

PROJECT APPLICATION FORM – 2014

Applicant: Natural Resources Department, Town of Acton **Submission Date:** 11/19/13

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): _____

Project Name: Acton Arboretum Parking Lot Improvement

Project Location/Address: Acton Arboretum Main Entrance, 2 Taylor Road

Amount Requested: \$53,000.00

Project Summary:

Project is to enlarge, improve and pave Acton Arboretum parking lot; and build an adjacent rain garden to filter storm water run-off.

The Acton Arboretum is the only conservation land in Acton that currently has handicapped-accessible trails. Existing conditions at this parking lot limit use of the Arboretum for this underserved population.

Currently the parking lot at the Acton Arboretum is an often muddy, rutted, compact, gravel surface, with only 1 handicapped accessible parking spot paved in concrete. This parking spot is well away from any accessible trail. Frequently the parking lot is full with overflow cars having to parallel park on the edges, making navigating in and out of the lot difficult. When the current lot is in its worst shape, with potholes abounding, many people complain about the issue and its safety for them and their cars, as well as the thick gray colored mud sullyng shoes and cars.

Benefits:

- Increased capacity: By completing this project, more people will be able to visit the Arboretum when they want to, because more on-site parking will be available.
- Improved accessibility: Additional handicapped parking will be added so that the *all-persons accessible* trail in the Arboretum can be more fully enjoyed by those who'd most benefit from it.
- Safer, cleaner surface: Other visitors who might have some difficulty walking, but don't need handicapped parking, will have more stable footing as they cross the lot to the Upper Grounds trails.
- Ease/efficiency of maintenance: Town staff will have an easier job keeping the lot clear and safe in bad weather.
- Treatment of storm water runoff.

Project components:

1. Redesign the parking lot to accommodate more cars. Natural Resources and Engineering Depts. have created 2 feasible designs, attached to this proposal.
2. Dig up and move viburnum shrub by tree company with spade: **\$500.00 CPA request.**
3. Clearing land and site preparation for new parking lot.
4. Pave asphalt surface to improve safety underfoot, paint parking spaces for optimal usage, create more handicap parking spots. Work will be done by private contractor. Quote from Lazaro Paving attached to proposal. **\$47,325.00 CPA request.**

5. Construct a rain garden. Work will be done by Natural Resources and Highway crews. Gravel, earth materials obtained by Natural Resources Department from existing supplies. Wetlands plants would be purchased by NR. The Friends of the Acton Arboretum will contribute \$300 to cost and installation labor.
6. Construct and install a new information kiosk like one at NARA. NR to cover this cost.

Improved parking lot design:

Option 1. The new lot will have a one-way system through it with visitors entering the lot further down Taylor Road than at present and exiting the lot through the current driveway. Using a one-way system allows the entry and exit driveways to be narrower than they'd have to be if accommodating two-way-traffic. The section of the lot closest to the entrance will have head-in parking on both sides and will be slightly extended in order to accommodate approximately 32 cars. The parking configuration in the section closest to the Arboretum's gate will remain unchanged.

Option 2. Locates the parking lot further inside the Arboretum property, retaining one entrance and exit, accommodating approximately 30 cars.

Components of project outside of CPA Fund request proposal:

- Conservation Commission Approval: Since the lot is near a seasonal stream, drainage from the lot must be addressed and wetlands filings done. Natural Resources will perform this administrative work.
- Rain Garden construction for run-off: Because bedrock is close to the surface in this area, drainage from the lot will be directed towards a newly designed rain garden planted in the area adjacent to and directly east of the parking lot. With help from the Friends of the Acton Arboretum ("FAA"), the rain garden will be installed to help treat/mitigate parking lot runoff. Volunteer landscape consultants on the Board of Directors of the FAA, and NR staff will design the rain garden. Volunteers will help purchase, transport and install plants.
- The information kiosk that is at the edge of the current parking lot will be removed and a new kiosk will be placed further into the Arboretum. The Friends of the Acton Arboretum and the Natural Resources Department will collaborate on the design, purchase of materials and construction of new kiosk.

Total project has 6 main tasks:

| | Done by: | \$ CPA Funds: |
|---|--------------------------|----------------------|
| • Remove the old kiosk | FAA and NR Dept. | 0 |
| • Move one large shrub (a viburnum) | tree company | \$500.00 |
| • Prepare land to accommodate changed lot configuration | Acton Highway Dept. | 0 |
| • Grade, prep, and pave the parking lot | paving contractor | \$47,325.00 |
| • Create a rain garden directly east of the lot | FAA, NR dept. | 0 |
| • Add a new kiosk to the trail head | FAA and NR Dept. | 0 |

Town provided in-kind service for parking lot development

- A. Parking lot preparation.
 - a. Design and engineering \$2500.00
 - b. Site preparation [clearing, shaping] Highway Dept. 5 days at \$1,200.00/day
 - c. Sub grade prep time and materials \$2,000.00
- B. Design and construction of rain garden.
 - a. Design and wetlands filing \$2,000 (staff and administration)
 - b. Excavation 3 days Highway Dept. \$1,200/day
 - c. Rain garden installation
 - i. Surface area 2,000 sq. ft \$1,500 earth materials [sand,compost, gravel, loam, wood chips)

- ii. Purchase and install rain garden plantings

Timing: Completing the project will be timed with the weather. The rain garden will be prepared in the fall and planted in the spring. The new kiosk will be added last.

Estimated Date for Commencement of Project: September, 2014

Estimated Date for Completion of Project: June, 2015

Site Control

Since the property is owned by the Town of Acton, the town staff will oversee the project and work with the contractors to ensure the work is completed according to specifications.

Project Scope

- **Remove the old kiosk:** This work can be done by town staff and/or by volunteers.
Cost not included in this CPA proposal.
- **Move large viburnum:** A contractor will need to use a tree spade to move the large shrub to the eastern edge of the lot after town staff prepares a location for it. **\$500 plus 5 NR man-hours.**
Cost is included in this CPA project proposal.
- **Clear land:** Town staff will clear land to widen the back part of the current lot and to prepare the new
Cost not included in this CPA proposal.
- **Grade, prep, and pave the parking lot:** The outside contractor will grade, prep, and pave the new lot and drives. This includes removing the old asphalt entry drive and the current concrete pad.
\$47,325.00 Cost is included in this CPA proposal.
- **Create the rain garden:** Town staff will prepare the rain garden area adjacent to the lot. Town staff and volunteers will plant the rain garden.
Costs for gravels, soils, plants not included in this CPA proposal.
- **Add the new kiosk:** Using plans created for a kiosk at NARA, a professional builder will construct a new four-sided kiosk. Town staff will prepare the site and concrete pad for this kiosk and help in its installation.
\$3,000.00. Cost not included in this CPA proposal.

Feasibility

This project is entirely feasible. A Wetlands Filing will be required and controlling runoff using hay barriers will probably be necessary. The project has been reviewed with the Engineering Department (and other town boards) may need to approve the location of the new drive into the parking lot.

Timing the work will be critical since weather and temperature will play a role. The paving work cannot be done in the winter nor can you add or move plants then. The area can be cleared and prepared during that time.

Contingencies: \$5,175 added into grant request amount for contingencies.

Neighborhood Outreach

Neighbors in the Taylor Road neighborhood will be contacted as part of the requirements of the Wetlands Protection Act. Local donations of plants for rain garden will be solicited. Monetary donations for the rain garden plants will be solicited on FAA website and in current kiosk for visitors to see.



Photographs of Current Conditions



**Congested lot with bottleneck at drive
Concrete pad far from gate
Rutted uneven surface**



**Congested lot with overflow parking and ruts
Section to be enlarged with new drive entering
at far end**

Sample Kiosk



Parking Lot Paving Estimate



Lazaro Paving Corp.
 800 Mt. Laurel Circle, Shirley, MA 01464
 (978) 425-2551 FAX (978) 635-9378
 www.lazaropaving.com

| | |
|---|--|
| To: Town Of Acton - Conservation | Contact: Tom Tidman |
| Address: 472 Main Street Acton, MA 01720 | Phone: 978-929-6634 Fax: 978-264-9630 |
| Project Name: Town Of Acton - Arboretum Parking Lot Paving | Bid Number: |
| Project Location: Taylor Road, Acton, MA | Bid Date: 11/12/2013 |

| Item # | Item Description | Estimated Quantity | Unit | Unit Price | Total Price |
|-------------------------|---|--------------------|------|------------|--------------------|
| 1 | Final Grade And Compact | 1,800.00 | SY | \$1.50 | \$2,700.00 |
| 2 | Machine Pave 2" Binder Course And 1.5" Top Course | 375.00 | TON | \$110.00 | \$41,625.00 |
| Total Bid Price: | | | | | \$47,325.00 |

Notes:

- This quote is based on **ONE** mobilization. If additional mobilizations are required to complete the work, there will be a negotiated additional charge.
- All staking, layout and establishment of grades to be the responsibility of others. We accept no responsibility for improper engineering and/or areas where no grades have been indicated prior to the commencement of work. If the site has less than 1% slope, Lazaro Paving will not be responsible for surface water runoff as this is less than required for proper drainage. Unless specified otherwise, the customer is responsible to supply and rough grade suitable gravel base (1 1/2" minus), which meets the project's specifications, within one tenth of one foot of the gravel finish grade. Extra grader service, if required, would be at \$350/hour. If a full mobilization is required, a four hour minimum charge will apply.
- The total thickness of bituminous concrete shall be the average compacted thickness installed.

Payment Terms:

Net cash upon completion of each segment, subject to credit approval. No retainage to be withheld without written permission of Lazaro Paving Corp. Should the account become delinquent the customer unconditionally promises payment of all expenses related to collection, but not limited to interest and attorney's fees.

| | |
|---|---|
| <p>ACCEPTED: The above prices, specifications and conditions are satisfactory and hereby accepted.</p> <p>Buyer: _____</p> <p>Signature: _____</p> <p>Date of Acceptance: _____</p> | <p>CONFIRMED: Lazaro Paving</p> <p>Authorized Signature: _____</p> <p>Estimator: Ryan Lazaro (978) 425-2551 ryan@lazaropaving.com</p> |
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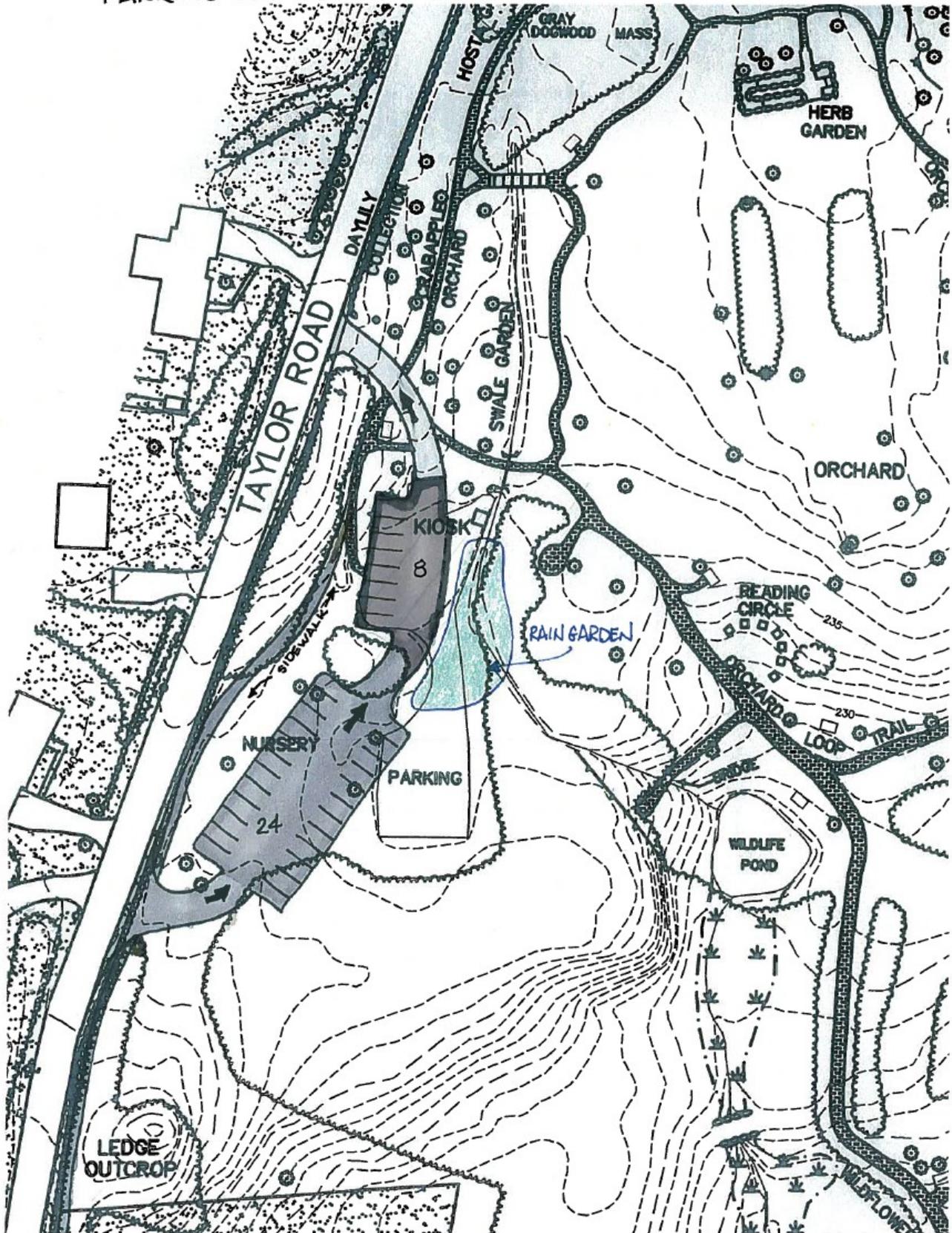
Page 1 of 1

| Rain Garden (prices from Bigelow Nurseries 2013) each | quantity | total \$ |
|--|-----------------|-----------------|
| Asclepias incarnata - Swamp milkweed | \$5.00 ea 10 | 50 |
| Carex pendula - Drooping Sedge | \$6.00 ea 10 | 60 |
| Cephalanthus occidentalis – Buttonbush 2-3 ft. | \$15.00 ea 10 | 150 |
| Eupatorium maculatum - Spotted Joe-pye Weed | \$5.00 ea 10 | 50 |
| Lobelia cardinalis - Cardinal Flower | \$5.00 ea 10 | 50 |
| Osmunda cinnamomea - Cinnamon Fern | \$6.00 ea 10 | 60 |
| Viburnum dentatum – Arrowwood 2-3 ft. | \$18.00 ea 10 | 180 |
| Osmunda regalis - Royal Fern | \$5.00 ea 10 | 50 |
| Lobelia siphilitica - Great Blue Lobelia | \$5.00 ea 10 | 50 |
| Lindera benzoin – Spicebush 2-3 ft. | \$15.00 ea 10 | 150 |
| Fothergilla gardenii Dwarf - Fothergilla 2-3 ft. | \$27.00 ea 10 | 270 |
| Chelone glabra – Turtlehead | \$6.00 ea 10 | 60 |
| Carex stricta - Tussock Sedge | \$6.00 ea 10 | 60 |
| Athyrium filix-femina – Ladyfern | \$6.00 ea 10 | 60 |

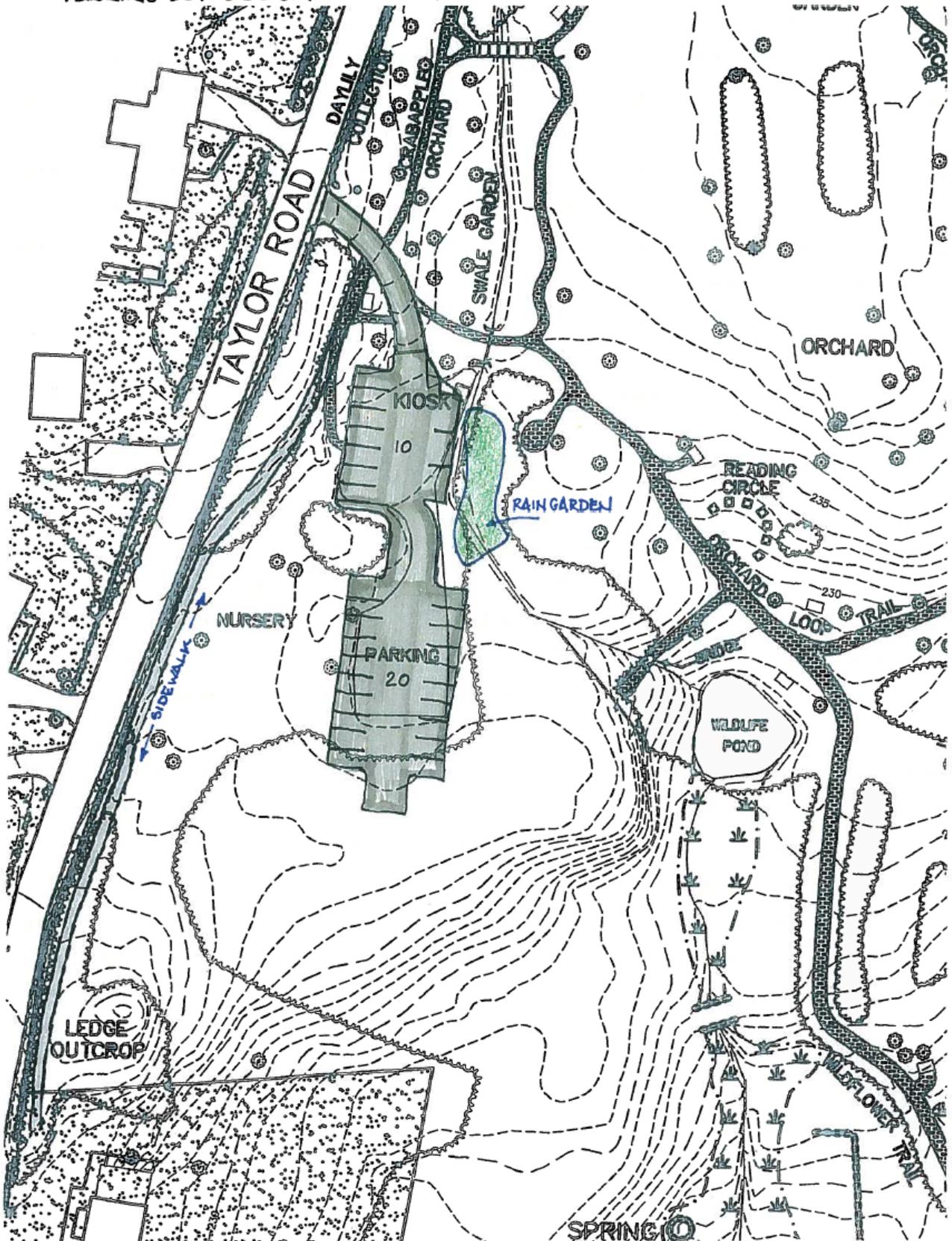
Total plants 140

Total cost plantings \$1,300

PARKING LOT DESIGN - OPTION 1.



PARKING LOT DESIGN - OPTION 2.



Current Condition Arboretum Parking Lot

