



WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Town of Acton Natural Resources Dept. +tidman@acton-ma.gov
Name E-Mail Address
472 Main St
Mailing Address
Acton MA 01720
City/Town State Zip Code
978-929-6634
Phone Number Fax Number (if applicable)

2. Representative (if any):

Firm
Contact Name E-Mail Address
Mailing Address
City/Town State Zip Code
Phone Number Fax Number (if applicable)

B. Determinations

1. I request the Acton Conservation Commission make the following determination(s). Check any that apply:

- a. whether the **area** depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
- b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
- c. whether the **work** depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
- d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any **municipal wetlands ordinance** or **bylaw** of:

Name of Municipality

- e. whether the following **scope of alternatives** is adequate for work in the Riverfront Area as depicted on referenced plan(s).



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C. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

2 Taylor Road

Acton

Street Address

City/Town

F3 - ~~76~~

76

Assessors Map/Plat Number

Parcel/Lot Number

- b. Area Description (use additional paper, if necessary):

Abandoned apple orchard with infestation of honeysuckle and multi-flora rose. See attached.

- c. Plan and/or Map Reference(s):

Title

Date

Title

Date

Title

Date

2. a. Work Description (use additional paper and/or provide plan(s) of work, if necessary):

Remove non-native invasives and 13 young black walnut trees to prepare the area for native wildflower and native shrub planting overseen by the Friends of the Acton Arboretum. See attached plant list, and approved CPA Grant.



C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- Single family house on a lot recorded on or before 8/1/96
- Single family house on a lot recorded after 8/1/96
- Expansion of an existing structure on a lot recorded after 8/1/96
- Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
- New agriculture or aquaculture project
- Public project where funds were appropriated prior to 8/7/96
- Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- Residential subdivision; institutional, industrial, or commercial project
- Municipal project
- District, county, state, or federal government project
- Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

ACTON

City/Town

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D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

TOWN OF ACTON - CONSERVATION COMMISSION

Name

472 MAIN STREET

Mailing Address

ACTON

City/Town

MA 01720

State

Zip Code

Signatures:

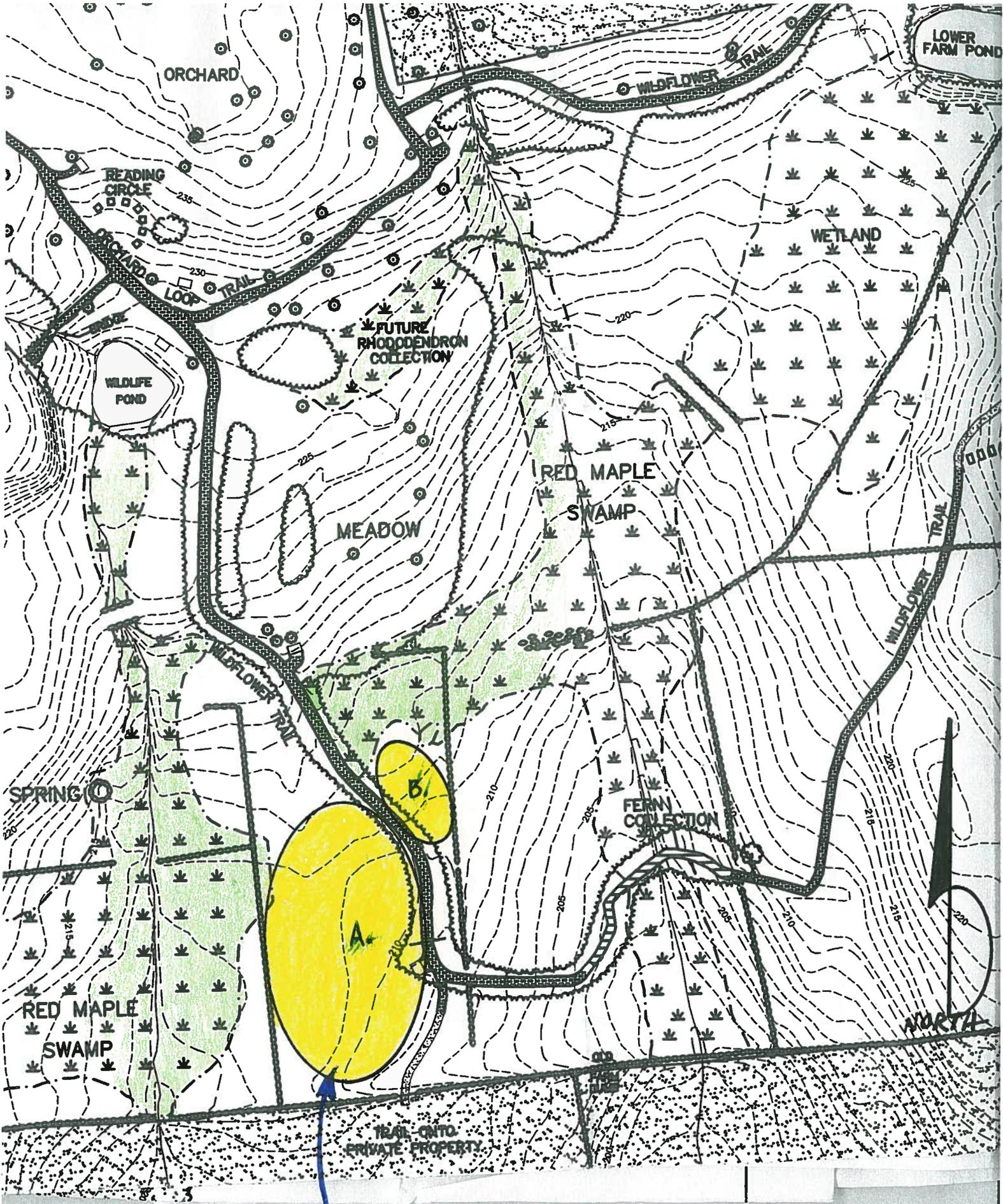
I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

Date

Signature of Representative (if any)

Date



INVASIVES
REMOVAL AREAS

SCALE 1" = 80'

ACTON ARBORETUM

MAIN ST - RTE 27

TAYLOR RD

ORCHARD LOOP

WOOD LN



TO CONCORD RD

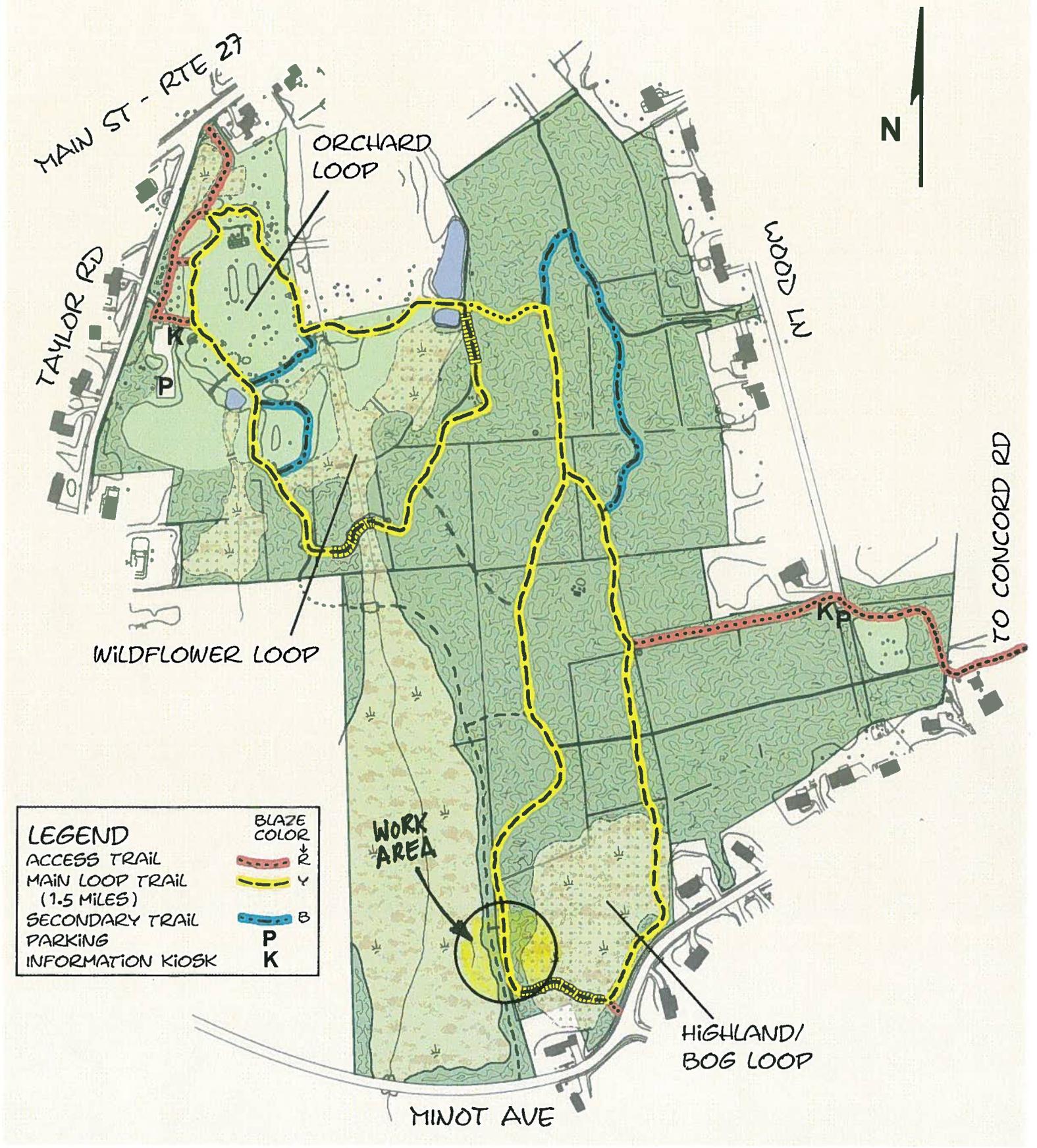
WILDFLOWER LOOP

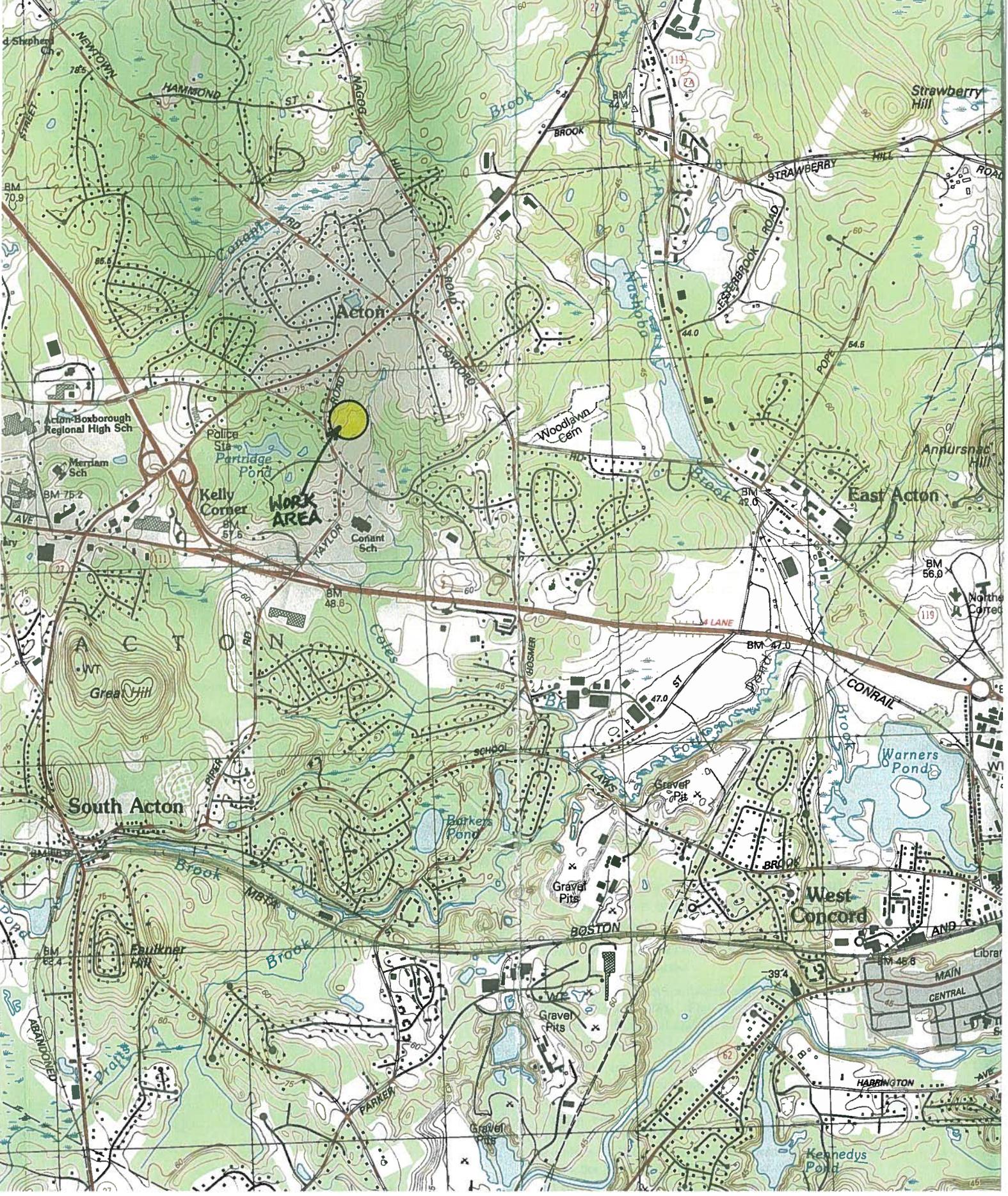
WORK AREA

HIGHLAND/
BOG LOOP

MINOT AVE

LEGEND	
ACCESS TRAIL	R
MAIN LOOP TRAIL (1.5 MILES)	Y
SECONDARY TRAIL	B
PARKING	P
INFORMATION KIOSK	K





PROJECT APPLICATION FORM – 2015

Applicant: Town of Acton Natural Resources Department **Submission Date:** 11-17-2014

Applicant's Address:

Town Hall, 472 Main Street, Acton, MA 01720

Phone Number: 978-929-6632

E-mail: nr@acton-ma.gov

Purpose: (Please select all that apply)

- Open Space
- Community Housing
- Historic Preservation
- Recreation

Town Committee (if applicable): Acton Conservation Commission _____

Project Name: Acton Arboretum Fern Boardwalk Replacement and Tree Removal

Project Location/Address: Acton Arboretum, 2 Taylor Road _____

Amount Requested: \$24,952.19 _____

Estimated Date for Commencement of Project: December, 2015

Estimated Date for Completion of Project: December, 2016

Project Summary:

- I.** Hire professional carpenter to rebuild Fern Boardwalk. Part of CPA Grant funding \$23,102.19
- II.** Hire tree company to remove one large, dying, red maple (*Acer rubrum*) next to boardwalk; and 13 black walnuts along wildflower trail. Part of CPA Grant funding \$2,850.00.

Community leverage: Friends of the Acton Arboretum donating \$1,000.00; and Axe Bros Tree Service is discounting/donating \$500 to the Arboretum. Natural Resources will contribute man hours and truck to remove old lumber from site, transport to transfer station. Natural Resources will have sawmill demonstration; Mass. DCR to cut up black walnut wood.

Total Leverage: \$1,000.00. Total Grant request: \$24,952.19.

Description Part I.

The fern boardwalk is the last of three, deteriorating, wooden boardwalks to be replaced and made ADA accessible in the Arboretum in three years with CPA fund requests, each boardwalk being over 25 years old. Current fern boardwalk conditions: rot in vertical columns; decayed concrete footings; rotten and patched railings; sagging floorboards; uneven floorboards. It was originally built by a professional carpenter and volunteers. Some materials were donated, some were purchased. This boardwalk is built over the designated "Mary's Brook;" so named in honor of Mary Michelman, community champion for clean water, who died of cancer in 2010. The existing plaque will be placed on new boardwalk.



Existing Conditions of Fern Boardwalk



Mary's Brook Plaque

Description of Part II.

(a) There is a large, multi-trunked red maple (*Acer rubrum*) tree next to the boardwalk that is dying and may fall. We want to remove it so it does not damage the new boardwalk when it is rebuilt.

(b) There are 13 black walnut trees in the vicinity that we want to remove to improve forest diversity. We feel this is in keeping with the Acton Arboretum Master Plan, Urban Forestry Grant, varied topography and diverse habitats of the land. This project is supported by the Friends of the Acton Arboretum. In 1994, the Conservation Commission requested that the Friends of the Arboretum help develop a Master Plan for the Arboretum. An Urban Forestry grant of \$2,500 was received in 1997 to fund both the mapping of the area and the first stages of the Master Plan. This was one of 32 urban forestry projects supported in 1997 by the Department of Environmental Management's Urban Forestry Program. Federal funds totaling \$185,000 from the USDA Forest Service are utilized to assist communities in planning for improvements and engaging residents in tree care efforts.

The Friends of the Acton Arboretum was organized "to raise and donate funds, materials, and services to the Town of Acton for the development and maintenance of the Acton Arboretum; to educate the community about the unique environmental, horticultural, geological, and historical qualities of the Arboretum property, about the process of wetland and field succession, and in an era of decreasing public funds and natural resources, about conservative, effective horticultural practice...."- Arboretum Master Plan

The Friends of the Arboretum received the George E. Stone Award from the Massachusetts Association of Tree Wardens and Foresters. The award is presented annually in recognition of outstanding community involvement in Urban Forestry. Removing the black walnuts will improve forest diversity and allow volunteers to plant more wildflowers along the trail, as well as a healthy diversity of understory plants. Tenets of urban forestry state: "Function, the dynamic operation of the forest, includes biochemical cycles, gas exchange, primary productivity, competition, succession, and regeneration. In urban environments, forest functions are frequently related to the human environment. Trees are usually selected, planted, trimmed, and nurtured by people, often with specific intentions, as when a tree is planted in a front yard to shade the driveway and frame the residence. The functional benefits provided by this tree depend on structural attributes, such as species and location, as well as management activities that influence its growth, crown dimensions, and health." (McPherson E.G. (2006). Urban Forestry in North America. in *Renewable Resources Journal*, Autumn 2006)

It is with these principles in mind that we are choosing to develop a 300' area along the wildflower trail, to remove the 13 black walnuts to improve diversity and soil health. Black walnuts deposit a phytotoxin called juglone into the soil via its roots, leaves and nuts. When the area is re-developed, after the black walnuts are removed, care will be taken to choose understory plantings that are able to grow in the presence of juglone.

New plantings will include: *Amelanchier*, *Halesia*, *Styrax*, *Hamamelis* (sps), *Cornus kusa*, *Acer* (sps), *Cercis canadensis*, *Fothergilla* and *Viburnum*. There are literally hundreds of Black walnuts scattered throughout the Arboretum property; so there is no concern that this species will be under represented. The larger concern is their creation of a monoculture, and subsequent prohibition of a varied plant community, due to the ubiquitous presence of juglone. This project speaks directly to the benefits of urban forestry and public education about forest diversity.

The **Mass. Department of Conservation and Recreation** will bring their portable sawmill to the Arboretum in spring, 2016 and will saw black walnut boards out of the felled trees in an educational, public demonstration. Some of the lumber will be utilized to benefit future conservation land projects.



Dying Red Maple



Approach to boardwalk



Area to remove black walnuts and replant

Quote from Axe Bros Tree Service:

From: **axebros [axebros@verizon.net]** Sent: Thu 10/16/2014 11:47 AM
To: **Bettina Abe**
Cc:
Subject: **Walnut removal at Arboretum**

Bettina, we took another look at the walnut trees in the arboretum today so we could get you a quote. It looks like some of the ribbons on the smaller trees along the path have been removed, but we remember what was originally marked.

To perform the work there are some trees and bushes on the path into the proposed clearing that would need to be pruned to make room for our equipment.

If the town was to perform the pruning, the clearing would cost 2450.00. If we were to perform the pruning the clearing would cost 2,700.00. Either way \$500.00 of the bill would be considered an in kind donation to the Arboretum, making the out of pocket cost \$1,950.00 or \$2,200.00

To fell the dying maple further along the trail would cost 400.00. We would be using our bucket truck to do this so part of a stone wall would need to be moved to make access. The town would be responsible for moving the wall. All brush and wood would be left in place but we would keep everything out of the brook.

Feel free to contact us if you have any questions or need clarification.

Total would be \$ 2350.00 or \$ 2600.00 for your budgeting purposes.

Charles & Jacob Abraham
Axe brothers Tree Service
Acton, MA
978-263-9961



Acton Arboretum

Plant list for wildflower trail understory approach to fern boardwalk and Mary's Brook

- **Amelanchier**
- **White halesia**
- **Styrax (whitebells)**
- **Witch hazel (hamamelis)**
- **Kousa dogwoods**
- **Florida dogwoods**
- **Japanese maple**
- **Eastern redbuds, various colors**
- **Viburnum**
- **fothergilla**