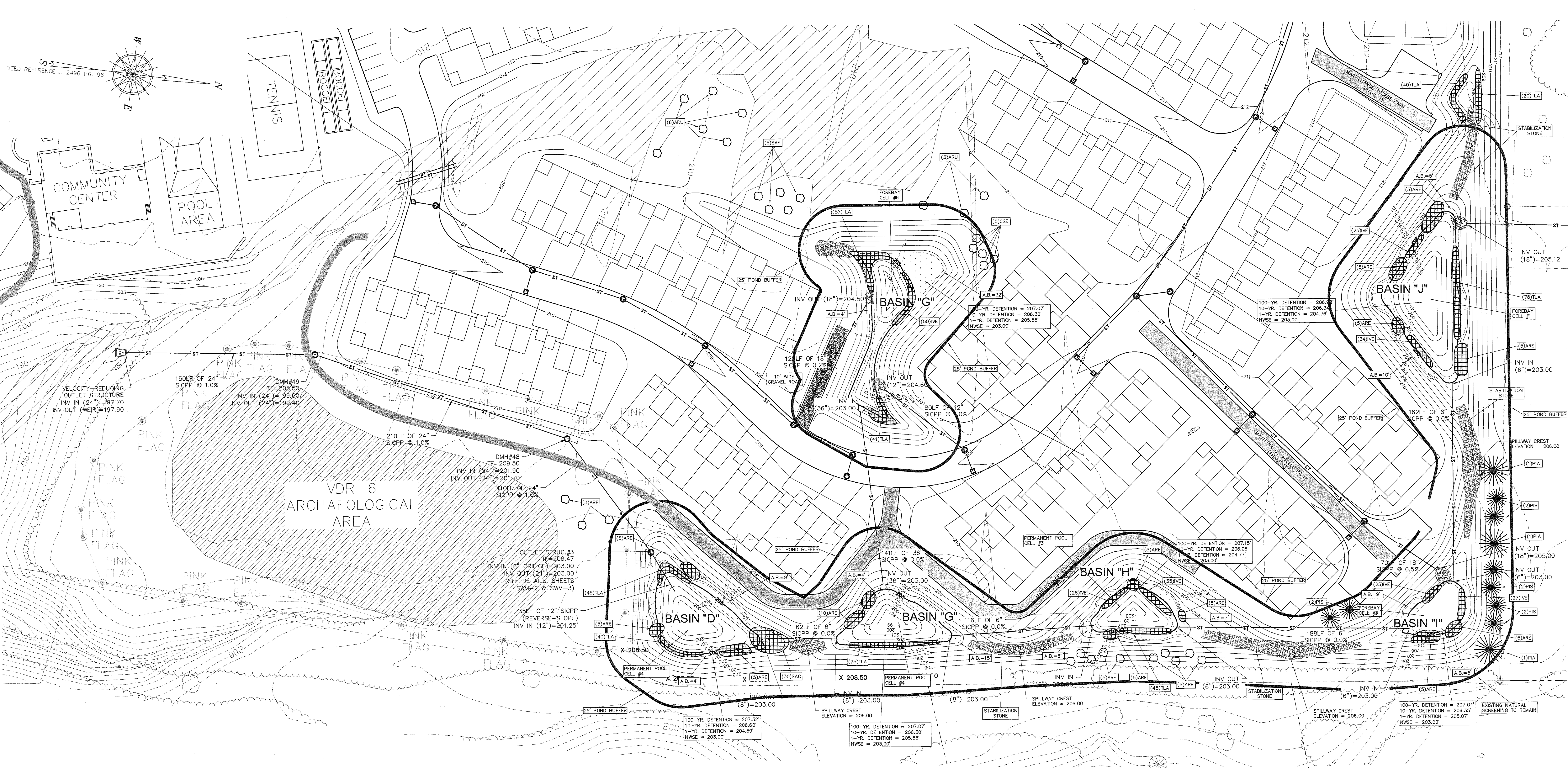




BASINS D, G, H, I, & J - PLAN VIEW
SCALE - 1"=30'

PLANT LIST BASINS D, G, H, I, & J

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY, BASIN D	QTY, BASIN G	QTY, BASIN H	QTY, BASIN I	QTY, BASIN J
TIA	TYPHA SP.	CATTAIL	TUBES	SPACED EVENLY	85	173	45	0	138
SAC	SCIRPUS ACUTUS	HARDSTEN BULRUSH	TUBES	SPACED EVENLY	30	0	0	0	0
IVE	IRIS VERSICOLOR	BLUE FLAG IRIS	TUBES	SPACED EVENLY	0	50	63	52	59
ARE	ALNUS RUGOSA	SPECKLED ALDER	7 GAL.	AS SHOWN	18	10	25	10	20
ARU	ACER RUBRUM	RED MAPLE	15 GAL.	AS SHOWN	0	0	0	0	0
BNI	BETULA NIGRA	RIVER BIRCH	N/A	N/A	0	3	0	0	0
CSE	CORNUS SERICEA 'CARDINAL'	RED OSIER DOGWOOD	N/A	N/A	0	0	0	0	0
COC	CEPHALANTHUS OCCIDENTALIS	BUTTERBUSH	N/A	N/A	0	0	0	0	0
IVER	ILEX VERTICILLATA	WINTERBERRY	N/A	N/A	0	0	0	0	0
GRI	GINKGO BILOBA	GINKGO	N/A	N/A	0	0	0	0	0
SAF	SALEX FLAME	WILLOW	N/A	N/A	0	0	0	6	0

* SEE DETENTION POND PLANTING SPECIFICATIONS NOTES
A.B.-XX-AQUATIC BENCH-XX WIDE

BUFFER PLANT LIST

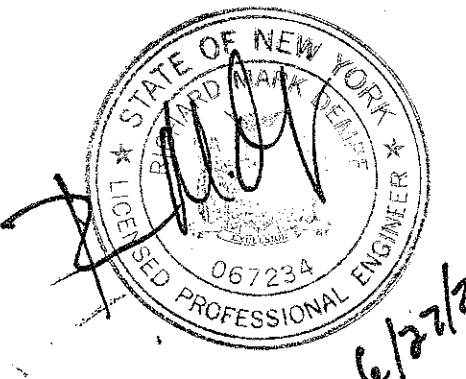
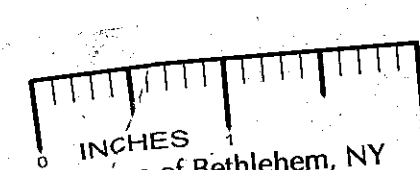
SYMBOL	BOTANICAL NAME	COMMON NAME	PLANTED SIZE	MATURE SIZE	SPACING	QUANTITY
PIS	PINUS SYLVESTRIS	SCOTCH PINE	5'-6" HT.	30'-60"	AS SHOWN	8
PIA	PICEA ABIES	NORWAY SPRUCE	5'-5" HT.	40'-60"	AS SHOWN	3

ANTI-SEEP COLLAR DESIGN

DESIGN IN ACCORDANCE WITH NYSDOT, "STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL."

BASIN	DIM.	EMB. SLOPE "S"	PIPE SLOPE "S"	PIPE DIA.	SATURATION LENGTH "L"	COLLAR SIZE	QUANTITY
D	4.32'	4:1	1.0%	2"	36'	4' X 4'	(3)

COLLARS TO BE "AGRI-DRAIN ANTI-SEEP COLLARS" OR APPROVED EQUAL.
COLLAR INSTALLATION SPACING TO BE DIVIDED EQUALLY ACROSS SATURATION LENGTH "L" AS SHOWN IN THIS TABLE. SATURATION LENGTH BEGINS AT BASIN OUTLET STRUCTURE.



DETENTION POND PLANTING SPECIFICATIONS

1. SHALLOW WATER EMERGENT COMMUNITIES
2. PRIOR TO PLANTING, PUMP POND DOWN TO A LEVEL THAT WILL FACILITATE INSTALLATION OF EROSION CONTROL MEASURES.
3. PLUGS SHALL BE A MINIMUM SIZE OF 2 INCHES IN DIAMETER AND 4 INCHES IN DEPTH. EACH PLUG SHALL BE THOROUGHLY ROOTED.
4. WATER EMERGENT PLUGS SHALL BE PLANTED AT THE PERMANENT WATER LINE TO 6 INCHES BELOW THE PERMANENT WATER LINE.
5. PLANTS SHALL BE EVENLY DISTRIBUTED AROUND THE POND, PLANTING IN GROUPS OF 5 - 7 PLANTS FOR EACH SPECIES AND SPACED 18 INCHES ON CENTER.
6. NO INSTALLATION SHALL OCCUR UNTIL TEMPORARY STABILIZATION OF THE LOT HAS OCCURRED AND THE WATER LEVEL OF THE PERMANENT POOL HAS BEEN REACHED AND SUSTAINED.

ESTABLISHING AND MAINTAINING TREES, SHRUBS, AND VINES

- GENERAL
1. PLANTS SHALL CONFORM TO THE SPECIES, VARIETY, SIZE, NUMBER, AND CONDITIONS AS STATED ON LANDSCAPE DRAWINGS. "AMERICAN STANDARD FOR NURSERY STOCK" QUALITY OF PLANT MATERIALS.
 2. DURABLE, LEGIBLE LABELS WITH THE SCIENTIFIC AND COMMON NAME AND CULTIVAR SHALL BE SECURELY ATTACHED TO PLANTS, BUNDLES OF SEEDLINGS, CONTAINERS, AND/OR FLATS.
 3. PRIOR TO DELIVERY, THE TRUNK, BRANCHES, AND FOLIAGE OF THE PLANTS SHALL BE SPRAYED WITH NON-TOXIC ANTISEPTIC, APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

- PLANTING TIME
1. DECIDUOUS TREES AND SHRUBS: APRIL 1 TO JUNE 1 AND OCTOBER 15 TO DECEMBER 15.
 2. EVERGREEN TREES AND SHRUBS: APRIL 1 TO JUNE 1 AND SEPTEMBER 1 TO NOVEMBER 15.

- SPACING
1. ALL TREES AND SHRUBS SHALL BE PLANTED AS SPECIFIED ON LANDSCAPE DRAWINGS OR AS SPECIFIED IN THE FIELD BY THE DESIGN ENGINEERS OR LANDSCAPE ARCHITECT.
 2. FOR CLUMPS, PLANT SPACING SO NATURE SHRUBS WILL BE TOUCHING OR OVERLAPPING BY ONLY 1 OR 2 FEET.

- SITE PREPARATION
1. INDIVIDUAL SITES FOR PLANTING SEEDLINGS SHALL BE PREPARED BY SCALPING THE SOIL AWAY FROM A FOUR FOOT SQUARE AREA WHERE THE TREE OR SHRUB IS TO BE PLANTED.
 2. ALL PLANTING BEDS SHALL BE CULTIVATED TO A DEPTH OF 8 INCHES, OR CHEMICALLY TREATED FOR WEED CONTROL.

- PLANTING
1. PLANTS SHALL BE LOCATED AS SHOWN ON PLANS AND/OR DRAWINGS AND, WHERE NECESSARY, LOCATED ON THE SITE BY STAKES, FLAGS OR OTHER MEANS AS POSSIBLE.
 2. PRIOR TO PLANTING, REMOVE GALVANIZED WIRE BASKET SECURING ROOT BALL, UNTIE AND ROLL DOWN BURLAP OR REMOVE AS MUCH TREATED BURLAP AS POSSIBLE.
 3. THE PLANTS SHALL BE SET UPRIGHT IN HOLES.
 4. THE PLANTING HOLE SHALL BE THREE TIMES DEEPER THAN THE DIAMETER OF THE PLANT, AT A DEPTH THAT ALLOWS THE ROOT FLAIR TO BE ABOVE FINISHED GRADE, AND SHALL BE BACKFILLED WITH NATIVE TOP SOIL WHERE POSSIBLE.
 5. ALL PLANTS SHALL BE THOROUGHLY WATERED ON THE SAME DAY OF PLANTING. PLANTS THAT HAVE SETTLED SHALL BE RESET TO GRADE.

- WRAPPING
1. IMMEDIATELY AFTER PLANTING, WRAP DECIDUOUS TREE TRUNKS FROM THE BOTTOM TO THE FIRST LIMB WITH A 4 INCH WIDE BITUMINOUS IMPREGATED, INSECT RESISTANT TAPE OR PAPER MANUFACTURED FOR THAT PURPOSE. TIE WITH JUTE (BAG STRINGS) AT TOP AND BOTTOM. THE WRAP SHOULD BE REMOVED PER NURSERY RECOMMENDATIONS.

- MULCHING
1. MULCH THE DISTURBED AREA AROUND INDIVIDUAL TREES AND SHRUBS WITH A 2-3" LAYER OF WOOD CHIPS, PULL WOOD CHIPS 1 INCH.

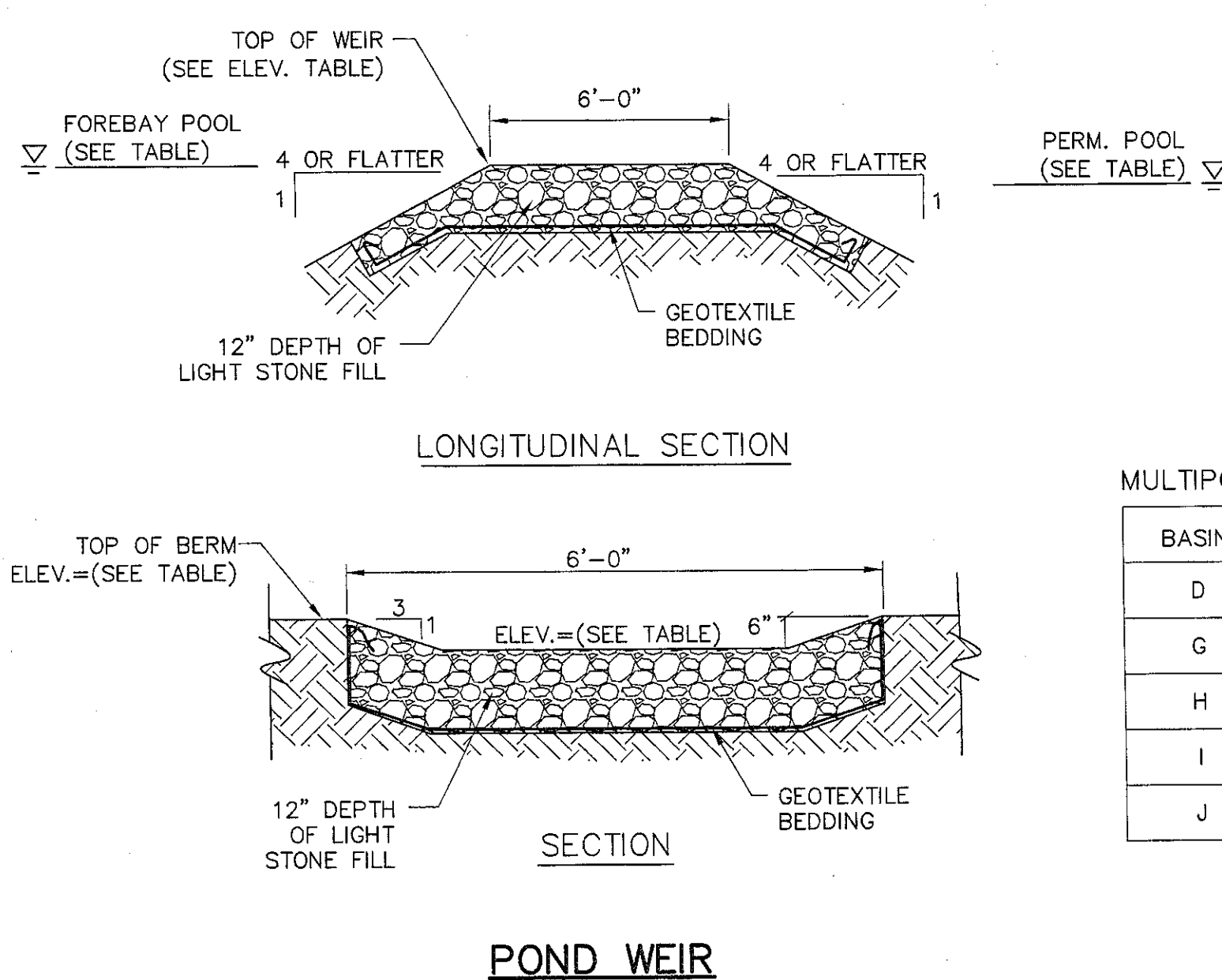
- CLEANUP AND MAINTENANCE
1. AFTER ALL WORK IS COMPLETE, ALL EXCESS SOIL, DEBRIS, ETC., SHALL BE REMOVED FROM THE SITE.
 2. WATER PLANTS TWO TIMES AFTER PLANTING FOR TWO YEARS, WATER PLANTS EVERY TWO WEEKS DURING DRY PERIODS, WHICH EXCEED THREE WEEKS WITHOUT A GOOD SOAKING RAIN. SHRUBS MAY REQUIRE 5 TO 10 GALLONS AND TREES, 20 TO 30 GALLONS FOR EACH WATERING.
 3. REMOVE TRUNK WRAP ONE YEAR AFTER PLANTING OR AS RECOMMENDED BY NURSERY.

- PRUNING
1. REMOVE TREES, LIMBS, AND LIMB STUBS TO THE FOLLOWING WIDTHS AND HEIGHTS SPECIFIED FOR THE INTENDED USE.
 2. REMOVE DEAD, DISEASED, OR DYING LIMBS.
 3. DO NOT REMOVE MORE THAN ONE-THIRD OF THE LIVE CROWN OF A TREE IN A YEAR.
 4. USE BRANCH BARK AS A REFERENCE FOR THE STARTING POINT AND ANGLE OF CUT.
 5. USE THE 3 OR 4 CUT PRUNING METHOD ON ALL BRANCHES OVER 2 INCHES IN DIAMETER. FIRST CUT ABOUT ONE-THIRD THE WAY THROUGH THE UNDERSIDE OF THE LIMB (ABOUT 12 INCHES FROM THE TRUNK). THEN (APPROXIMATELY) AN INCH FURTHER, CUT MAKE A SECOND CUT THROUGH THE LIMB FROM THE UPPER SIDE, WHEN THE BRANCH IS REMOVED, THERE IS NO SPINNING OF THE MAIN TREE TRUNK. REMOVE THE STUB, IF THE BRANCH IS LARGER THAN 5-6 INCHES IN DIAMETER, USE THE FOUR CUT SYSTEM. CUTS 1 AND 2 REMAIN THE SAME AND CUT 3 SHOULD BE FROM THE UNDERSIDE OF THE LIMB. ON THE OUTSIDE OF THE BRANCH COLLAR, CUT 4 SHOULD BE IN ALIGNMENT WITH THE 3RD CUT. CUT 3 SHOULD BE 1/4 TO 1/3 THE WAY THROUGH THE LIMB. THIS WILL PREVENT THE BARK FROM PEELING DOWN THE TRUNK. DO NOT PANT THE CUT SURFACE.

- PROTECTING TREES IN HEAVY USE AREAS
1. THE COMPACTION OF SOIL OVER THE ROOTS OF TREES AND SHRUBS BY THE TRAMPOLING OF CONSTRUCTION EQUIPMENT SHOULD BE AVOIDED. A ZONE OF PROTECTION SHALL BE ESTABLISHED AROUND PLANTED TREES AND SHRUBS AND EXISTING TREES AND SHRUBS THAT ARE TO REMAIN. APPLY AND MAINTAIN A 5 TO 4 INCH LAYER OF UNDECAED WOOD CHIPS OR 2 INCHES OF NO. 2 WASHED, CRUSHED GRAVEL.

TEMPORARY CRITICAL AREA PLANTING SPECIFICATIONS

1. WATER MANAGEMENT PRACTICES MUST BE INSTALLED AS APPROPRIATE FOR SITE CONDITIONS. THE AREA MUST BE ROUGH GRADED AND SLOPES PHYSICALLY STABLE. LARGE DEBRIS AND ROCKS ARE USUALLY REMOVED. SEEDBED MUST BE SEED WITHIN 24 HOURS OF DISTURBANCE OR SOIL COMPACTION OF THE SOIL SURFACE.
2. FERTILIZER AND LIME ARE NOT TYPICALLY USED FOR TEMPORARY SEEDINGS.
3. PLANTING IN SPRING OR SUMMER OR EARLY FALL, THEN SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (APPROXIMATELY 0.7 LB./1000 SQ. FT. OR USE 1 LB./1000 SQ. FT.).
4. PLANTING IN LATE FALL OR EARLY WINTER, THEN SEED CROWNED "HARVEST" WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (2.5 LBS./1000 SQ. FT.).
5. ANY SEEDING METHOD MAY BE USED THAT WILL PROVIDE UNIFORM APPLICATION OF SEED TO THE AREA AND RESULT IN RELATIVELY GOOD SOIL TO SEED CONTACT.
6. MULCH THE AREA WITH HAY OR STRAW AT 2 TONS/ACRE (APPROX. 80 LBS./1000 SQ. FT. OR 2 BALES). QUALITY OF HAY OR STRAW MULCH ALLOWABLE WILL BE DETERMINED BASED ON LONG TERM USE AND VISUAL CONCERN. MULCH ANCHORS WILL BE REQUIRED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE OF CONCERN. WOOD PAPER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL (NVLN WEB OR MESH) MAY BE USED IF APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATION. CAUTION IS ADVISED WHEN USING NYLON OR OTHER SYNTHETIC PRODUCTS. THEY MAY BE DIFFICULT TO REMOVE PRIOR TO FINAL SEEDING.



MULTIPOND ELEVATION TABLE

BASIN	WEIR ELEV.	PERMANENT POOL ELEV.
D	N/A	203.00'
G	206.00'	203.00'
H	206.00'	203.00'
I	206.00'	203.00'
J	206.00'	203.00'

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NEW YORK STATE DEPARTMENT OF HEALTH

TOWN OF BETHELEHEM PLANNING BOARD

ALBANY COUNTY HEALTH DEPARTMENT

TOWN OF BETHELEHEM PLANNING BOARD

Site Plan Approved

DATE 01/23/2012

SPA 165 A1

The Contractor shall verify and be responsible for all dimensions. Do NOT scale the drawing - any errors or omissions shall be the responsibility of the Contractor. The Contractor shall be responsible for all dimensions. Do NOT scale the drawing - any errors or omissions shall be the responsibility of the Contractor.

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STORMWATER MANAGEMENT - BASINS D, G, H, I, & J

VAN DYKE SPINNEY
AT DELMAR, NEW YORK
VAN DYKE ROAD
TOWN OF BETHELEHEM - COUNTY OF ALBANY - STATE OF NEW YORK

DATE	REVISIONS
1/26/10	REVISED PER TOWN COMMENTS - RESUBMIT TO ENG. DEPT.
4/29/10	REVISED PER TOWN COMMENTS - RESUBMIT TO PLAN BOARD
2/22/10	REVISED PER TOWN COMMENTS - RESUBMIT TO PLAN BOARD
2/22/10	REVISED PER TOWN COMMENTS - RESUBMIT TO PLAN BOARD
10/22/09	REVISED PER TOWN COMMENTS - RESUBMIT TO PLAN BOARD
9/22/09	REVISED PER TOWN COMMENTS - RESUBMIT TO PLAN BOARD

Drawn: RES/DH
Checked: KJM
Approved: [Signature]
Project No.: 0540811
Date: Sept. 2009

SWM-2
Phase 1

Sheet No.