

**JOINT**  
**PUBLIC NOTICE**

CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69A Hagood Avenue  
Charleston, South Carolina 29403-5107  
and the  
S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT  
1362 McMillan Avenue, Suite 400  
Charleston, South Carolina 29405

REGULATORY DIVISION

Refer to: P/N #2004-1W-347-C

12 NOVEMBER 2004

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et seq.) an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

**CITY OF CHARLESTON**  
**SABINE & WATERS, INC.**  
**P.O. BOX 1072**  
**SUMMERVILLE, SOUTH CAROLINA 29484**

for a permit to perform excavation and landclearing and to place fill material in wetlands associated with

**CHURCH CREEK**

at several locations at Bees Ferry Road across from the Shadowmoss Subdivision approximately 0.85 miles from the intersection of Bees Ferry Road and Highway 61 to Church Creek in the Canterbury Woods Subdivision in Charleston County, South Carolina (Latitude 32.833881°, Longitude: 80.068042°)

In order to give all interested parties an opportunity to express their views

**NOTICE**

is hereby given that written statements regarding the proposed work will be received by both of the above mentioned offices until

**12 O'CLOCK NOON, MONDAY, 13 DECEMBER 2004**

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed work will be conducted in two phases and consists of: Phase I, which will extend from Bees Ferry Road, within an existing CPW/SCDOT right of way, crossing portions of wetlands A, B and C, to the existing drainage pipe under the CSX Railroad. Phase I will impact approximately 1.34-acres of wetlands. Phase II, which will extend from the CSX Railroad,

across another portion of wetland C and then parallel along an SCE&G power line easement to a detention pond adjacent to Church Creek just southeast of Pinehurst Avenue in Canterbury Woods. Phase II will temporarily impact 0.16-acre of wetland C, necessary to bury a 10'X3' culvert and permanently impact approximately 0.54-acre of wetland C for ditch modification and/or construction. A total of 1010 cubic yards of excavated material will be placed in the wetland C in Phase I to construct two berms along the drainage ditch to avoid draining the adjacent wetlands and culverts will be 8' X 4' or 10' X 3' box culverts of appropriate length. Mitigation will be provided by acquiring 18.3 credits from an approved mitigation bank. According to the applicant, the overall project is a public benefit project and is necessary to address FEMA concerns about on going flooding and the number of repetitive damage claims. The overall project purpose is to improve the drainage in the Church Creek Watershed for the surrounding area in order to alleviate flooding in the Still Shadow section of the Shadowmoss Plantation Subdivision during storm events and to address future storm water needs.

**NOTE: Plans depicting the work described in this notice are available and will be provided, upon receipt of a written request, to anyone that is interested in obtaining a copy of the plans for the specific project. The request must identify the project of interest by public notice number and a self-addressed stamped envelope must also be provided for mailing the drawings to you. Your request for drawings should be addressed to the**

**U.S. Army Corps of Engineers  
ATTN: REGULATORY DIVISION  
69A Hagood Avenue  
Charleston, South Carolina 29403-5107.**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions the Coastal Zone Management Program (15 CFR 930). The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact 2.04 acres of freshwater wetlands upstream from estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. Our initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended), the applicant has provided a protected species survey for the property associated with the activity

described above. Based upon this report, the District Engineer has determined that the project is not likely to adversely affect any Federally endangered, threatened, or proposed species or result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request for written concurrence from the U.S. Fish and Wildlife Service (FWS Log No. 4-6-04-I-035) and/or the National Marine Fisheries Service on this determination.

The District Engineer has consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein, and this worksite is not included as a registered property or property listed as being eligible for inclusion in the Register. Consultation of the National Register constitutes the extent of cultural resource investigations by the District Engineer, and he is otherwise unaware of the presence of such resources. Presently unknown archaeological, scientific, prehistorical, or historical data may be lost or destroyed by the work to be accomplished under the requested permit.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps of Engineers cannot undertake to adjudicate rival claims.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

REGULATORY DIVISION

Refer to: P/N #2004-1W-347-C

12 NOVEMBER 2004

If there are any questions concerning this public notice, please contact me at 843-329-8044 or toll free at 1-866-329-8187.

A handwritten signature in cursive script that reads "Debra W. King".

Debra W. King  
Project Manager  
Regulatory Division  
U.S. Army Corps of Engineers

## Project Narrative 2004-1W-347-C

The overall project purpose is to improve the drainage in the Church Creek watershed in order to alleviate flooding problems in the Still Shadow section of the Shadowmoss Plantation subdivision. During storm events, houses in Still Shadow experience flooding. The Federal Emergency Management Agency (FEMA) has expressed concerns about the on going flooding in the area and the number of repetitive damage claims. The City of Charleston has developed stringent storm water requirements to address these current deficiencies as well as the future storm water needs of the surrounding area. Part of those storm water requirements will include the re-routing of a portion of storm water from its somewhat circuitous routing from one side of Bees Ferry (the new drainage path constructed during Bees Ferry Road improvements) to the other side. Water is to travel around Still Shadow, through a section of Shadowmoss and into a ditch that connects with the major drainage ditch that runs under the bridge on Bees Ferry Road approximately 0.5-mile southwest of the entrance to Still Shadow. The ditch behind Still Shadow does not remove water from the subdivision, instead it over flows during storm water events and floods the adjacent neighborhood. The original drainage patterns in the area were altered during Bees Ferry Road improvements and the City of Charleston proposes to re-establish the original drainage pattern for this area to minimize the potential for flooding in the Still Shadow subdivision. The Church Creek Drainage Improvement project will be conducted in two phases. Phase One will begin at the existing drainage ditch (constructed during Bees Ferry Road improvements project) on the south side of Bees Ferry Road and end at the CSX Railroad Track. Phase Two will begin at the CSX Railroad Track and end at the detention pond adjacent to Church Creek.

Phase One will begin at the existing drainage ditch on the south side of Bees Ferry Road. From this point, a new drainage ditch will be constructed adjacent to and on the south side of Bees Ferry Road within an existing 50' drainage easement. The south side of Bees Ferry was selected, because there is not sufficient room on the north side of Bees Ferry Road for a new drainage ditch or room to make sufficient improvements to an existing, virtually non-functioning, shallow road-side ditch. This is due to existing development along with the fact that CPW has an easement on the south side of the road. As a result of the new drainage corridor, a portion of two small isolated wetlands (wetland A and B), totaling 0.14-acre (6240 sq. ft.) adjacent to Bees Ferry Road will be unavoidably impacted. This section of the proposed drainage ditch will have an 8' bottom width and 2.5H:1V side slopes. Type 1 erosion control matting will be used on the side slopes until the area has stabilized to minimize the potential for the migration of sediments. Excavated material will be placed on an adjacent upland area or will be removed from the site via trucks. This new drainage ditch will direct storm water westward along Bees Ferry Road back to the original drainage path which was across (south) from Still Shadow and will be within and/or adjacent to an existing SCDOT easement. Across from Still Shadow, the previous drainage corridor will be re-established and the new drainage ditch will be directed southerly, through an area associated with the SCDOT easement, across a wetland (a portion of wetland C) toward the existing culvert under the CSX railroad track. The drainage ditch along this corridor will have a 14' bottom width with 2.5H:1V side slopes, because of an increase in storm water volumes from adjacent areas.

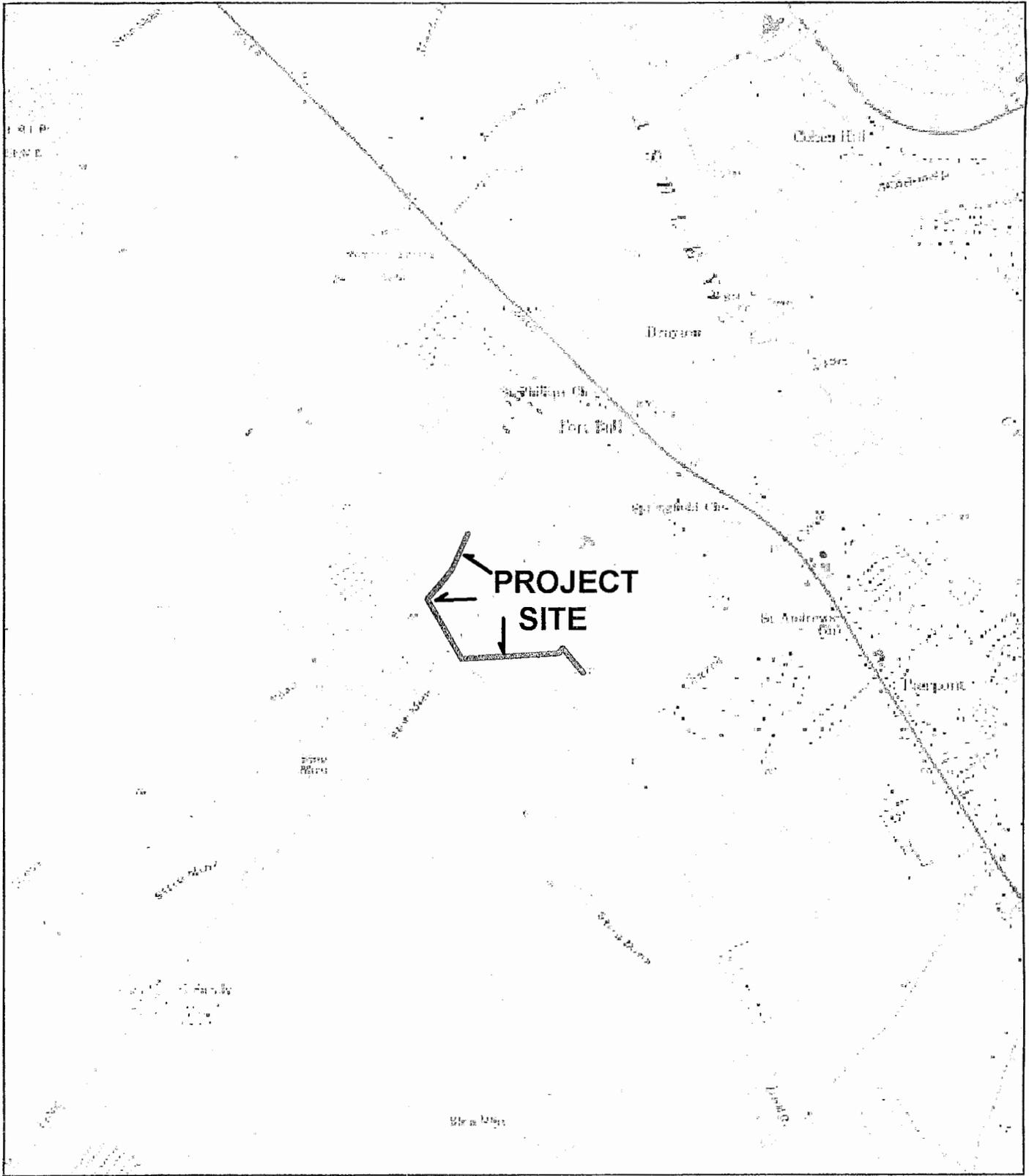
Type 1 erosion control matting will be used on the side slopes until the area has stabilized to minimize the potential for the migration of sediments. The excavated material will be used to construct a berm on both sides of this drainage ditch in order to minimize the potential for additional adverse effects on the adjacent wetland system through the removal of surface water. As a result of the drainage improvement project, the culvert under the railroad track, that appears to be associated with the original drainage pattern for the area, will be replaced with an 8' X 4' X 64' box culvert using the jack and bore method (the authorization for culvert replacement under the railroad has been requested from CSX). At this point Phase One ends.

Phase Two begins at the railroad tract and ends at the detention pond adjacent to Church Creek. From the railroad track culvert, the drainage corridor will continue in a southerly direction across wetland C and will be located within an existing 60' drainage easement. The drainage ditch along this corridor will have a 14' bottom width, necessary to handle an increase in storm water volumes from adjacent areas, with 2.5H:1V side slopes. Type 1 erosion control matting will be used on the side slopes until the area has stabilized to minimize the potential for the migration of sediments. As the drainage pattern/channel in wetland C, Phase Two is well defined and will only be expanded, no berms will be created adjacent to new drainage ditch, as berms in this area may alter previously established flow and drainage patterns. The excavated material from this area will be removed to an adjacent upland area or removed from the area via truck. The drainage easement will cross into an SCE&G clearing limits easement and intersect the existing SCE&G power line easement. At this point the re-established drainage corridor will diverge from the historic path and be routed southeast in order to minimize and/or avoid additional wetland impacts and to avoid adverse effects on the adjacent development. When the drainage ditch intersects the SCE&G power line easement, a 10' X 3' box culvert will be used in place of the ditch. The culvert will be routed southeasterly and continue along the northern edge of the SCE&G easement for approximately 155' at which time the drainage exits wetland C. Once across the wetland, the drainage corridor will continue southeasterly along a SCE&G power line easement. The drainage corridor, via box culvert, will be directed under Garden Creek Road and Pine Hurst Avenue in the Canterbury Woods subdivision. Just past Pine Hurst Avenue the drainage will turn south into an existing drainage ditch. A box culvert will be placed in this area under the SCE&G easement to allow SCE&G access. This section of the box culvert will out flow into a ditch and finally into an existing detention pond, the project terminus. Over flow from the detention pond will be directed into a ditch associated with the upper reaches of Church Creek.

This portion of re-routing across wetland C will unavoidably impact approximately 1.9-acres of wetland (approximately 1.2 acres of impact for Phase One and approximately 0.7 acres of impact for Phase Two). Of this impact, 1.19-acres will be excavation needed to re-establish the previous corridor and necessary to handle additional storm water requirements. A total of 0.55-acre of impact using 1010 cubic yards of fill will be required to establish berms adjacent to the ditches in Phase One in order to minimize the potential for draining the adjacent wetland areas. A total of 0.16-acre of temporary wetland impact will be required to bury the box culvert in wetland C on the north side of

the SCE&G power line easement. Approximately 100 cubic yards of riprap will be placed on non-woven geotextile material in front of each culvert opening to minimize the potential for erosion and the migration of sediments. Any excess excavated material will be placed on an upland area or removed from the site.

The Church Creek Drainage Improvements project is a public benefits project as it will reduce and minimize the potential for flooding in nearby neighborhoods. The proposed project will re-establish the original drainage path altered during SCDOT improvements to Bees Ferry Road and will be constructed within or adjacent to existing available easements or right of ways. The proposed project will unavoidably impact a cumulative total of 88,782 square feet of wetland. This impact consists of 6,240 square feet of excavation impact to two isolated wetlands, 51,890 square feet of excavation impact to wetland C, 23,770 square feet of fill impact (1010 cubic yards) to wetland C to establish berms to minimize draining the adjacent unaltered wetland and 6,882 square feet of temporary impact to bury the 10' X 3' box culvert in wetland C within the SCE&G power line easement. The City of Charleston has worked with adjacent landowners and easement officials in order to minimize wetland impacts to the maximum extent practicable while satisfying the project purpose and addressing FEMA concerns. The wetlands proposed for impact have either undergone clearing, impacts from adjacent development or were impacted by historic phosphate mining activities. Using the USACE SOP Mitigation Guidelines it was calculated that 18.3 credits of mitigation would be required to compensate for the proposed wetland impacts. As mitigation for these unavoidable impacts for this public benefits project, the City of Charleston proposes to acquire 18.3 credits of compensatory mitigation from an approved mitigation bank. The City of Charleston believes that they have demonstrated avoidance and minimization to the maximum extent practicable, and have proposed compensatory mitigation sufficient to satisfy project requirements.

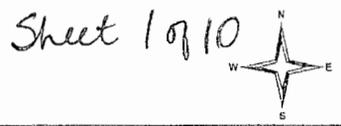
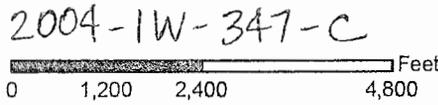


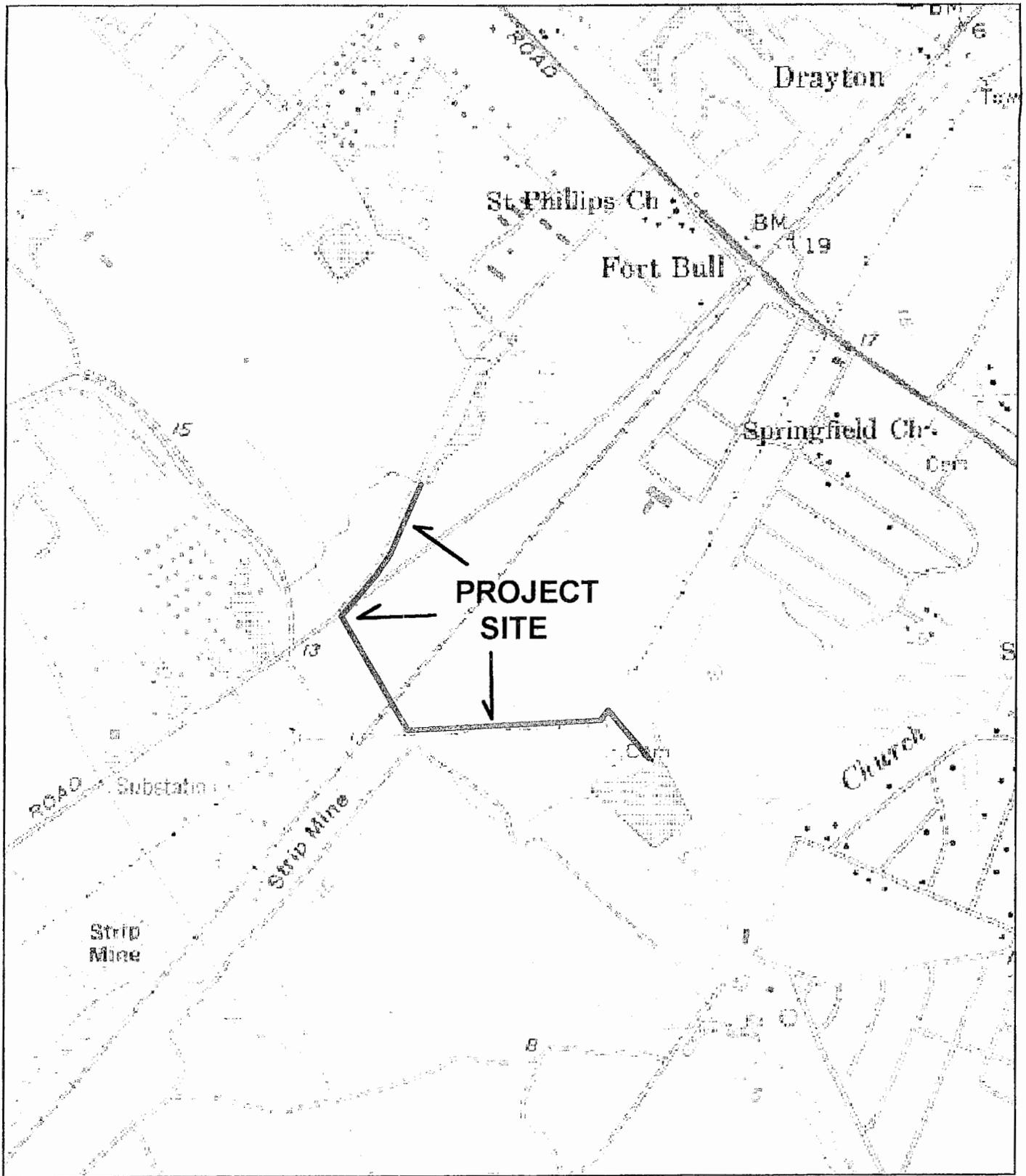
**PROJECT LOCATION MAP**  
**CHUCH CREEK DRAINAGE IMPROVEMENT**  
**JOHNS ISLAND QUADRANGLE MAP**  
**CHARLESTON COUNTY, SOUTH CAROLINA**

LAT. 32.83388°  
 LONG. 80.06804°


**SABINE & WATERS, INC.**  
 ENVIRONMENTAL LAND MANAGEMENT CONSULTANTS  
 P.O. Box 1072  
 Summerville, SC 29404  
 (843) 871-5383  
 (843) 871-3510 fax  
 bsawinc@bel.south.net

This map is a graphic representation only. Sabine & Waters does not claim the accuracy of this map.  
 Created By: K. Smoak  
 Date: October 14, 2004



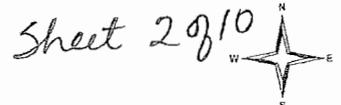
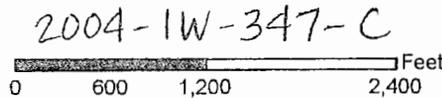


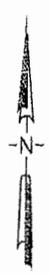
**PROJECT LOCATION MAP**  
**CHUCH CREEK DRAINAGE IMPROVEMENT**  
**JOHNS ISLAND QUADRANGLE MAP**  
**CHARLESTON COUNTY, SOUTH CAROLINA**

LAT. 32.83388°  
 LONG. 80.06804°


**SABINE & WATERS, INC.**  
 ENVIRONMENTAL LAND MANAGEMENT CONSULTANTS  
 P.O. Box 1073  
 Summerville, SC 29484  
 (813) 871-5383  
 (843) 871-2050 fax  
 bsabine@bcl-south.net

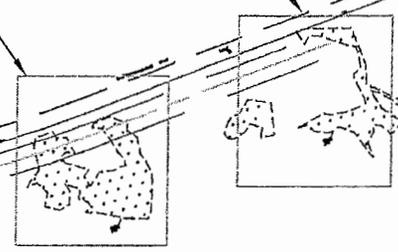
This map is a graphic representation only. Sabine & Waters does not claim the accuracy of this map.  
 Created By: K. Smoak  
 Date: October 14, 2004





WETLAND AREA "A"  
SEE SHEET 2

WETLAND AREA "B"  
SEE SHEET 3



WETLAND AREA "C"  
SEE SHEETS 4, 5, 6, & 7

PHASE 1C  
PHASE 2A

SUMMARY OF IMPACTS  
 TOTAL AREA DISTURBED=88,782 SF  
 TOTAL BERM AREA=23,770 SF  
 TOTAL BERM FILL=1010 CY

2004-1W-347-C



3800 FERNANDINA ROAD  
 SUITE 100  
 COLUMBIA, SC 29210  
 803.731.0261

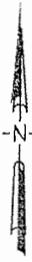
WOOLPERT

FAX: 803.731.0132

CHURCH CREEK DRAINAGE  
 IMPROVEMENTS  
 CITY OF CHARLESTON,  
 CHARLESTON COUNTY, SOUTH CAROLINA

LOCATION MAP FOR WETLAND AREAS

PROJECT NO.  
59968  
 DATE 10/13/04  
 SCALE 1"=400'  
 DR. SMZ  
 SHT. #3 of 10



RIPRAP, PLACE ON  
8 OZ. NON-WOVEN  
GEOTEXTILE (TYP.)

EOP BEES FERRY ROAD

US ARMY CORPS OF ENGINEERS  
JURISDICTIONAL FRESHWATER  
WETLANDS AREA "C"  
DISTURBED AREA=240 SF  
BERM AREA=N/A

EXISTING 20'  
CPW UTILITY  
EASEMENT

EXISTING 50'  
DRAINAGE EASEMENT

EXISTING  
20' DRAINAGE  
EASEMENT

PROPOSED  
TEMPORARY  
50' CONSTRUCTION  
EASEMENT

EXISTING WETLANDS

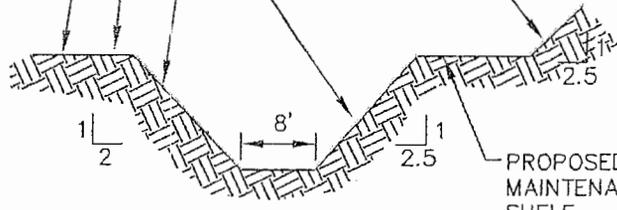
EXISTING WETLANDS

PROPOSED LANDSCAPE  
BUFFER WIDTH VARIES.

20' CPW EASEMENT

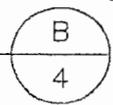
TYPE 2 EROSION  
CONTROL MATTING  
ON SIDE SLOPES

TYPE 1 EROSION  
CONTROL MATTING  
ON SIDE SLOPES



PROPOSED 12'  
MAINTENANCE  
SHELF

SECTION



SCALE: N.T.S.

STA. 49+00 TO STA. 45+00

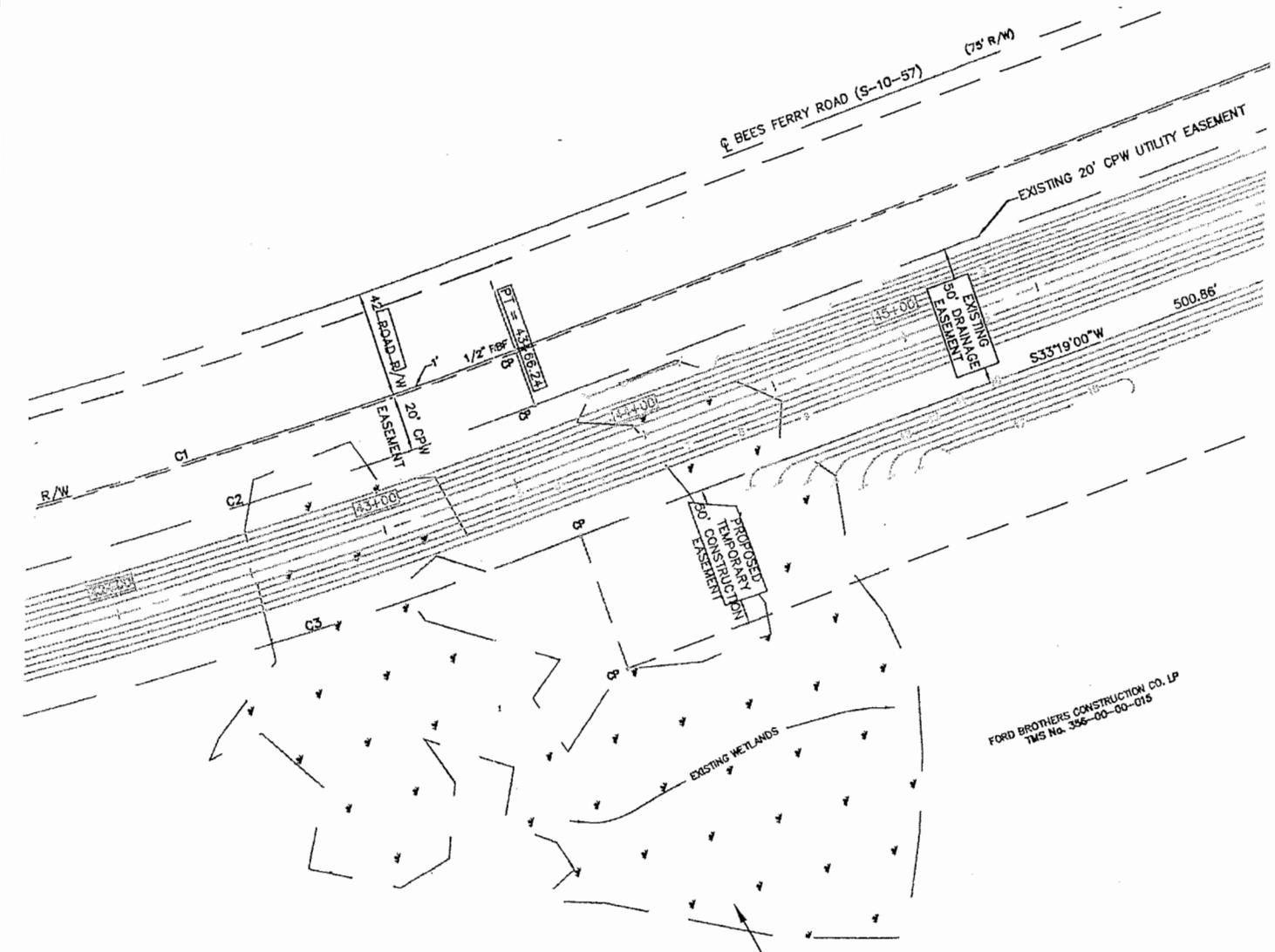
2004-1W-347-C



3800 FERNANDINA ROAD  
SUITE 100  
COLUMBIA, SC 29210  
803.731.0261  
FAX: 803.731.0132

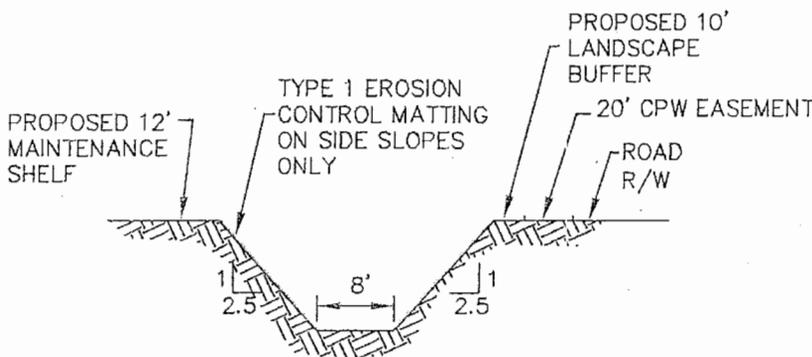
CHURCH CREEK DRAINAGE  
IMPROVEMENTS  
CITY OF CHARLESTON,  
CHARLESTON COUNTY, SOUTH CAROLINA  
WETLAND AREA "A"

PROJECT NO.  
59968  
DATE 9/29/04  
SCALE 1"=50'  
DR. SMZ  
SHT. # 4 of 10

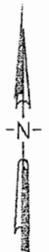


FORD BROTHERS CONSTRUCTION CO. LP  
TMS No. 356-00-00-015

US ARMY CORPS OF ENGINEERS  
JURISDICTIONAL FRESHWATER  
WETLANDS AREA "C"  
DISTURBED AREA= 6000 SF  
BERM AREA= N/A



SECTION A  
SCALE: N.T.S.  
STA. 44+00 TO STA. 35+50



2004-1W-347-C

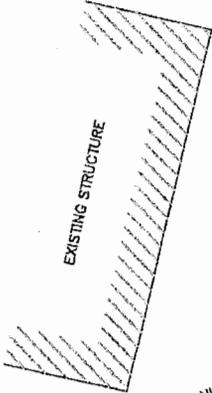


3800 FERNANDINA ROAD  
SUITE 100  
COLUMBIA, SC 29210  
803.731.0261  
FAX: 803.731.0132

CHURCH CREEK DRAINAGE  
IMPROVEMENTS  
CITY OF CHARLESTON,  
CHARLESTON COUNTY, SOUTH CAROLINA  
WETLAND AREA "B"

PROJECT NO. 59968  
DATE 9/29/04  
SCALE 1"=60'  
DR. SMZ  
SHT. # 5 of 10

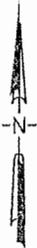
US ARMY CORPS OF ENGINEERS  
 JURISDICTIONAL FRESHWATER  
 WETLANDS AREA "C"  
 DISTURBED AREA=82,542 SF  
 BERM AREA=23,770 SF  
 BERM FILL=1010 CY



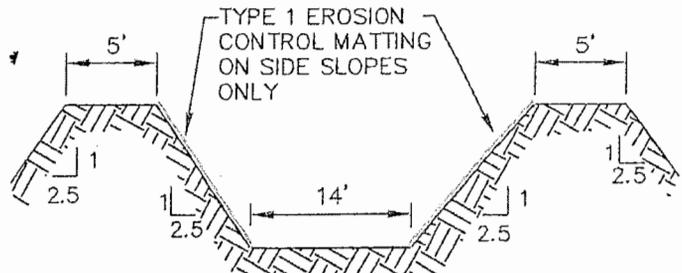
LORETA NICKELL  
 TMS No. 356-00-00-038

EXISTING S.C.D.O.T. 30' R/W  
 APPROXIMATE LOCATION

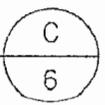
FORD BROTHERS CONSTRUCTION CO. LP  
 TMS No. 356-00-00-015



EXISTING WETLANDS



2004-1W-347-C  
 SECTION



SCALE: N.T.S.

STA. 35+00 TO 28+50

MATCH LINE "A"



WOOLPERT

3800 FERNANDINA ROAD  
 SUITE 100  
 COLUMBIA, SC 29210  
 803.731.0261  
 FAX: 803.731.0132

CHURCH CREEK DRAINAGE  
 IMPROVEMENTS  
 CITY OF CHARLESTON,  
 CHARLESTON COUNTY, SOUTH CAROLINA  
 WETLAND AREA "C"

PROJECT NO. 59968  
 DATE 10/13/04  
 SCALE 1"=50'  
 DR. SMZ  
 SHT. # 6 of 10

US ARMY CORPS OF ENGINEERS  
 JURISDICTIONAL FRESHWATER  
 WETLANDS AREA "C"  
 DISTURBED AREA=82,542 SF  
 BERM AREA=23,770 SF  
 BERM FILL=1010 CY

MATCH LINE "A"

EXISTING WETLANDS

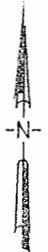
EXISTING WETLANDS

FORD BROTHERS CONSTRUCTION CO. LP  
 TMS No. 366-00-00-016

EXISTING  
 60' DRAINAGE  
 EASEMENT

PLACE RIP-RAP APPROX  
 ON 80' NON-WOVEN  
 GEOTEXTILE FABRIC  
 (TYP)

MATCH LINE "B"



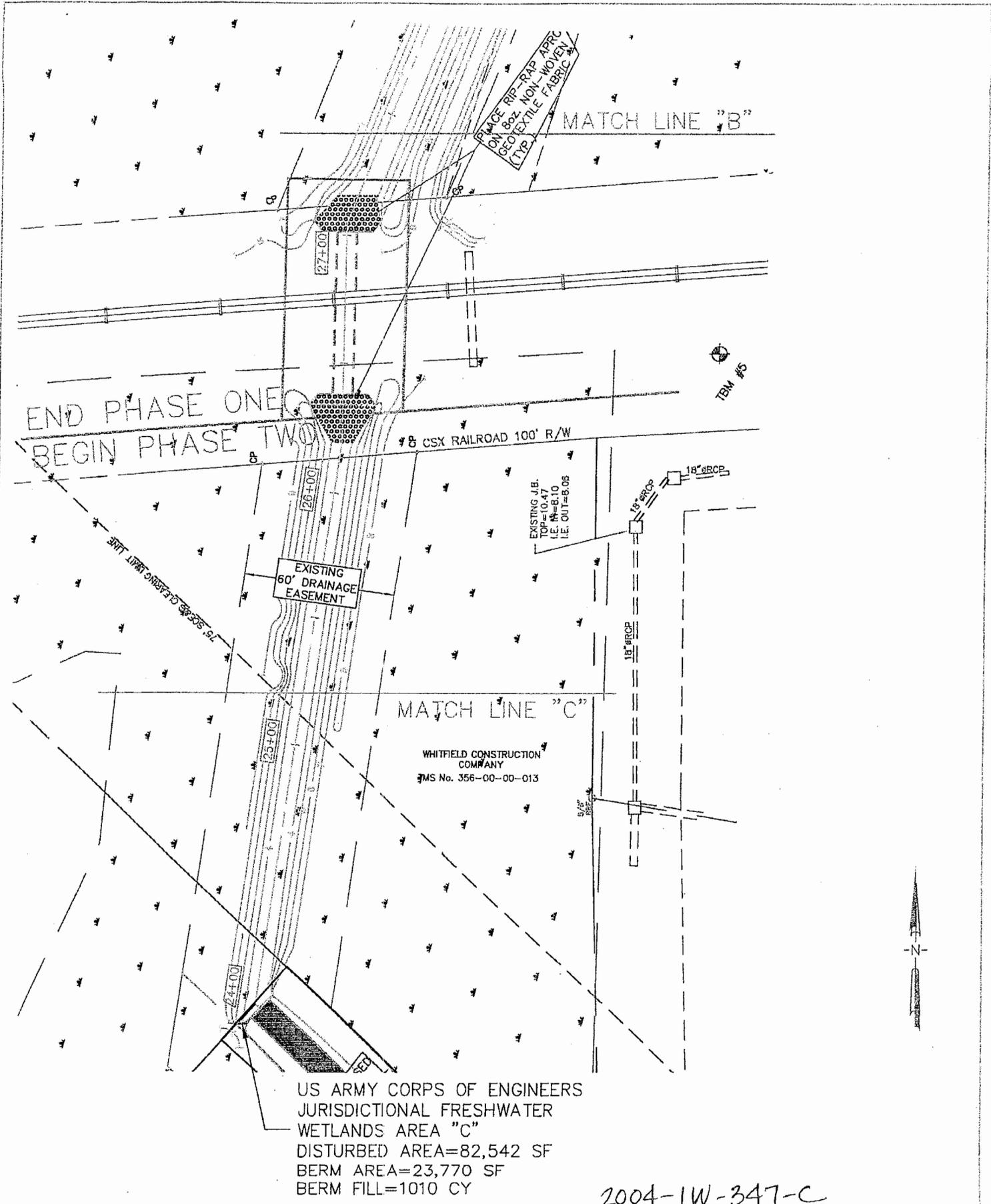
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CHURCH CREEK DRAINAGE  
 IMPROVEMENTS  
 CITY OF CHARLESTON,  
 CHARLESTON COUNTY, SOUTH CAROLINA  
 WETLAND AREA "C"

PROJECT NO.  
 59968  
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 SCALE 1"=50'  
 DR. SMZ  
 SHT. # 7 of 10



US ARMY CORPS OF ENGINEERS  
 JURISDICTIONAL FRESHWATER  
 WETLANDS AREA "C"  
 DISTURBED AREA=82,542 SF  
 BERM AREA=23,770 SF  
 BERM FILL=1010 CY

2004-1W-347-C

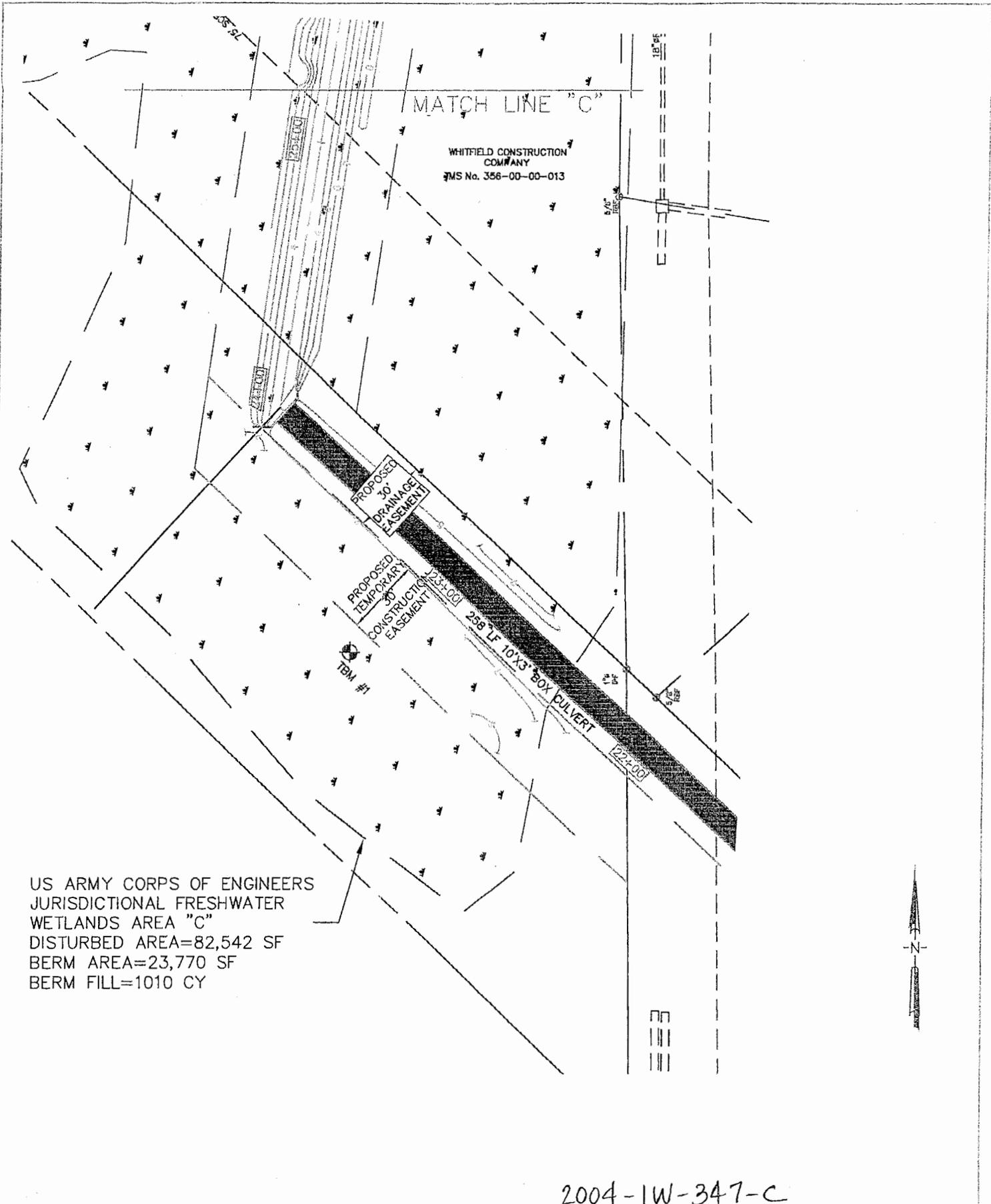


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 COLUMBIA, SC 29210  
 803.731.0261  
 FAX: 803.731.0132

CHURCH CREEK DRAINAGE  
 IMPROVEMENTS  
 CITY OF CHARLESTON,  
 CHARLESTON COUNTY, SOUTH CAROLINA  
 WETLAND AREA "C"

PROJECT NO. 59968  
 DATE 10/13/04  
 SCALE 1"=50'  
 DR. SMZ  
 SHT. # 8 of 10

WOOLPERT



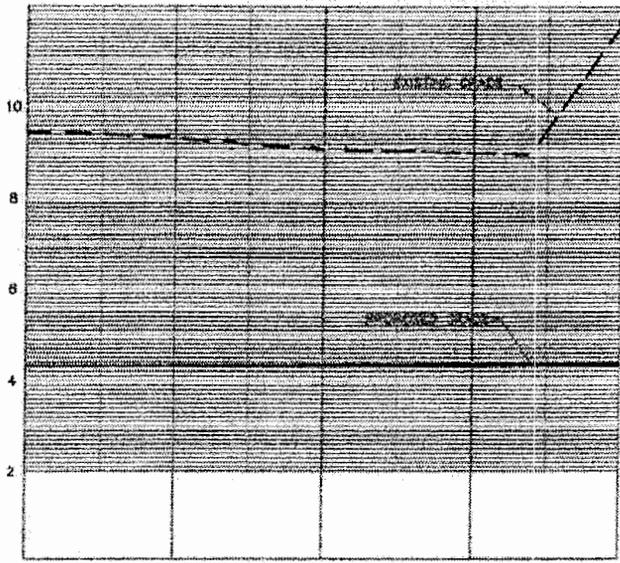
2004-1W-347-C



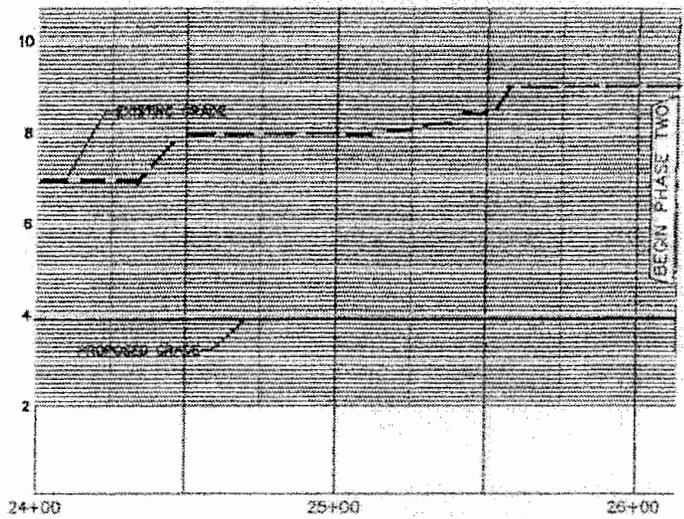
3800 FERNANDINA ROAD  
SUITE 100  
COLUMBIA, SC 29210  
803.731.0261  
FAX: 803.731.0132

CHURCH CREEK DRAINAGE  
IMPROVEMENTS  
CITY OF CHARLESTON,  
CHARLESTON COUNTY, SOUTH CAROLINA  
WETLAND AREA "C"

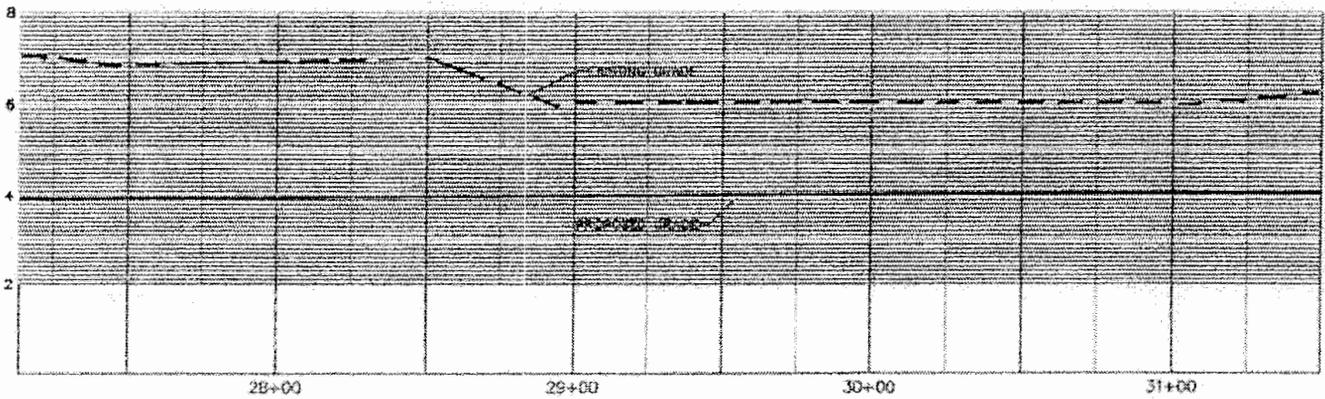
PROJECT NO.	59968
DATE	10/13/04
SCALE	1"=50'
DR.	SMZ
SHT. #	9 of 19



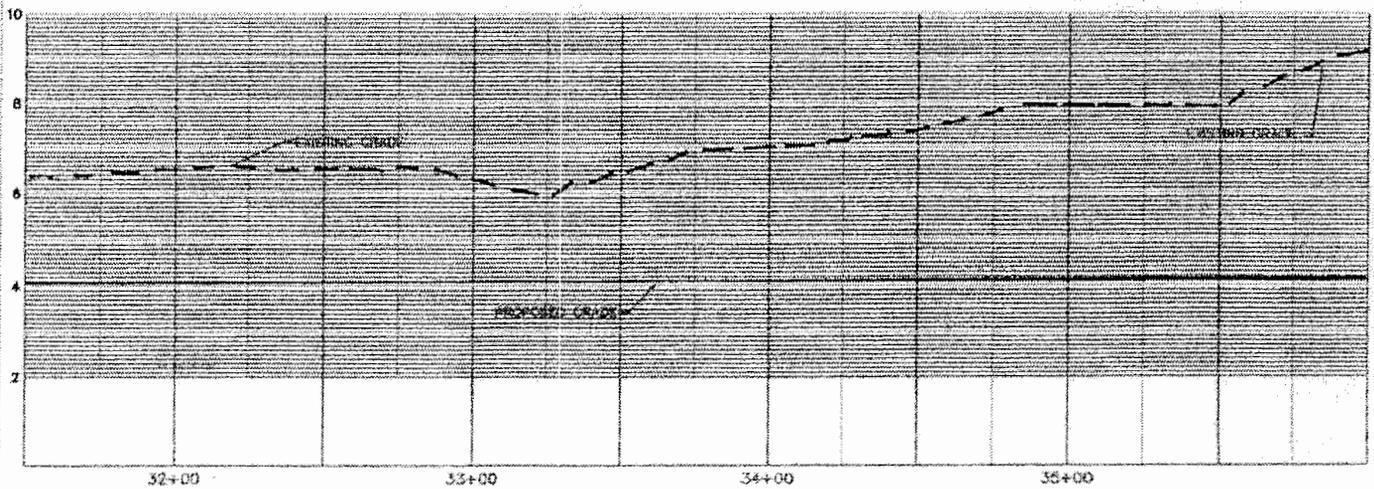
WETLAND AREA 'B'



WETLAND AREA 'C'



WETLAND AREA 'C'



WETLAND AREA 'C' 2004-1W-347-C



WOOLPERT

8731 RED OAK BLVD.  
 CHARLOTTE, N. C.  
 28217-3958  
 704. 525. 6284  
 FAX: 704. 525. 8529

CHURCH CREEK DRAINAGE  
 IMPROVEMENTS  
 CITY OF CHARLESTON,  
 CHARLESTON COUNTY, SOUTH CAROLINA  
 PROFILES

PROJECT NO. 5996B  
 DATE 9/27/04  
 SCALE 1"=60'  
 DR. SMZ  
 SHT. # 12 of 10

Mitigation for Wetlands

2004-1W-347-C  
Church Creek Drainage Improvements

14.1. Adverse Impacts Table

ADVERSE IMPACT FACTORS FOR WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS

FACTORS	OPTIONS					
	Lost Type	Type C 0.2		Type B 2.0		Type A 3.0
Priority Category	Tertiary 0.5		Secondary 1.5		Primary 2.0	
Existing Condition	Very Impaired 0.1	Impaired 1.0		Slightly Impaired 2.0	Fully Functional 2.5	
Duration	Seasonal 0.1	0 To 1 0.2	1 To 3 0.5	3 To 5 1.0	5 To 10 1.5	Over 10 2.0
Dominant Impact	Shade 0.2	Clear 1.0	Dredge 1.5	Drain 2.0	Impound 2.5	Fill 3.0
Cumulative Impact						

**Note:** For the Cumulative Impact factor,  $\Sigma AA_i$  stands for the sum of the acres of adverse impacts to aquatic areas for the overall project. When computing this factor, round to the nearest tenth decimal place using even number rounding. Thus 0.01 and 0.050 are rounded down to give a value of zero while 0.051 and 0.09 are rounded up to give 0.1 as the value for the cumulative impact factor. The cumulative impact factor for the overall project must be used in each area column on the Required Mitigation Credits Worksheet below.

Factor	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Lost Type	2	3	3	3		
Priority Category	0.5	0.5	0.5	0.5		
Existing Condition	2	2	2	1.5		
Duration	2	2	2	2		
Dominant Impact	1.5	1.5	1.5	1.5		
Cumulative Impact	0.1	0.1	0.1	0.1		
Sum of r Factors	$R_1 = 8.1$	$R_2 = 9.1$	$R_3 = 9.1$	$R_4 = 8.6$	$R_5 = 0$	$R_6 = 0$
Impacted Factors	$AA_1 = 0.14$	$AA_2 = 1.19$	$AA_3 = 0.55$	$AA_4 = 0.16$	$AA_5 = 0$	$AA_6 = 0$
R x AA =	1.134	10.829	5.005	1.376	0	0

Isolated      Jurisdictional      Fill      Temporary

Total Required Credits =  $\Sigma (R \times AA) =$

18.344

14.6 Mitigation Summary Worksheet

**WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS**

Mitigation Summary Worksheet For Permit Application # Church Creek Drainage Improvement

2004-1W-347-C

**I Required Mitigation**

A. Total Required Mitigation Credits =	18.3
--	------

**II. Non - Banking Mitigation Credit Summary**

	Credits	Acres
B. Creation		
C. Restoration and/or Enhancement (Non-Buffer Enhancement)		
D. Restoration and/or Enhancement (Buffer Enhancement)		
E. Total No Net Loss Non-Bank Mitigation = B + C + D	0	0
F. Preservation		
G. Total Proposed Non-Bank Mitigation	0	0

**III. Banking Mitigation Credit Summary**

	Credits	Acres
H. Creation		
I. Restoration and/or Enhancement (Non-Buffer Enhancement)	9.2	
J. Restoration and/or Enhancement (Buffer Enhancement)	9.1	
K. Total No Net Loss Bank Mitigation = H + I + J	18.3	0
L. Preservation		
M. Total Proposed Bank Mitigation = K + L	18.3	0

**IV. Grand Totals**

	Credits	Acres
N. Total Preservation Mitigation = F + L	0	0
O. Total Non-Preservation Mitigation = E + K	18.3	0
P. Total Creation = B + H	0	0
Q. Total Restoration and/or Enhancement (Non-Buffer Enhancement) = C + I	9.2	0
R. Total Proposed Mitigation = G + M	18.3	0

## Mitigation for Wetlands

The total Mitigation Credits (Row R) should be equal to or greater than the total Required Mitigation Credits (Row A) for the proposed mitigation to be acceptable. The other requirements given in the SOP must also be satisfied, e.g., in the credits column, Row O must equal at least 50% of Row A and the addition of Row P and Row Q must equal at least 25% of Row A. If the answer to any of the questions below is no, then the proposed mix and/or quantity of mitigation is not in compliance with the policy and the plan should be revised or rejected, unless a variance is approved.

	Yes	No
$PMC \geq RMC$ or in words Are the credits in Row R greater than or equal to Row A ?	X	
$PMC_{\text{Non-Preservation}} \geq 1/2 RMC$ or in words Are the credits in Row O greater than or equal to 50% of Row A?	X	
$PMC_{\text{Creation + Restoration/Enhancement (Non-Buffer Enhancement)}} \geq 1/4 RMC$ or in words Are the credits in Row P plus the credits in Row Q greater than or equal to 25% of Row A?	X	