And for

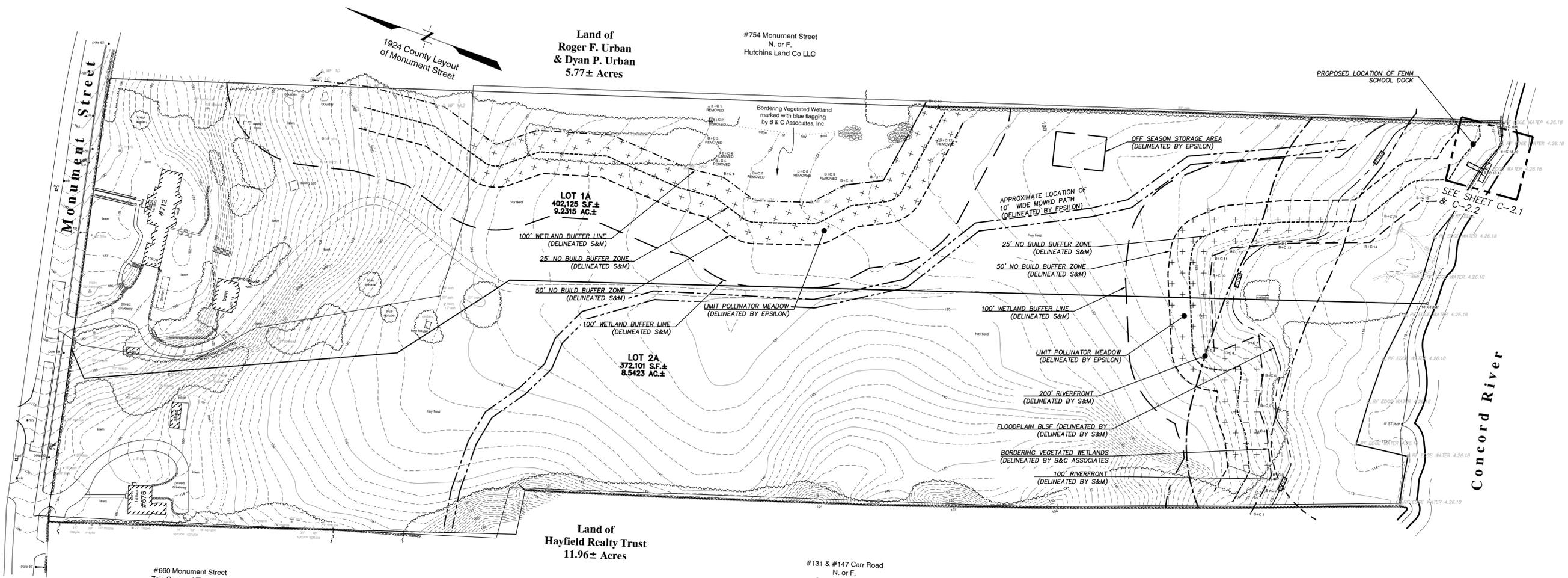
social distance purposes until further notice a maximum of two per canoe and masks should be worn by adults and children.

- For science class, naturalist program, adventure and team building and other times, consider lashing canoes together to make a floating classroom.
- Store personal items, e.g. back packs, in the temporary storage lockers or picnic table. Carry everything out when boating session or science class is over.
- All canoes must maintain eye contact with each other at all times.
- Be respectful of the rules of boating and of the river and wetland resources and of everyone on the river.
- Look out for others and be helpful.

DRAFT

FOR PERMITTING  
PURPOSES ONLY

FENN SCHOOL DOCK  
676 MONUMENT STREET  
CONCORD, MA



**NOTE:**  
SURVEY BASE IS FROM RESOURCE AREA  
DELINEATION PLAN PREPARED BY STAMSKI  
AND MCNARY, INC DATED APRIL 17, 2018  
REVISED THRU MAY 2, 2018 (DEP FILE NO.  
137-1432)

REVISION		
1	07/09/2020	COMMENTS FROM NRC
2	09/25/2020	COMMENTS FROM NRC
3	10/08/2020	COMMENTS FROM NRC

SITE PLAN

DATE: 09/24/20  
SCALE: 1"=60'  
**C-1.1**  
SHEET 2 OF 4

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