



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: June 29, 2007
Comment Deadline: July 30, 2007
Corps Action ID #: SAW-2006-823-010

The Wilmington District, Corps of Engineers (Corps) has received an application from **Brunswick Development Company** seeking Department of the Army authorization for the discharge of fill material into 2.23 acres of Section 404 jurisdictional wetlands and 0.028 acres of isolated wetlands abutting and adjacent to River Swamp and 23 linear feet of Rattlesnake Branch, a direct tributary to River Swamp, associated with the proposed **Cypress Creek Planned-Unit Development** which includes residential and commercial construction. The 593.5-acre project area is located on both sides of Gilbert Road, west of Midway Road and south of Brown Road in Bolivia, Brunswick County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at www.saw.usace.army.mil/wetlands

Applicant: Brunswick Development Company
Attn: Mr. William Scudder
8414 Falls of the Neuse Road, Suite 202
Raleigh, North Carolina 27615

Agent (if applicable): Land Management Group, Inc.
Attn: Ms. Kim Williams
Post Office Box 2522
Wilmington, North Carolina 28402

Authority

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404 of the Clean Water Act (33 U.S.C. 1344).

Location

The 593.5-acre project area is located on both sides of Gilbert Road, west of Midway Road and south of Brown Road in Bolivia, Brunswick County, North Carolina. The site contains approximately 254.82 acres of jurisdictional wetlands which are adjacent to

River Swamp, a tributary to the Lockwood Folly River, a Navigable Water of the United States. Site coordinates are 34.0110°N, 78.1631°W.

Existing Site Conditions

This site is mostly undeveloped and forested land, with several dirt roads throughout that are approximately 20 feet wide. Land use within the site was silviculture. Surrounding land use currently consists of residential, agricultural or forested.

There are 254.82 acres of jurisdictional wetlands on the site. Two streams run through the property: River Swamp runs southeast to northeast across the site and Rattlesnake Branch runs east to west through the northern part of the site. Rattlesnake Branch ties into River Swamp in the northwestern corner of the tract, which flows into the Lockwood Folly River off property.

Applicant's Stated Purpose

The purpose and need is to develop an economically viable residential subdivision of 200 or more acres that is centrally located in Brunswick County and could provide convenient access to Wilmington, Southport and Brunswick County beaches.

Project Description

The applicant has proposed to discharge fill material into 2.227 acres of jurisdictional wetlands and 23 linear feet of stream to construct access roads within the property. The applicant also proposes impacts to 0.028 acres of isolated wetlands within the property. They are proposing 31 road crossings to construct 917 single-family lots, 492 multi-family units, 3.8 acres of commercial space, 7.2 acres of amenities and 7.35 miles of roadways. Project plans and narrative have been included with this Public Notice.

The applicant has also submitted an Alternatives Analysis that includes both on-site and off-site alternatives. This information has been included with this Public Notice.

The applicant has also submitted a mitigation proposal with their application that entails on-site preservation of 252 acres of wetlands, 10,500 linear feet of stream, and payment into the Ecosystem Enhancement Program (EEP) for restoration of 2.25 acres of non-riparian wetlands and 23 linear feet of stream within the Lumber River watershed.

Other Required Authorizations

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State Certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice combined with appropriate application fee at the

North Carolina Division of Water Quality central office in Raleigh will constitute initial receipt of an application for a 401 Water Quality Certification. A waiver will be deemed to occur if the NCDWQ fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, 401 Oversight and Express Permits Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 2321 Crabtree Boulevard, Suite 250, Raleigh, North Carolina 27604-2260, Attention: Ms Cyndi Karoly by July 23, 2007.

Coastal Zone Management

The applicant has not provided to the Corps, a certification statement that his/her proposed activity complies with and will be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2(b)(2), the Corps can not issue a permit for the proposed work until the applicant submits such a certification to the Corps and the North Carolina Division of Coastal Management (NCDCM), and the NCDCM notifies the Corps that it concurs with the applicant's consistency certification.

Essential Fish Habitat

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The Corps' initial determination is that the proposed project will not adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

Cultural Resources

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work.

Endangered Species

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. A final determination on

the effects of the proposed project will be made upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. 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 proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal 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 (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidate State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed 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 proposal. 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 (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, July 30, 2007. Comments

should be submitted to Kimberly L. Garvey, Post Office Box 1890, Wilmington, North Carolina, 28402-1890, telephone (910) 251-4482 or kimberly.l.garvey@usace.army.mil.

PROJECT NARRATIVE

Cypress Creek Subdivision
Brunswick County, NC

June 2007

INTRODUCTION

Brunswick Development Company, Inc. proposes to construct a planned-unit development, named the Cypress Creek Subdivision, which will contain a total of 1409 residential units: 917 single-family lots and 492 multi-family units. Additionally, there will be 3.8 acres of commercial space and 7.2 acres of amenities. In order to access uplands within the site, thirty-one wetland crossings and one stream crossing are needed. Total proposed impacts are 2.227 acres of 404 wetlands, 0.028 acre of isolated wetlands, and 23 LF of stream. The project area is located within the Lumber River Basin and is 593.5 acres in size.

EXISTING CONDITIONS

The 593.5-acre site is located in Brunswick County, on both sides of Gilbert Road, west of Midway Road and south of Brown Road in Bolivia, NC (Figures 1 & 2). A site delineation of 404 wetlands was performed by Land Management Group, Inc. and was approved by Ms. Jennifer Frye of the U.S. Army Corps of Engineers on 05/03/06 (Action ID# 200600823) (Figure 3). The site contains a total of 259.7 acres of 404 wetlands. Two blue-line streams run through the property: River Swamp runs southeast to northwest across the site and Rattlesnake Branch runs east to west through the northern part of the site. Rattlesnake Branch ties into River Swamp in the northwestern corner of the tract, which eventually flows to the Lockwood Folly River. Both River Swamp and Rattlesnake Branch are classified as C; Swamp Waters by the Division of Water Quality. The C classification is given to waters that are protected for secondary recreation, fishing, wildlife, fish and aquatic life propagation and survival, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner. This classification has no restrictions on watershed development or types of discharges. The Swamp Waters designation is a supplemental classification intended to recognize those waters that generally have naturally occurring very low velocities, low pH and low dissolved

oxygen. No specific restrictions on development are involved. River Swamp is a navigable stream and is considered Public Trust Waters.

Uplands within the site support loblolly pine (*Pinus taeda*), horse-sugar (*Symplocos tinctoria*), southern red oak (*Quercus falcata*), and winged sumac (*Rhus copallinum*). The riverine floodplain is dominated by swamp chestnut oak (*Quercus michauxii*), sweetgum (*Liquidambar styraciflua*), red bay (*Persea borbonia*), and American holly (*Ilex opaca*). Other wetlands within the site can be classified as wet pine flatwoods and support loblolly pine, sweetgum, tulip poplar (*Liriodendron tulipifera*), wax myrtle (*Myrica cerifera*), gallberry (*Ilex coriacea*), and dog hobble (*Leucothoe axillaris*).

According to the Brunswick County Generalized Soil Survey, uplands within the site are classified as Baymeade fine sand, Blanton fine sand, Marvyn loamy fine sand, Onslow fine sandy loam, and Goldsboro fine sandy loam (Figure 4). Wetlands within the site are shown as Muckalee (along the River Swamp and Rattlesnake Branch) and Woodington fine sandy loam.

The property is zoned R-7500 by Brunswick County, which allows low-density, single-family residential development providing other required attributes of a neighborhood. The property received a Special Exception Permit from the Brunswick County Planning Department for development of a Planned Unit Development (#SE-125) within the property (see attachments).

The Brunswick County CAMA Land Use Plan classifies the majority of the tract as 'Rural Areas'. However, the River Swamp wetland system that runs through the middle of the tract is classified as 'Conservation & Resource Management Areas'. The Land Use Plan states that "The Rural class is to provide for agriculture, forestry, and other allied uses traditionally associated with an agrarian region. Very low density dispersed residential uses on large lots with on-site water and sewer are consistent with the intent of the Rural class. Areas meeting the intent of this classification are appropriate for or presently used for agriculture, forestry, and other similar uses. Population densities are generally very low. The Rural class is the broadest of the several general land classes and thus constitutes the major land class on the Brunswick County Land Classification Map. The vast majority of all interior land areas, away from the ocean and Intracoastal Waterway, have been designated Rural." The Plan states that the "Rural class is intended for areas that are not expected to become urban within the next decade." It should be noted that the Land Use Plan was written in 1998.

The Land Use Plan also states “The purpose of the Conservation class is to provide for the effective long-term management and protection of significant, limited, or irreplaceable areas. Management is needed due to the natural, cultural, recreational, scenic or natural productive values of both local and more than local concern. As such, the Conservation class should be applied to areas that should be either not developed at all (preserved), or if developed, done so in a very limited manner characterized by careful planning and cautious attention to the conservation of environmental features. Urban services, public or private, should not be provided in these areas as a catalyst to stimulate intense development. In most cases, limited on-site services will adequately support any limited development within this class and will also protect the very features which justify the area’s inclusion in the Conservation classification.”

Surrounding land use is residential, agriculture, or forested. Previous land use within the site was silviculture and there are several dirt logging roads located throughout the tract, most are which are approximately 20’ wide (Figure 5).

A search of the North Carolina Natural Heritage Program database was conducted to determine whether any state or federally listed rare species have previously been observed within or near the project area. This search found no known record of rare species within the project site. However, two species were noted within a one-mile radius of the site. In 1966, a Northern Pine Snake (*Pituophis melanoleucus melanoleucus*) was noted approximately 1500 feet to the west of the site, on the opposite side of Gilbert Road. This animal is classified by the U.S. Fish and Wildlife Service as a Federal Species of Concern and is classified by the Wildlife Resources Commission as Special Concern. In 1998, approximately 50 Quillwort plants (*Isoetes microvela*) were observed 2500 feet east of the site, on the southwestern side of the intersection of River Swamp and Midway Road. This plant is state-listed as a Candidate species.

Table 1. Federally-listed endangered and threatened species known to occur in Brunswick County, NC, excluding coastal and marine species.

<i>Common Name</i>	<i>Scientific Name</i>	<i>Status</i>
Animals		
American alligator	<i>Alligator mississippiensis</i>	T(S/A)
Bald eagle	<i>Haliaeetus leucocephalus</i>	T
Eastern cougar	<i>Felis concolor cougar</i>	E
Red-cockaded woodpecker	<i>Picoides borealis</i>	E
Shortnose sturgeon	<i>Acipenser brevirostrum</i>	E
Wood stork	<i>Mycteria americana</i>	E
Plants		
Cooley's meadowrue	<i>Thalictrum cooleyi</i>	E
Rough-leaf loosestrife	<i>Lysimachia asperulaefolia</i>	E

KEY:

Status	Definition
Endangered	A taxon "in danger of extinction throughout all or a significant portion of its range."
Threatened	A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."
T(S/A)	Threatened due to similarity of appearance - a species that is threatened due to similarity of appearance with other rare species and is listed for its protection.

PURPOSE AND NEED

The applicant's purpose and need is to develop an economically viable residential subdivision of 200 or more acres that is centrally located in Brunswick County and could provide convenient access to Wilmington, Southport, and the Brunswick County beaches. The target population of this subdivision is people employed in the neighboring communities of Wilmington, Shallotte, and Southport and people retiring to this area. The applicants focused their search to properties located in the vicinity of the Midway Road/Highway 211 intersection.

ALTERNATIVES ANALYSIS

The alternatives evaluated include a no-action alternative, off-site alternatives, an on-site alternative site layout, and the preferred project.

No-Action Alternative

The no-action alternative would keep the site in its current, undeveloped condition and would prohibit the applicant from constructing a planned unit development on this site. The no-action

alternative is not considered feasible for several reasons. This section of Brunswick County is experiencing rapid growth. It is centrally located in Brunswick County and provides convenient access to Wilmington, Southport, and the Brunswick County beaches. This alternative would leave approximately 330 acres of uplands undeveloped. This would cost the current owner of the tract approximately \$30,000,000 (price of the tract) in potential revenue. The inability to expand development within this tract of land would be a significant loss of return for the applicant and a loss of housing for the community.

Alternate Sites

The proposed project is a large residential subdivision within the Bolivia area. When searching for a site, the applicant evaluated those tracts centrally located in Brunswick County, specifically in the vicinity of the Midway Road/Highway 211 intersection. The off-site alternatives evaluated were large, undeveloped tracts possessing multiple points of access from main roads. Three tracts meeting these criteria were identified.

PruTimber Tract

This tract encompasses 1429.4 acres and is located southwest of the preferred site, between Gilbert Road and Highway 211 (Figure 6). The tract currently contains a mixture of agriculture fields and forests. Based on the Brunswick County Soils Survey and aerial photographs of the site, it appears that wetlands may exist throughout a majority of the property. Development of this property would likely result in greater wetland impacts. Furthermore, sewer is not currently available on this tract. Therefore, the development of this site is not considered a feasible alternative.

Lesh Tract

This 231.6-acre tract is located directly to the south of the preferred site (Figure 7). The only access to this site is off of Gilbert Road. In addition, sewer is not available on this property. Because of these reasons, this site is not considered a feasible alternative.

Highway 211 Tract

This 704-acre tract is located southeast of the preferred site, to the east of the intersection of Midway Road and Highway 211 (Figure 8). This site appears to have substantial

wetlands located on the property. In addition, it is already under contract by others. Therefore, this tract is not a feasible alternative.

On-site Alternatives

One on-site alternative was evaluated that would access uplands within the site by bridging approximately twenty of the wetland and stream crossings. The remaining eleven crossings, which would include road widenings and tips of wetland fingers, would be crossed utilizing standard culverts. In general, bridges are not considered to be an impact by the Corps and DWQ and could provide a mechanism to greatly reduce wetland and stream disturbance within the tract. This site plan would impact approximately 0.25 acre of 404 wetlands and 0.028 acre of isolated wetlands. Bridges would need to be constructed to NC Department of Transportation standards, since most roads will be public. These bridges would cost approximately \$5,800,000 (Figure 8). Although the applicant was willing to do this, the NC DOT would not. According to communications with Mr. Jerry Lindsey, an engineer with the NC DOT, if a bridge is not required for hydraulic purposes or for the avoidance of the “Highest Quality Wetland” or “Outstanding Resource Waters”, then they are not accepting it into the state system for maintenance. Only one crossing (the River Swamp crossing) meets this criterion. The cost of constructing this bridge is \$1,800,000.

Preferred Project

The preferred project consists of developing 917 single-family lots, 492 multi-family units, 3.8 acres of commercial space, 7.2 acres of amenities, and 7.35 miles of roadways (Figure 9). In addition, the applicant is proposing 153.49 acres of open space and elevated boardwalks to provide access to wetlands throughout the tract (Figure 10). The improvements at Cypress Creek will consist of roadway grading and paving, the installation of water main and services, and the installation of stormwater and wastewater collection systems. Roads for the project will be constructed to NCDOT standards. Most of the roads will be public. Water and sewer utilities will tie into the Brunswick County system. The gravity sewer system will discharge into two pump stations and be pumped into an existing 8” force main along Gilbert Road. The water system shall provide interconnectivity throughout the project by connecting a proposed 12” water line and an existing 16” water line at multiple locations. All stormwater will be collected via a storm drain piping system. The anticipated project built-upon is 27.8% (see attached Stormwater Design Narrative for additional information).

Accessing uplands within the site will require crossing wetlands in thirty-one locations, one of which is also a stream crossing (Impact B7). One bridge will be constructed over the River Swamp stream to avoid permanently impacting this system (Figure 11). This bridge will be constructed over Public Trust Waters, which is a CAMA Area of Environmental Concern. Culverts will be installed at the wetland/stream crossings (Figures 12A-D). Utilities will be placed within the road right-of-way throughout most of the tract, except for several areas where the proposed utilities will be directionally bored under wetlands and streams (Figures 9A-G).

The number of lots planned within the tract is based on the price of the tract, development costs, and the applicants' anticipated profit margin. The applicants are purchasing the tract for \$30 million. The estimated development costs of the proposed project, including construction of roads and utilities, engineering, land planning, and finance costs are anticipated to be approximately \$37 million. The developers are proposing 1409 units, with an average selling price of \$56,000. Assuming all of the units are sold, \$79 million will be generated. The resulting profit would be \$12 million, which equates to a 15% profit margin.

POTENTIAL ENVIRONMENTAL IMPACTS

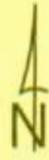
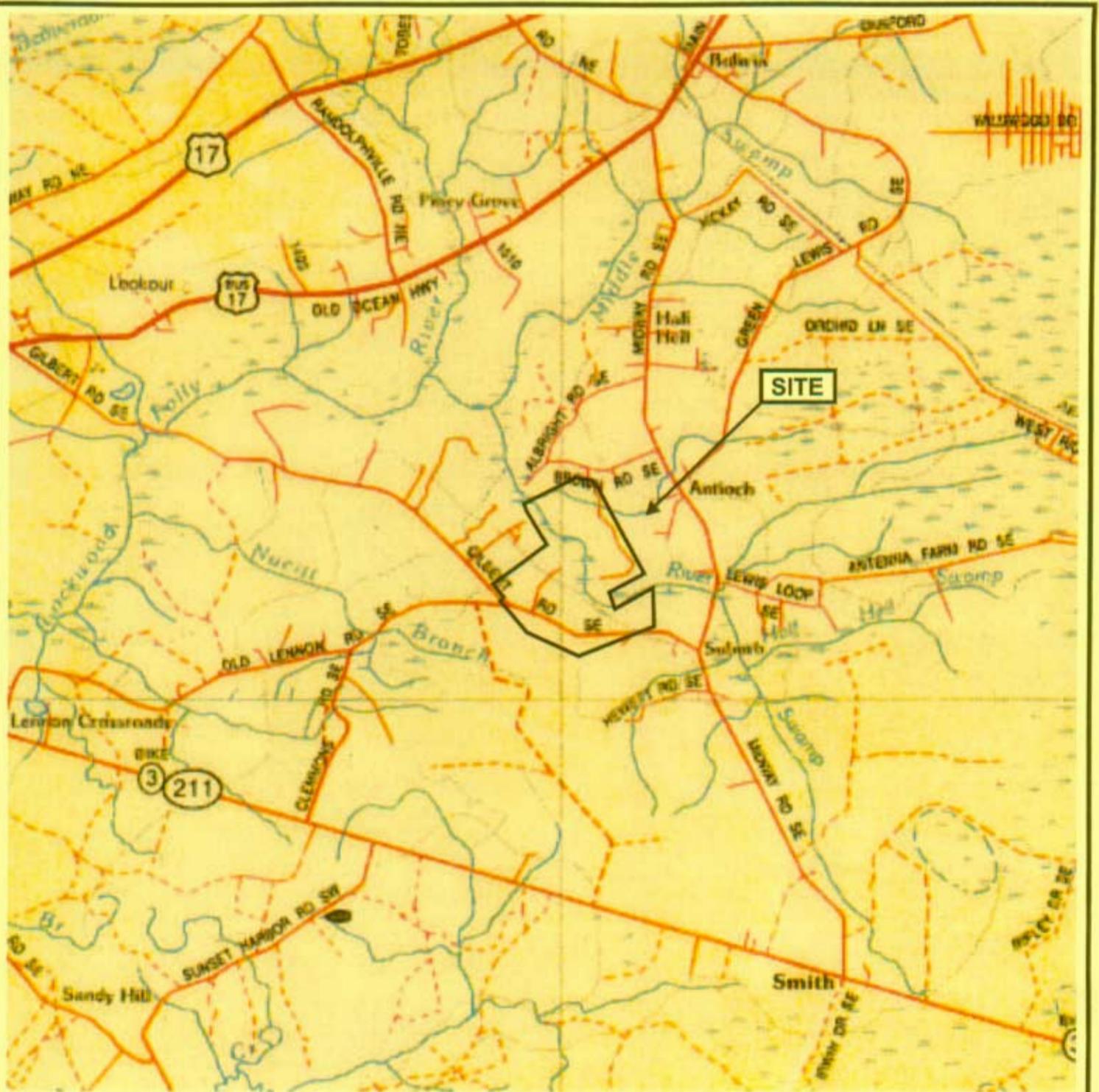
The proposed project would impact 2.26 acres of wetlands (2.23 acres of 404 wetlands 0.028 acre of isolated wetlands) and 23 linear feet of stream (Figures 9A-D). Secondary impacts to wetlands and water quality could occur during and after construction of the project through erosion and stormwater runoff. These potential impacts will be minimized by the development and implementation of a Stormwater Plan and a Sedimentation and Erosion Control Plan (please see the attached Stormwater Design Narrative for additional information). These plans will reduce the potential for erosion or runoff into wetlands and other water bodies located off site.

MITIGATION

The applicants have attempted to minimize wetland and stream impacts as much as possible. They are only proposing impacts for road crossings in order to gain access to uplands located throughout the tract. No wetland impacts are proposed for individual lot fill. Proposed road crossings are at narrow points along the wetlands and, in some cases, where old logging roads currently exist. They are also proposing to directionally bore utility lines under approximately 2100 linear feet of wetlands and streams in order to further minimize disturbance (Figure 9). Finally, the applicants are

proposing to construct a bridge across the River Swamp stream in order to avoid disturbing this system.

To mitigate for proposed wetland and stream impacts, all remaining wetlands and streams will be preserved to ensure no additional impacts beyond what is being requested here. The preservation mechanism is currently being developed. This will protect approximately 252 acres of wetlands and 10,500 LF of stream. In addition, the applicant proposes to buy into the Ecosystem Enhancement Program (EEP) for the restoration of 2.25 acres of non-riparian wetlands and 23 LF of stream within the Lumber River watershed. A request to the EEP has been made.



*Boundaries are approximate and are not meant to be absolute. SITE

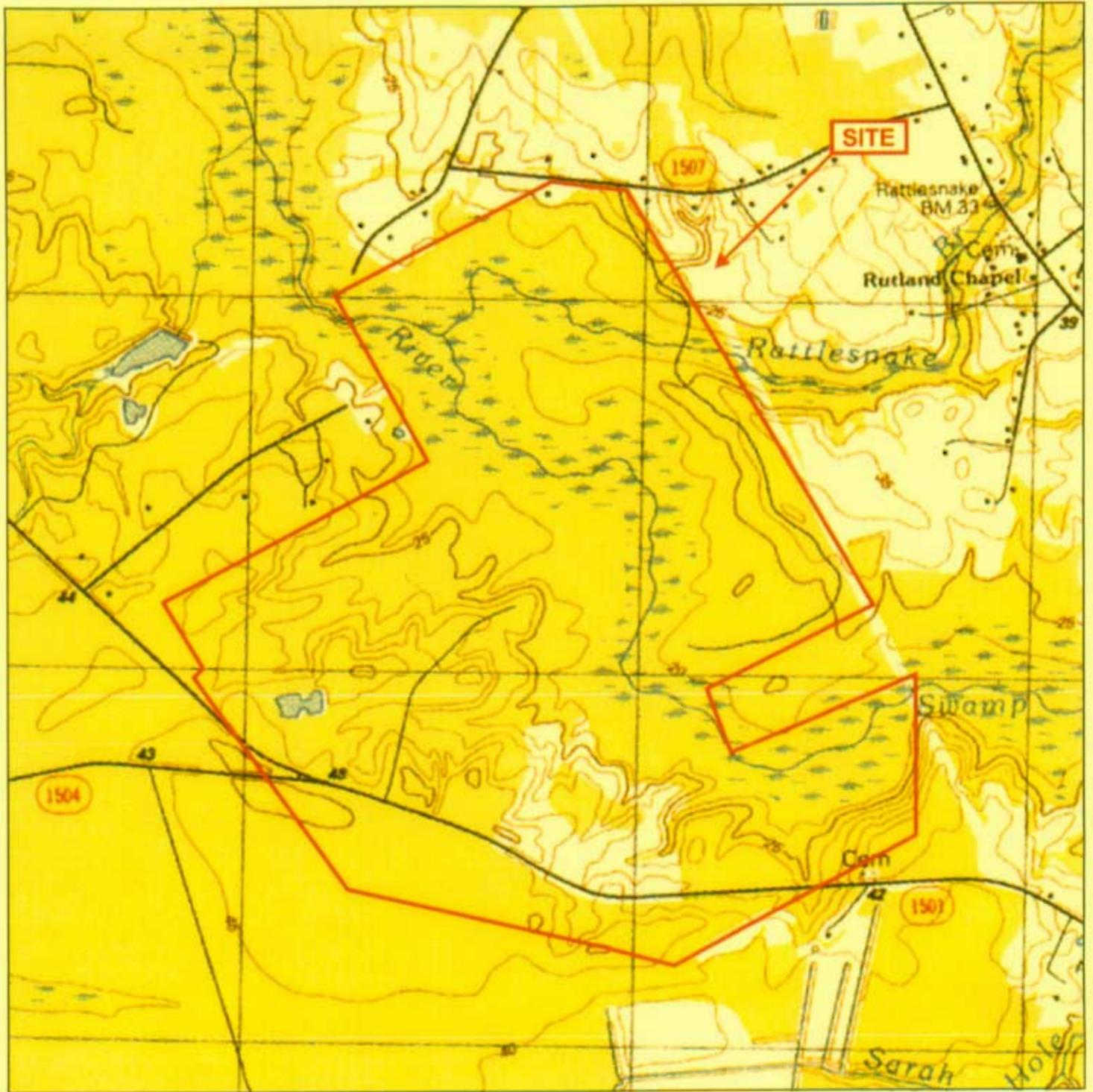
SCALE 1" = 1 Mile

Map Source: North Carolina Atlas & Gazetteer. Pg 87.2003

Cypress Creek Subdivision
 Brunswick Development Co.
 Brunswick County, NC
 01-05-761P

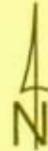
Land Management Group, Inc.
 Environmental Consultants
 Wilmington, N.C.
 October 2006

Figure 1
Vicinity Map



*Boundaries are approximate and are not meant to be absolute.

Map Source: Bolivia Quadrangle 7.5 minute (topographic) 1990.

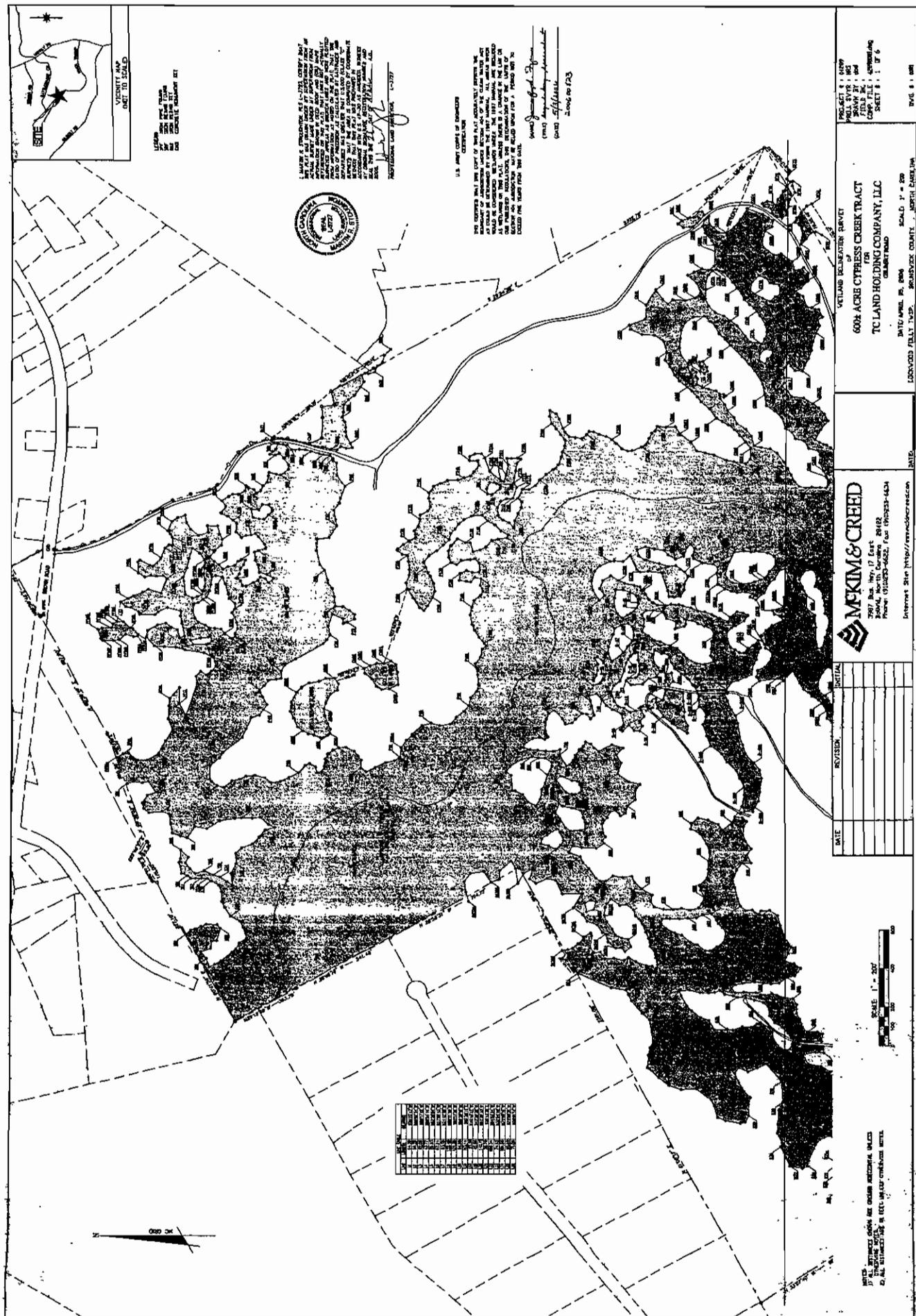


SCALE 1" = 1200'

Cypress Creek Subdivision
Brunswick Development Co.
Brunswick County, NC
01-05-761P

Land Management Group, Inc.
Environmental Consultants
Wilmington, N.C.
October 2006

Figure 2
USGS Topographic Map



WETLAND SURVEY
 600+ ACRE CYPRESS CREEK TRACT

LEGEND
 1. 1:1000 SCALE
 2. 1:500 SCALE
 3. 1:250 SCALE
 4. 1:125 SCALE



I, JAMES A. FREDERICK, P.E., CERTIFIED THAT THIS SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NORTH CAROLINA SURVEYING ACT AND THE REGULATIONS OF THE BOARD OF SURVEYING AND MAPPING. I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA. MY LICENSE NO. IS 12345. I AM THE AUTHOR OF THIS SURVEY. THE SURVEY WAS CONDUCTED ON 12/15/2011. THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NORTH CAROLINA SURVEYING ACT AND THE REGULATIONS OF THE BOARD OF SURVEYING AND MAPPING. I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA. MY LICENSE NO. IS 12345. I AM THE AUTHOR OF THIS SURVEY. THE SURVEY WAS CONDUCTED ON 12/15/2011.

U.S. MAPS COMPANY OF CHARLOTTE, NC
 12345 W. WILKINSON ST.
 CHARLOTTE, NC 28203
 PHONE: 704.555.1234
 FAX: 704.555.5678
 WWW.USMAPS.COM

THIS SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NORTH CAROLINA SURVEYING ACT AND THE REGULATIONS OF THE BOARD OF SURVEYING AND MAPPING. I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA. MY LICENSE NO. IS 12345. I AM THE AUTHOR OF THIS SURVEY. THE SURVEY WAS CONDUCTED ON 12/15/2011.

DATE: 12/15/2011
 DRAWN BY: JAF
 CHECKED BY: JAF

MCKIM & CREED
 2907 Bus. Hwy. 17 East
 Raleigh, North Carolina 27612
 Phone: 919.876.8622 Fax: 919.876.1434
 Internet Site: <http://www.mckimandcreed.com>

WETLAND RECONSTRUCTION PERMIT
 FOR
 600+ ACRE CYPRESS CREEK TRACT
 FOR
 TC LAND HOLDING COMPANY, LLC
 COLUMBIAN ROAD

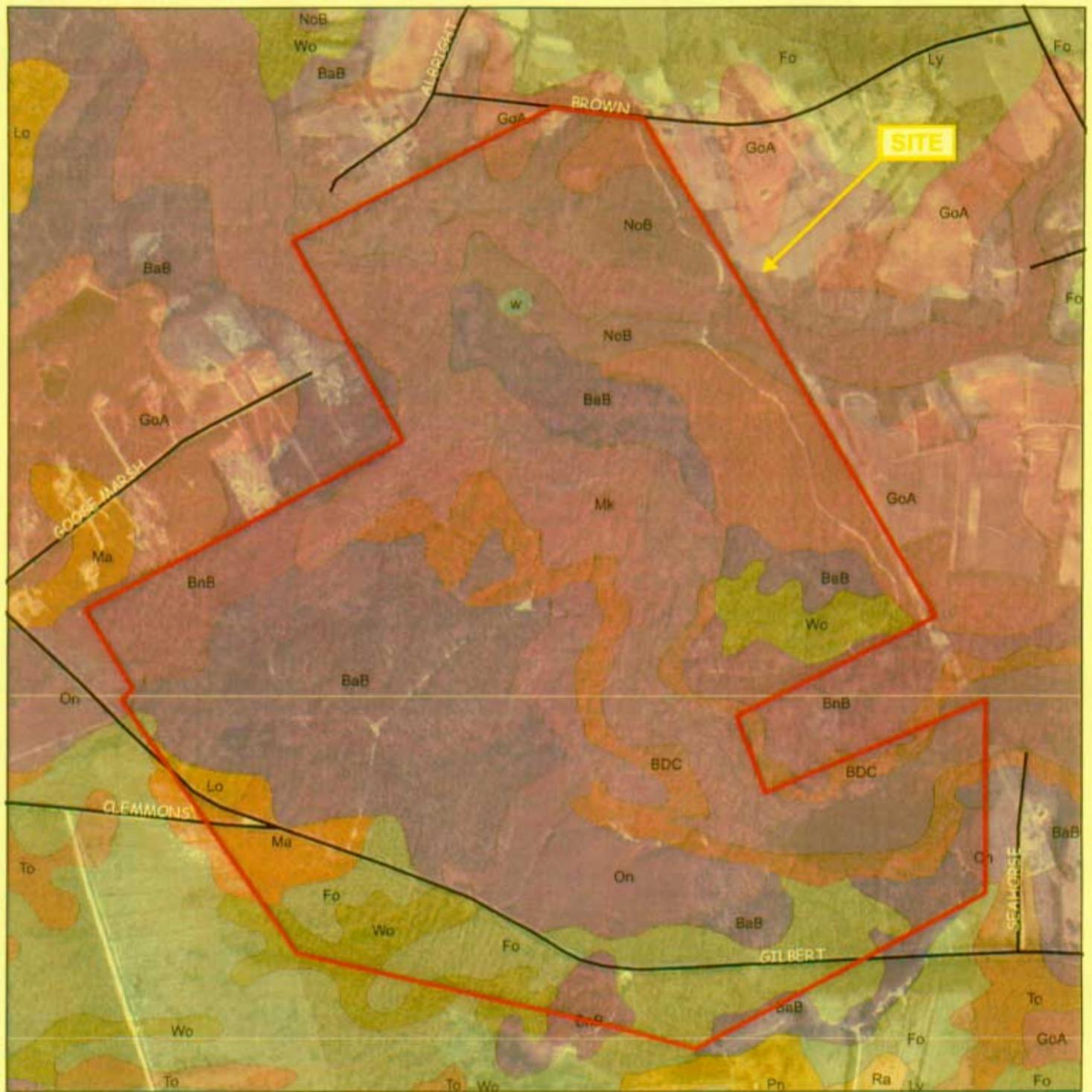
PROJECT # 11-0009
 SHEET # 1 OF 6
 DATE: APRIL 18, 2008
 SCALE: 1" = 200'

DATE	REVISION	INITIALS



NOTES:
 1. ALL DISTANCES GIVEN ARE HORIZONTAL UNLESS NOTED OTHERWISE.
 2. ALL DISTANCES ARE TO BE MEASURED ALONG THE CENTERLINE UNLESS NOTED OTHERWISE.

FIGURE 3 WETLAND SURVEY



*Boundaries are approximate and are not meant to be absolute.

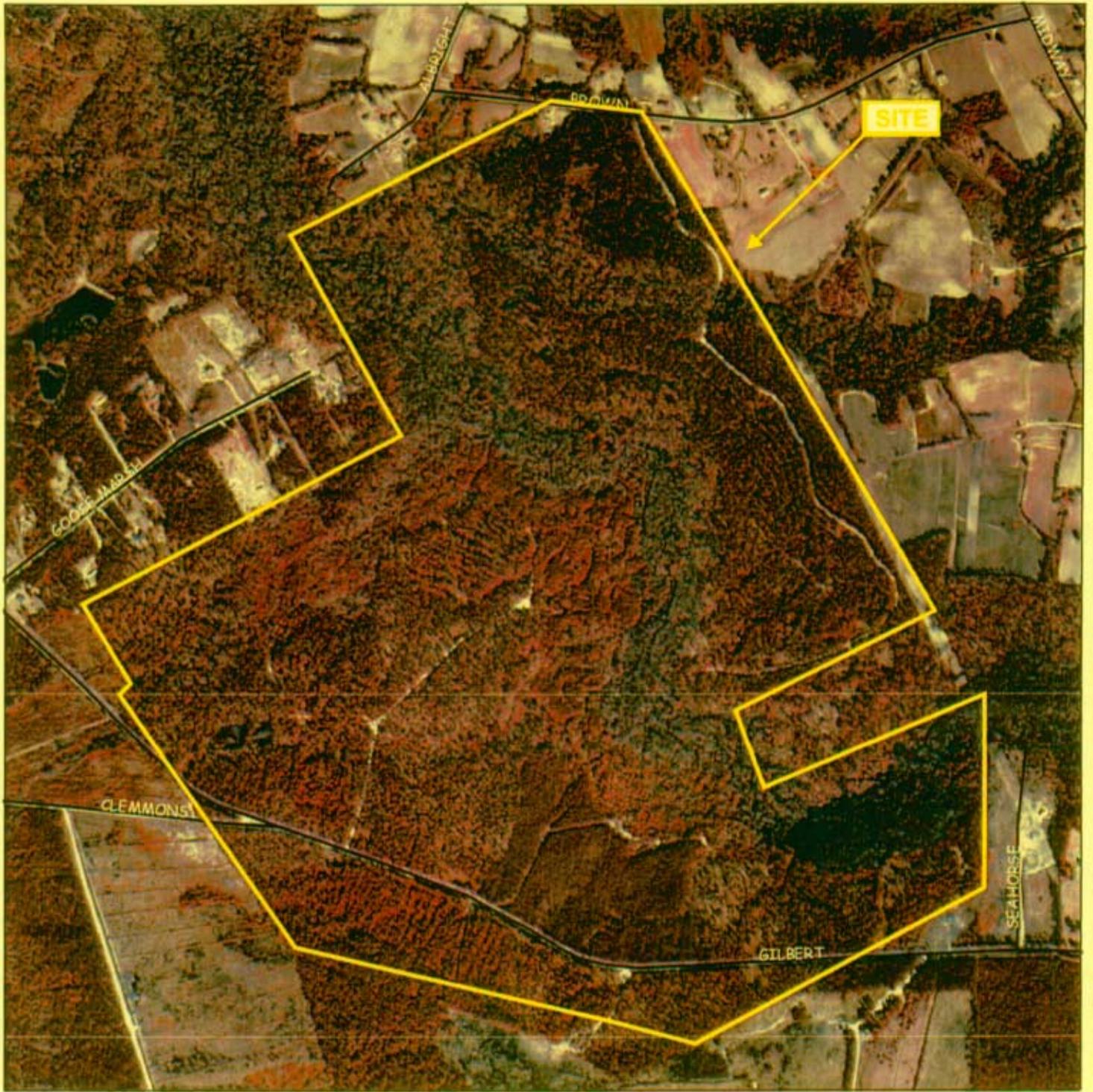
Map Source: NRCS Soils Map.

SCALE 1" = 1000'

Cypress Creek Subdivision
 Brunswick Development Co.
 Brunswick County, NC
 01-05-761P

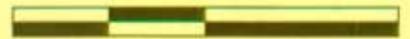
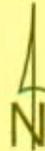
Land Management Group, Inc.
 Environmental Consultants
 Wilmington, N.C.
 October 2006

Figure 4
Soils Map



*Boundaries are approximate and are not meant to be absolute.

Map Source: 1998 NAPP aerial photography

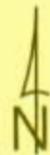
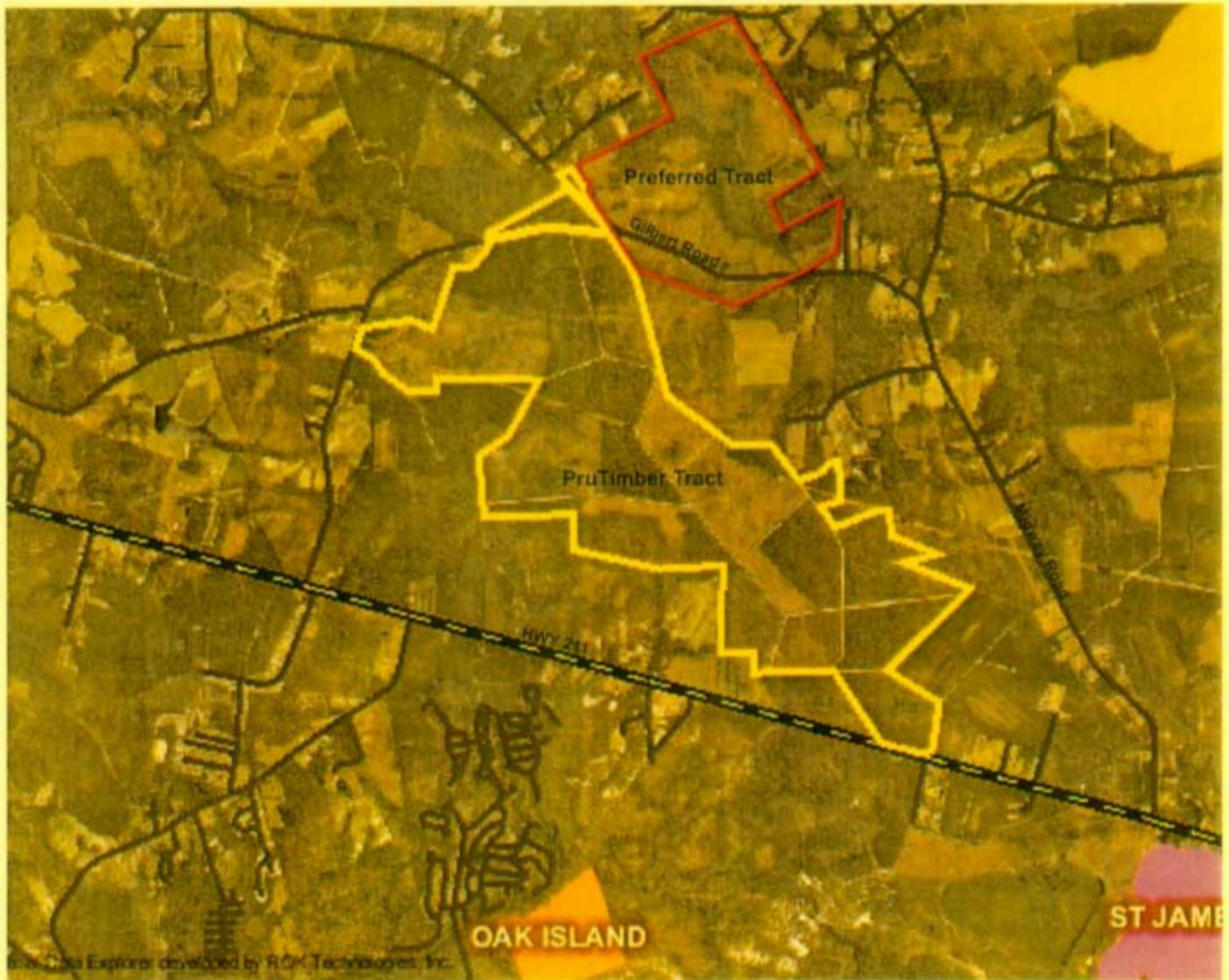


SCALE 1" = 1000'

Cypress Creek Subdivision
Brunswick Development Co.
Brunswick County, NC
01-05-761P

Land Management Group, Inc.
Environmental Consultants
Wilmington, N.C.
October 2006

Figure 5
Aerial Photograph

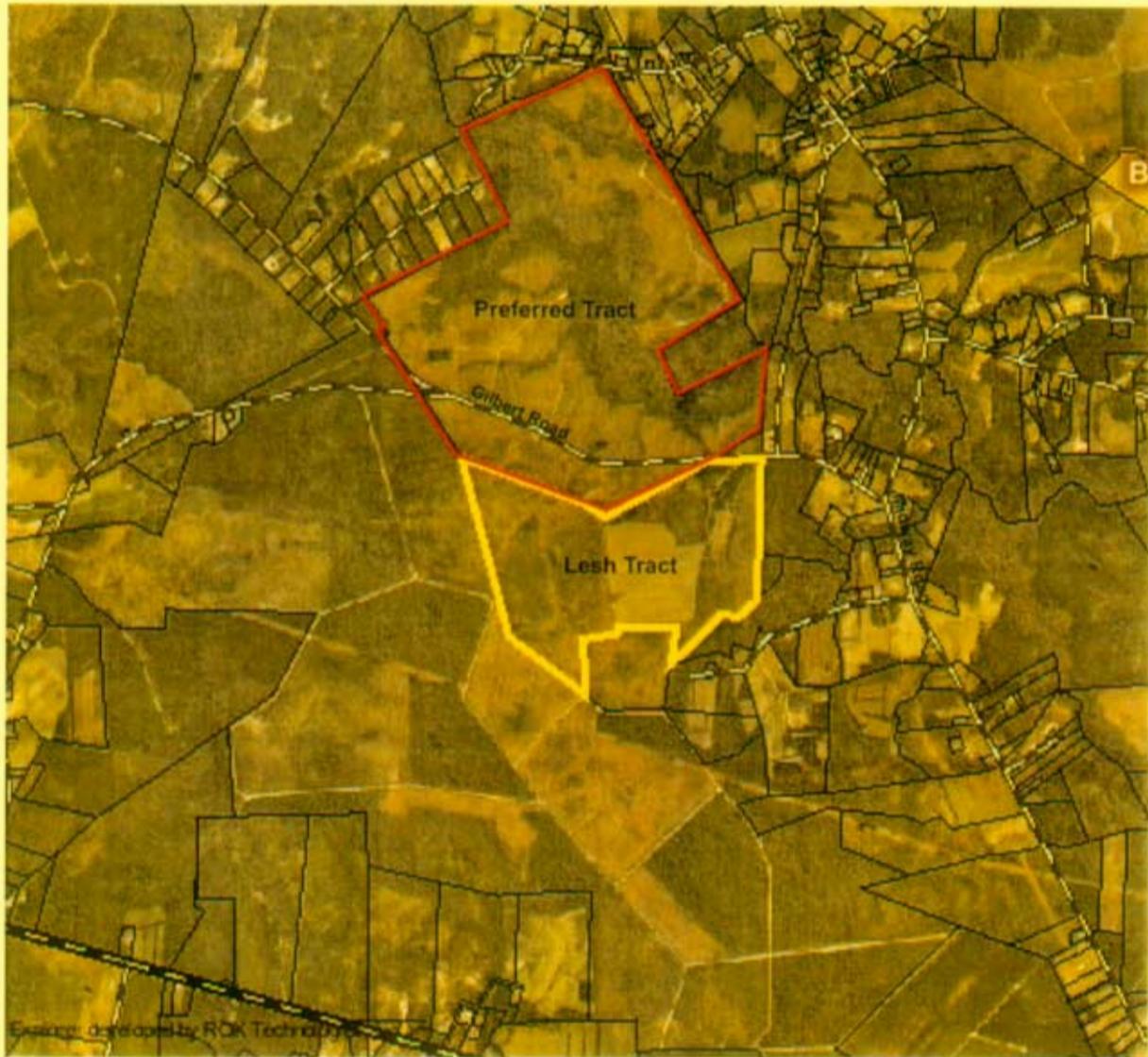


Not to Scale

Cypress Creek Subdivision
 Brunswick Development Co.
 Brunswick County, NC
 01-05-761P

Land Management Group, Inc.
 Environmental Consultants
 Wilmington, N.C.
 October 2006

Figure 6
PruTimber Tract
(Off-Site Alternative)

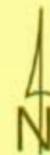
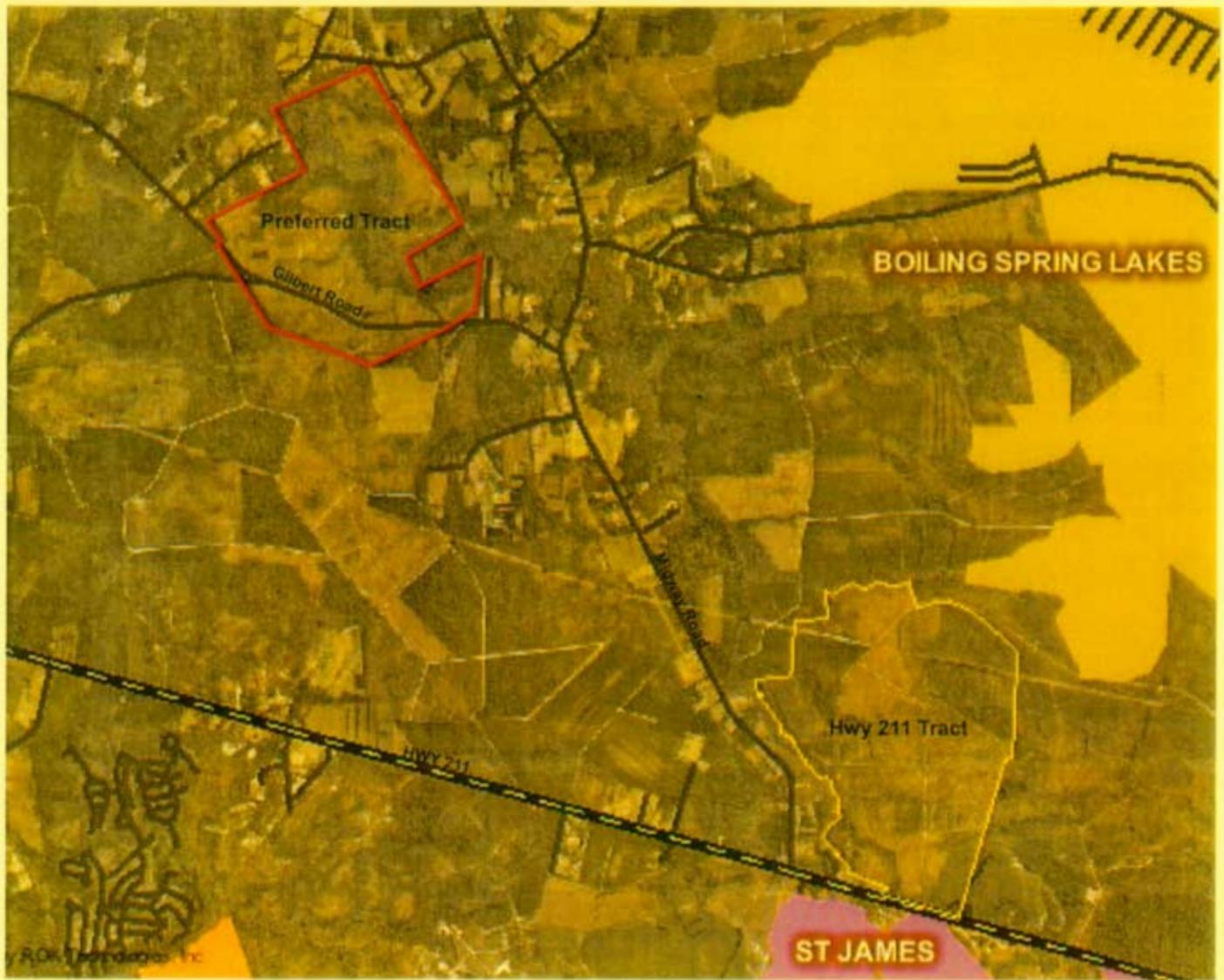


Not to Scale

Cypress Creek Subdivision
Brunswick Development Co.
Brunswick County, NC
01-05-761P

Land Management Group, Inc.
Environmental Consultants
Wilmington, N.C.
October 2006

Figure 7
Lesh Tract
(Off-Site Alternative)

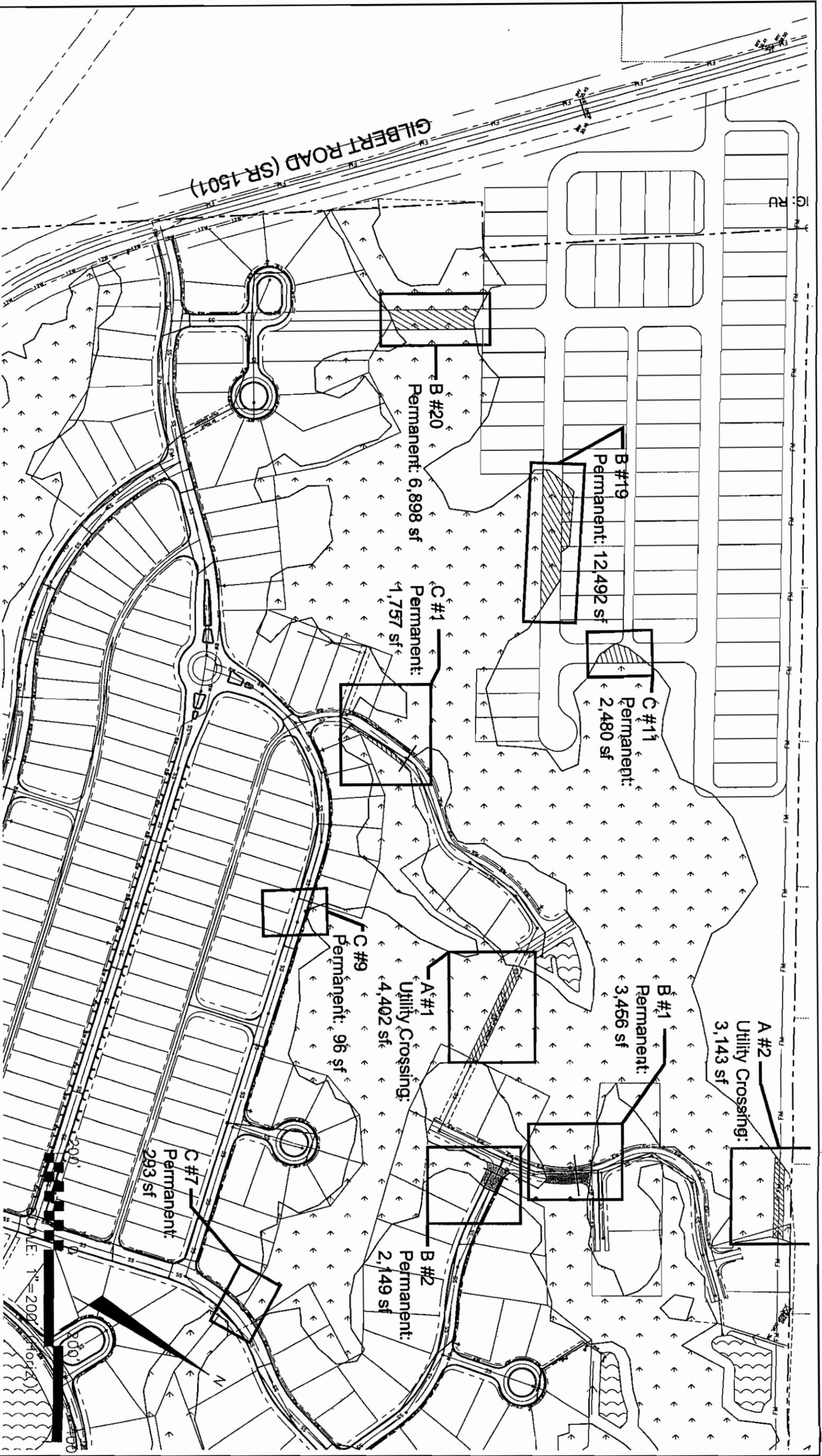


Not to Scale

Cypress Creek Subdivision
Brunswick Development Co.
Brunswick County, NC
01-05-761P

Land Management Group, Inc.
Environmental Consultants
Wilmington, N.C.
October 2006

Figure 8
Highway 211 Tract
(Off-Site Alternative)

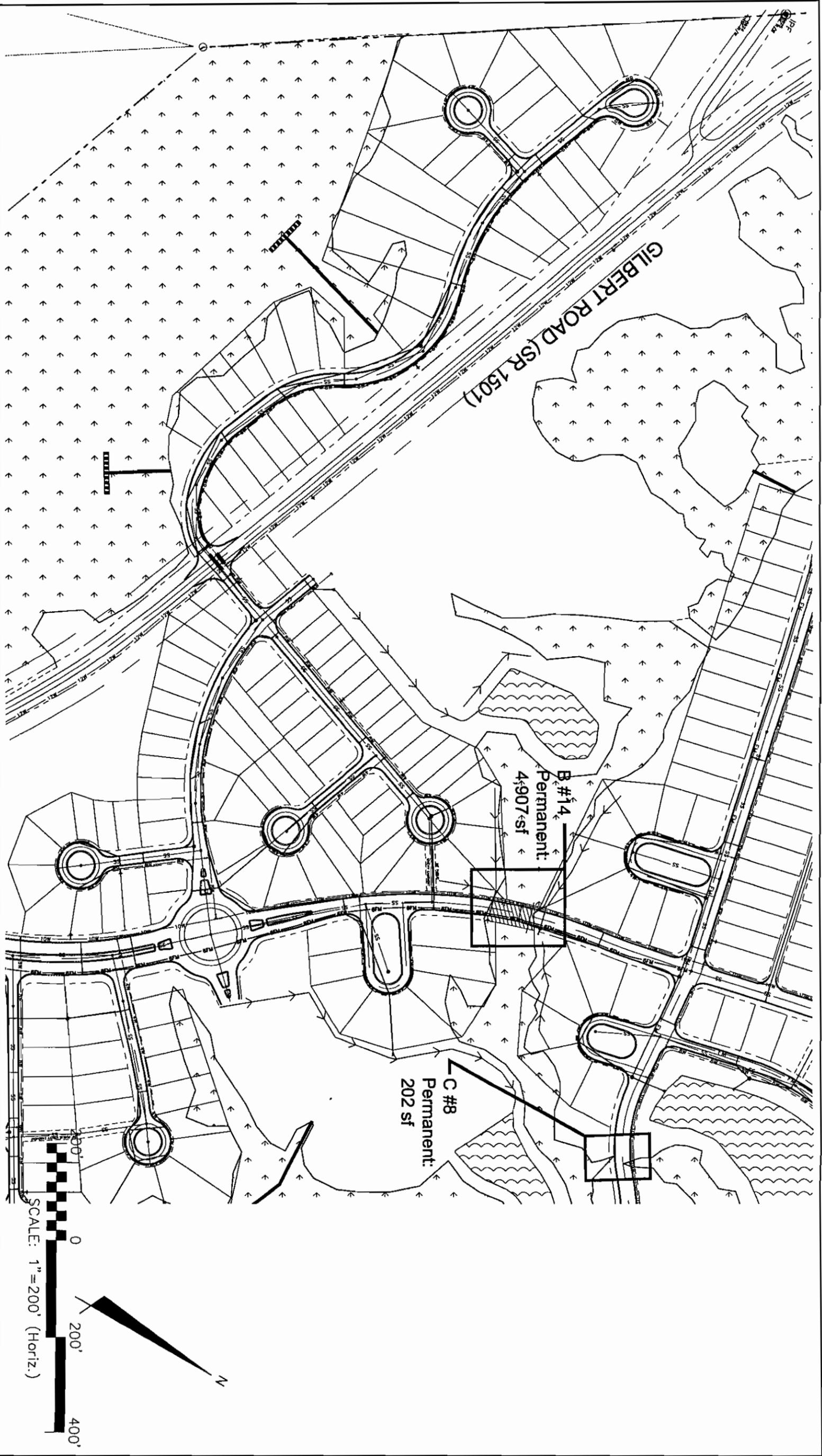



McKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
AA0002667 EB0006891
www.mckimcreed.com

Brunswick Development Company, Inc.
8450 Falls of Neuse Rd, Suite 202
Raleigh, NC 27615

CYPRESS CREEK I.P. SUBMITTAL
BRUNSWICK COUNTY, NC
FIGURE 9A.
WETLANDS IMPACTS ENLARGEMENT 1 OF 7

DATE:	NOV 2006	SCALE:	HORIZONTAL: 1" = 200'	MAC FILE NUMBER:	WETX
MCE PROJ #	4289-0002	DRAWN:	ATM/WTS	DESIGNED:	MAC
CHECKED:	RMC	PROJ. MGR:	MAC	DRAWING NUMBER:	W1-1
STATUS:	ISSUED FOR PERMITTING	REVISION:	A		



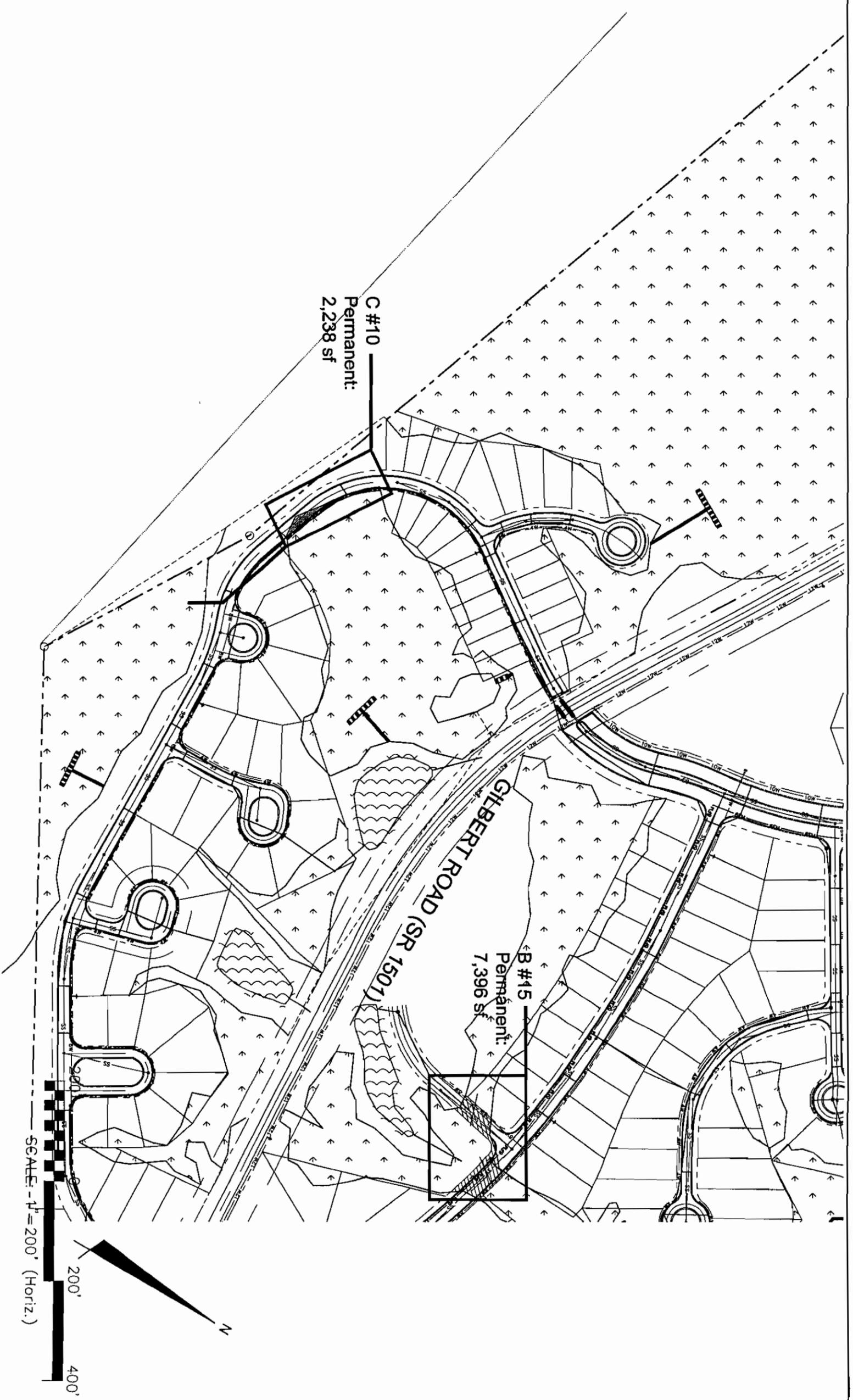

McKIM & CREED
 243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002887 EB0006891
 www.mckimcreed.com

Brunswick Development Company, Inc.
 8450 Falls of Neuse Rd, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC
 FIGURE 9B.
 WETLANDS IMPACTS
 ENLARGEMENT 2 OF 7

DATE:	NOV 2006	SCALE:	HORIZONTAL: 1" = 200'	M&C FILE NUMBER:	WETX
M&C PROJ. #	4289-0002	VERTICAL:	NA	DRAWING NUMBER:	W1-2
DRAWN:	ATA/WTS				
DESIGNED:	MAG				
CHECKED:	RMC				
PROJ. MGR:	MAG				

STATUS: ISSUED FOR PERMITTING
 REVISION: A



McKIM & CREED

243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002657 EB0006691
 www.mckimcreed.com

**Brunswick Development
 Company, Inc.**

8450 Falls of Neuse Rd, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC

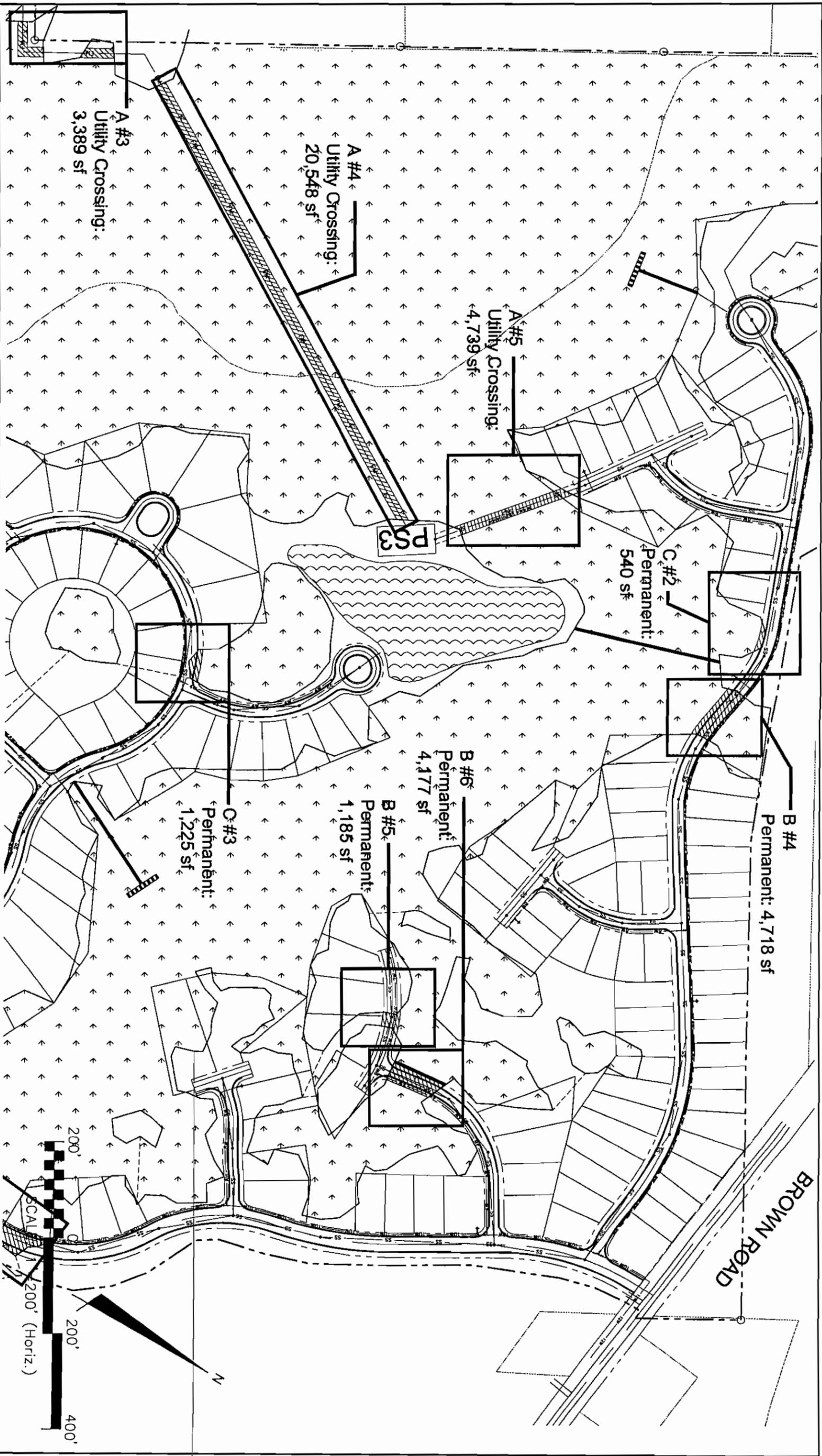
FIGURE 9C.
 WETLANDS IMPACTS
 ENLARGEMENT 3 OF 7

DATE:	NOV 2006
MCE PROJ. #	4289-0002
DRAWN	ATA/MTS
DESIGNED	MAG
CHECKED	RMC
PROJ. MGR.	MAG

SCALE	
HORIZONTAL:	1" = 200'
VERTICAL:	NA

MCE FILE NUMBER	WETX
DRAWING NUMBER	W1-3

STATUS:	ISSUED FOR PERMITTING
REVISION:	A



243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002667 EB0006691
 www.mckimcreed.com

Brunswick Development Company, Inc.

8450 Falls of Neuse Rd, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK I.P. SUBMITTAL BRUNSWICK COUNTY, NC

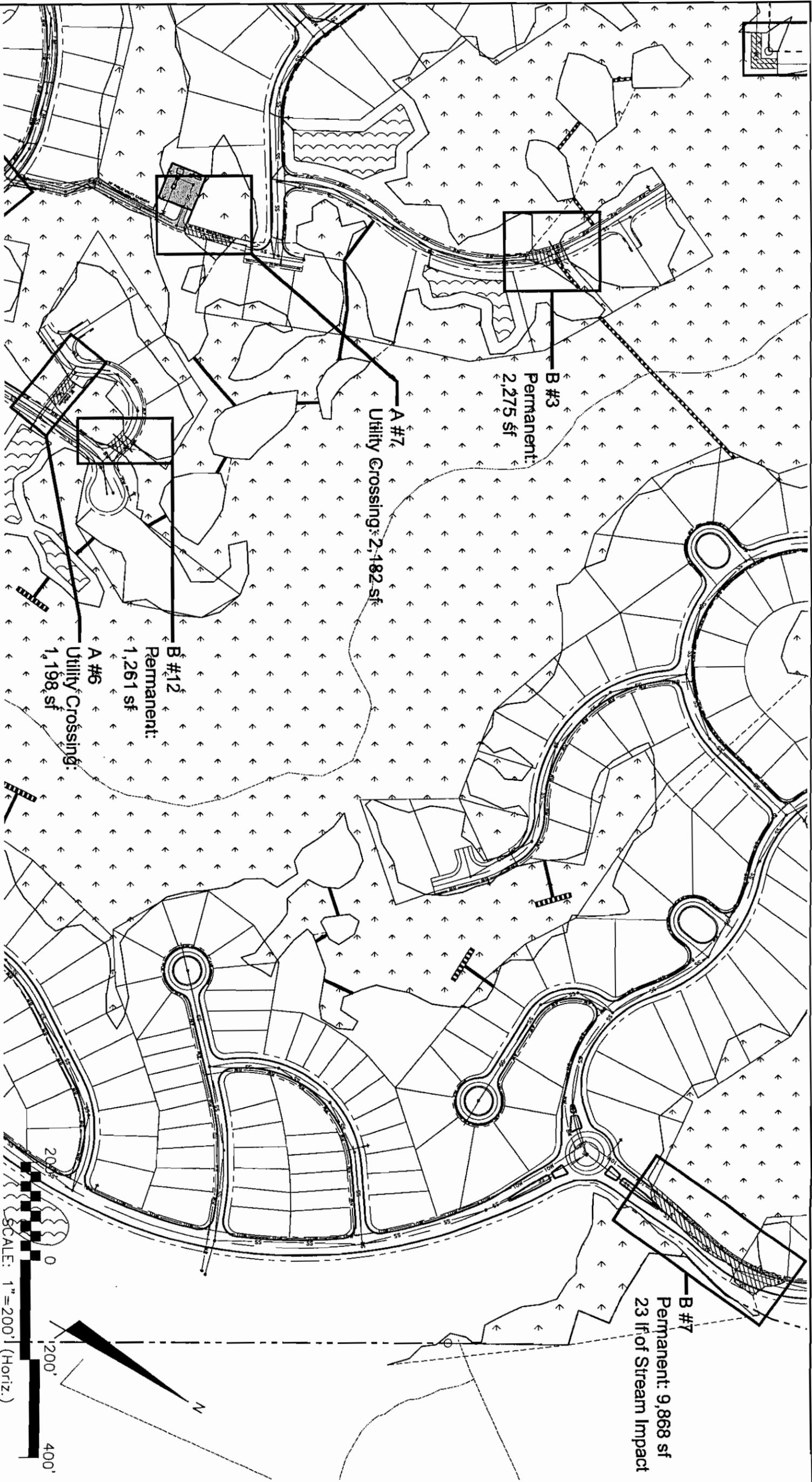
FIGURE 9D.
 WETLANDS IMPACTS ENLARGEMENT 4 OF 7

DATE:	NOV 2006
MCE PROJ #	4289-0002
DRAWN	ATA/WTS
DESIGNED	MAC
CHECKED	RMC
PROJ. MGR.	MAC

SCALE	
HORIZONTAL:	1" = 200'
VERTICAL:	NA

M&C FILE NUMBER	WETX
DRAWING NUMBER	W1-4

STATUS: ISSUED FOR PERMITTING
 REVISION: A



243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910) 343-1048, Fax: (910) 251-8282
 AA0002667 EB0006991
 www.mckimcreed.com

Brunswick Development

Company, Inc.

8450 Falls of Neuse Rd, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC

FIGURE 9E.
 WETLANDS IMPACTS
 ENLARGEMENT 5 OF 7

DATE: NOV 2006

VCE PROJ # 4289-0002

DRAWN AT/A/WTS

DESIGNED MAG

CHECKED RMC

PROJ. MGR. NA

SCALE

HORIZONTAL: 1" = 200'

VERTICAL: NA

MAC FILE NUMBER

WEIX

DRAWING NUMBER

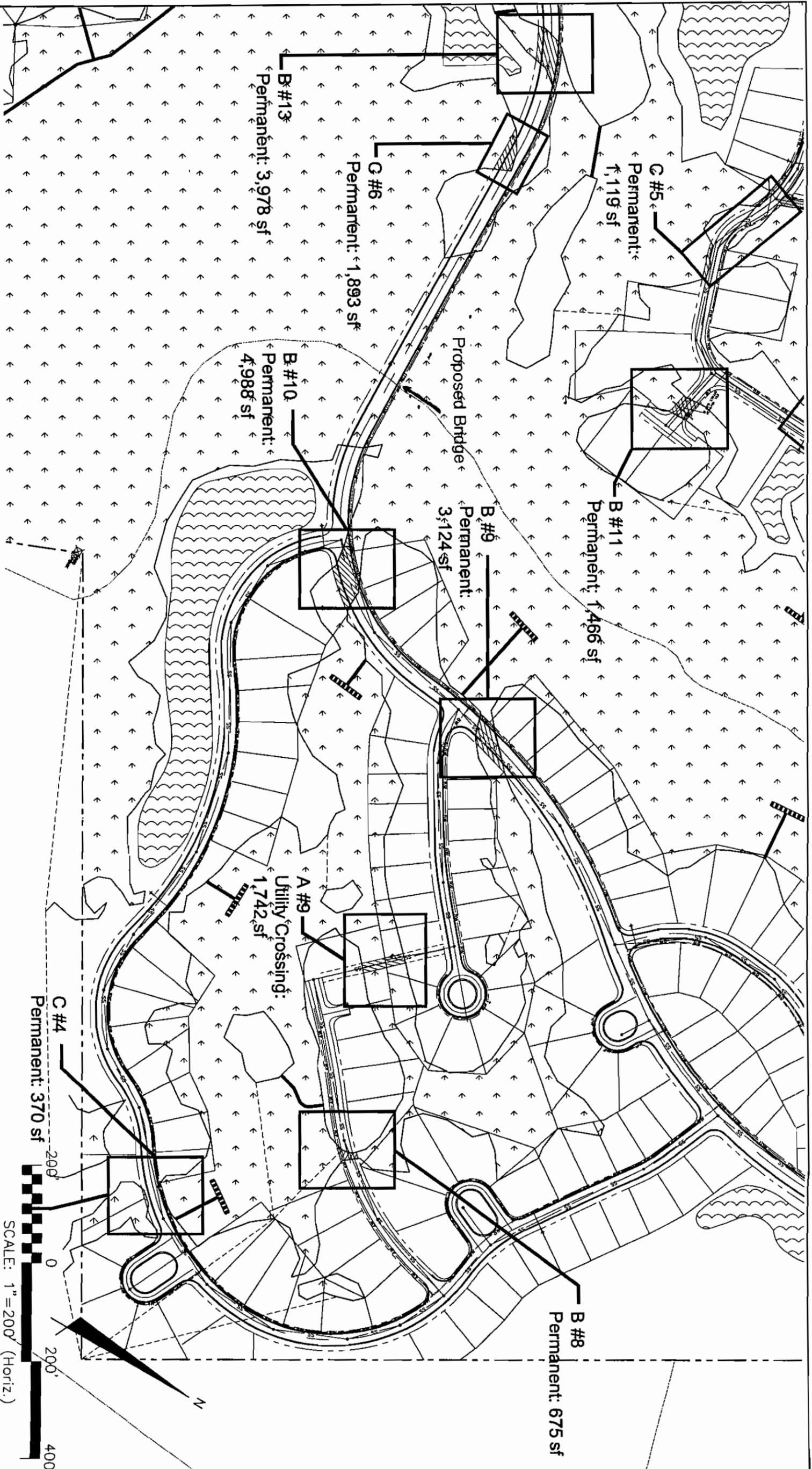
W1-5

STATUS:

ISSUED FOR PERMITTING

REVISION

A



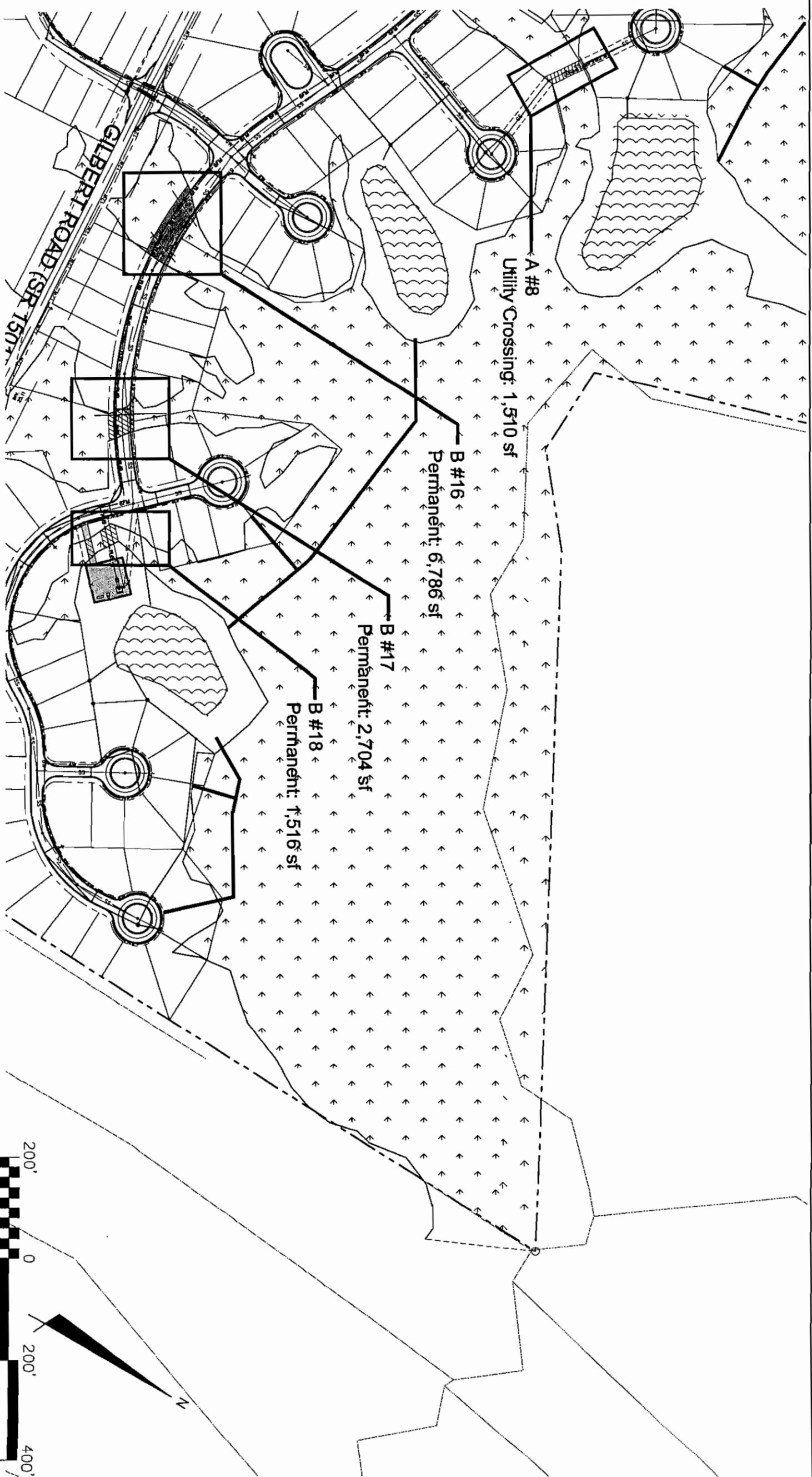

MCKIM & CREED
 243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002667 EB0006891
 www.mckimcreed.com

Brunswick Development Company, Inc.
 8450 Falls of Neuse Rd, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC
 FIGURE 9F.
 WETLANDS IMPACTS
 ENLARGEMENT 6 OF 7

DATE:	NOV 2006	SCALE:	HORIZONTAL: 1" = 200'	VERTICAL: NA	M&C FILE NUMBER: WETX
M&C PROJ. #	4289-0002	DESIGNED:	ATA/WTS		DRAWING NUMBER: W1-6
DRAWN:	MAG	CHECKED:	RAC		
PROJ. MGR.	MAG				

STATUS: ISSUED FOR PERMITTING
 REVISION: A



243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002867 EB0006991
 www.mckimcreed.com

Brunswick Development Company, Inc.
 8450 Falls of Neuse Rd, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC
 FIGURE 9G.
 WETLANDS IMPACTS
 ENLARGEMENT 7 OF 7

DATE:	NOV 2006	SCALE:	HORIZONT'L: 1" = 200'	M&C FILE NUMBER:	WETX
M&C PROJ. #	4289-0002	DESIGNED:	VERTICAL: NA	DRAWING NUMBER:	W1-7
DRAWN:	ATA/WTS	CHECKED:			
PROJ. MGR.	MAG				
	MAG				
	MAG				
STATUS:	ISSUED FOR PERMITTING				
REVISION:	A				

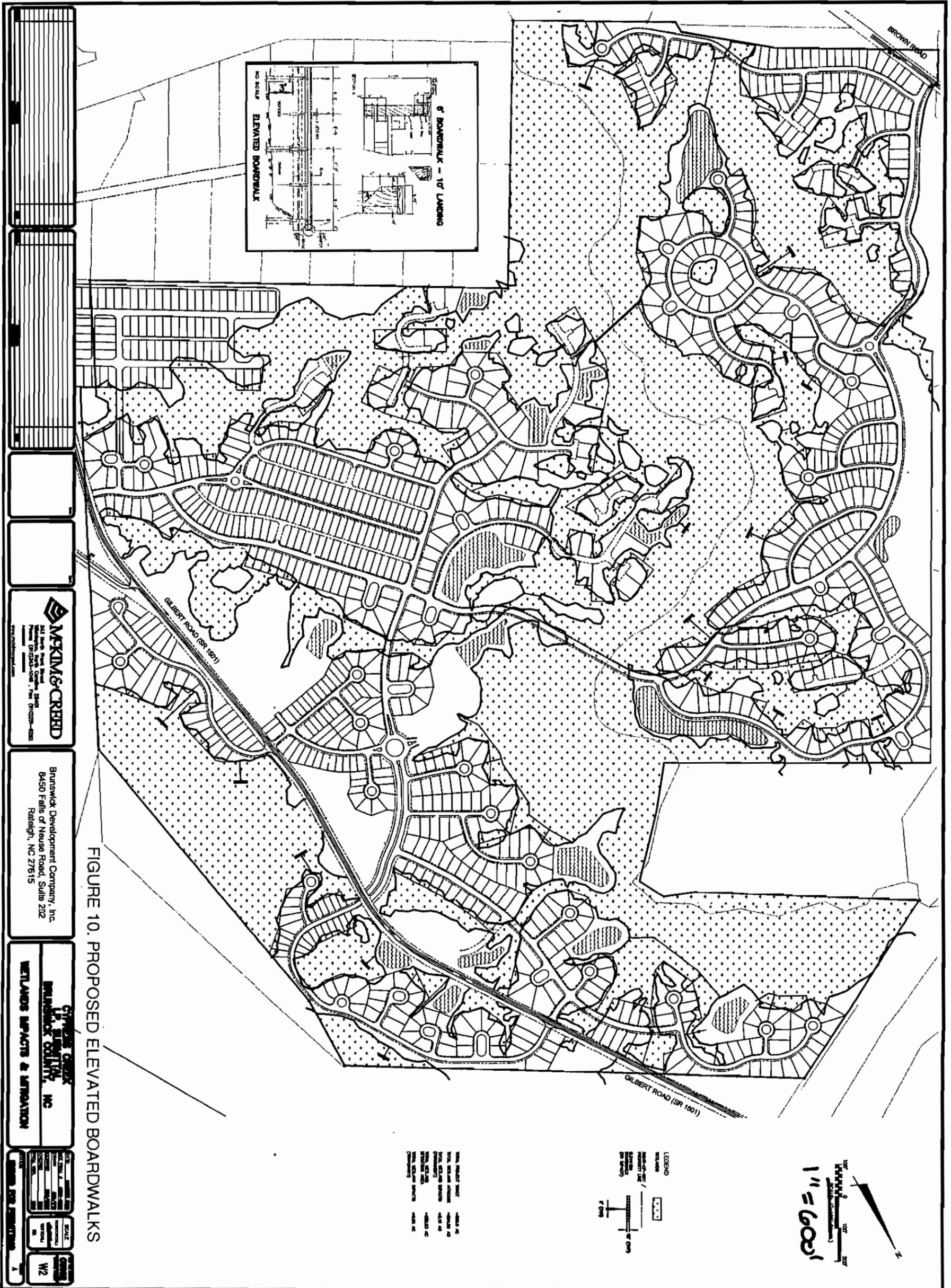


FIGURE 10. PROPOSED ELEVATED BOARDWALKS

MEKINS & CREED
 441 North Park Road
 Raleigh, NC 27615
 Phone: (919) 876-1000
 Fax: (919) 876-1001
 www.mekinsandcreed.com

Brunswick Development Company, Inc.
 8450 Falls of Neuse Road, Suite 202
 Raleigh, NC 27615

CHESAPEAKE GROUP
BRUNSWICK COUNTY, NC
WETLANDS IMPACTS & MITIGATION

DATE	BY	DESCRIPTION
10/20/08	mgray	FINAL DESIGN
10/15/08	mgray	REVISIONS
10/10/08	mgray	REVISIONS
10/05/08	mgray	REVISIONS
09/30/08	mgray	REVISIONS
09/25/08	mgray	REVISIONS
09/20/08	mgray	REVISIONS
09/15/08	mgray	REVISIONS
09/10/08	mgray	REVISIONS
09/05/08	mgray	REVISIONS
08/30/08	mgray	REVISIONS
08/25/08	mgray	REVISIONS
08/20/08	mgray	REVISIONS
08/15/08	mgray	REVISIONS
08/10/08	mgray	REVISIONS
08/05/08	mgray	REVISIONS
07/30/08	mgray	REVISIONS
07/25/08	mgray	REVISIONS
07/20/08	mgray	REVISIONS
07/15/08	mgray	REVISIONS
07/10/08	mgray	REVISIONS
07/05/08	mgray	REVISIONS
06/30/08	mgray	REVISIONS
06/25/08	mgray	REVISIONS
06/20/08	mgray	REVISIONS
06/15/08	mgray	REVISIONS
06/10/08	mgray	REVISIONS
06/05/08	mgray	REVISIONS
05/30/08	mgray	REVISIONS
05/25/08	mgray	REVISIONS
05/20/08	mgray	REVISIONS
05/15/08	mgray	REVISIONS
05/10/08	mgray	REVISIONS
05/05/08	mgray	REVISIONS
04/30/08	mgray	REVISIONS
04/25/08	mgray	REVISIONS
04/20/08	mgray	REVISIONS
04/15/08	mgray	REVISIONS
04/10/08	mgray	REVISIONS
04/05/08	mgray	REVISIONS
03/30/08	mgray	REVISIONS
03/25/08	mgray	REVISIONS
03/20/08	mgray	REVISIONS
03/15/08	mgray	REVISIONS
03/10/08	mgray	REVISIONS
03/05/08	mgray	REVISIONS
02/30/08	mgray	REVISIONS
02/25/08	mgray	REVISIONS
02/20/08	mgray	REVISIONS
02/15/08	mgray	REVISIONS
02/10/08	mgray	REVISIONS
02/05/08	mgray	REVISIONS
01/30/08	mgray	REVISIONS
01/25/08	mgray	REVISIONS
01/20/08	mgray	REVISIONS
01/15/08	mgray	REVISIONS
01/10/08	mgray	REVISIONS
01/05/08	mgray	REVISIONS
12/30/07	mgray	REVISIONS
12/25/07	mgray	REVISIONS
12/20/07	mgray	REVISIONS
12/15/07	mgray	REVISIONS
12/10/07	mgray	REVISIONS
12/05/07	mgray	REVISIONS
11/30/07	mgray	REVISIONS
11/25/07	mgray	REVISIONS
11/20/07	mgray	REVISIONS
11/15/07	mgray	REVISIONS
11/10/07	mgray	REVISIONS
11/05/07	mgray	REVISIONS
10/30/07	mgray	REVISIONS
10/25/07	mgray	REVISIONS
10/20/07	mgray	REVISIONS
10/15/07	mgray	REVISIONS
10/10/07	mgray	REVISIONS
10/05/07	mgray	REVISIONS
09/30/07	mgray	REVISIONS
09/25/07	mgray	REVISIONS
09/20/07	mgray	REVISIONS
09/15/07	mgray	REVISIONS
09/10/07	mgray	REVISIONS
09/05/07	mgray	REVISIONS
08/30/07	mgray	REVISIONS
08/25/07	mgray	REVISIONS
08/20/07	mgray	REVISIONS
08/15/07	mgray	REVISIONS
08/10/07	mgray	REVISIONS
08/05/07	mgray	REVISIONS
07/30/07	mgray	REVISIONS
07/25/07	mgray	REVISIONS
07/20/07	mgray	REVISIONS
07/15/07	mgray	REVISIONS
07/10/07	mgray	REVISIONS
07/05/07	mgray	REVISIONS
06/30/07	mgray	REVISIONS
06/25/07	mgray	REVISIONS
06/20/07	mgray	REVISIONS
06/15/07	mgray	REVISIONS
06/10/07	mgray	REVISIONS
06/05/07	mgray	REVISIONS
05/30/07	mgray	REVISIONS
05/25/07	mgray	REVISIONS
05/20/07	mgray	REVISIONS
05/15/07	mgray	REVISIONS
05/10/07	mgray	REVISIONS
05/05/07	mgray	REVISIONS
04/30/07	mgray	REVISIONS
04/25/07	mgray	REVISIONS
04/20/07	mgray	REVISIONS
04/15/07	mgray	REVISIONS
04/10/07	mgray	REVISIONS
04/05/07	mgray	REVISIONS
03/30/07	mgray	REVISIONS
03/25/07	mgray	REVISIONS
03/20/07	mgray	REVISIONS
03/15/07	mgray	REVISIONS
03/10/07	mgray	REVISIONS
03/05/07	mgray	REVISIONS
02/30/07	mgray	REVISIONS
02/25/07	mgray	REVISIONS
02/20/07	mgray	REVISIONS
02/15/07	mgray	REVISIONS
02/10/07	mgray	REVISIONS
02/05/07	mgray	REVISIONS
01/30/07	mgray	REVISIONS
01/25/07	mgray	REVISIONS
01/20/07	mgray	REVISIONS
01/15/07	mgray	REVISIONS
01/10/07	mgray	REVISIONS
01/05/07	mgray	REVISIONS
12/30/06	mgray	REVISIONS
12/25/06	mgray	REVISIONS
12/20/06	mgray	REVISIONS
12/15/06	mgray	REVISIONS
12/10/06	mgray	REVISIONS
12/05/06	mgray	REVISIONS
11/30/06	mgray	REVISIONS
11/25/06	mgray	REVISIONS
11/20/06	mgray	REVISIONS
11/15/06	mgray	REVISIONS
11/10/06	mgray	REVISIONS
11/05/06	mgray	REVISIONS
10/30/06	mgray	REVISIONS
10/25/06	mgray	REVISIONS
10/20/06	mgray	REVISIONS
10/15/06	mgray	REVISIONS
10/10/06	mgray	REVISIONS
10/05/06	mgray	REVISIONS
09/30/06	mgray	REVISIONS
09/25/06	mgray	REVISIONS
09/20/06	mgray	REVISIONS
09/15/06	mgray	REVISIONS
09/10/06	mgray	REVISIONS
09/05/06	mgray	REVISIONS
08/30/06	mgray	REVISIONS
08/25/06	mgray	REVISIONS
08/20/06	mgray	REVISIONS
08/15/06	mgray	REVISIONS
08/10/06	mgray	REVISIONS
08/05/06	mgray	REVISIONS
07/30/06	mgray	REVISIONS
07/25/06	mgray	REVISIONS
07/20/06	mgray	REVISIONS
07/15/06	mgray	REVISIONS
07/10/06	mgray	REVISIONS
07/05/06	mgray	REVISIONS
06/30/06	mgray	REVISIONS
06/25/06	mgray	REVISIONS
06/20/06	mgray	REVISIONS
06/15/06	mgray	REVISIONS
06/10/06	mgray	REVISIONS
06/05/06	mgray	REVISIONS
05/30/06	mgray	REVISIONS
05/25/06	mgray	REVISIONS
05/20/06	mgray	REVISIONS
05/15/06	mgray	REVISIONS
05/10/06	mgray	REVISIONS
05/05/06	mgray	REVISIONS
04/30/06	mgray	REVISIONS
04/25/06	mgray	REVISIONS
04/20/06	mgray	REVISIONS
04/15/06	mgray	REVISIONS
04/10/06	mgray	REVISIONS
04/05/06	mgray	REVISIONS
03/30/06	mgray	REVISIONS
03/25/06	mgray	REVISIONS
03/20/06	mgray	REVISIONS
03/15/06	mgray	REVISIONS
03/10/06	mgray	REVISIONS
03/05/06	mgray	REVISIONS
02/30/06	mgray	REVISIONS
02/25/06	mgray	REVISIONS
02/20/06	mgray	REVISIONS
02/15/06	mgray	REVISIONS
02/10/06	mgray	REVISIONS
02/05/06	mgray	REVISIONS
01/30/06	mgray	REVISIONS
01/25/06	mgray	REVISIONS
01/20/06	mgray	REVISIONS
01/15/06	mgray	REVISIONS
01/10/06	mgray	REVISIONS
01/05/06	mgray	REVISIONS
12/30/05	mgray	REVISIONS
12/25/05	mgray	REVISIONS
12/20/05	mgray	REVISIONS
12/15/05	mgray	REVISIONS
12/10/05	mgray	REVISIONS
12/05/05	mgray	REVISIONS
11/30/05	mgray	REVISIONS
11/25/05	mgray	REVISIONS
11/20/05	mgray	REVISIONS
11/15/05	mgray	REVISIONS
11/10/05	mgray	REVISIONS
11/05/05	mgray	REVISIONS
10/30/05	mgray	REVISIONS
10/25/05	mgray	REVISIONS
10/20/05	mgray	REVISIONS
10/15/05	mgray	REVISIONS
10/10/05	mgray	REVISIONS
10/05/05	mgray	REVISIONS
09/30/05	mgray	REVISIONS
09/25/05	mgray	REVISIONS
09/20/05	mgray	REVISIONS
09/15/05	mgray	REVISIONS
09/10/05	mgray	REVISIONS
09/05/05	mgray	REVISIONS
08/30/05	mgray	REVISIONS
08/25/05	mgray	REVISIONS
08/20/05	mgray	REVISIONS
08/15/05	mgray	REVISIONS
08/10/05	mgray	REVISIONS
08/05/05	mgray	REVISIONS
07/30/05	mgray	REVISIONS
07/25/05	mgray	REVISIONS
07/20/05	mgray	REVISIONS
07/15/05	mgray	REVISIONS
07/10/05	mgray	REVISIONS
07/05/05	mgray	REVISIONS
06/30/05	mgray	REVISIONS
06/25/05	mgray	REVISIONS
06/20/05	mgray	REVISIONS
06/15/05	mgray	REVISIONS
06/10/05	mgray	REVISIONS
06/05/05	mgray	REVISIONS
05/30/05	mgray	REVISIONS
05/25/05	mgray	REVISIONS
05/20/05	mgray	REVISIONS
05/15/05	mgray	REVISIONS
05/10/05	mgray	REVISIONS
05/05/05	mgray	REVISIONS
04/30/05	mgray	REVISIONS
04/25/05	mgray	REVISIONS
04/20/05	mgray	REVISIONS
04/15/05	mgray	REVISIONS
04/10/05	mgray	REVISIONS
04/05/05	mgray	REVISIONS
03/30/05	mgray	REVISIONS
03/25/05	mgray	REVISIONS
03/20/05	mgray	REVISIONS
03/15/05	mgray	REVISIONS
03/10/05	mgray	REVISIONS
03/05/05	mgray	REVISIONS
02/30/05	mgray	REVISIONS
02/25/05	mgray	REVISIONS
02/20/05	mgray	REVISIONS
02/15/05	mgray	REVISIONS
02/10/05	mgray	REVISIONS
02/05/05	mgray	REVISIONS
01/30/05	mgray	REVISIONS
01/25/05	mgray	REVISIONS
01/20/05	mgray	REVISIONS
01/15/05	mgray	REVISIONS
01/10/05	mgray	REVISIONS
01/05/05	mgray	REVISIONS
12/30/04	mgray	REVISIONS
12/25/04	mgray	REVISIONS
12/20/04	mgray	REVISIONS
12/15/04	mgray	REVISIONS
12/10/04	mgray	REVISIONS
12/05/04	mgray	REVISIONS
11/30/04	mgray	REVISIONS
11/25/04	mgray	REVISIONS
11/20/04	mgray	REVISIONS
11/15/04	mgray	REVISIONS
11/10/04	mgray	REVISIONS
11/05/04	mgray	REVISIONS
10/30/04	mgray	REVISIONS
10/25/04	mgray	REVISIONS
10/20/04	mgray	REVISIONS
10/15/04	mgray	REVISIONS
10/10/04	mgray	REVISIONS
10/05/04	mgray	REVISIONS
09/30/04	mgray	REVISIONS
09/25/04	mgray	REVISIONS
09/20/04	mgray	REVISIONS
09/15/04	mgray	REVISIONS
09/10/04	mgray	REVISIONS
09/05/04	mgray	REVISIONS
08/30/04	mgray	REVISIONS
08/25/04	mgray	REVISIONS
08/20/04	mgray	REVISIONS
08/15/04	mgray	REVISIONS
08/10/04	mgray	REVISIONS
08/05/04	mgray	REVISIONS
07/30/04	mgray	REVISIONS
07/25/04	mgray	REVISIONS
07/20/04	mgray	REVISIONS
07/15/04	mgray	REVISIONS
07/10/04	mgray	REVISIONS
07/05/04	mgray	REVISIONS
06/30/04	mgray	REVISIONS

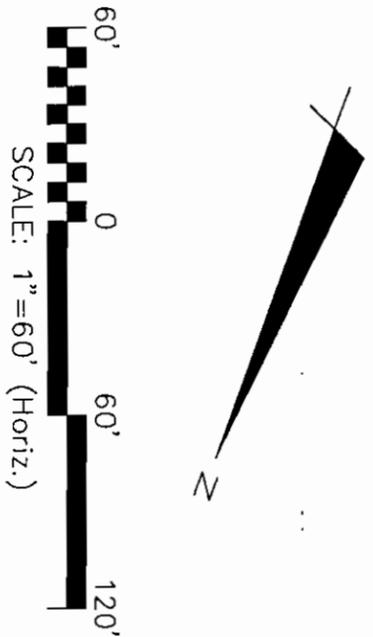
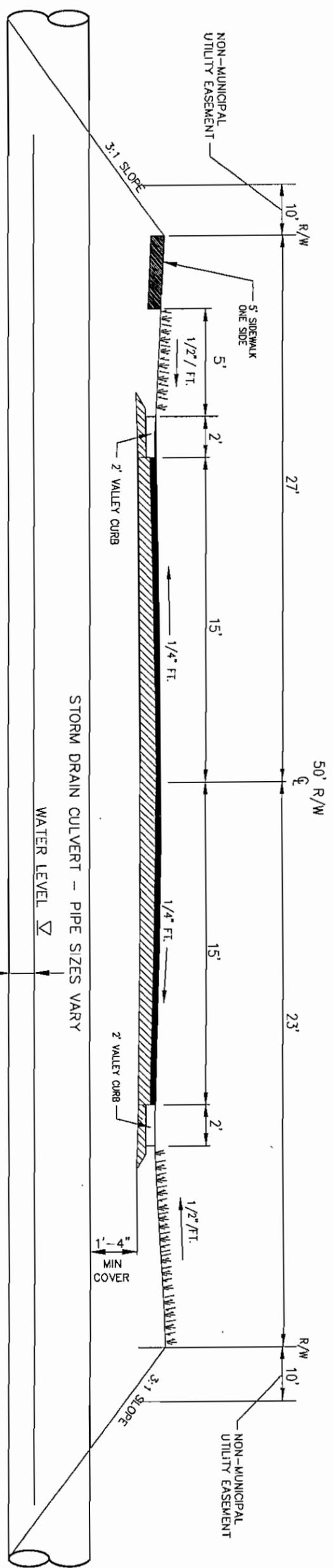
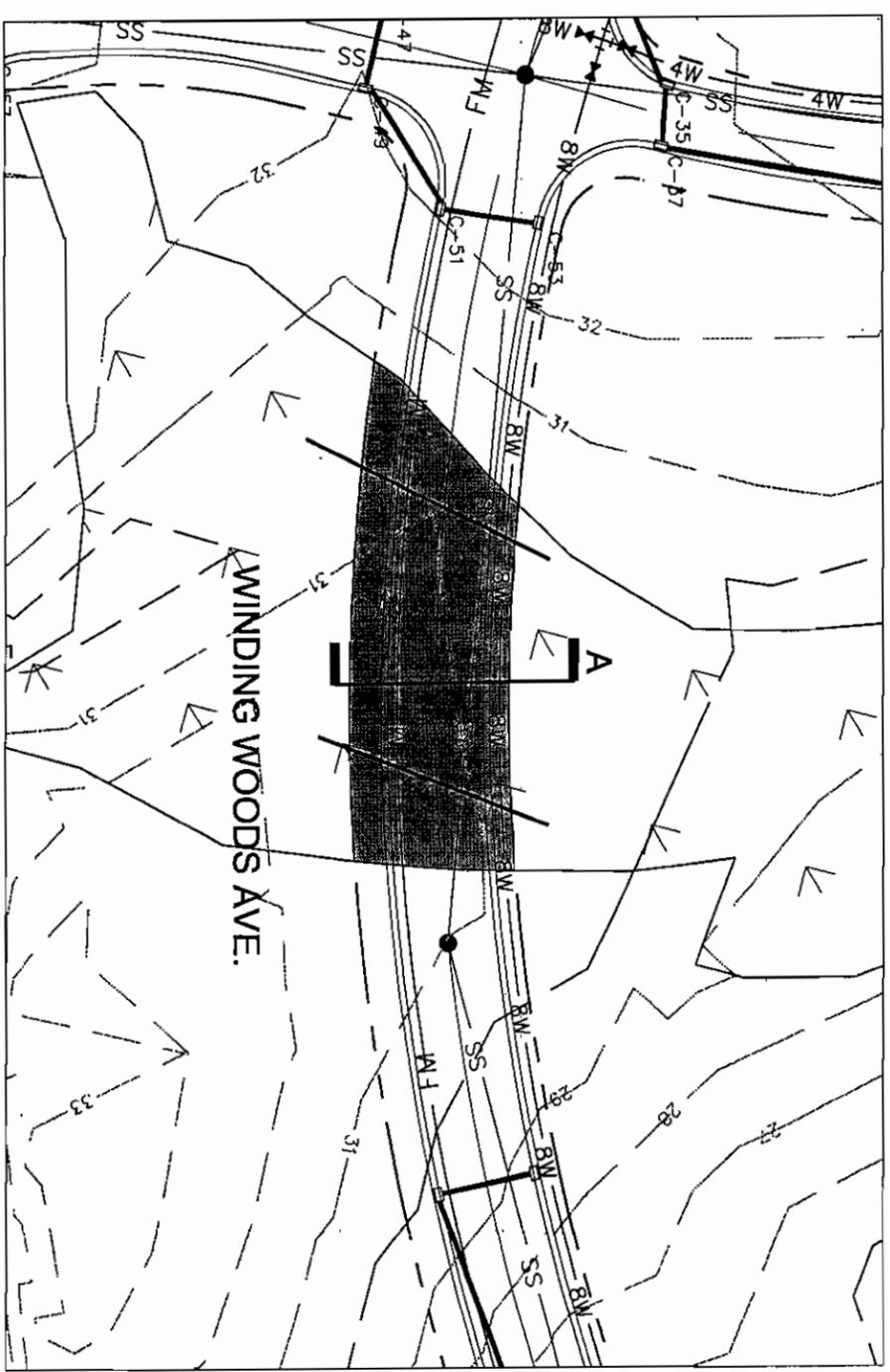


MCKIM & CREED
 243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002667 EB0006691
 www.mckimcreed.com

Brunswick Development Company, Inc.
 8450 Falls of Neuse Road, Suite 202
 Raleigh, NC 27615

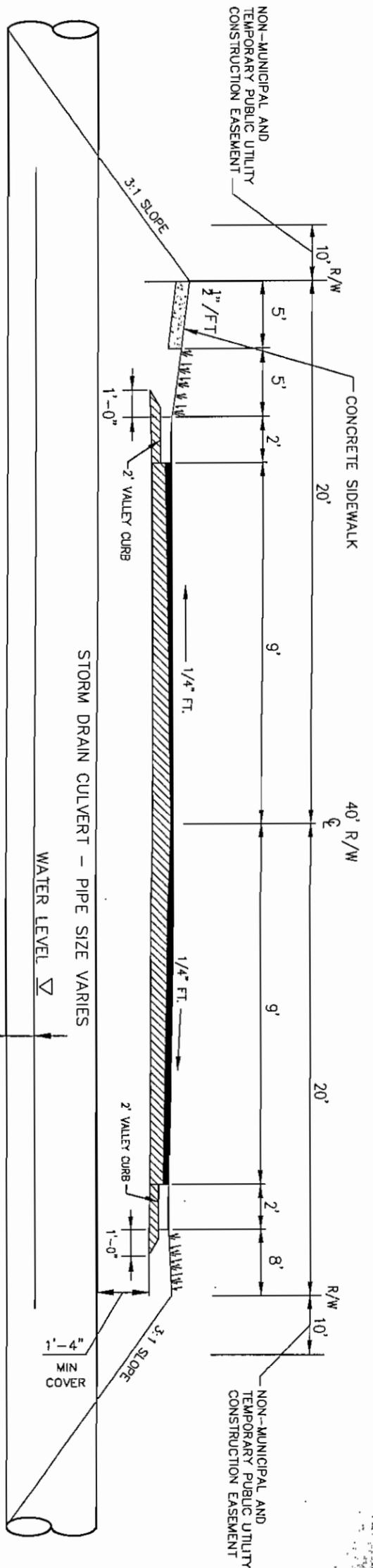
CYPRESS CREEK I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC
 FIGURE 12-A
ROAD CROSSING WETLAND IMPACT
 TYPE B-1 (COLLECTOR ROAD)

DATE:	OCTOBER 2006	SCALE:	HORIZONTAL: 1" = 60'	M&C FILE NUMBER:	WETB
M&C PROJ. #	4289-0002	DESIGNED:	ROD/KCBE	DRAWING NUMBER:	W2
DRAWN:	WTS	CHECKED:	RMC	PROJ. MGR.:	MAG
STATUS:	ISSUED FOR PERMITTING				
REVISION:	A				



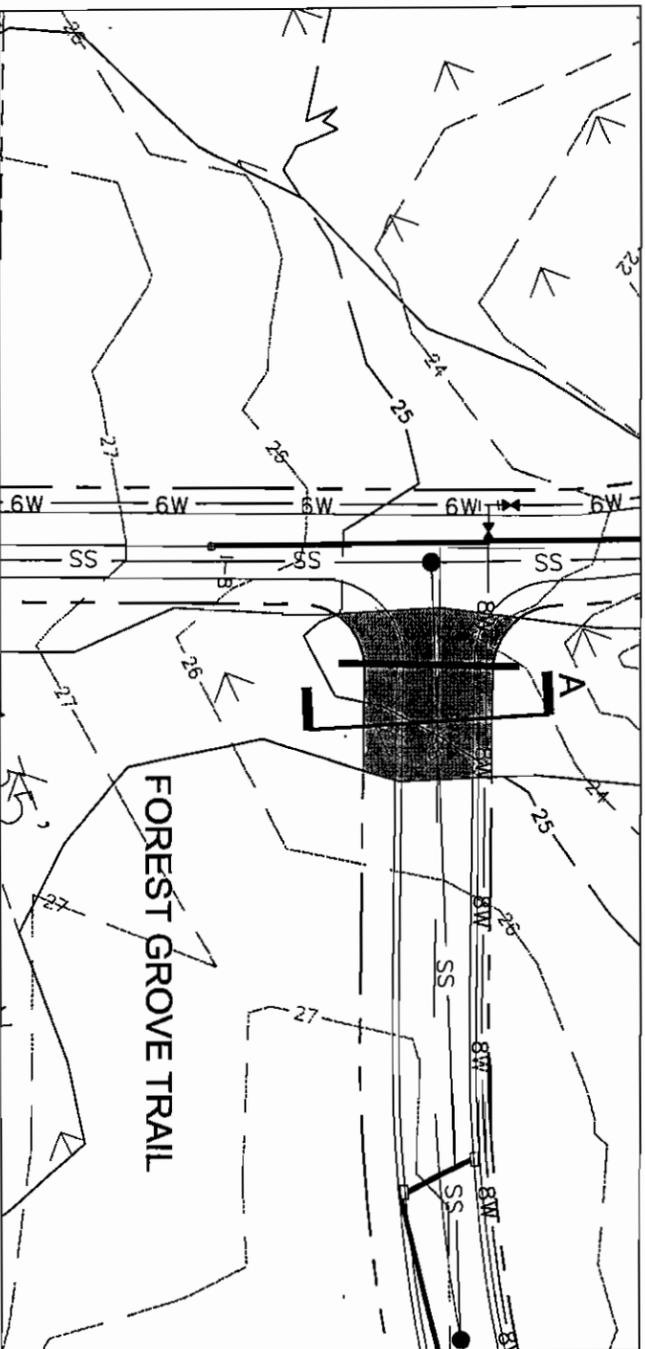
LEGEND

EXISTING CONTOURS	50
PROPOSED CONTOURS	50
WETLANDS	[Symbol]
IMPACTED WETLANDS	[Symbol]
TEMPORARILY IMPACTED WETLANDS	[Symbol]
RIGHT-OF-WAY / PROPERTY LINE	[Symbol]
GRAVITY SEWER	SS
WATER	W
STORM DRAIN	[Symbol]
FORCE MAIN	FM
(DIRECTIONAL DRILL)	[Symbol]

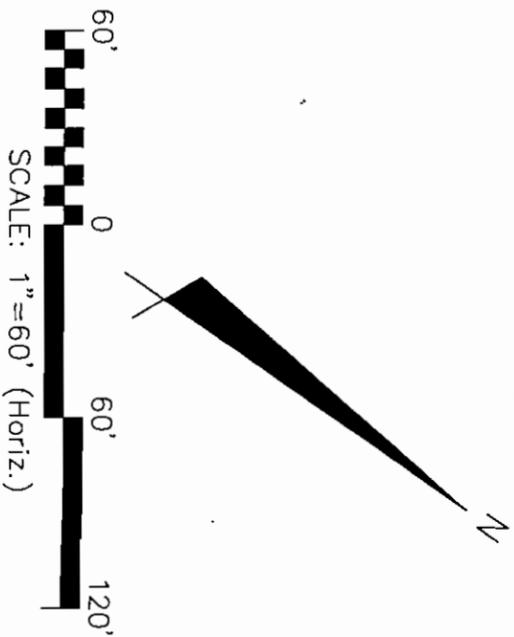


SECTION A
NOT TO SCALE

20% OF PIPE Ø
WITH 1' MIN.



- LEGEND**
- EXISTING CONTOURS
 - PROPOSED CONTOURS
 - WETLANDS
 - IMPACTED WETLANDS
 - TEMPORARILY IMPACTED WETLANDS
 - RIGHT-OF-WAY PROPERTY LINE
 - GRAVITY SEWER
 - WATER
 - STORM DRAIN



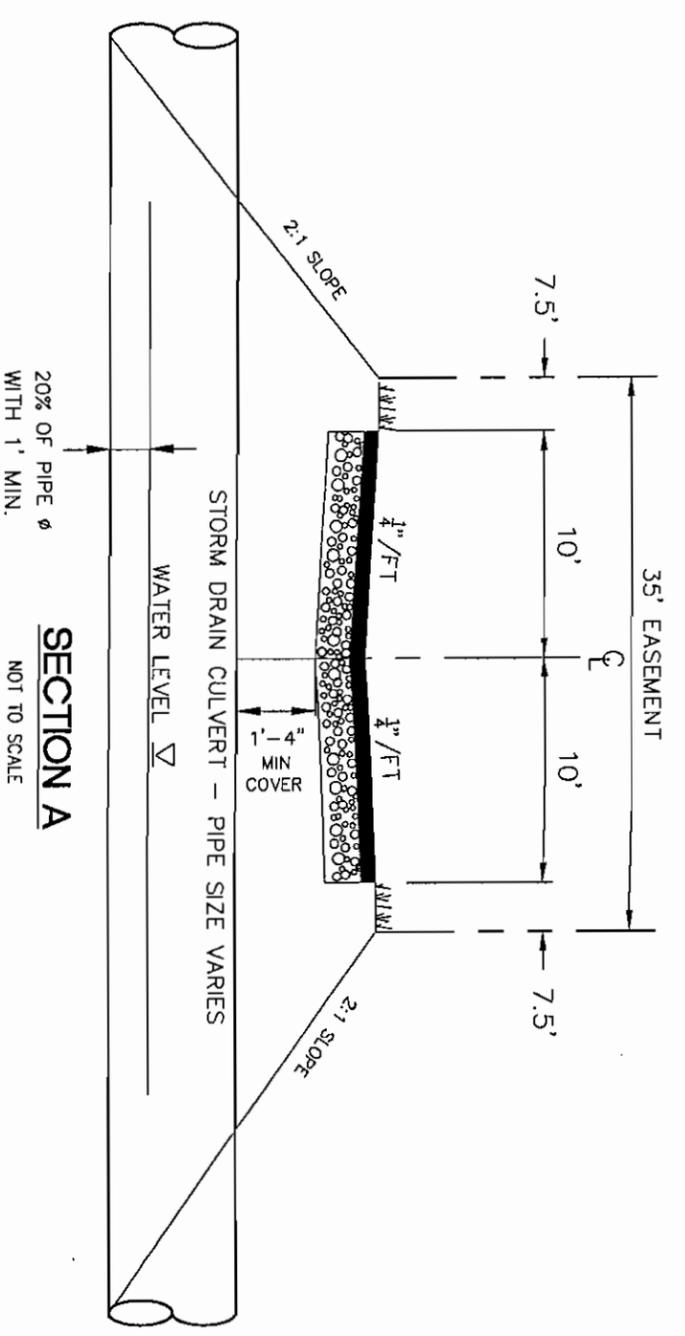
MCKIM & CREED
 243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002667 EB0006691
 www.mckimcreed.com

Brunswick Development Company, Inc.
 8450 Falls of Neuse Road, Suite 202
 Raleigh, NC 27615

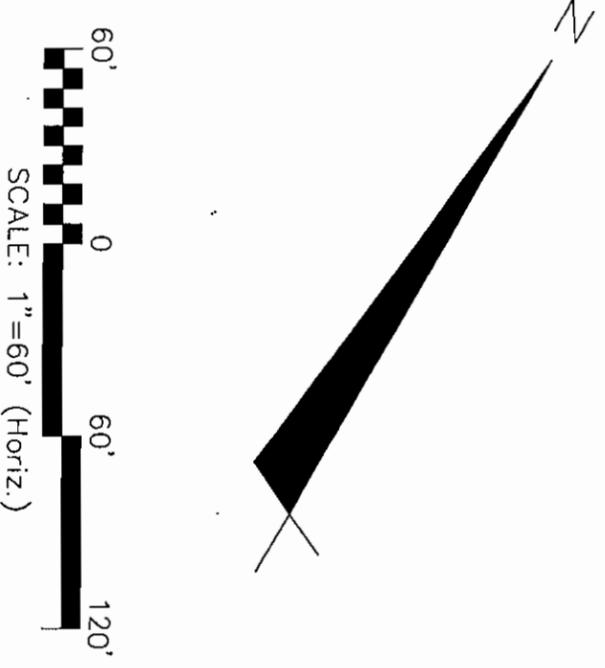
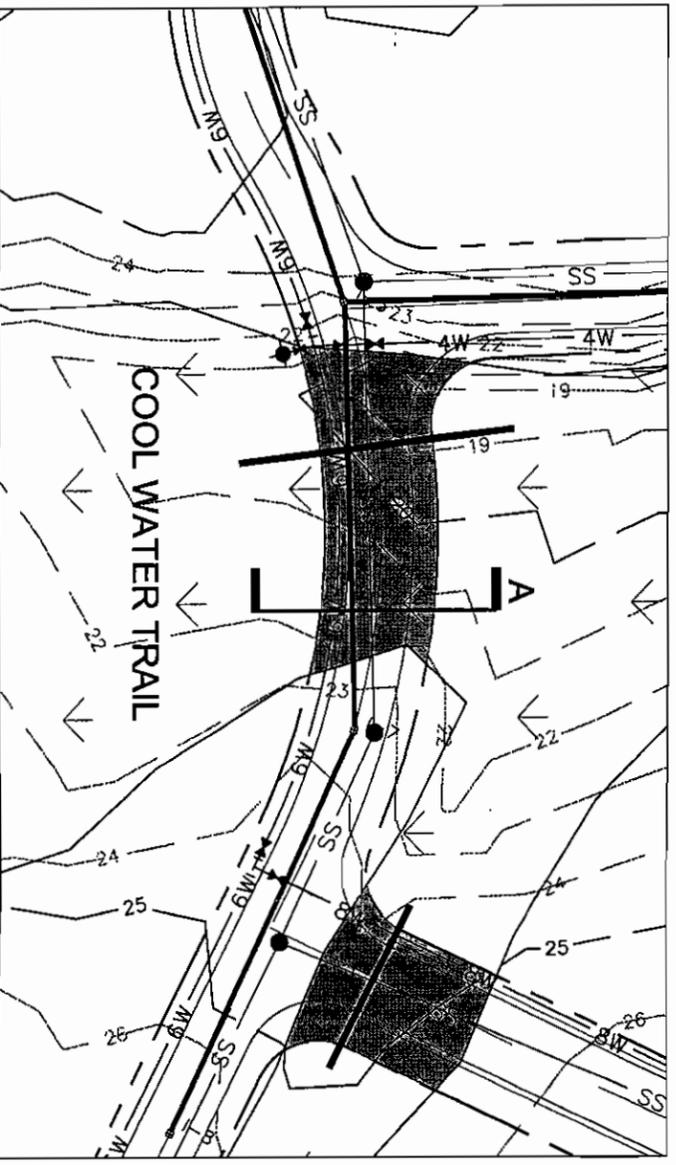
CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC
 FIGURE 12-B
 ROAD CROSSING WETLAND IMPACT
 TYPE B-2 (MINOR ROAD)

DATE: OCTOBER 2006	SCALE: HORIZONTAL: 1" = 60'	DATE: OCTOBER 2006
DATE: OCTOBER 2006	SCALE: VERTICAL: NA	DATE: OCTOBER 2006
DRAWN: ASA/WTS		DRAWN: ASA/WTS
DESIGNED: RDG/KOBE		DESIGNED: RDG/KOBE
CHECKED: RMC		CHECKED: RMC
PROJ. MGR: MAG		PROJ. MGR: MAG
DATE: OCTOBER 2006	SCALE: HORIZONTAL: 1" = 60'	DATE: OCTOBER 2006
DATE: OCTOBER 2006	SCALE: VERTICAL: NA	DATE: OCTOBER 2006
DRAWN: ASA/WTS		DRAWN: ASA/WTS
DESIGNED: RDG/KOBE		DESIGNED: RDG/KOBE
CHECKED: RMC		CHECKED: RMC
PROJ. MGR: MAG		PROJ. MGR: MAG
DATE: OCTOBER 2006	SCALE: HORIZONTAL: 1" = 60'	DATE: OCTOBER 2006
DATE: OCTOBER 2006	SCALE: VERTICAL: NA	DATE: OCTOBER 2006
DRAWN: ASA/WTS		DRAWN: ASA/WTS
DESIGNED: RDG/KOBE		DESIGNED: RDG/KOBE
CHECKED: RMC		CHECKED: RMC
PROJ. MGR: MAG		PROJ. MGR: MAG

ISSUED FOR PERMITTING



- LEGEND**
- EXISTING CONTOURS
 - PROPOSED CONTOURS
 - WETLANDS
 - IMPACTED WETLANDS
 - TEMPORARILY IMPACTED WETLANDS
 - RIGHT-OF-WAY / PROPERTY LINE
 - GRAVITY SEWER
 - WATER
 - STORM DRAIN

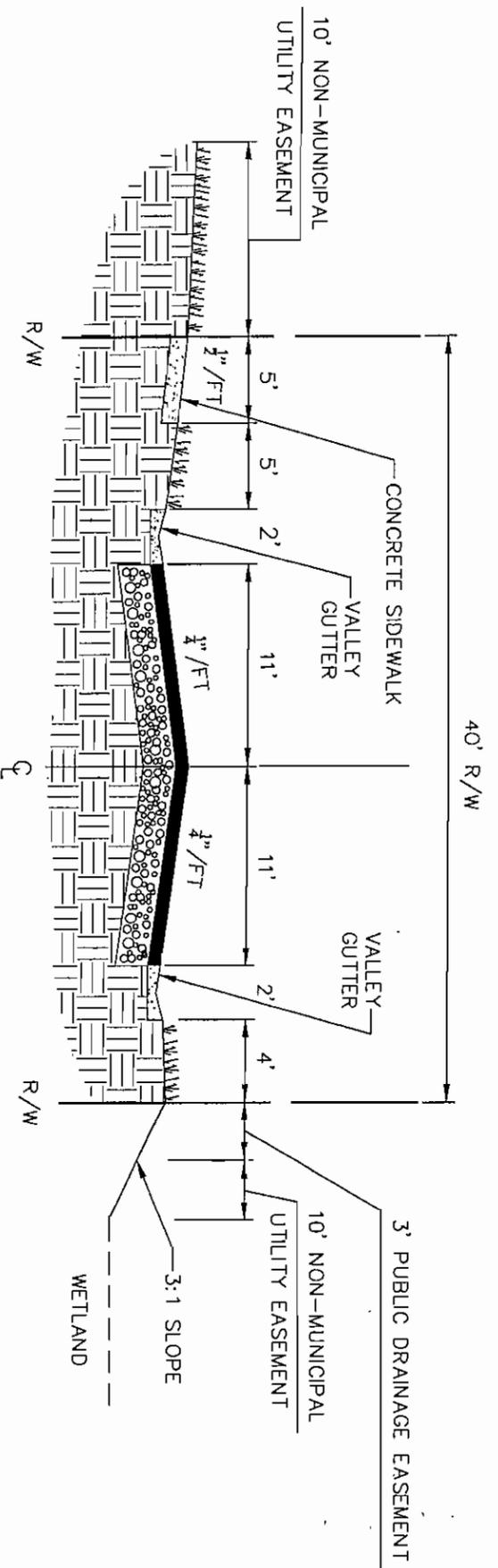


243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910) 343-1048, Fax: (910) 251-8282
 AA0002667 EB0006691
 www.mckimcreed.com

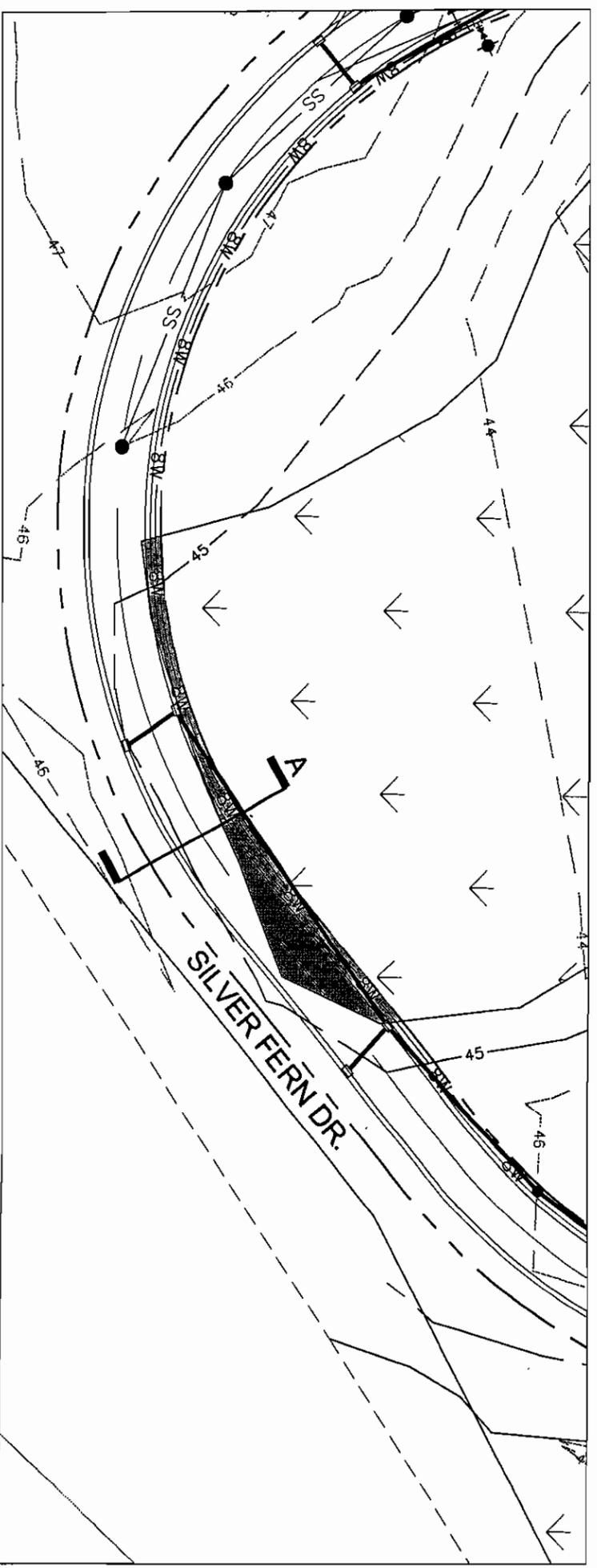
Brunswick Development Company, Inc.
 8450 Falls of Neuse Road, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC
 FIGURE 12-C
 ROAD CROSSINGS WETLAND IMPACT
 TYPE B-3 (PRIVATE DRIVE)

DATE:	OCTOBER 2006	SCALE:	HORIZONTAL: 1" = 60'	M&C FILE NUMBER:	WE Tb
M&C PROJ. #	4289-0002	DESIGNED:	ROG/KCBE	DRAWING NUMBER:	W4
DRAWN:	ASA/NTS	CHECKED:	RMC	STATUS:	ISSUED FOR PERMITTING
PROJ. MGR.:	MAG	VERTICAL:	NA	REVISION:	A

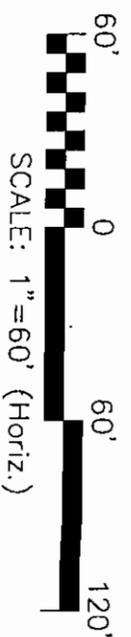


SECTION A
NOT TO SCALE



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- WETLANDS
- IMPACTED WETLANDS
- TEMPORARILY IMPACTED WETLANDS
- (DIRECTIONAL DRILL)
- RIGHT-OF-WAY PROPERTY LINE
- GRAVITY SEWER
- WATER
- STORM DRAIN




MCKIM & CREED
 243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 AA0002667 EB0006691
 www.mckimcreed.com

Brunswick Development Company, Inc.
 8450 Falls of Neuse Road, Suite 202
 Raleigh, NC 27615

CYPRESS CREEK
 I.P. SUBMITTAL
 BRUNSWICK COUNTY, NC
 FIGURE 12-D
 ROAD/SHOULDER WETLAND IMPACT
 TYPE C

DATE: OCTOBER 2006	SCALE: HORIZONTAL: 1" = 60' VERTICAL: NA	MDC FILE NUMBER: WE Tb
MDC PROJ. # 4289-0002	DESIGNED: RDG/KBC	DRAWING NUMBER: W5
DRAWN: WTS/ASA	CHECKED: RMC	
PROJ. MGR: MAG		

STATUS: ISSUED FOR PERMITTING