

BERM CONSTRUCTION NOTES:

1. FILL MATERIAL USED FOR CONSTRUCTION OF THE POND BERMS SHALL BE CLAYEY SOIL, FREE OF STOL, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, AND OBTAINED FROM LOCATIONS SELECTED BY THE PA GAME COMMISSION, EXCEPT AS NOTED IN ITEMS 2 THROUGH 5.
2. AT THE BASE OF THE FILL, GRANULAR MATERIAL SHALL BE USED FOR THE INITIAL FILL TO PROVIDE A STABLE BASE ON SATURATED SWAMPY SOILS. THIS MATERIAL SHALL ALSO BE OBTAINED FROM A LOCATION SELECTED BY THE PA GAME COMMISSION, EXCEPT AS NOTED IN ITEMS 2 THROUGH 5.
3. IN THE EVENT OF REMOVAL OF SWAMPY WATER AND OTHER UNSUITABLE BASE MATERIALS AS DETERMINED BY THE ENGINEER, THE FILL SHALL BE OBTAINED FROM A LOCATION SELECTED BY THE ENGINEER.
4. THE FILL SHALL BE SPREAD FOR FILL PLACEMENT, THE INITIAL LIFT OF GRANULAR FILL SHALL BE PLACED AND SPREAD UNIFORMLY OVER THE ENTIRE BASE FOR EACH BERM.
5. THE FILL SHALL BE SPREAD IN A TOTAL THICKNESS NOT TO EXCEED 2 FEET, AND COMPACTED VIA MULTIPLE PASSES OF THE CONSTRUCTION EQUIPMENT.
6. THE FILL SHALL BE SPREAD IN A TOTAL THICKNESS NOT TO EXCEED 2 FEET, AND COMPACTED UNTIL THE FILL HEIGHT IS ROUGHLY LEVEL WITH (BUT NOT MORE THAN 6 INCHES HIGHER THAN) THE SURROUNDING EXISTING GROUND SURFACE.
7. ONCE THE GRANULAR BASE HAS BEEN PLACED AND COMPACTED, ADDITIONAL LAYERS SHALL BE PLACED AND SPREAD UNIFORMLY OVER THE ENTIRE BASE FOR EACH BERM.
8. THE FINAL SURFACES (INSIDE AND OUTSIDE SLOPES, AND TOP OF BERM) SHALL BE SPREAD TO A SMOOTH, UNIFORM SLOPE, AND COVERED WITH TOP-SOIL MATERIAL.
9. DURING FILL PLACEMENT, IF THE MATERIAL BECOMES SATURATED OR EXCESSIVELY WET, IT SHALL BE REMOVED AND REPLACED WITH DRY MATERIAL.

GEOTEXTILE NOTES:

1. GEOTEXTILES SHALL CONFORM TO THE REQUIREMENTS LISTED IN THE TABLE BELOW.
2. GEOTEXTILE SHALL BE PLACED ON A REASONABLY SMOOTH SURFACE, FREE OF LOOSE ROCK AND CLODS, HILLS, DEPRESSIONS, PROJECTIONS, MUDDY CONDITIONS, AND STANDING OR FLOWING WATER.
3. THE GEOTEXTILE SHALL BE PLACED ON A REASONABLY SMOOTH SURFACE, FREE OF LOOSE ROCK AND CLODS, HILLS, DEPRESSIONS, PROJECTIONS, MUDDY CONDITIONS, AND STANDING OR FLOWING WATER.
4. THE GEOTEXTILE SHALL BE JOINED BY MACHINE SEWING USING THERMO-SEWING.
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REQUIREMENTS FOR NONWOVEN GEOTEXTILES:

PROPERTY	TEST METHOD	REQUIREMENT
TENSILE STRENGTH	ASTM D 4632 (LBS)	200 LBS MIN.
TEAR STRENGTH	ASTM D 3786 (PSI)	400 PSI MIN.
PUNCTURE STRENGTH	ASTM D 4633 (LBS)	90 LBS MIN.
UV LIGHT	ASTM D 4585 (H)	70% MIN.
APPROXIMATE OPENING SIZE	ASTM D 4632 (U.S. SIEVE)	#70 MAX.
PERMEABILITY	ASTM D 4491 (1/SEC)	0.70 MIN.

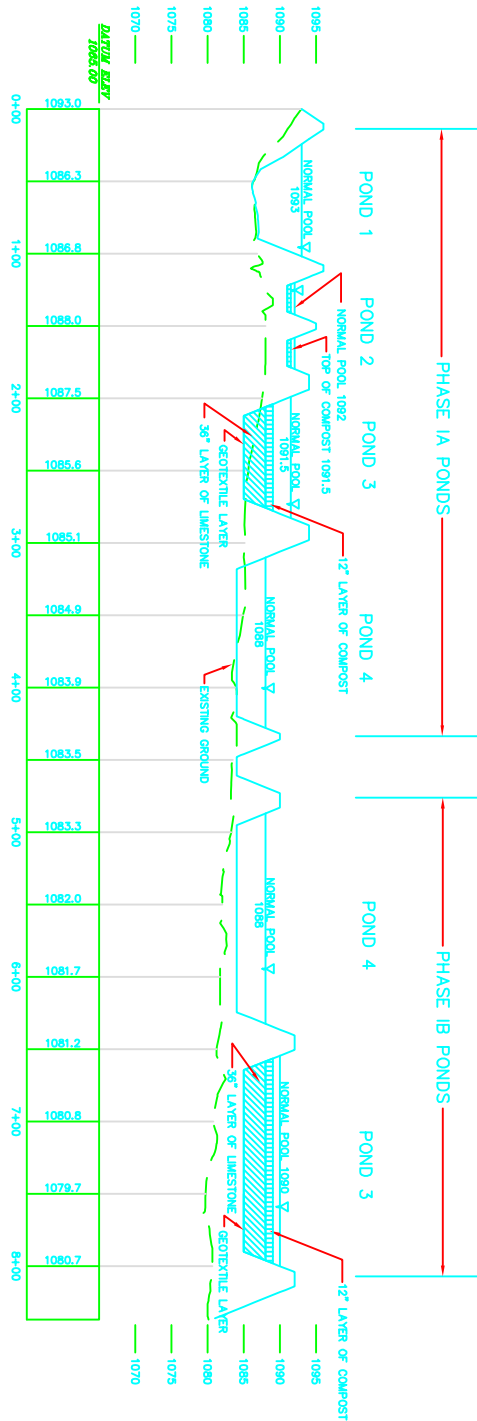
PIPING NOTES:

1. ALL PIPES SHALL BE SCHEDULE 80 PVC.
2. PIPE SHALL BE STORED ON A RELATIVELY FLAT SURFACE.
3. PIPE SHALL BE LAYED SO THAT THERE IS NO KINKING OR BENDING OF THE PIPE.
4. IRON BALL OR GATE VALVES WITH STEEL NOTED.
5. ALL VALVES SHALL BE APPROVED BY THE ENGINEER PRIOR TO PURCHASE.
6. APPROPRIATE DIAMETER PVC Casing WITH A LOCKING COVER.
7. NECESSARY HOLES WILL BE SPACED EVENLY ALONG THE LENGTH OF THE PIPE.
8. PIPES TO BE JOINED WILL BE CLEAN AND FREE FROM SWIRLS, PVC GRUBS, ETC.
9. TO THE APPLICATION OF SOLVENT CEMENT, THE PIPE SHALL BE FINELY AND UNIFORMLY JOINTED.
10. EXISTING MATERIALS USED FOR BEDDING SHALL BE REMOVED AND REPLACED WITH A 1 INCH DIAMETER AND EARTH CLOS GREATER THAN 1 INCH DIAMETER.
11. A BEDDED GROOVE OF PIPE LENGTH AND OR FITTING LOCATION SO THAT THE PIPE IS UNIFORMLY SUPPORTED ALONG ITS ENTIRE LENGTH.

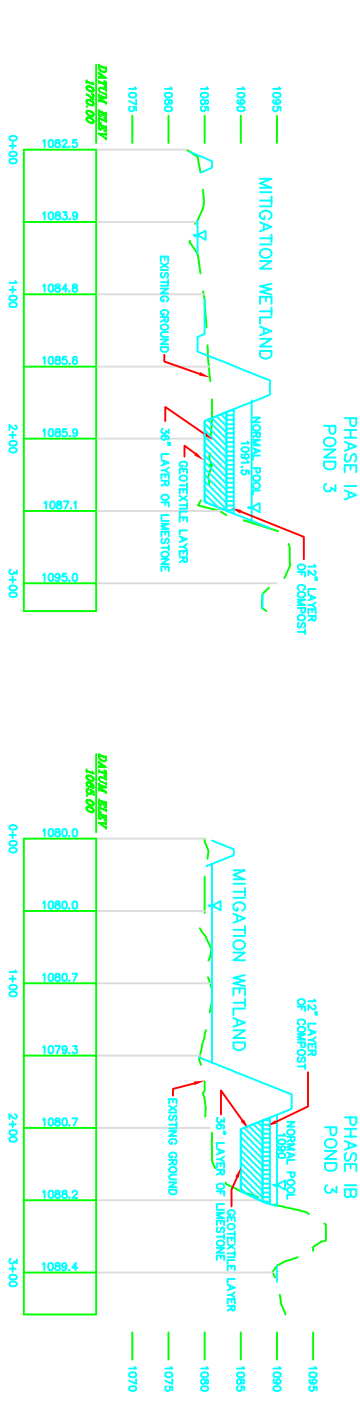
PLANTING NOTES:

1. ALL TREES SHALL BE REMOVED FROM THE BOTTOM OF ALL POND 3 EXCAVATIONS.
2. COMPOST USED IN PONDS 2 AND 3 SHALL CONTAIN A MAXIMUM OF 50% LEAF LITTER TYPE COMPOST WITH A MINIMUM OF 50% TOPSOIL BY VOLUME.
3. PERENNIAL, TREGRASS AND SOFT ANNUAL REGRASS AT A RATE OF 10 POUNDS PER ACRE.
4. POND 2 SHALL BE SEEDS AS FOLLOWS:

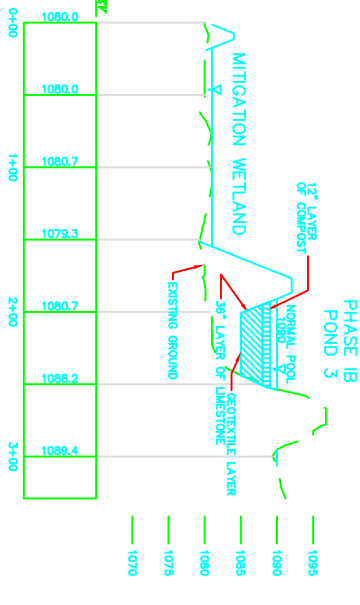
SEED	SEED	SEED
21% BY VOLUME	45% BY VOLUME	34% BY VOLUME
SPOTT RUSH (JUNCUS EFFUSUS)	SEED	SEED
SPOTT RUSH (JUNCUS EFFUSUS)	SEED	SEED
SPOTT RUSH (JUNCUS EFFUSUS)	SEED	SEED
SPOTT RUSH (JUNCUS EFFUSUS)	SEED	SEED
SPOTT RUSH (JUNCUS EFFUSUS)	SEED	SEED
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SPOTT RUSH (JUNCUS EFFUSUS)	SEED	SEED
SPOTT RUSH (JUNCUS EFFUSUS)	SEED	SEED



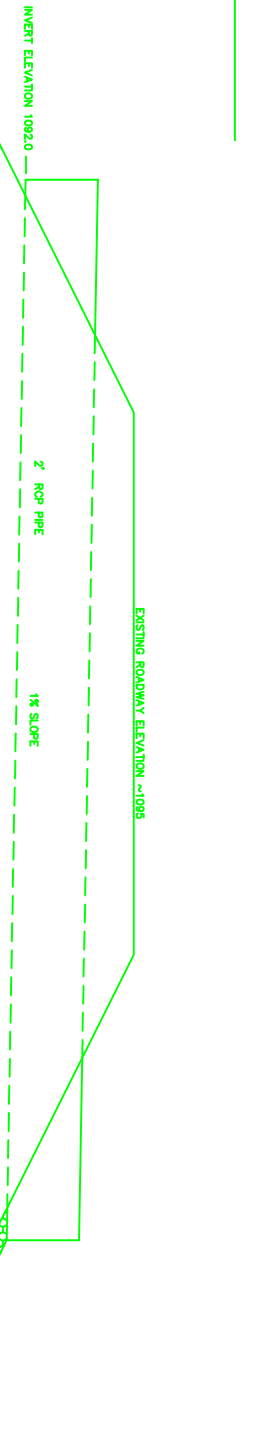
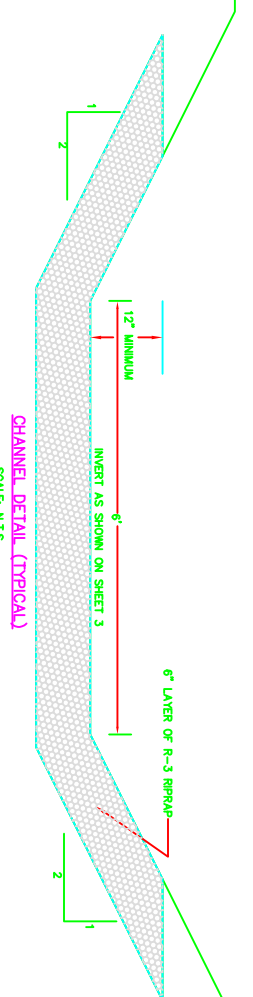
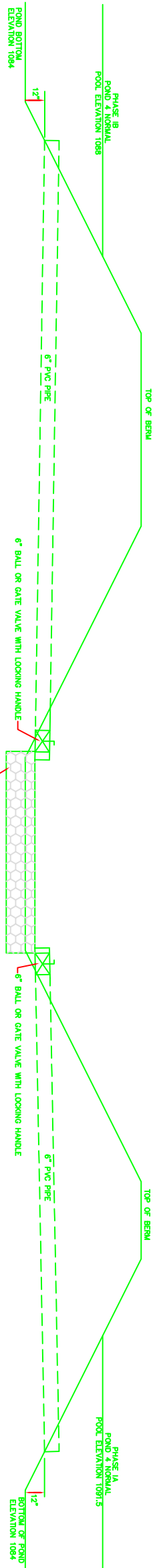
SECTION A-A'



SECTION B-B'



SECTION C-C'



- NOTES:
1. SLOPE 1% DOWNSTREAM.
 2. PHASE 1A EMERGENCY SPILLWAY AND PHASE 1A AND 1B POND 4 OUTLETS.

- PHASE 1B EMERGENCY SPILLWAY CULVERT
- SCALE: N.T.S.