

PROJECT APPLICATION FORM – 2013

Applicant: Friends of the Acton Arboretum and Natural Resources Dept. **Submission Date:** 11-16-12

Applicant's Address, Phone Number and Email

Purpose: (Please select all that apply)

Friends of the Acton Arboretum

125 School Street

Acton Ma 01720

- Open Space
- Community Housing
- Historic Preservation
- Recreation

Town Committee (if applicable): _____

Project Name: Rebuilding the Acton Arboretum Wildflower Boardwalk

Project Location/Address: Acton Arboretum, Taylor Road Acton

Amount Requested: \$24,000

Project Summary: In the space below, provide a brief summary of the project.

The 145 foot Acton Arboretum Wildflower Boardwalk was built in 1994 by Friends of the Acton Arboretum volunteers and a release crew from MCI Concord using donated lumber from Deck House. Acton Natural Resources paid for the hardware.

We are requesting \$24,000 CPA funds to rebuild the boardwalk.

The boardwalk has been repaired for 4 years by volunteers, an Eagle Scout, and the NR Dept. but is succumbing to substantial rot underneath the supporting structure of the stringers, sills and posts. It needs to be replaced in its entirety at this point, rather than repaired piecemeal. New handicap railings need to be installed at two heights.

In the past 20 years, the wildflower collection has expanded enormously through the purchase and donation of thousands of plants, installed by volunteers. ADA standards have become more stringent. A professional builder on site will ensure consistent, expert oversight. The project is too large in scale for volunteers. Time is of the essence to replace the boardwalk because it is becoming dangerous and spongy underfoot.

Location is on a hillside at the edge of wetlands on the Wildflower Loop Trail at the Acton Arboretum.

A "Request for Determination" will be filed with the Acton Conservation Commission.

The Acton Arboretum has evolved and become an extremely popular destination to thousands of visitors per year. The trail has been greatly improved over the years by paving; benches installed every 200 feet.

Thousands of hours of staff and volunteer time, and thousands of dollars in trees, plants, and planting materials have been invested in this trail over the years.

This proposal improves the recreational opportunities for an underserved population: persons with disabilities.

This grant proposal will be leveraged with a \$5,000 contribution from the Friends of the Acton Arboretum.

Additional donations from the public will be sought.

The Town of Acton Natural Resources Department will contribute to the costs.

The newly rebuilt boardwalk will last 20-30 years: well-worth the investment for thousands of annual visitors.

Estimated Date for Commencement of Project: 8-15-13

Estimated Date for Completion of Project: 10-1-13

Location of Project: Acton Arboretum



The Wildflower Boardwalk at the Acton Arboretum, Fall 2012

Time Line in the Life of the Wildflower Boardwalk at the Acton Arboretum

1977 Town of Acton purchased parcels of land comprising 'Acton Center Park.'

1986 Town meeting voted to designate these Acton Center conservation parcels the 'Acton Arboretum.'

1990 First handicap accessible trails constructed (2,575 feet) on any of Acton's conservation lands built at Arboretum.

1993 The Friends of the Acton Arboretum (FAA) received a \$5,000 grant from the William P. Wharton Trust to help pay for developing accessible trail, educational materials, plantings.

1994 Acton Conservation Commission permitted Natural Resources Department to construct new 110' wildflower boardwalk on National Trails Day. MCI release crew, volunteers, professional carpenter. Donated lumber from 'Deck House.'

1994 Sue Beveridge designed and with major help from Bruce Carley and others planted expansive native, New England wildflower collection in hardwood forest along trail.

1996 Eagle Scout Bryan Manter completed 20' section of boardwalk + 60' section of stone dust trail.

1997 Eagle Scout A.J. Martignette installed 6 new benches along wildflower trail.

2003 Eagle Scout James Kiniki built fences along adjacent pond.

2005 FAA received CPA grant for \$24,000 to build handicap accessible 'fragrance' trail and lilac collection adjacent to wildflower collection/trail.

2007 Weston Nurseries donated 20 fragrant azaleas to fragrance collection.

2007 Dean Charter and Brewster Conant and FAA donated dozens of assorted lilac species planted along wildflower trail.

2007 Eagle Scout Derek Wise built stone wall along fragrance loop next to wildflower loop.

2008 FAA donated two curved teak benches to fragrance loop.

2009 Zeke Crofton-MacDonald repaired a rotted section of the wildflower boardwalk.

2010 Nan Towle-Millett donated \$300 worth of wildflowers planted along the trail.

2010 Acton Natural Resources and FAA combined resources to pave 500 feet of the wildflower trail to improve accessibility.

2010 Eagle Scout Matt Smith planted grass along 500 feet of paved trail to prevent erosion.

2010 and 2011 Peg and Joe Sestrich (FAA volunteers) repair wildflower Boardwalk.

2011 FAA volunteers donated and planted dozens of wildflower plants along edges of newly paved trail.

2011 Natural Resources and FAA combined resources to pave 250 feet of badly eroded trail.

2012 CPA Grant request to rebuild the wildflower boardwalk!

- Many more items could be added into this timeline, such as mulch, stone dust, trees, shrubs, flowering bulbs, replacement benches. Volunteers will remove sensitive plants before construction.
- Volunteer hours will invest in rebuild process by dismantling and transporting materials to and from the work site, as well as beautifying the construction site after work is completed.
- Newly rebuilt boardwalk will last 20-30 years (estimated life span of today's pressure treated wood) and will be well worth the investment to the Arboretum's thousands of annual visitors.
- Volunteers and Town Staff will continue to invest time and energy to nurture this extremely popular trail system.

**1994 Original Wildflower Boardwalk Construction
Man Hours Invested**

1. MCI Concord Release Crew – 6 hours per day per man
1 guard + 8 man crew – 1 week
 - a. Stone dust trail and garden – 8 men 1 day 48 man hours (mhs)
 - b. Excavate 72 post holes – 8 men (3 days) 144 mhs
 - c. Concrete for posts – 8 men (1 day) 48 man hrs

Total hours: 240 mhs.

2. Town of Acton Natural Resources oversight of installation – 10 mhs
3. Town of Acton – boardwalk design (with assistance from Acton Survey and Engineering) – 20 mhs.
4. Materials purchase – 3 mhs.
5. Volunteer workdays (2 days/8 hrs per day for construction)

Total crew size 10 people

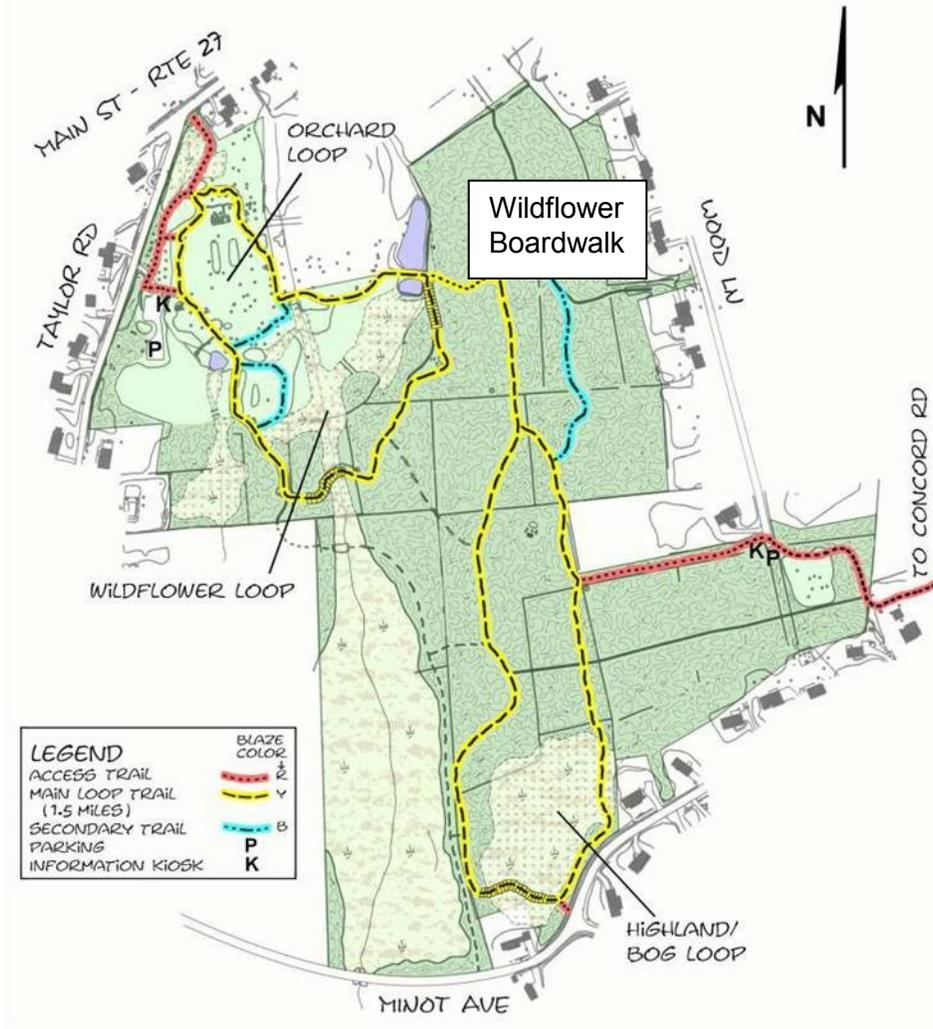
Professional carpenter (Chris Stockman) oversight

Total construction time – 160 mhs



Sample Railings found at Drumlin Farm. We would like to emulate these.

ACTON ARBORETUM



Acton Arboretum Wildflower Boardwalk CPA Grant Application
Existing Conditions
11-19-12

The existing wildflower boardwalk is 145 feet long is comprised of two sections; the first northerly section measures 18'. There is a 12' gap between sections. The second section measures 115'.

36 vertical western cedar posts (per side) are set in concrete every 8 feet for a total of 72 posts. Two vertical posts at the southern end are rotten, broken at ground level. There is evidence of rotting on many of the structural supports.

There is a slight curve in the overall boardwalk design.

There is a 5% gradient sloping downwards from northern to southern ends. This was designed to meet ADA requirements, with ten foot-horizontal sections after each thirty foot sloped stretch.

12' gap (between wooden boardwalk sections) exists at the northerly end. Hard pack gravel underfoot. Gap is bounded on one side with a 3-tier, split rail fence overlooking the pond. The overlook area is 8' deep. There is no railing on the other side of this gap, as an informal trail leads up the rocky slope to connect with main trail leading to woodland/meadow/bog .

There is a farm pond adjacent to the boardwalk.

Two 8' sections of wooden handrails were destroyed when a tree fell at the northern end of the boardwalk. Two levels of caution tape are tied from vertical posts, across the broken 8' wooden handrail sections at the northerly end.

The boardwalk is built into a slope. Upper eastern hillside is planted with hundreds of native, New England wildflowers that bloom from April to July. Lower hillside rocky and wooded.

Structure rests on dirt ground for 48' at southern end. The ground falls away underneath the boardwalk as you walk north until, at its highest height, it is 4' 3" high off the ground.

Upper railings have flat wooden tops so one may rest on them to look at the garden. Attached, rusted round metal poles act as grabrails. Many rusty brackets have broken off and are lying on the ground. 16' of the southern end of the boardwalk does not have handrails.

Piled under the boardwalk are chunks of concrete and about 20 pieces of miscellaneous lumber.

Many stringers (running the length underneath decking) and sills (running crossways) are rotten at the southern end.

Natural Resources crew plans to make safety repairs as soon as possible and may be done by the time this application is submitted.

The wildflower collection is an extremely popular destination each spring, attracting hundreds of visitors of all ages. The existing boardwalk has lived out its useful life is in need of replacement.

Fred's Construction Services

Fred Given
 2 Fairfield Street
 Maynard, MA 01754

Estimate

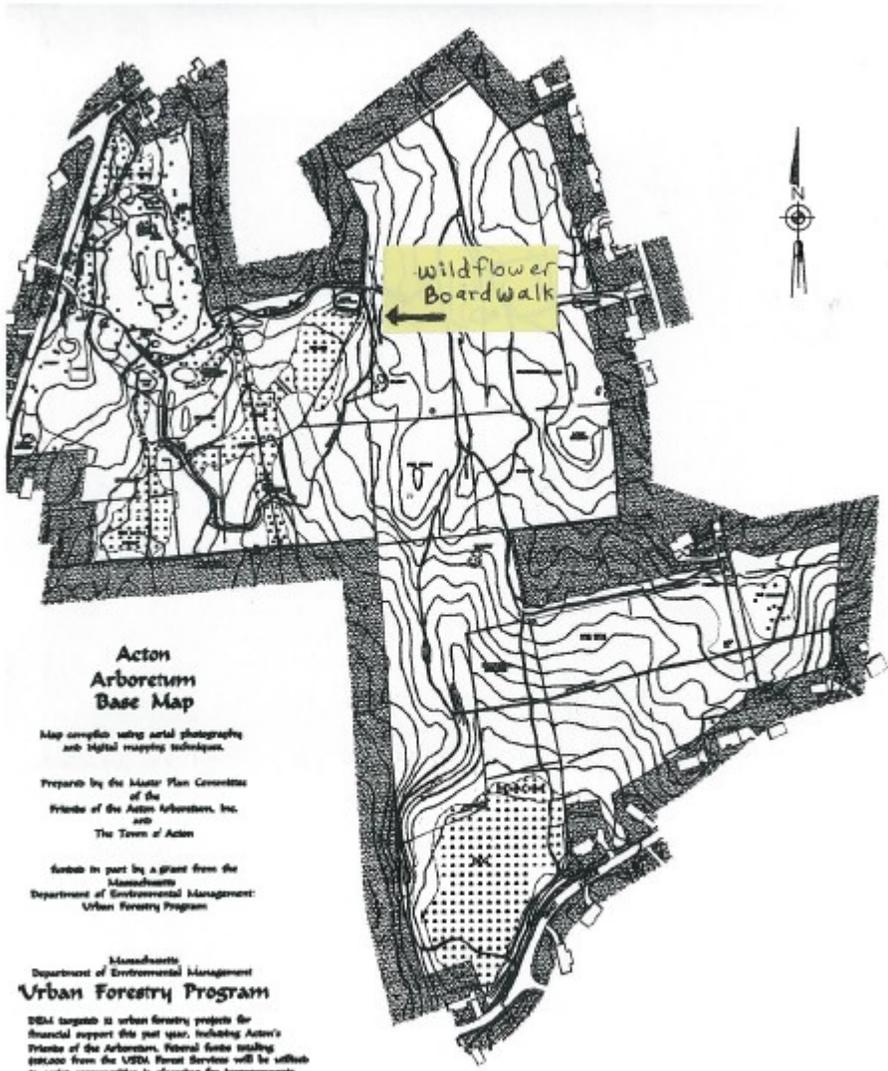
Date	Estimate #
9/29/2011	471-117dup

Name / Address
Town Of Acton 472 Main Street Acton Ma 01720

Description	Terms	Project
	Due upon completion	Arbernum walkway
Description	Total	
Framing materials and handrails for 150' of walkway with handrails on both sides		10,483.75
Framing Labor / to demo existing and install new deck and posts and top rail		12,750.00
Framing Labor / to install ADA compliant rail system on both sides		5,000.00
Dumpster fee / existing decking to be removed and disposed of by others		0.00
THIS IS A GENERAL ESTIMATE BASED ON STANDARD MATERIAL SELECTIONS, FINAL SELECTIONS TO BE DETERMINED		
Thank You. If you have Questions call Dan @ 978 360-2721		Total \$28,233.75
E-mail		Web Site
Fred.mwd@verizon.net		www.Fredconstructionservices.com

Estimate from 2011.

New Estimate and building plans will be forthcoming ASAP.



**Acton
Arboretum
Base Map**

Map compiled using aerial photography
and digital mapping techniques.

Prepared by the Master Plan Committee
of the
Friends of the Acton Arboretum, Inc.
and
The Town of Acton

Subsidized in part by a grant from the
Massachusetts
Department of Environmental Management
Urban Forestry Program

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USDA targets its urban forestry projects for
financial support this past year. Including Acton's
Friends of the Arboretum. Federal funds totaling
\$25,000 from the USDA Forest Service will be utilized
to assist communities in planning for improvements
and engaging residents in tree care efforts.

The Friends of the Acton Arboretum received a grant
of \$2,000 to help fund the production of this base map.

MAP LEGEND

[Symbol]	Water
[Symbol]	Stream
[Symbol]	Trail
[Symbol]	Path
[Symbol]	Boundary
[Symbol]	Building
[Symbol]	Other

Plants Featured Along the Acton Arboretum's Wildflower Trail

(Updated to May 21, 2012 by Bruce Carley)

Ferns (including those occurring naturally along the trail and both boardwalks)

Royal fern (*Osmunda regalis*): at least 2 along south boardwalk; occasional elsewhere at Arboretum

Cinnamon fern (*Osmunda cinnamomea*): naturally occurring in quantity along south boardwalk

Interrupted fern (*Osmunda claytoniana*): naturally occurring in quantity along south boardwalk

Maidenhair fern (*Adiantum pedatum*): several healthy clumps along and north of boardwalk, a few elsewhere

Common polypody (*Polypodium virginianum*): 1 small clump along boardwalk

Hayscented fern (*Dennstaedtia punctilobula*): naturally occurring along boardwalk; aggressive species

Bracken fern (*Pteridium aquilinum*): occasional along trail; common elsewhere at Arboretum

Broad beech fern (*Phegopteris hexagonoptera*): 1 small patch along north end of boardwalk

New York fern (*Thelypteris noveboracensis*): naturally occurring and abundant along trail

Ostrich fern (*Matteuccia pensylvanica*): well-established along many parts of trail; fiddleheads edible

Sensitive fern (*Onoclea sensibilis*): naturally occurring and abundant along south boardwalk

Lady fern (*Athyrium filix-foemina*): moderately present along trail and south boardwalk

Common woodfern (*Dryopteris spinulosa*): 1 patch of 4 plants along south boardwalk

Marginal woodfern (*Dryopteris marginalis*): 1 or 2 mature plants along trail

Male woodfern (*Dryopteris filix-mas*): about 12-15 plants with 3 different forms represented; uncommon species

Goldie's giant woodfern (*Dryopteris goldiana*): about 11 plants along trail; uncommon in MA and in most of range

Braun's holly fern (*Polystichum braunii*): 14 plants of various sizes counted in 2011; rare species, endangered in MA

Christmas fern (*Polystichum acrostichoides*): a few mature clumps, plus a moderate number of smaller plants

Birthwort family (*Aristolochiaceae*)

Wild ginger (*Asarum canadense*): several thriving patches of various sizes

Buttercup family (*Ranunculaceae*)

Tassel-rue (*Trautvetteria carolinensis*): failed in the woods, but present in north swale garden just north of bridge

Early meadow-rue (*Thalictrum dioicum*): at least 6 thriving plants along boardwalk

Rue-anemone (*Thalictrum thalictroides*): at least 1 patch of about 3 plants along trail

Sharp-lobed hepatica (*Hepatica acutiloba*): up to 6 plants in 2 patches along boardwalk and trail

Wood anemone (*Anemone quinquefolia*): occasional along trail, frequent elsewhere at Arboretum

Thimbleweed (*Anemone virginiana*): at least 1 thriving plant, prolific in fruit and likely to spread

Marsh marigold (*Caltha palustris*): at least 2 small plants near the brook, plus 3 in north swale garden; future uncertain

Spreading globeflower (*Trollius laxus*): failed in the woods; 1 small patch in north swale garden; future uncertain

False rue-anemone (*Isopyrum biternatum*): several plants in 1 patch along trail, thriving in 2012

Wild columbine (*Aquilegia canadensis*): mature plants occasional along trail; more probably pending elsewhere

Black cohosh (*Actaea racemosa*): well-established in several spots along trail and both boardwalks; endangered in MA

White baneberry (*Actaea pachypoda*): roughly 20-30 mature plants, plus some seedlings

Red baneberry (*Actaea rubra*): at least 6 mature plants, plus some seedlings

White-fruited red baneberry (variety of *A. rubra*): at least 3 mature plants in 1 patch, plus some seedlings

Goldenseal (*Hydrastis canadensis*): 5 well-established patches; rare species due to overcollection, endangered in MA

Barberry family (*Berberidaceae*)

May-apple (*Podophyllum peltatum*): well-established in several patches along boardwalk and trail; aggressive species

Umbrella-leaf (*Diphylleia cymosa*): 1 clump of 2 stems surviving in 2012

Blue cohosh (*Caulophyllum thalictroides*): about 9 plants located individually along trail

Twinleaf (*Jeffersonia diphylla*): about 11 plants located individually along boardwalk and trail

Poppy family (*Papaveraceae*)

Bloodroot (*Sanguinaria canadensis*): abundant along boardwalk and trail, occasional elsewhere at Arboretum

Double-flowered bloodroot (sterile form of *S. canadensis*): many plants in at least 8 well-established patches

Wood poppy (*Stylophorum diphyllum*): abundant, potentially aggressive with other species

Bleeding-heart family (*Fumariaceae*)

Dutchman's-breeches (*Dicentra cucullaria*): present along boardwalk, well-established along trail

Squirrel-corn (*Dicentra canadensis*): present along boardwalk, fairly well established along trail

Wild bleeding-heart (*Dicentra eximia*): present in boardwalk area and along trail; shade tolerance fair at best

Albino wild bleeding-heart (white form of *D. eximia*): probably pending on a small scale

Yellow corydalis (*Corydalis lutea*): occasional, barely tolerant of shade; probably not an indigenous variety

Purslane family (*Portulacaceae*)

Virginia spring-beauty (*Claytonia virginica*): well-established along boardwalk and trail; endangered in MA

Violet family (*Violaceae*)

Yellow violet (*Viola pensylvanica*): well-established and increasing along boardwalk and trail

Cream violet (*Viola striata*): well-established along boardwalk and trail

Largeleaf white violet (*Viola blanda* var. *palustriformis*): well-established along boardwalk and in swale garden
 Canada violet (*Viola canadensis*): at least 8 located individually along boardwalk and trail in 2012; future uncertain
 Labrador violet (*Viola labradorica*): several patches and singles growing adequately along boardwalk and trail
 Mustard family (Brassicaceae)
 Toothwort (*Dentaria diphylla*): a few clumps along trail, generally thriving
 Cuckoo-flower (*Cardamine pratensis*): 1 clump along south boardwalk in 2012
 Heath family (Ericaceae)
 Trailing arbutus (*Epigaea repens*): possibly pending, no promises
 Aromatic wintergreen (*Gaultheria procumbens*): hiding in woods not far from trail, occasional elsewhere at Arboretum
 Shinleaf family (Pyrolaceae)
 Shinleaf (*Pyrola elliptica*): hiding in woods not far from trail, frequent elsewhere at Arboretum
 Spotted wintergreen (*Chimaphila maculata*): hiding in woods not far from trail, frequent elsewhere at Arboretum
 Primrose family (Primulaceae)
 Shooting-star (*Dodecatheon meadia*): failed in the woods; probably pending in swale garden
 Starflower (*Trientalis borealis*): occasional, mostly with wild lily-of-the-valley, abundant elsewhere at Arboretum
 Saxifrage family (Saxifragaceae)
 Foamflower (*Tiarella cordifolia*): present along boardwalk, increasingly well-established along trail
 Clumping foamflower (*Tiarella wherryi*): 2 thriving patches at bases of central trees along trail
 Miterwort (*Mitella diphylla*): 1 plant along south end of trail, healthy in 2012
 Rose family (Rosaceae)
 Purple-flowering raspberry (*Rubus odoratus*): well-established in several patches
 Barren strawberry (*Waldsteinia fragarioides*): occasional along boardwalk and south end of trail; special concern in MA
 Common strawberry (*Fragaria virginiana*): well-established along boardwalk
 Goat's-beard (*Aruncus dioicus*): 2 patch of 4 plants each along both boardwalks in 2012
 Box family (Buxaceae)
 Allegheny-spurge (*Pachysandra procumbens*): 2 small clumps along boardwalk, another along trail
 Geranium family (Geraniaceae)
 Wild geranium (*Geranium maculatum*): frequent along many parts of trail; non-aggressive in wooded areas
 Parsley family (Apiaceae)
 Golden alexanders (*Zizia aurea*): many clumps along trail; abundant uphill from north edge of boardwalk
 Gentian family (Gentianaceae)
 Closed gentian (*Gentiana clausa*): not yet successful in woods, but thriving in butterfly and swale gardens and at NARA
 Phlox family (Polemoniaceae)
 Blue wood phlox (*Phlox divaricata*): well-established along boardwalk and trail
 Albino wood phlox (white form of *P. divaricata*): 2 clumps planted in 2011, representing 2 different cultivars
 Creeping phlox (*Phlox stolonifera*): occasional along trail, mostly in white-flowered form; future uncertain
 Jacob's-ladder (*Polemonium van-bruntiae*): moderately present and generally thriving
 Forget-me-not family (Boraginaceae)
 Virginia bluebells (*Mertensia virginica*): well-established along boardwalk and trail
 Snapdragon family (Scrophulariaceae)
 White turtlehead (*Chelone glabra*): failed in the woods, but present in north swale garden; future uncertain
 Lobelia family (Lobeliaceae)
 Cardinal flower (*Lobelia cardinalis*): failed in the woods, but well-established in butterfly and north swale gardens
 Albino cardinal flower (rare white form of *L. cardinalis*): present in butterfly and north swale gardens (north of bridge)
 Great lobelia (*Lobelia siphilitica*): failed in woods, present in butterfly and swale gardens and NARA; endangered in MA
 Bedstraw family (Rubiaceae)
 Partridgeberry (*Mitchella repens*): occasional at south end of trail; frequent elsewhere at Arboretum
 Aster family (Asteraceae)
 Whorled wood aster (*Oclemena acuminatus*): occasional at south end of trail and elsewhere at Arboretum
 White wood aster (*Eurybia divaricatus*): occasional at south end of trail and elsewhere at Arboretum
 Heart-leaved aster (*Symphotrichum cordifolius*): 1 patch uphill from north end of boardwalk
 Catfoot (*Antennaria neglecta*): 1 small patch along north end of boardwalk, more probably pending
 Golden star (*Chrysogonum virginianum*): at least 2 thriving clumps along trail in 2012
 Dayflower family (Commelinaceae)
 Ohio spiderwort (*Tradescantia ohioensis*): failed in the woods, but present in swale garden; more probably pending
 Arum family (Araceae)
 Jack-in-the-pulpit (*Arisaema triphyllum*): abundant along trail and throughout Arboretum
 Green dragon (*Arisaema draconitum*): at least 1 along trail, possibly some hidden seedlings; threatened in MA
 Lily family (Liliaceae)

Trout-lily (*Erythronium americanum*): numerous small patches including at least a few mature flowering clumps
 Lily-of-the-valley family (*Convallariaceae*)
 Bluebead-lily (*Clintonia borealis*): 1 patch of 2 plants, vigorous and expanding in 2012
 Solomon's-seal (*Polygonatum biflorum*): many healthy patches, planted and naturally occurring
 Great Solomon's-seal (*Polygonatum canaliculatum*): several healthy patches along boardwalk and trail
 False Solomon's seal (*Maianthemum racemosum*): occasional in thickets not far from trail, and elsewhere at Arboretum
 Wild lily-of-the-valley (*Maianthemum canadense*): abundant at south end of trail and throughout Arboretum
 Rose twisted-stalk (*Streptopus roseus*): 1 clump planted along boardwalk in 2012; future uncertain
 Large-flowered bellwort (*Uvularia grandiflora*): 1 healthy clump along boardwalk in 2012
 Wild oats (*Uvularia sessilifolia*): occasional along trail and in nearby woods, common elsewhere at Arboretum
 Trillium family (*Trilliaceae*)
 Great white trillium (*Trillium grandiflorum*): at least 33 along trail and boardwalk, 32 of which flowered in 2012
 Double-flowered white trillium (sterile form of *T. grandiflorum*): 1 non-flowering stem; future uncertain
 Red trillium (*Trillium erectum*): about 65 plants along trail and boardwalk, 55 of which flowered in 2012
 Albino red trillium (white form of *T. erectum*): 7 planted individually in 2011, 2 of which flowered in 2012
 Painted trillium (*Trillium undulatum*): possibly pending, no promises
 Toadshade trillium (*Trillium sessile*): at least 25 plants in 6 patches along boardwalk and trail in 2012
 Whip-poor-will trillium (*Trillium luteum*): 1 patch of 3 plants along trail, all thriving in 2012
 Drooping trillium (*Trillium flexipes*): 1 plant flowering in 2012, possibly a second plant in the same patch
 Nodding trillium (*Trillium cernuum*): non-showy species, a few along boardwalk and near south end of trail
 Iris family (*Iridaceae*)
 Crested dwarf iris (*Iris cristata*): at least 1 patch observed in 2012, possibly more; future uncertain
 Blue flag (*Iris* sp.): probably not the indigenous form, 1 small clump near the brook; future uncertain
 Slender blue flag (*Iris prismatica*): failed in the woods, but present in north swale garden
 Blue-eyed grass (*Sisyrinchium montanum*): 1 small clump along boardwalk, thriving in 2012
 Orchid family (*Orchidaceae*)
 Large yellow lady slipper (*Cypripedium pubescens*): 2 along boardwalk, 1 of which flowered in 2012; uncommon in MA
 Small yellow lady slipper (*Cypripedium parviflorum*): 1 along boardwalk, not flowering since 2010; endangered in MA
 Downy rattlesnake-plantain (*Goodyera pubescens*): 1 small clump along boardwalk, planted in 2012; future uncertain
 Helleborine (*Epipactis helleborine*): occasional, the only exception among non-natives in being encouraged here
 The following natives have been attempted at various times with no success:
 Birdfoot violet (*Viola pedata*): Probably shaded out; plants may survive if given more direct sunlight
 Yellow stargrass (*Hypoxis hirsuta*): Probably shaded out; plants may survive if given more direct sunlight
 Mountain-mint (*Pycnanthemum pilosum*): Clump along boardwalk died in 2001; may do better in brighter conditions
 Spring larkspur (*Delphinium tricorne*): Singles along boardwalk have consistently died out; may need brighter conditions
 Galax (*Galax aphylla*): Long-surviving patch along boardwalk did not reappear in 2012
 Goldthread (*Coptis groenlandica*): A few plantings from previous years did not reappear in 2012
 Tall bellflower (*Campanula americana*): Annual species; seedling crops have consistently failed to perpetuate
 Bunchberry (*Cornus canadensis*): Several patches from previous years did not reappear in 2012
 Fringed polygala (*Polygala paucifolia*): 2 patches planted in 2011 did not reappear in 2012
 Twinflower (*Linnaea borealis*): Small patch along trail died in 2011
 Trailing arbutus (*Epigaea repens*): Repeated attempts at establishment have failed consistently
 Andrews' bottle gentian (*Gentiana andrewsii*): Rooted cuttings and seedlings have consistently failed to survive
 Pink lady slipper (*Cypripedium acaule*): Plants rescued in 1993 did not survive longer than 2 years
 The following natives have not yet been attempted but may be viable possibilities:
 Wood lily (*Lilium philadelphicum*): May be workable in shady areas
 Harebell (*Campanula rotundifolia*): May be workable in sunny areas
 Wild monkshood (*Aconitum noveboracense*): May be workable in moist shaded areas
 Virginia meadow-beauty (*Rhexia virginica*): Recommended for swale garden
 Wild calla (*Calla palustris*): May be workable in swale garden and at NARA
 Pearly everlasting (*Anaphalis margaritacea*): May be workable in dry open woods
 Painted trillium (*Trillium undulatum*): No promises, but plans may be brewing
 Fringed gentian (*Gentianopsis crinita*): Biennial species; may be workable in swale garden with careful effort
 Showy lady slipper (*Cypripedium reginae*): Deserves mention; may become more available and affordable over time
 The following natives have been excluded from planting because of their aggressive habits:
 Canada anemone (*Anemone canadensis*): Resists eradication and quickly overtakes other plants unless grown alone
 Common violet (*Viola papilionacea*): Crowds out other plants and seems too ubiquitous for planting among uncommon natives
 Herb-Robert (*Geranium robertianum*): Weedy species; seeds itself around much too prolifically for comfort
 Note also that the following relatively unusual natives were observed at NARA in 2011:
 Butterfly milkweed (*Asclepias tuberosa*): Introduced and fairly well-established in NARA meadows and gardens
 Small purple gerardia (*Gerardia paupercula*): Frequent near the shoreline at many sites around the pond at NARA
 Golden hedge-hyssop (*Gratiola aurea*): Abundant in wet sands within the beach enclosure and nearby
 Bluecurls (*Trichostema dichotomum*): Occasional in exposed sandy soils in open areas along the hiking trail
 Yellow screwstem (*Bartonia virginica*): Related to gentians; frequent among rocks bordering the bath house

REQUEST FOR DETERMINATION OF APPLICABILITY
Massachusetts Wetlands Protection Act, G.L. c 131, § 40

A Request for Determination of Applicability (Form 1) must be filed for any work occurring within 100' of a wetland. The wetlands in the Town of Acton have been delineated on the Town Atlas (scale 1"=1200') which is available at the Conservation or the Engineering Offices, Town Hall, 472 Main Street, Acton, Massachusetts.

The following Guidelines were established (July 1984 to simplify filing procedures):

1. The Commission is required by law to hold the hearing within 21 days of receipt of the application, and render a decision within 21 days of the closing of that hearing. Please contact the office prior to filing for a meeting schedule date and time at 978-929-6634. Conservation meetings are generally held on the first and third Wednesdays of each month; therefore, applications must be filed by noon, 14 days prior to either meeting to allow for publication of the meeting notice.
2. All applications to the Town of Acton **(four hard copies and one electronic)** shall include:
 - a. A Request for a Determination of Applicability (Form 1), Massachusetts.
 - b. Map or plot plan which shall include:
 - location of existing structures
 - proposed work (structures and grading)
 - wetlands boundaries
 - flood plain boundaries
 - 100' buffer zone boundaries, and the 50' natural vegetative and 75' no-build setbacks
 - existing and proposed topography where necessary
 - c. A check or bank money order for \$45 payable to the Town of Acton for local application fee.
3. The applicant shall notify the Town Clerks Office, and the owner of the property.
4. The applicant shall send one copy of the Request for Determination of Applicability (Form 1), and one copy of the plan to the D.E.P. Central Regional Office**.
5. Abutters shall be notified, at the applicant's expense, only if construction will disturb more than 1,000 sq. ft. and/or will occur within twenty (20) feet of the wetland. Abutters are owners of land sharing a common boundary or corner with the site of the proposed activity in any direction, including land directly across a street, way, creek, river, stream, brook, or canal AND within 100' of property boundary line (as noted under the Wetlands Protection Act).
6. A newspaper advertisement of the date, time and place of the determination meeting shall be placed by the Commission at the applicant's expense.

**Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, MA 01608

oonoom.oxforms.Filing Instructions 2010

Wetlands Protection Act/Permits will be filed with the Acton Conservation Commission



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:
NATURAL RESOURCES DEPT., FRIENDS OF THE ACTON ARBORETUM, INC.
 Name
472 MAIN STREET E-Mail Address Hidman@acton-ma.gov
 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:
ACTON - WETLANDS BYLAW
 Name of Municipality
- e. whether the following scope of alternatives is adequate for work in the Riverfront Area as depicted on referenced plan(s).

Sample of Request for Determination Form which shall be filed with Acton Conservation Commission.



Wildflower Boardwalk November 2012

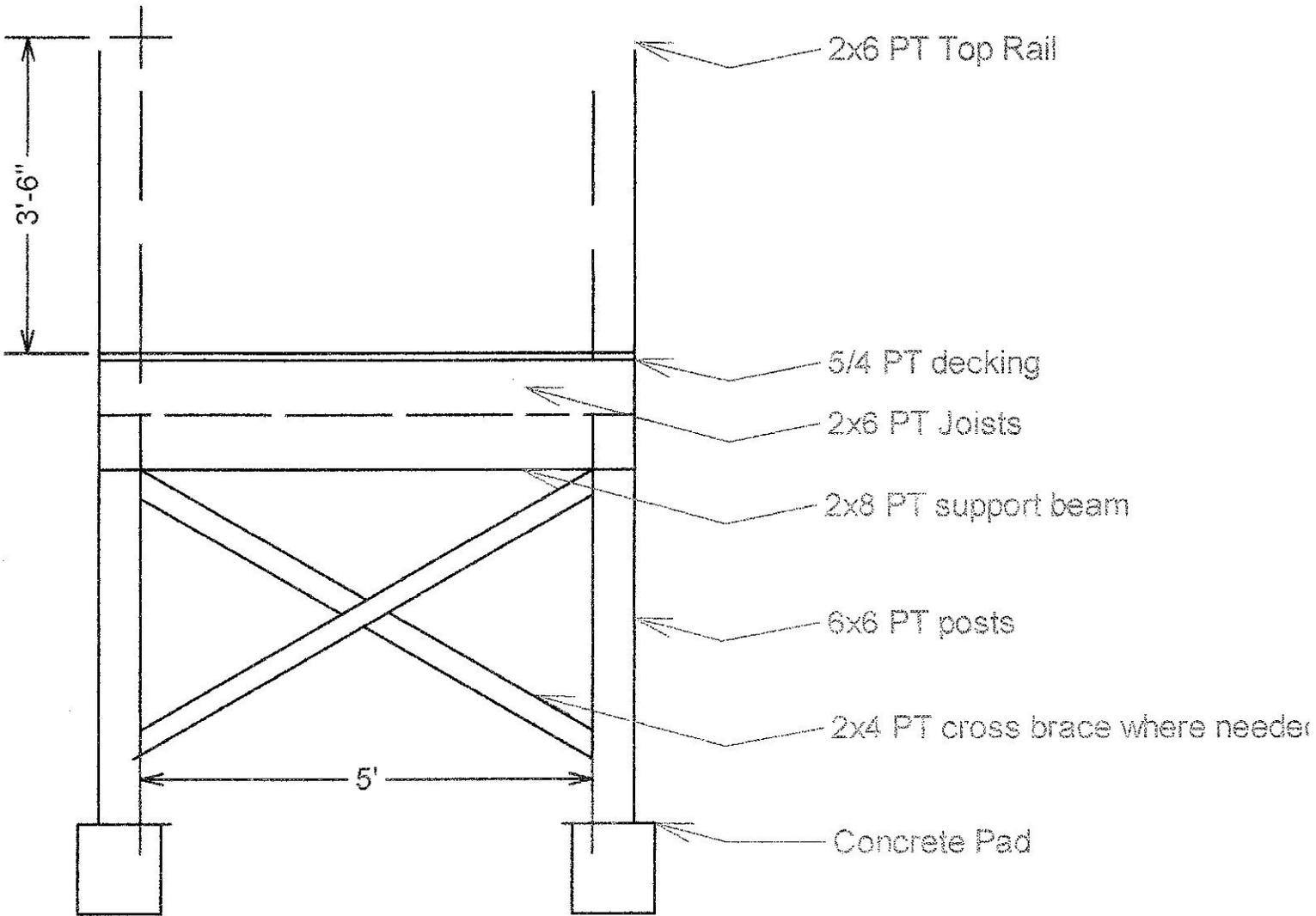


Sue Whitcomb planting her donated wildflowers along newly paved Wildflower Trail 2010.



Paving the second portion of Wildflower Trail 2011 to Improve Accessibility.

THANK YOU!!!



Fred's Construction Services

Fred Given
 2 Fairfield Street
 Maynard, MA 01754

Estimate

Date	Estimate #
11/20/2012	644

Name / Address
Town Of Acton 472 Main Street Acton Ma 01720

Project
Arboritum walkway

Description	Total
Framing materials for 145' of walkway, Pressure treated materials to be used	12,780.55
Framing labor to frame new boardwalk using existing footings and adding any necessary footings if needed	9,375.00
Dumpster fee / existing decking to be removed and disposed of by others	0.00
THIS IS A GENERAL ESTIMATE BASED ON STANDARD MATERIAL SELECTION / APPROVAL BY BUILDING DEPARTMENT / FINAL DESIGN AND MATERIALS TO BE DETERMINED Prices for materials Good for 30 Days aluminum handrails not included (to be determined)	

If you have any questions call me @ 508 527-9850. Thank You!	Total \$22,155.55
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E-mail	Web Site	Terms
Fred.nwd@verizon.net	www.Fredsconstructionservices.com	Due upon completion