LAKE AGAWAM BULKHEAD PROJECT
RAIN GARDEN PLANTING LIST

Prepared By: Inter-Science Research Associates, Inc.
Environmental Planning & Development Consultants
36 Nugent Street, P.O. Box 1201
Southampton, New York 11969-1201

Date Prepared: April 21, 2010

COMMON NAME	SCIENTIFIC NAME	SYMBOL
Winterberry	Ilex verticillata	IV
Inkberry	Ilex glabra	IG
Black Chokeberry	Aronia melanocarpa	AM
Red Chokeberry	Aronia arbutifolia	AA
Arrowwood	Viburnum dentatum	VD
Shadbush	Amelanchier canadensis	AC
Sweet Pepperbush	Clethra alnifolia	CA
Highbush Blueberry	Vaccinium corymbosum	VC
Virginia Rose	Rosa virginiana	VR
Swamp Rose Mallow	Hibiscus moscheutos	HM

Shrubs minimum 2-3 gallon container or where required, 4-6 gallon container grown, 4 feet on center. Shrubs to be planted on the periphery of the rain garden only in areas currently dominated by Common Reed (Phragmites communis) after removal of invasive vegetation and grading with clean sand to form suitable substrate on eastern and western end of project.

Rain garden plant materials are native wetlands species, native clump grasses and native wildflowers to be utilized in a shallow trough created by grading a flat swale 8 inches deep between the new bulkhead and the new pavement line, at the sloping face curb. 6 inch berms, measured from the top of curb, will be provided at the curb line and at the line of the new bulkhead. Existing soils will be utilized unless unsuitable. No soil amendments with the exception of bone meal and dehydrated cow manure added at the time of pocket planting. 3 inches bark chips mulch. The following species will be utilized:

Switch Grass	Panicum virgatum	PV
Beebalm	Monarda didyma	MD
Bergamot	Monarda fistulosa	MF
Swamp Milkweed	Asclepias incarnata	AI
Cardinal Flower	Lobelia cardinalis	LC
New England Aster	Aster novae-angliae	AN
New York Aster	Aster novi-belgii	AB
New York Ironweed	Vernonia noveboracensis	VN
Wild Columbine	Aquilegia canadensis	AQ
Wild Geranium	Geranium maculatum	GM
Joe-Pye-Weed	Eupatorium purpureum	EP
Boneset	Eupatorium perfoliatum	IF

Blue Flag Iris	Iris versicolor	IB
Soft Rush	Juncus effusus	JE
Soft-stemmed Bulrush	Scirpus validus	SV
Sensitive Fern	Onoclea sensibilis	OS
White Turtlehead	Chelone glabra	CG

Natural grasses plugs only, 12 inches on center. Mulching with native leaf litter, pine needles, or finely shredded wood. Temporary irrigation but typically, no permanent irrigation. 85% survival rate over two years, and where required, 3-5 years. Allowance for supplementation with native wildflowers 12 inches on center.

The size of the rain gardens is delineated immediately below:

Western Rain Garden	2,390 Square Feet
Central Rain Garden	2,191 Square Feet
Eastern Rain Garden	3,054 Square Feet
TOTAL	5,635 Square Feet

The size of the shrub border at the west and east periphery of the rain gardens is, as follows:

Western Shrub Border	1,426 Square Feet
Eastern Shrub Border	1,067 Square Feet
TOTAL	2,493 Square Feet

These areas will receive native plantings in accordance with the criteria provided above. This Design Narrative shall be used by the contractor for landscaping purposes.

In terms of storage, the rain garden has the following capacity:

5,635 Square Feet x 8 Inches/12 Inches = 3,756 Cubic Feet

It is expected that inlets will be provided into the rain garden from the existing parking utilizing curb cuts at the Belgian block curbing. At the bulkhead, the grade will elevate 6 inches to form the waterward side of the rain garden. The slope, within the rain garden, will be 2 inches over 3.5 to 10 feet, resulting in a pitch which ranges from 1.67-5%. No overflow is needed as the soils are porous, the bulkheading will allow water to weep through the face and a flap valve currently drains water in the pond to an elevation 2'-9" below the current top of bulkhead.