



**US Army Corps  
Of Engineers**  
Wilmington District

# PUBLIC NOTICE

Issue Date: **March 25, 2005**  
Comment Deadline: **April 25, 2005**  
Corps Action ID: **200431306**

All interested parties are hereby advised that the Wilmington District, Corps of Engineers (Corps) has received an after-the-fact application for work within jurisdictional waters of the United States. 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](http://www.saw.usace.army.mil/wetlands)

**Applicant:** Communities of Penland, L.L.C.  
Attn: Neil G. O'Rourke  
135 Crown Ridge  
Spruce Pine, North Carolina 28777-9412

**Agent:** Soil and Environmental Consultants, PA  
Attn: Patrick K. Smith, P.E.  
11010 Raven Ridge Road  
Raleigh, North Carolina 27614

## **Authority**

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed and existing work pursuant to applicable procedures. This application is being considered for approval pursuant to Section 404 of the Clean Water Act (33USC 1344).

## **Location**

The project site, known as the Communities of Penland (COP), consists of an approximate 880 acre tract bordering the North Toe River located off of State Road 1152 in the Penland Community in Mitchell County, North Carolina. The site contains numerous unnamed perennial and intermittent tributaries to the North Toe River, Deer Park Lake, two in-line ponds, and approximately 3.2 acres of vegetated wetlands that have established within the lakebed of the breached Diamond Lake (formerly known as Fawn Lake). Site coordinates at the Diamond Lake location are 35.9204708 north latitude and 82.1166308 west longitude.

## **Existing Site Conditions**

Although portions of the property have been developed within recent years the majority of the parcel is forested with topography characterized as rolling to steep or hilly terrain. An extensive

network of roads exists on the property as a result of past logging and mining operations. First and second order streams on the property are generally of Good to Excellent quality with bedrock, gravel and cobble substrates. Diamond Lake was breached approximately 10 years ago, resulting in the establishment of jurisdictional wetlands in the lake bed that are dominated by vegetation consisting of alder, cattails, jewelweed, woolgrass, smartweed, sedges, and tearthumb.

Development of the property began before obtaining the required Department of the Army authorizations pursuant to Section 404 of the Clean Water Act. Unauthorized activities included the installation of new and/or the replacement and extension of roadway culverts at stream crossings, culverting of stream segments, the construction of two series of forebays on tributaries to Diamond Lake, and impacts associated with the reconstruction of the Diamond Lake Dam (which has subsequently been breached).

### **Applicant's Stated Purpose**

As stated by the applicant, the purpose of the project is to provide a unique mixed-use (residential, commercial, and recreational) community in Mitchell County that will attract residents and visitors, create jobs, complement and interact with the Penland School of Crafts, and support an environmentally friendly development plan for the property. The centerpiece of the development plan and concept is the creation of a village center centered around the restored Diamond Lake.

### **Project Description**

The applicant has requested after-the-fact DA authorization for impacts to approximately 675 lf of stream channel from flooding and filling associated with the construction of two ponds east of Diamond Lake, to perform stream relocation and restoration activities associated with the construction of two forebays at Diamond Lake, and for impacts to approximately 1,020 lf of stream channels associated with the installation of culverts, including enhancement activities to remedy perched culvert outlets. New work proposed by the applicant is to reconstruct the Diamond Lake dam resulting in the impoundment of the previous lakebed area. These activities are described in more detail below. The application and work described in this Public Notice includes activities that occurred on the property after 1998 and prior to the purchase of the property by COP in 2002 as well as those activities undertaken entirely by COP.

The restoration of Diamond Lake will result in the inundation of 3.28 acres of wetlands and 1,688 linear feet of stream channel within the lakebed. Approximately 90 linear feet of channel will be filled as a result of the dam and spillway construction.

An estimated 800 linear feet of channel was piped and excavated in conjunction with the construction of forebay areas A and B, which are adjacent to and flow into Diamond Lake. The applicant is proposing to relocate and restore the affected stream channels adjacent to the existing forebay location.

Impacts have occurred to 675 linear feet of channel as a result of earth fill and inundation at two pond sites located east of Diamond Lake. These ponds were constructed after 1998 and prior to the purchase of the property by COP.

COP installed approximately 255 linear feet of corrugated metal culverts in unnamed tributaries in conjunction with the construction of road crossings within the development. In addition, the applicant proposes to retain 765 lf of stream culvert and associated impact that occurred after 1998, but prior to COP's purchase of the property.

### **Mitigation**

COP has proposed the following mitigation measures to compensate for the proposed impacts to waters of the United States:

1. Restore 820 linear feet of stream channel parallel to forebay areas A and B utilizing natural channel design procedures and techniques.
2. Provide payment to the North Carolina Ecosystem Enhancement Program (EEP) for 2,033 linear feet of stream impacts associated with both the culverts installed by COP and the proposed inundation impacts to stream channels within the Diamond Lake impoundment.
3. Provide payment to EEP at a 1:1 ratio for the inundation impacts to the 3.28 acres of wetlands within the Diamond Lake impoundment.
4. Place protective mechanisms (restrictive covenants) on approximately 69,000 linear feet of stream channel throughout the site to prevent development within the riparian areas. Vegetated buffers are to be 50-foot on each side of intermittent channels and 100-foot on each side of all perennial channels. The buffer protection area will include 4,000 linear feet along the south side of the North Toe River on the property.
5. All suspended culverts (perched) throughout the site are to be repaired through the use of natural channel components such as step-pool structures.

### **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 in the NCDWQ Central Office in Raleigh serves as application to the NCDWQ for 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), 1650 Mail Service Center, Raleigh, North Carolina 27699-1650 Attention: Ms Cyndi Karoly by April 25, 2005.

In addition, this project may be located in a watershed subject to Tennessee Valley Authority (TVA) permit requirements pursuant to Section 26a of the TVA Act. This Public Notice and all application materials are being forwarded to Mr. Harold Draper, NEPA Team Leader, 400 West Summit Hill Drive, Knoxville TN 37902-1401. Questions or comments regarding Section 26a permit requirements should be directed to Mr. Draper at the above address.

### **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. By letter dated December 16, 2004 the North Carolina Department of Cultural Resources, State Historic Preservation Office, stated that there are no known recorded archaeological sites within the project boundaries. 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.

### **Evaluation**

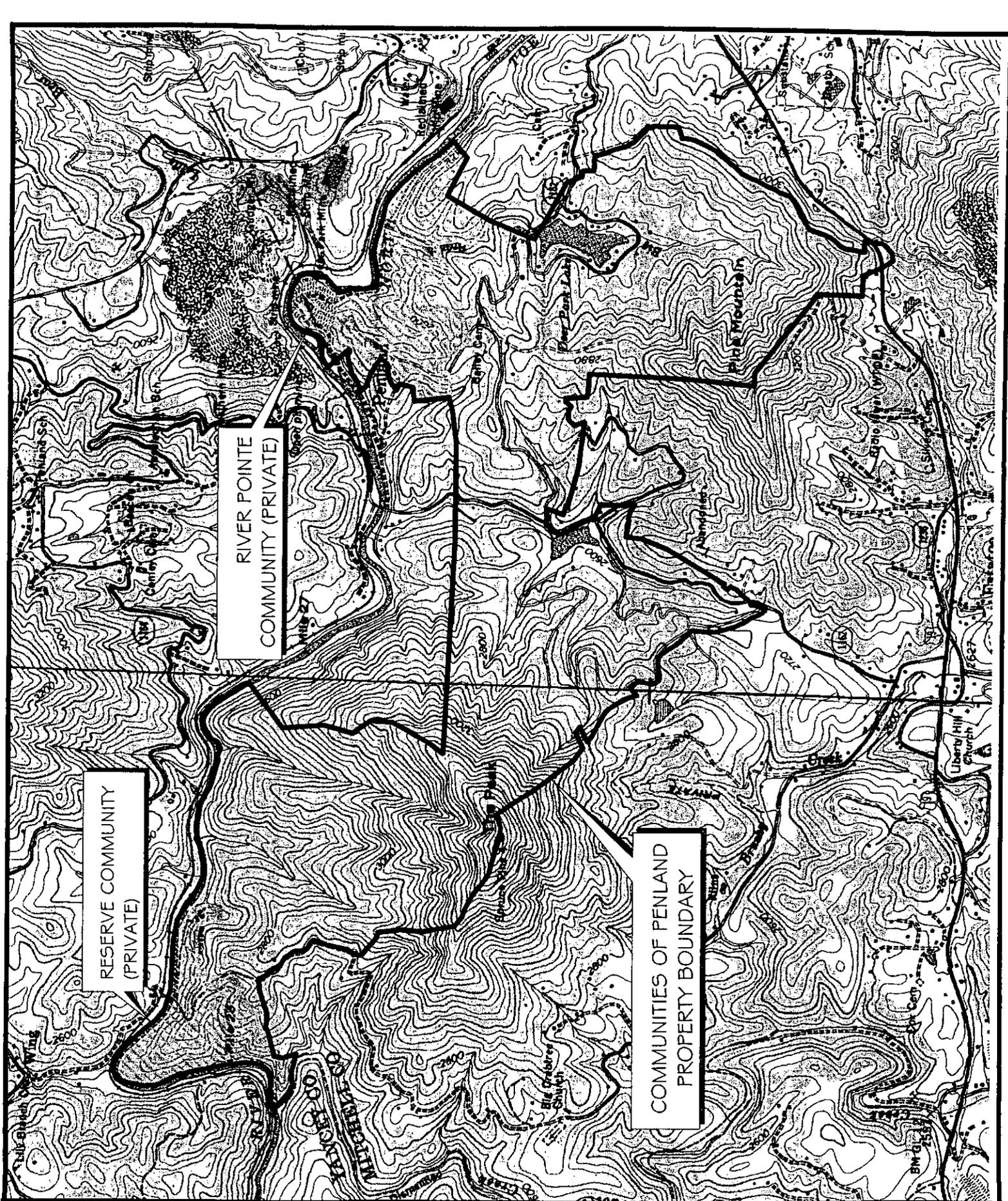
The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably 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 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 proposed activity. Any comments received will be considered by the Corps 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, April 25, 2005. Comments should be submitted to David Baker, US Army Corps of Engineers, 151 Patton Avenue, Room 208, Asheville, North Carolina 28801.



**S&EC**

**Soil & Environmental Consultants, PA**  
 11010 Raven Ridge Rd. • Raleigh, NC 27614  
 (919) 846-5900 • (919) 846-9467  
 Web Page: [www.SandEC.com](http://www.SandEC.com)

**ATTACHMENT 1**

**INDIVIDUAL PERMIT APPLICATION  
 VILLAGE OF PENLAND DEVELOPMENT**

**JOB NO:  
 8950.D1**

**SCALE:  
 1" = 2,000'**

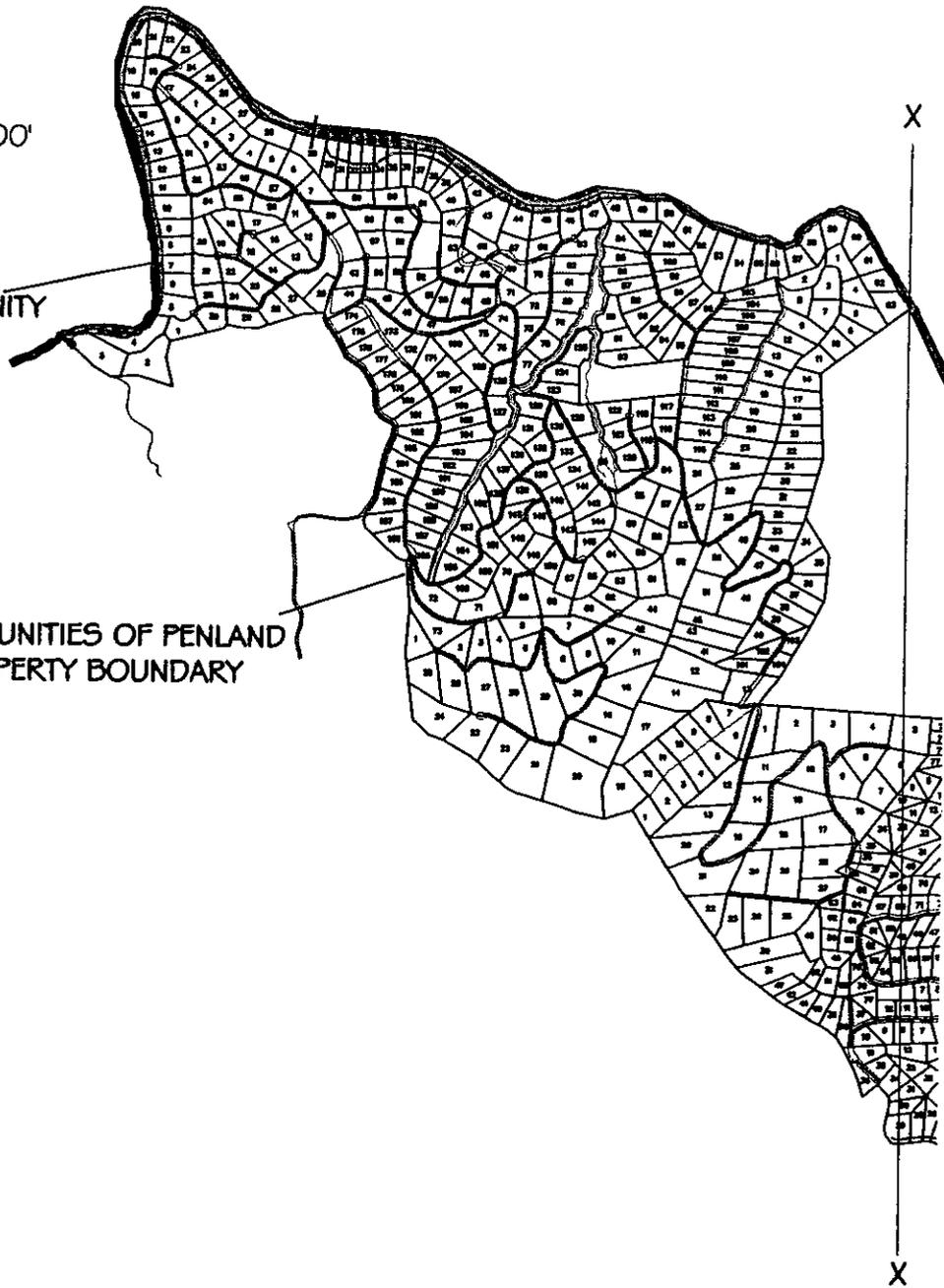
January 2005 Soil & Environmental Consultants, PA. All rights reserved.



SCALE: 1" = 1,500'

RESERVE COMMUNITY  
(PRIVATE)

COMMUNITIES OF PENLAND  
PROPERTY BOUNDARY



# OVERALL DEVELOPMENT PLAN ALTERNATIVE "A"



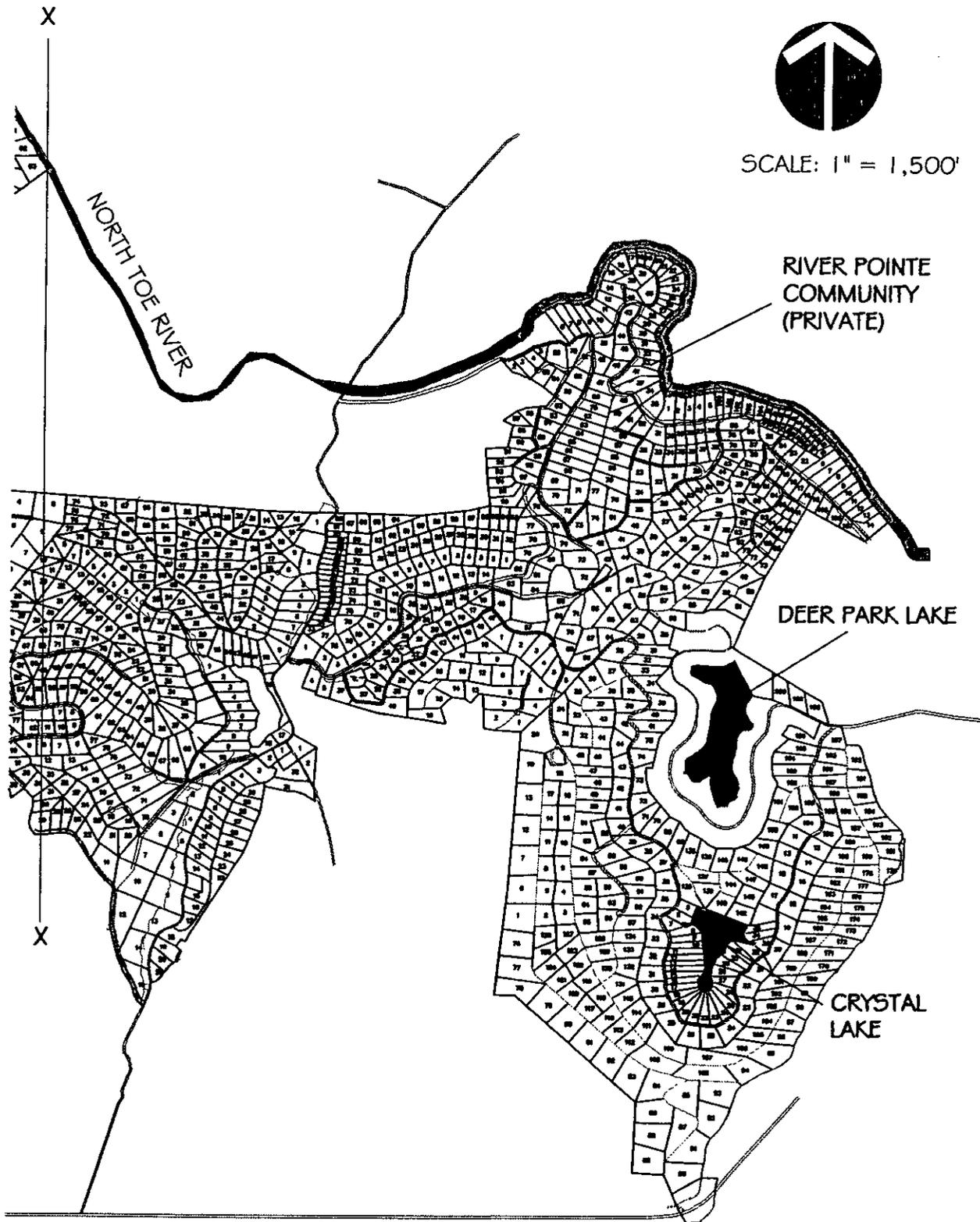
**Soil & Environmental Consultants, PA**  
11610 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
www.SandEC.com

ATTACHMENT 5A

OVERALL DEVELOPMENT PLAN  
ALTERNATIVE "A"

Project No.:  
8950.D1

Scale:  
1" = 1500'



**Soil & Environmental Consultants, PA**  
 11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
 www.SandEC.com

ATTACHMENT 5B

OVERALL DEVELOPMENT PLAN  
ALTERNATIVE "A"

Project No.: 8950.D1  
 Scale: 1" = 1500'

January 2005 Soil & Environmental Consultants, PA. All rights reserved.

RESERVE COMMUNITY  
(PRIVATE)

PROPOSED BUFFER WIDTHS:  
50' NORTH TOE RIVER (SOUTH SIDE ONLY)  
100' PERENNIAL STREAMS (USGS) (EACH SIDE)  
50' ALL INTERMITTENT STREAMS (EACH SIDE)

COMMUNITIES OF PENLAND  
PROPERTY BOUNDARY

NORTH TOE RIVER

DIAMOND  
LAKE

LEGEND

-  OBSERVED OR POTENTIAL JURISDICTIONAL STREAM LOCATIONS
-  EXISTING ROADS
-  RIPARIAN BUFFER CONSERVATION AREA
-  PERENNIAL STREAM CHANNELS AS SHOWN ON USGS TOPOGRAPHIC MAP
-  JURISDICTIONAL STREAM CHANNELS AS IDENTIFIED BY S&EC DURING SITE VISITS

OVERALL DEVELOPMENT PLAN  
ALTERNATIVE "B"



**Soil & Environmental Consultants, PA**  
11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
www.SandEC.com

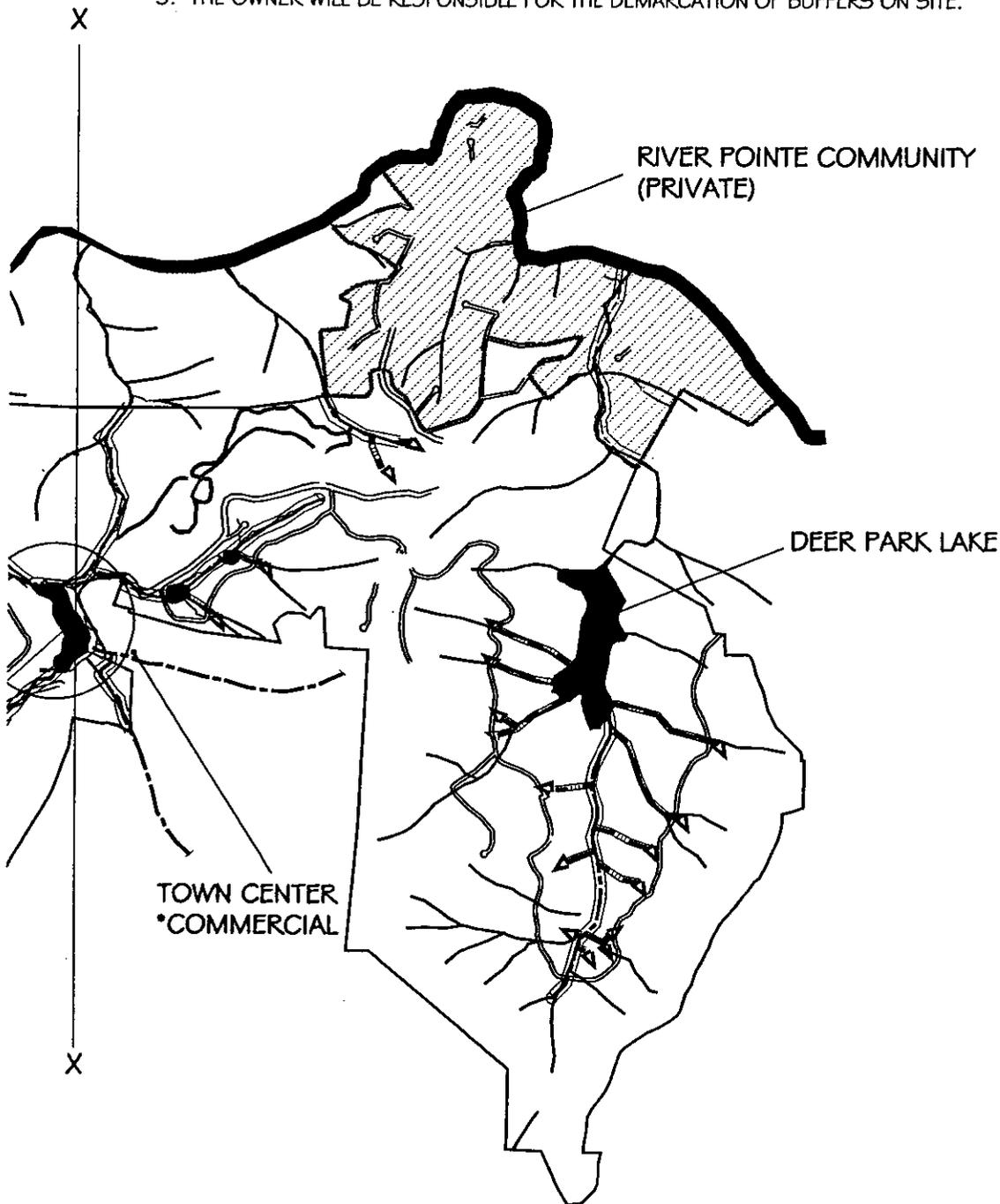
ATTACHMENT 6A  
OVERALL DEVELOPMENT PLAN  
ALTERNATIVE "B"

Project No.:  
8950.D1  
Scale:  
1" = 1500'

January 2005 Soil & Environmental Consultants, PA. All rights reserved.

NOTES:

1. THIS ALTERNATIVE REFLECTS AN ESTIMATE OF PERENNIAL AND JURISDICTIONAL STREAM CHANNELS AND ASSOCIATED BUFFERS BASED OF FIELD OBSERVATION AT SELECT CROSSING LOCATIONS. ACCORDINGLY, NOT ALL PERMANENT BUFFERS ARE REFLECTED.
2. THIS ALTERNATIVE CALLS FOR THE PRESERVATION OF STREAM BUFFERS ON ALL PERENNIAL AND JURISDICTIONAL STREAM CHANNEL WITH BUFFER WIDTHS AS DESCRIBED ON THIS PLAN.
3. THE OWNER WILL BE RESPONSIBLE FOR THE DEMARCATON OF BUFFERS ON SITE.



**Soil & Environmental Consultants, PA**  
 11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
[www.SandEC.com](http://www.SandEC.com)

ATTACHMENT 6B

OVERALL DEVELOPMENT PLAN  
ALTERNATIVE "B"

Project No.:

8950.D1

Scale:

1" = 1500'

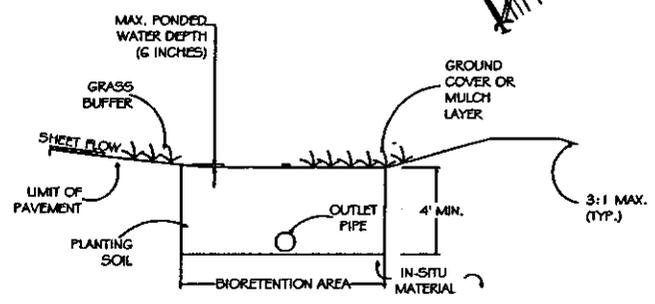
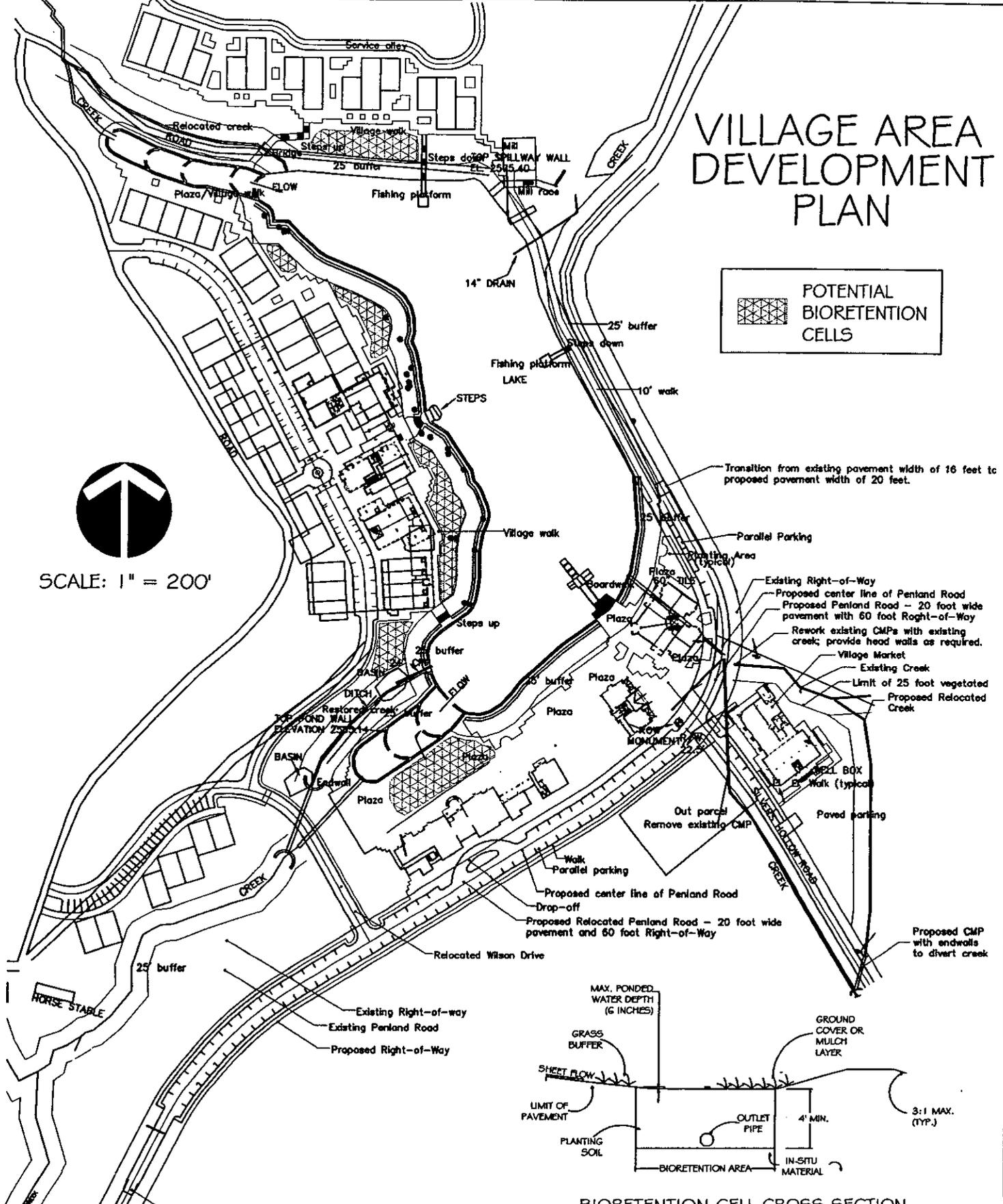
January 2005 Soil & Environmental Consultants, PA. All rights reserved.

# VILLAGE AREA DEVELOPMENT PLAN

 POTENTIAL BIORETENTION CELLS



SCALE: 1" = 200'



BIORETENTION CELL CROSS-SECTION  
(NOT TO SCALE)



**Soil & Environmental Consultants, PA**  
11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
www.SandEC.com

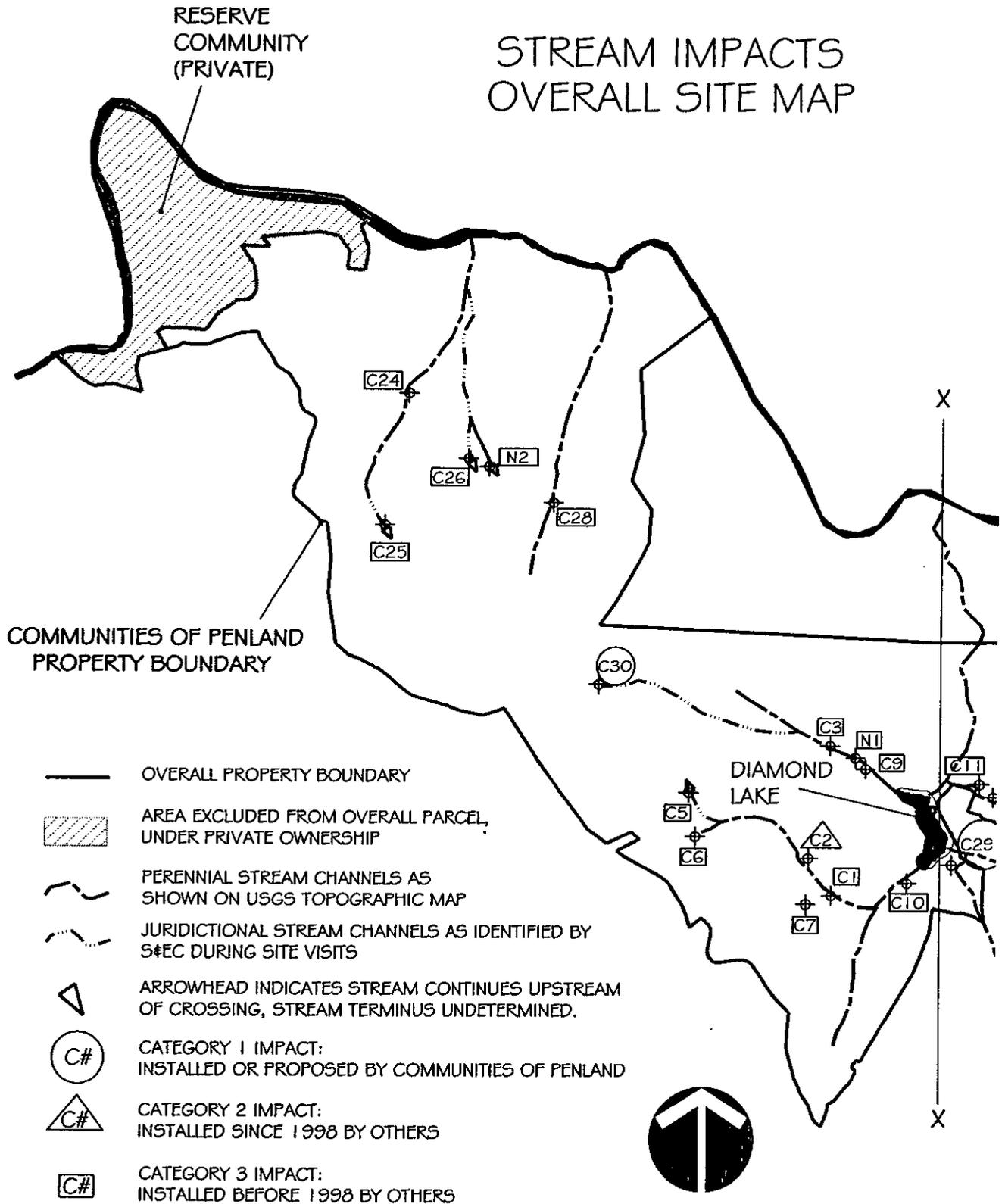
ATTACHMENT 7

VILLAGE AREA DEVELOPMENT PLAN

Project No.: 8950.D1  
Scale: 1" = 200'

January 2005 Soil & Environmental Consultants, PA. All rights reserved.

# STREAM IMPACTS OVERALL SITE MAP



COMMUNITIES OF PENLAND  
PROPERTY BOUNDARY

- OVERALL PROPERTY BOUNDARY
- AREA EXCLUDED FROM OVERALL PARCEL, UNDER PRIVATE OWNERSHIP
- PERENNIAL STREAM CHANNELS AS SHOWN ON USGS TOPOGRAPHIC MAP
- JURISDICTIONAL STREAM CHANNELS AS IDENTIFIED BY S&EC DURING SITE VISITS
- ARROWHEAD INDICATES STREAM CONTINUES UPSTREAM OF CROSSING, STREAM TERMINUS UNDETERMINED.
- CATEGORY 1 IMPACT: INSTALLED OR PROPOSED BY COMMUNITIES OF PENLAND
- CATEGORY 2 IMPACT: INSTALLED SINCE 1998 BY OTHERS
- CATEGORY 3 IMPACT: INSTALLED BEFORE 1998 BY OTHERS



SCALE: 1" = 1,500'

**S&EC**

**Soil & Environmental Consultants, PA**  
11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
www.SeandC.com

ATTACHMENT 8A

Project No.:  
8950.D1

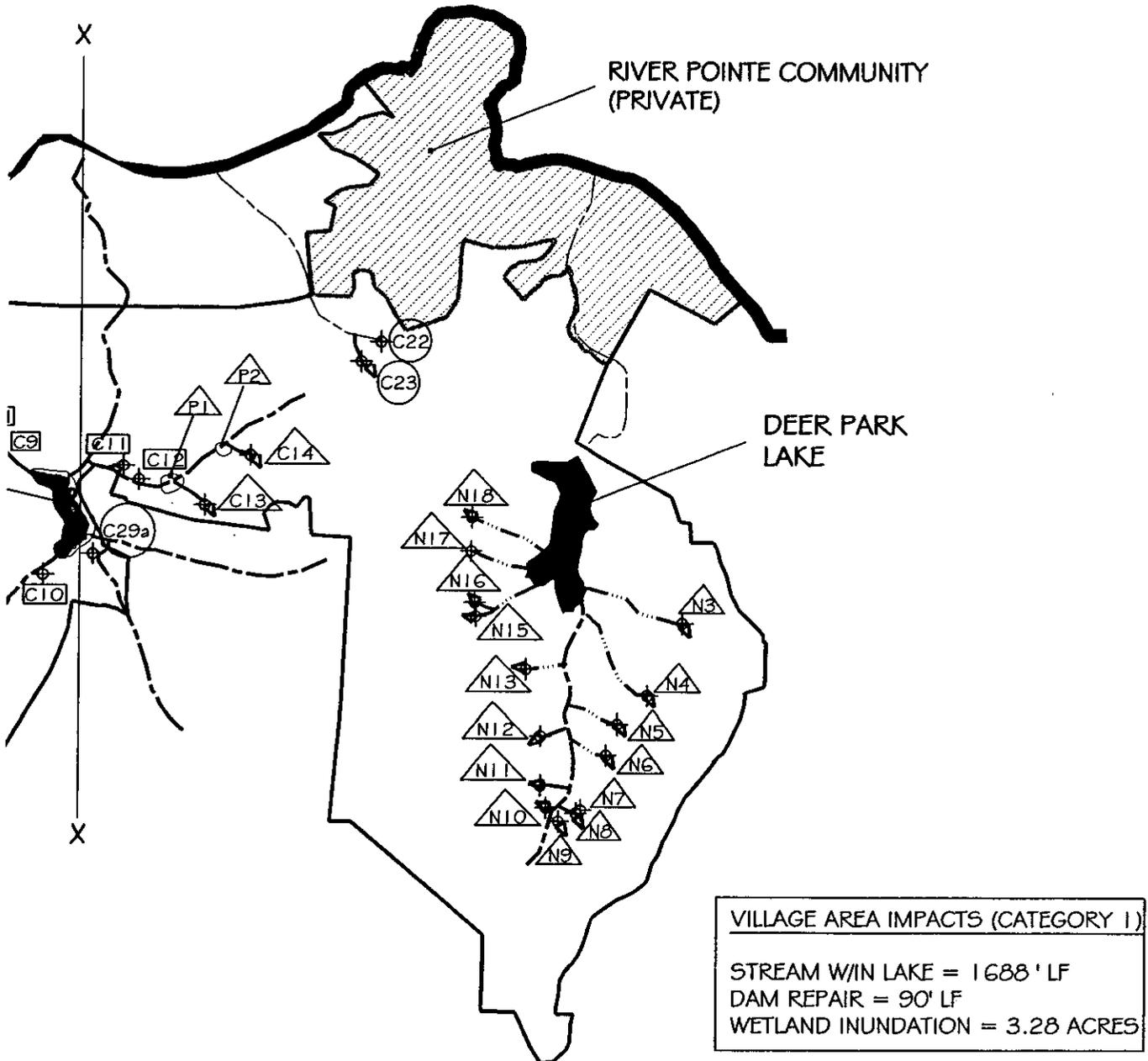
STREAM IMPACTS OVERALL SITE MAP

Scale:  
1" = 1500'

January 2005 Soil & Environmental Consultants, PA. All rights reserved.

**NOTES:**

1. JURISDICTIONAL STREAM CHANNELS ARE ESTIMATED AND BASED ON USGS TOPOGRAPHIC MAPPING DATA. NO FIELD VERIFICATION WAS PERFORMED ON DEPICTED LOCATION.
2. CHANNELS WERE DEEMED JURISDICTIONAL FROM EXISTING OR PROPOSED CROSSING LOCATION. CHANNELS CONTINUE UPSTREAM OF CROSSING, UNLESS OTHERWISE SHOWN.
3. REFER TO IMPACTS SUMMARY TABLE FOR DEATAILS ON CROSSINGS



**Soil & Environmental Consultants, PA**  
 11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
 www.seandec.com

ATTACHMENT 8B

STREAM IMPACTS OVERALL SITE MAP

Project No.:

8950.D1

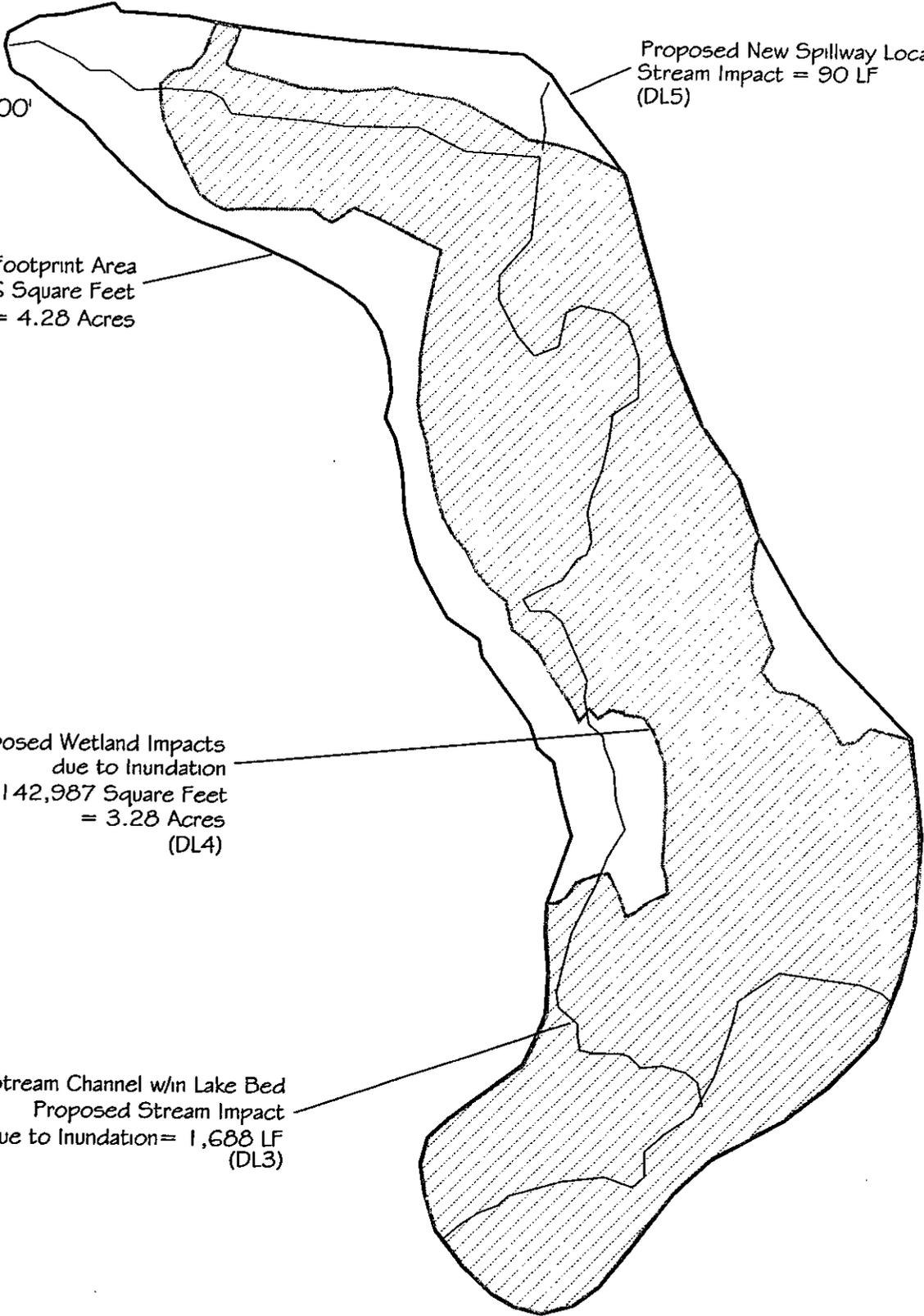
Scale:

1" = 1500'

© January 2005 Soil & Environmental Consultants, PA. All rights reserved.



NORTH  
SCALE: 1" = 100'



Proposed New Spillway Location  
Stream Impact = 90 LF  
(DL5)

Diamond Lake Footprint Area  
= 186,466 Square Feet  
= 4.28 Acres

Proposed Wetland Impacts  
due to Inundation  
= 142,987 Square Feet  
= 3.28 Acres  
(DL4)

Existing Stream Channel w/in Lake Bed  
Proposed Stream Impact  
due to Inundation = 1,688 LF  
(DL3)

# STREAM AND WETLANDS IMPACTS MAP VILLAGE AREA



**Soil & Environmental Consultants, PA**  
11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
www.seec.com

ATTACHMENT 9

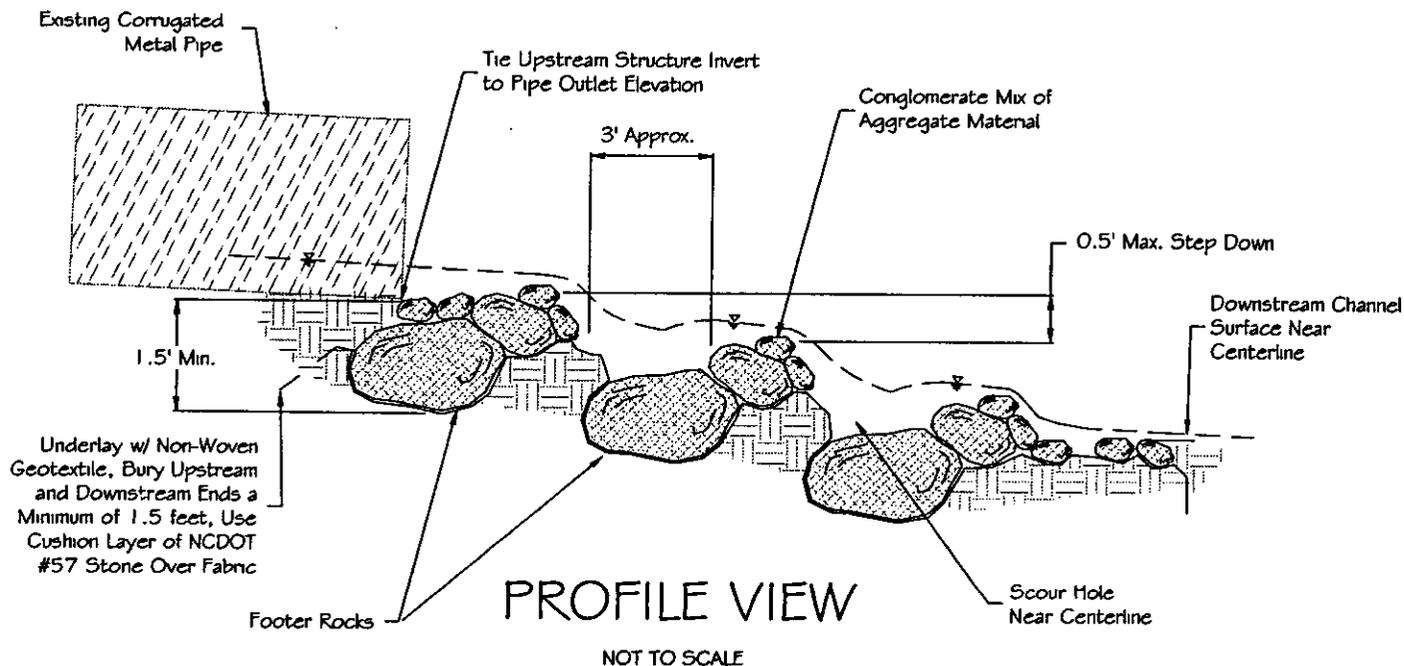
Project No.:  
8950.D1

Scale:

STREAM AND WETLANDS IMPACTS MAP

1" = 100'

# STEP-POOL STRUCTURE AT PIPE OUTFALL STRUCTURE DETAIL (TYP.)



### NOTES:

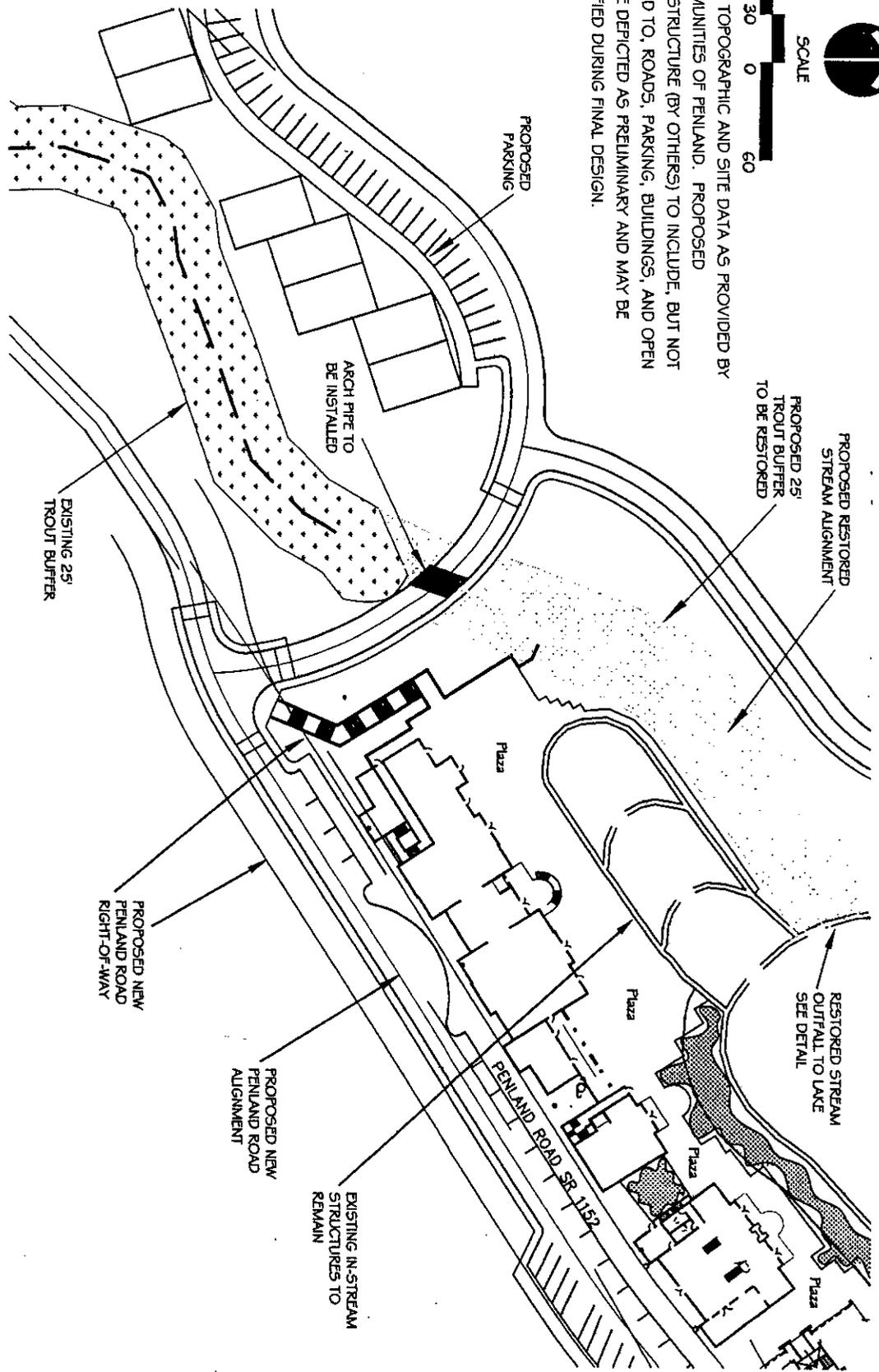
1. STEP-POOL BOULDER STRUCTURES TO BE INSTALLED AT ALL SUSPENDED CULVERTS TO INCLUDE THOSE AT CROSSINGS C22, C23, C24, C26, N2, N5, N10, N16, AND ANY OTHERS IDENTIFIED IN THE FIELD DURING CONSTRUCTION.
2. FOOTER ROCK SIZE MAY VARY DEPENDING ON PIPE DIAMETER, HOWEVER, MINIMUM DESIRED DIMENSIONS ARE 12" X 18" X 24".
3. NUMBER OF STEPS WITHIN EACH STRUCTURE TO BE FIELD DETERMINED AT TIME OF CONSTRUCTION BY DESIGNER. TYPICAL DESIRED ELEVATION DROP IS 3" TO 6" PER STEP.
4. STRUCTURE TO TIE TO DOWNSTREAM END OF EXISTING PIPE AND TIE FLUSH WITH INVERT OF DOWNSTREAM CHANNEL.
5. CONSTRUCTION TO BE PERFORMED UNDER SUPERVISION OF DESIGNER.



SCALE



NOTE: TOPOGRAPHIC AND SITE DATA AS PROVIDED BY COMMUNITIES OF PENLAND. PROPOSED INFRASTRUCTURE (BY OTHERS) TO INCLUDE, BUT NOT LIMITED TO, ROADS, PARKING, BUILDINGS, AND OPEN SPACE DEPICTED AS PRELIMINARY AND MAY BE MODIFIED DURING FINAL DESIGN.



# PROPOSED CONDITIONS STREAM RESTORATION REACH A



**Soil & Environmental Consultants, PA**  
 11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-2900 • Fax: (919) 846-9467  
 www.SeandEC.com

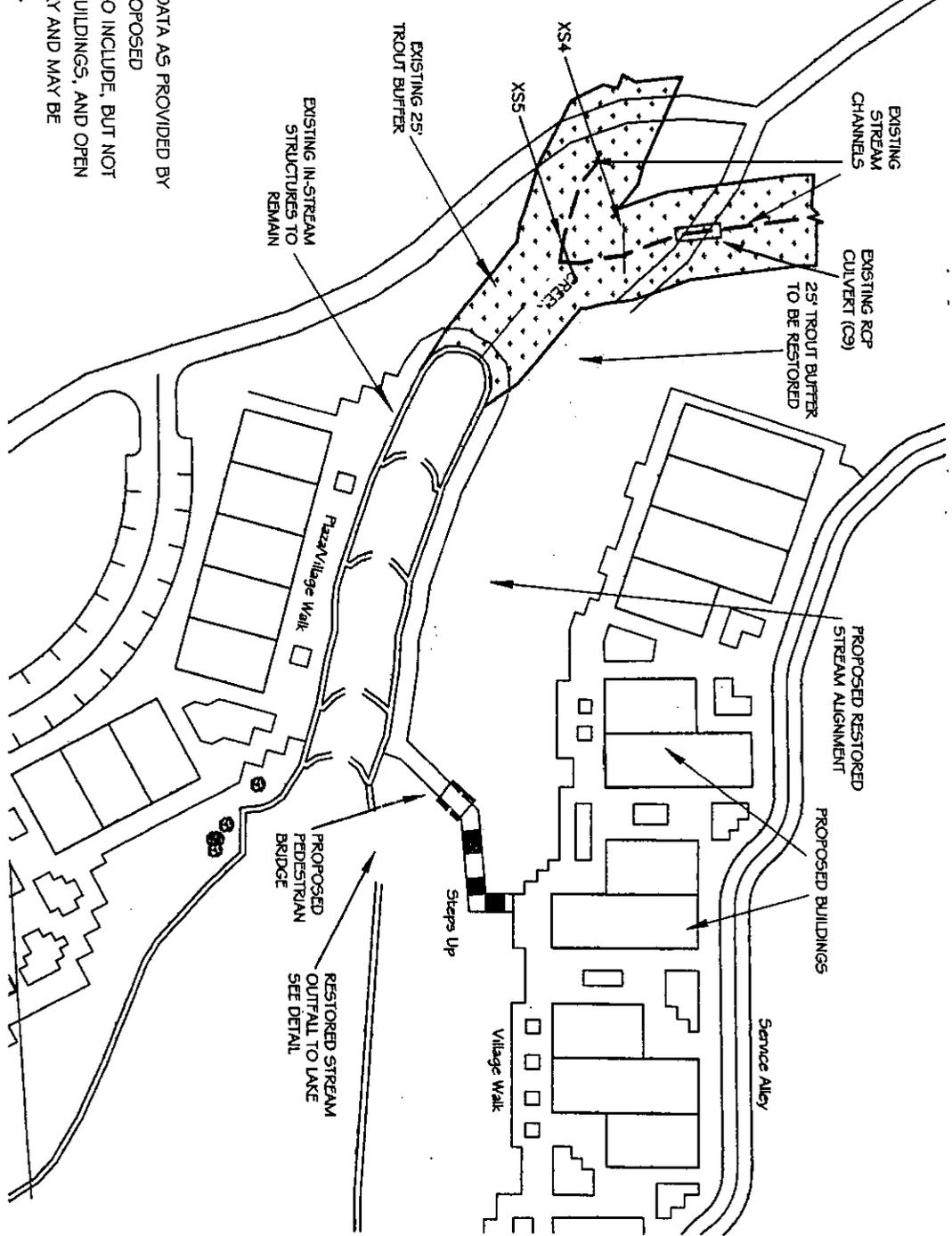
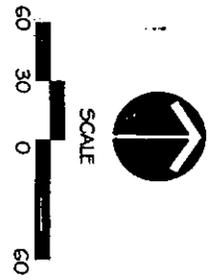
DIAMOND LAKE RESTORATION

MITCHELL CO., NC COMMUNITIES OF PENLAND, LLC

STREAM RESTORATION AREA "A"

0950.01
1" = 60'
5 OF 7

October 2005 Soil & Environmental Consultants, PA. All rights reserved.



NOTE: TOPOGRAPHIC AND SITE DATA AS PROVIDED BY COMMUNITIES OF PENLAND. PROPOSED INFRASTRUCTURE (BY OTHERS) TO INCLUDE, BUT NOT LIMITED TO, ROADS, PARKING, BUILDINGS, AND OPEN SPACE DEPICTED AS PRELIMINARY AND MAY BE MODIFIED DURING FINAL DESIGN.

# PROPOSED CONDITIONS STREAM RESTORATION REACH B

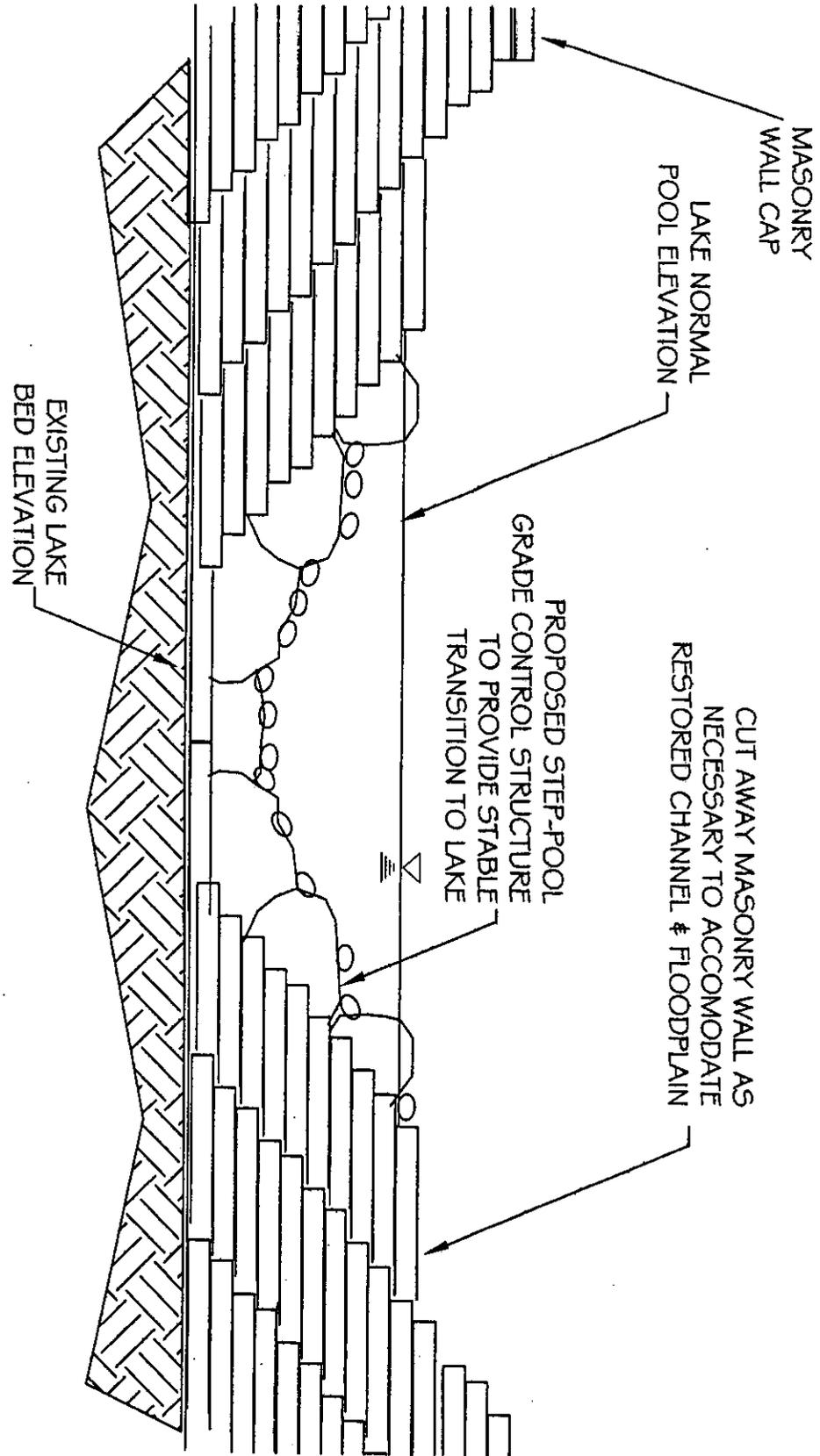


**Soil & Environmental Consultants, PA**  
 11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-9900 • Fax: (919) 846-9467  
 www.SeandC.com

DIAMOND LAKE RESTORATION		6950.D1
MITCHELL CO., NC	COMMUNITIES OF PENLAND, LLC	1" = 60'
STREAM RESTORATION AREA " B "		6 OF 7

# TYPICAL RESTORED STREAM CROSS-SECTION THROUGH EXISTING MASONRY PERIMETER WALL

NOT TO SCALE



**Soil & Environmental Consultants, PA**  
 11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9487  
[www.SandEC.com](http://www.SandEC.com)

DIAMOND LAKE RESTORATION

MITCHELL CO., NC COMMUNITIES OF PENLAND, LLC

WALL CUT THROUGH DETAIL (TYP.)

NO.	0950.D1
REV.	
DATE	
BY	
CHECKED	
SCALE	NONE
SHEET NO.	7 OF 7