DETENTION POND PLANTING SPECIFICATIONS

1. MESIC & WET PRAIRIE COMMUNITY (Seeds)

(N.W.L. to top of slope) 4:1 Slope, See Typical Planting Section.

A. BED PREPARATION

Existing vegetative growth should be removed or killed with an approved herbicide (Rodeo). Till surface of seedbed to 2"- 4" and till as close as possible to waterline. Lightly compact soil with roller, cult-packer, or similar implement. Omit tilling if using a no-till seed drill.

B. SEEDING

Specified seed or equal shall be refrigerated for at least 90 days prior to installation. The seed must be of wild ecotype. No hybrids or cultivars may be included. Mix seed with an equal volume of coarse sand, vermiculite or oats. Seed mixes shall contain at least 75% of the species listed and no one species shall constitute more than 10 % of the total seed mix by weight. Any deviation from the plant list is to be submitted to the Village for review and approval prior to installation.

Broadcast seeds evenly either by hand or no-till drill seeder, cyclone spreader, or shoulder mount spreader. Spread seed in different directions to cover evenly. If not included in seed mix, plant nurse crop of seed oats at 40lbs/acre with seed mix. Roll seed into soil to 1/4" depth with cult-packer or similar implement.

No seeding should occur until N.W.L. is reached and sustained within Detention Pond.

C. SEEDING DATES

May 15 ----------June 30
July 1 ----------October 31 (irrigation twice per week for 60 days)
November 1------December 1 (dormant seeding)

D. FABRIC INSTALLATION

Install erosion control blanket, North American Green SC 250 or equal along N.W.L., 6.5' width, ½ width or 3.25' below water and ½ width or 3.25' above water around perimeter of pond. Install North American Green DS 75 from limits of SC250 to top of slope. Install as per manufacturer's guidelines. For exact locations, see Exhibit No. 47.

2. SHALLOW WATER EMERGENT COMMUNITY (Plugs)

(N.W.L to two linear feet (2' down from pond side slope) 4:1 Slope, See Typical Planting Section.

A. BED PREPARATION

Prior to planting, pump down or drain pond level to facilitate installation of erosion fabric.

B. FABRIC INSTALLATION

Center of 6.50' erosion control blanket North American Green, SC 250 or equal shall be placed at normal water level and rolled along entire shoreline. Install as per manufacturer's guidelines.

C. PLANTING DATES

May 15 ----------June 30
July 1 ----------October 31 (irrigation twice per week for 60 days)

D. PRODUCT

Plugs shall have a minimum size of 2" diameter and 4" depth and shall be thoroughly rooted through the container.

E. PLUG INSTALLATION

Emergent plant plugs shall be installed at water line to 6" water depths. Cut through fabric and install plants at 18" o.c., staggered. Evenly distribute each species around pond, planting in groups of 3 to 5 plants of each species.

No installation should occur until N.W.L. is reached and sustained within Detention Pond.

3. DEEP WATER EMERGENT COMMUNITY (Aquatics)

(Beyond Shallow Emergent Community in 12" to 24" of water depth)

A. PLUG INSTALLATION

Emergent plant plugs or floating leaf plants shall be installed in 12" to 24" water depths. Cut through fabric and install plants at 18"- 24"o.c., staggered for twenty linear (20') and repeat again every sixty (60') around entire pond perimeter.

No installation should occur until N.W.L. is reached and sustained within Detention Pond.

4. ACCEPTANCE

A. MESIC & WET PRAIRIE COMMUNITY (Seeds)

At the beginning of the second growing season, the following conditions shall be met:

COVERAGE: 25% of each plant community shall be covered with vegetation.

PRESENCE: 40% of the species shall be alive and present.

ABUNDANCE: 60% of the vegetation should be native species of the permanent matrix.

At the beginning of the third growing season, the following conditions shall be met:

COVERAGE: 50% of each plant community shall be covered with vegetation.

PRESENCE: 60% of the species shall be alive and present.

ABUNDANCE: 80% of the vegetation should be native species of the permanent matrix.

B. SHALLOW WATER EMERGENT COMMUNITY (Plugs)

At the end of the first growing season, the following conditions shall be met:

1. 95% of the plugs shall be alive and thoroughly rooted.
2. 50% of the shoreline shall be covered within three (3) years.

C. DEEP WATER EMERGENT COMMUNITY (Aquatics)

At the end of the first growing season, the following conditions shall be met:

1. 75% of the species shall be alive and thoroughly rooted.
2. 40% of the shoreline shall be covered within three (3) years.

5. MAINTENANCE

1st YEAR: Mow at 6" when the oats set seed heads. Mow again when competitive weeds are at 8"-12" in height. Cut back to 6" with flail type mower two or three times during the first season.

2nd YEAR: Keep area mowed at 12" to control weed competition. Mow in late May and late June. Maintain goose barrier control for 2 years. Then remove fencing, lath, and monofilament.

3rd YEAR: Prescribed/controlled burn the area in mid-Spring. If burning is not an option, mow again to control weeds but remove the clippings. Do not burn or mow after new plant growth has reached 12" or taller.

LONG - TERM MANAGEMENT: Employ the services of a qualified and licensed company to manage prairie plantings and control species deemed detrimental such as Purple Loosestrife, Canada Thistle, Reed Canary Grass, Queen Anne's Lace, Sweet Clover, Cattails, Common Teasel, Ragweeds, Buckthorn and Sandbar Willow.

6. GOOSE BARRIER CONTROL

A. INSTALLATION

Set first row of stakes in 18" of water depth at 8 foot intervals around entire pond. Drive each stake 1 foot into bottom. Attach 48" high poultry netting, 20 gauge, around entire area. Extend fence to pond bottom. Set second row of stakes 8 feet up and also at 8 foot intervals around entire pond. Drive each stake 6"-12" into ground. To protect top enclosure, attach two rows of monofilament line and secure red survey ribbons to stakes.

7. UPLAND FOREST COMMUNITY

A. QUANTITY.

To determine minimum quantity required, divide the length around the pond at the top of the slope by 40 (feet). Trees to be planted in groups by species around perimeter of pond and not intended to be planted at a 40' o.c. spacing. Bald Cypress should be planted near water's edge. Spacing and species to be shown on overall landscape plan. All trees to be alive and thriving at time of acceptance and at end of 2 year maintenance period.

8. SIGNAGE

A. INSTRUCTIONAL SIGNS

Signs to be placed at 150' intervals around perimeter of pond. Signs shall be metal, 12" x 18" in size, with green background and white lettering that reads: NATIVE PRAIRIE DO NOT MOW. Sign to be mounted to a green channel post. Top of sign to be five feet (5') above ground

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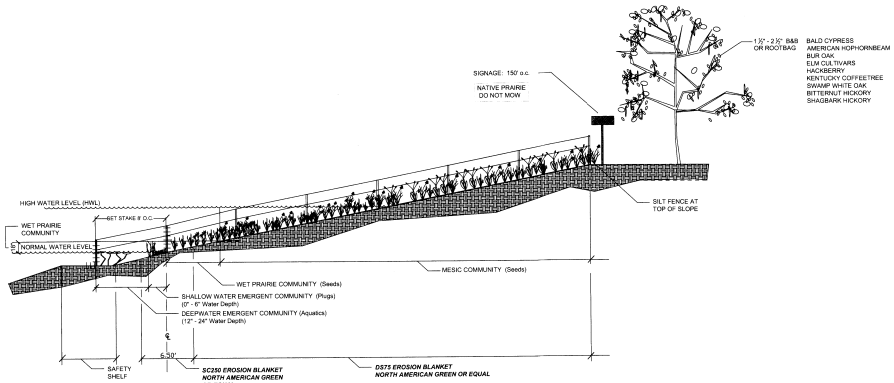

1 TYPICAL PLANTING SECTION
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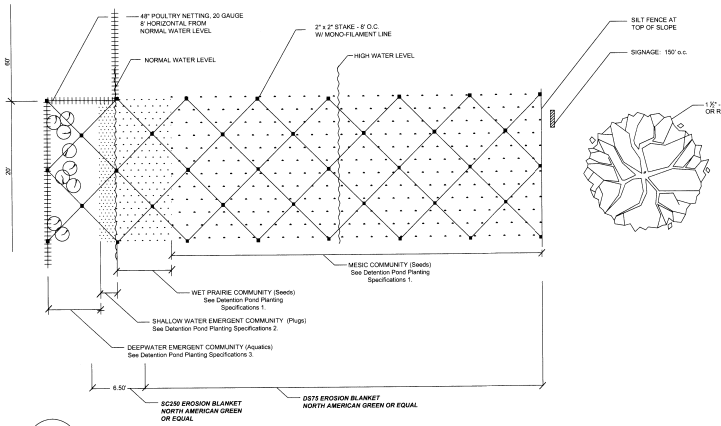

2 GOOSE PROTECTION DETAILS FOR PLANTING PLAN
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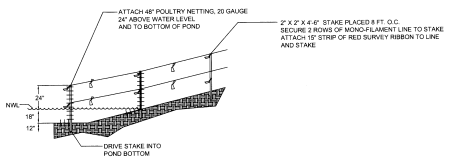

3 GOOSE PROTECTION SECTION
NOT TO SCALE

NOTE:
This exhibit is meant to be a guideline only and should not be considered a substitute for any requirements of other regulating agencies.

PLANT COMMUNITIES

MESIC COMMUNITY

	POUNDS/ACRE
Grasses and Sedges	
Andropogon gerardii (Big Blue Stem)	3.000
Andropogon scoparius (Little Blue Stem)	3.000
Elymus canadensis (Virginia Wild Rye)	0.188
Elymus virginicus (Virginia Wild Rye)	0.188
Panicum virgatum (Switchgrass)	0.250
Sorghastrum nutans (Indian Grass)	4.500
Avena sativa (Oats)	40.000
Wildflowers	
Aster laevis (Smooth Dull Aster)	0.125
Aster novae-angliae (New England Aster)	0.125
Baptisia leucantha (White Wild Indigo)	0.125
Coreopsis tripteris (Tall Coreopsis)	0.188
Echinacea purpurea (Purple Cornflower)	0.250
Eryngium yuccifolium (Rattlesnake Master)	0.250
Helianthus grosseserratus (Sawtooth Sunflower)	0.188
Heliopsis helianthoides (False Sunflower)	0.188
Liatris aspera (Rough Blazing Star)	0.025
Monarda fistulosa (Wild Bergamot)	0.125
Petalostemum purpureum (Purple Prairie Clover)	0.188
Pycnanthemum virginianum (Mountain Mint)	0.016
Ratibida pinnata (Yellow Coneflower)	0.250
Rudbeckia hirta (Black-Eyed Susan)	0.188
Rudbeckia subtomentosa (Sweet Black-Eyed Susan)	0.188
Silphium laciniatum (Compass Plant)	0.125
Silphium terebinthinaceum (Prairie Dock)	0.063
Solidago rigida (Stiff Goldenrod)	0.125
Tradescantia ohioensis (Spiderwort)	0.090
Vernonia fasciculata (Common Ironweed)	0.188
Veronicastrum virginicum (Culver's Root)	0.063
Zizia aptera (Heartleaved Alexander)	0.125

WET PRAIRIE COMMUNITY

Grasses and Sedges	
Carex comosa (Bristly Sedge)	0.125
Carex hystericina (Porcupine Sedge)	0.125
Carex lupulina (Hop Sedge)	0.125
Carex stipata (Awl-Fruited Sedge)	0.125
Carex vulpinoidea (Brown Fox Sedge)	0.125
Elymus virginicus (Virginia Wild Rye)	0.188
Glyceria striata (Fowl Manna Grass)	0.125
Leersia oryzoides (Rice Cut Grass)	0.125
Scirpus atrovirens (Dark Green Bulrush)	0.125
Spartina pectinata (Prairie Cordgrass)	0.125
Avena sativa (Oats)	40.000
Wildflowers	
Angelica atropurpurea (Angelica)	0.125
Asclepias incarnata (Swamp Milkweed)	0.083
Aster novae-angliae (New England Aster)	0.125
Aster umbellatus (Flat-topped Aster)	0.125
Eupatorium maculatum (Spotted Joe-Pye Weed)	0.063
Eupatorium perfoliatum (Boneset)	0.188
Helenium autumnale (Autumn Sneezeweed)	0.063
Liatris spicata (Marsh Blazing Star)	0.025
Lobelia cardinalis (Cardinal Flower)	0.088
Pycnanthemum virginianum (Mountain Mint)	0.016
Silphium intergrifolium (Rosinweed)	0.125
Solidago riddellii (Riddell's Goldenrod)	0.125
Verbena hastata (Blue Vervain)	0.063
Vernonia fasciculata (Smooth Ironweed)	0.063

SHALLOW WATER EMERGENT COMMUNITY
0-1 foot Depth

Graminoids
Carex stricta (Common Tussock Sedge)
Eleocharis smallii (Creeping Spike Rush)
Juncus effusus (Common Rush)
Scirpus acutus (Hardstem Bulrush)
Scirpus americanus (Chairmaker's Rush)
Scirpus fluviatilis (River Bulrush)
Scirpus tabernaemontani (Softstem Bulrush)

Forbs
Acorus calamus (Sweet Flag)
Alisma subcordata (Common Water Plantain)
Iris virginica (Blue Flag Iris)
Polygonum amphibium (Water Smartweed)
Pontederia cordata (Pickerel Weed)
Sagittaria latifolia (Broadleaf Arrowhead)
Sparganium eurycarpum (Common Burreed)

Deep Water Emergent Community
1.0 - 2.0 foot Depth

Nuphar advena (Yellow Pond Lily)
Nymphaea tuberosa (White Water Lily)
Potamogeton natans (Common Pondweed)
Potamogeton pectinatus (Sago Pondweed)

EXHIBIT NO. 47

TYPICAL DETENTION POND DETAILS

VILLAGE OF VERNON HILLS