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FILTER DIAPHRAGM DETAIL



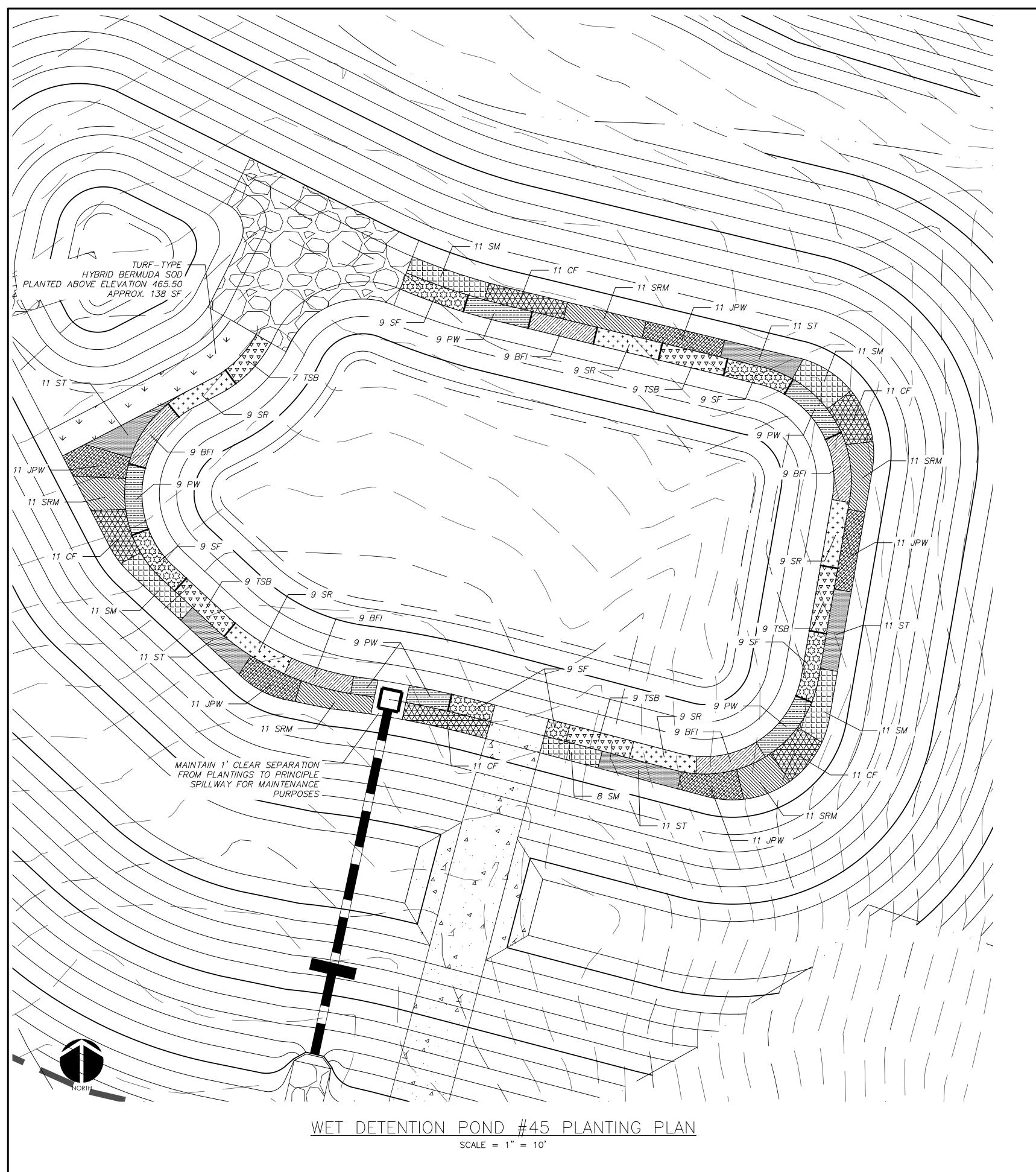
# **BRIAR CHAPEL** PHASE 14 CHATHAM COUNTY, NORTH CAROLINA

BMP #45 PLAN & DETAILS

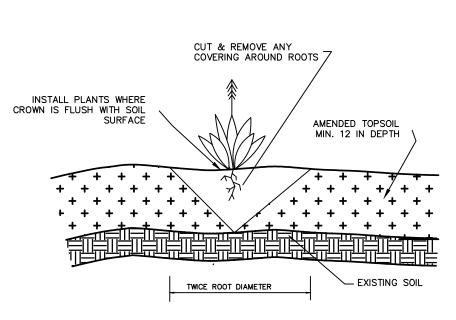
DATE:	MAY 9, 2019
MCE PROJ. #	02735-0239
ORAWN	DCR
DESIGNED	DCR
CHECKED	GCA

SCALE HORIZONTAL AS NOTED VERTICAL: N/A

FINAL DRAWINGS
RELEASED FOR CONSTRUCTION



	PLANTING SCHEDULE					
SYM.	ABB.	COMMON NAME	BOTANICAL NAME	QUANTITY	SPACING	CONTAINER SIZE AT PLANTING
SHALL	SHALLOW WATER PLANTINGS					
	SF	SWEETFLAG	Acorus subcordatum	45	24"-30" O.C.	1 QT.
	PW	PICKERELWEED	Pontederia cordata	45	24"-30" O.C.	1 QT.
	BFI	BLUE FLAG IRIS	Iris virginica	45	24"-30" O.C.	1 QT.
+ + + + + + + + + + + + + + + + + + + +	SR	SOFT RUSH	Juncus effusus var. pylaei or solutus	45	24"-30" O.C.	1 QT.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	TSB	THREE SQUARE BULRUSH	Schoenoplectus americanus	43	24"-30" O.C.	1 QT.
SHALLOW LAND PLANTINGS						
	SM	SWAMP MILKWEED	Asclepias incarnata	52	24"-30" O.C.	1 QT.
	CF	CARDINAL FLOWER	Lobelia cardinalis	55	24"-30" O.C.	1 QT.
	SRM	SCARLET ROSE MALLOW	Hibiscus coccineus	55	24"-30" O.C.	1 QT.
	JPW	DWARF JOE PYE WEED	Eupatoriadelphus dubius	55	24"-30" O.C.	1 QT.
	ST	SPOTTED TRUMPETWEED	Eupatoriadelphus maculatus	55	24"-30" O.C.	1 QT.



GENERAL PLANTING DETAIL

EACH VARIETY OF PLANT NOTED TO BE PLANTED SHALL BE IN GROUPS AS SHOWN ON THIS SHEET. SHALLOW WATER LIMITS OF 10:1 SHELF PLANT VARIETY 'A' SHALLOW WATER PLANT VARIETY 'B' 1. CONTINUE PLANTING SCHEME SHOWN FOR EACH OF THE 5 PLANT VARIETIES NOTED BELOW AROUND NORMAL POOL LEVEL ENTIRE LENGTH OF THE SHALLOW WATER PLANTING 2. CONTINUE PLANTING SCHEME SHOWN FOR EACH OF THE 5 PLANT VARIETIES NOTED BELOW AROUND ENTIRE LENGTH OF THE SHALLOW LAND PLANTING 3. OTHER SPECIES WITH SIMILAR GROWTH HABITS AND MAY BE APPROVED AS LISTED IN THE "STORMWATER BEST MANAGEMENT PRACTICES MANUAL" TABLE 9-1. PLANT VARIETY 'A' 24" O.C. (TYP) PLANT VARIETY 'B'

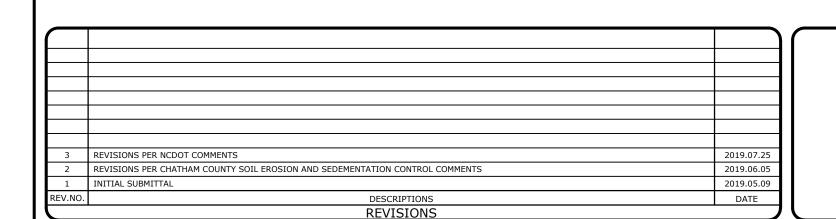
VEGETATED PLANTING SHELF DETAIL

#### **GENERAL PLANTING NOTES:**

- 1. AVOID COMPACTING TOPSOIL TO PROMOTE HEALTHY ENVIRONMENTAL CONDITIONS FOR THE PLANTS.
- 2. ALL PLANTS SHOULD BE PLANTED IN THE INDICATED RANGE TO ENSURE SURVIVAL.
- 3. SHALLOW WATER AND SHALLOW LAND AREAS TO BE PLANTED WITH BARE ROOT, PLUGS, OR CONTAINER LIVE PLANTINGS AS SPECIFIED.
- 4. EXCAVATE A HOLE TWICE THE DIAMETER OF ROOT BALL AND EQUAL TO THE ROOT DEPTH OF THE INDIVIDUAL PLANT. PLACE PLANT IN HOLE WITH CROWN FLUSH WITH SOIL SURFACE. BACKFILL WITH TOPSOIL AND LIGHTLY PLANT.
- 5. BEGIN PLANTING DURING LOCAL GROWING SEASON IN ORDER TO ENSURE THAT PLANTS HAVE ADEQUATE TIME TO ESTABLISH BEFORE WINTER MONTHS.
- 6. OBTAIN PLANTS FROM: COASTAL PLAIN CONSERVATION NURSERY (252-482-5707), MELLOW MARSH FARMS (919-742-1200), CURE NURSERY (919-542-6186) OR ENGINEER APPROVED SUBSTITUTE.
- 7. REFER TO EROSION CONTROL DETAIL SHEET D1.2 FOR SEEDBED PREPARATION AND SEEDING SCHEDULES FOR AREAS NOT SPECIFIED IN THIS PLAN.

#### SHALLOW WATER PLANTING NOTES:

- 1. 70% OF PICKERELWEED SHOULD BE PLANTED WITHIN 5-6 INCHES BELOW NORMAL POOL.
- 2. 70% OF SWEETFLAG AND 70% OF SOUTHERN BLUE FLAG IRIS SHOULD BE PLANTED IN THE 2-3 INCHES BELOW NORMAL POOL.
- 3. 70% OF SOFT RUSH SHOULD BE PLANTED AT THE NORMAL POOL ELEVATION.
- SHALLOW LAND PLANTING NOTES:
- 1. PLANTS IN THIS GROUP SHOULD NOT BE PLANTED IN AREAS THAT ARE INUNDATED FOR EXTENDED







1730 Varsity Drive, Suite 500 Raleigh, North Carolina 27606 Phone: (919)233-8091, Fax: (919)233-8031

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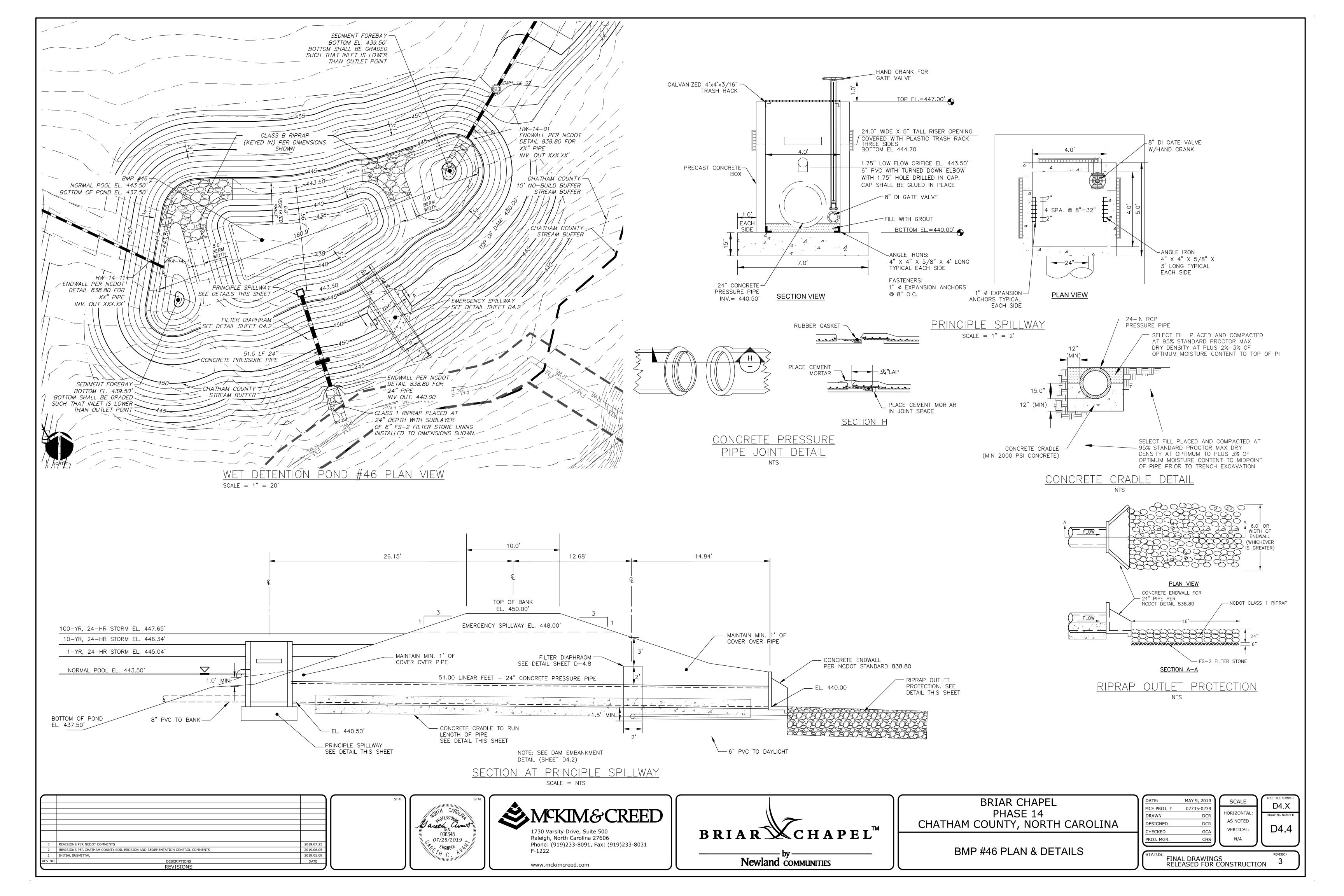
### **BRIAR CHAPEL** PHASE 14 CHATHAM COUNTY, NORTH CAROLINA

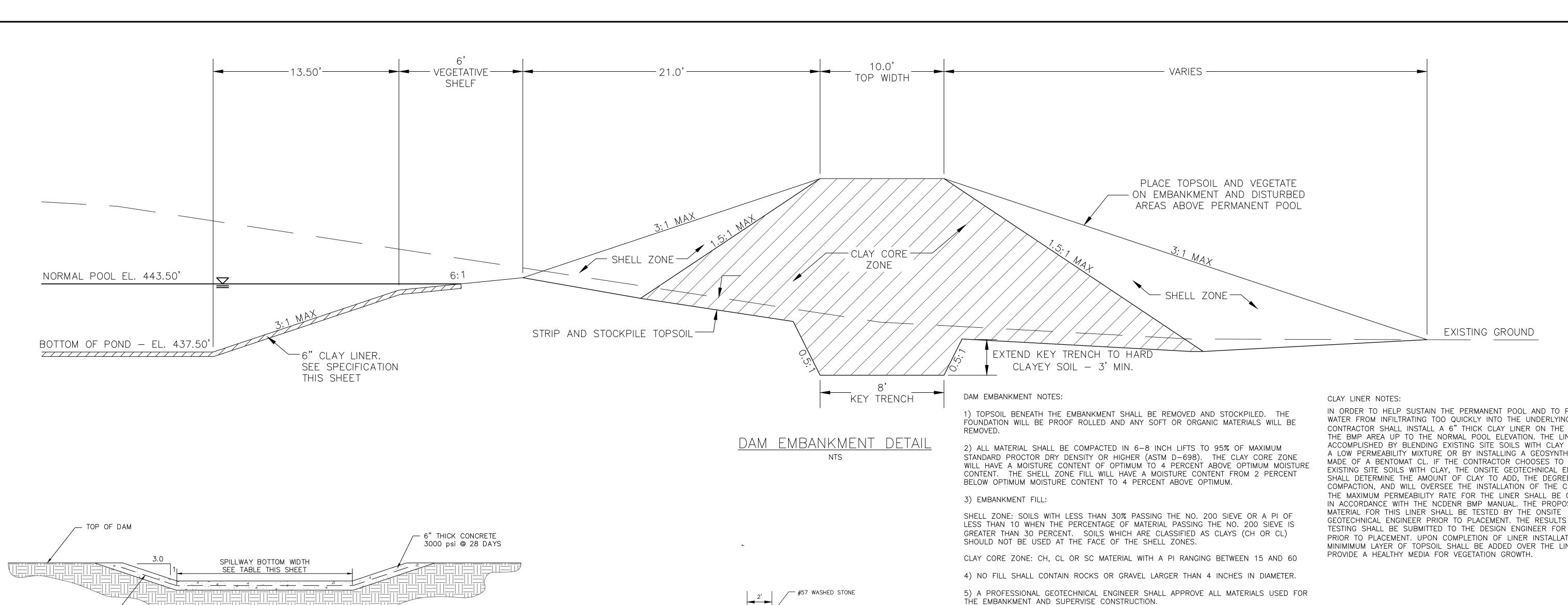
BMP #45 PLAN & DETAILS

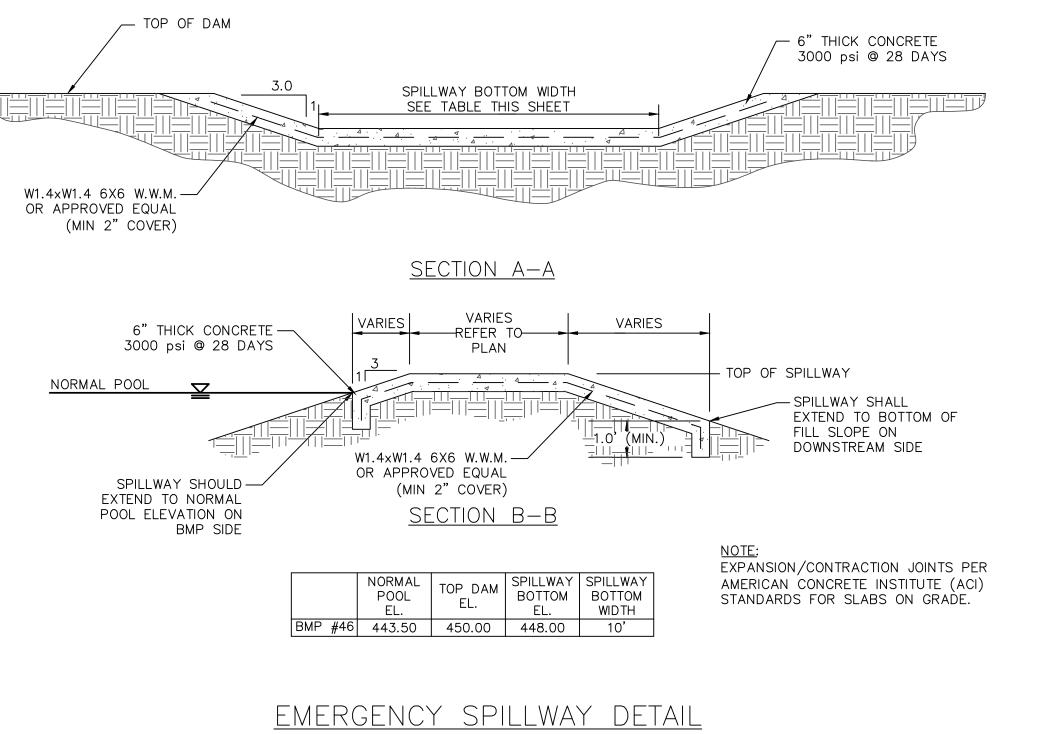
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DESIGNED	DCR
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ROJ. MGR.	CHS

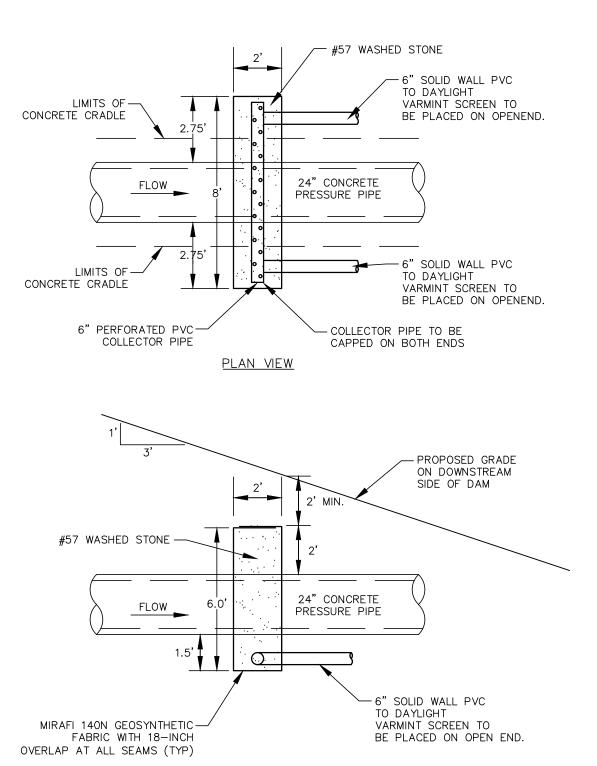
D4.X HORIZONTAL AS NOTED VERTICAL:

FINAL DRAWINGS RELEASED FOR CONSTRUCTION 3





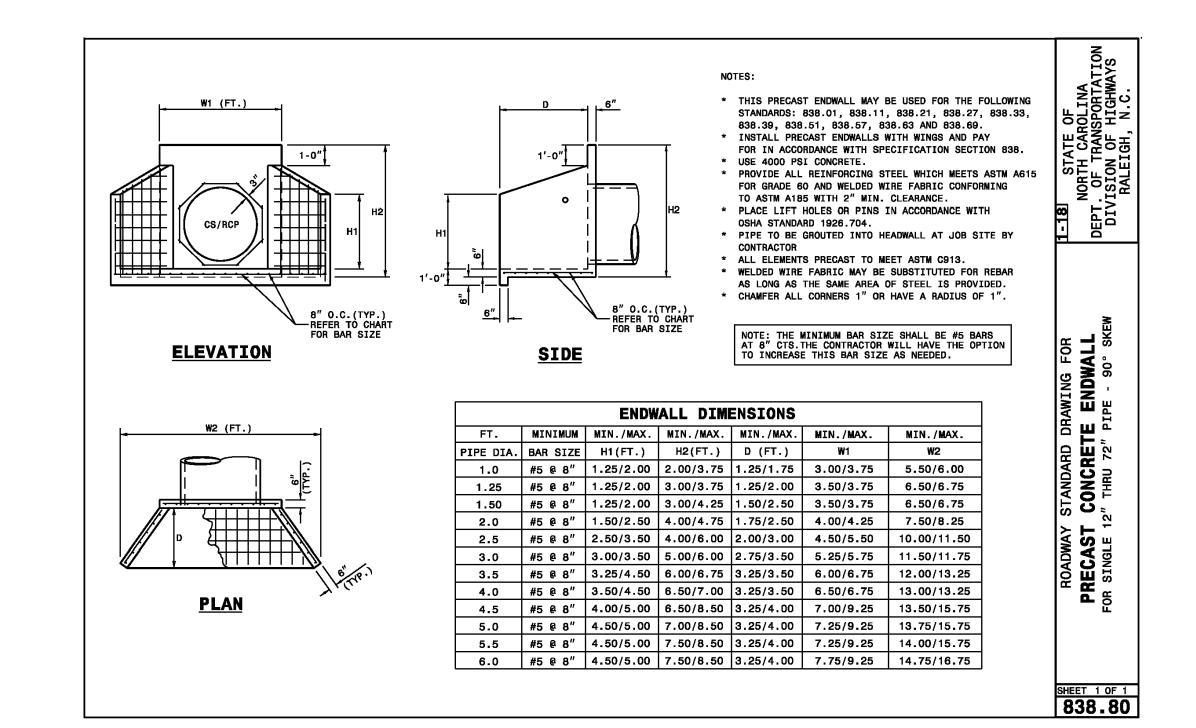




FILTER DIAPHRAGM DETAIL

SECTION VIEW

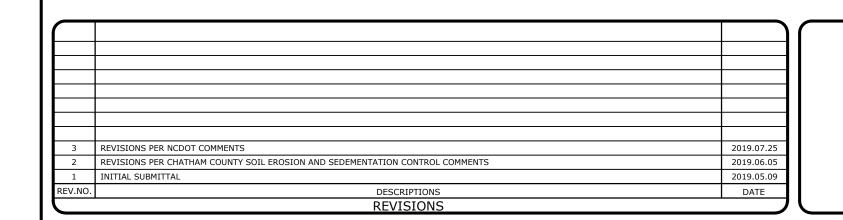
IN ORDER TO HELP SUSTAIN THE PERMANENT POOL AND TO PREVENT WATER FROM INFILTRATING TOO QUICKLY INTO THE UNDERLYING SOIL, THE CONTRACTOR SHALL INSTALL A 6" THICK CLAY LINER ON THE BOTTOM OF THE BMP AREA UP TO THE NORMAL POOL ELEVATION. THE LINER CAN BE ACCOMPLISHED BY BLENDING EXISTING SITE SOILS WITH CLAY TO ACHIEVE A LOW PERMEABILITY MIXTURE OR BY INSTALLING A GEOSYNTHETIC LINER MADE OF A BENTOMAT CL. IF THE CONTRACTOR CHOOSES TO BLEND THE EXISTING SITE SOILS WITH CLAY, THE ONSITE GEOTECHNICAL ENGINEER SHALL DETERMINE THE AMOUNT OF CLAY TO ADD, THE DEGREE OF COMPACTION, AND WILL OVERSEE THE INSTALLATION OF THE CLAY LINER. THE MAXIMUM PERMEABILITY RATE FOR THE LINER SHALL BE 0.01 IN/HR IN ACCORDANCE WITH THE NCDENR BMP MANUAL. THE PROPOSED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. THE RESULTS OF THIS TESTING SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR REVIEW PRIOR TO PLACEMENT. UPON COMPLETION OF LINER INSTALLATION, A 4" MINIMIMUM LAYER OF TOPSOIL SHALL BE ADDED OVER THE LINER TO

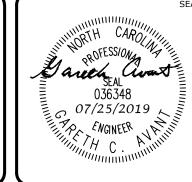


6) ALL DISTURBED AREAS ABOVE PERMANENT POOL SHALL BE SEEDED USING THE

Meadow Mix ERNMX-182

FÓLLOWING GRASS SEED MIX MANUFACTURED BY ERNST SEED COMPANY: Carolina FACW







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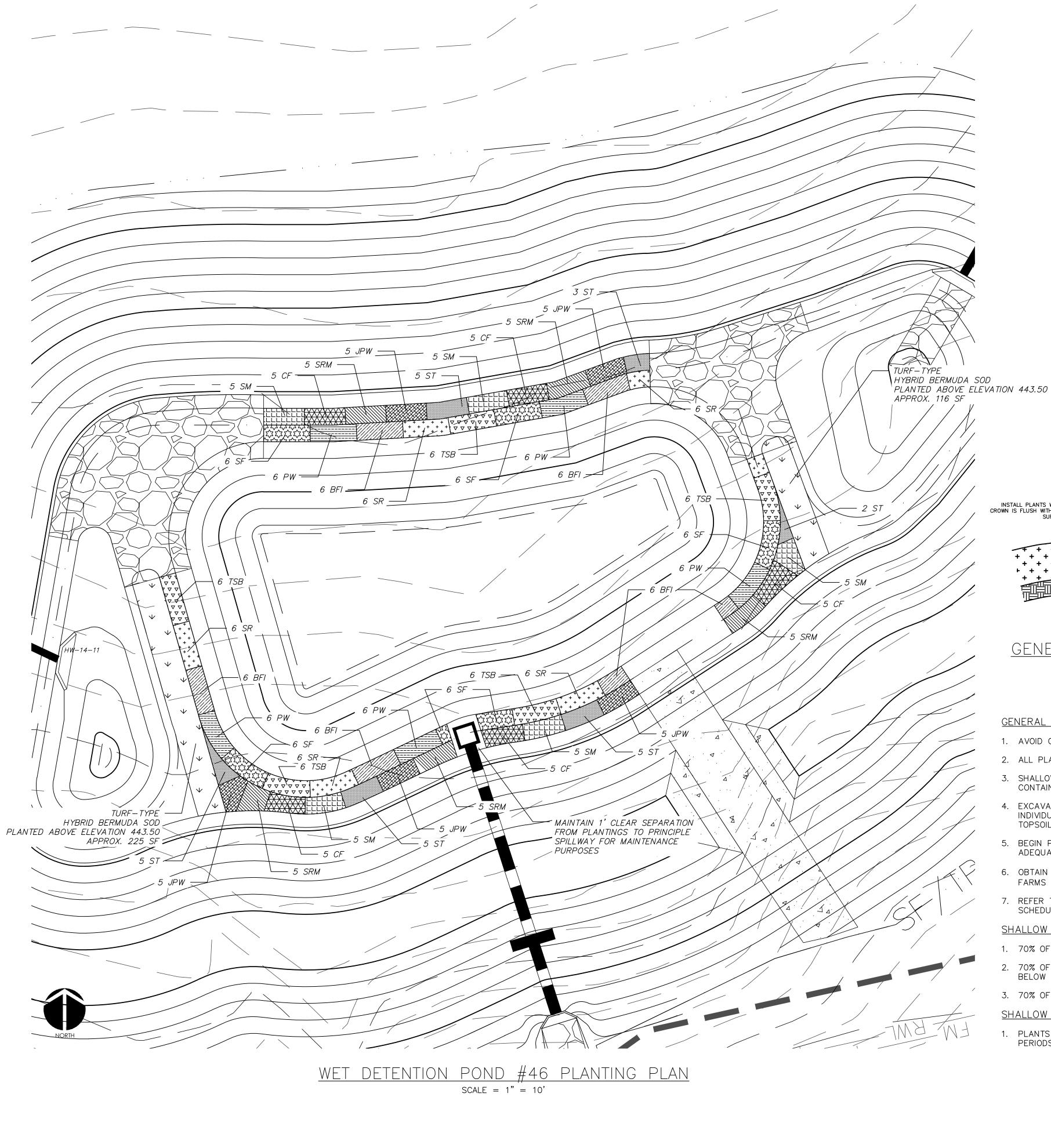
# **BRIAR CHAPEL** PHASE 14 CHATHAM COUNTY, NORTH CAROLINA

BMP #46 PLAN & DETAILS

DATE:	MAY 9, 2019
MCE PROJ. #	02735-0239
ORAWN	DCR
DESIGNED	DCR
CHECKED	GCA

SCALE HORIZONTAL AS NOTED VERTICAL: N/A

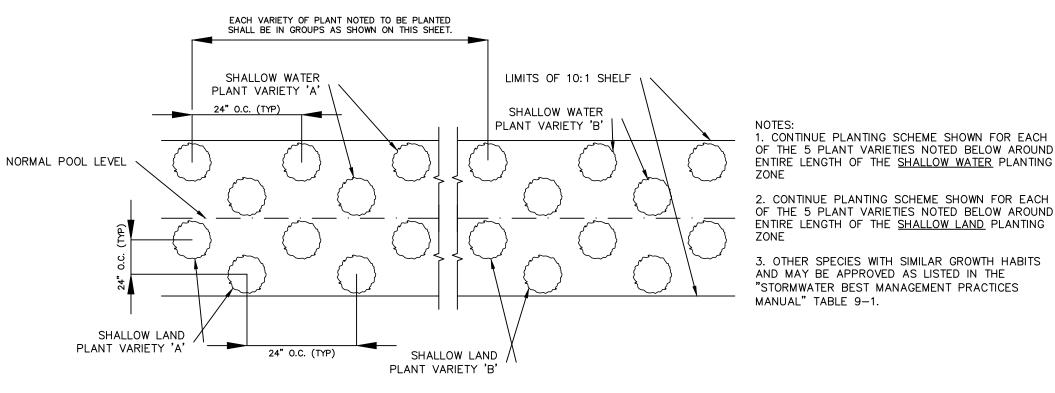
FINAL DRAWINGS
RELEASED FOR CONSTRUCTION



			PLANTING SCI	HEDULE	<u>-</u> -	
SYM.	ABB.	COMMON NAME	BOTANICAL NAME	QUANTITY	SPACING	CONTAINER SIZE AT PLANTING
SHALL	OW WA	ATER PLANTINGS				
	SF	SWEETFLAG	Acorus subcordatum	30	24"-30" O.C.	1 QT.
	PW	PICKERELWEED	Pontederia cordata	30	24"-30" O.C.	1 QT.
	BFI	BLUE FLAG IRIS	Iris virginica	30	24"-30" O.C.	1 QT.
+ + + + + + +	SR	SOFT RUSH	Juncus effusus var. pylaei or solutus	30	24"-30" O.C.	1 QT.
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·// <b>^ ^</b> //	ST	SPOTTED TRUMPETWEED	Eupatoriadelphus maculatus	25	24"-30" O.C.	1 QT.

COVERING AROUND ROOTS 7 INSTALL PLANTS WHERE CROWN IS FLUSH WITH SOIL SURFACE AMENDED TOPSOIL MIN. 12 IN DEPTH (+ + + +<sub>1</sub>/+ + + + + + +

GENERAL PLANTING DETAIL



VEGETATED PLANTING SHELF DETAIL

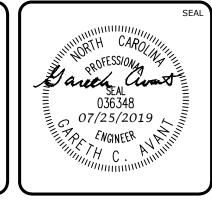
#### GENERAL PLANTING NOTES:

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REVISIONS PER NCDOT COMMENTS DESCRIPTIONS REVISIONS





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ATE:	MAY 9, 2019
CE PROJ. #	02735-0239
RAWN	DCR
ESIGNED	DCR
HECKED	GCA
ROJ. MGR.	CHS

HORIZONTAL AS NOTED D4.6 VERTICAL:

FINAL DRAWINGS RELEASED FOR CONSTRUCTION 3