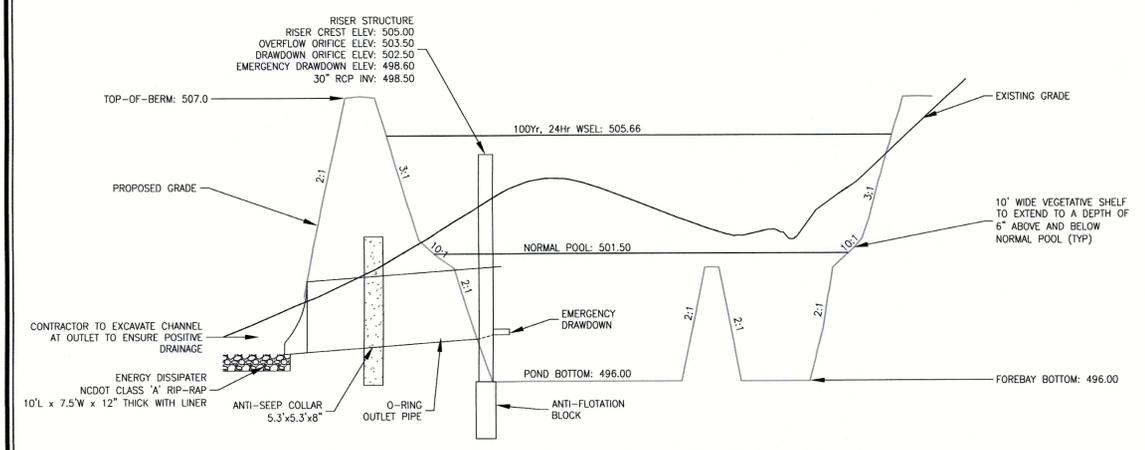
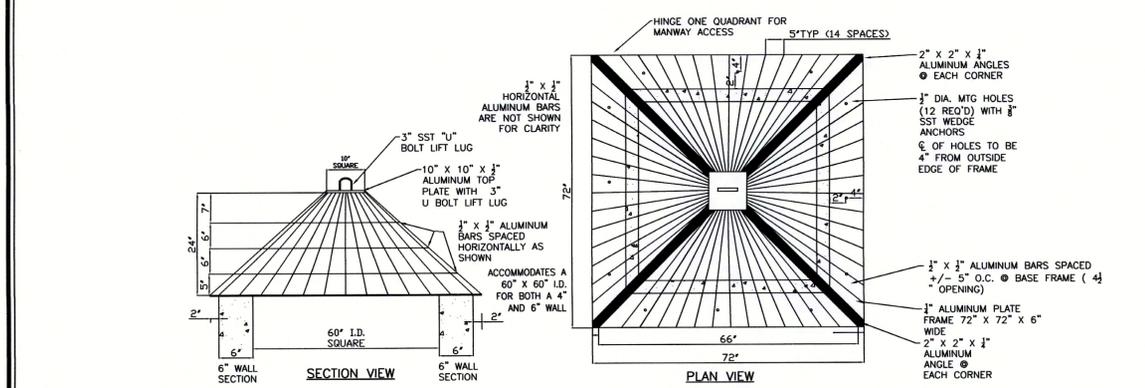


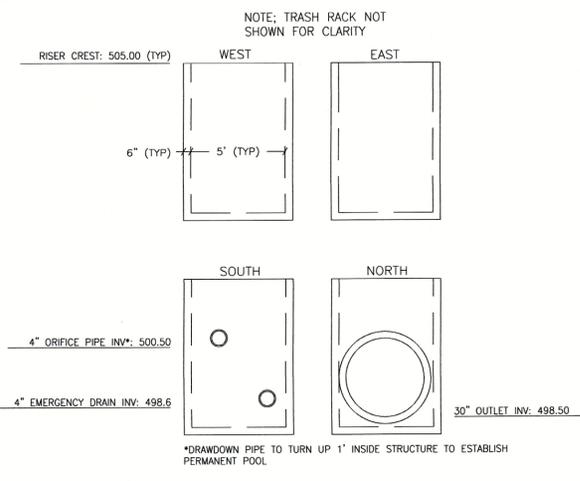
SCM #1 - WETPOND - PLAN VIEW
1" = 30'



SCM #1 - WETPOND - PROFILE VIEW
1" = 30'



TRASH RACK DETAIL
NTS



RISER #1 DETAILS
NTS

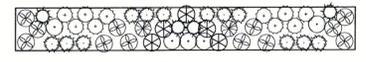
PLANTING REQUIREMENTS

SHALLOW WATER (NORMAL POOL TO 6" BELOW) = 1,972 SF 50 HERB. PLANTS / 200 SF = 493 PLANTS

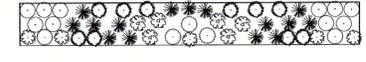
PLANT TYPE	QTY	BOTANICAL NAME	COMMON NAME	ROOT CALIPER	NOTES
HERBACEOUS	70	<i>Acorus calamus</i>	Sweet Flag	CONT. 1 Gal.	24" O.C.
	70	<i>Acorus calamus 'Variegata'</i>	Variegated Sweet Flag	CONT. 1 Gal.	24" O.C.
	70	<i>Peltandra virginica</i>	Arrow arum	CONT. 1 Gal.	24" O.C.
	70	<i>Pontederia cordata</i>	Pickersweed	CONT. 4" Pot	24" O.C.
	70	<i>Sagittaria latifolia</i>	Broadleaf Arrowhead	CONT. 1 Gal.	24" O.C.
	70	<i>Saururus cernuus</i>	Lizard's tail	CONT. 4" Pot	24" O.C.
	73	<i>Schoenoplectus tabernaemontani</i>	Golfstem Bulrush	CONT. 4" Pot	24" O.C.

SHALLOW LAND (NORMAL POOL TO 6" ABOVE) = 1,951 SF 50 HERB. PLANTS / 200 SF = 488 PLANTS

PLANT TYPE	QTY	BOTANICAL NAME	COMMON NAME	ROOT CALIPER	NOTES
HERBACEOUS	81	<i>Carex stricta</i>	Tussock Sedge	CONT. 4" Pot	24" O.C.
	81	<i>Iris versicolor</i>	Northern Blue Flag Iris	CONT. 4" Pot	24" O.C.
	81	<i>Iris virginica</i>	Southern Blue Flag Iris	CONT. 4" Pot	24" O.C.
	81	<i>Juncus effusus</i>	Soft Rush	CONT. 4" Pot	24" O.C.
	81	<i>Lobelia cardinalis</i>	Cardinal Flower	CONT. 4" Pot	24" O.C.
	83	<i>Scirpus cyperinus</i>	Woolgrass	CONT. 1 Gal.	24" O.C.



TYPICAL WETLAND SHALLOW WATER HERBACEOUS PLANTING DETAIL (SCM #7)
(+/- 200 S.F.)



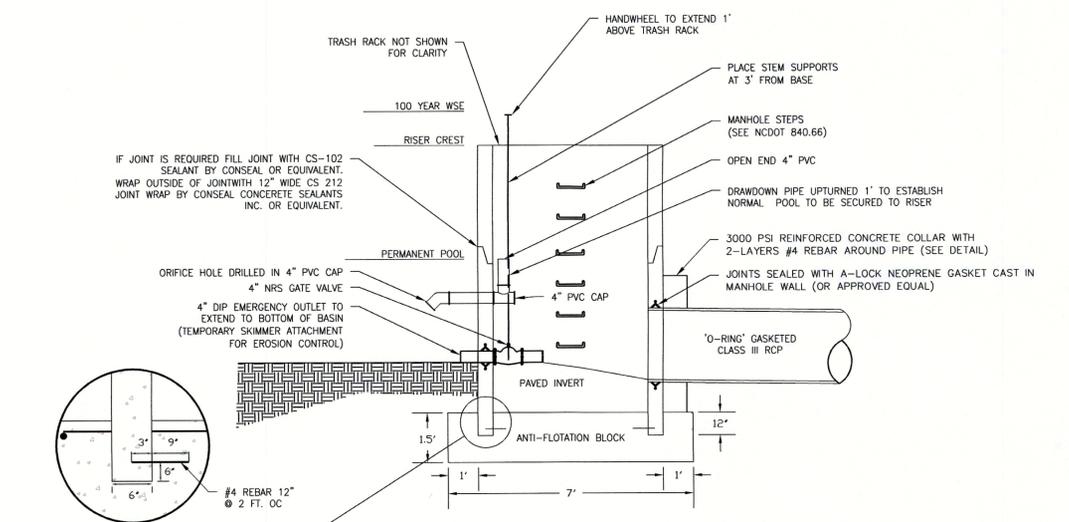
TYPICAL WETLAND SHALLOW LAND HERBACEOUS PLANTING DETAIL (SCM #7)
(+/- 200 S.F.)

NCDWQ BMP MANUAL SECTION 6.6.2 (2007) : PLANTING AND AFTER CARE IN GENERAL, FALL AND WINTER ARE OPTIMAL FOR PLANTING IN NORTH CAROLINA. THERE ARE SOME EXCEPTIONS. SHALLOW WATER PLANTS SHOULD BE INSTALLED BETWEEN APRIL 1 AND JULY 15 IN NORTH CAROLINA. WINTER PLANTING IS DIFFICULT WITH SHALLOW WATER PLANTS.

CLAY LINER SPECIFICATIONS
THE CLAY LINER FOR THE WET POND SHALL BE AT LEAST 8" THICK AND MEET THE FOLLOWING SPECIFICATIONS:

- UNIFIED SOIL CLASSIFICATION SYSTEM DESIGNATION OF CL, CH, ML, SC
- MINIMUM OF 40% PASSING #200 SIEVE
- MINIMUM PLASTICITY INDEX OF 12
- MAXIMUM INFILTRATION RATE OF 0.01 IN/HR.
- A MINIMUM OF 2 TESTS OF EACH ABOVE PARAMETER SHALL BE COMPLETED BY THE CONTRACTOR ON THE LINER MATERIAL AND PRESENTED TO THE ENGINEER FOR APPROVAL.
- COMPACTION TO A MINIMUM OF 93% PER ASTM D698, AND WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT (1 COMPACTION DENSITY TEST PER 2500 SQ. FT.)

THE CLAY LINER SHALL BE PLACED UNDER THE BOTTOM OF THE BMP PERMANENT POOL TO A THICKNESS OF 8 INCHES. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE THE FINISHED GRADE AS SHOWN ON THE DRAWINGS AND/OR DETAILS. CARE SHALL BE TAKEN WHEN TRACKING IN THE TOPSOIL TO NOT PUNCTURE OR DAMAGE THE CLAY. A CLAY/SOIL MIXTURE MAY BE USED IF THE ABOVE SPECIFICATIONS ARE SATISFIED AND WITH WRITTEN APPROVAL BY THE ENGINEER.



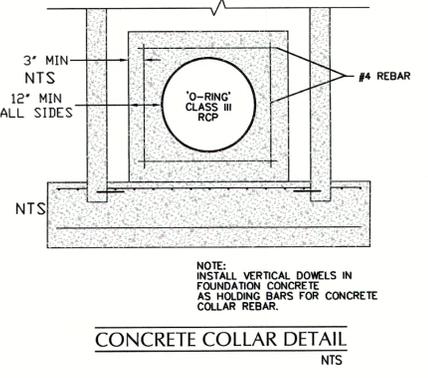
ANCHOR DETAIL (TYPICAL) NTS
SCM RISER & DRAWDOWN DEVICE DETAIL NTS

SCM #1 DESIGN DATA

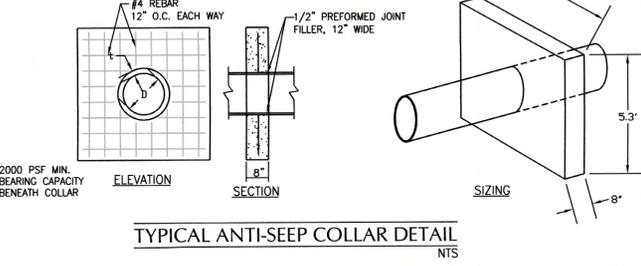
	DIMENSIONS	ELEV.
TOP OF BERM	10' WIDE	507.00
100 YEAR WSE		505.66
RISER CREST ELEV.	5' ID x 5' ID RCP BOX	505.00
RISER FOOTING BOTTOM ELEV.	5' ID x 5' ID RCP BOX	495.00
OVERFLOW ORIFICE	4.0" PVC	503.50
NORMAL POOL	6,696 SQFT	501.50
DRAWDOWN ORIFICE *	1.5" PVC	502.50
POND BOTTOM	1,441 SQFT	496.00
HIGH FLOW BYPASS	OUTLET PIPE INVERT UP	59 LF 30" RCP
	OUTLET PIPE INVERT DOWN	0.85%
		498.00

*DRAWDOWN PIPE TO TURN UP 1' INSIDE STRUCTURE TO ESTABLISH PERMANENT POOL

- STORMWATER SCM NOTES:**
- PRIOR TO CONSTRUCTION, ANY DISCREPANCIES IN THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER FOR RESOLUTION.
 - ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF PITTSBORO STANDARDS AND SPECIFICATIONS.
 - THE OWNER SHALL ENGAGE A GEOTECHNICAL ENGINEER FOR CONSTRUCTION OBSERVATION AND TESTING.
 - GEOTECHNICAL ENGINEER SHALL EVALUATE SOILS ONSITE FOR SUITABILITY OF DAM CONSTRUCTION AND SLOPE STABILITY. PROFESSIONAL CERTIFICATION OF EMBANKMENT CONSTRUCTION IS REQUIRED FOR AS-BUILT CERTIFICATION.
 - DAM TO BE CONSTRUCTED PER THE FOLLOWING SPECIFICATIONS UNLESS SUPERSEDED BY GEOTECHNICAL ENGINEER'S RECOMMENDATIONS:
 - BORROW MATERIALS FOR USE AS EMBANKMENT FILL SHALL BE FREE OF ORGANICS, ROOTS AND OTHER WOODY VEGETATION OR ORGANIC DEBRIS. MATERIALS SHALL CONSIST OF SOILS WHICH CLASSIFY AS SC, SM, CL, CL-CH AND ML IN ACCORDANCE WITH THE UNIFIED CLASSIFICATION SYSTEM OR AS APPROVED BY THE GEOTECHNICAL ENGINEER WITH A MAXIMUM PARTICLE SIZE SHALL OF 3" OR LESS IN MEAN DIAMETER.
 - FILL SHALL BE PLACED IN 8" (MAXIMUM) LIFTS UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER. FILL SHALL BE BROUGHT UP BY BENCHING INTO THE EXISTING SLOPE. THE MAXIMUM HEIGHT OF 2FT SHALL BE USED FOR EACH BENCH LIFT TAKING CARE TO REMOVE ROOT STRUCTURES AS THE FILL PROCEEDS. SURFACE OF EACH LIFT SHALL BE SCARIFIED PRIOR TO PLACEMENT OF THE NEXT LIFT IN ORDER TO EFFECTIVELY TIE THE FILL LIFTS TOGETHER.
 - ALL COMPACTION SHALL BE TESTED BY THE SAND CONE METHOD (ASTM D-1556) OR NUCLEAR METHOD AT A RATE OF AT LEAST ONE TEST PER 5,000 SF PER ONE FOOT OF COMPACTED FILL THICKNESS IN GENERAL AREA FILLS AND ONE TEST PER 50 LINEAL FEET PER LIFT ALONG THE BARREL. THE MINIMUM COMPACTION SHOULD BE 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY (ASTM D-698) AT MOISTURE CONTENTS VARYING FROM 2 PERCENT BELOW TO 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT TO WITHIN 3FT OF THE FINAL GRADE.
 - THE GEOTECHNICAL ENGINEER SHALL VERIFY PIPE BEDDING, RISER BEDDING, PIPE JOINT INTEGRITY AND PROPER COMPACTION AROUND THE PIPE, RISER AND ANTI-SEEP COLLAR.
 - DURING CONSTRUCTION, THE SCM IS TO BE USED AS AN EROSION CONTROL DEVICE. THE FOREBAY WILL NOT BE REQUIRED WHILE SCM IS ACTING AS AN EROSION CONTROL DEVICE.
 - ALL PERMANENT STRUCTURES (I.E. RISER BOX, OUTLET PIPES, ANTI-SEEP COLLAR, ETC.) ARE TO BE INSTALLED WITHIN THE INITIAL DAM CONSTRUCTION.
 - CONTRACTOR TO PROVIDE SHOP DRAWINGS TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING STRUCTURES.
 - ONCE THE SITE HAS BEEN STABILIZED, CONTRACTOR SHALL OBTAIN APPROVAL BY EROSION CONTROL INSPECTOR IN ORDER TO REMOVE EROSION CONTROL DEVICES.
 - ONCE ALL SEDIMENT AND EROSION CONTROL DEVICES HAVE BEEN REMOVED, THE SCM SHALL BE CONVERTED TO A PERMANENT SCM.
 - ALL SEDIMENT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
 - FOREBAY AND VEGETATED SHELF SHALL BE CONSTRUCTED PER THIS PLAN.
 - VEGETATED SHELF SHALL BE PLANTED PER PLANT SCHEDULE ON THIS SHEET.
 - TOWN OF PITTSBORO REQUIRES FINAL CERTIFICATION OF SCM BY PROFESSIONAL ENGINEER.
 - STOCKPILED TOPSOILS USED IN PLANTING AREAS SHALL CONTAIN AT LEAST 10% ORGANIC MATERIAL. PROFESSIONAL CERTIFICATION OF PLANTING SOIL MATERIALS IS REQUIRED.
 - FOLLOWING SCM CONVERSION TO A PERMANENT SCM, THE TOWN OF PITTSBORO WILL BE PROVIDED AS-BUILT PLANS OF THE SCM.
 - CONTACT TOWN OF PITTSBORO FOR FINAL CERTIFICATION OF SCM ONCE CONSTRUCTION HAS BEEN COMPLETED.



CONCRETE COLLAR DETAIL
NTS



TYPICAL ANTI-SEEP COLLAR DETAIL
NTS

TOWN CERTIFICATION: THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF PITTSBORO, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF PITTSBORO.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF PITTSBORO AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

GRAPHIC SCALE
1 inch = 30 ft.

No.	Revision	Date	By

Designer: WithersRavenel
Scale: _____
Drawn By: WRP
Date: 3/21/2016
Checked By: LCD
Job No: 02160129.0

POWELL PLACE - LOT 4
Town of Pittsboro
Chatham County
North Carolina

STORMWATER CONTROL MEASURE (SCM) #1
PLANS & DETAILS

WithersRavenel
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Sheet No.
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