

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 Environmental Quality Control

Water Quality Certification and Wetlands Programs Section

2600 Bull Street

Columbia, South Carolina 29201

REGULATORY DIVISION

12 SEPTEMBER 2003

Refer to: P/N #2003-1G-137-W

Pursuant to Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1341), an application has been submitted to the Department of the Army and the South Carolina Department of Health and Environmental Control by

BRICKYARD-LONGTOWN, LLC
C/O COASTAL SCIENCE ASSOCIATES, INC.
P. O. BOX 11687
COLUMBIA, SOUTH CAROLINA 29211

for a permit to place fill material in unnamed tributaries of

ROBERTS BRANCH

at a location, the Longtown tract, a 1,000 acre tract of land off of Longtown Road in Richland County, South Carolina. (Latitude 34°09.153' – Longitude 80°56.608')

Directions to the site: From Columbia, take I-77 north. Turn east on Killian Road. Turn north on Longtown Road. The project site is located along the western side of Longtown Road.

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

N O T I C E

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, TUESDAY, 14 OCTOBER 2003

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

The proposed work consists of placing fill material in 5.66 acres of wetlands and waters of the U. S. for permanent impacts for road crossings (3.13 acres), one area for general parcel development (0.80 acres), one storm water management pond (1.73 acres) and temporarily impacting 0.97 acres of waters of the U. S. for installation of water and sewer lines. As mitigation for the proposed impacts, the applicant proposes to preserve the remaining wetlands onsite, enhanced by 25-foot average width upland buffers. The purpose of the proposed work as stated by the applicant is to construct several high-density single and multi-family residential communities, which include a school and several commercial areas associated with it.

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 District Engineer will not process this application to a conclusion until such certification is received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review. Persons wishing to comment or object to Water Quality Certification must submit all comments in writing to the S.C. Department of Health and Environmental Control at the above address within thirty (30) days of the date of this notice.

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 6.63 acres of freshwater substrates inland of 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.

The District Engineer has consulted the most recently available information and has determined that the project will have no effect on any Federally endangered, threatened, or proposed species and will not result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or proposed critical habitat may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended).

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

12 SEPTEMBER 2003

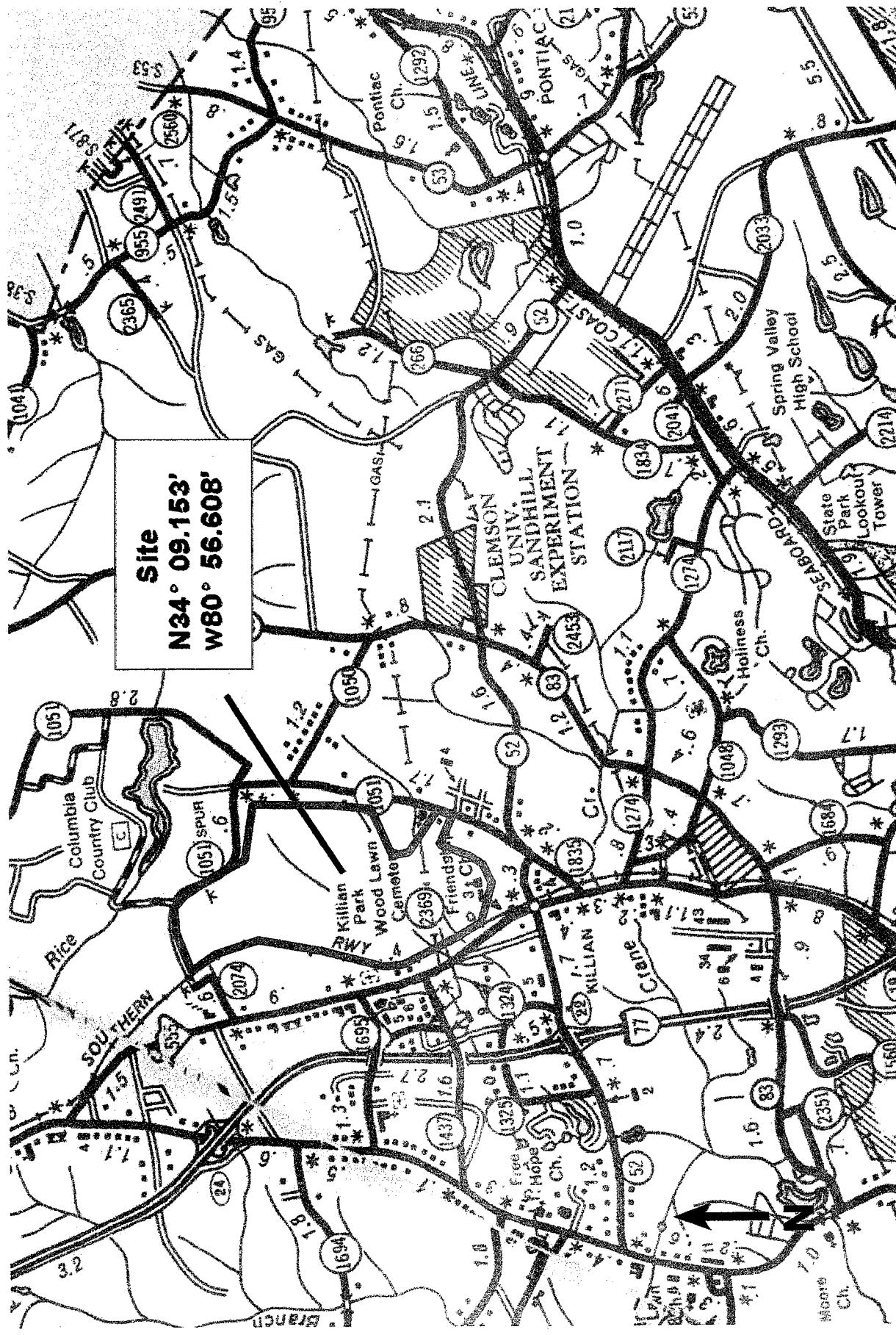
by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the 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.

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



Mary Hope Glenn
Project Manager
Regulatory Division
U.S. Army Corps of Engineers



Coastal Science Associates, Inc.
P.O. Box 1187
Columbia, SC 29211
Tel: (803) 256-3081
Fax: (803) 256-7475

Date: August 2003
Permit Application # 2003-1G-137. The figure shows the site location
map indicating the approximate site boundaries and the approximate
center of the site.



Approx. Scale:
1"=5790'
Sheet 1 of 45



Coastal Science Associates, Inc.
P.O. Box 11647
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475



**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. National Wetlands Inventory
(NWI) map indicating the approximate site boundaries.**

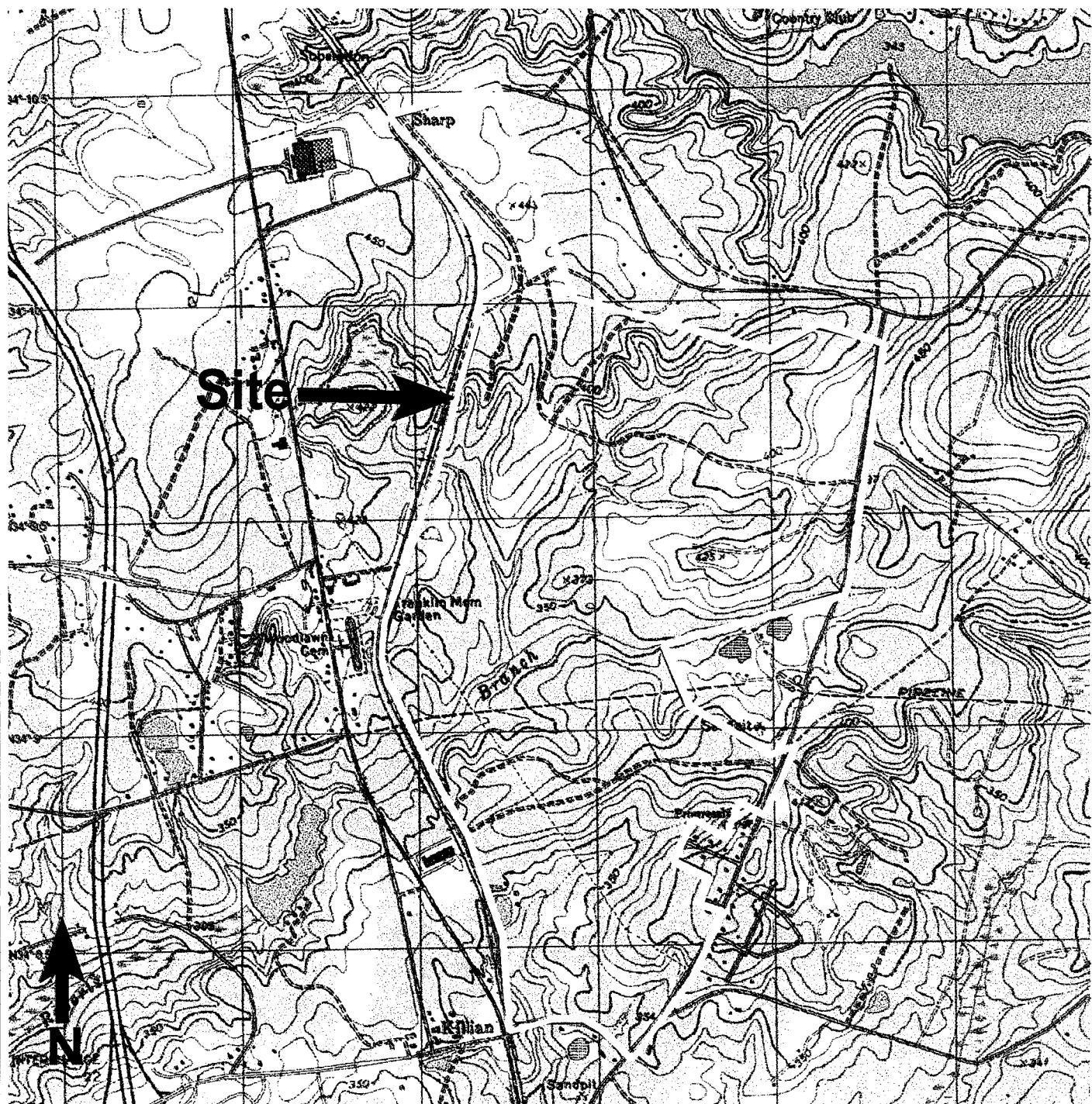
Date: August 2003
Approx. scale: 1 in. = 2,333
ft.
Sheet 2 of 45



Coastal Science Associates, Inc.
P.O. Box 11687
Columbia, SC 29221
Tel. (803) 256-3081
Fax (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. SCS soils map indicating the
approximate site boundaries.

Date: August 2003
Approx. scale: 1 in. = 2,333 ft.
Sheet 3 of 45

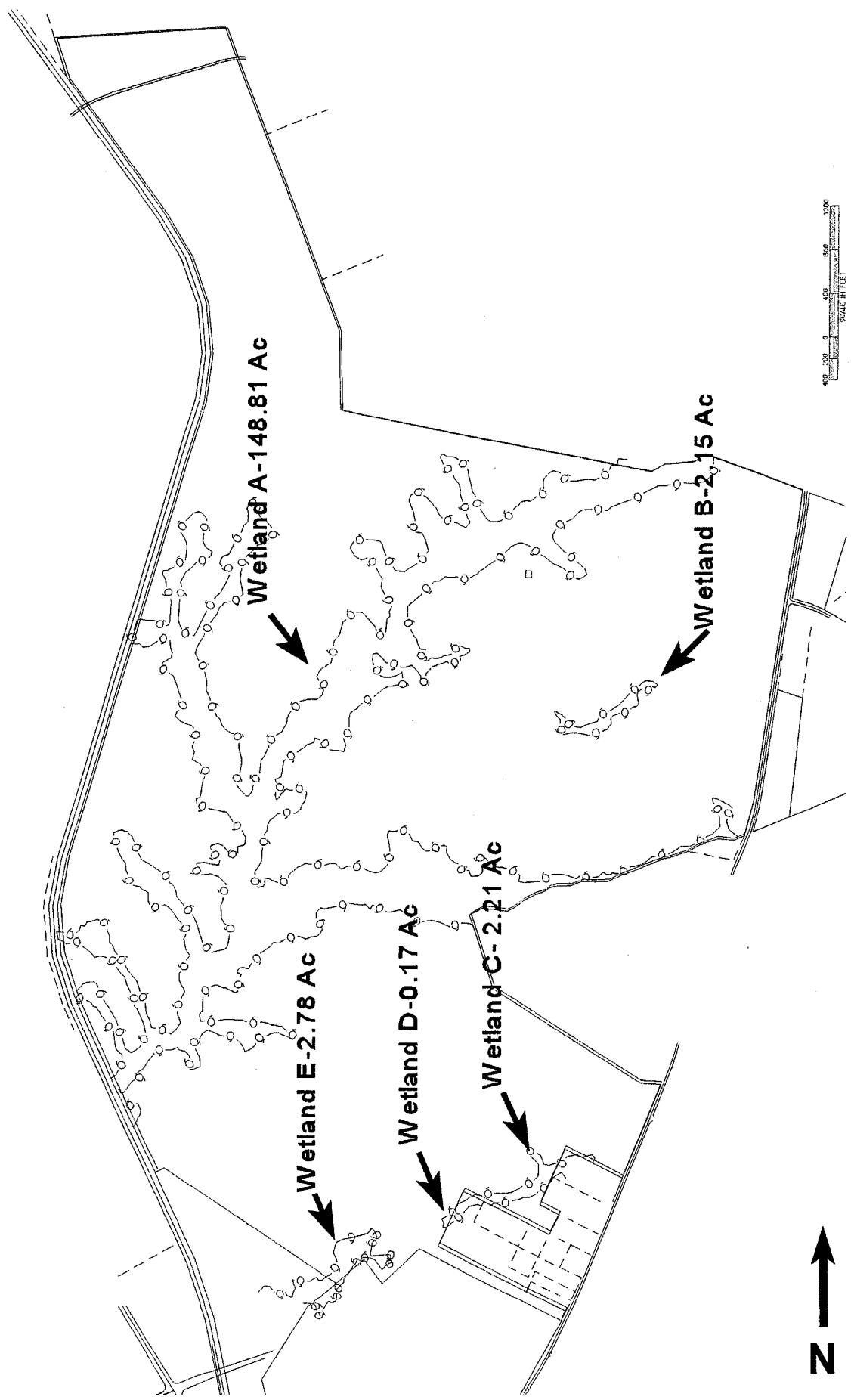


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P.O. Box 11687
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475



Longtown Tract 1,000± acre site, Richland
County, South Carolina, Permit Application #
2003-1G-137. USGS Topographic map
indicating the approximate site boundaries.

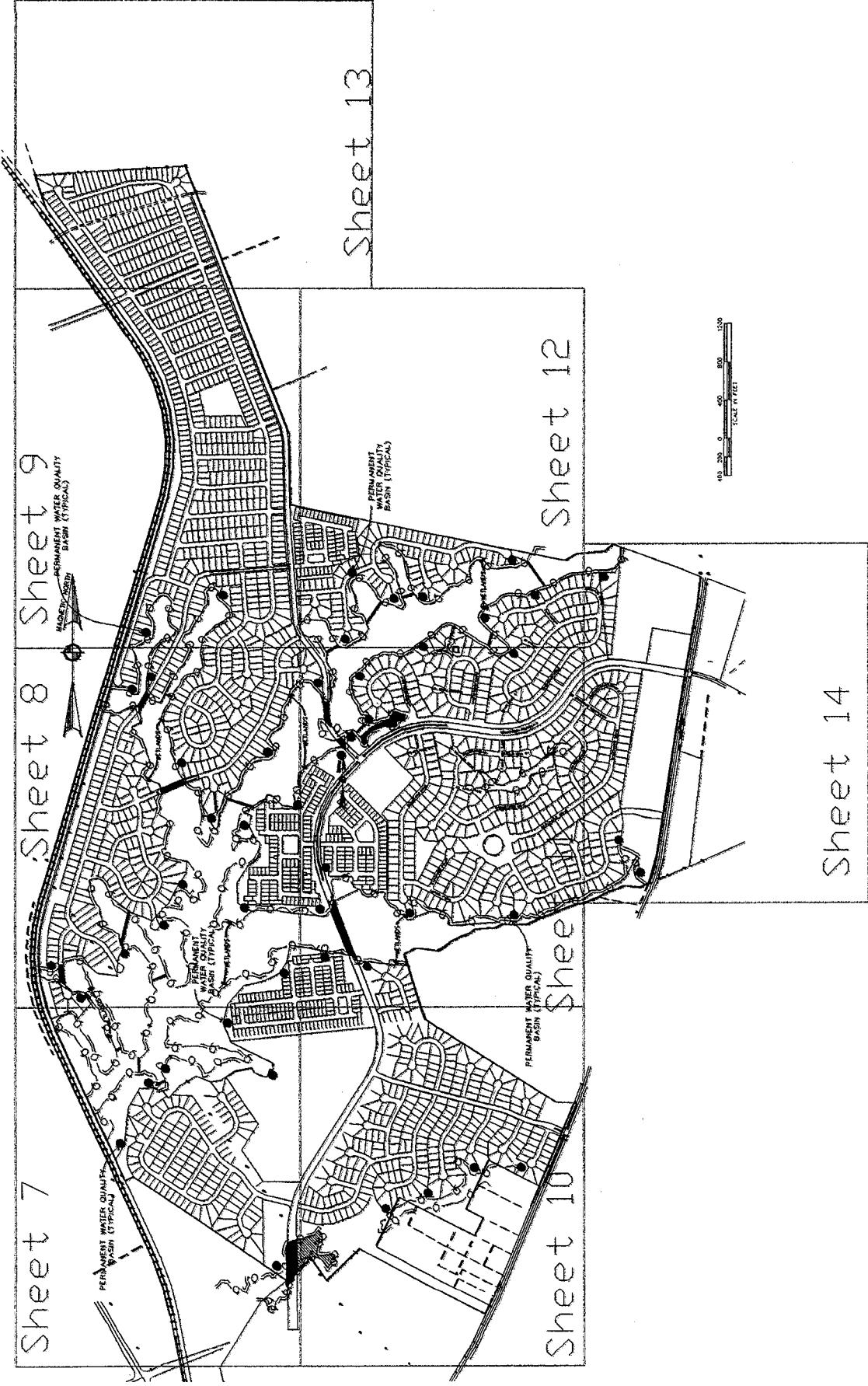
Date: August 2003
Approx. scale: 1 in. = 2,000 ft.
Sheet 4 of 45



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P.O. Box 1187
Columbia, SC 29211
Tel: (803) 256-3081
Fax: (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The figure shows the overall view of the property with the individual wetlands identified.

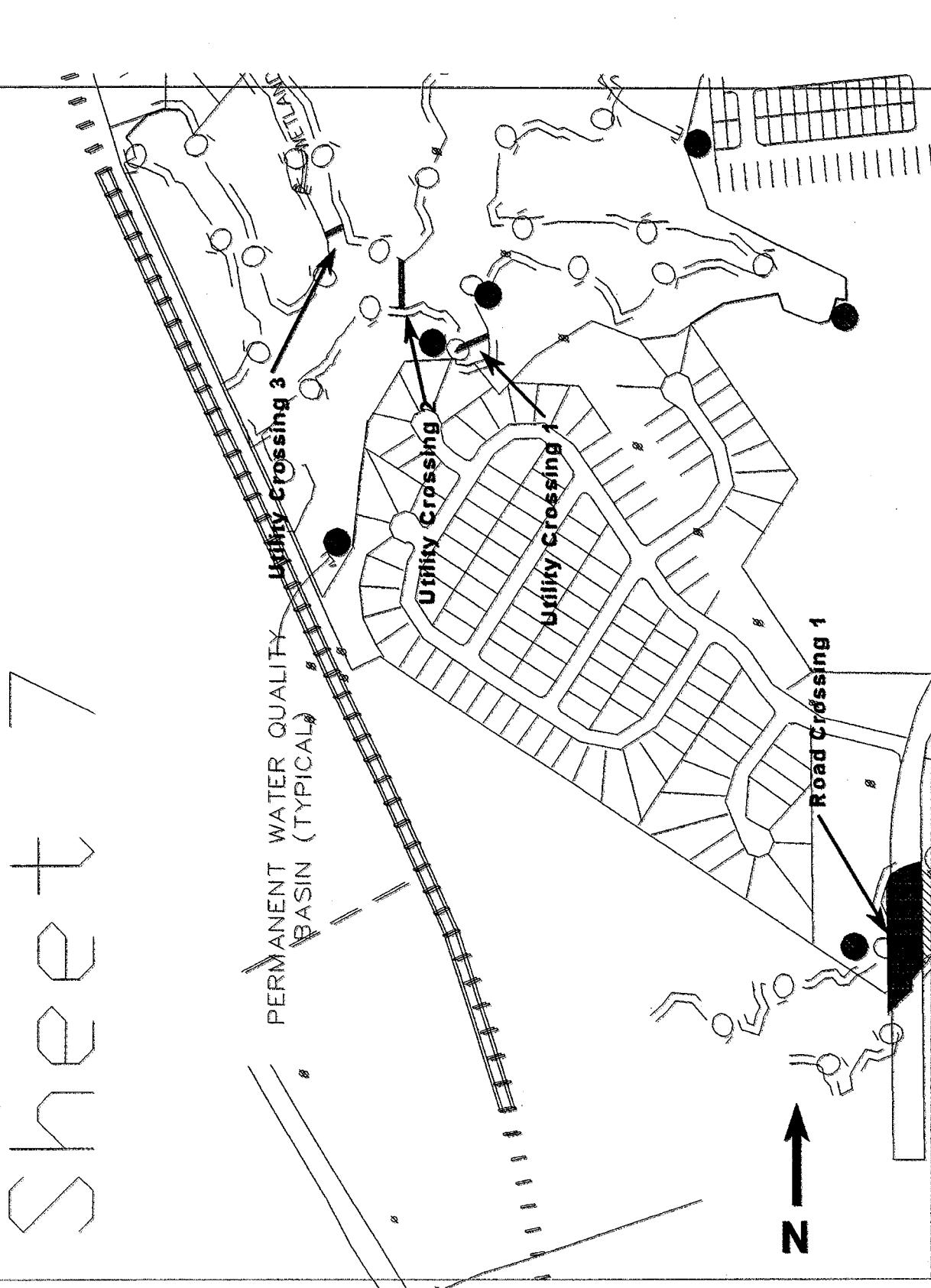
Date: August 2003
Sheet 5 of 45



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P.O. Box 11687
Columbia, SC 29211
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Fax (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The figure shows the overall view of the proposed project.

Date: August 2003
Sheet 6 of 45

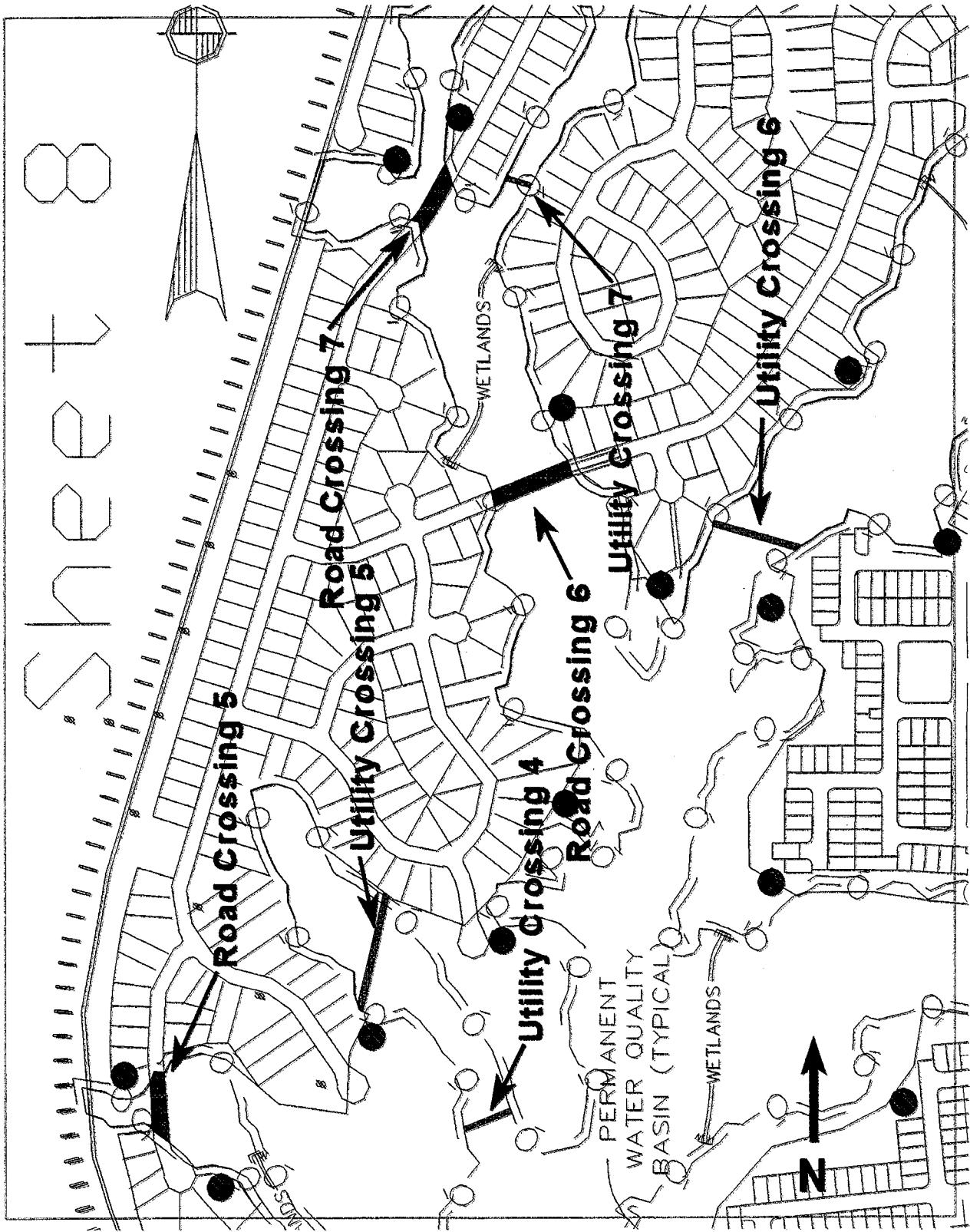


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P.O. Box 11687
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475



Date: August 2003
Approx. scale: 1" = 470'
Sheet 7 of 45

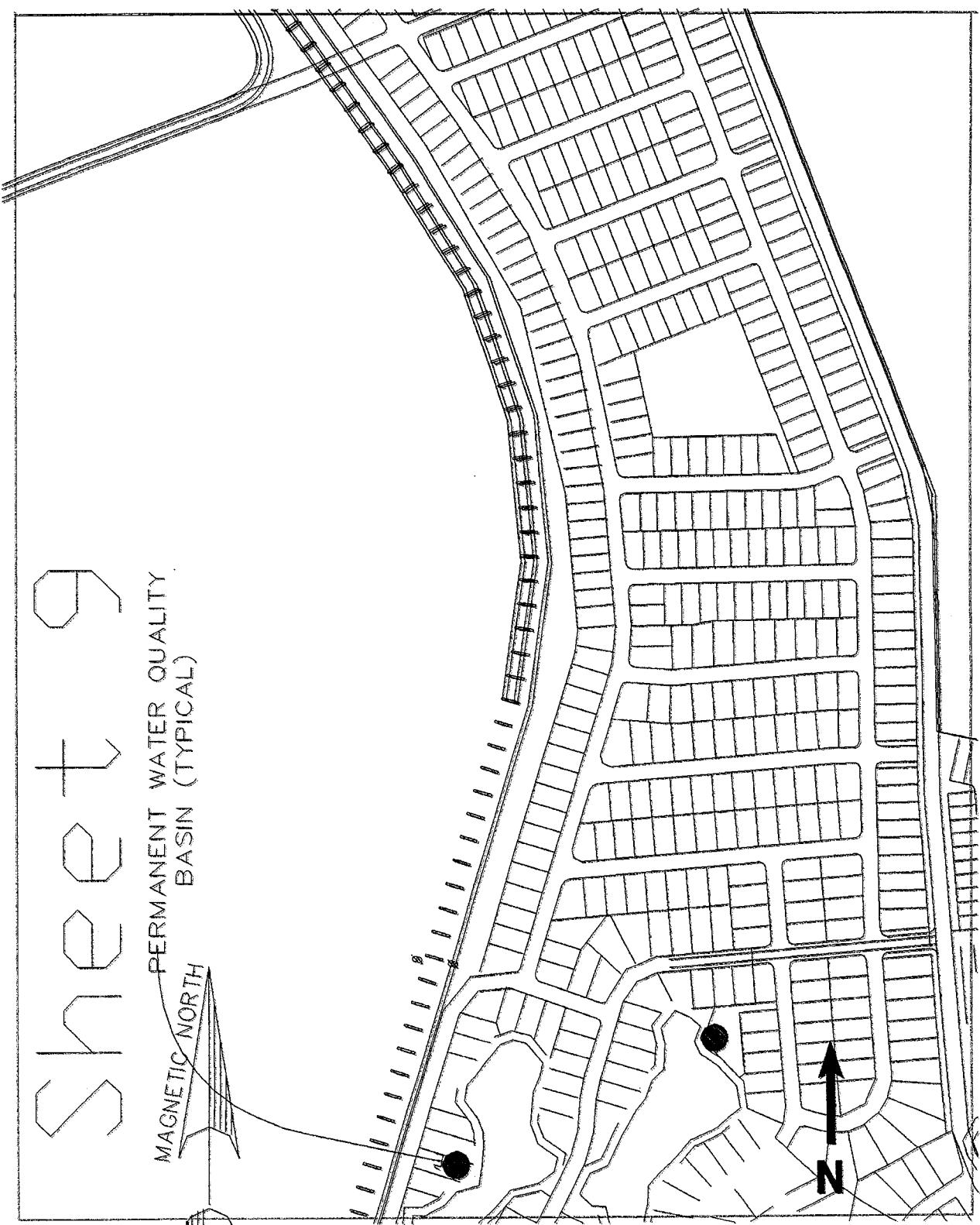
Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. This sheet shows the proposed locations of Road Crossing 1, and Utility Crossings 1,2, and 3.



Coastal Science
Associates, Inc.
P.O. Box 11687
Columbia, SC 29211
Tel: (803) 256-3051
Fax: (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the proposed locations of Road Crossings 5, 6, and 7 as well as Utility Crossings 4, 5 and 6.

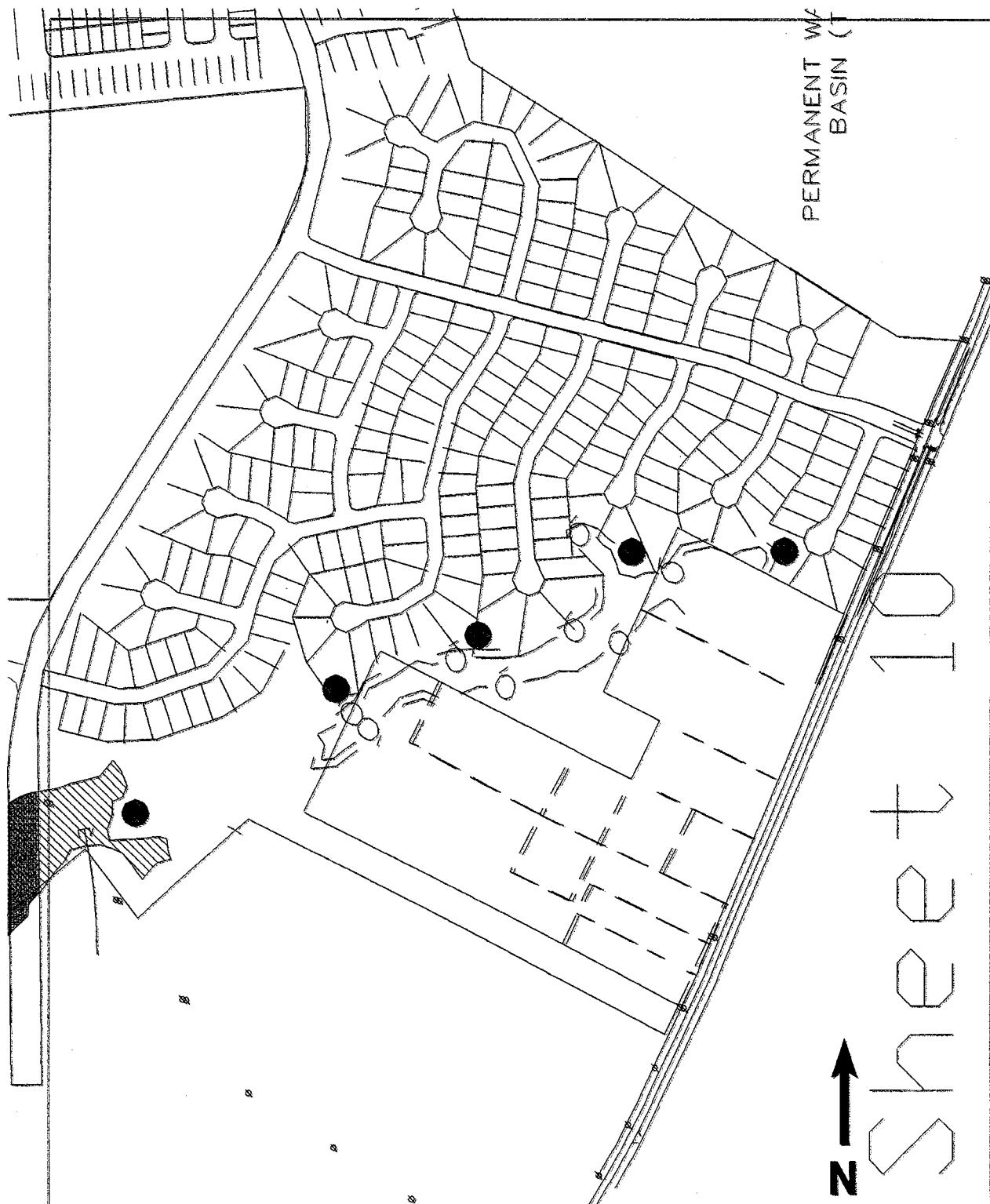
Date: August 2003
Approx. scale: 1" = 470'
Sheet 8 of 45



Coastal Science Associates, Inc.
 P.O. Box 11687
 Columbia, SC 29211
 Tel: (803) 266-3081
 Fax: (803) 266-7475

Longtown Tract 1,000± acre site, Richland County, South
 Carolina, Permit Application # 2003-1G-137. The sheet shows no
 proposed impacts.

Date: August 2003
 Approx. scale: 1" = 470'
 Sheet 9 of 45

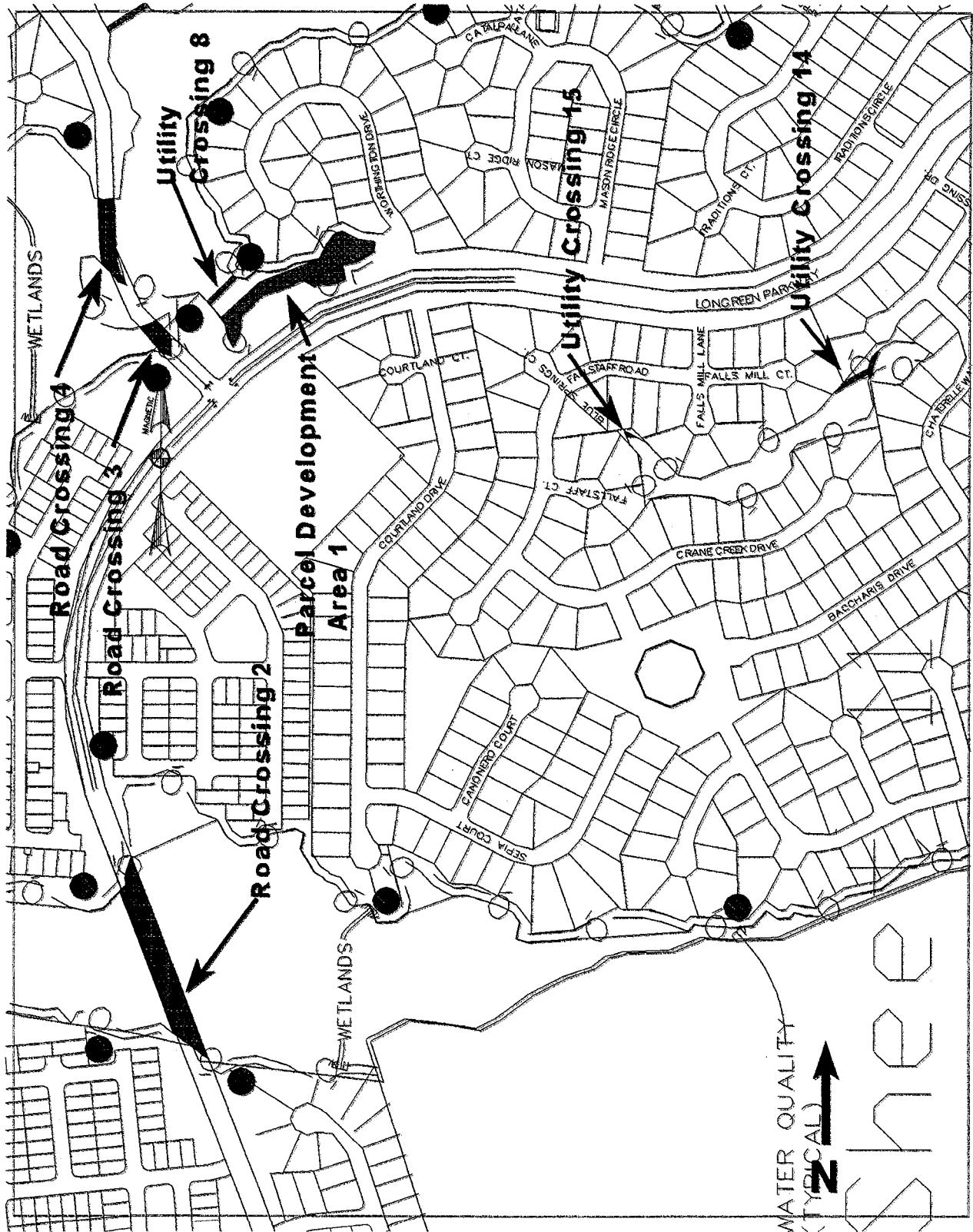


Coastal Science Associates, Inc.
P.O. Box 11687
Columbia, SC 29221
Tel. (803) 256-3081
Fax (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the location of Storm Water Pond 1.

Date: August 2003
Approx. scale: 1" = 480'
Sheet 10 of 45

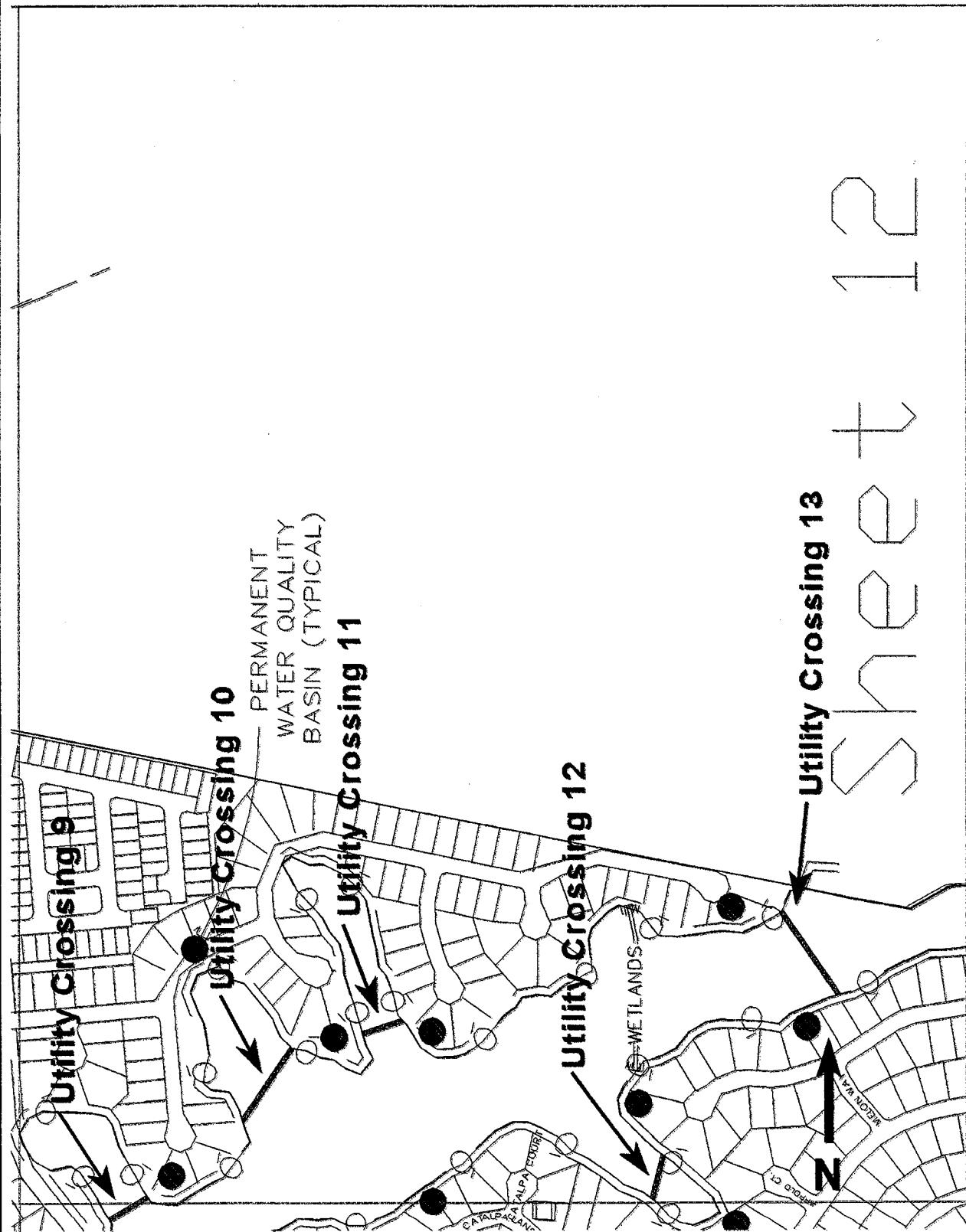




Coastal Science Associates, Inc.
P.O. Box 11687
Columbia, SC 29211
Tel: (803) 256-3081
Fax: (803) 256-4475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the location of Road Crossings 1,2 and 3, Utility Crossings 8, 14 and 15, and Parcel Development Area 1.

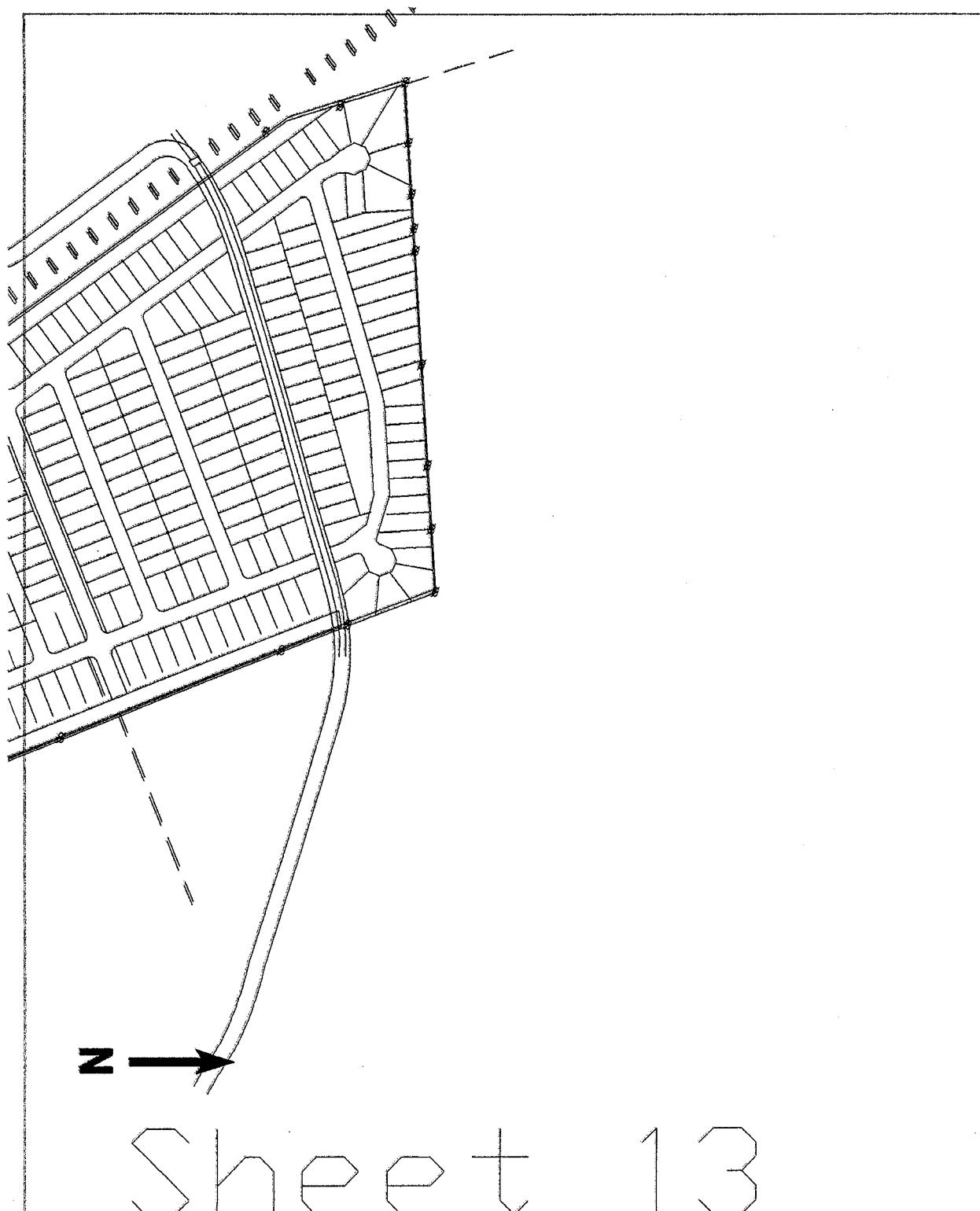
Date: August 2003
Approx. scale: 1" = 470'
Sheet 11 of 45



Coastal Science Associates, Inc.
P.O. Box 1887
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the location of Utility Crossings 9, 10, 11, 12 and 13.

Date: August 2003
Approx. scale: 1" = 470'
Sheet 12 of 45

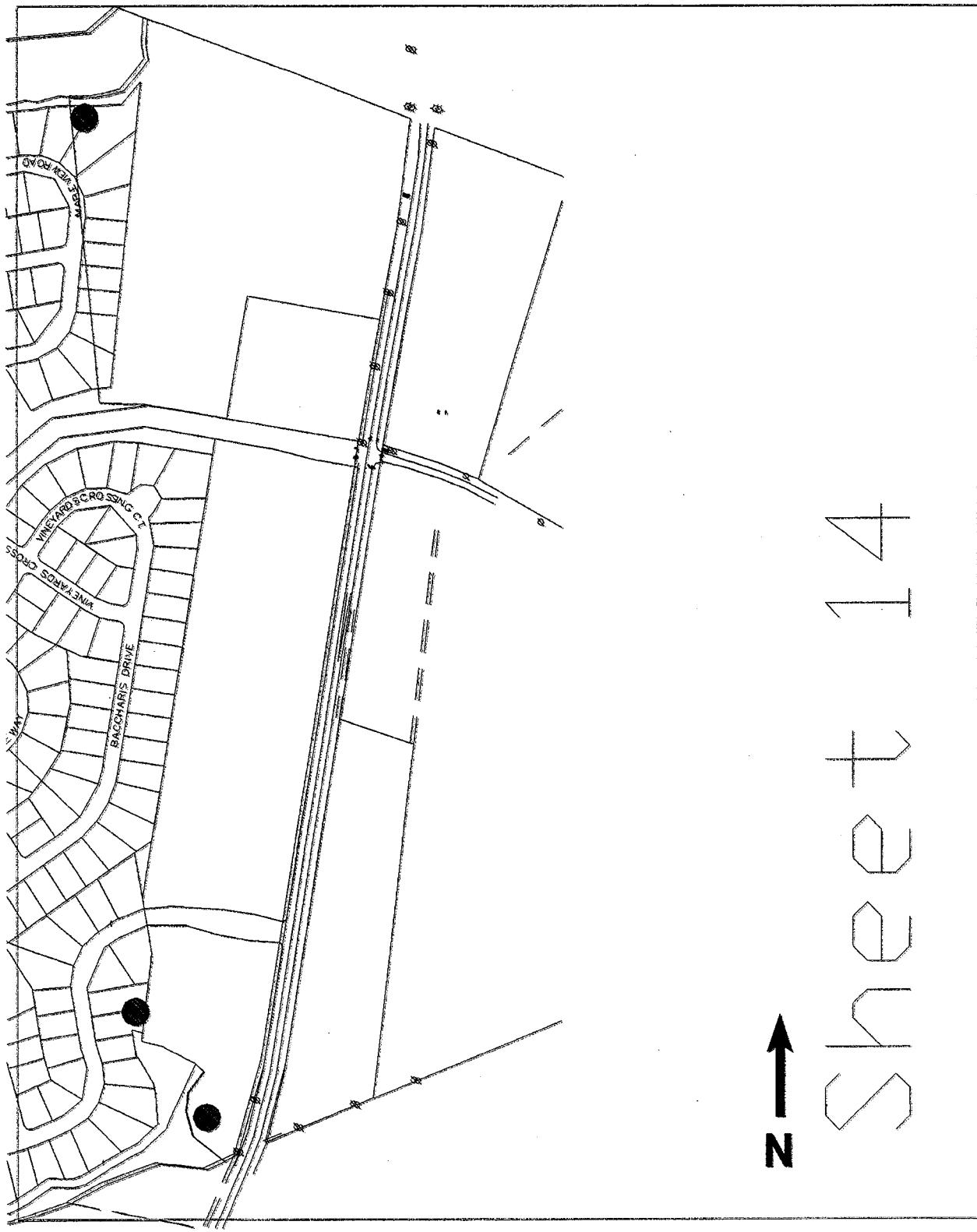


Coastal Science Associates, Inc.
P.O. Box 11687
Columbia, SC 29211
Tel. (803)-256-3081
Fax (803)-256-7475



**Longtown Tract 1,000± acre site,
Richland County, South Carolina,
Permit Application # 2003-1G-137.** The
sheet shows no proposed impacts.

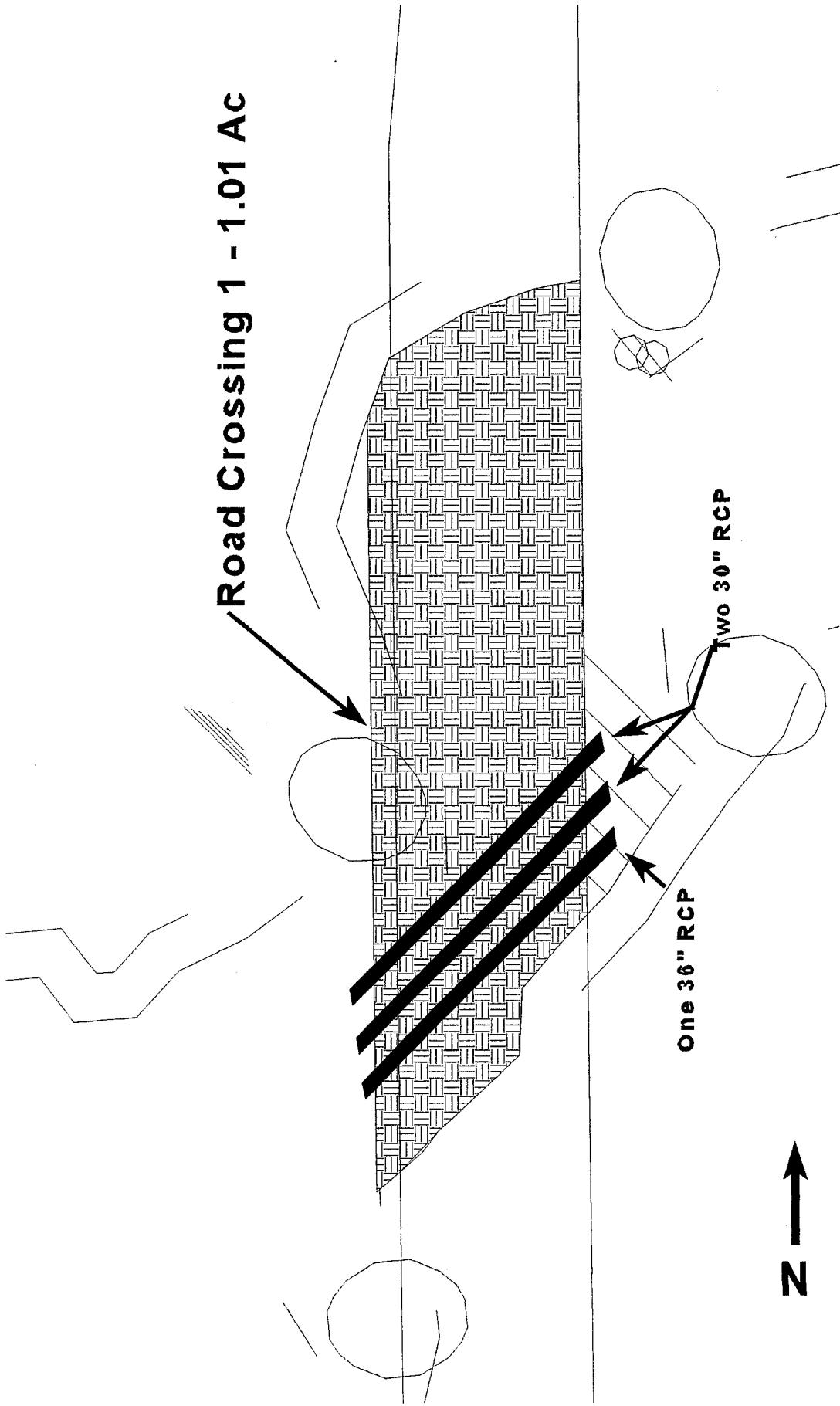
Date: August 2003
Approx. scale: 1" = 470'
Sheet 13 of 45



Coastal Science Associates, Inc.
P.O. Box 11627
Columbia, SC 29211
Tel: (803) 256-3081
Fax: (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows no proposed impacts.

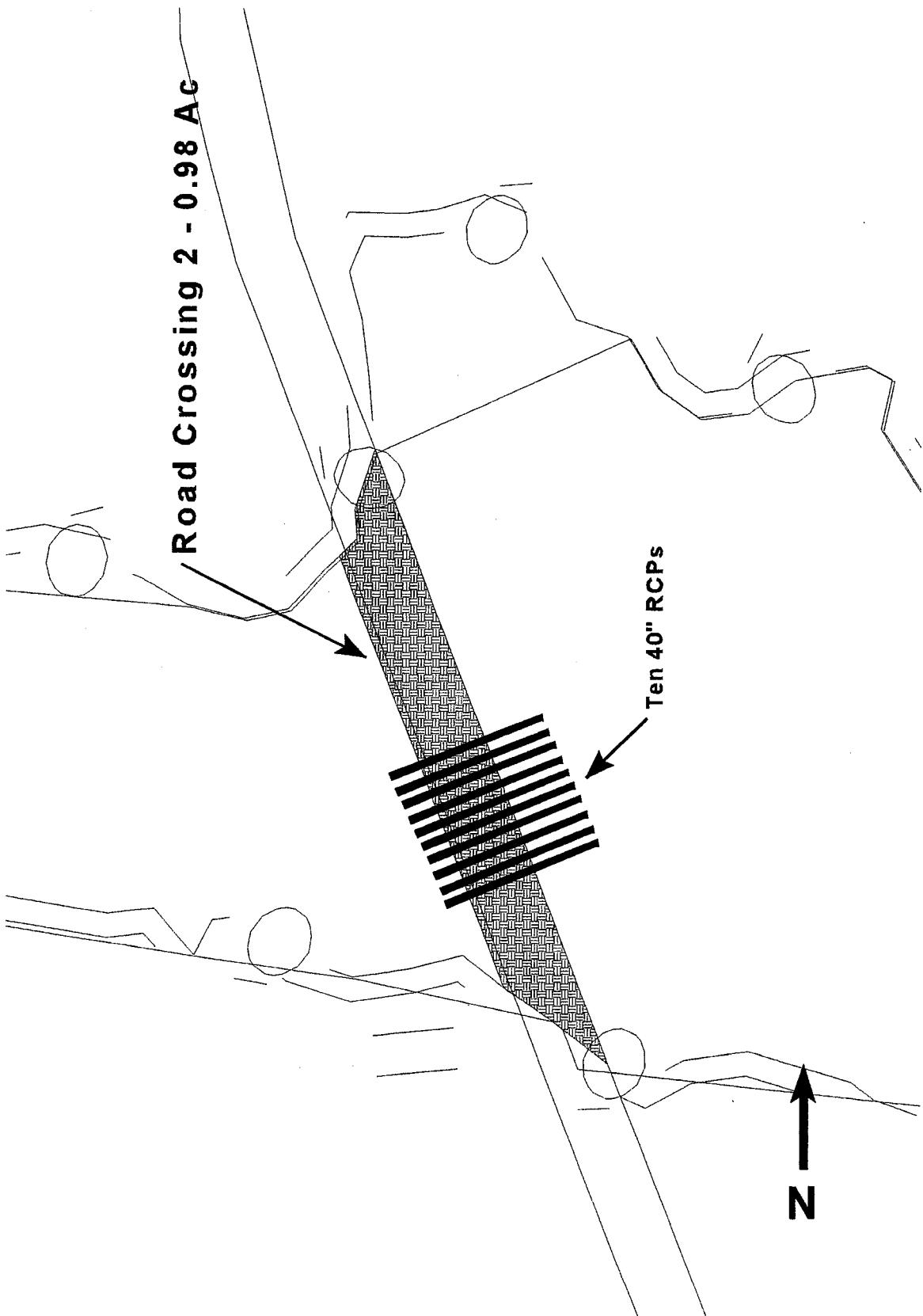
Date: August 2003
Approx. scale: 1" = 470'
Sheet 14 of 45



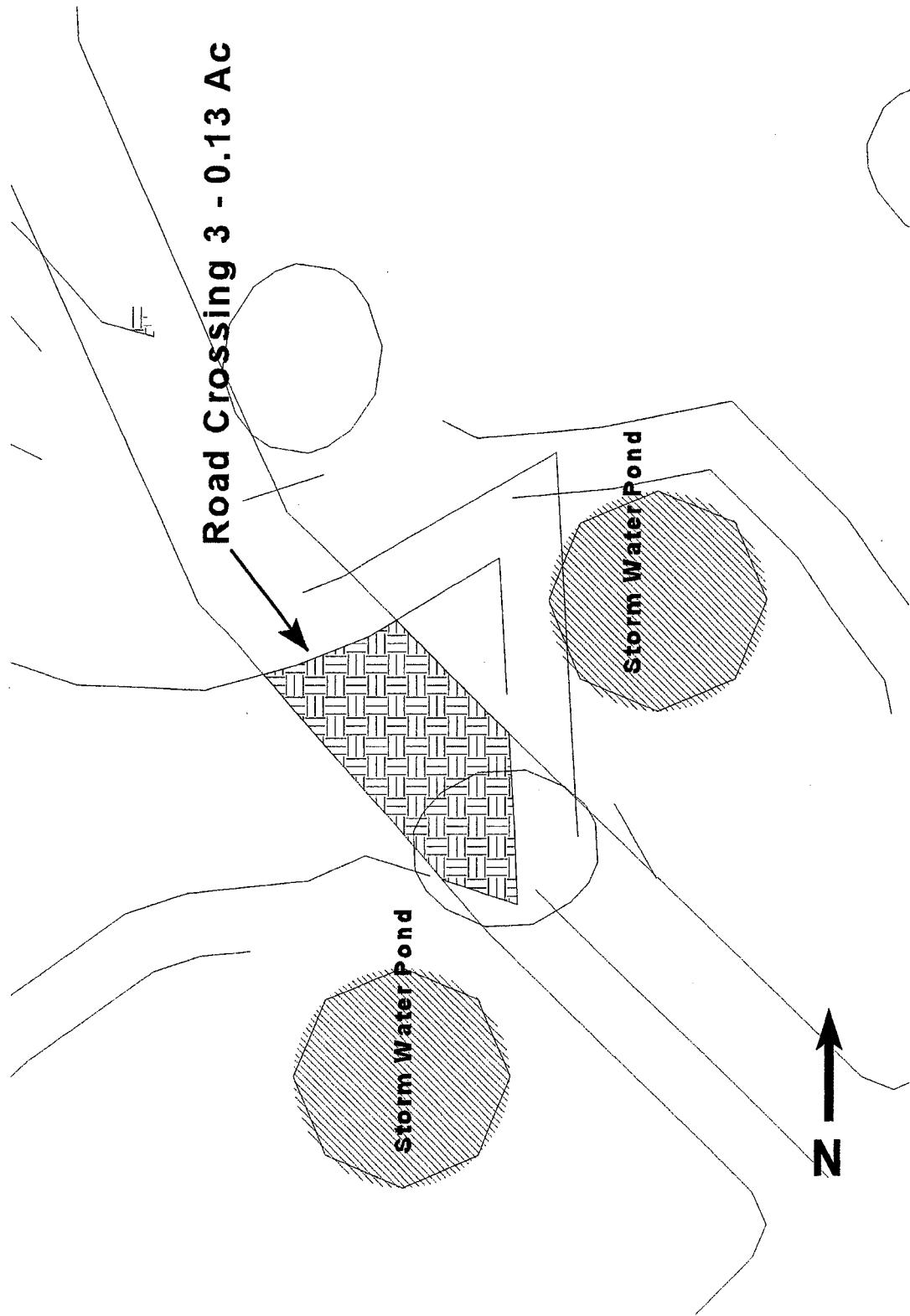
Coastal Science Associates, Inc.
P.O. Box 11687
Columbia, SC 29211
Tel: (803) 256-3081
Fax: (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The figure shows the enlarged view of Road Crossing 1 with the approximate location of the drainage culverts. A cross-sectional view is found on Sheet 38.

Date: August 2003
Approx. scale: 1" = 80'
Sheet 15 of 45



Coastal Science Associates, Inc. P.O. Box 16587 Columbia, SC 29211 Tel. (803) 256-4081 Fax (803) 256-4475	Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The figure shows the enlarged view of Road Crossing 2 with the approximate location of the drainage culverts. A cross-sectional view is found on Sheet 39.	Date: August 2003 Approx. scale: 1" = 160' Sheet 16 of 45
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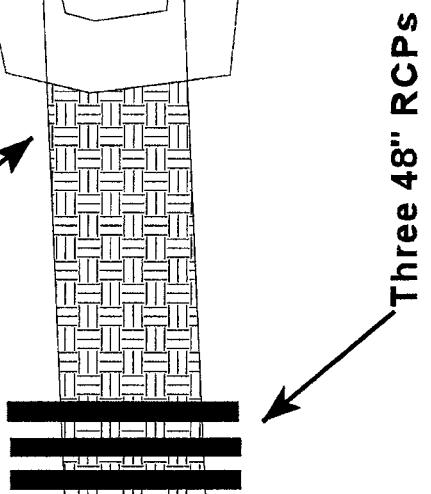
Coastal Science Associates, Inc.
P.O. Box 11687
Columbia, SC 29211
Tel (803) 256-3081
Fax (803) 256-7475



**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The figure shows the enlarged
view of Road Crossing 3 with the approximate location of the drainage
culverts. A cross-sectional view is found on Sheet 40.

Date: August 2003
Approx. scale: 1" = 60'
Sheet 17 of 45

Road Crossing 4 - 0.28 Ac



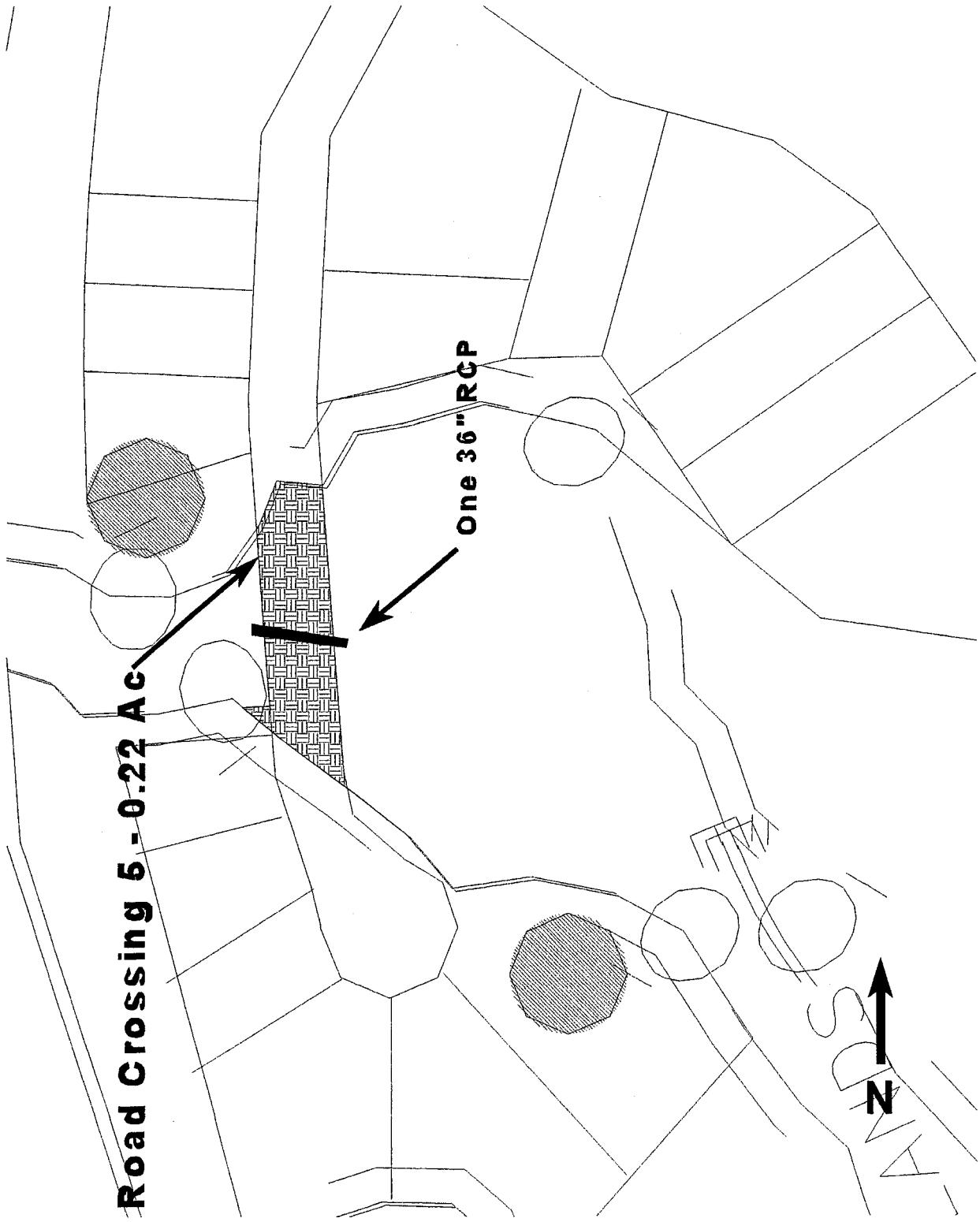
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↑

Coastal Science Associates, Inc.
P.O. Box 11827
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475

**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The figure shows the enlarged
view of Road Crossing 4 with the approximate location of the drainage
culverts. A cross-sectional view is found on Sheet 41.

Date: August 2003
Approx. scale: 1" = 70'
Sheet 18 of 45



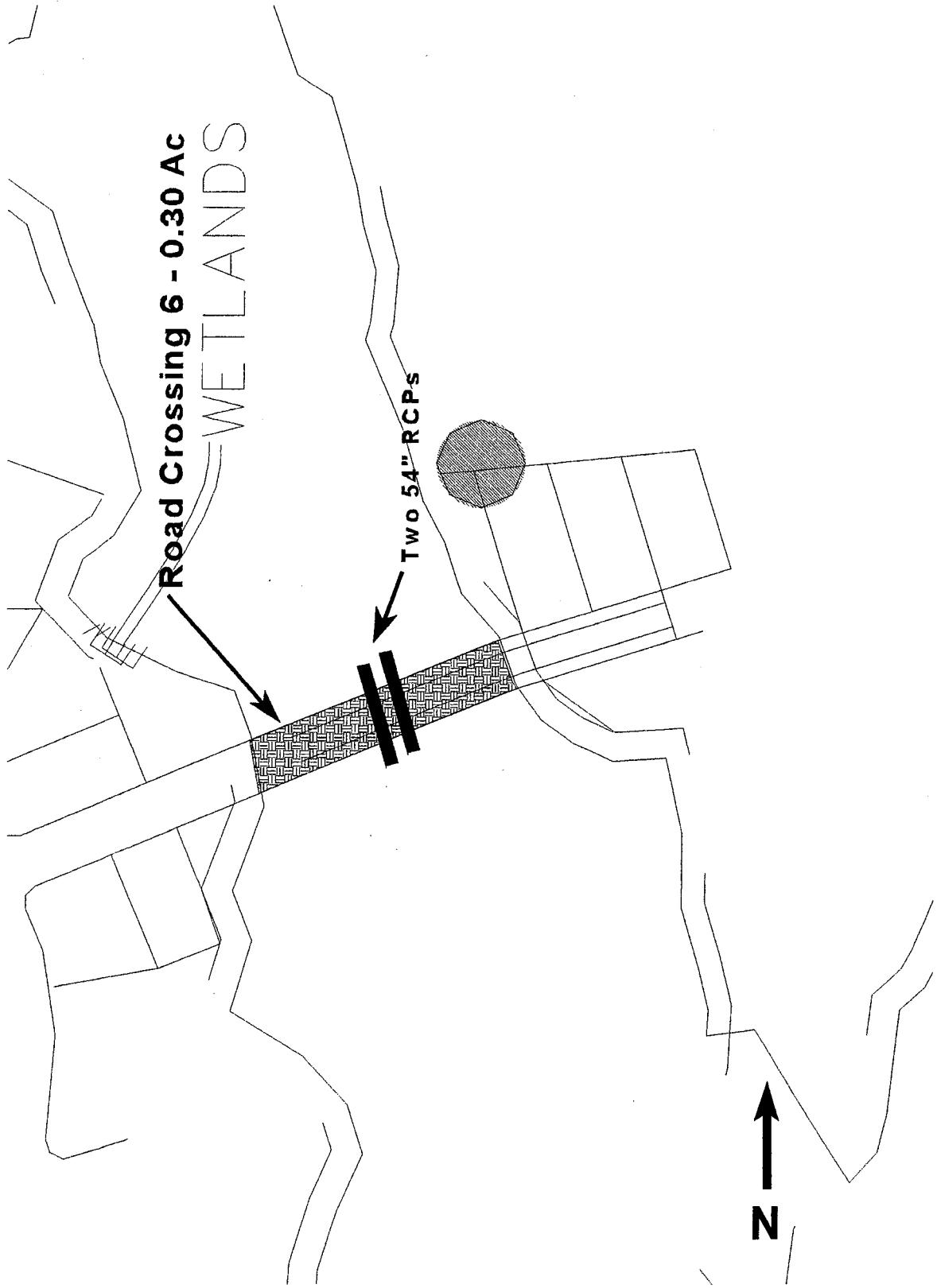


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Associates, Inc.
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Fax (803) 256-7475



**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The figure shows the enlarged
view of Road Crossing 5 with the approximate location of the drainage
culverts. A cross-sectional view is found on Sheet 42.

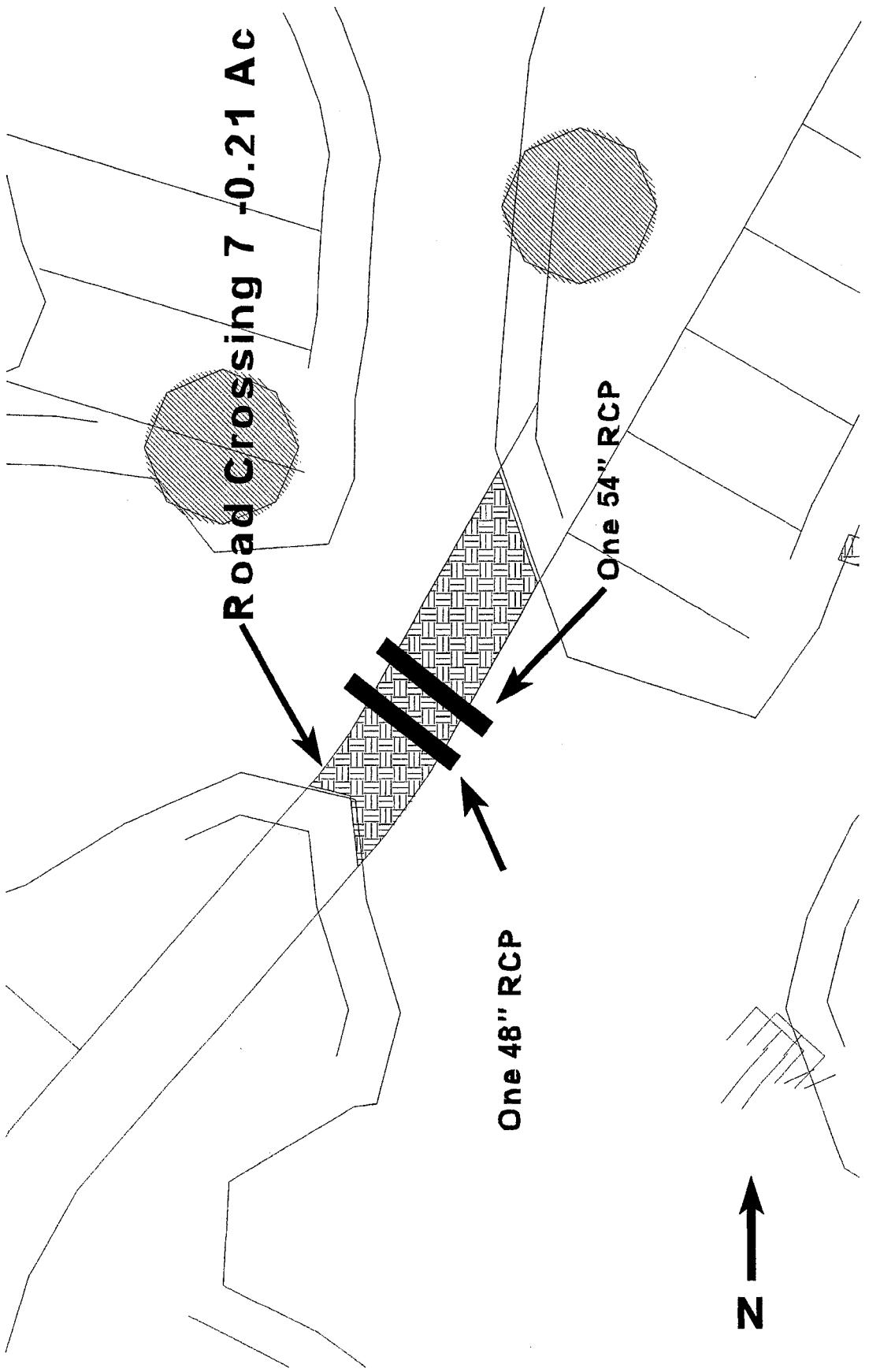
Date: August 2003
Approx. scale: 1" = 110'
Sheet 19 of 45



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P.O. Box 11687
Columbia, SC 29211
Tel: (803) 256-3081
Fax: (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The figure shows the enlarged view of Road Crossing 6 with the approximate location of the drainage culverts. A cross-sectional view is found on Sheet 43.

Date: August 2003
Approx. scale: 1" = 150'
Sheet 20 of 45

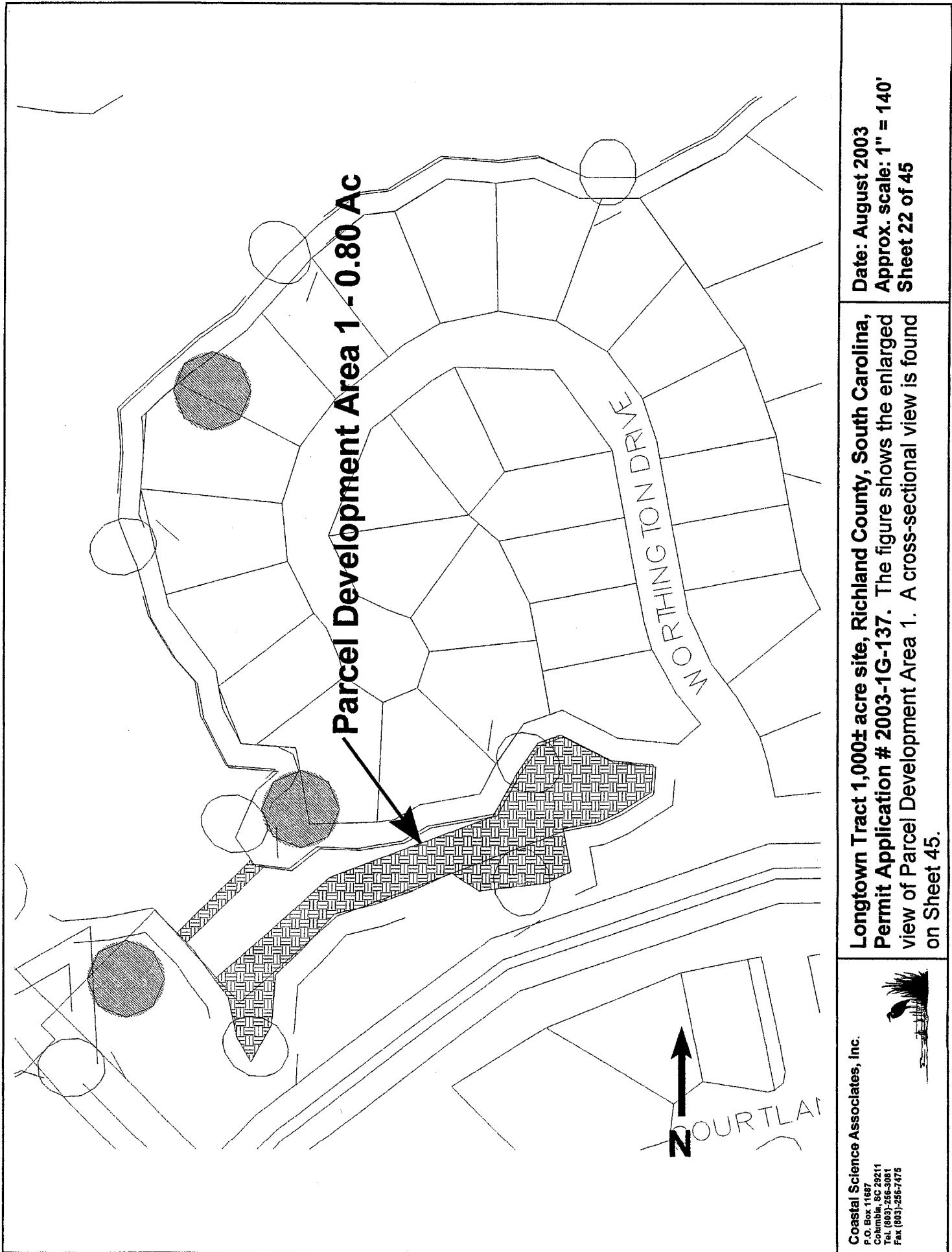


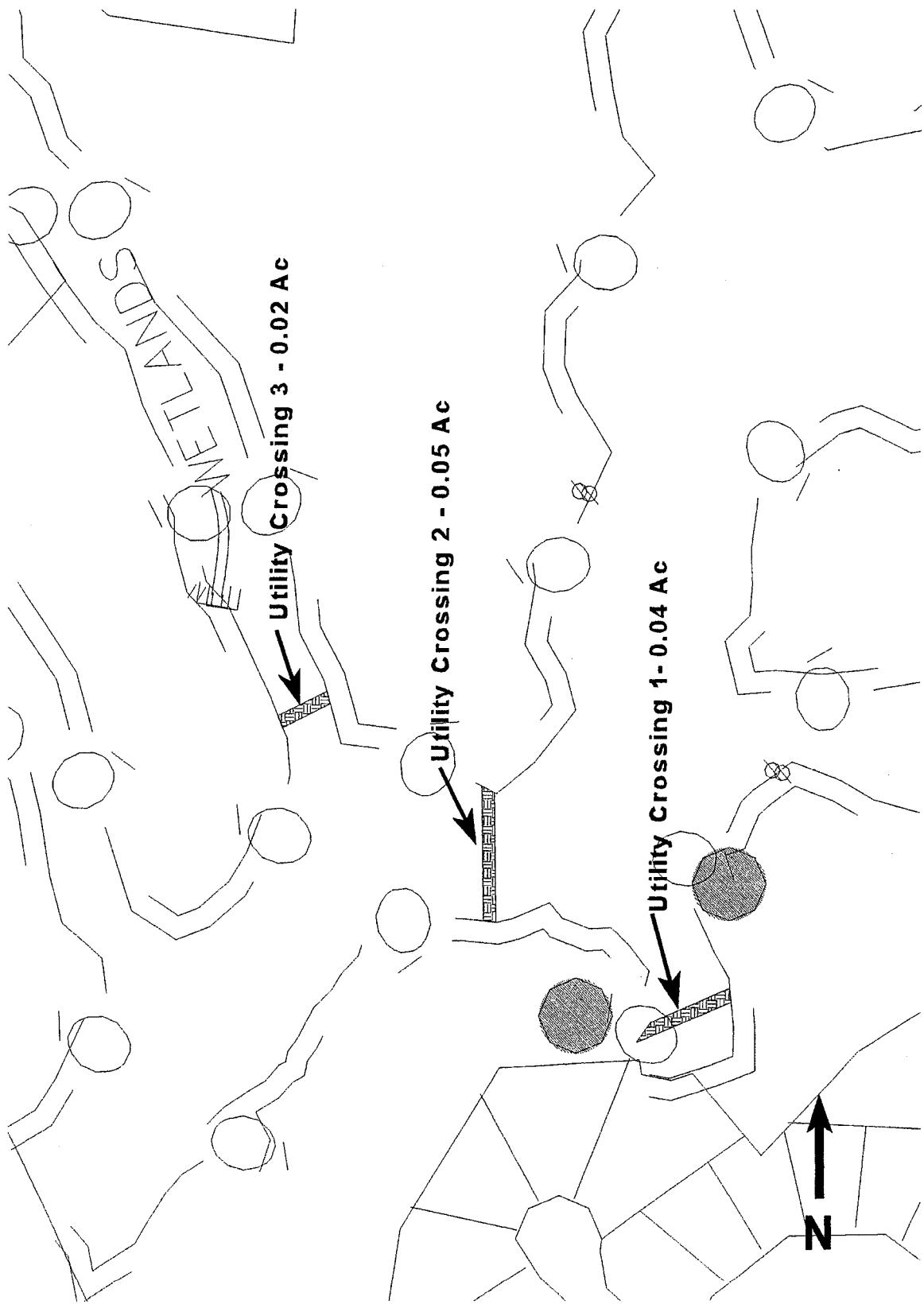
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Fax (803) 256-7475



Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The figure shows the enlarged view of Road Crossing 7 with the approximate location of the drainage culverts. A cross-sectional view is found on Sheet 44.

Date: August 2003
Approx. scale: 1" = 80'
Sheet 21 of 45

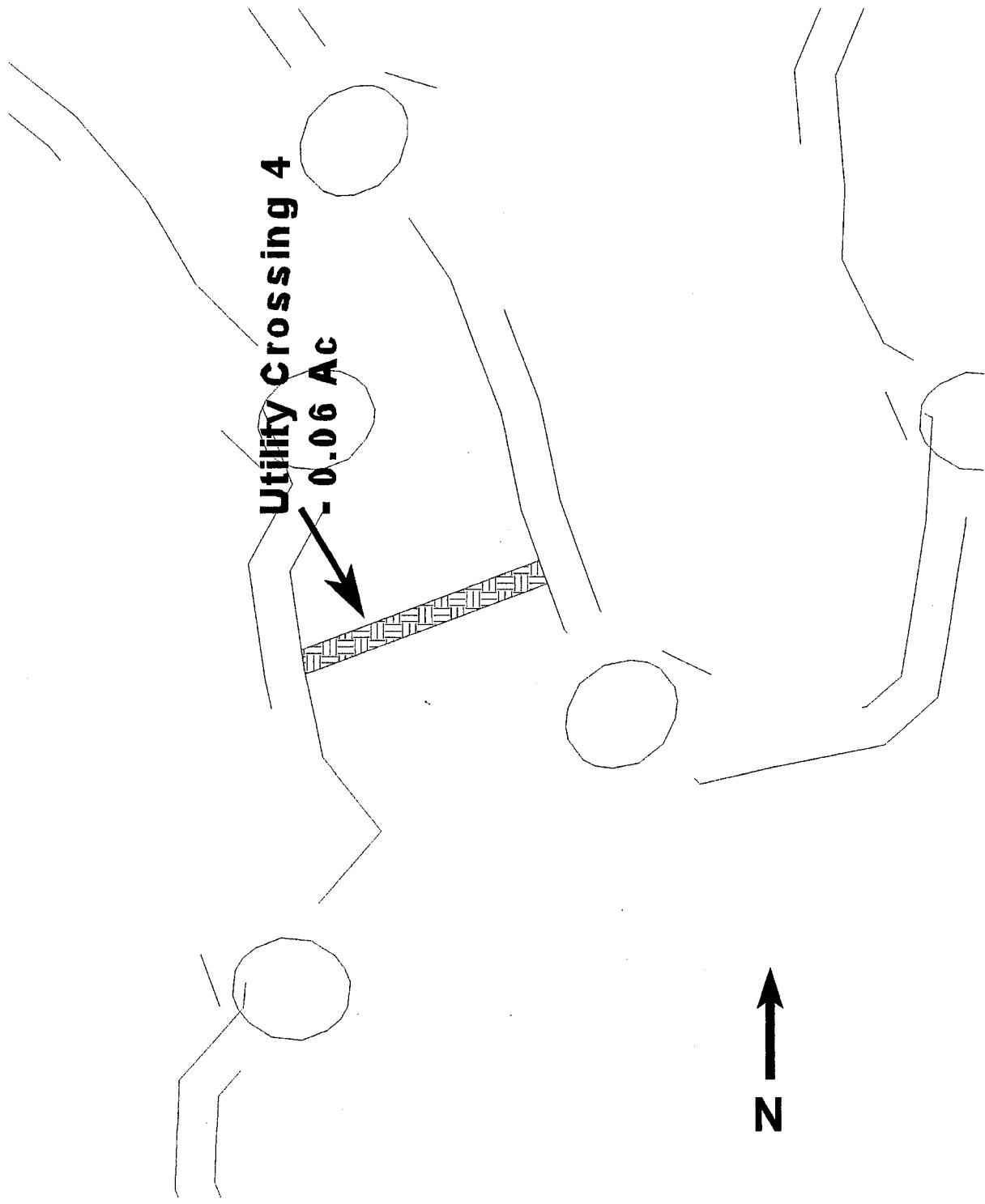




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Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossings 1, 2 and 3.

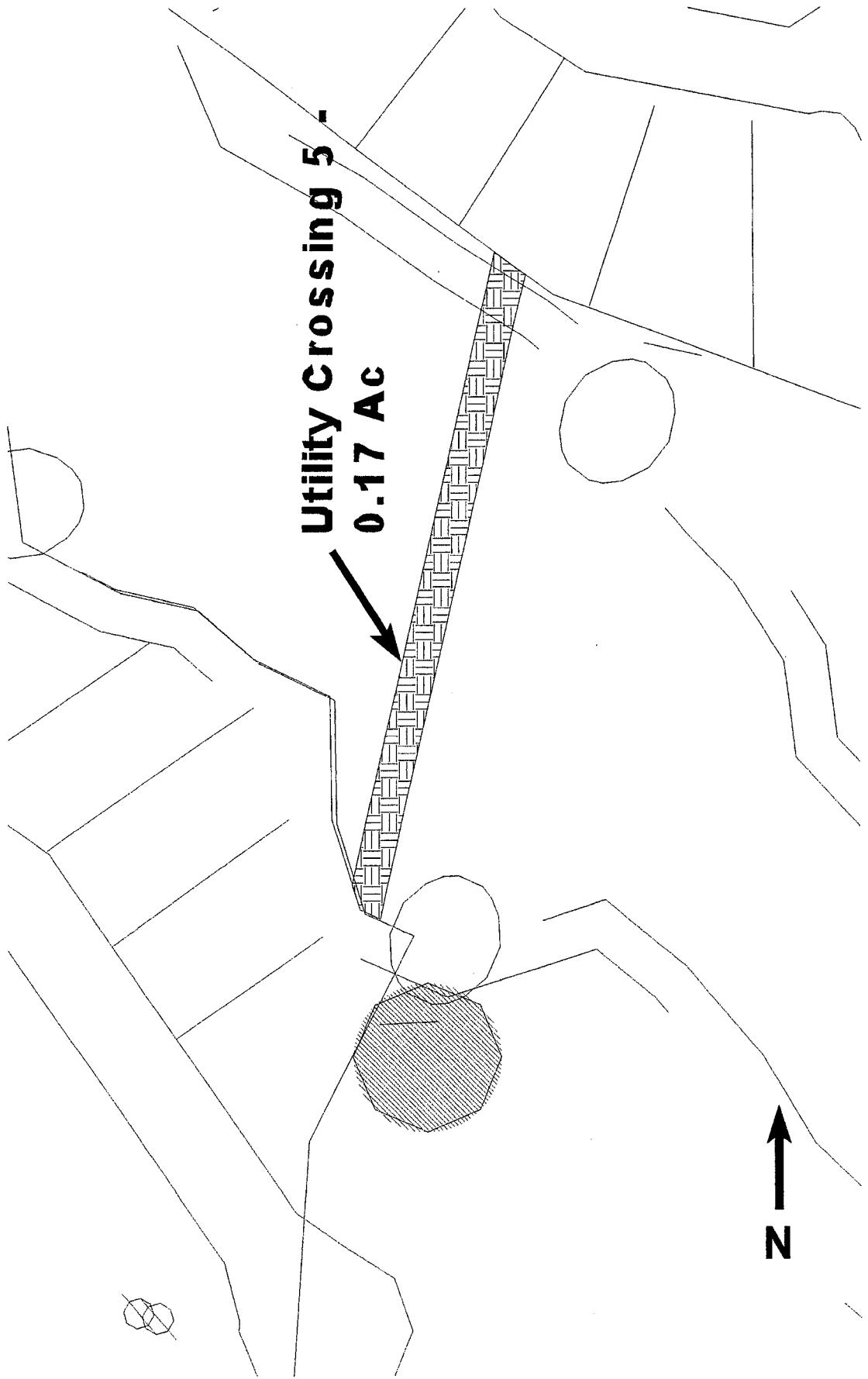
Date: August 2003
Approx. scale: 1" = 180'
Sheet 23 of 45



Coastal Science Associates, Inc.
P.O. Box 11837
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing 4.

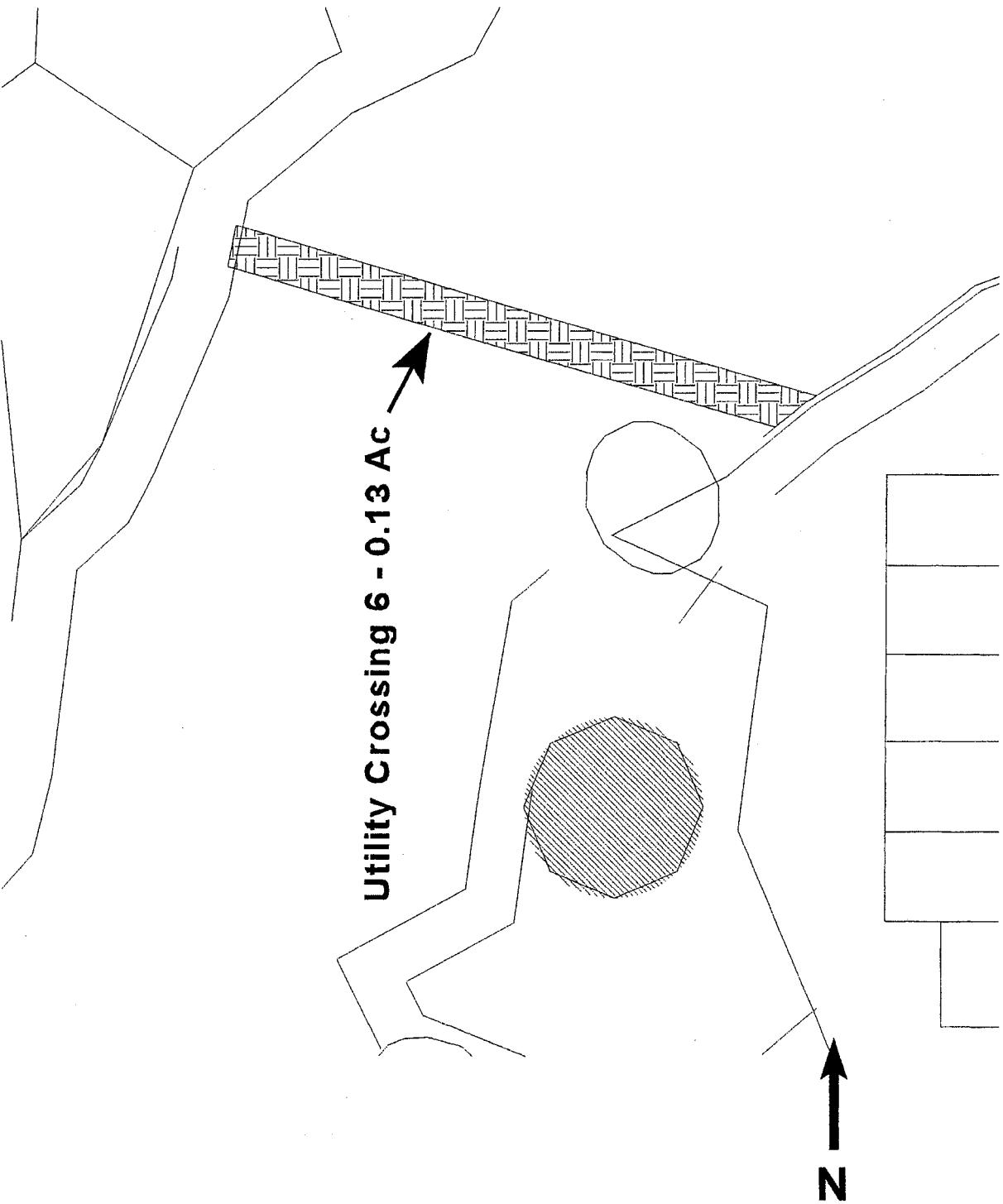
Date: August 2003
Approx. scale: 1" = 100'
Sheet 24 of 45



Coastal Science Associates, Inc.
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Fax (803) 256-7475

**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The figure shows the enlarged
view of Utility Crossing 5.

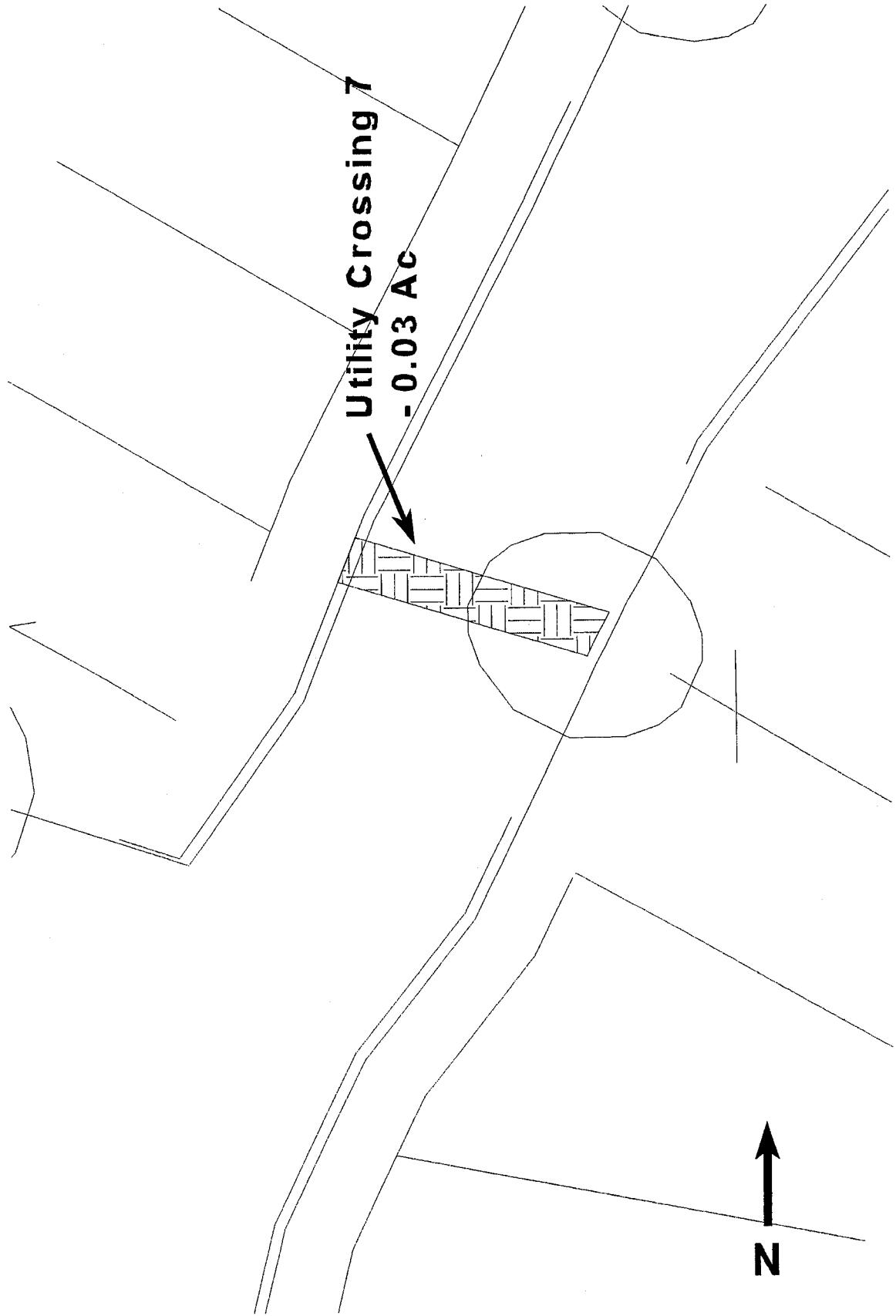
Date: August 2003
Approx. scale: 1" = 85'
Sheet 25 of 45



Coastal Science Associates, Inc.
P.O. Box 11667
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475

**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The figure shows the enlarged
view of Utility Crossing 6.

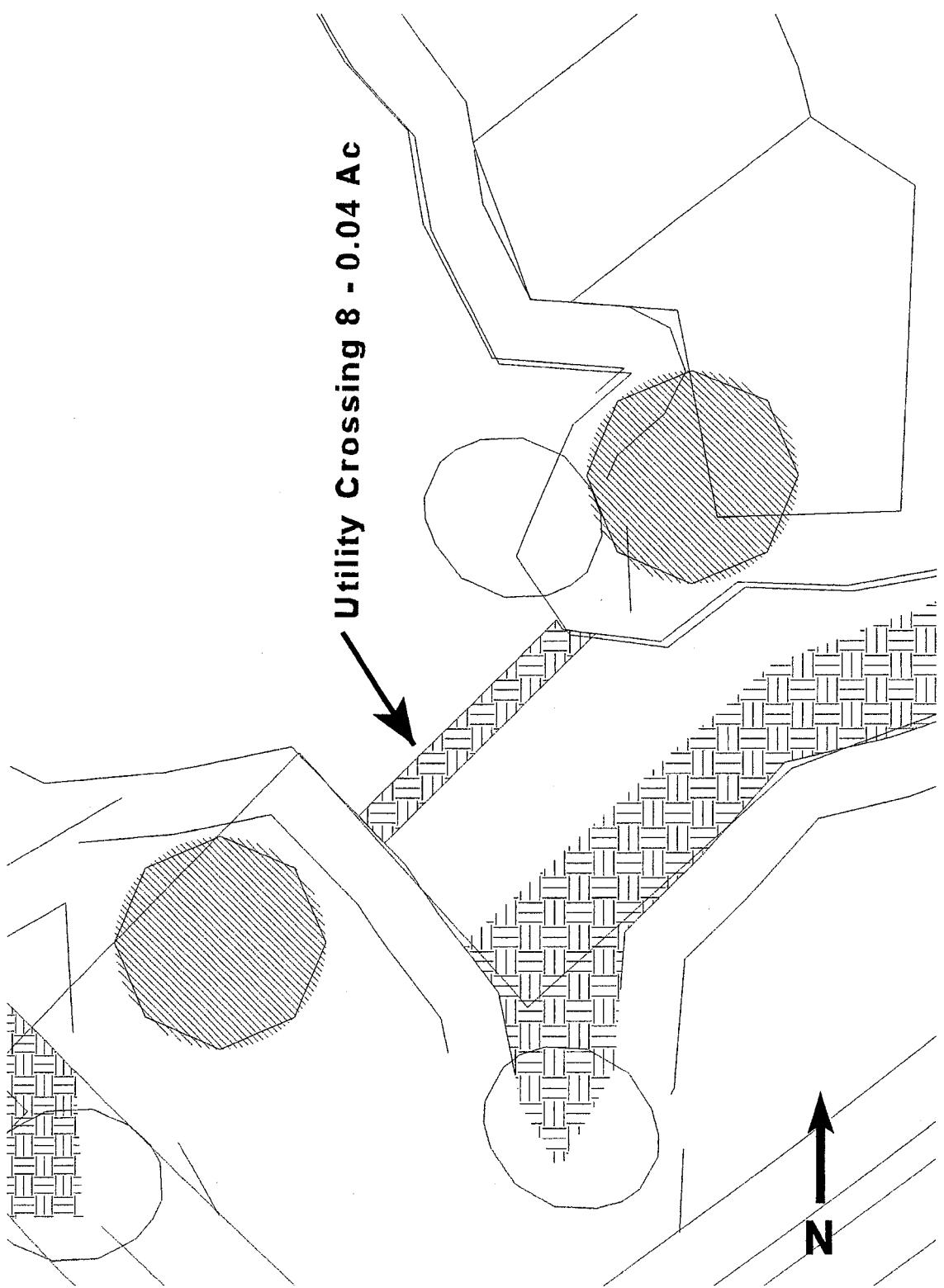
Date: August 2003
Approx. scale: 1" = 75'
Sheet 26 of 45



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Columbia, SC 29211
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Fax: (803)-256-7475

Date: August 2003
Approx. scale: 1" = 45'
Sheet 27 of 45

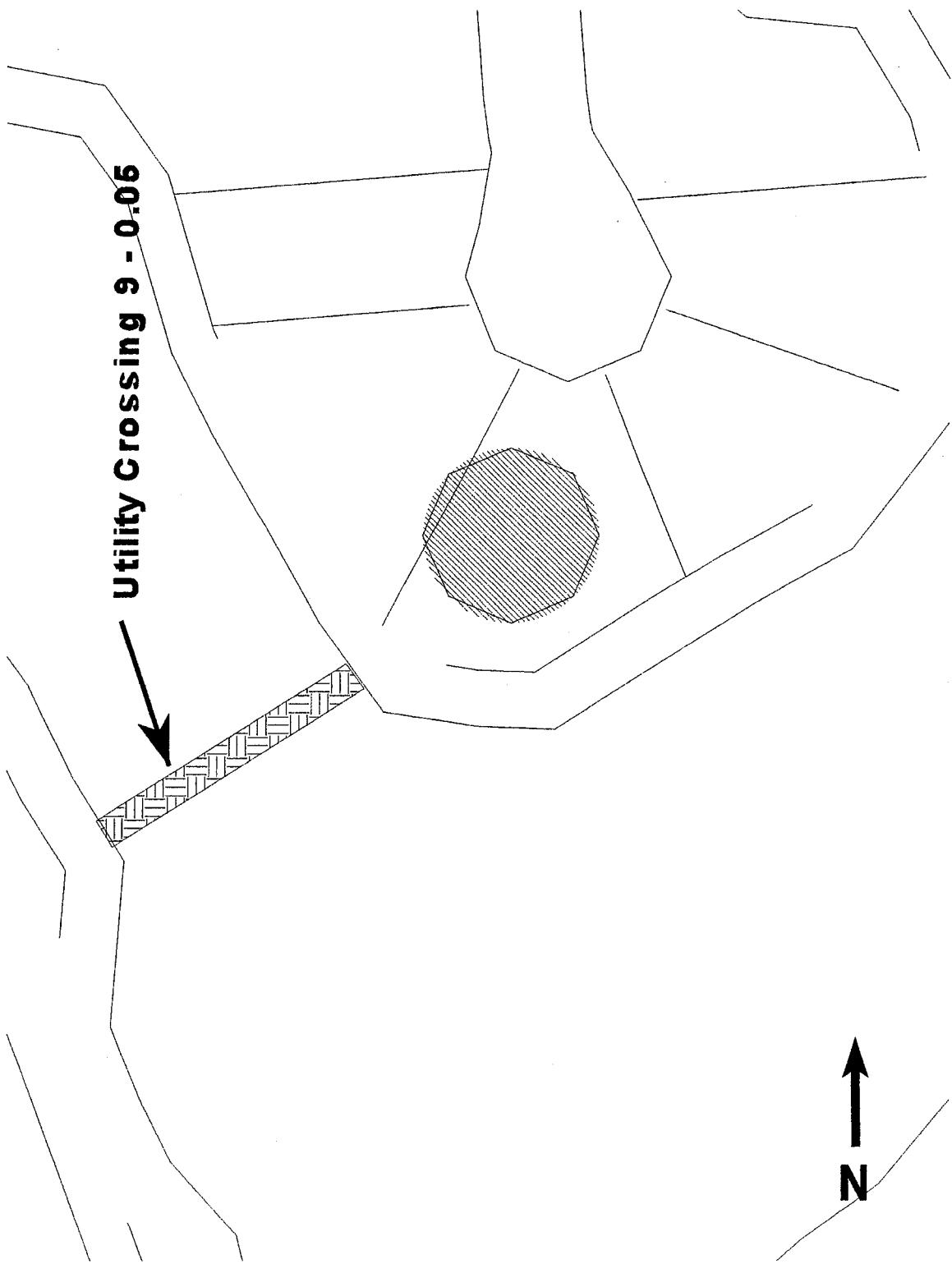
Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing 7.



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Fax: (803) 256-1475

Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing 8.

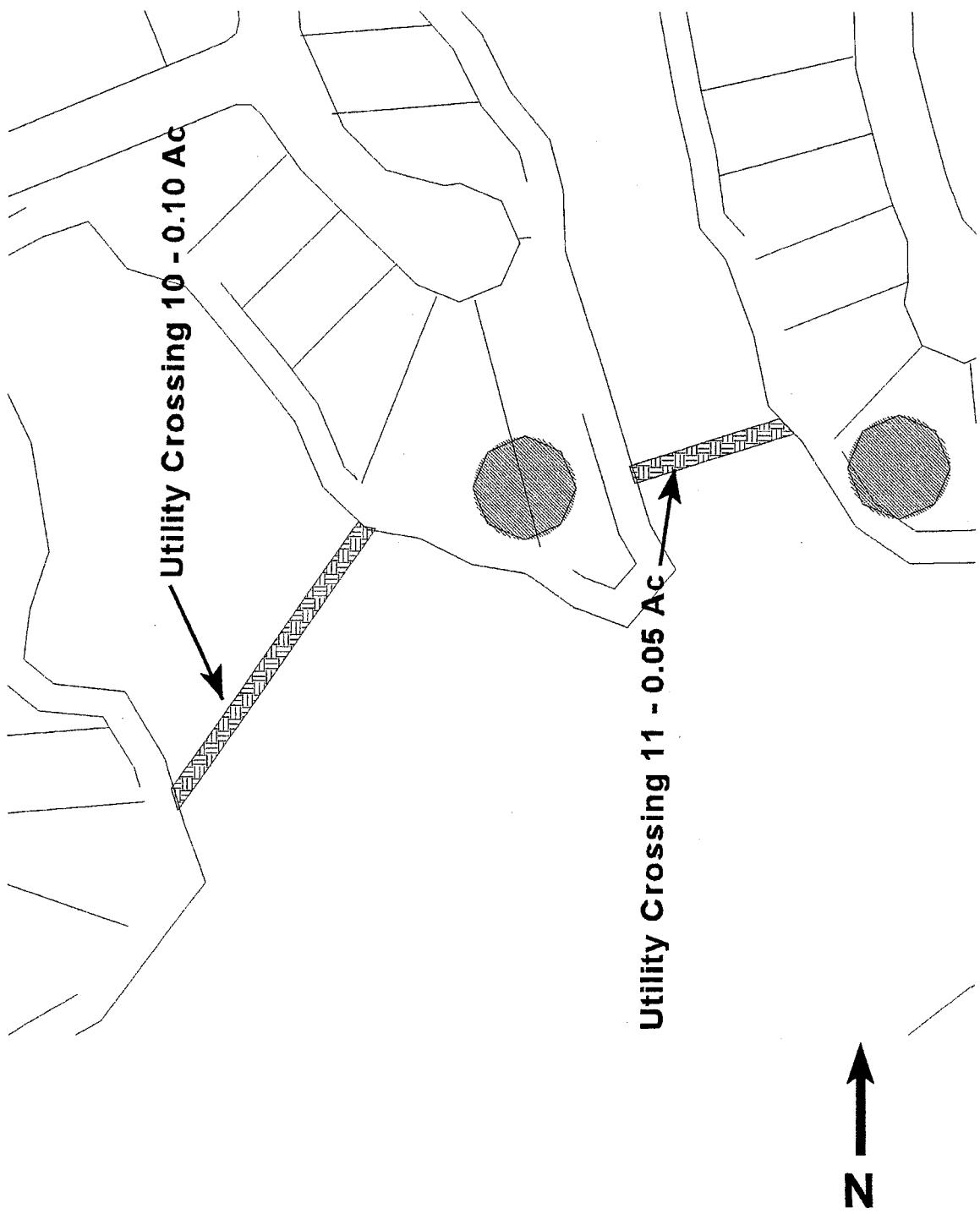
Date: August 2003
Approx. scale: 1" = 60'
Sheet 28 of 45



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Fax (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing 9.

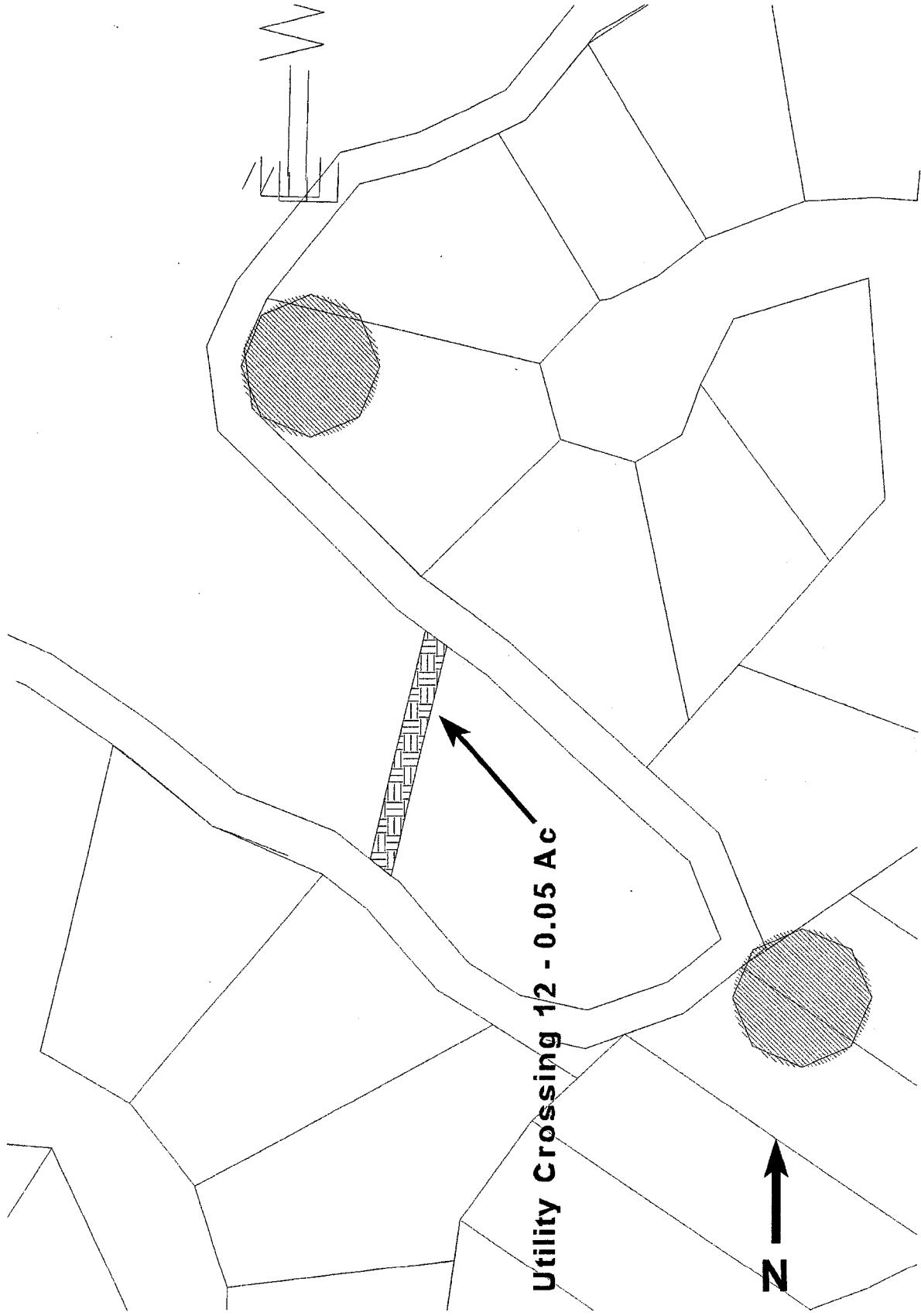
Date: August 2003
Approx. scale: 1" = 75'
Sheet 29 of 45



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Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossings 10 and 11.

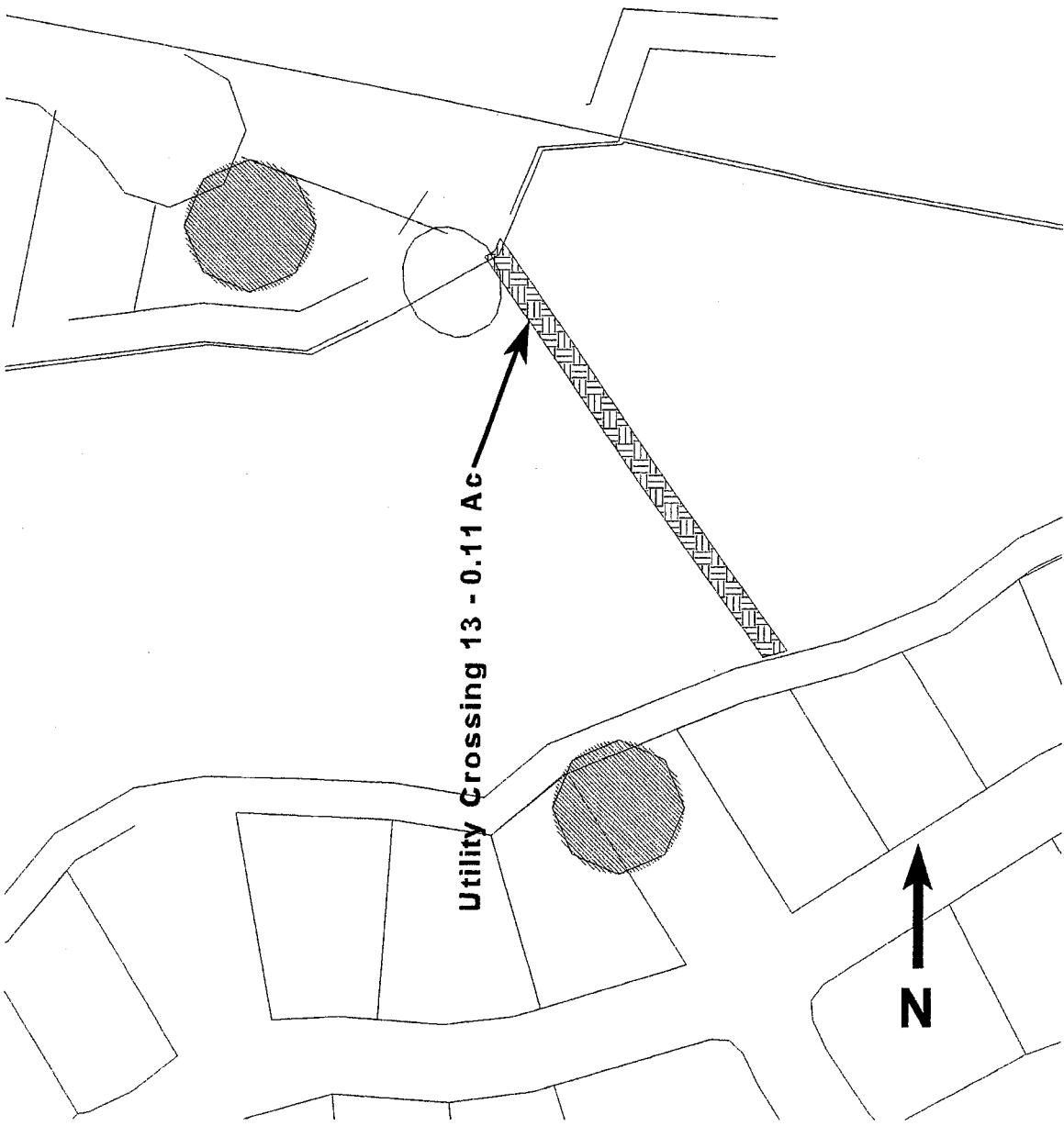
Date: August 2003
Approx. scale: 1" = 140'
Sheet 30 of 45



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Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing 12.

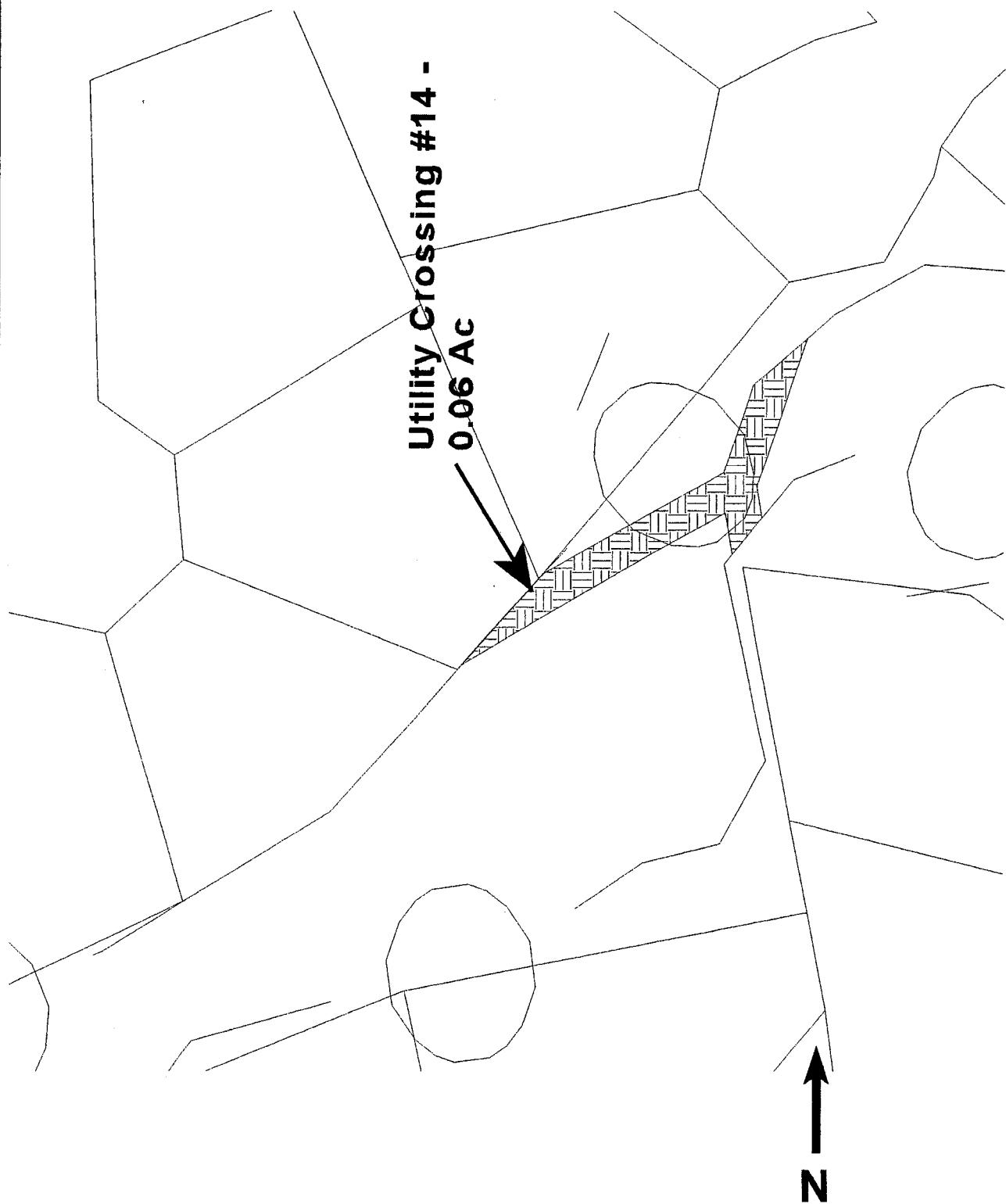
Date: August 2003
Approx. scale: 1" = 90'
Sheet 31 of 45



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P.O. Box 11887
Columbia, SC 29211
Tel. (803) 256-3081
Fax (803) 256-7475

Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing 13.

Date: August 2003
Approx. scale: 1" = 115'
Sheet 32 of 45

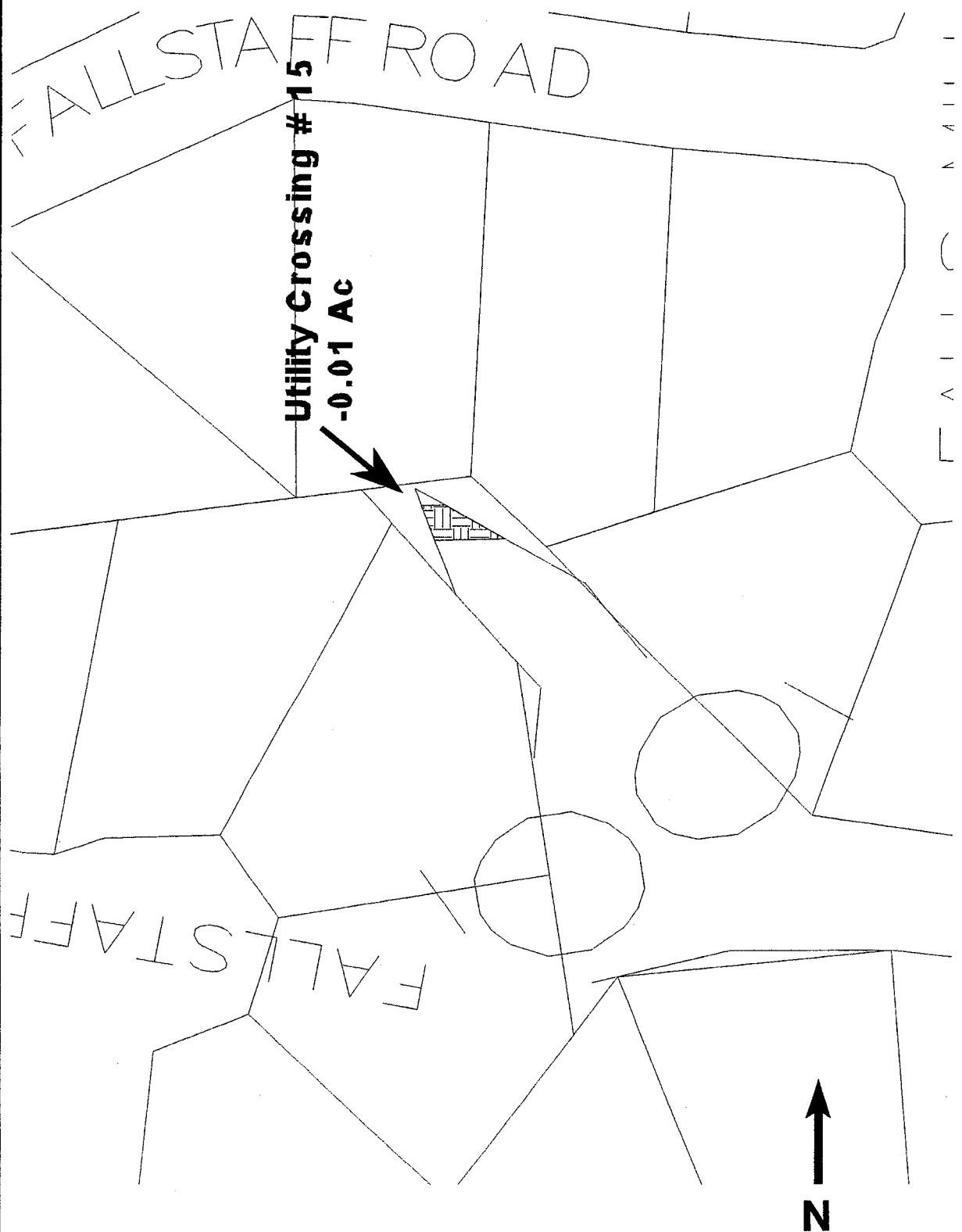


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Tel (803) 256-3081
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Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing #14.

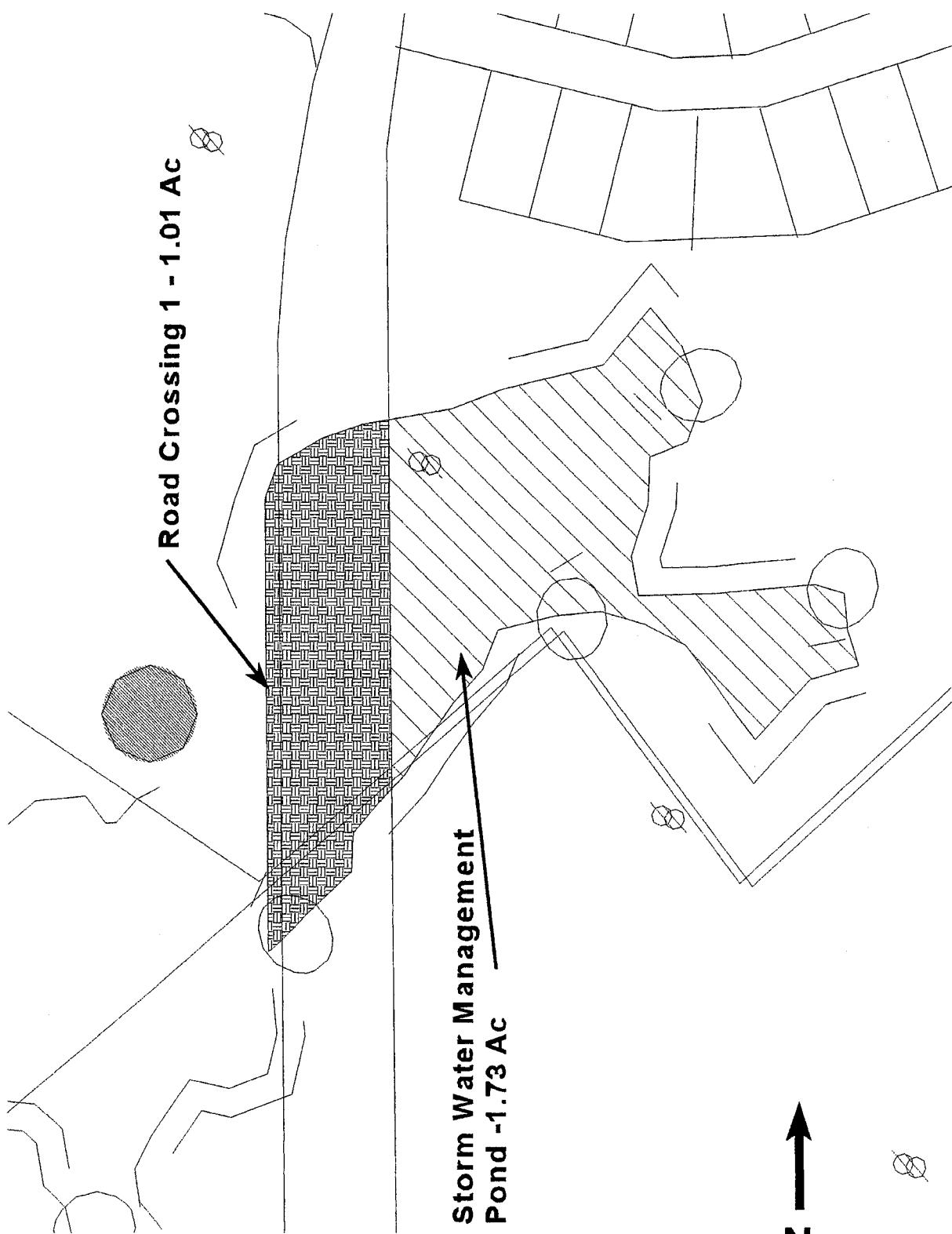
Date: August 2003
Approx. scale: 1" = 60'
Sheet 33 of 45



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Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137. The figure shows the enlarged
view of Utility Crossing #15

Date: August 2003
Approx. scale: 1" = 110'
Sheet 34 of 45

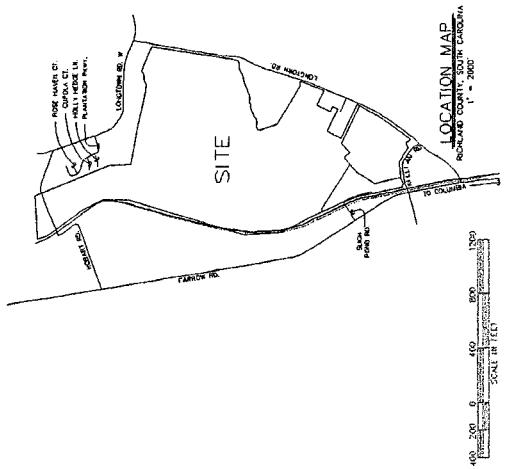
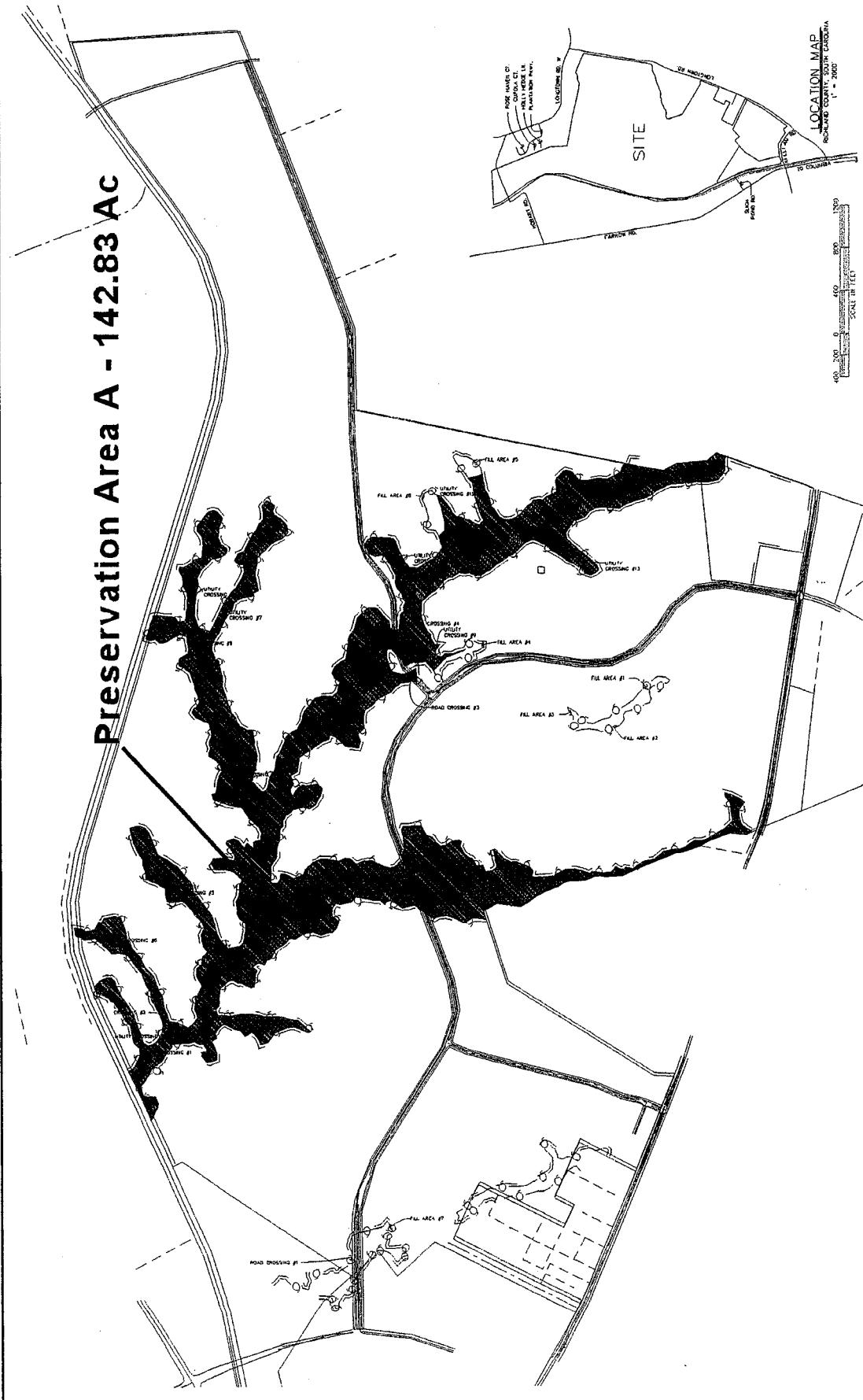


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**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The figure shows the enlarged
view of the Storm Water Management Pond located in Wetland E.

Date: August 2003
Approx. scale: 1" = 140'
Sheet 35 of 45

Preservation Area A - 142.83 Ac

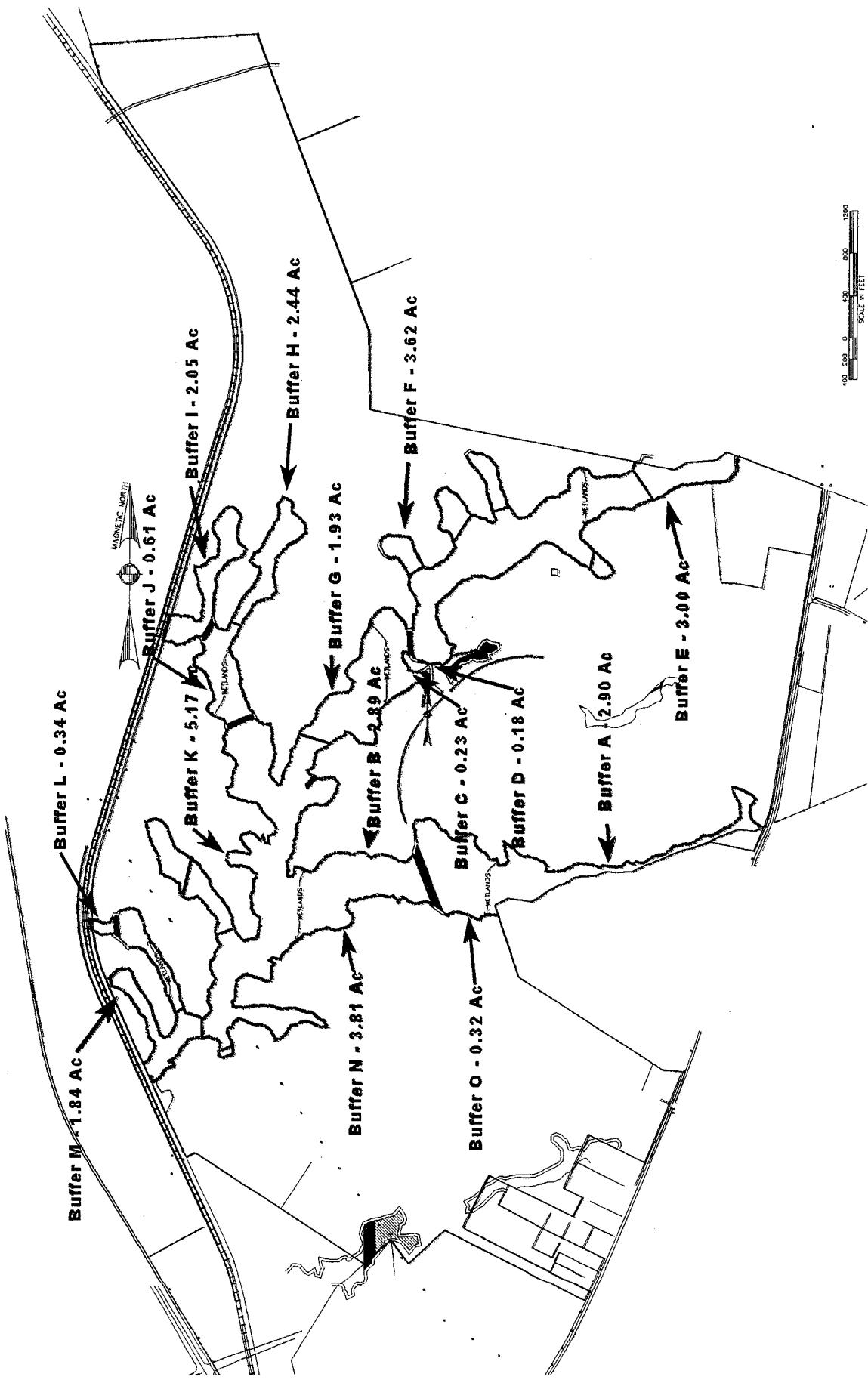


**Date: August 2003
Sheet 36 of 45**

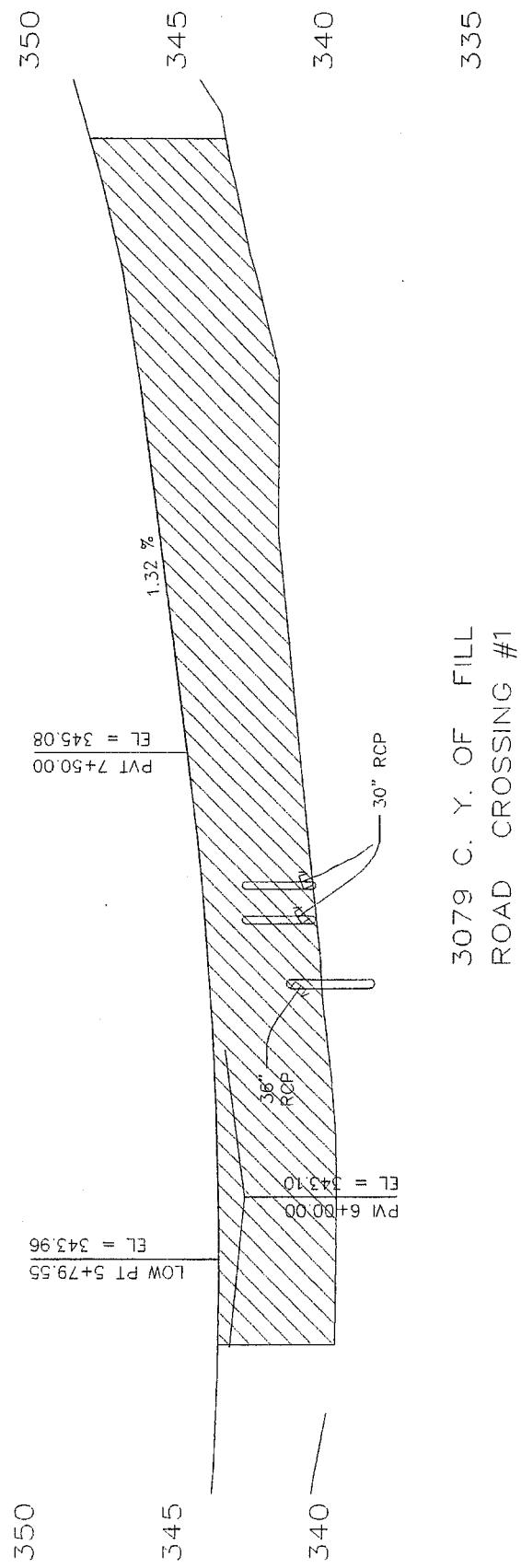
**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The figure shows the location of
the proposed Preservation Area.

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12.2 Cross-Sectional Views of Impacts

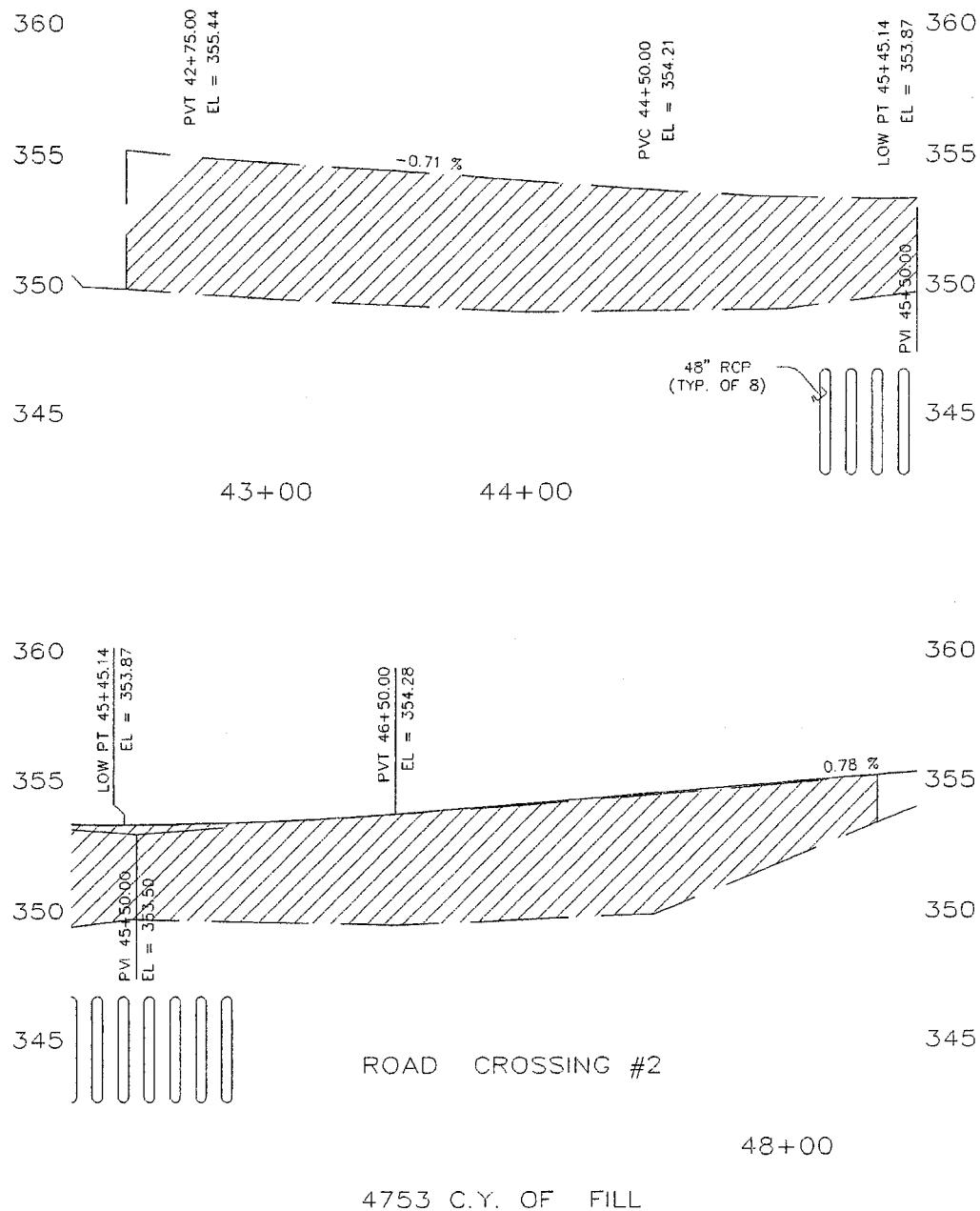


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Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the cross-sectional view of Road Crossing # 1 including the placement of culvert pipes.

Date: August 2003
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Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the cross-sectional view of Road Crossing # 2 including the placement of culvert pipes.

Date: August 2003
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370

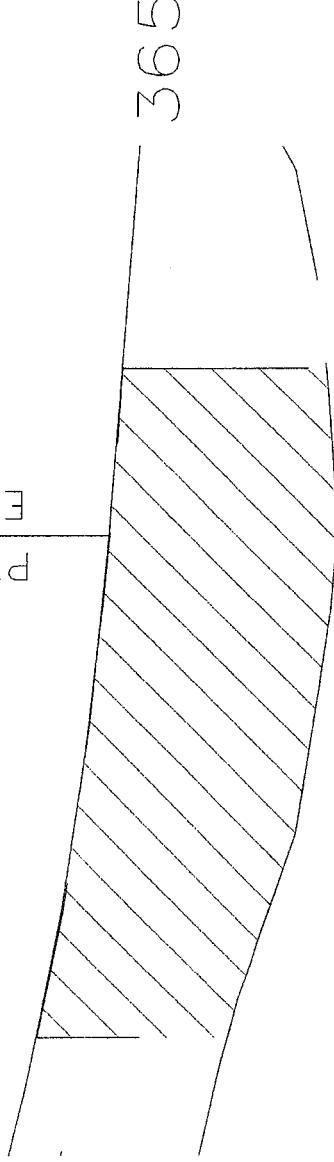
370

365

365

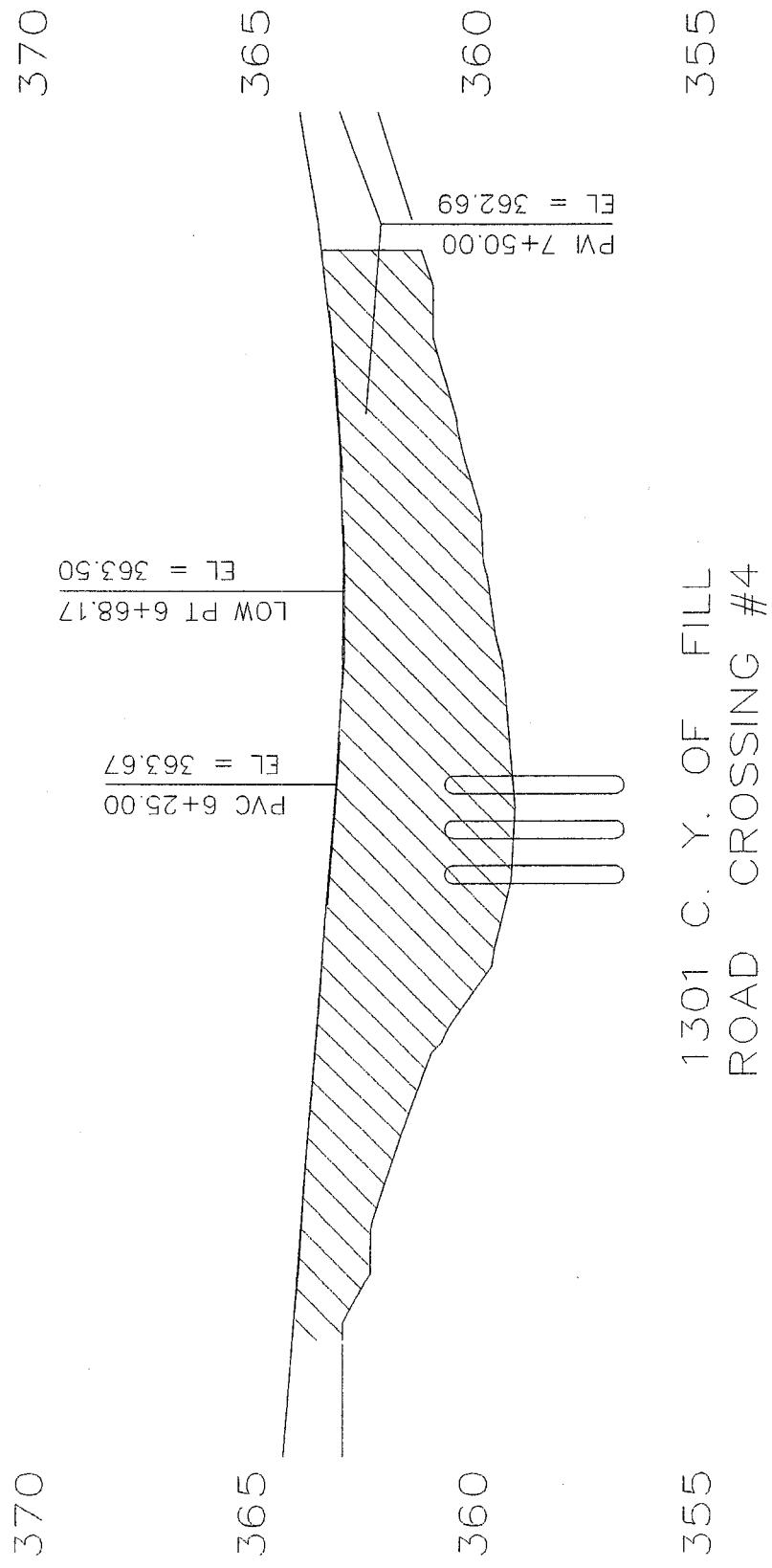
PVT 2+92.00

EL = 366.27



360 592 C. Y. OF FILL
ROAD CROSSING #3

360



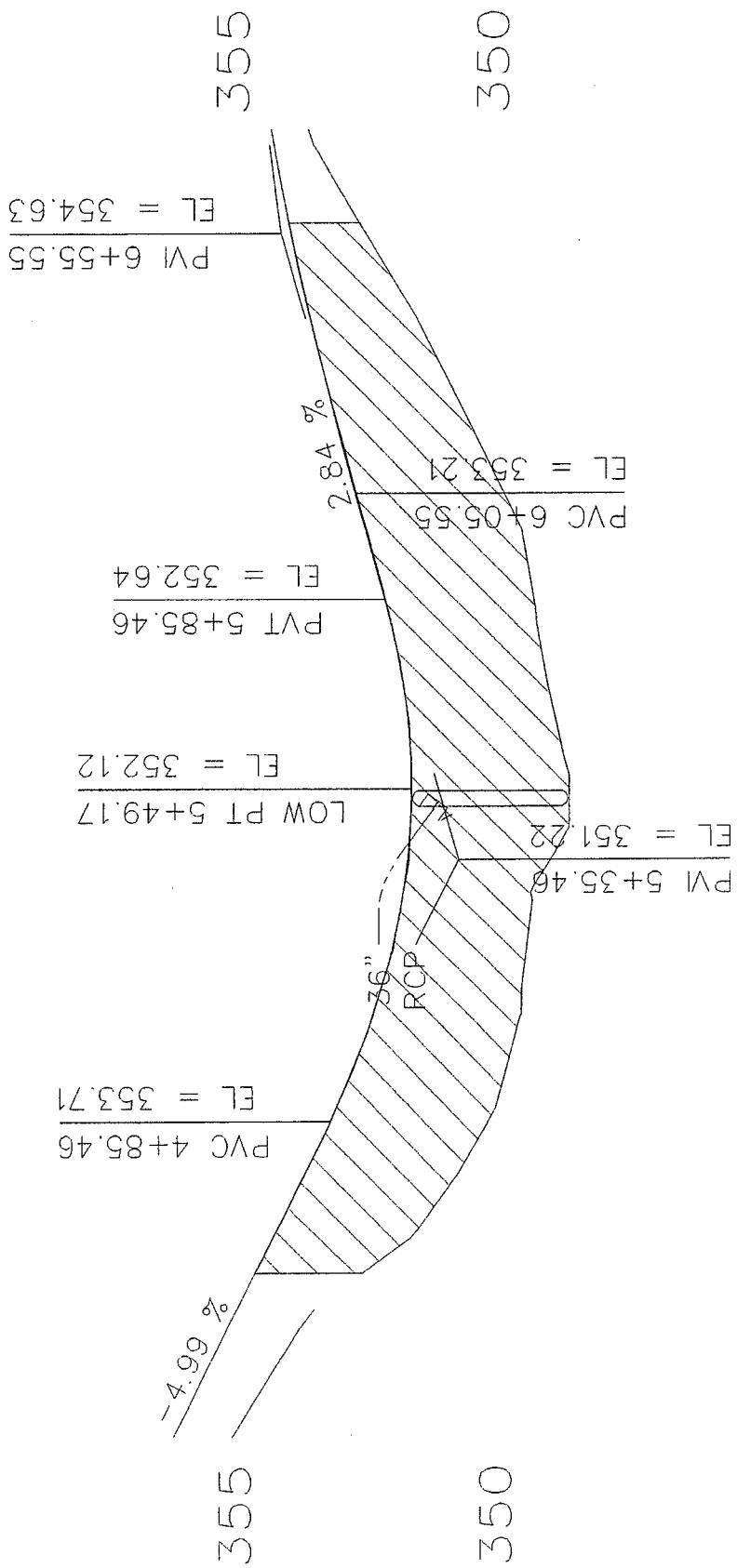
Coastal Science Associates, Inc.
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Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the cross-sectional view of Road Crossing # 4 including the placement of culvert pipes.

Date: August 2003
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988 C.Y. OF FILL
ROAD CROSSING #5



365

360

EL = 357.34
PVC 2+25.57
-2.15

LOW PT 3+37.05
EL = 356.14

365

355

350

350

350

2765 C. Y. OF FILL

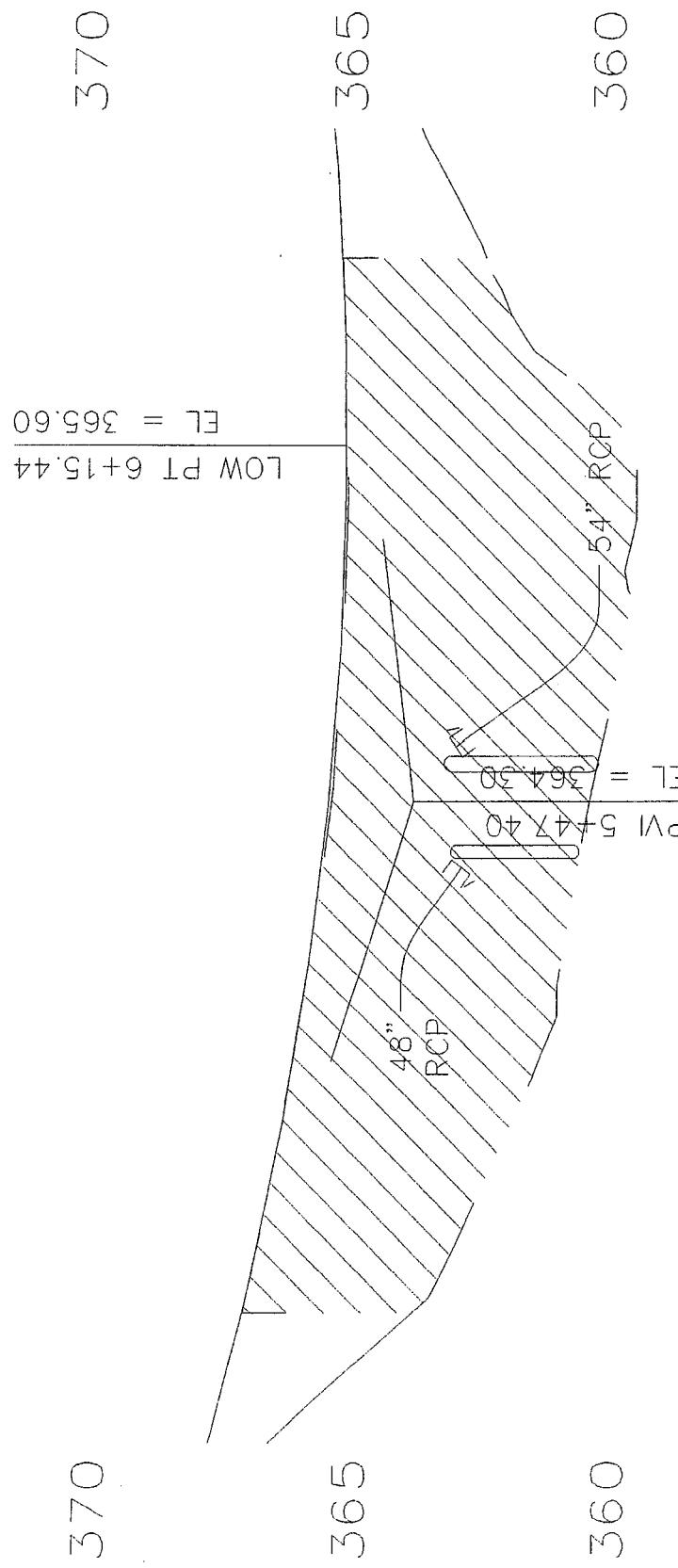
EL = 357.57
RCP (TRP. OF 2)
54°
253.57
PVI 4+00.57

ROAD CROSSING #6

Coastal Science Associates, Inc.
P.O. Box 11817
Columbia, SC 29211
Tel (803) 256-3081
Fax (803) 256-7475

**Longtown Tract 1,000± acre site, Richland County, South Carolina,
Permit Application # 2003-1G-137.** The sheet shows the cross-
sectional view of Road Crossing # 6 including the placement of the
culvert pipe.

Date: August 2003
Sheet 43 of 45



1750 C.Y. OF FILL
ROAD CROSSING #7

Coastal Science Associates, Inc.
P.O. Box 11687
Columbia, SC 29211
Tel: (803) 256-3081
Fax: (803) 256-7475



Longtown Tract 1,000± acre site, Richland County, South Carolina, Permit Application # 2003-1G-137. The sheet shows the cross-sectional view of Road Crossing # 7 including the placement of the culvert pipes.

Date: August 2003
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380

380

375

PROPOSED GRADE

375

370

EXISTING GROUND

370

TYPICAL CROSS~SECTION
FOR FILL AREA # 1

375

375

370

PROPOSED GRADE

370

365

EXISTING GROUND

365

TYPICAL CROSS~SECTION
FOR FILL AREA # 1



**Mitigation for Wetlands
Compensatory Mitigation**

WETLANDS AND OTHER WATERS OF THE U.S. EXCLUDING STREAMS
Mitigation Summary Worksheet For Permit Application # 2003-1G-137

I. Required Mitigation

A. Total Required Mitigation Credits =	70.27
--	-------

II. Non-Banking Mitigation Credit Summary

	Credits	Acres
B. Creation	0	0
C. Restoration and/or enhancement (Non-Buffer Enhancement)	0	0
D. Restoration and/or Enhancement (Buffer Enhancement)	72.27	31.33
E. Total No Net Loss Non-Bank Mitigation = B + C + D	72.27	31.33
F. Preservation	160.38	114.56
G. Total Proposed Non-Bank Mitigation = E + F	232.65	145.89

III. Banking Mitigation Credit Summary

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

IV. Grand Totals

	Credits	Acres
N. Total Preservation Mitigation = F + L	160.38	114.56
O. Total Non-Preservation Mitigation = E + K	72.27	31.33
P. Total Creation = B + H	0	0
Q. Total Restoration and/or Enhancement (Non-Buffer Enhancement) = C + I	0	0
R. Total Proposed Mitigation = G + M	232.65	145.89

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 _{Non-Preservation} \geq $\frac{1}{2}$ RMC or in words Are the Credits in Row O greater than or equal to 50% of Row A?	X	
PMC _{Creation + Restoration/Enhancement (Non-Buffer Enhancement)} \geq $\frac{1}{4}$ 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

2003-1G-137

**Compensatory Mitigation
Credit Factors and Worksheets**

ADVERSE IMPACT FACTORS

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 Conditions	Very Impaired 0.1		Impaired 1.0		Slightly Impaired 2.0
Duration	Seasonal 0.1	0 to 1 0.2	1 to 3 0.5	3 to 5 1.0	5 to 10 1.5
Dominant Impact	Shade 0.2	Clear 1.0	Dredge 1.5	Drain 2.0	Impound 2.5
Cumulative Impact	$0.05 \times \sum AA_i$				

Note: For the Cumulative Impact factor, $\sum AA_i$ 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.

Required Mitigation Credits Worksheet

Factor	Road Crossing 1	Road Crossing 2	Road Crossing 3	Road Crossing 4	Road Crossing 5	Road Crossing 6
Lost Type	3.0	3.0	3.0	3.0	3.0	3.0
Priority Category	0.5	0.5	0.5	0.5	0.5	0.5
Existing Condition	2.5	2.5	2.5	2.5	2.5	2.5
Duration	2.0	2.0	2.0	2.0	2.0	2.0
Dominant Impact	3.0	3.0	3.0	3.0	3.0	3.0
Cumulative Impact	0.3	0.3	0.3	0.3	0.3	0.3
Sum of r Factors	$R_1 = 11.3$	$R_2 = 11.3$	$R_3 = 11.3$	$R_4 = 11.3$	$R_5 = 11.3$	$R_6 = 11.3$
Impacted Area	$AA_1 = 1.01$	$AA_2 = 0.98$	$AA_3 = 0.13$	$AA_4 = 0.28$	$AA_5 = 0.22$	$AA_6 = 0.30$
$R \times AA$	11.41	11.07	1.47	3.16	2.49	3.39

#2003-1G-137

Factor	Road Crossing 7		Parcel Dvlpmnt 1		Storm Water Pond #1	
Lost Type	3.0		3.0		3.0	
Priority Category	0.5		0.5		0.5	
Existing Condition	2.5		2.5		2.5	
Duration	2.0		2.0		2.0	
Dominant Impact	3.0		3.0		2.5	
Cumulative Impact	0.3		0.3		0.3	
Sum of r Factors	$R_7 = 11.3$		$R_1 = 11.3$		$SW_1 = 11.3$	
Impacted Area	$AA_7 = 0.21$		$AA_1 = 0.80$		$AA_1 = 1.73$	
$R \times AA$	2.37		9.04		19.55	

Factor	Utility Crossing 1	Utility Crossing 2	Utility Crossing 3	Utility Crossing 4	Utility Crossing 5	Utility Crossing 6
Lost Type	3.0	3.0	3.0	3.0	3.0	3.0
Priority Category	0.5	0.5	0.5	0.5	0.5	0.5
Existing Condition	2.5	2.5	2.5	2.5	2.5	2.5
Duration	0.2	0.2	0.2	0.2	0.2	0.2
Dominant Impact	1.5	1.5	1.5	1.5	1.5	1.5
Cumulative Impact	0.3	0.3	0.3	0.3	0.3	0.3
Sum of r Factors	$R_{18} = 8.0$	$R_{19} = 8.0$	$R_{20} = 8.0$	$R_{21} = 8.0$	$R_{22} = 8.0$	$R_{23} = 8.0$
Impacted Area	$AA_{18} = 0.04$	$AA_{19} = 0.05$	$AA_{20} = 0.02$	$AA_{21} = 0.06$	$AA_{22} = 0.17$	$AA_{23} = 0.13$
$R \times AA$	0.32	0.40	0.16	0.48	1.36	1.04

2003-16-137

Factor	Utility Crossing 7	Utility Crossing 8	Utility Crossing 9	Utility Crossing 10	Utility Crossing 11	Utility Crossing 12
Lost Type	3.0	3.0	3.0	3.0	3.0	3.0
Priority Category	0.5	0.5	0.5	0.5	0.5	0.5
Existing Condition	2.5	2.5	2.5	2.5	2.5	2.5
Duration	0.2	0.2	0.2	0.2	0.2	0.2
Dominant Impact	1.5	1.5	1.5	1.5	1.5	1.5
Cumulative Impact	0.3	0.3	0.3	0.3	0.3	0.3
Sum of r Factors	R ₂₄ = 8.0	R ₂₅ = 8.0	R ₂₆ = 8.0	R ₂₇ = 8.0	R ₂₈ = 8.0	R ₂₉ = 8.0
Impacted Area	AA ₂₄ = 0.03	AA ₂₅ = 0.04	AA ₂₆ = 0.05	AA ₂₇ = 0.10	AA ₂₈ = 0.05	AA ₂₉ = 0.05
R x AA	0.24	0.32	0.40	0.80	0.40	0.40

Factor	Utility Crossing 13	Utility Crossing 14	Utility Crossing 15			
Lost Type	3.0	3.0	3.0			
Priority Category	0.5	0.5	0.5			
Existing Condition	2.5	2.5	2.5			
Duration	0.2	0.2	0.2			
Dominant Impact	1.5	1.5	1.5			
Cumulative Impact	0.3	0.3	0.3			
Sum of r Factors	R ₃₀ = 8.0	R ₃₄ = 8.0	R ₃₅ = 8.0			
Impacted Area	AA ₃₀ = 0.11	AA ₃₀ = 0.06	AA ₃₀ = 0.01			
R x AA	0.88	0.48	0.08			

$$\text{Total Required Credits} = \sum (R \times AA) = \boxed{70.27 \text{ Credits}}$$

2003-1G-137

**Compensatory Mitigation
Credit Factors and Worksheets**

**RESTORATION AND ENHANCEMENT MITIGATION FACTORS FOR WETLANDS AND OTHER WATERS OF
THE U.S. EXCLUDING STREAMS**

Factors	Options				
Net Improvement	Modest Enhancement 0.1-----to-----Excellent Restoration 4.0				
Control	N.A. 0	Covenant Private 0.1	Covenant POA 0.2	Conservation Easement 0.4	Transfer Fee Title Conservancy 0.6
Temporal Lag	N.A.* 0	Over 20 -0.3	10 to 20 -0.2	5 to 10 -0.1	0 to 5 0
Credit Schedule	Schedule 5* 0	Schedule 4 0.1	Schedule 3 0.2	Schedule 2 0.3	Schedule 1 0.4
Kind	Category 5 -0.1	Category 4 0	Category 3 0.2	Category 2 0.3	Category 1 0.4
Location	Zone 5 -0.1	Zone 4 0	Zone 3 0.2	Zone 2 0.3	Zone 1 0.4

N.A. = Not Applicable

* Use this option to calculate credits for enhancement by buffering.

Proposed Restoration or Enhancement Mitigation Worksheet

Factor	Upland Buffer A	Upland Buffer B	Upland Buffer C	Upland Buffer D	Upland Buffer E
Net Improvement	1.5	1.5	1.5	1.5	1.5
Control	0.1	0.1	0.1	0.1	0.1
Temporal Lag	0	0	0	0	0
Credit Schedule	0	0	0	0	0
Kind	0.4	0.4	0.4	0.4	0.4
Location	0.4	0.4	0.4	0.4	0.4
Sum of m Factors	$M_A = 2.4$	$M_B = 2.4$	$M_C = 2.4$	$M_D = 2.4$	$M_E = 2.4$
Mitigation Area	$A_A = 2.90$	$A_B = 2.89$	$A_C = 0.23$	$A_D = 0.18$	$A_E = 3.00$
$M \times A$	6.96	6.94	0.55	0.43	7.2

#2003-1G-#37

Factor	Upland Buffer F	Upland Buffer G	Upland Buffer H	Upland Buffer I	Upland Buffer J
Net Improvement	1.0	1.0	1.0	1.0	1.0
Control	0.1	0.1	0.1	0.1	0.1
Temporal Lag	0	0	0	0	0
Credit Schedule	0	0	0	0	0
Kind	0.4	0.4	0.4	0.4	0.4
Location	0.4	0.4	0.4	0.4	0.4
Sum of m Factors	$M_F = 2.4$	$M_G = 2.4$	$M_H = 2.4$	$M_I = 2.4$	$M_J = 2.4$
Mitigation Area	$A_F = 3.62$	$A_G = 1.93$	$A_H = 2.44$	$A_I = 2.05$	$A_J = 0.61$
$M \times A$	8.69	4.63	5.86	4.92	1.46

Factor	Upland Buffer K	Upland Buffer L	Upland Buffer M	Upland Buffer N	Upland Buffer O
Net Improvement	1.0	1.0	1.0	3.0	1.0
Control	0.1	0.1	0.1	0.1	0.1
Temporal Lag	0	0	0	0	0
Credit Schedule	0	0	0	0	0
Kind	0.4	0.4	0.4	0.4	0.4
Location	0.4	0.4	0.4	0.4	0.4
Sum of m Factors	$M_K = 2.4$	$M_L = 2.4$	$M_M = 2.4$	$M_N = 2.4$	$M_O = 2.4$
Mitigation Area	$A_K = 5.17$	$A_L = 0.34$	$A_M = 1.84$	$A_N = 3.81$	$A_O = 0.32$
$M \times A$	12.41	0.82	4.42	6.21	0.77

Total Restoration/Enhancement Credits = $\sum (M \times A) =$

72.27 Credits

2003-1G-137

Compensatory Mitigation Credit Factors Worksheets

PRESERVATION MITIGATION FACTORS

Factors	Options			
Priority Category	Tertiary 0.1	Secondary 0.2	Primary 0.4	
Existing Conditions	Impaired -0.1	Slightly Impaired 0	Fully Functional 0.1	
Degree of Threat	Low -0.1	Moderate 0.1	High 0.2	
Control	Covenant Private 0	Covenant POA 0.1	Conservation Easement 0.4	Transfer Fee Title Conservancy 0.6
Kind	Category 5 -0.1	Category 4 0	Category 3 0.1	Category 2 0.2
Location	Zone 5 -0.1	Zone 4 0	Zone 3 0.1	Zone 2 0.2
				Zone 1 0.3

Note: Preservation credit should generally be limited to those areas that qualify as Fully Functional or Slightly Impaired. Impaired sites should be candidates for enhancement or restoration credit, not preservation credit. In special circumstances when Impaired sites are allowed preservation credit (e.g. within the scope of some OCRM wetland master planned projects), a negative factor will be used to calculate credits as per the matrix table.

Proposed Preservation Mitigation Worksheet

Factor	Area 1	Area 2	Area 3	Area 4	Area 5
Priority Category	0.1				
Existing Conditions	0.1				
Degree of Threat	0.2				
Control	0.4				
Kind	0.3				
Location	0.3				
Sum of m Factors	$M_1 = 1.4$	$M_2 =$	$M_3 =$	$M_4 =$	$M_5 =$
Mitigation Area	$A_1 = 114.56$	$A_2 =$	$A_3 =$	$A_4 =$	$A_5 =$
$M \times A$	160.38				

Total Preservation Credits = $\sum (M \times A) =$

160.38 Credits