



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: April 27, 2007
Comment Deadline: May 29, 2007
Corps Action ID #: 200600208

The Wilmington District, Corps of Engineers (Corps) has received an application from **DCNC North Carolina I, LLC** seeking Department of the Army authorization to impact **70 feet of stream channel, 0.063 acres of riparian wetlands, and 2.173 acres of non-riparian wetlands** associated with **the construction of Phase II of Turtle Creek Subdivision in Pender 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: DCNC North Carolina I, LLC
POC: Brian Dilsheimer
2528 Independence Boulevard
Wilmington, North Carolina 28401

AGENT (if applicable): Environmental Services, Inc.
POC: Josh Witherspoon
524 South New Hope Road
Raleigh, North Carolina 27610

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 USC 1344).

Location

The 244.52 acre project site is located in Surf City, NC, on the north side of Highway 210 with a property connection to Highway 17 in Pender County, NC. The site can be located at 34° 27.31' N and 77° 34.93' W.

Existing Site Conditions

According to the Pender County Generalized Soil Survey, the site contains Leon fine sand, Kureb fine sand, Onslow fine sand, Mandarin fine sand, Murville Muck, and Marvyn/Craven soils. The uplands seem to be generally comprised of the Leon, Mandarin, and a portion of the Onslow soil group. The wetlands are mapped as Onslow, Murville Muck, and Marvyn/Craven soils.

Phase I of the Turtle Creek Subdivision has already been permitted on the southern portion of the site. The first phase of this subdivision required 0.41 acres of jurisdictional impact to develop a self contained phase with two entrances off Highway 210. Where not covered by the existing permit the site is generally wooded. The topography of the site is generally flat to gently rolling. The central wetland portion of the property is currently preserved under restrictive covenants. Becky's Creek forms the eastern boundary with an existing jurisdictional pond in the southeast section connected to Becky's Creek. The wetlands vegetation canopy is comprised primarily of loblolly pine (*pinus taeda*), pond pine (*pinus serotina*), red bay (*persea borbonia*), red maple (*acer rubrum*), and sweet gum (*liquidambar styraciflua*). The understory is typical pocosin vegetation with dense gallberry (*ilex glabra*), fetter-bush (*lyonia lucida*), laurel leaf greenbrier (*smilax laurifolia*), cinnamon fern (*osmunda cinnamomea*) and wax myrtle (*myrica cerifera*). The on-site uplands canopy is comprised of long leaf pines (*pinus palustris*), loblolly pines (*pinus taeda*), turkey oak (*quercus laevis*), and sweetgum (*liquidambar styraciflua*). The understory contains *andropogon sp.*, *panicum sp.*, pepper bush (*clethra alnifolia*) and wire grass.

Based on the generalized soil survey the soils in the wetlands are characterized by medium infiltration and low surface runoff while the soils in the uplands are characterized as rapid infiltration with slow surface runoff.

Applicant's Stated Purpose

The overall purpose of this project is to provide a residential community capable of attracting citizens from primarily the eastern seaboard by providing affordable housing in an area where the availability of this type of housing is declining. Additionally, the purpose of this project also includes the following: the necessity for traffic from the development to access US 17 in an efficient manner, to keep the traffic flowing smoothly through the development, and to provide an alternate entrance to the development so all traffic wanting to access the development does not utilize the NC 210 entrance.

Project Description

The site would be developed for a residential subdivision using heavy construction equipment. Phase 1 of The Villages at Turtle Creek has previously been permitted under Nationwide Permit 39 and 401 Water Quality Certification. Phase 2 of this development is being applied for under this Individual Permit Application. Phase 2 involves eleven wetland crossings (impacts 10-20) and one stream crossing (impact 12) which would allow home owner access as well as emergency services access to US 17. The total

impacts from the various road crossings would be 70 feet of stream channel, 0.063 acres of riparian wetlands, and 2.173 acres of non-riparian wetlands. There is currently no lot fill proposed for the development of this subdivision.

To mitigate for the wetland impacts the applicant has proposed to conserve the remaining wetlands within Phase 2 and approach the North Carolina Ecosystem Enhancement Program for 0.063 acres of riparian and 2.173 acres of non-riparian wetland credits.

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 May 22, 2007.

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."

According to the applicant, the site would have suitable foraging habitat for the Red-cockaded woodpecker (RCW) but the habitat within the project area is not contiguous to or within 300 feet of nesting habitat. It is the applicant's opinion that the project should have no effect on RCW.

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.

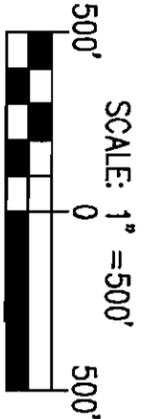
Commenting Information

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, May 29, 2007. Comments should be submitted to Regulatory Specialist, Brad Shaver at (910) 251-4611.

NOTE: TOTAL AREA = 244.52 ACRES



SCALE OF MAP MAY VARY
DUE TO METHODS OF REPRODUCTION.



DATE:	MARCH 7, 2007	SHEET NO.	1
PROJECT NO.:	041.05.043	REV.	
DESIGNED:	LAM	DESCRIPTION	
CHECKED:	EST	DATE	//
SCALE:	AS SHOWN	OF:	13

THE VILLAGES AT TURTLE CREEK
SURF CITY
PENDER COUNTY, NORTH CAROLINA
PROPOSED INDIVIDUAL PERMIT SITE PLAN
EXISTING SITE CONDITIONS



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Cavanaugh & Associates, P.A., 130 North Front Street, Suite 202, Wilmington NC 28403 910/392-4462 fax: 910/392-4612 www.cavanaughconsultants.com

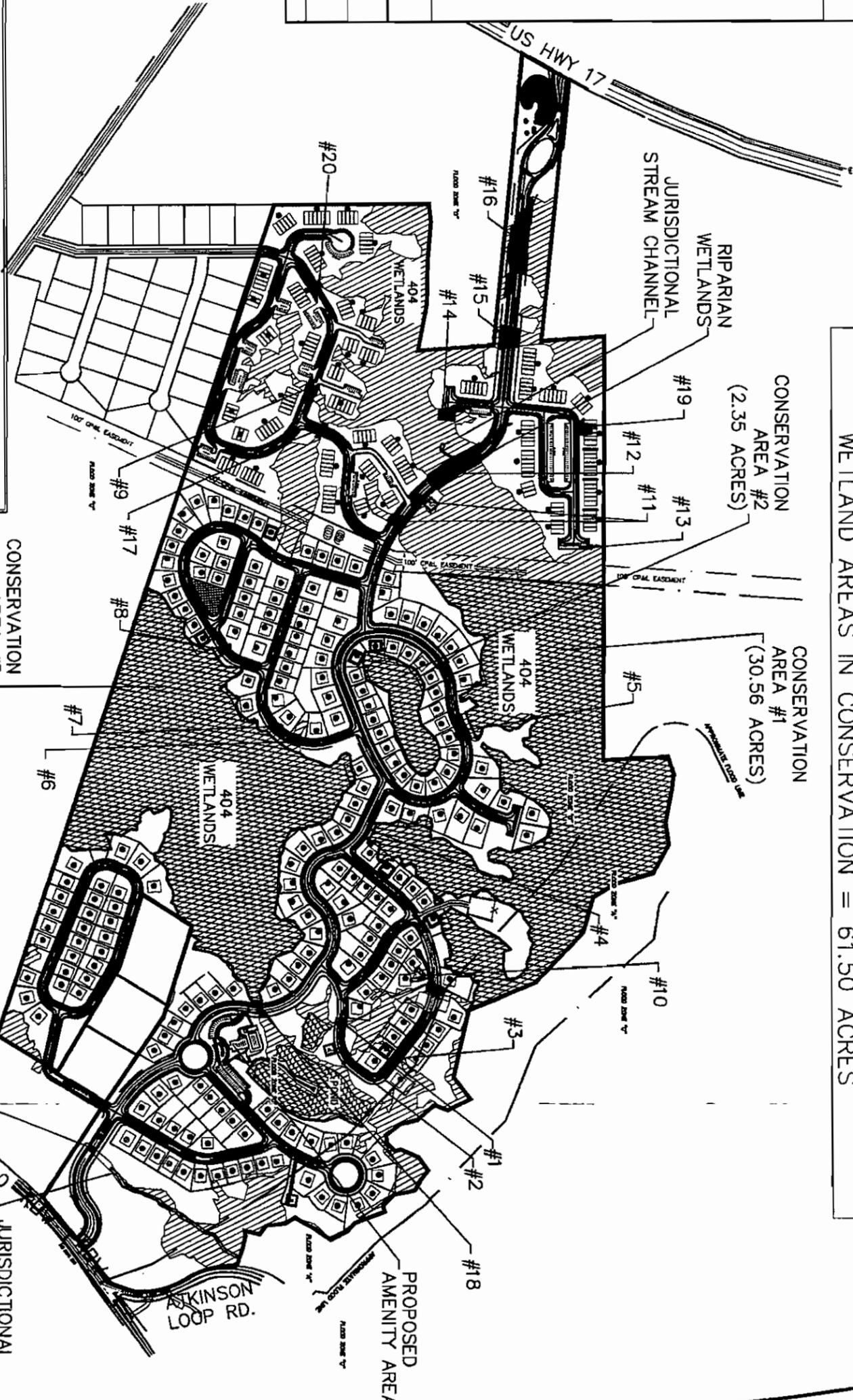
NON-RIPARIAN WETLAND, RIPARIAN WETLAND, AND STREAM IMPACTS FROM ROAD CROSSINGS

WETLAND IMPACT NUMBER	AREA (SQ. FT.)	AREA (AC.)
1	1,119.27	0.026
2	521.39	0.012
3	183.40	0.004
4	712.32	0.016
5	6,358.69	0.146
6	2,110.97	0.048
7	3,321.42	0.076
8	1,966.22	0.045
9	1,594.91	0.037
10	6,546.44	0.150
11	10,228.20	0.235
12	27,152.22	0.623
13	831.96	0.019
14	5,356.10	0.123
15	8,851.01	0.203
16	30,119.71	0.691
17	1,898.60	0.044
18	2,402.41	0.055
19	3,687.93	0.085
20	331.49	0.008
TOTAL WETLANDS IMPACTED:	115,294.66	2.647
TOTAL NON-RIPARIAN WETLANDS IMPACTED:	112,564.88	2.584
TOTAL RIPARIAN WETLANDS IMPACTED:	2,729.78	0.063
TOTAL STREAM IMPACT:	70.0 L.F.	

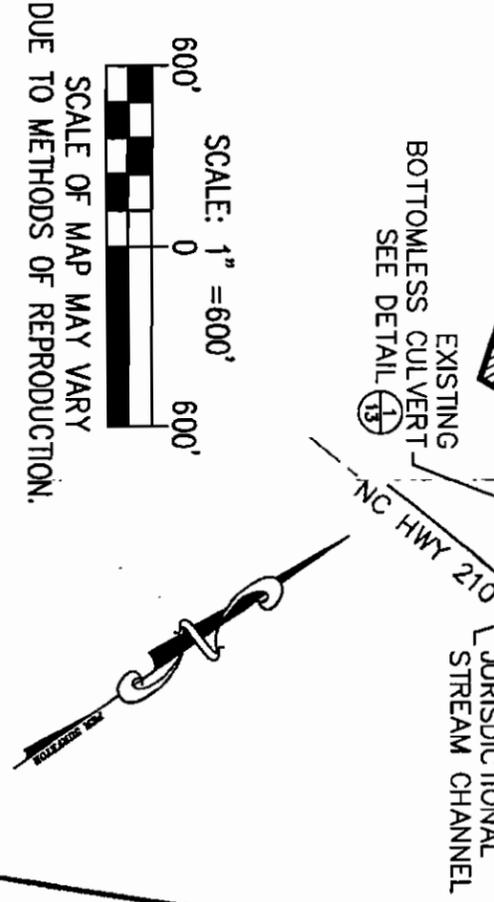
NOTE: WETLAND IMPACT NUMBERS 1-9 WERE APPROVED UNDER NATIONWIDE PERMIT (NWP) ACTION ID #200600208 DATED JANUARY 16, 2007.

CONSERVATION AREAS (NON-IMPACTED WETLAND AREAS)	
WETLAND CONSERVATION AREA NUMBER	AREA (ACRES)
1	30.56
2	2.35
3	28.59
TOTAL AREA CONSERVED	61.50 (25% OF TOTAL AREA)

NOTE: TOTAL SITE AREA = 244.52 ACRES
 EXISTING WETLAND AREA = 100.03 ACRES
 PROPOSED WETLAND AREA (AFTER IMPACTS) = 97.38 ACRES
 WETLAND AREAS IN CONSERVATION = 61.50 ACRES



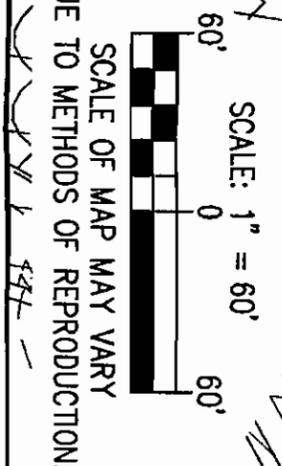
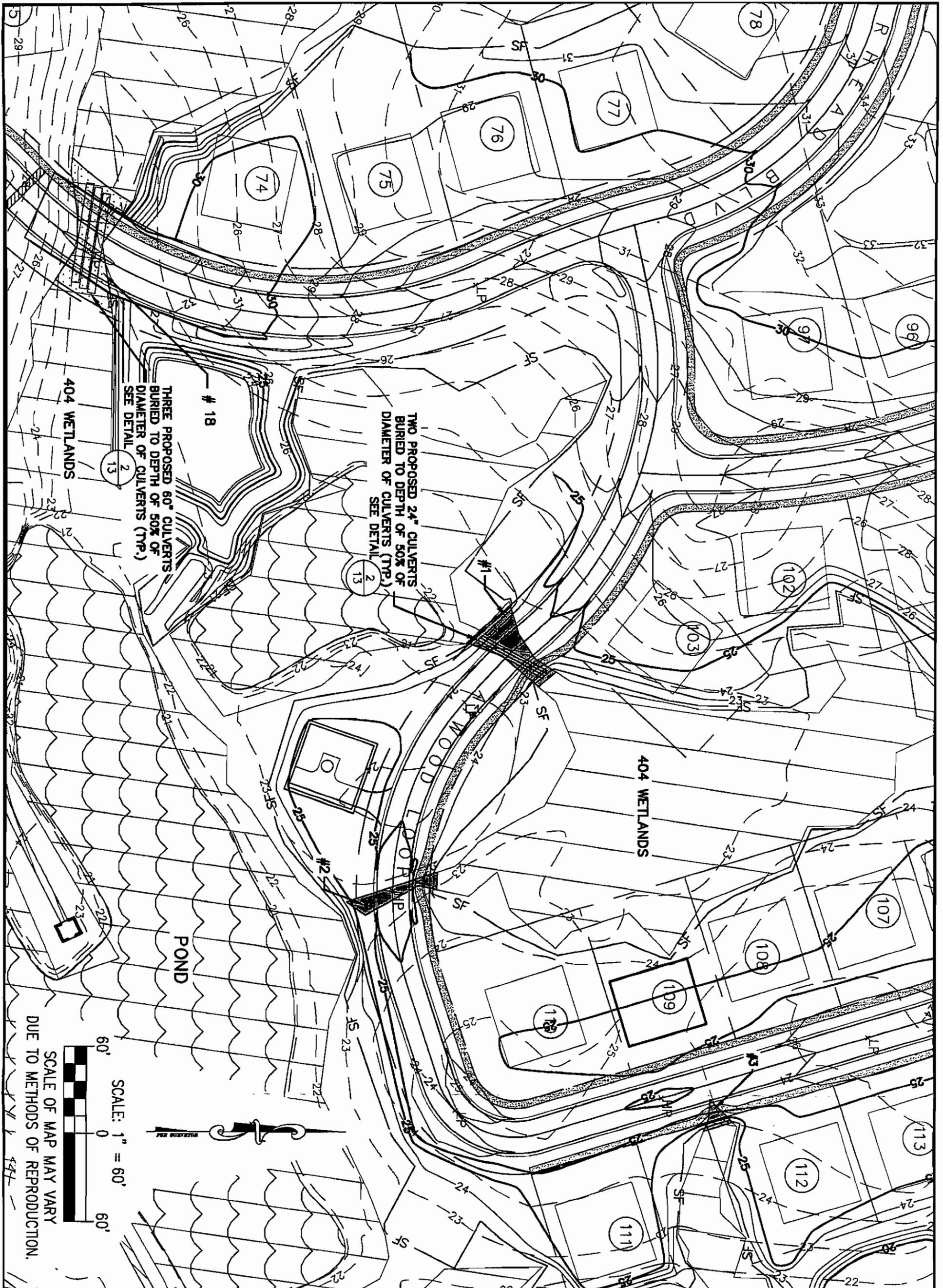
HATCH/BOUNDARY	AREA
[Diagonal Hatching]	404 JURISDICTIONAL WETLANDS
[Solid Black]	IMPACTED NON-RIPARIAN WETLANDS (NATIONWIDE PERMIT)
[Dotted]	IMPACTED NON-RIPARIAN WETLANDS (INDIVIDUAL PERMIT)
[Wavy]	IMPACTED RIPARIAN WETLANDS (INDIVIDUAL PERMIT)
[Cross-hatch]	WETLANDS CONSERVATION AREA
[Empty Box]	LOTS WITH FOOTPRINT RESTRICTIONS



DATE: MARCH 7, 2007	SHEET NO. 2	REV.	DESCRIPTION	DATE
PROJECT NO.: 041.05.043	OF: 13			
DESIGNED: LAM				
CHECKED: EST				
SCALE: AS SHOWN				

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 OVERALL

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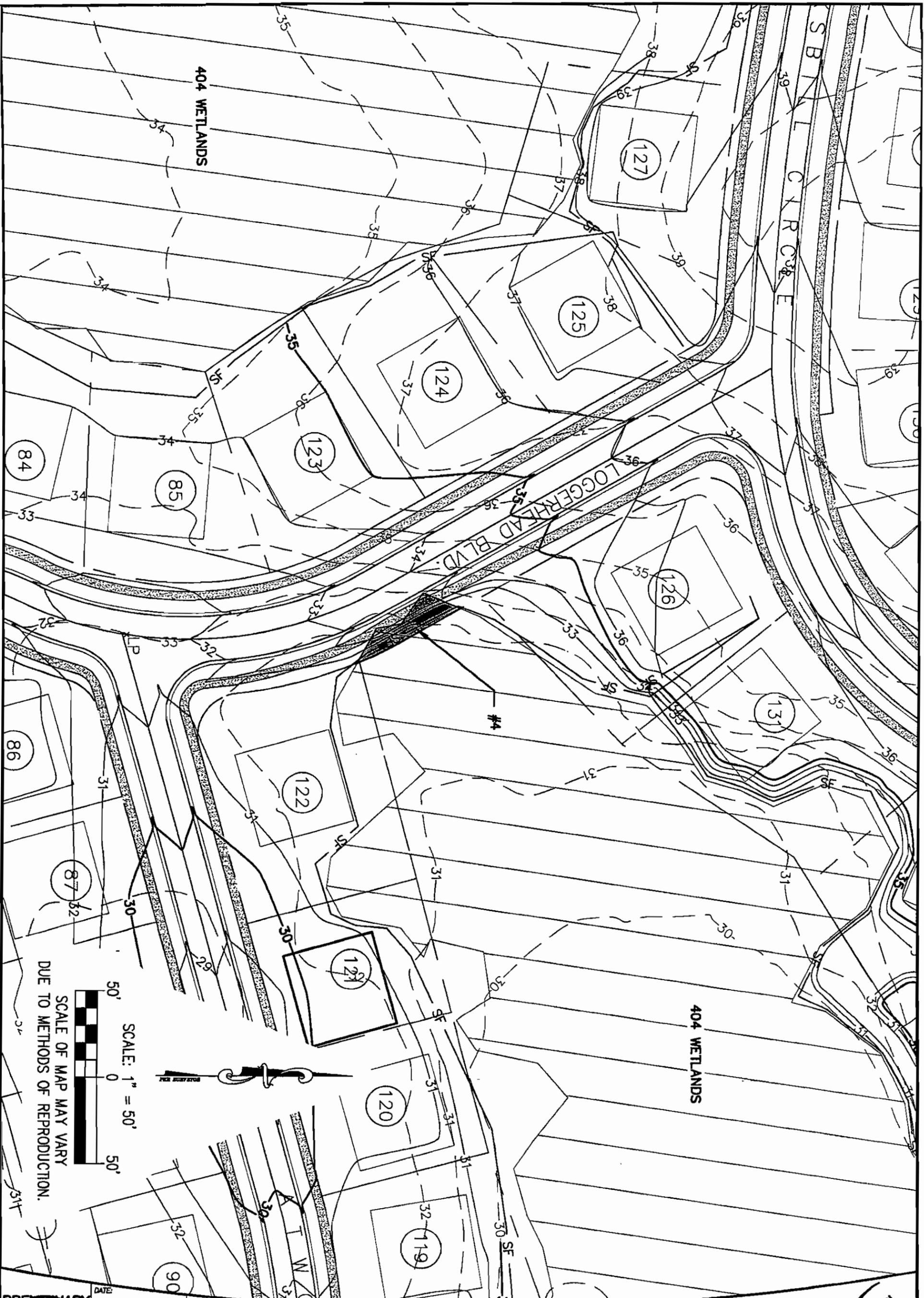


PRELIMINARY
 SEAL
 032291
 FOR CONSTRUCTION

DATE:	MARCH 7, 2007	SHEET NO.	3
PROJECT NO.:	041.05.043	REV.	
DESIGNED:	LAM	DESCRIPTION	
CHECKED:	EST	DATE	
SCALE:	AS SHOWN		

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 IA # 1, 2, 3, & 18 & 1 RESTRICTED LOT

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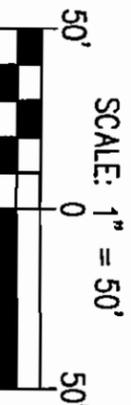


404 WETLANDS

SB L C R C&E

LOGGERHEAD BLVD.

404 WETLANDS



SCALE: 1" = 50'

SCALE OF MAP MAY VARY DUE TO METHODS OF REPRODUCTION.



DATE:	MARCH 7, 2007
PROJECT NO.:	041.05.043
DESIGNED:	LAM
CHECKED:	EST
SCALE:	AS SHOWN

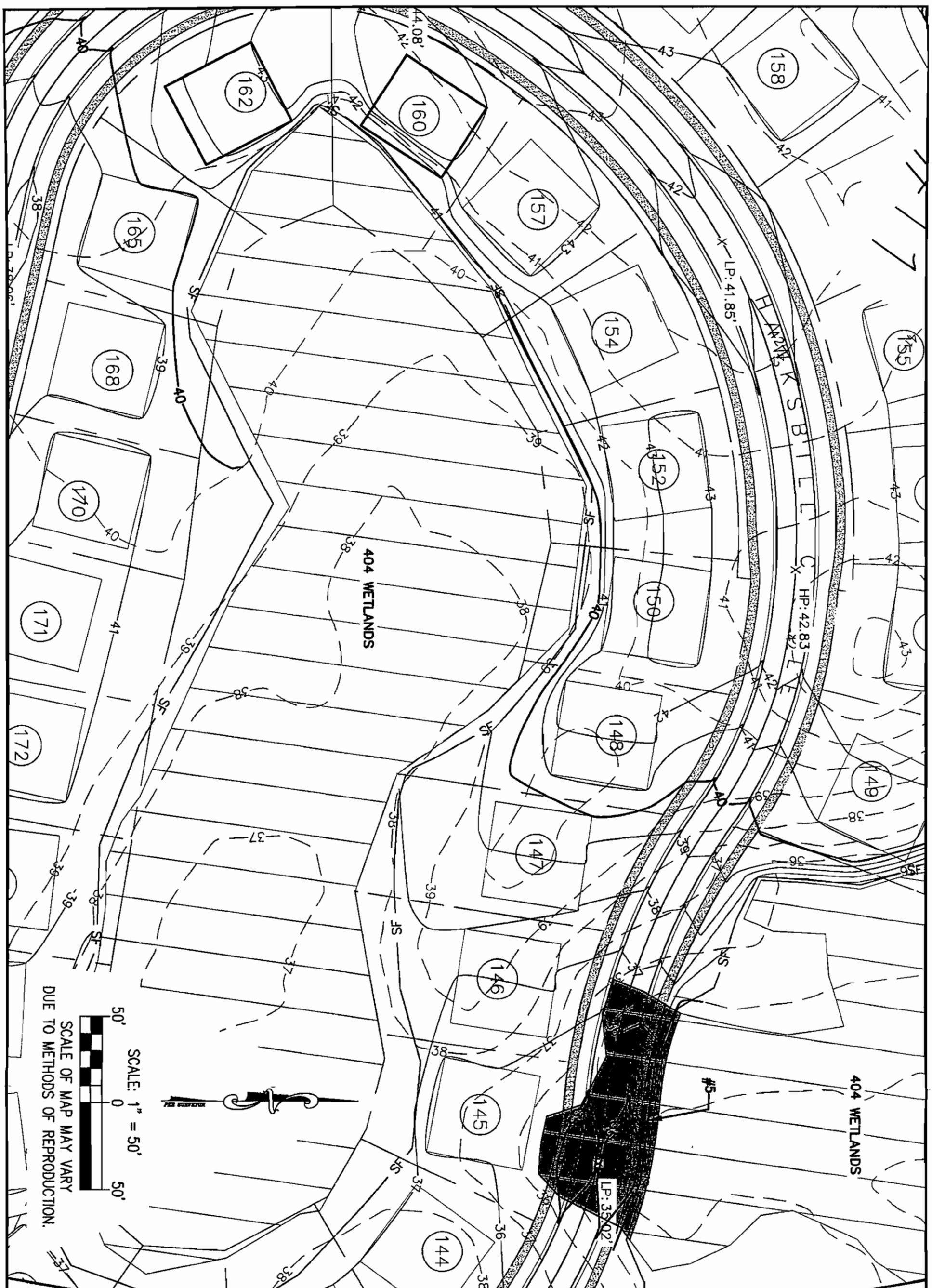
REV.	DESCRIPTION	DATE
4		
13		

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 # 4, LOTS # 121-122



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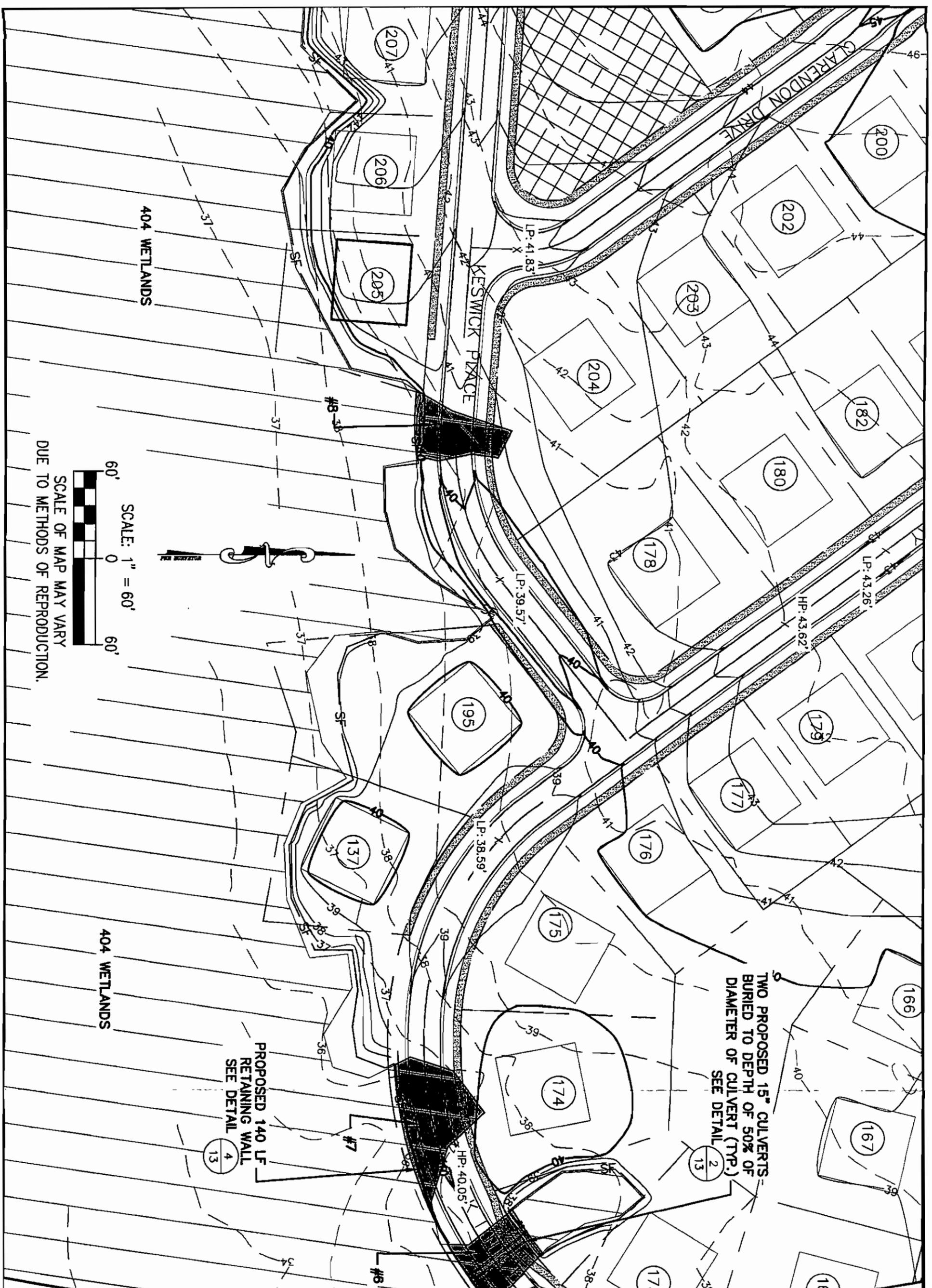
SCALE: 1" = 50'
 50' 0 50'
 SCALE OF MAP MAY VARY
 DUE TO METHODS OF REPRODUCTION.



DATE:	MARCH 7, 2007	SHEET NO.	5
PROJECT NO.:	041.05.043	REV.	
DESIGNED:	LAM	DESCRIPTION	
CHECKED:	EST	DATE	
SCALE:	AS SHOWN	OF:	13

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 # 5 AND LOTS # 152-165

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404 WETLANDS

SCALE: 1" = 60'



SCALE OF MAP MAY VARY
DUE TO METHODS OF REPRODUCTION.

404 WETLANDS

PROPOSED 140 LF
RETAINING WALL
SEE DETAIL

TWO PROPOSED 15" CULVERTS
BURIED TO DEPTH OF 50% OF
DIAMETER OF CULVERT (TYP.)
SEE DETAIL



DATE: MARCH 7, 2007
PROJECT NO.: 041.05.043
DESIGNED: LAM
CHECKED: EST
SCALE: AS SHOWN

REV.	DESCRIPTION	DATE
6		
13		

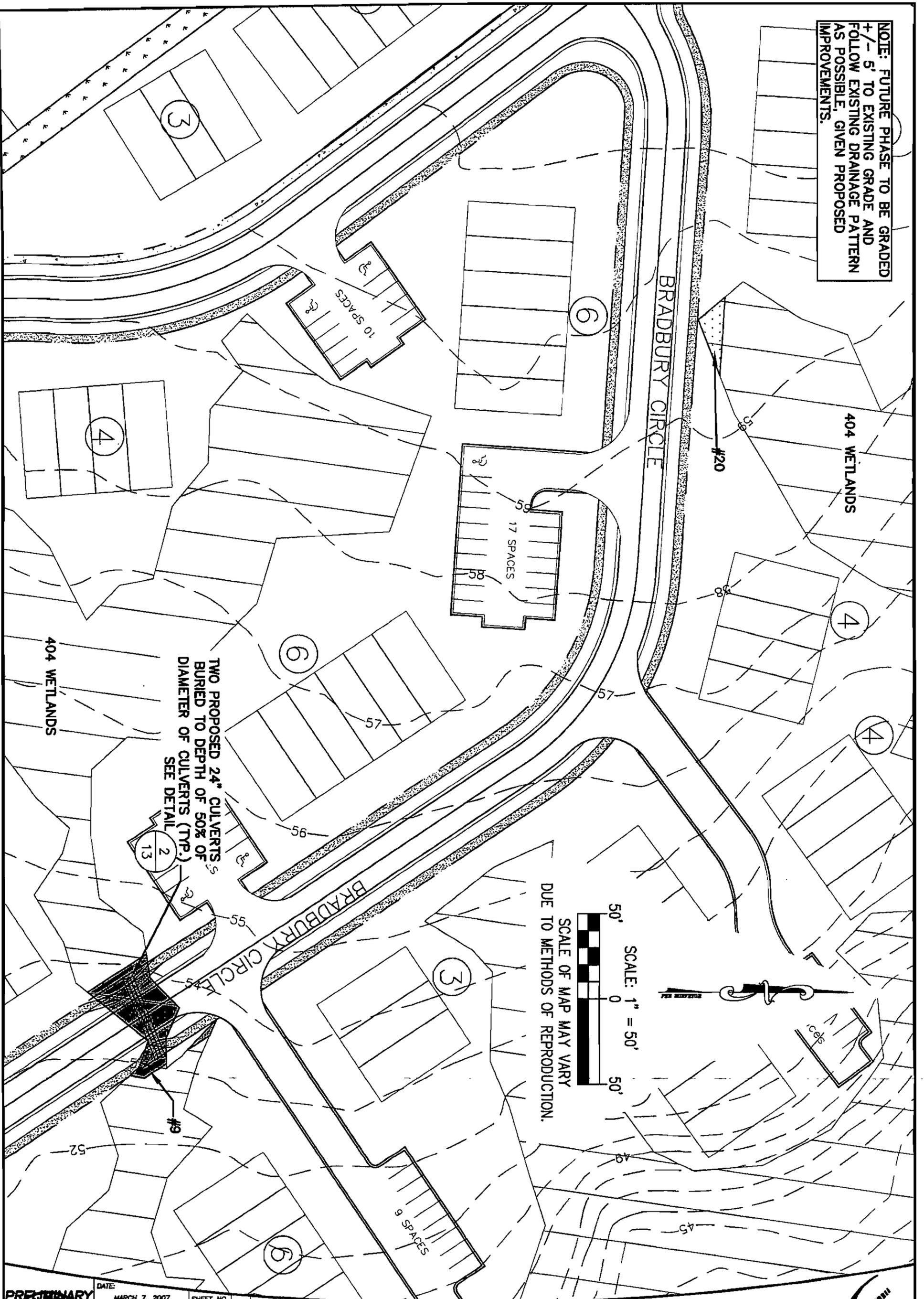
THE VILLAGES AT TURTLE CREEK
SURF CITY
PENDER COUNTY, NORTH CAROLINA
PROPOSED INDIVIDUAL PERMIT SITE PLAN
IMPACTS FROM ROAD CROSSINGS
6, 7, AND 8 AND 4 LOTS

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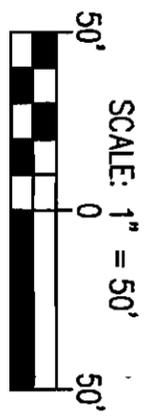
Cavanaugh & Associates, P.A. 130 North First Street, Suite 202, Wilmington NC 28403 910.922-4422 fax 910.922-4612 www.cavanaughassociates.com

NOTE: FUTURE PHASE TO BE GRADED +/- 5' TO EXISTING GRADE AND FOLLOW EXISTING DRAINAGE PATTERN AS POSSIBLE, GIVEN PROPOSED IMPROVEMENTS.



TWO PROPOSED 24" CULVERTS BURIED TO DEPTH OF 50% OF DIAMETER OF CULVERTS (TYP.) SEE DETAIL

SCALE OF MAP MAY VARY DUE TO METHODS OF REPRODUCTION.

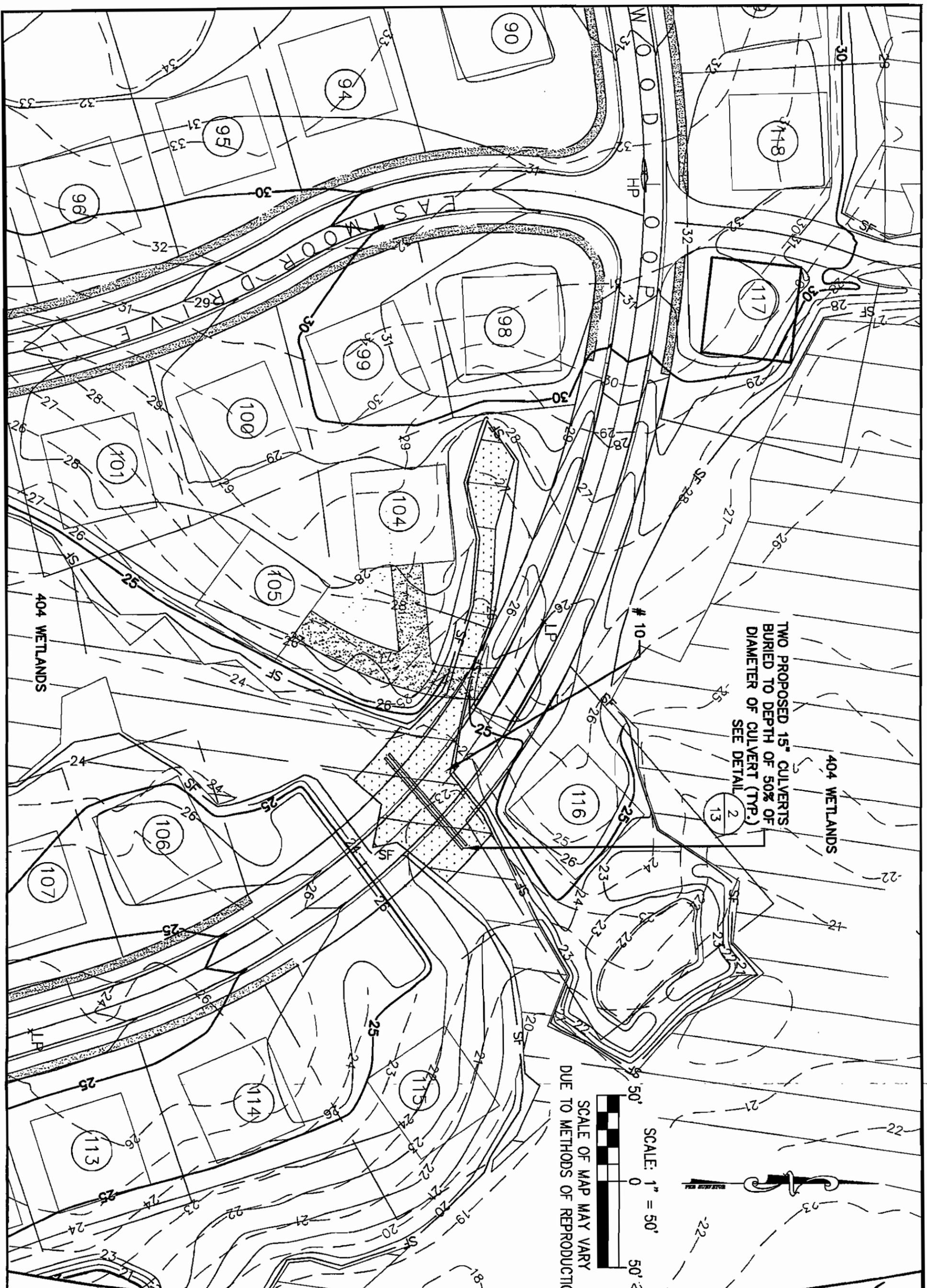


DATE:	MARCH 7, 2007	SHEET NO.	7
PROJECT NO.:	041.05.043	REV.	
DESIGNED:	LAM	DESCRIPTION	
CHECKED:	EST	DATE	
SCALE:	AS SHOWN	OF:	13

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 IA # 9 AND # 20

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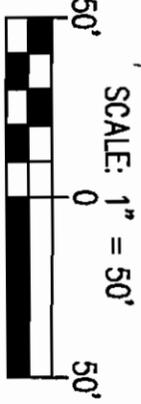


TWO PROPOSED 15" CULVERTS BURIED TO DEPTH OF 50% OF DIAMETER OF CULVERT (TYP.) SEE DETAIL 2

404 WETLANDS

404 WETLANDS

SCALE OF MAP MAY VARY DUE TO METHODS OF REPRODUCTION.



PRELIMINARY
ENGINEERING
 SEAL
 032291
 ERIC GREGORY
 REGISTERED PROFESSIONAL ENGINEER
 NO. 44282
FOR CONSTRUCTION

DATE: MARCH 7, 2007
 PROJECT NO.: 041.05.043
 DESIGNED: LAM
 CHECKED: EST
 SCALE: AS SHOWN

REV.	DESCRIPTION	DATE
8		
13		

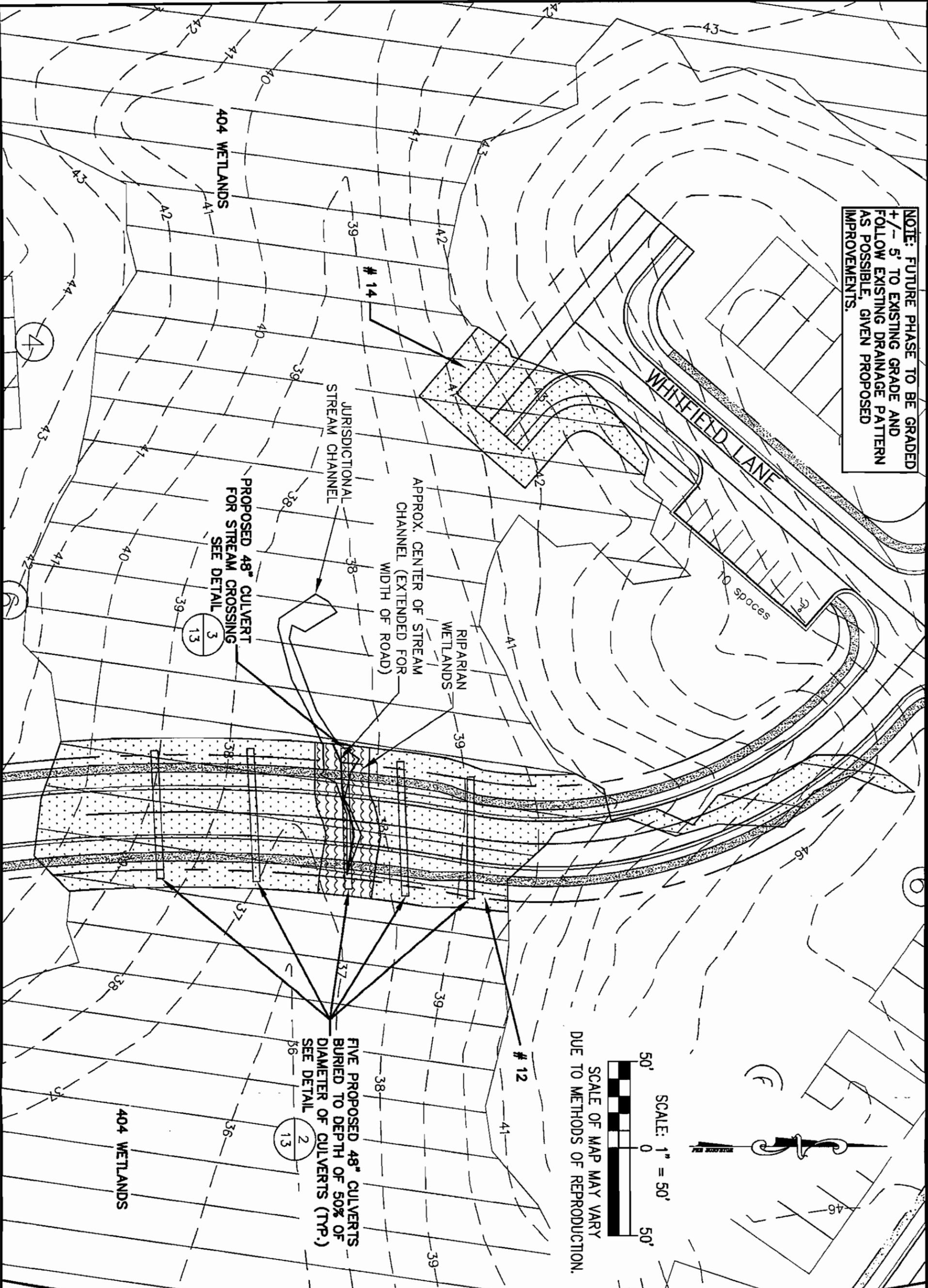
THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 IA # 10

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NOTE: FUTURE PHASE TO BE GRADED +/- 5' TO EXISTING GRADE AND FOLLOW EXISTING DRAINAGE PATTERN AS POSSIBLE, GIVEN PROPOSED IMPROVEMENTS.



PROPOSED 48" CULVERT FOR STREAM CROSSING SEE DETAIL 3/13

FIVE PROPOSED 48" CULVERTS BURIED TO DEPTH OF 50% OF DIAMETER OF CULVERTS (TYP.) SEE DETAIL 2/13

SCALE OF MAP MAY VARY DUE TO METHODS OF REPRODUCTION.

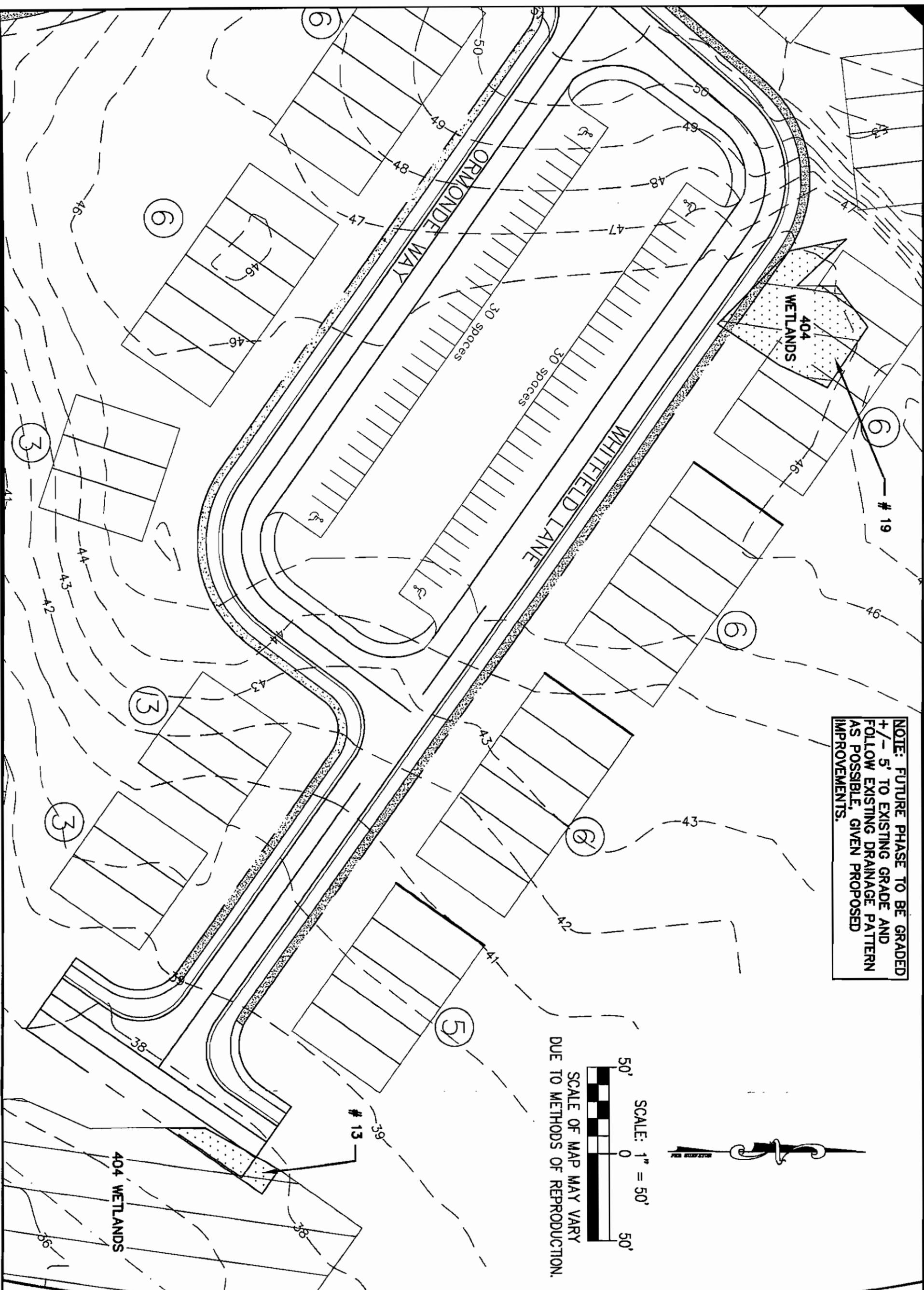


DATE:	MARCH 7, 2007	SHEET NO.:	10
PROJECT NO.:	D41.05.043	REV.:	
DESIGNED:	LAM	DESCRIPTION:	
CHECKED:	EST	DATE:	
SCALE:	AS SHOWN		

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 IA # 12 AND # 14

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NOTE: FUTURE PHASE TO BE GRADED +/- 5' TO EXISTING GRADE AND FOLLOW EXISTING DRAINAGE PATTERN AS POSSIBLE, GIVEN PROPOSED IMPROVEMENTS.

SCALE: 1" = 50'
 SCALE OF MAP MAY VARY DUE TO METHODS OF REPRODUCTION.

PRELIMINARY
 SEAL
 032291
 ENGINEER
 NOT AFFORD
 FOR CONSTRUCTION

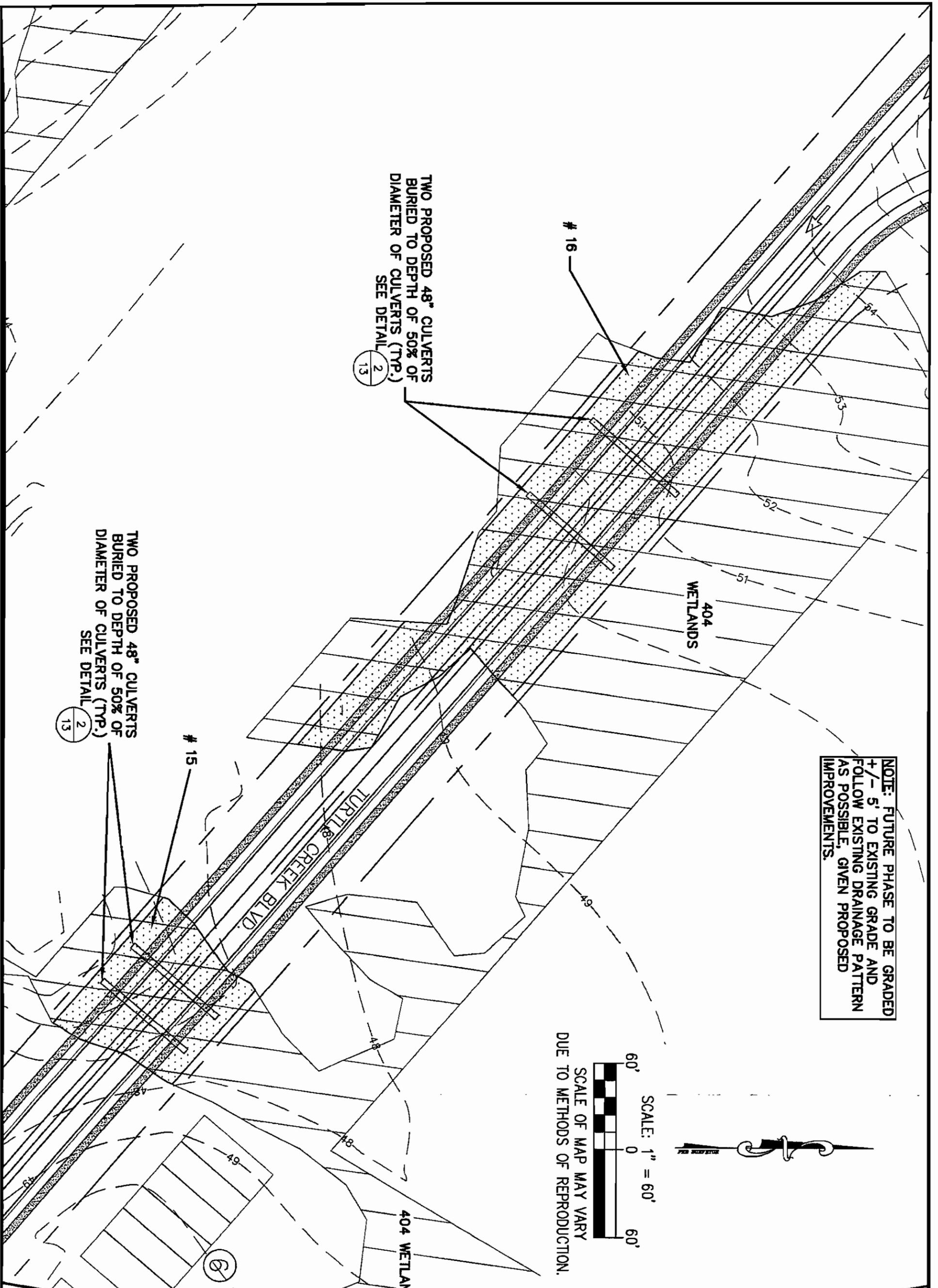
DATE:	MARCH 7, 2007	SHEET NO.	11
PROJECT NO.:	041.05.043	REV.	
DESIGNED:	LAM	DESCRIPTION	
CHECKED:	EST	DATE	
SCALE:	AS SHOWN	OF:	13

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 LA # 13 AND # 19

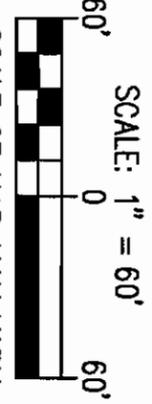


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NOTE: FUTURE PHASE TO BE GRADED +/- 5' TO EXISTING GRADE AND FOLLOW EXISTING DRAINAGE PATTERN AS POSSIBLE, GIVEN PROPOSED IMPROVEMENTS.



SCALE OF MAP MAY VARY DUE TO METHODS OF REPRODUCTION.

TWO PROPOSED 48" CULVERTS BURIED TO DEPTH OF 50% OF DIAMETER OF CULVERTS (TYP.) SEE DETAIL 

TWO PROPOSED 48" CULVERTS BURIED TO DEPTH OF 50% OF DIAMETER OF CULVERTS (TYP.) SEE DETAIL 



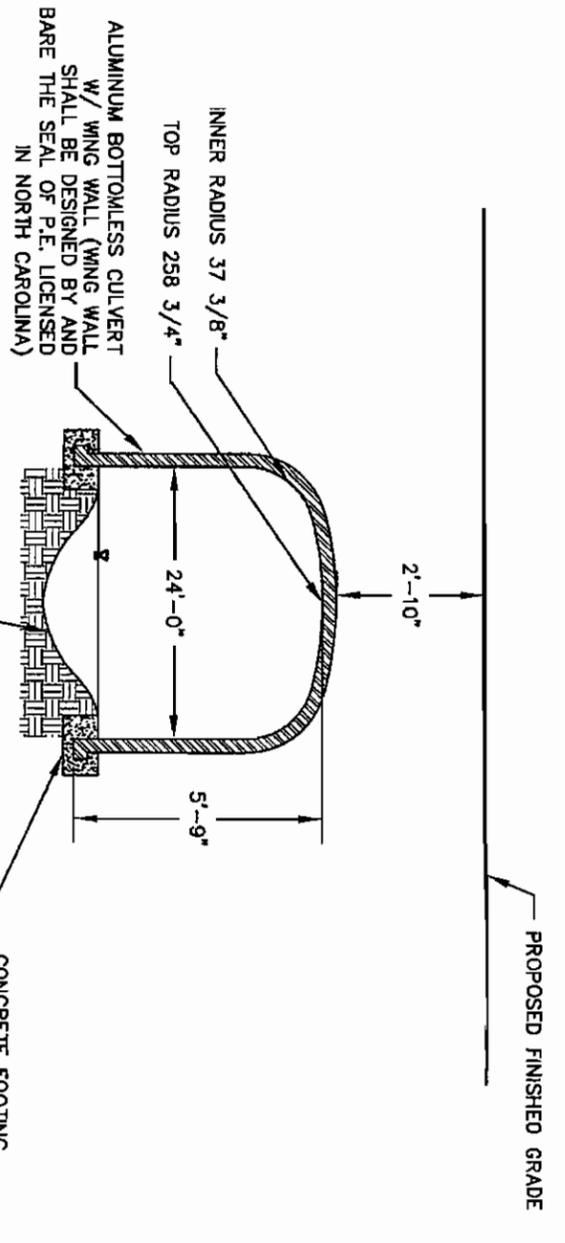
DATE:	MARCH 7, 2007	SHEET NO.	12
PROJECT NO.:	041.05.043	REV.	
DESIGNED:	LAM	DESCRIPTION	
CHECKED:	EST	DATE	
SCALE:	AS SHOWN		

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 IMPACTS FROM ROAD CROSSINGS
 IA # 15 AND # 16



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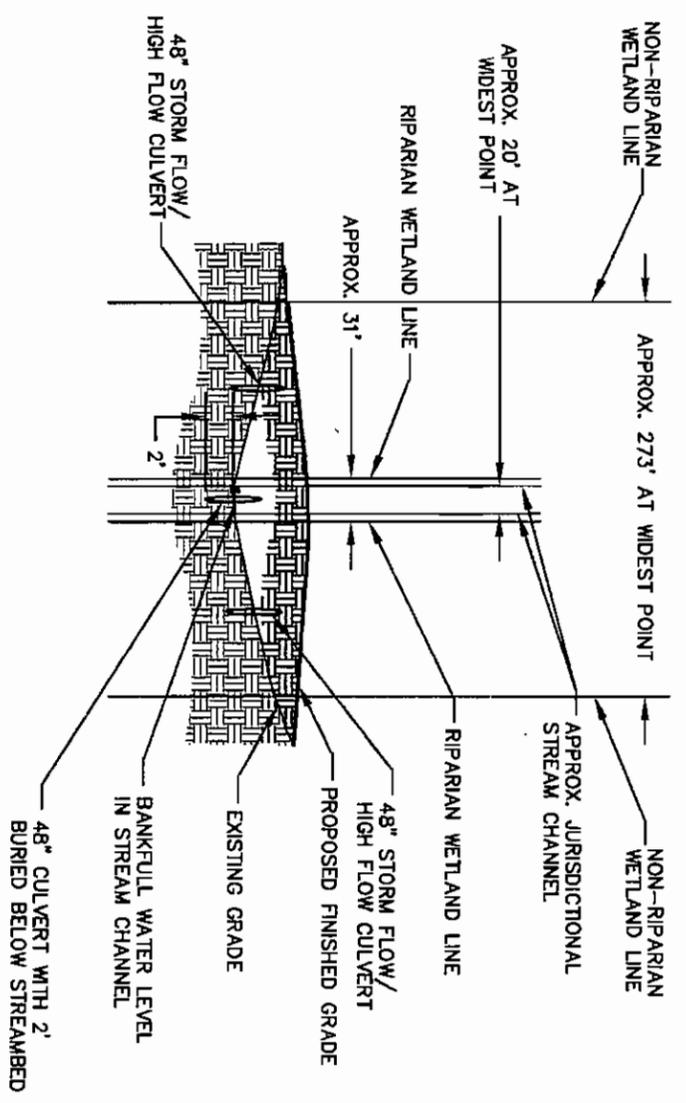
Cavanaugh & Associates, P.A. 130 North Proct Street, Box 202, Wilmington NC 28403 910.392-4402 fax: 910.392-4012 www.cavanaugh-solutions.com



NOTE: ALUMINUM BOTTOMLESS CULVERT TYPICAL FOR WETLAND AND STREAM CROSSINGS. TO BE DESIGNED BY OTHERS. DIMENSIONS TO BE CONFIRMED POST SOIL EVALUATION FOR FOUNDATIONS.

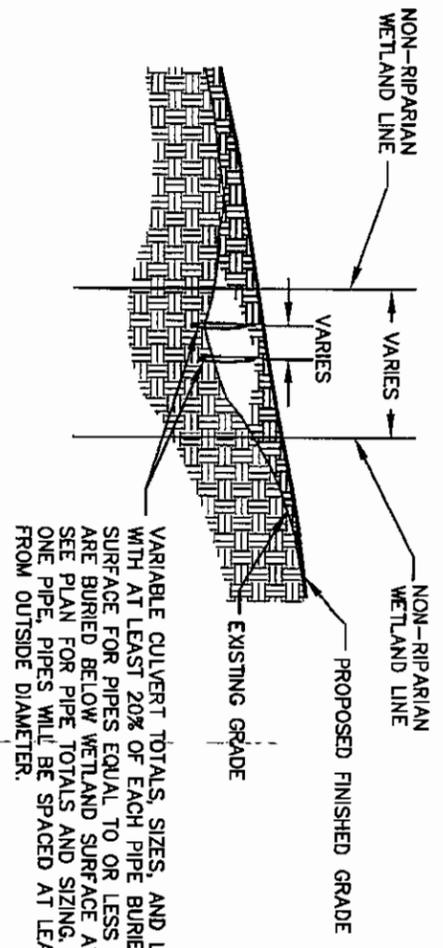
ALUMINUM BOTTOMLESS CULVERT OVER JURISDICTIONAL STREAM NEAR HWY 210

DETAIL 1
SCALE NOT TO SCALE



IMPACT #12: ROAD CROSSING OVER JURISDICTIONAL STREAM, RIPARIAN, AND NON-RIPARIAN WETLANDS

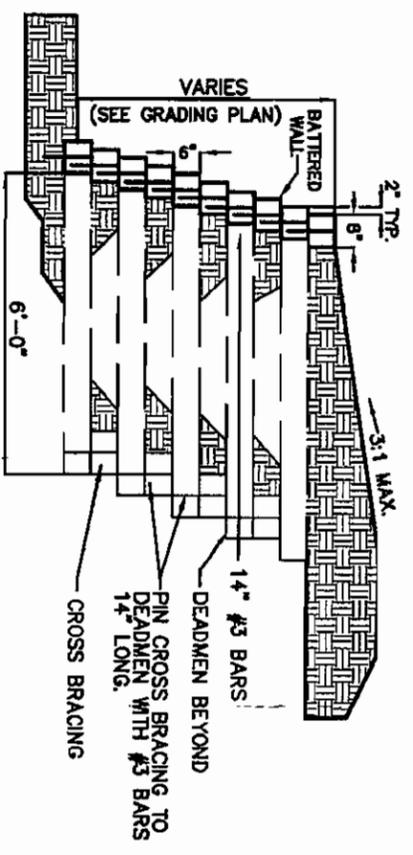
DETAIL 3
SCALE NOT TO SCALE



NOTE: PER USAGE NWP REGIONAL CONDITIONS, CULVERT INVERTS WILL BE BURIED AT LEAST ONE FOOT BELOW THE BED OF THE WETLAND FOR CULVERTS GREATER THAN 48 INCHES IN DIAMETER. FOR CULVERTS 48 INCHES IN DIAMETER OR SMALLER, CULVERTS MUST BE BURIED BELOW THE BED OF THE WETLAND TO A DEPTH EQUAL TO OR GREATER THAN 20% OF THE DIAMETER OF THE CULVERT.

TYPICAL ROAD CROSSING OVER NON-RIPARIAN WETLANDS

DETAIL 2
SCALE NOT TO SCALE



NOTE: TO BE DESIGNED BY OTHERS.

RETAINING WALL SECTION

DETAIL 4
SCALE NOT TO SCALE

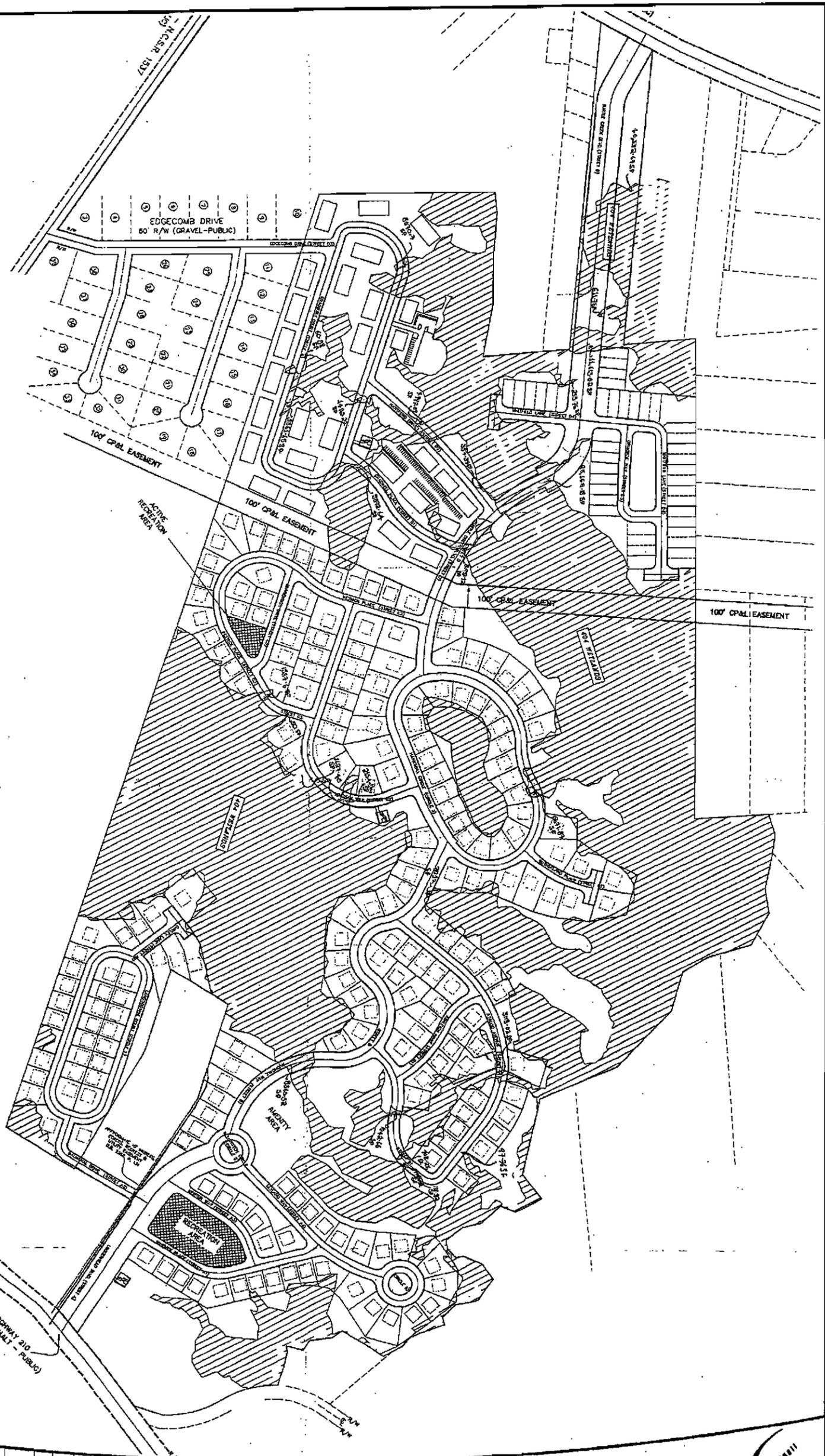


DATE:	MARCH 7, 2007	SHEET NO.	13
PROJECT NO.:	041.05.043	DESIGNED:	LAM
CHECKED:	EST	SCALE:	AS SHOWN
REV.	DESCRIPTION	DATE	

THE VILLAGES AT TURTLE CREEK
SURF CITY
PENDER COUNTY, NORTH CAROLINA
PROPOSED INDIVIDUAL PERMIT SITE PLAN
IMPACTS FROM ROAD CROSSINGS
DETAILS

CAVANAUGH
Solutions through integrity and partnership
Cavanaugh & Associates, P.A. 130 North Front Street, Suite 202, Wilmington NC 28403 910.368-4482 fax 910.362-8913 www.cavanaughco.com

Figure 2A



Exhibits/Wetland Easements/OLD/In method wetlands.pdf

FINAL DESIGN
 PRELIMINARY
 FOR CONSTRUCTION
 NOT RELEASED
 FOR CONSTRUCTION

DATE: 12/08/05
 PROJECT NO.: 041.05.043
 DESIGNED:
 CHECKED:
 SCALE: NOT TO SCALE

REV.	DESCRIPTION	DATE

SHEET NUMBER

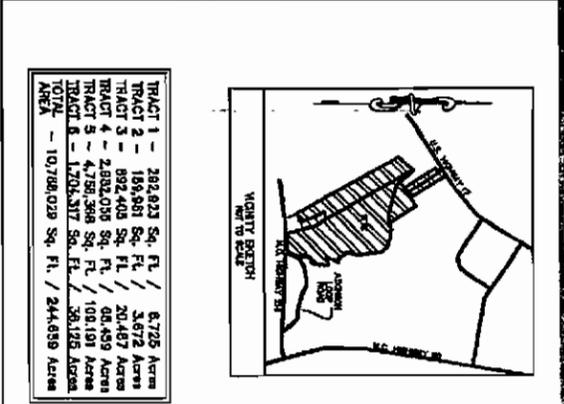
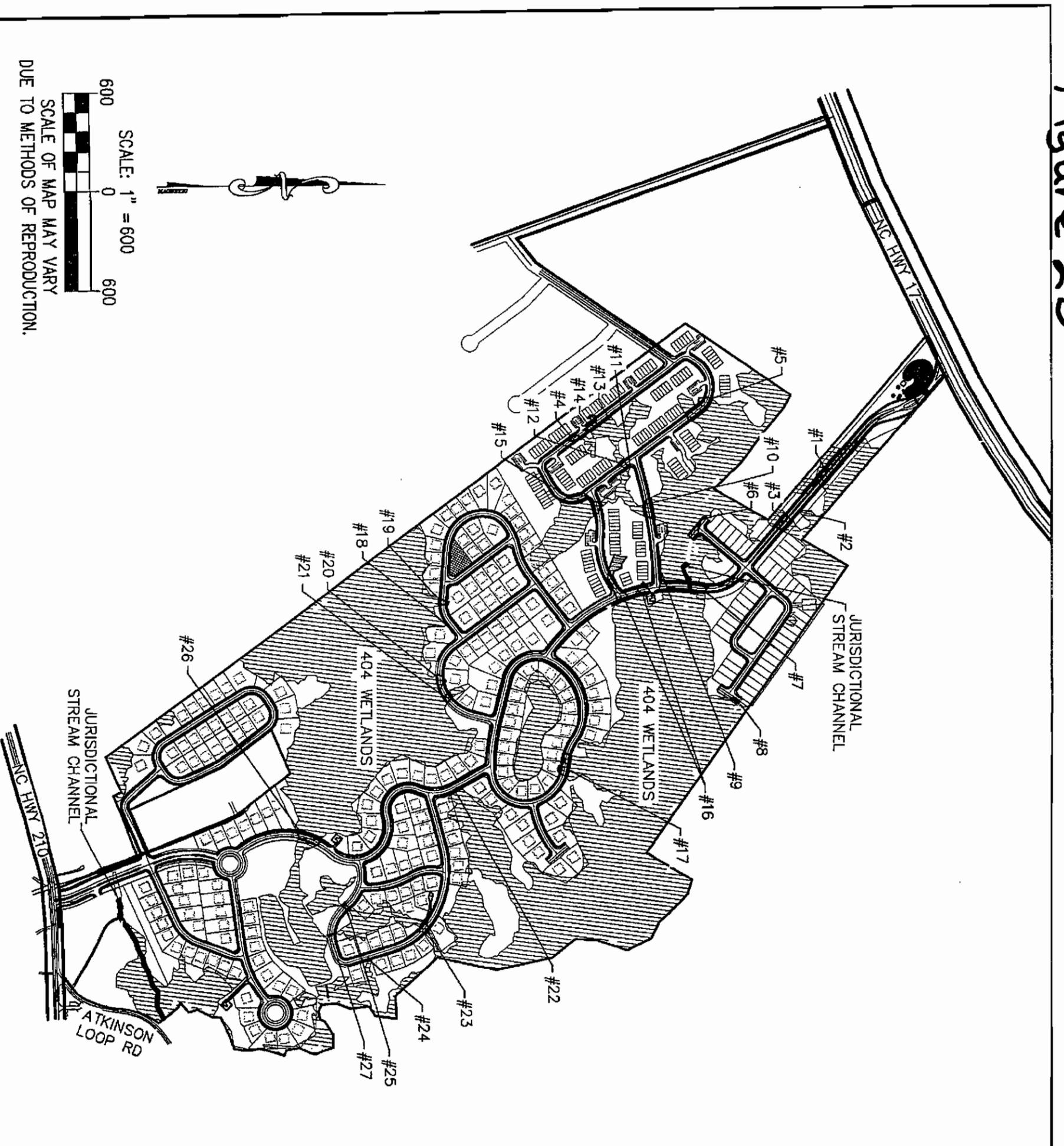
TURTLE CREEK
 TOWN OF SURF CITY
 PENDER COUNTY, NORTH CAROLINA

OVERALL SITE PLAN

CAVANAUGH
 Solutions through integrity and partnership

Cavanaugh & Associates, P.A., 100 North Front Street, Suite 502, Wilmington, NC 28401 910/230-4482 fax: 910/230-4812 www.cavanaugh.com

Figure 2B



WETLAND IMPACTS FROM ROAD CROSSINGS			
WETLAND IMPACT NUMBER	AREA (SQ. FT.)	WETLAND IMPACT NUMBER	AREA (SQ. FT.)
1	23,958.6	15	11,789.4
2	102.4	16	19,546.8
3	6,606.4	17	6,672.3
4	1,838.6	18	157.2
5	10,550.0	19	1,851.7
6	3,954.8	20	3,188.9
7	21,220.2	21	2,118.1
8	139.2	22	1,036.2
9	929.5	23	5,706.0
10	6,177.5	24	257.0
11	40.7	25	921.6
12	1,768.0	26	7,456.0
13	467.0	27	495.9
14	4,001.5		
TOTAL WETLANDS IMPACTED:		142,951.5 SQ.FT.	
		3.28 AC.	



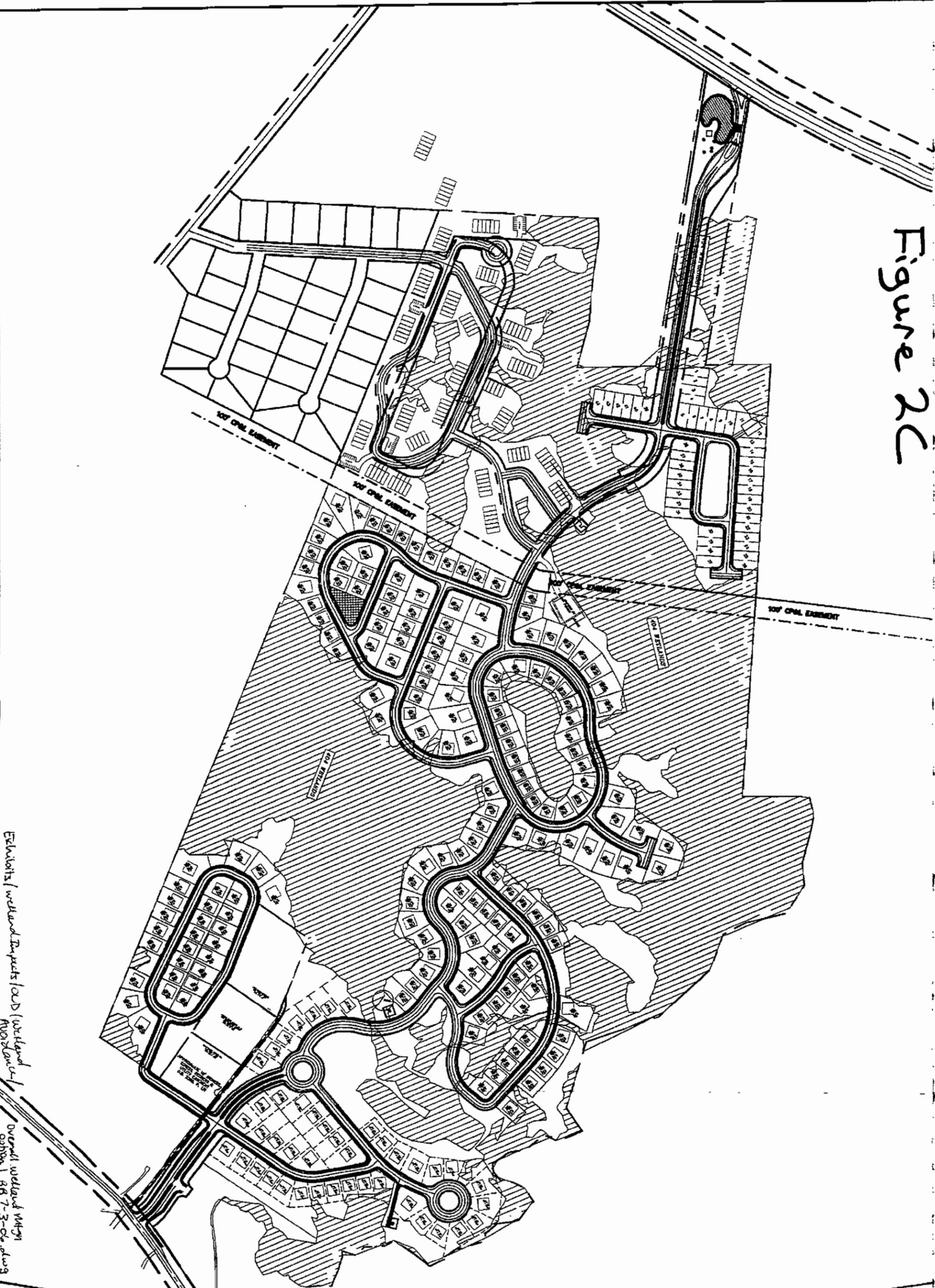
DATE:	5/1/06	SHEET NO.	1
PROJECT NO.:	041.05.043	REV.	
DESIGNED:	LAT	DESCRIPTION	
CHECKED:	WGS	DATE	
SCALE:	NTS		
		OF:	13

THE VILLAGES AT TURTLE CREEK
 SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 WETLAND MITIGATION PLAN
 IMPACTS FROM ROAD CROSSINGS
 OVERALL SITE LAYOUT

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Figure 2C



Excludes wetland impacts load wetland avoidance
 Overall wetland W479
 Station 1 B B 7-3-06 along

PRELIMINARY DESIGN FOR REVIEW ONLY
 NOT RELEASED FOR CONSTRUCTION

DATE: 7/10/08
 PROJECT NO.: 041.05.043
 DESIGNED: BB
 CHECKED: WGS
 SCALE: AS NOTED

REL.	DESCRIPTION	DATE

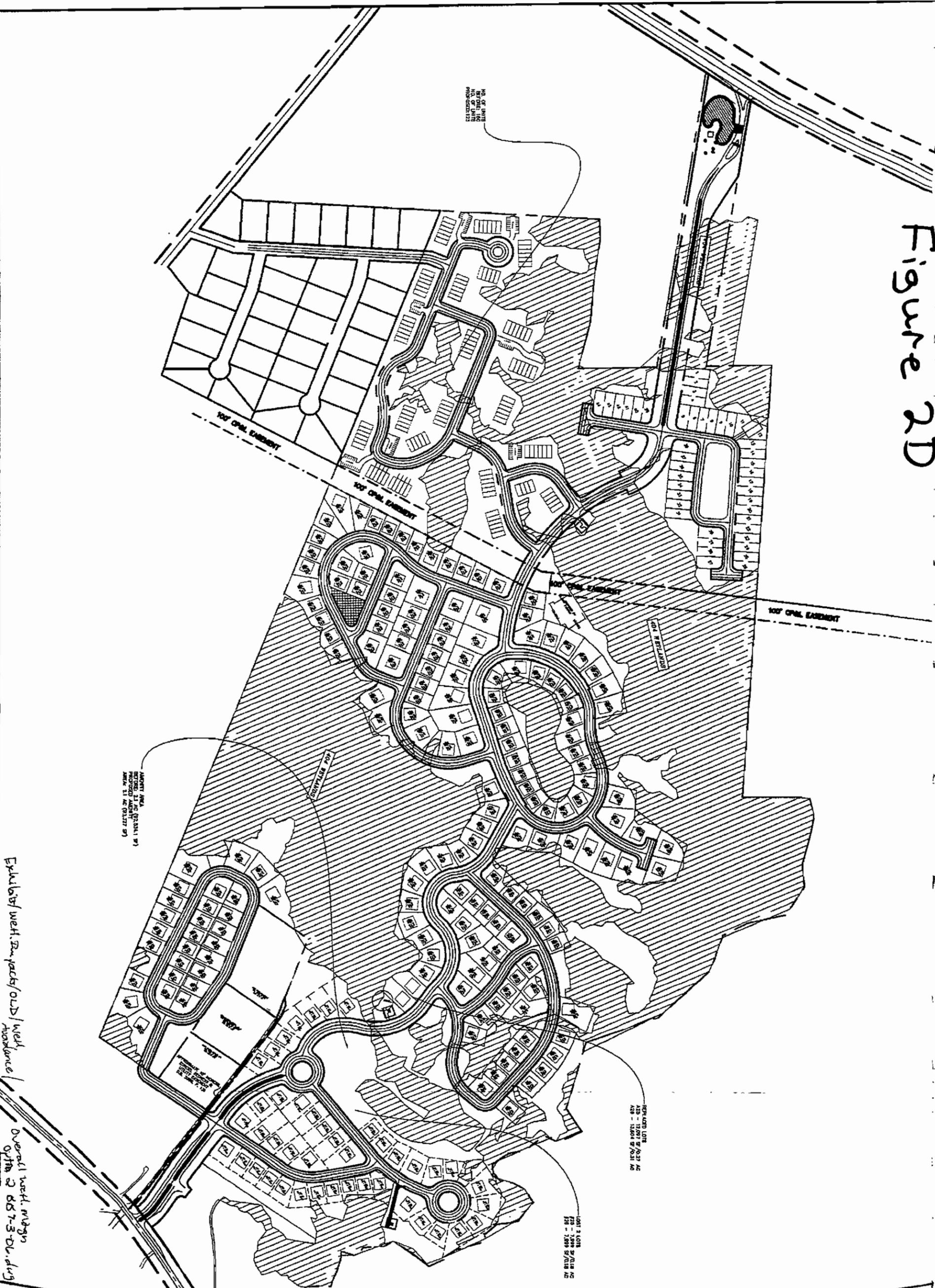
THE VILLAGES AT TURTLE CREEK
 TOWN OF SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 WETLAND AVOIDANCE STRATEGY
 ALTERNATIVE #1



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Figure 2D

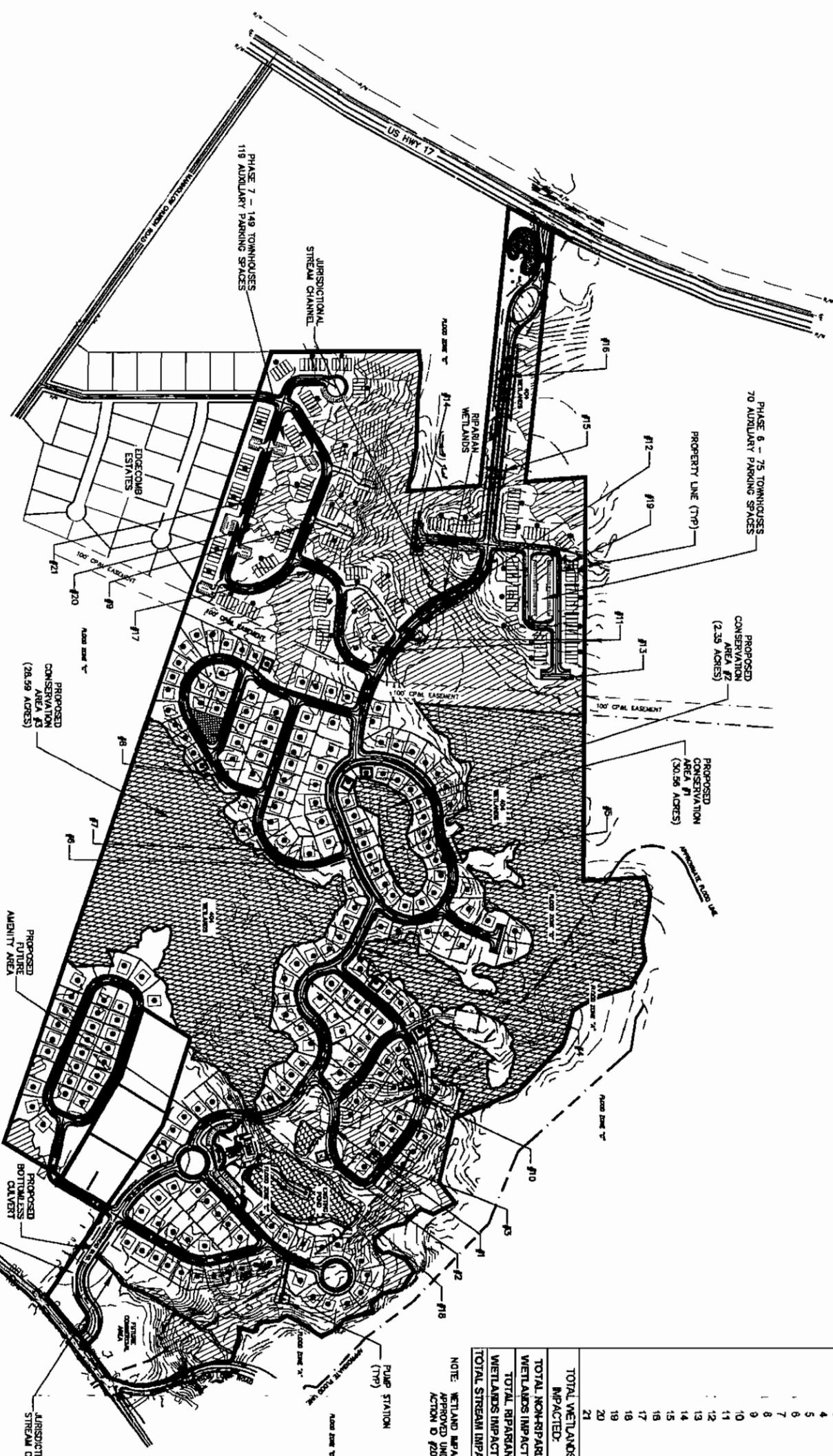


Excludes wet. 200 yards/old wetland avoidance
Overall wet. margin
0.75m 2 857-3-DV.dwg

<p>NOT RELEASED FOR CONSTRUCTION</p>	<p>PRELIMINARY DESIGN FOR REVIEW ONLY</p>	<p>DATE: 7/10/06</p>	<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REV.	DESCRIPTION	DATE				<p>THE VILLAGES AT TURTLE CREEK TOWN OF SURF CITY PENDER COUNTY, NORTH CAROLINA</p> <p>WETLAND AVOIDANCE STRATEGY ALTERNATIVE #2</p>	<p>CAVANAUGH Solutions through integrity and partnership</p>
	REV.	DESCRIPTION		DATE							
<p>PROJECT NO.: 041.05.043</p> <p>DESIGNER: BB</p> <p>CHECKED:</p> <p>SCALE: AS NOTED</p>	<p>SHEET NUMBER</p>	<p>Cavanaugh & Associates, P.A., 100 North First Street, Suite 202, Wilmington, NC 28401. Tel: 910-332-4492 Fax: 910-332-4012 www.cavanaughpa.com</p>									

Figure 2F

NOTE: TOTAL SITE AREA = 244.52 ACRES
 EXISTING WETLAND AREA = 100.03 ACRES
 PROPOSED WETLAND AREA (AFTER IMPACTS) = 97.19 ACRES
 WETLAND AREAS IN CONSERVATION = 61.50 ACRES



CONSERVATION AREAS NON-IMPACTED WETLAND AREAS	WETLAND CONSERVATION AREA NUMBER	AREA (ACRES)
	1	30.56
	2	2.35
	3	28.59
TOTAL AREA CONSERVED		61.50

HATCH/ BOUNDARY	AREA
[Hatched pattern]	404 JURISDICTIONAL WETLANDS
[Hatched pattern]	IMPACTED NON-RIPARIAN WETLANDS (NATIONWIDE PERMIT)
[Hatched pattern]	IMPACTED NON-RIPARIAN WETLANDS (INDIVIDUAL PERMIT)
[Hatched pattern]	IMPACTED RIPARIAN WETLANDS (INDIVIDUAL PERMIT)
[Hatched pattern]	WETLANDS CONSERVATION AREA
[Hatched pattern]	LOTS WITH FOOTPRINT RESTRICTIONS

SCALE: 1" = 300'
 SCALE OF MAP MAY VARY
 DUE TO METHODS OF REPRODUCTION

NON-RIPARIAN WETLAND, RIPARIAN WETLAND, AND STREAM IMPACTS FROM ROAD CROSSINGS			
WETLAND IMPACT NUMBER	AREA (SQ. FT.)	AREA (AC.)	AREA (AC.)
1	1,119.27	0.026	
2	521.39	0.012	
3	183.40	0.004	
4	712.32	0.016	
5	6,308.09	0.146	
6	2,110.97	0.048	
7	3,321.42	0.076	
8	1,986.22	0.045	
9	1,594.81	0.037	
10	6,546.44	0.150	
11	10,228.20	0.235	
12	27,152.22	0.623	
13	831.06	0.019	
14	7,591.27	0.173	
15	8,851.01	0.203	
16	30,418.71	0.691	
17	1,896.60	0.044	
18	2,462.41	0.055	
19	3,867.83	0.085	
20	1,908.88	0.044	
21	4,707.85	0.108	
22			
TOTAL WETLANDS IMPACTED:	123,752.87	2.841	
TOTAL NON-RIPARIAN WETLANDS IMPACTED:	121,023.09	2.778	
TOTAL RIPARIAN WETLANDS IMPACTED:	2,729.78	0.063	
TOTAL STREAM IMPACT:	70.0 L.F.		

NOTE: WETLAND MAP NUMBERS 1-8 WERE ORIGINALLY
 APPROVED UNDER NATIONWIDE PERMIT (NWP)
 ACTION ID #200602208 DATED JANUARY 16, 2007.

DATE: FEBRUARY 2, 2007
 PROJECT NO.: 041.05.043
 DESIGNED: LAM
 CHECKED: EST
 SCALE: AS SHOWN

C.1.1
 SHEET NUMBER

REV.	DESCRIPTION	DATE

THE VILLAGES AT TURTLE CREEK
 TOWN OF SURF CITY
 PENDER COUNTY, NORTH CAROLINA
 PROPOSED INDIVIDUAL PERMIT SITE PLAN
 WETLAND CONSERVATION AREAS AND
 IMPACTS FROM ROAD CROSSINGS

CAVANAUGH

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