

1. Design is based on drawings by MUE Engineering dated 9/19/2013 and may require adjustment due to actual field conditions.
2. The Contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
3. Erosion Control shall be in place prior to construction.
4. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
5. The Contractor shall submit a written report of the actual field conditions to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
6. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor. The Contractor shall mark location and elevation of all utilities with the respective utility owners prior to construction. Call DISAGEA at 1-888-344-7233.
7. The Contractor shall procure any required permits prior to construction.
8. The Contractor shall protect all existing trees. The Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All trees to be used on site shall be of the same or similar quality to those used for the total project.
9. The Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unusual subsurface conditions and discrepancies between the plans and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
10. The Contractor shall furnish and plant all plants shown on the drawings and listed therein. All plants shall be nursery-grown under trees and conditions similar to those shown on the drawings. All plants shall be of the same or similar quality to those shown on the drawings, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock. American Standards Institute, Inc. 230 Southern Building, Washington, D. C. 20005.
11. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that any quantity discrepancy or material omission occurs in the plant materials list, the planting plans shall govern.
12. All plants shall be legibly tagged with proper botanical name.
13. The Contractor shall guarantee all plants for not less than one year from time of installation.
14. The Contractor shall guarantee all plants for not less than one year from time of acceptance.
15. The Contractor shall guarantee all plants for not less than one year from time of acceptance. Any approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all plants at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in the project.
16. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
17. All landscaping shall be provided with either of the following:
  - An underground sprinkling system
  - An outside hose attachment within 150 feet
18. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
19. All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds will be disturbed to a depth of 12" with 75% loam and 25% compost.
20. All areas under cover, except plant beds, shall be covered with 2" of topsoil with one-year-old, well-composted, shredded native bark not longer than 4" in length and 3/4" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
21. No cypress shall be used. The crown of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
22. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy.
23. Snow shall be stored a minimum of 5' from shrubs and trees.
24. Landscape Architect is not responsible for the means and methods of the contractor.

1. **Temporary Fencing:** Contractor shall install temporary fencing around the tree protection zones designated on the engineering plans, or where directed by the engineer, to protect remaining vegetation from construction damage. Temporary fencing shall be constructed of 42 inch high white plastic safety fencing with 4 inch x 4 inch posts. Fencing shall be installed around each tree to be protected and preserved. Fencing shall be located at the drip-line or further as directed by the project Arborist. Tree protection shall be installed prior to the actual start of construction and maintained for the duration of the project.

2. **Tree Protection:** Contractor shall protect construction period all reasonable efforts shall be made to protect from damage those trees and their root system designated to remain. Around the trees to be protected, the Contractor shall avoid excavation or compaction. All plant material designated to be saved, shall be protected during construction. Protect tree roots from disturbance by avoiding excavation, grading, or other construction activities that may damage root systems. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations. Do not store construction materials, debris, or excavated material inside tree protection zones. Do not permit vehicles or foot traffic within tree protection zones.

3. **Fence:** At a minimum, the protective barrier shall be constructed of orange snow fencing securely fastened to fence posts at a maximum of 1.5 m (5 feet) on center. Posts are 1.8m (6 feet) in length with 60 cm (2 feet) set into the ground and 1.2m (4 feet) above ground. The fence shall be attached to the post with a minimum of four (4) nylon-locking ties evenly placed at each post.

- Major trees to remain shall be inspected by a certified arborist prior to construction.
- A certified Arborist shall prune canopies and roots to be impacted by adjacent construction at his discretion. Water and soil erosion need to be considered when preparing excavation and grading plans. Referencing to the National Arborist Association's Pruning Standards for Shade Trees Class 11 - Standard Pruning Specifications.
- Do not excavate within tree protection zones, unless otherwise indicated. Where excavation for new construction is required within drip line of trees, contractor shall work with a certified arborist, using an air spade to expose the roots of trees. Where any roots are exposed, the contractor shall immediately backfill and compact the exposed roots. When encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and relocate them without breaking. If encountered immediately adjacent to location of new construction and relocation is not practical; cut roots approximately 12" from the excavation limits. Do not cut roots within the tree protection zone, or smaller roots that interfere with installation of utilities or construction. Cut roots with sharp pruning instruments; do not break or chop roots.
- Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap roots with burlap. Water and maintain in moist condition. Temporary support and protect

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
As	<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	1	3-3.5' Cal	B&B
Bn	<i>Betula nigra</i> 'Heritage'	Heritage River Birch	4	10-12' Ht	B&B Multi Stem
Gt	<i>Gleditsia triacanthos inermis</i> 'Halka'	Halka Thornless Honeylocust	1	5' Cal	B&B
Pc	<i>Pyrus calleryana</i> 'Chanticleer'	Chanticleer Flowering Pear	4	3-3.5' Cal	B&B
Tt	<i>Tilia tomentosa</i> 'Sterling'	Sterling Silver Linden	2	3-3.5' Cal	B&B
SHRUBS					
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Box	<i>Buxus</i> 'Green Gem'	Green Gem Boxwood	23	2-3' Ht.	Full
Cle	<i>Clethra alnifolia</i>	Summersweet	5	7' gal	Full
Hs	<i>Hibiscus syriacus</i> 'Ardens'	Ardens Rose-of- Sharon	2	7-8' Ht	B&B Full
Hv1	<i>Hydrangea macrophylla</i> 'All Summer Beauty'	All Summer Beauty Hydrangea	7	5 gal	
Hy2	<i>Hydrangea arborescens</i> 'Annabelle'	Annabelle Hydrangea	6	5 gal	
Ig	<i>Ilex glabra</i> 'Shamrock'	Shamrock Inkberry	21	3 gal	Full to ground
Im	<i>Ilex meservee</i> 'Blue Maid'	Blue Maid Holly	1	5-6' Ht	B&B Full
Iv	<i>Ilex verticillata</i> 'Winter Red'	Winter Red Winterberry	6	7 gal	
Ros	<i>Rosa</i> 'Double Knockout'	Knockout Rose	18	3 gal	
Th	<i>Thuja occidentalis</i> 'Nigra'	Dark American Arborvitae	3	6-7' Ht.	B&B
Tm	<i>Taxus media</i> 'EverLow'	Ever-Low Yew	3	3 gal	

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Aj	<i>Ajuga reptans</i> 'Burgundy Glow'	Burgundy Glow Ajuga	213	1 qt	
Am	<i>Amsonia hubrichtii</i>	Blue Star Flower	66	1 gal	
An	<i>Anemone</i> 'Honorable Jobert'	Windflower	62	1 gal	
Cor	<i>Coreopsis</i> 'Crème Brûlée'	Crème Brûlée Tickseed	31	1 gal	
Day	<i>Hemerocallis</i> 'Big Time Happy'	Big Time Happy Daylily	49	1 gal	
Ger	<i>Geranium macrorrhizum</i> 'Bevan's Variety'	Geranium	26	1 gal	
Hos	<i>Hosta sieboldiana</i> 'Elegans'	Elegans Hosta	17	1 gal	
Pen	<i>Pennisetum alopecuroides</i> 'Hamelii'	Hamelii Dwarf Fountain Grass	31	1 gal	
Vm	<i>Vinca minor</i>	Periwinkle	20	50/flat	

1. A pre-construction meeting with all parties involved in brook rehabilitation work to assign responsibilities shall take place prior to any removals. A Wetland Scientist, Landscape Architect or other qualified professional (QP) will oversee the enhancement work.
2. QP to flag all trees and shrubs to be saved.
3. Contractor shall erect steel fence or silt sock along boundary of existing wetland or edge of buffer disturbance.
4. Contractor shall remove loose debris and trash from the entire site.
5. Contractor shall remove select dead trees as flagged by Landscape Architect.
6. Contractor shall work with a Certified Arborist to prune the existing trees to remain in this area to raise the canopy for enhanced views into the site from Pettee Brook.
7. Contractor shall identify and remove all invasive plant materials in a manner appropriate to the specific invasive plant. Under no circumstances shall the following plants be pulled from the ground: Bittersweet, Japanese Knotweed.
8. For those invasives appropriate for manual removal the contractor shall carefully excavate stumps and roots and vines with a small backhoe or by hand, as needed, while preserving and protecting the root mass of the native trees and shrubs.
9. Contractor shall remove roots of invasive species from the site.
10. Immediately after invasives have been removed contractor shall install a minimum of two tiers of core logs, stacked in place, for soils stabilization and to create areas for planting along the entire length of the Madbury Commons property bounding Pettee Brook.
11. Contractor shall add plant native as needed.
12. Contractor shall plant clean trees and shrubs and groundcovers listed in the Brook Rehabilitation Plant List, as directed by landscape architect.
13. Mutch bark-mulch 2 inches deep.
14. Contractor shall prepare buffer enhancement completion report with photographs.

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
<b>SHRUBS</b>	<i>Amelanchier canadensis</i> 'Glenform'	Glenform Shadblow Senecaberry	6	5-6" H	B&B Multi Stem
	<i>Azalea excosum</i>	Swamp Azalea	12	3-4"	B&B
	<i>Ilex verticillata</i> 'Red Sprite'	Red Sprite Winterberry	20	5 gal	
	<i>Ilex verticillata</i> 'Southern Gentlemen'	Southern Gentlemen Winterberry	2	gal	
	<i>Rhododendron canadense</i>	Rhodora	25	5 gal	
	<i>Vaccinium angustifolium</i>	Lowbush Blueberry	200	1 gal	
<b>PERENNIALS</b>	<i>Iris cristata</i>	Crested Iris	70	1 gal	
	<i>Diennastedia punctiloba</i>	Yascenter Fern	150	1 gal	
	<i>Ornithium cinnamomeum</i>	Cinnamon Fern	100	1 gal	
	<i>Mertensia struthioifera</i>	Orchist Fern	1	1 gal	
	<i>Carex</i> 'Ice Dance'	Carex Ice Dance	50	1 gal	



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