TALCOTT & ASSOCIATES
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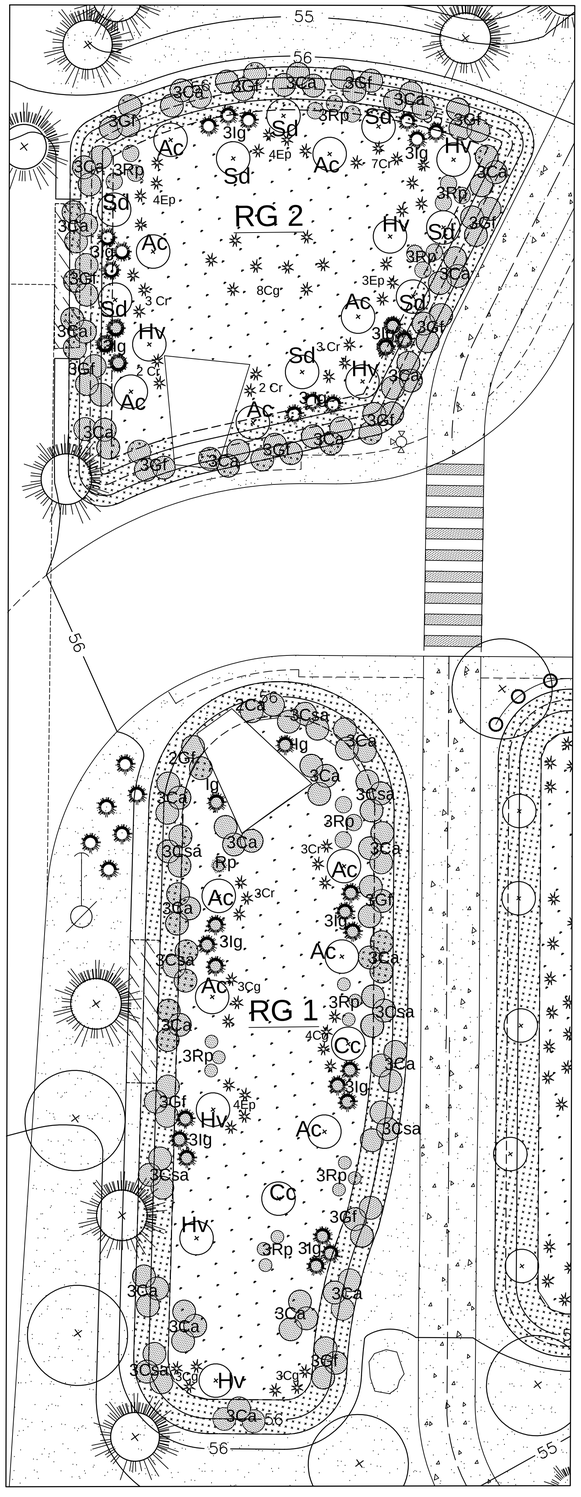
Dattilo Village - General Landscape Plan

Boston Post Road - Westbrook, Connecticut

Scale: 1" = 30'
Date: October 31, 2019
Rev: 5/12/2020

L1

RAIN GARDEN #2



RAIN GARDEN #1

SCALE: 1"=10'-0"

0 5' 10' 20

SCALE: 1" = 10'-0"

RAIN GARDENS #3, #4, & #5

SCALE: 1"=10'-0"

0 5' 10' 20

SCALE: 1" = 10'-0"

RAIN GARDEN PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	#	COMMENTS
Small Trees				
Ac	Amelanchier allegensensis	Shad Tree	24	6'ht
Cc	Cercis canadiensis	Redbud	19	6'ht
Hv	Hammemellis virginiana	Witch Hazel	23	6'ht
Sd	Salix discolor	Pussy Willow	11	6'ht
Woody Shrubs				
Af	Aronia floribunda	Chokecherry	6	#5
Ca	Clethra alnifolia	Sweet Pepperbush	171	#7
Csa	Cornus stolonifera	Red-Osier Dogwood	63	#7
Csf	Cornus sericea	Red Twig Dogwood	42	#7
Gf	Gaylussacia frondosa	Blue Huckleberry	57	#7
Ig	Ilex glabra	Inkberry	81	#7
Vcp	Vaccinium corym. 'Polaris'	Highbush Blueberry	18	#7
Rp	Rhododendron prinophyllum	Early Azalea	72	#7
Herbaceous				
Cg	Carex glaucodea	Blue Wood Sedge	59	1 Gal.
Cr	Carex radiata	Eastern Star Sedge	19	1 Gal.
Ep	Eragrostis pectinacea	Purple Love Grass	49	1 Gal.
Epu	Eutrachina purpureum	Sweet Scented Joe Pye Weed	25	1 Gal.

Legend

- Grasses (Pennisetum, Panicum, Miscanthus)
- Shrubs (Cornus, Clethra, Ilex, Viburnum)
- Evergreens (Juniperus, Pinus, Ilex,)
- Canopy Tree (Oak, Maple, Tulip) — Qr
- Ornamental Tree (Amelanchier, Cornus, Cercis, Hamamelis, Magnolia)
- Existing Shade Tree to Remain
- Basin Seed Mix
- Lawn
- Side Slopes

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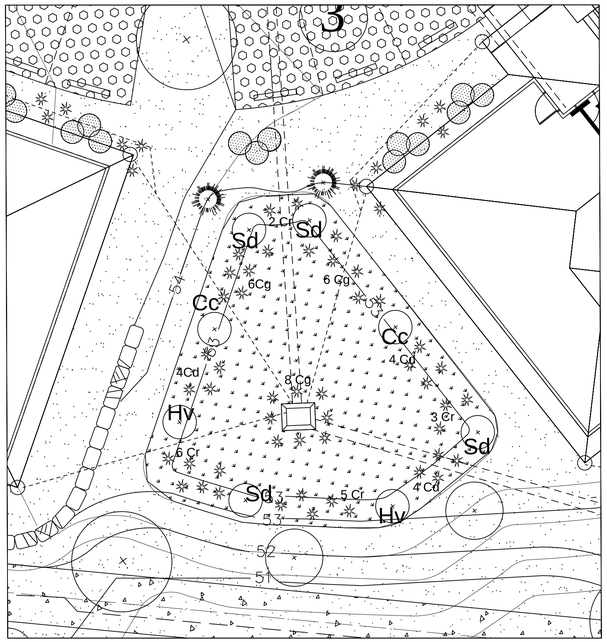
Dattilo Village-Rain Garden Landscape Plans

Boston Post Road-Westbrook, Connecticut

Scale: 1"=10'

Date: October 31, 2019
Rev: 5/12/2020

L2



CATCH BASIN AREA #1

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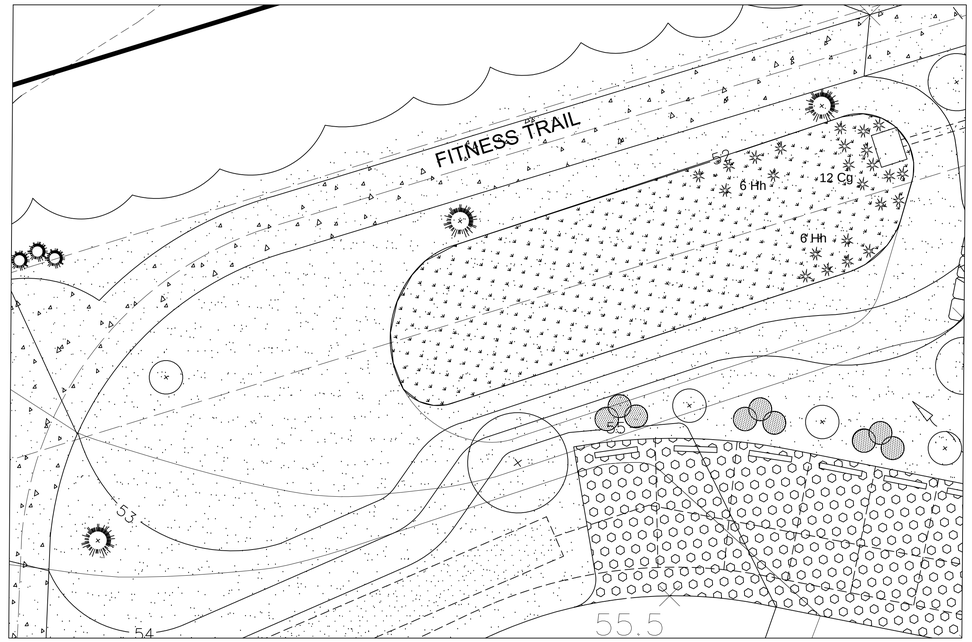
0 5' 10' 20

SCALE: 1" = 10'-0"



CATCH BASIN AREA #2

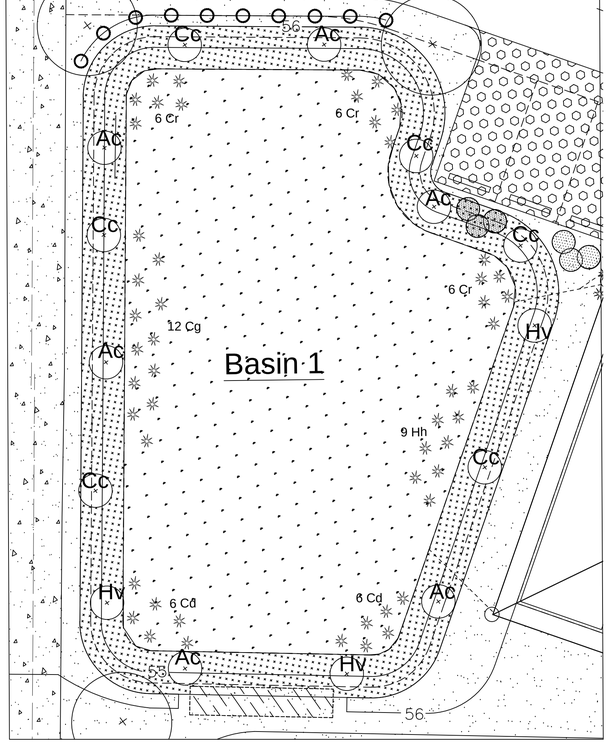
SCALE: 1"=10'-0"

0 5' 10' 20

SCALE: 1" = 10'-0"

BASIN PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	#	COMMENTS
Small Trees				
Ac	Amelanchier allegensensis	Shadbush	11	6'ht
Cc	Cercis canadiensis	Redbud	17	6'ht
Ck	Cornus kousa	Kousa Dogwood	4	6'ht
Hv	Hamemelis virginiana	Witch Hazel	9	#5
Sd	Salix discolor	Pussy Willow	13	4'ht
Herbaceous				
Cd	Carex davidii	Davis' Sedge	36	1 Gal.
Cg	Carex glaucodea	Blue Sedge	49	1 Gal.
Cr	Carex radiata	Eastern Star Sedge	48	1 Gal.
Hh	Hypoxis hirsuta	Eastern Yellow Star Grass	21	1 Gal.

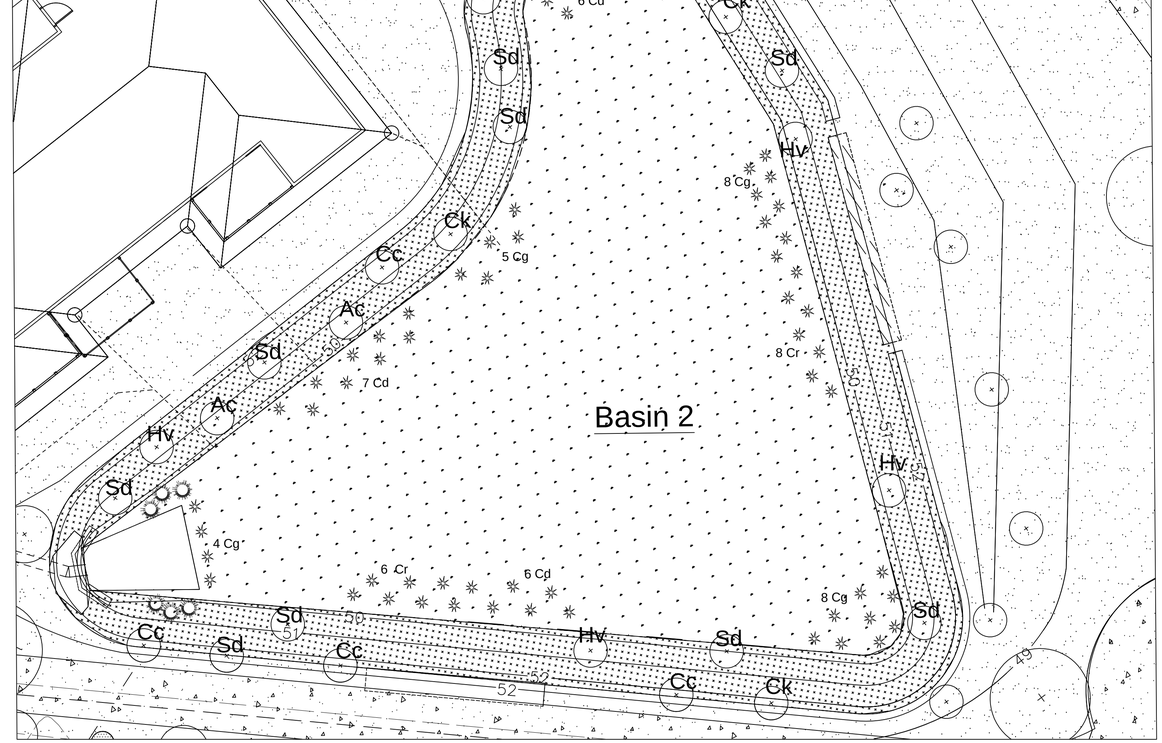


RETENTION BASIN #1

SCALE: 1"=10'-0"

0 5' 10' 20

SCALE: 1" = 10'-0"

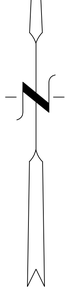


RETENTION BASIN #2

SCALE: 1"=10'-0"

0 5' 10' 20

SCALE: 1" = 10'-0"



Legend

- Grasses
- Shrubs (Cornus, Clethra, Ilex, Viburnum)
- Evergreens (Juniperus, Pinus, Ilex)
- Ornamental Tree (Amelanchier, Cornus, Cercis, Hamamelis, Magnolia)
- Existing Shade Tree to Remain
- Basin Seed Mix
- Side Slopes
- Lawn

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Dattilo Village-Detention Basin Landscape Plans

Boston Post Road-Westbrook, Connecticut

Scale: As Shown

Date: October 31, 2019
Rev: 5/12/2020

L3

Dattilo Village- Area Landscape Plan

Boston Post Road-Westbrook, Connecticut

Legend

- Grasses (Pennisetum, Panicum, Miscanthus)
- Shrubs (Cornus, Clethra, Ilex, Viburnum)
- Evergreens (Juniperus, Pinus, Ilex)
- Ornamental Tree (Amelanchier, Cornus, Cercis, Hamamelis, Magnolia)
- Existing Shade Tree to Remain
- Lawn
- Wildflowers and low maintenance grasses

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Scale: 1" = 20'

Date: October 31, 2019
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L4

SCALE: 1" = 20'-0"

MAINTENANCE

LANDSCAPE MAINTENANCE FOR RAIN GARDENS AND RETENTION BASINS

These recommendations will be useful for long term success of the rain garden and detention basin area landscape plants. Also recommended, an annual general inspection by the design Landscape Architect to evaluate plant health and make additional recommendations for maintenance.

PLANT CARE

- Water to promote plant growth and survival, especially during the first two years and during dry spells.
- Inspect site following rainfall events. Add/replace vegetation in any eroded areas. (As Needed following Construction.)
- Prune and weed to maintain appearance.
- Remove accumulated trash and debris.
- Replace mulch as needed. Regularly (Monthly)
- Inspect inflow area for sediment accumulation. Remove any accumulated sediment or debris.
- Inspect site for erosion as well as sediment and mulch which have been moved around in the garden. Add/replace vegetation in any eroded areas.
- Inspect rain garden for dead or dying vegetation. (Replace vegetation as needed.)
- Test planting bed for pH. If the pH is below 5.2, limestone should be applied. If the pH is above 8.0, iron sulfate and sulfur should be applied. Annually (Semi-Annually During First Year)
- Remove and replace mulch. (Every 2 to 3 Years)

TRIMMING, PRUNING, AND THINNING

Trimming and pruning of excess vegetation will occasionally be necessary. Dead, dying, diseased, or hazardous branches should be trimmed and removed as they occur. Trees and shrubs may also be pruned for shape or to maximize fruit production. Trees, shrubs, and flowers may be pinched, pruned, thinned or dead-headed during the growing season to encourage more flowering, a bushier plant, or a fresh set of leaves. Pruning of trees should occur over the winter, but definitely before bud-break (usually by mid-March). Pruning of flowering shrubs should be performed immediately after the plants have finished blooming. For specific pruning instructions and disease identification for your plants, consult the Connecticut Cooperative Extension.

MOWING

Do not mow. By design, plants are meant to flourish throughout the growing season. The lush vegetation is an important component of the rain garden, as it aids in the capture of nutrients and infiltration of water. When mowing near rain gardens, either use a mulching blade, or point the mower away from the rain gardens. Fresh grass clippings are high in nitrogen and should not be applied to rain gardens, as they will compromise the facility's pollutant reduction effectiveness.

WEEDING

As with a regular garden, rain gardens and basins require more frequent and aggressive weeding during the first few years, until desired plants become fully established. Weeding should be limited to invasive and exotic species, which can overwhelm the desired plant community. Weeding should occur once a week during the summer and at least once a month during the remainder of the growing season. Non-chemical methods (hand pulling and hoeing) are preferable. Chemical herbicides should be avoided.

WATERING

Regular watering is most critical during the first few weeks after planting and very important during hot, dry spells in the first two years after planting. During the first two years, plants should be watered whenever the top four inches of soil is dry. After the first two years, once plants are established, watering should only be necessary during drought conditions. When irrigating, water deeply, ensuring that water reached below the mulch layer and into the soil a minimum of every three to six days.

To conserve water, reduce the potential for immediate evaporation, disease and fungal infestation, and improve the potential for infiltration, watering should be performed from in the early morning, roughly from 5:00 to 7:00am.

A general rule of thumb when monitoring plant success is: if plants wilt during the day but recover in the evening, watering is not necessary. If plants do not recover in the evening, then watering is likely to be necessary. Another rule of thumb is to stick a pencil or screwdriver about four inches into the soil. If the soil is moist at that depth, watering is not needed.

In addition, although plantings have been selected for their ability to withstand both dry and wet conditions, care should be taken to not over-water. Signs of stress associated with over-watering include: wilting of leaves or petals, yellowing of leaves, ringed spots on leaves, and soft or rotting plant base.

FERTILIZING

Rain gardens are designed to absorb excess nutrients. Therefore, it is unlikely that soil fertilization will be necessary. Excess fertilization compromises the facility's pollutant reduction effectiveness, leads to weak plant growth, promotes disease and pest outbreaks, and inhibits soil life. If soil fertility is in doubt, call the Connecticut Cooperative Extension for information on soil testing. If fertilization is necessary, only organic fertilizers should be used.

PEST MANAGEMENT

Trees, shrubs and herbaceous plants should be monitored regularly for pests and disease. For identification of specific pests and diseases, and for treatment recommendations, consult the Connecticut Cooperative Extension. It's important to keep in mind that insects and soil microorganisms perform a vital role in maintaining soil structure. Therefore, the use of pesticides should be avoided so as not to harm beneficial organisms. An alternative to pesticide use is to adopt an Integrated Pest Management (IPM) approach. This involves reducing pests to acceptable levels using a combination of biological, physical, mechanical, cultural, and chemical controls.

PLANT REPLACEMENT

When replacing a plant, place the new plant in the same location as the old plant, or as near as possible to the old location. The exception to this recommendation is if plant mortality is due to initial improper placement (i.e., in an area that is too wet or too dry) or if diseased/infected plant material was used and there is risk of persistence of the disease or fungus in the soil. The best time to plant is in early to mid-fall or early to mid-spring. Trees can be planted as long as the soil temperature remains above 32°F at a depth of six inches. Plants should be put in the ground as soon as possible after purchase to ensure the best chance of survival. Trim established plants as needed to make sure they don't shade out new plantings.

INFILTRATION MAINTENANCE

PONDING AND DRAINAGE PROBLEMS

Rain gardens are designed to have water standing for up to 24 hours at a time, retention basins can be longer depending on total rainfall. If this water period is routinely exceeded, the facility may not be functioning properly. Contact the contractor that installed the rain garden.

TRASH AND DEBRIS REMOVAL

Runoff flowing into rain gardens may carry trash and debris, which should be removed weekly to ensure that inlets do not become blocked and to keep the area from becoming unsightly. Inspect rain garden area after rainstorms to ensure drainage paths are free from blockages. When appropriate, curb cuts in parking areas will need to periodically be cleared of accumulated sediment and debris.

COMPOSTING

Composted material should NOT be applied to rain gardens.

MULCHING

Mulch has many benefits: it reduces competition by grass roots with tree and plant roots; controls weeds; prevents and reduces soil compaction; preserves soil moisture; and discourages potentially injurious practices like mowing and string trimming near tree trunks or woody stems. Rain gardens areas should receive a protective layer of mulch over root areas, similar to that provided by leaf litter in a natural forest. Mulch layers should not exceed two to three inches in depth around trees, shrubs, and perennials. Avoid blocking inflow entrance points with mounded mulch or raised plantings. To avoid bark rot and subsequent infestation by pests, mulch should not be mounded around the base of plants. The use of aged mulch is recommended and should consist of the shredded type rather than the chip type, to minimize floating. The mulch materials placed in the facility will decompose and blend with the soil medium over time. Once a full groundcover is established or if plant material is very dense, mulching may not be necessary.

The following materials may be used as mulch in rain gardens:

Shredded hardwood mulch (recommended)

Chipped hardwood mulch

The following materials should NOT be used as mulch in rain gardens:

Fresh grass clippings, Animal waste, Compost

PET WASTE REMOVAL

Always clean up pet waste from your lawn and rain garden to reduce this source of pollution. Studies show that pet waste is a leading source of disease, causing harmful bacteria to end up in our waterways, making them unsafe for human recreational use.

SNOW REMOVAL

Plowed or shoveled snow piles should not block inlet structures or be placed in rain garden; however fallen snow need not be removed.

DE-ICING

Ice removal is NOT necessary in rain gardens. Treatment for ice buildup nearby rain gardens may be necessary for safety, however consider the impact that de-icing products will have on the environment before using them. Standard de-icing agents can be very harmful to plant and aquatic life. Environmentally-friendly ice control agents are available that have been shown to have fewer adverse effects on pavement, infrastructure, vehicles, and plants. For example, calcium magnesium acetate (CMA) can be used as an alternative to salt in environmentally sensitive areas. Although CMA is environmentally-friendly, it is effective only to 21°F and has a higher cost than conventional chemicals. Another example is Ice Ban, which is made from agricultural residues and is considered to be environmentally friendly. Abrasives such as sand and gravel are frequently used alone or in conjunction with salt to provide traction on slippery surfaces. Avoid using large amounts of sand and gravel near rain gardens, since they may reduce infiltration capacity.

AREA PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	#	COMMENTS
Trees				
Ac	Amelanchier allegensensis	Shad Tree	13	6'ht
Ap	Acer palmatum	Japanese Maple	1	5-6'ht
Hv	Hamemelis virginiana	Witch Hazel	12	5-6'
Jv	Juniperus virginiana	Eastern Red Cedar	27	5-6'ht
Lt	Lirodendron tulipfera	Tulip Tree	2	3" dbh
Ps	Pinus strobus	White Pine	44	6'ht
Qr	Quercus rubra	Red Oak	11	3" dbh
Ua	Ulmus americana	American Elm	16	3"dbh (Disease Resistant)
Woody Shrubs/ Small Trees				
Ar	Alnus rugosa	Hazel Alder	3	#7
Ca	Clethra alnifolia	Sweet Pepperbush	30	#5
Cc	Cercis canadiensis	Redbud	7	6'ht
Ck	Cornus kousa	Kousa Dogwood	2	6'ht
Csa	Cornus stolonifera	Red-Osier Dogwood	39	#3
Csf	Cornus sericea	Golden Twig Dogwood	33	#3
Iv	Ilex verticillata	Winterberry	6	#5
Rm	Rhododendron maximum	Rhododendron	51	#5
Vc	Vaccinium corym. 'Polaris'	Highbush Blueberry	59	#10
Herbaceous				
Cg	Carex glaucodea	Blue Sedge	7	1 Gal.
Pa	Pennisetum alopecuroides	Dwarf Fountain Grass	24	1 Gal.
Pv	Panicum virgatum	Switch Grass	24	1 Gal.

RETENTION BASINS

Retention basins are designed to hold water for several days in order to control runnoff. Shrubs and trees plants are limited to the sides of the basin. The floor of the basin is planted with native grasses and herbaceous plants that can survive inundation for that time period.

RAIN GARDENS

Rain gardens are designed to take the first inch of runnoff from storms, and hold the water until it has been absorbed back into the ground or been taken up by the rain garden plants.

Rain Gardens are proven ways of collecting runoff from parking lots and driveways that may contain pollutants. Plants in the basins are excellent at bioremediation, providing cleansing of pollutants.

CATCH BASIN AREAS

Areas around site catch basins are designed to slow, infiltrate, clean and mitigate storm water before it enters the drainage system. Basin shape and grading along with dense planting of herbaceous plants is designed to accomplish this task.

SEEDING MIXES:

SIDE SLOPES AND SWALE MIX: "New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites" (Area = 10,060 sf +/-)

Riverbank Wild Rye (Elymus riparius), Creeping Red Fescue (Festuca rubra), Little Bluestem (Schizachyrium scoparium), Big Bluestem (Andropogon gerardii), Switch Grass (Panicum virgatum), Upland Bentgrass (Agrostis perennans), Nodding Bur Marigold (Bidens cernua), Hollow-Stem Joe Pye Weed (Eupatorium fistulosum/Eutrochium fistulosum), New England Aster (Aster novae-angliae), Boneset (Eupatorium perfoliatum), Blue Vervain (Verbena hastata), Soft Rush (Juncus effusus), Wool Grass (Scirpus cyperinus).

RAIN GARDEN & BASIN BOTTOMS MIX: "New England Wet Mix" (Area = 21,518 sf +/-)

Fox Sedge (Carex vulpinoidea), Lurid Sedge (Carex lurida), Blunt Broom Sedge (Carex scoparia), Blue Vervain (Verbena hastata), Fowl Bluegrass (Poa palustris), Hop Sedge (Carex lupulina), Green Bulrush (Scirpus atrovirens), Creeping Spike Rush (Eleocharis palustris), Fringed Sedge (Carex crinita), Soft Rush (Juncus effusus), Spotted Joe Pye Weed (Eupatorium maculatum), Rattlesnake Grass (Glyceria canadensis), Swamp aster (Aster puniceus), Blueflag (Iris versicolor), Swamp Milkweed (Asclepias incarnata), Square stemmed Monkey Flower (Mimulus ringens).

LAWN MIX:

Kentucky bluegrass (Poa pratensis), Tall fescue (Festuca arundinacea), Perennial ryegrass (Lolium perenne), Fine fescue (Festuca rubra L. ssp.),

Bentgrass (Agrostis stolonifera)

MEADOW MIX: "New England Wildflower Mix" (Area = 100,800 sf +/-)

Little Bluestem (Schizachyrium scoparium), Red Fescue (Festuca rubra), Indian Grass (Sorghastrum nutans), Partridge Pea (Chamaecrista fasciculata), Canada Wild Rye (Elymus canadensis), Virginia Wild Rye (Elymus virginicus), Blue Vervain (Verbena hastata), Butterfly Milkweed (Asclepias tuberosa), Narrowleafed Blue Eyed Grass (Sisyrinchium angustifolium), Black Eyed Susan (Rudbeckia hirta), New England Aster (Symphyotrichum novae-angliae), Spiked Gayfeather/ Marsh Blazing Star (Liatris spicata), Starved/Calico Aster (Aster lateriflorus/Symphyotrichum lateriflorum), Early Goldenrod (Solidago juncea), Hollow-Stem Joe Pye Weed (Eupatorium fistulosum/Eutrochium fistulosum)

RAIN GARDEN AND RETENTION BASINS TOPSOIL SPECIFICATION

Sieve	% Passing
#10	100%
#40	60-80%
#50	5%
#200	0%

Topsoil must have 8-12% organic matter based on loss on ignition.

A minimum topsoil depth of 2'-0" be placed in each rain garden or basin.

Sideslopes of Retention Basins and Rain Gardens should have a minimum of 6" topsoil, more in planting pits as shown.

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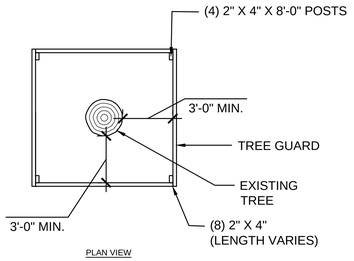
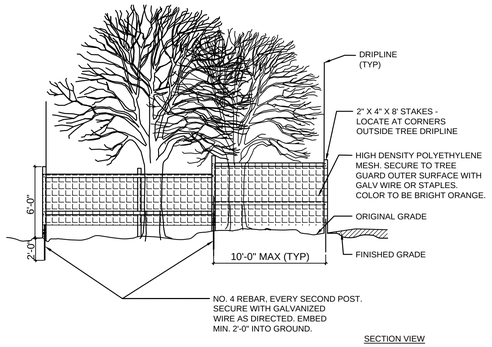
L5

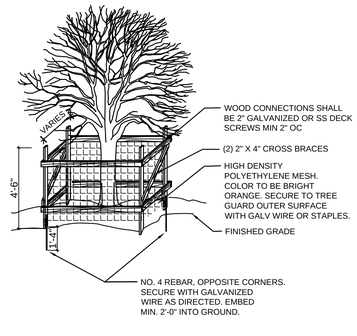


PLAN VIEW

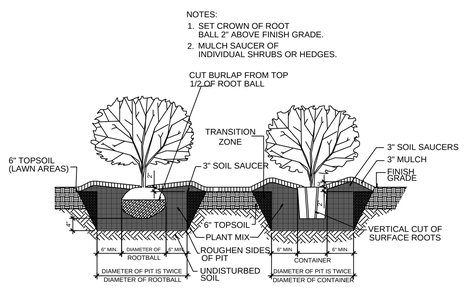
7 TREE PROTECTION - PLAN
NTS



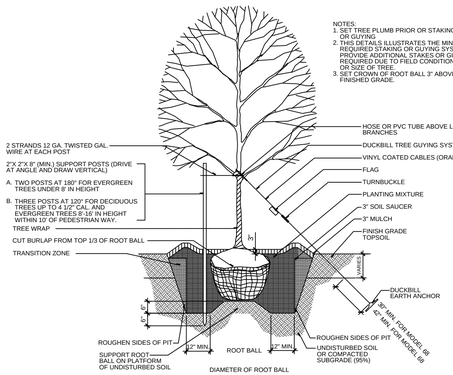
SECTION VIEW



8 SECTION A-A
SCALE: 6" = 1' - 0"



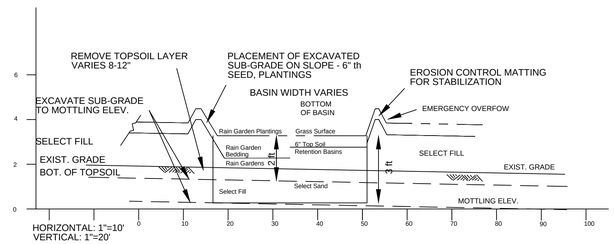
9 PLANT PIT FOR SHRUBS
SCALE: 1/2"=1'-0"



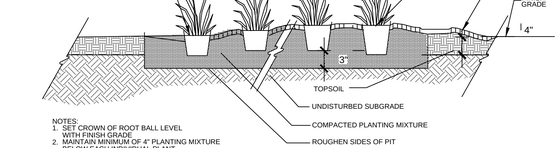
STAKING DETAIL
FOR USE WITH:
A. DECIDUOUS TREES UNDER 3" CALIPER.
B. DECIDUOUS TREES 3"-4 1/2" CALIPER WHEN PLANTED WITHIN 10' OF PEDESTRIAN WAYS.
C. EVERGREEN TREES UNDER 8' IN HEIGHT.
D. EVERGREEN TREES 8'-16' IN HEIGHT WHEN PLANTED WITHIN 10' OF PEDESTRIAN WAYS.

GUYING DETAIL
FOR USED WHEN:
A. DECIDUOUS TREES 3"-4 1/2" CALIPER WHEN PLANTED GREATER THAN 10' OUTSIDE OF PEDESTRIAN WAYS.
B. DECIDUOUS TREE OVER 4 1/2" CALIPER.
C. EVERGREEN TREES 8'-16' IN HEIGHT WHEN PLANTED GREATER THAN 10' OUTSIDE OF PEDESTRIAN WAYS.
D. EVERGREEN TREES OVER 16' IN HEIGHT.

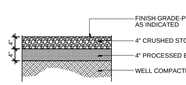
4 TREE PLANTING
SCALE: 1/2"=1'-0"



5 PROPOSED BASINS-SECTION VIEW
NTS

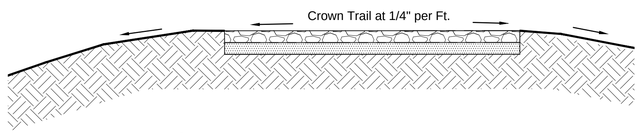


6 GROUNDCOVER, PERENNIALS OR ANNUALS CONTINUOUS PLANTING
SCALE: 1/2"=1'-0"

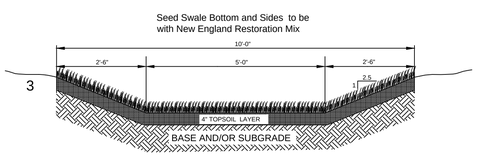


3 CRUSHED STONE TRAIL SURFACE
SCALE: 1/2"=1'-0"

FITNESS TRAIL



2 TRAIL PROFILE
SCALE: 6"=1'-0"



1 VEGETATED SWALE SECTION
NTS

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Dattilo Village-Details and X-Sections

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