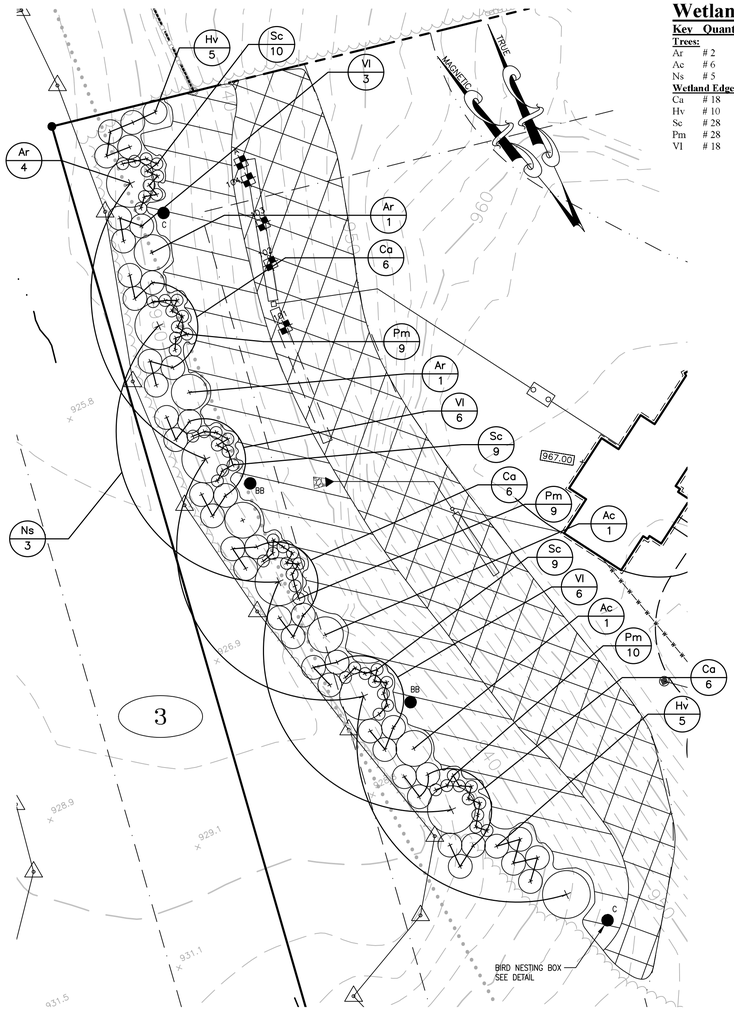


NOTES:
1. WHERE PLANTING PITS ARE DUG WITH AUGERING DEVICES, RESULTANT GLAZING OR HARDENING OF PIT SURFACES SHALL BE SCAR SCARIFIED PRIOR TO PLANTING.
2. DECIDUOUS TREES OF 3" CAL. OR LESS AND EVERGREEN TREES OF 8' OR LESS, SHALL BE STAKED; MIN. 2 PER TREE OF THIS SIZE RANGE.
3. DECIDUOUS TREES OVER 3" CAL. AND EVERGREEN TREES OVER 8' SHALL BE GUYED; MIN. 3 PER TREE OF THIS SIZE RANGE, 4 GUYS PER TREE IF OVER 3½" CAL.
4. WHERE SPACE PROHIBITS GUYING: 3 STAKES PER TREE FOR 3½" CAL, 4 STAKES PER TREE IF OVER 3½" CAL.
5. DETAIL MEANT AS GENERAL EXAMPLE OF PROPER PLANTING METHOD; WHERE DETAIL AND SPECIFICATIONS DIFFER THE LATTER SHALL PREVAIL.
6. CUT BURLAP AND WIRE BASKETS FROM TOP THIRD OF ROOT BALL; REMOVE ALL SYNTHETIC WRAPS, ROPES AND TWINES ENTIRELY FROM ROOT BALL.

Wetland Buffer Area Mitigation / Habitat Plant List

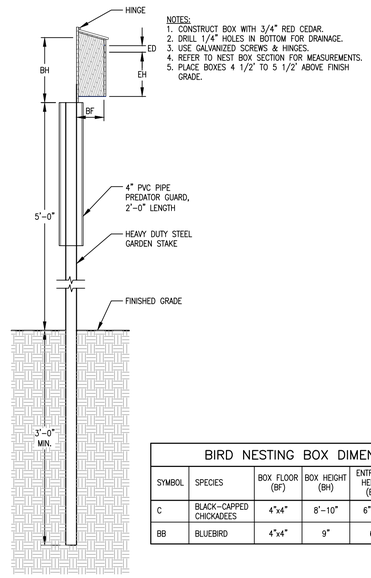
Key	Quantity	Botanical Name	Common Name	Size	Comments
Trees:					
Ar	# 2	Acer rubrum "Autumn Flame"	Autumn Flame Maple	1-1/2" – 2" Cal.	B & B
Ac	# 6	Amelanchier canadensis	Serviceberry	1-1/2" - 2" Cal.	B & B
Ns	# 5	Nyssa sylvatica	Black Tupelo	1-1/2" - 2" Cal.	B & B
Wetland Edge Shrubs and Small Trees:					
Ca	# 18	Cornus amomum	Silky Dogwood	36" – 48" Ht., 10' O.C.	Container
Hv	# 10	Hammamelis virginiana	Witchhazel	36" – 48" Ht., 10' O.C.	Container
Sc	# 28	Sambucus Canadensis	Common Elderberry	24" - 30" Ht., 6' O.C.	Container
Pm	# 28	Photonia melanocarpa	Black Ckokeberry	24" - 30" Ht., 5' O.C.	Container
Vl	# 18	Viburnum lentago	Nannyberry	36" – 48" Ht., 10' O.C.	Container

PROPOSED MEADOW SEED MIXES

NEW ENGLAND CONSERVATION/ SHOWY WILDLIFE MIX

NEW ENGLAND EROSION CONTROL/RESTORATION MIX

NOTES:
1. ALL OTHER DISTURBED AREAS TO BE SEEDED WITH A MIXTURE OF CREEPING RED FESCUE (20 LBS/AC), REDTOP (2 LBS/AC), AND PERENNIAL RYE GRASS (20 LBS/AC)
2. ALL SLOPES TO BE PROVIDED WITH A BIODEGRADABLE EROSION BLANKET OR SEED MIXTURE BLEND APPLIED WITH SPRAY ON BONDED FIBER MATERIAL WITH TACKIFIER.



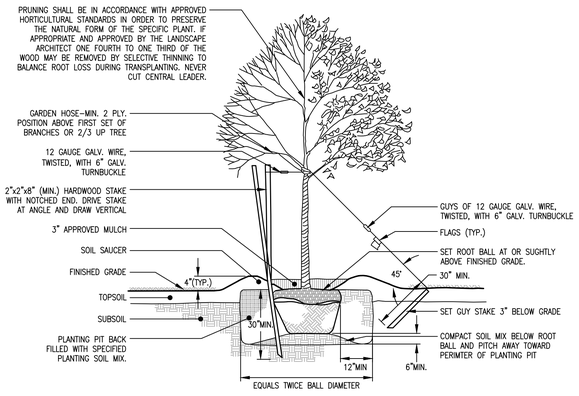
NOTES:
1. CONSTRUCT BOX WITH 3/4" RED CEDAR.
2. DRILL 1/4" HOLES IN BOTTOM FOR DRAINAGE.
3. USE GALVANIZED SCREWS & HINGES.
4. REFER TO NEST BOX SECTION FOR MEASUREMENTS.
5. PLACE BOXES 4 1/2' TO 5 1/2' ABOVE FINISH GRADE.

BIRD NESTING BOX DIMENSIONS					
SYMBOL	SPECIES	BOX FLOOR (BF)	BOX HEIGHT (BH)	ENTRANCE HEIGHT (EH)	ENTRANCE DIAMTER(EH)
C	BLACK-CAPPED CHICKADEES	4"x4"	8"-10"	6"-8"	1-1/8"
BB	BLUEBIRD	4"x4"	9"	6"	1-1/2"

LND 600

BIRD NESTING BOX DETAIL

N.T.S.

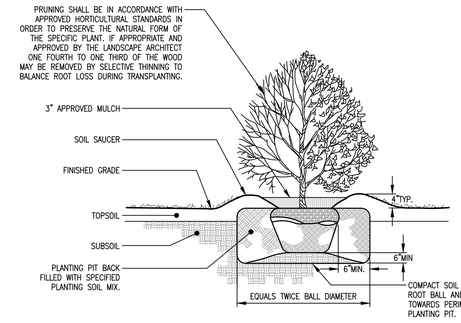


LND 074A

TREE PLANTING DETAIL

N.T.S.

NOTES:
1. WHERE PLANTING PITS ARE DUG WITH AUGERING DEVICES, RESULTANT GLAZING OR HARDENING OF PIT SURFACES SHALL BE SCARIFIED PRIOR TO PLANTING.
2. CUT BURLAP FROM TOP THIRD OF ROOT BALL (FOR ALL BALLED AND BURLAPPED MATERIAL), REMOVE ALL SYNTHETIC WRAPS, ROPES AND TWINES ENTIRELY FROM THE ROOT BALL OR PLANT.
3. DETAIL MEANT AS GENERAL EXAMPLE OF PROPER PLANTING METHOD, WHERE DETAIL AND SPECIFICATIONS DIFFER, THE LATTER SHALL PREVAIL.



LND 076A

SHRUB PLANTING DETAIL

N.T.S.

PLANTING NOTES:

A. GENERAL PLANTING NOTES

1. All plant materials shall be inspected for defects or damage before planting. Substandard plants shall be returned to, and replaced by the contractor. Acceptable plants are to be planted per the specifications of the planting plan. It is the responsibility of the general contractor to provide for the safekeeping and maintenance of these plants for the duration of site construction activity. Once planted, all machinery shall avoid these planted areas, which should be demarcated clearly by flagged field stakes.
2. All plant material placement is subject to field adjustment in reponse to site conditions. These adjustments shall be at the discretion of the Landscape Architect, Environmental Monitor, or Wetland Scientist.
3. All plant materials are subject to replacement by suitable alternatives per agreement between Owner, Wetland Scientist, Nursury contractor, and appropriate regulatory agencies.
4. Plant materials are to be planted in accordance with requirements specified in the planting specifications.
5. An application of lime may be required in addition to standard application of a complete fertilizer compound at the discretion of the Landscape Architect, Site Supervisor, Environmental Monitor or Wetland Scientist. Testing of the soil by an acceptable laboratory prior to planting will be the responsibility of the site contractor.

B. GRASS & WILDFLOWER ESTABLISHMENT

The work under this item shall conform to the requirements of Section 9.50 of the CTDOT standards, supplemented and ammended as follows.

1. The work included in this item shall consist of providing an accepted stand of established grass by furnishing and placing seed and mulch on all areas to be treated as shown on the plans or where designated by the Environmental Monitor or Site Supervisor.
2. Grass and wildflower seed shall be from commercial seed suppliers with appropriate composition for the transition slopes and detention basin and be approved by the Wetland Scientist and Site Supervisor.

a. UPLAND & TRANSITIONAL SLOPES AND ACCESS

- *New England Conservation/Showy Wildlife Mix – 25 lbs./ac.*

  INCLUDING Adropogon gerardii, Panicum virgatum, Schizachyrium scoparium, Elymus canadensis and Aster laevis.

  This mixture, or approved equal, can be obtained commercially from New England Wetland Plants, 820 West St. Amherst, MA 01102 (413) 548–8000 www.newp.com

b. DETENTION BASIN

- *New England Erosion Control/Restoration Mix – 35 lbs./ac.*

  INCLUDING Panicum virgatum, Festuca rubra, Carex vulpinoidea, Bidens cerna, Juncus effusus, and Eupatorium maculatum.

  This mixture, or approved equal, can be obtained commercially from New England Wetland Plants, 820 West St., Amherst, MA 01102. (413) 548–8000 www.newp.com

- *Northeast Wetland Hummock Seed Mix – 3.25 lbs./ac.*

  INCLUDING Scirpus atrovirens, Juncus effusus, Carex vulpinoidea, Leersia oryzoides, Carex comosa, Carex lurida, Carex lupulina.

  This mixture, or approved equal, can be optained commercially from Southern Tier Consulting, Inc. 2701–A Route 305, P.O. Box 30, West Clarksville, NY 14786. (716) 968–3129 Fax (716) 968–3122, www.southerntierconsulting.com.

C. WATER QUALITY BASIN & WETLANDS SEED BED PREPARATION

1. The water quality basin / wetland areas shall be made friable and receptive to seeding by approved methods, which will not disrupt the line and grades for such surface as shown in the plans or as directed by the Environmental Monitor or Wetland Scientist and Project Engineer. In no event will seeding be permitted on hard or crusted soil surfaces. Fine grade and rake soil surface to remove stones larger than 2 inches in diameter.
2. Due to the nature of the site, general application rates will not be used. An acceptable laboratory will analyze representative samples of soil prepared seedbeds to determine the need for lime and fertilizer. The soil shall be tested for fertility, pH, bulk density, and textural anlaysis. Samples shall be collected at a rate of one composite sample (three samples per composite sample) per 15,000 square feet.
3. Based on the results of the soil analysis, work the specified quantities of soil amendments (lime, nitrogen, phosphorus, trace chemicals, organic) into the soil uniformly to a depth of 4 inches with suitable equipment following the contour lines.

D. SEED APPLICATION AND SCHEDULING

The calendar dates for seeding shall be within 7 days following final grading between the dates of April 15 and June 15, and August 15 and October 15. The grass seed mixture shall be applied by an argonomically acceptable procedure. The rate of application shall be as specified in plans or according to manufacturer's specifications unless otherwise directed by the Wetland Scientist. Increase seed mixture by 50% if hydroseeder is used.

E. MULCHING

Materials for this work shall conform to the requirements of Article M.13.05. Immediately following seeding, mulch the seeded surface with sterile straw at a rate of 1.5 to 2 tons/ac. or a minimum depth of 1 inch. Spread mulch by hand or mulch blower. Use appropriate tack to hold mulch in place, as needed. Do not use a harrow or grousers or track machine to punch mulch into place.

F. TOPSOIL

1. If the soil contains between 50 and 80% sand a minimum of 20% organic matter should be present.
2. Soils containing greater than 80% sand are not acceptable for use as topsoil in the detention basin / wetland; and topsoil must otherwise meet the criteria defined in Section M.13.01 of the CTDOT's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 814A/815), specifically as described below.

a. *COMPOSITION*
The topsoil to be furnished by the contractor must be loose and friable and free from refuse, stumps, roots, brush, weeds, rocks and stoes over one and one–quarter (1–1/4) inches in diameter. The topsoil must also be free from any material that will prevent the formation of a suitable seedbed or prevent seed germination and plant growth.

b. *NOTIFICATION*
The Contractor will notify the engineer of the location from which the Contractor proposes to furnish topsoil to the project at least 15 calendar days prior to delivery.

c. *INSPECTION AND APPROVAL*
The topsoil and its source will be inspected and approved by the engineer before the material is delivered to the project. Any material delivered to the project which does not meet specifications, or which has become mixed with undue amounts of subsoil during any operation at the source or during placing and spreading, will be rejected and must be replaced by the contractor with acceptable material at no additional cost.

3. If soil must be supplemented with organic material, the following sources are acceptable:

a. *NATURAL WETLAND SOIL*
Natural wetland soil from another source must be inpected at least 6 months prior to excavation and determined by Wetland Scientist to be free from seeds and roots of invasive species such as purple loosestrife (Lythrum salicaria) and common reed (Phragmites australis).

b. *COMPOST*
Municipal or commercial compost from a source approved by CTDOT Office of Environmental Planning may be used.

c. *PEAT*
To be acceptable, peat must be commercially packaged peat from sedge, sphagnum or reed sources. Material must be in such physical condition that it may be rudded through a one–half (1/2) inch mesh screen, and may be readily mixed with soil material. It must be free from sticks, roots, stones and other objectionable material. It must be delivered to the project in clean, new, sealed containers bearing the brand, net bulk, and name and address of the packer. The material must have an acidity that falls in the pH range of 3.0 to 7.0, a minimum organic content of 90%, and a minimum water–absorbing capacity of 1000%. The Engineer reserves the right to draw such samples and perform such tests as may be deemed necessary to assure that the material conforms to these specifications.

G. COMPOST

To be composed of well–composted leaves and free from trash or other debris and in compliance with the specifications provided by the CTDOT, Supplemental Specifications, Section M.13 Roadside Development, July 1998, M.13.06 Compost. Compost to be a minimum of 4 inches in depth.

H. SALVAGING OF PLANT MATERIALS

Salvaging of plant materials is not anticipated as part of this project.

I. TREE AND SHRUB PLANTING

Introduction of nursery stock shall be in compliance with the typical planting details for trees and shrubs as indicated.

J. PLANTING AND MULCHING OF TREES, SHRUBS, AND GROUND COVER PLANTS

The work under this item shall conform to the requirements of Section 9.49 of the CTDOT standards, supplemented and amended as follows.

1. The work under these items shall consist of furnishing, planting and mulching trees and shrubs of the type and size indicated in the planting schedule and planting plan for the detention basin transition slopes and wetlands zones. It shall also include all incidental operations, such as care of the living plants and replacement of dead and unsatisfactory plants or unsatisfactory materials before final acceptance of the contract.
2. The material for this work shall conform to the requirements of Section M.13.07. The shrubs and trees shall be as listed in the planting schedule.
3. The construction methods shall be performed in accordance with the specifications of Section 9.49.03 of the CTDOT standards except as specified in this section.

a. *PLANTING SEASON*
All tree, shrub and herbaceous plantings shall be performed and completed between October 1 and the date at which frozen soil conditions exist, and/or April 15 and June 15, and must begin at least one year after wetland grading and seeding, or otherwise specified by the Wetland Scientist. Plant locations shall be as generally depicted in the planting plan or as modified by the Wetland Scientist. Planting methods shall be as detailed in general planting notes above.

b. *SETTING OF TREE AND SHRUB PLANTS*
All tree and shrub plants shall be set at the level of the existing grade. Excavated soils from the pit shall be placed around the root ball, creating a gradual slope of at least 1.5 feet from the plant to the normal ground level. No tree or shrub plant shall be placed within an area of standing water. For each species of shrub or tree, the number of plants shall be evenly distributed on an areal basis between each planting zone area of the same type and designation, or at the discretion of the Wetland Scientist. Trees shall be planted a minimum of 15 feet from other trees or shrubs and shrubs shall be planted a minimum of 5 feet from other shrubs, or as otherwise directed by the Wetland Scientist. The species, numbers of individual plants, number of plants within zones, and sizes shall be as indicated in the Wetlands Mitigation Plan prepared by DYMAR.

c. *REPLACEMENT OF DEAD SHRUBS AND TREES*
The Contractor shall replace all dead trees and shrubs at the recommendation of Wetland Scientist and Project Engineer.

- YEAR 1: Follow DOT Standards 814A Section 9.49.03.17 with the exception that the dead plants need not be removed.
- YEARS 2&3: At the end of the second and third full growing seasons, all dead trees and shrubs will be replaced, if the total number of woody species is more than 80% of the originally identified woody plantings in the plans. Replacement shrubs may be of varying species depending upon emerging site–specific conditions and reasonable expectations of viability, with the approval of the Wetland Scientist and Project Engineer.

K. STORMWATER TREATMENT WETLAND OPERATION

1. Regular inspections of the water quality basin are required during the start up phase to insure that equal distribution of water is reaching all segments of the system. Make adjustments to the flow path as needed.
2. Regular inspections are required for the first two years of operation to insure the system is not short–circuiting.
3. Shrubs and trees are to be removed from the bottom of the basin. Removal of invasive species shall be hand pulled annually and disposed of properly. Weeding of other herbaceous plants is not necessary.
4. Pesticides and herbicides are not to be used in the basin or on the adjacent slope areas of the basin.
5. The forebays and micro–pools, if provided, shall be cleaned when accumulated sediment reaches 50% of the depth of the pools.

L. MONITORING PLAN

1. For each of the first three full growing seasons following construction of the water quality basin / wetland, the site will be monitored and monitoring reports will be submitted to the Southbury Inland Wetlands Commission no later than December 15 of the year being monitored. The first year of monitoring will be the first year that the site has been through a full growing season after completion of construction and any required plantings. For these special conditions, a "growing season" starts no later than May 31.
2. Dead or diseased plants will be noted and recommendations for replacement provided. The development of the wetland, plant survival and presence of invasive species will be indicated in the report. At the end of three growing seasons, a final report will be filed with the Commission summarizing the successes and failures of basin development and providing recommendations to improve upon future designs and construction.

REVISION				
NO.	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	06-09-21	Sheet added.	S.A.L.	M.E.L.

DYMAR
800 Main Street South · Southbury, CT. 06488 · (203) 267–1046 · Fax (203) 267–1547
ENGINEERING · PLANNING · SURVEYING · DEVELOPMENT SERVICES

DRAWINGS TO BE USED FOR LAND USE SUBMISSIONS ONLY
NOT FOR CONSTRUCTION

CLIENT: Gregory M. & Robin P. Green
19 Little Pitch Road
Litchfield, CT 06759

PROJECT: Two Lot Subdivision
19 Little Pitch Road
Litchfield, CT 06759

TITLE: Restoration Landscaping Plan

NOT VALID WITHOUT SIGNATURE AND ORIGINAL SEAL

MARK E. LANCOR, P.E. #12369

DATE:	04/08/21
SCALE:	1"=30'
DESIGNED BY:	S.A.L.
DRAWN BY:	C.C.B.
CHECKED BY:	M.E.L.
JOB NO:	01039
DRAWING NO:	C-8