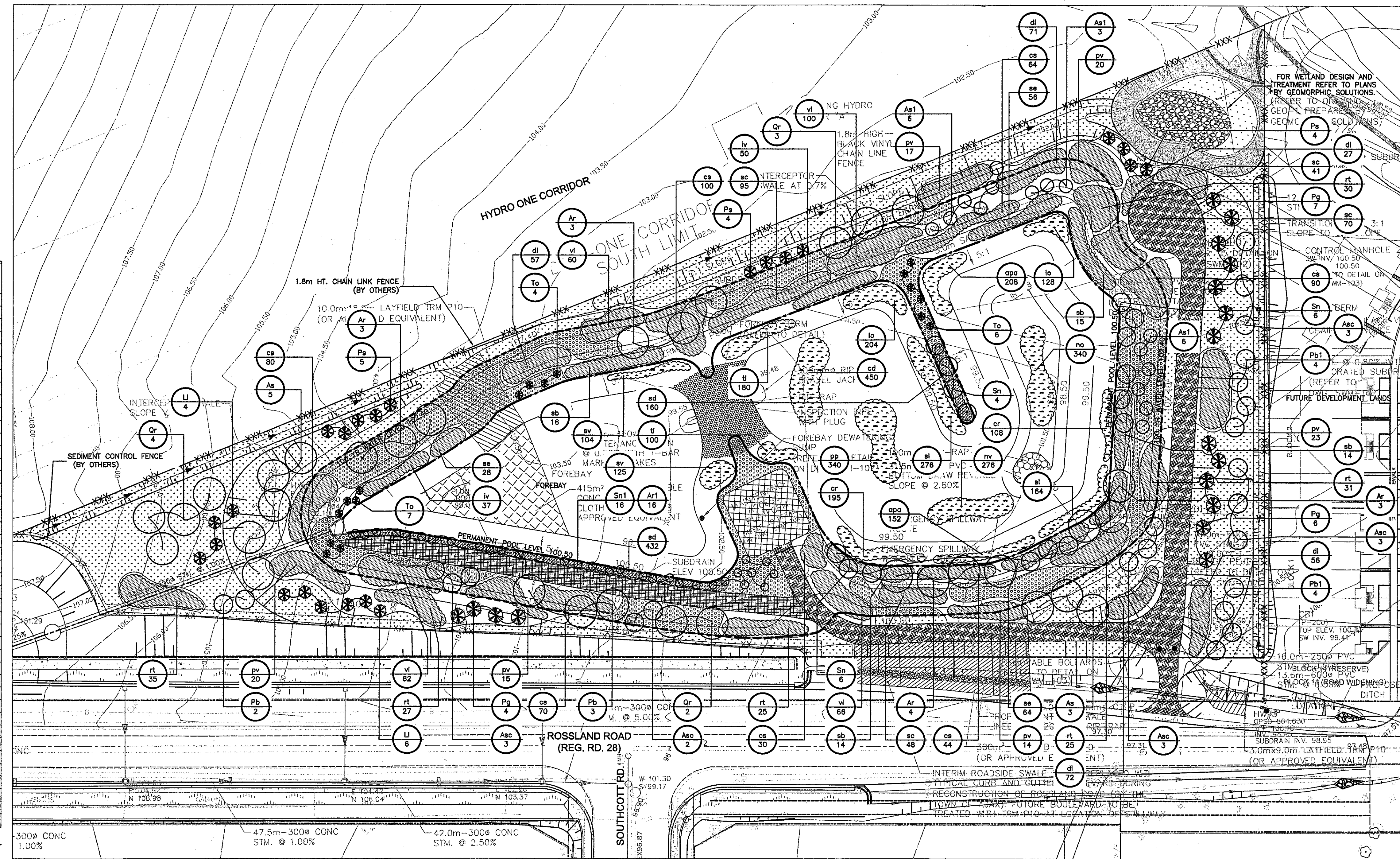


KEY	BOTANICAL NAME	COMMON NAME
DECIDUOUS TREES		
Ar	<i>Acer rubrum</i>	Red Maple
Ar1	<i>Acer rubrum</i>	Red Maple
As	<i>Acer saccharinum</i>	Silver Maple
As1	<i>Acer saccharinum</i>	Silver Maple
Asc	<i>Acer saccharum</i>	Sugar Maple
Pb	<i>Populus balsamifera</i>	Balsam Poplar
Pb1	<i>Populus balsamifera</i>	Balsam Poplar
Qr	<i>Quercus rubra</i>	Red Oak
Sn	<i>Salix nigra</i>	Black Willow
Sn1	<i>Salix nigra</i>	Black Willow
CONIFEROUS TREES		
Li	<i>Larix laricina</i>	American Larch
Pg	<i>Picea glauca</i>	White Spruce
Ps	<i>Pinus strobus</i>	White Pine
To	<i>Thuja occidentalis</i>	White Cedar
SHRUBS		
cs	<i>Cornus stolonifera</i>	Red Osier Dogwood
di	<i>Diervilla lonicera</i>	Bush Honeysuckle
iv	<i>Ilex verticillata</i>	Winterberry
pv	<i>Prunus virginiana</i>	Chokecherry
rt	<i>Rhus typhina</i>	Staghorn Sumac
sb	<i>Salix bebbiana</i>	Bebb's Willow
sc	<i>Sambucus canadensis</i>	Common Elderberry
sd	<i>Salix discolor</i>	Pussy Willow
se	<i>Salix exigua</i>	Sandbar Willow
vi	<i>Viburnum lentago</i>	Nannyberry
AQUATIC PLANTS		
apa	<i>Alisma plantago-aquatica</i>	Common Water Plantain
cd	<i>Ceratophyllum demersum</i>	Coontail
cr	<i>Carex rosea</i>	Stellate Sedge
lo	<i>Leersia oryzoides</i>	Rice Cut-Grass
no	<i>Nymphaea odorata</i>	White Water Lily
nv	<i>Nuphar variegatum</i>	Yellow Pond Lily
pp	<i>Potamogeton pectinatus</i>	Small Pondweed
sl	<i>Sagittaria latifolia</i>	Arrowhead
sv	<i>Scirpus fluviatilis</i>	River Bulrush
tl	<i>Typha latifolia</i>	Common Cattail

SWM POND PLANT KEY LEGEND
FOR PLANT LIST, & DETAILS REFER TO SWM-02



SEED MIXTURE SPECIFICATION:
SWM POND

SEED MIXTURE
Wetland Seed Mix (ABOVE 100 YR STORM ELEVATION)
Rate: 2.0kg/100sq.m. OR 4.0lb/100sq. ft.
- to be utilized above 100 year event.

Mix consists of:
- 20% Fowl Meadow (*Poa-polustris*)
- 20% Canada Wild Rye (*Elymus canadensis*)
- 17% Big Bluestem (*Andropogon gerardii*)
- 18% Little Bluestem (*Schizachyrium scoparium*)
- 15% Switch Grass (*Sorghastrum virgatum*)
- 10% Indian Grass (*Sorghastrum nutans*)
100%

Wetland Seed Mix (BELOW 100 YR STORM ELEVATION)
Rate: 2.0kg/100sq.m.
- to be utilized between permanent pool and 100 year event (extended detention)

Mix consists of:
- 10% Lake Sedge (*Carex lacustris*)
- 20% Soft rush (*Juncus effusus*)
- 10% Tall Manna Grass (*Glyceria grandis*)
- 15% Hard Stem Bulrush (*Scirpus ocutus*)
- 10% Green Bulrush (*Scirpus atrovirens*)
- 15% River Bulrush (*Scirpus fluviatilis*)
- 20% Giant Bur Reed (*Sparganium eurycarpum*)
100%

1.0 GENERAL NOTES

- ALL PLANTING TO MEET HORTICULTURAL STANDARDS OF CANADIAN NURSERY TRADE ASSOCIATION FOR NURSERY STOCK. ALL PLANT MATERIAL TO BE No. 1 GRADE.
- TOPSOIL:** SHALL BE FERTILE, FRACTIONABLE, NATURAL LOAM CONTAINING 4% MINIMUM ORGANIC MATTER FOR CLAY LOAMS AND 2% MINIMUM ORGANIC MATTER FOR SANDY LOAMS. ACIDITY RANGE SHALL BE FROM 6.0 pH TO 7.5 pH AND SHALL BE CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL BE FREE OF ANY ADVERTISE OF SUBSOL CLAY LAMER, STONES AND ROOTS OVER 50 mm DIAMETER AND ANY OTHER EXTRANEIOUS MATTER AND SHALL BE REASONABLY FREE OF WEEDS AND WEED SEEDS.
- PEAT MOSS:** SHALL BE PARTIALLY DECOMPOSED FIBRIOUS OR CELLULAR STEMS AND LEAVES OF SPHAGNUM MUSSES, TEXTURE VARYING FROM FIBROUS TO SPRINGY FIBROUS, FAIRLY ELASTIC AND SUBSTANTIALLY HOMOGENEOUS WITH pH NOT LESS THAN 4.5 AND NOT GREATER THAN 6.0. IT SHALL BE BLENDED AND FREE OF COLORED COLLOIDAL RESIDUE, MOOD, SULFUR AND IRON. BE BROWN IN COLOUR AND FINELY SHERDED. SHERDED PARTICLES SHALL NOT EXCEED 6 mm IN SIZE.
- FERTILIZERS:** SHALL BE COMPLETE, COMMERCIAL FERTILIZERS CONTAINING NOT LESS THAN SIXTY PERCENT (60%) UREA FORMALDEHYDE BY WEIGHT. FERTILIZER SHALL BE ADDED TO PLANTING MIXTURE BASED ON THE RESULTS OF A TOPSOIL TEST, BUT IN NO CASE LESS THAN THE FOLLOWING MINIMUM STANDARDS:
- 10-4-4 @ 400 GRAMS PER 25 sq. metre OF TREE CALIPER; AND
- 10-4-4 @ 400 GRAMS PER 1.0 cu. metre OF SOIL MIXTURE FOR PLANTING BEDS.
- BONEMEAL:** SHALL BE COMMERCIAL RAW BONEMEAL, FINELY GROUND AND WITH A MINIMUM ANALYSIS OF 4% NITROGEN AND 20% PHOSPHORIC ACID.
- PLANTING SOIL MIXTURE:** SHALL BE 5 PARTS SANDY LOAM TOPSOIL, ONE PART WELL-ROTTED CATTLE MANURE AND ONE PART PEAT MOSS. BONEMEAL SHALL BE ADDED AT THE RATE OF 200 GRAMS PER sq. metre. SOIL MIXTURE TO BE COMPACTED TO PREVENT AIR POCKETS AND SETTLEMENT.
- ALL SHRUBS TO BE PLANTED IN CONTINUOUS BEDS AND MULCHED AS SPECIFIED.
- MULCH: ALL MULCH FOR TREES AND SHRUBS TO BE BARK SHREDDED FINE BARK AS SUPPLIED BY ALBERT OR APPROVED EQUAL (UNIFORM DEPTH OF 100mm).
- LOCATIONS OF ALL PLANT MATERIAL TO BE STAKED OUT BY THE CONTRACTOR AND APPROVED BY THE FIELD BY THE LANDSCAPE ARCHITECT AND THE CITY OF PICKERING, PRIOR TO THE EXCAVATION OF PLANTING PITS.
- THE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT AT COMMENCEMENT OF PLANTING FOR REVIEW OF THE PLANT MATERIAL INITIAL ACCEPTANCE.
- ALL THE WORK SHALL BE COMPLETED TO THE ACCEPTANCE OF BOTH THE LANDSCAPE ARCHITECT AND THE CITY OF PICKERING. THE LANDSCAPE ARCHITECT SHALL ISSUE SUBSTANTIAL PERFORMANCE WHEN THE WORK IS SOLE COMPLETE AND ACCEPTABLE. PERFORMANCE ACCEPTANCE SHALL BE ISSUED WHEN ALL WORK IS COMPLETED AS SHOWN ON THE APPROVED DRAWINGS. A ONE YEAR INTERIM INSPECTION SHALL BE HELD TO REVIEW PLANT MATERIAL. THE TWO YEAR WARRANTY WILL COMMENCE FROM THE DATE OF SUBSTANTIAL COMPLETION.
- ALL DISTURBED AREAS OTHER THAN PAVING, PLANTING BEDS AND AREAS TO BE SEEDS SHALL BE RESTORED BY FINE GRADING AND SOILING OVER A MINIMUM 100mm TOPSOIL.

Planting Formula for SWM Ponds

ZONE	A = Area of Pond in Each Zone (sq.m)	B = Linear Meters of Waters Edge	C = # of Aquatic Species	D = Overall Woody Coverage (sq.m)	E = # of Trees	F = # of Shrubs
1	625	1575	C=B*3	D=A*0.5	D=(E*25)+F	
2	625	1575				
3	528			264	7	99
4	1494			747	19	280
5	9568			4784	120	1794
TOTAL:			3150		145	2173

Total Number of Trees Provided: 145

Zone 3 & 4: 40

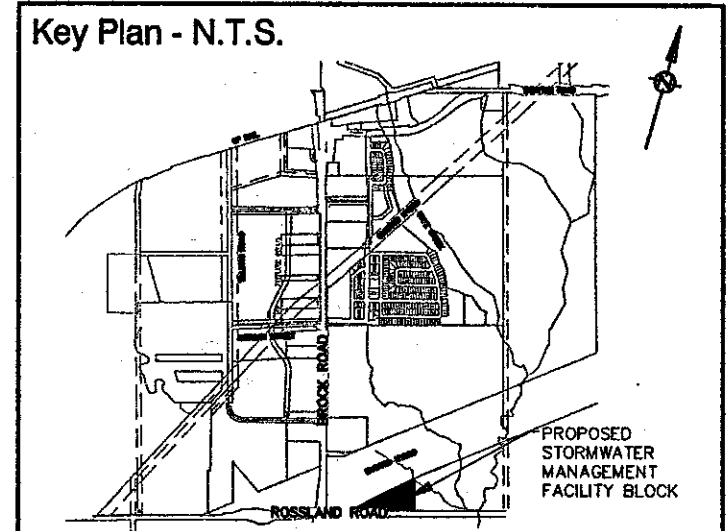
Zone 5: 105

Total Number of Whips Provided: 32

Total Number of Live Stakes Provided: 592

Total Number of Shrubs Provided: 1899

Total Number of Aquatic Species: 3350



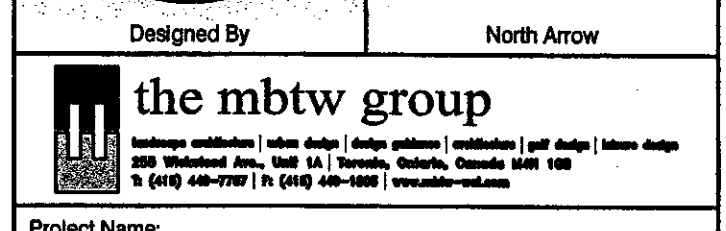
- Legend**
- PROPOSED DECIDUOUS TREE PLANTING (SEE PLANT LIST FOR SIZES) 2
 - PROPOSED CONIFEROUS TREE PLANTING (SEE PLANT LIST FOR SIZES) 3
 - PROPOSED DECIDUOUS WHIP PLANTING (SEE PLANT LIST FOR SIZES) 5
 - PROPOSED DECIDUOUS WHIP PLANTING (SEE PLANT LIST FOR SIZES) 5
 - PROPOSED LIVE STAKE PLANTING 6
 - PROPOSED SHRUB PLANTING IN CONTINUOUS BEDS 4
 - PROPOSED EMERGENT & SUBMERGENT AQUATIC PLANTING 7
 - UPLAND SEED MIX (SEE NOTES THIS PAGE) 5
 - WETLAND SEED MIX (SEE NOTES THIS PAGE) 5
 - PROPOSED PERMANENT POOL LEVEL = 100.50 5
 - PROPOSED 100YR WATER LEVEL = 102.40 5

- ENGINEERING DETAILS REFERENCED**
- RI: 4P
 - MA: PAVEMENT ACCESS (ASPHALT)
 - RO: PAVEMENT ACCESS ATFORM
 - CABLE CONCRETE
 - 1.8m HT CHAIN LINK FENCE (BY OTHERS)
 - ILT FENCE (BY OTHERS)

CIVIL ENGINEERING INFORMATION PROVIDED BY: SERNAS ASSOCIATES, INFORMATION CURRENT AS OF FEB. 06, 2012.

No.	Date	Revisions	By
1.	Feb.16.12	Issued to Engineer	AS

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Designed By: **the mbtw group**

Project Name: **Duffin Heights Neighbourhood Stormwater Management Facility (Number 4)**

Municipality: City of Pickering

Sheet Title: **STORMWATER MANAGEMENT POND PLANTING PLAN**

Designed By / Drawn By: AS / GC Scale: 1:500 Drawing No.: SM-01

Date of Drawing: FEBRUARY 2012 Job No.: SNG002