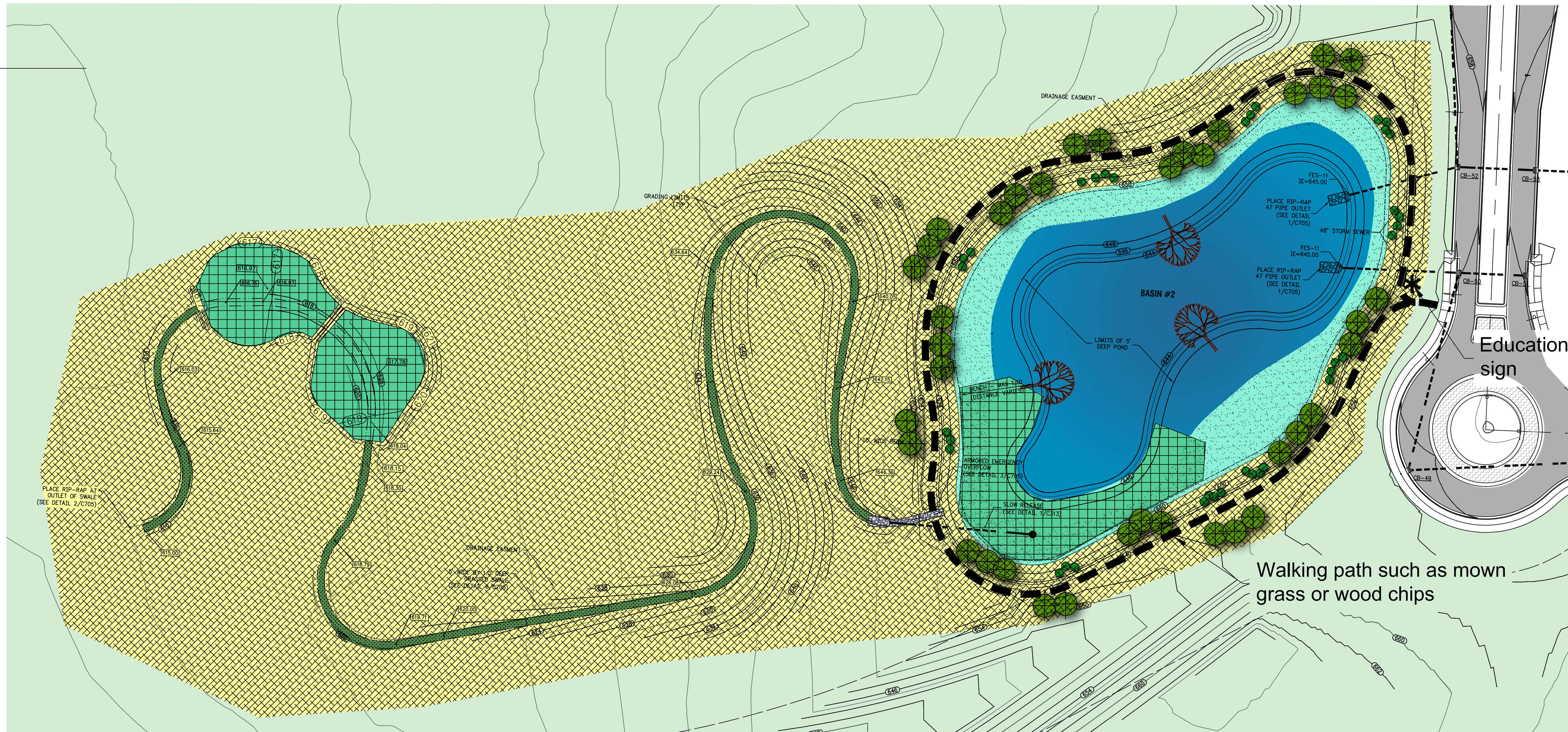
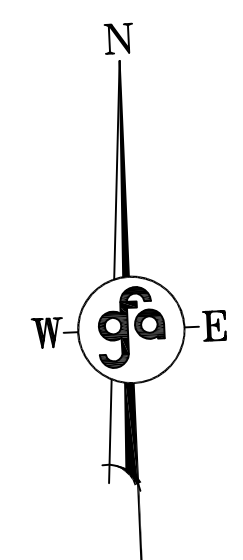


Basin #2



GENERAL NOTES
1. REFER TO SHEET C100 FOR BENCHMARK INFORMATION.

Educational sign

Walking path such as mown grass or wood chips

BASIN SHELF SEED MIX:

SPECIES	COMMON NAME	RATE (PLS OZ./AC.)
Alisma plantago-aquatica	Mud Plantain	2.5
Aster novae-angliae	New England Aster	4.0
Bidens cernua	Nodding Bur Marigold	4.0
Bidens frondosa	Common Beggarstick	4.0
Helenium autumnale	Snicezweed	2.5
Iris virginica shrevei	Southern Blue Flag	8.0
Sagittaria latifolia	Arrowhead	4.0
Verbena hastata	Blue Vervain	2.0

SPECIES	COMMON NAME	RATE (PLS OZ./AC.)
Carex comosa	Bristly Sedge	4.0
Carex lacustris	Lake Sedge	4.0
Carex lupuliformis	Knobbed Hop Sedge	4.0
Elymus virginicus	Virginia Wild Rye	16.0
Glyceria striata	Fowl Manna Grass	4.0
Leersia oryzoides	Rice Cut Grass	16.0
Scirpus acutus	Hardstemmed Bulrush	4.0
Scirpus atrovirens	Dark-green Bulrush	4.0
Scirpus cyperinus	Wool Grass	4.0
Scirpus pungens	Three-square Bulrush	4.0
Scirpus fluvialis	River Bulrush	4.0
Scirpus validus	Great Bulrush	2.0
Sparganium eurycarpum	Giant Burreed	16.0
Typha latifolia	Broadleaf Cattail	4.0
Total:		121.0

GRASSED SWALE SEED MIX:

SPECIES	COMMON NAME	RATE (PLS OZ./AC.)
Alisma plantago-aquatica	Mud Plantain	1.0
Asclepias incarnata	Swamp Milkweed	2.0
Aster novae-angliae	New England Aster	0.5
Eupatorium maculatum	Joe Pye Weed	4.0
Iris virginica shrevei	Southern Blue Flag	4.0
Lobelia cardinalis	Cardinal Flower	0.3
Lobelia siphilitica	Great Blue Lobelia	0.5
Sagittaria latifolia	Common Arrowhead	0.8
Verbena hastata	Blue Vervain	1.5

TREES:

SPECIES	COMMON NAME	QUANTITY
Acer rubrum	Red Maple	18
Acer saccharum	Sugar Maple	18
Celtis occidentalis	Hackberry	18
Platanus occidentalis	Sycamore	18
Pinus strobus	White Pine	18
Total		90

Notes: trees to be 2.5" caliper balled and burrlapped stock. Install in locations shown with each grouping being of a single species.

SHRUBS:

SPECIES	COMMON NAME	QUANTITY
Amelanchier laevis	Servetberry	27
Aronia prunifolia	Chokeberry	27
Cornus stolonifera	Red Twig Dogwood	27
Physocarpus opulifolius	Ninebark	27
Sambucus canadensis	American Elder	18
Total		140

Notes: shrubs to be 2 gallon sized containerized stock. Install in locations shown with each grouping being of a single species.

HERBACEOUS PLANTS:

SPECIES	COMMON NAME	QUANTITY
Alisma plantago-aquatica	Water Plantain	
Carex lacustris	Lake Sedge	
Leersia oryzoides	Rice Cut Grass	
Sagittaria latifolia	Arrowhead	
Scirpus fluvialis	River Bulrush	
Scirpus pungens	Three-square bulrush	
Scirpus validus	Great Bulrush	
Sparganium eurycarpum	Giant Burreed	
Typha latifolia	Broadleaf Cattail	
Total		10,944

- A minimum of six species shall be selected from the list provided based on availability at time of planting.
- Quantity of individuals of each species selected shall be approximately equal number of species.
- Form shall be plug or tuber, depending upon species.
- Layout of individual planting areas to be determined by Wetland Installation in the field.
- Plants shall be protected by Goose Grid immediately following installation.

- Notes:
- Seed mix to be sown over areas depicted on the plans. These areas are approximately from normal water level to 6 inches below normal water level.
 - Wetland consultant shall review boundaries of seeding area prior to sowing.
 - Seed shall not be sown over standing water. Pumping to lower water level in basins may be required prior to sowing.
 - Seed shall be raked, disked, or otherwise mechanically incorporated into the topsoil immediately following sowing.

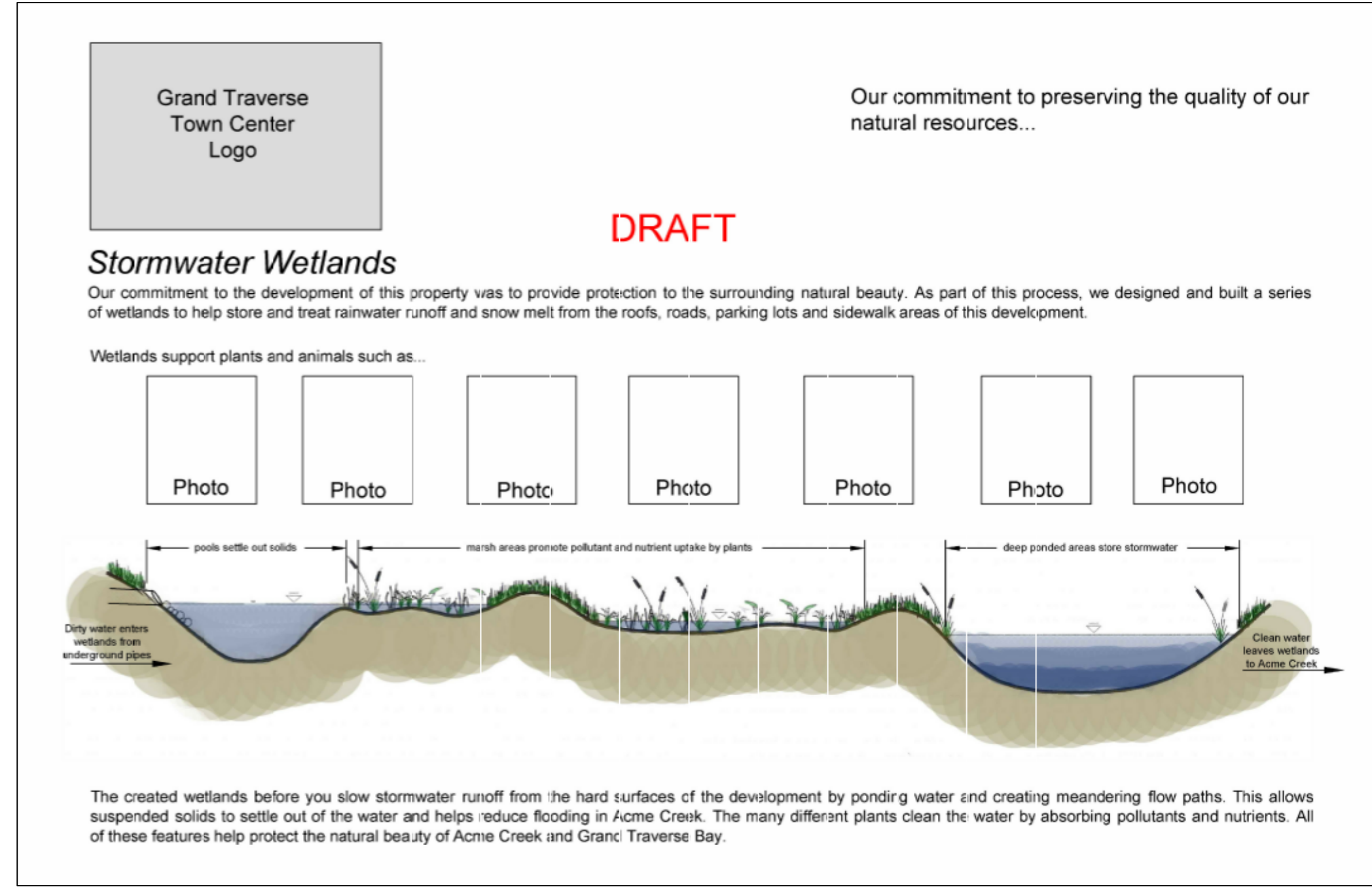
UPLAND BUFFER SEED MIX:

SPECIES	COMMON NAME	RATE (LBS./AC.)
Andropogon scoparius	Little Bluestem	3.000
Avena sativa	Seed Oats	20.000
Elymus virginicus	Virginia Wild Rye	1.000
Asclepias syriaca	Common Milkweed	0.063
Aster ericoides	Heath Aster	0.031
Aster novae-angliae	New England Aster	0.250
Desmodium canadense	Showy Tick Trefoil	0.031
Echinacea pallida	Pale Purple Coneflower	0.063
Echinacea purpurea	Purple Coneflower	0.375
Helopsis helianthoides	Falset Sunflower	0.125
Lespedeza capitata	Roundheaded Bush Clover	0.125
Liatris spicata	Spiked Gayfeather	0.125
Monarda fistulosa	Bergamot	0.031
Parthenium integrifolium	Wild Quinine	0.375
Penstemon digitalis	Foxglove Beardtongue	0.063
Petalostemum purpureum	Purple Prairie Clover	0.250
Ratibida pinnata	Yellow Coneflower	0.250
Rudbeckia hirta	Black-eyed Susan	0.375
Rudbeckia subtomentosa	Sweet Coneflower	0.063
Solidago rigida	Rigid Goldenrod	0.375
TOTAL		26.970

HABITAT STRUCTURES:

Whole trees to be installed horizontally. Trees shall be a minimum of 20 feet long and 12 inches in diameter at breast height (dbh). Do not trim down fine structure of limbs. At least 50% of entire structure shall extend 6 inches above projected high water level.

- Notes:
- Signs shall be of a material suitable to withstand normal climatic conditions.
 - Signs to be mounted in locations shown on the plans.
 - Signs to be 24" tall by 36" wide.
 - Final graphic presentation subject to modifications that do not substantively impact the information described.



Grand Traverse Town Center Logo

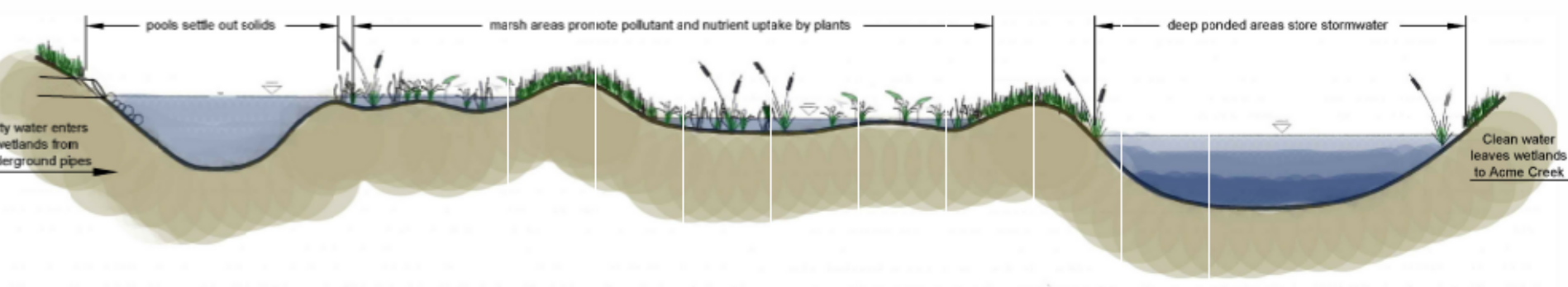
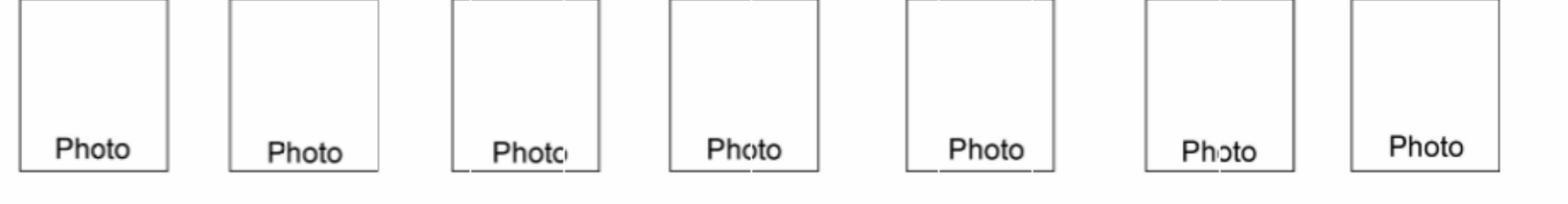
Our commitment to preserving the quality of our natural resources...

DRAFT

Stormwater Wetlands

Our commitment to the development of this property was to provide protection to the surrounding natural beauty. As part of this process, we designed and built a series of wetlands to help store and treat rainwater runoff and snow melt from the roofs, roads, parking lots and sidewalk areas of this development.

Wetlands support plants and animals such as:



The created wetlands before you slow stormwater runoff from the hard surfaces of the development by ponding water and creating meandering flow paths. This allows suspended solids to settle out of the water and helps reduce flooding in Acme Creek. The many different plants clean the water by absorbing pollutants and nutrients. All of these features help protect the natural beauty of Acme Creek and Grand Traverse Bay.

Educational Sign

GRAND TRAVERSE TOWN CENTER

ACME TOWNSHIP, GRAND TRAVERSE COUNTY, MI

VILLAGE AT GRAND TRAVERSE, LLC
CINCINNATI, OH 45209-1955
3805 EDWARDS ROAD, SUITE 700
(513) 241-5800

REVISION NO.	REVISION	REV. DATE
0	FOR CONSTRUCTION	08/30/2012
1	REVISED PER BECKETT & RAEDER REVIEW	09/05/2012
2	REVISED BASIN PLANTING PLAN	05/07/2015

CONSTRUCTION MANAGED BY:

DESIGNED BY:
go Gourdie-Fraser
Municipal | Development | Transportation
123 W. Front Street, Troy, MI 48068
Phone: (313) 946-0974, Fax: (313) 946-3703

BASIN #2 PLANTING PLAN

DRAWN BY	ISSUE	ISSUE DATE	SHEET NO.
TGR			C614
CHECKED BY	MANAGER	GFA PROJECT NO.	GFA PROJECT NO.
TLMB	T. BOYD P.E.		12102

King & MacGregor Environmental Inc.

2520 Woodmeadow SE
Grand Rapids, MI 49548
Phone: (616) 957-1231
43050 Ford Road, Suite 130
Canton, MI 48187
Phone: (734) 354-0594

KME Project No. 11031