Greg Gibson
Vice President, Regulatory Affairs

750 East Pratt Street, Suite 1600
Baltimore, Maryland 21202

UniStar
NUCLEAR ENERGY

February 2, 2011

UN#11-069

Cheryl Kerr
Non-Tidal Section – Wetlands and Waterways Division
Maryland Department of the Environment (MDE)
1800 Washington Boulevard
Baltimore, Maryland 21230

Jonathan Stewart
Tidal Section - Wetlands and Waterways Division
Maryland Department of the Environment
Water Management Administration
1800 Washington Boulevard
Baltimore, Maryland 21230

Subject: Material for Public Notice/Response to MDE Letter Dated 1/12/2011
For Calvert Cliffs Nuclear Power Plant, Unit 3 in Calvert County, Maryland,
MDE Project Number 08-WL-1462 (T), 09-NT-0191 (NT),
USACE Tracking No. NAB-2007-08123-M05

Reference: Cheryl Kerr (MDE) to Dimitri Lutchenkov (UniStar Nuclear Energy), Permit Tracking #: 08-NT-0191 / 200862335, Project: Calvert Cliffs 3 Nuclear Project CCNPP Unit 3/New Construction, County: Calvert, dated January 12, 2011.

The purpose of this letter is to transmit the following enclosures:

1. Non-Tidal Wetland Information requested in the Maryland Department of the Environment letter from Cheryl Kerr, dated January 12, 2011, to Dimitri Lutchenkov (Reference), as follows:

    a. Table showing permanent and temporary impacts to several non-tidal regulated resources.

    b. Plans to be included in the Public Notice.

    c. Date, time, and venue for the public hearing.

    d. Electronic copy of interested persons mailing list (included in Enclosure 2).

2. A sample of one of the letters going to adjacent property owners, the Certification of Notification, mailing labels, and a computer disc containing a list of the property owners in MSWord.

3. Tidal Wetland work descriptions and figures.

If you have any questions concerning the attached document, please call Mr. Jim Burkman at (410) 470-5130.

Sincerely,

Greg Gibson

Enclosures – 1) Information requested in the Maryland Department of the Environment letter from Cheryl Kerr to Dimitri Lutchenkov, dated January 12, 2011
2) Property Owner Notification Documents, dated January 28, 2011
3) Tidal Wetland Work Descriptions and Figures

cc: Jim Butch - EPA
Susan Gray – Power Plant Research Program
John Nichols - NMFS
Laura Quinn – NRC
Bob Zepp – USFWS
Kathy Anderson - USACE
Harriet Nash - NRC
Mary Ann Parkhurst - PNL
Roy Kropp – PNL
Woody Francis – USACE

Enclosure 1

Information requested in the Maryland Department of the Environment letter from Cheryl Kerr to Dimitri Lutchenkov, dated January 12, 2011

Response to MDE Comments – January 12, 2011
08-NT-0191 / 200862335
Calvert Cliffs Nuclear Power Plant, Unit 3

EA Engineering, Science, and Technology, Inc (EA) has reviewed the comments from the Maryland Department of the Environment (MDE) in the letter dated January 12, 2011, requesting additional information in preparation of the upcoming Public Hearing. EA is providing the following information as discussed during a meeting with MDE on January 19, 2011.

We understand that MDE is requesting the most up to date information regarding the project in order to ensure the correct information is posted in the public notice. The following information provided in this document is the current information that should be used in the public notice as provided to MDE in previous submittals.

1) The current applicant information has not changed from the original submittal (May 16, 2008) and should continue to be listed as **Calvert Cliffs 3 Nuclear Project, LLC (Co-applicant)** and **UniStar Nuclear Operating Services, LLC (Co-applicant)**.

2) No substantive changes to the tidal and non-tidal wetland impacts have occurred since the original Joint Permit Application submittal dated May 16, 2008. Revisions have been made to the amount of dredge material being removed from tidal wetlands and UniStar has coordinated with Jonathan Stewart of MDE regarding the changes to the tidal wetlands. The tables below are being provided to ensure the correct impacts are used in the public notice for nontidal wetlands and waterways. As described in the original permit application and discussed in the January 19th meeting, all of the calculated impacts are being reported as permanent impacts and mitigated for as such.

Wetland Type	Area of Impact	Impact Type
Forested Wetland	343,253 s.f. / 7.88 ac	Permanent
Emergent Wetland	52,708 s.f. / 1.21 ac	Permanent
Scrub-Shrub Wetland	N/A	Permanent
Open Water Ponds	114,563 s.f. / 2.63 ac	Permanent
Total Nontidal wetland	**510,524 s.f. / 11.72 ac**	**All Permanent**

Resource Type	Area of Impact	Impact Type
**25ft Nontidal Wetland Buffer	779,758 s.f. / 17.90 ac	Permanent
Stream Channel	8,350 l.f.	Permanent
100-yr Floodplain	N/A	N/A

** Original application reported impacts to a 50ft wetland buffer of 1,343,826 s.f.

3) Please find attached the following plans in 8 ½" x 11" format to be included in the MDE public notice.
   a. Vicinity Map
   b. Nontidal Wetland Impact Plates
   c. Overview of the Phase II Mitigation Plan and associated table.

EA Engineering, Science, and Technology, Inc.

Figure 1. Vicinity Map

Calvert Cliffs Nuclear Power Plant Wetland Delineation Addendum

0 15 30 Miles

N W E S

DRAFT WORK DESCRIPTION

The applicants propose, in accordance with the attached plans, to impact approximately 11.72 acres of nontidal wetlands and 5.7 acres of tidal open waters for the purpose of performing site preparation activities and construction of supporting facilities, for which a license from the Nuclear Regulatory Commission is not required, at the site of a proposed nominal 1,710 MW nuclear power generation station (Unit 3) in Calvert County, Maryland. The proposed nuclear power generation station would generate electricity for sale at wholesale. There is a demonstrated future need for additional base-load electric capacity in the region that includes the State of Maryland.

Work in Nontidal Areas:

Power Block:

To clear and grade for construction of a power block, including reactor, turbine and safety-related structures, permanently impacting 2,470 square feet (0.06 acres) along 617 linear feet of stream bed.

Laydown Areas:

To clear and grade for construction of five construction laydown areas in various locations, permanently impacting 95,832 square feet (2.20 acres) of nontidal forested wetlands; 52,708 square feet (1.21 acres) of emergent wetlands; 114,563 square feet (2.63 acres) of open water; and 1,535 square feet (0.04 acres) along 384 linear feet of stream bed.

Cooling Tower:

To clear and grade for construction of a cooling tower, permanently impacting 32,670 square feet (0.75 acres) of nontidal forested wetlands and 5,780 square feet (0.13 acres) along 1,445 linear of feet stream bed.

Switchyard:

To clear and grade for construction of a switchyard, permanently impacting 179,903 square feet (4.13 acres) of nontidal forested wetlands and 16,710 square feet (0.38 acres) along 4,178 linear feet of stream bed.

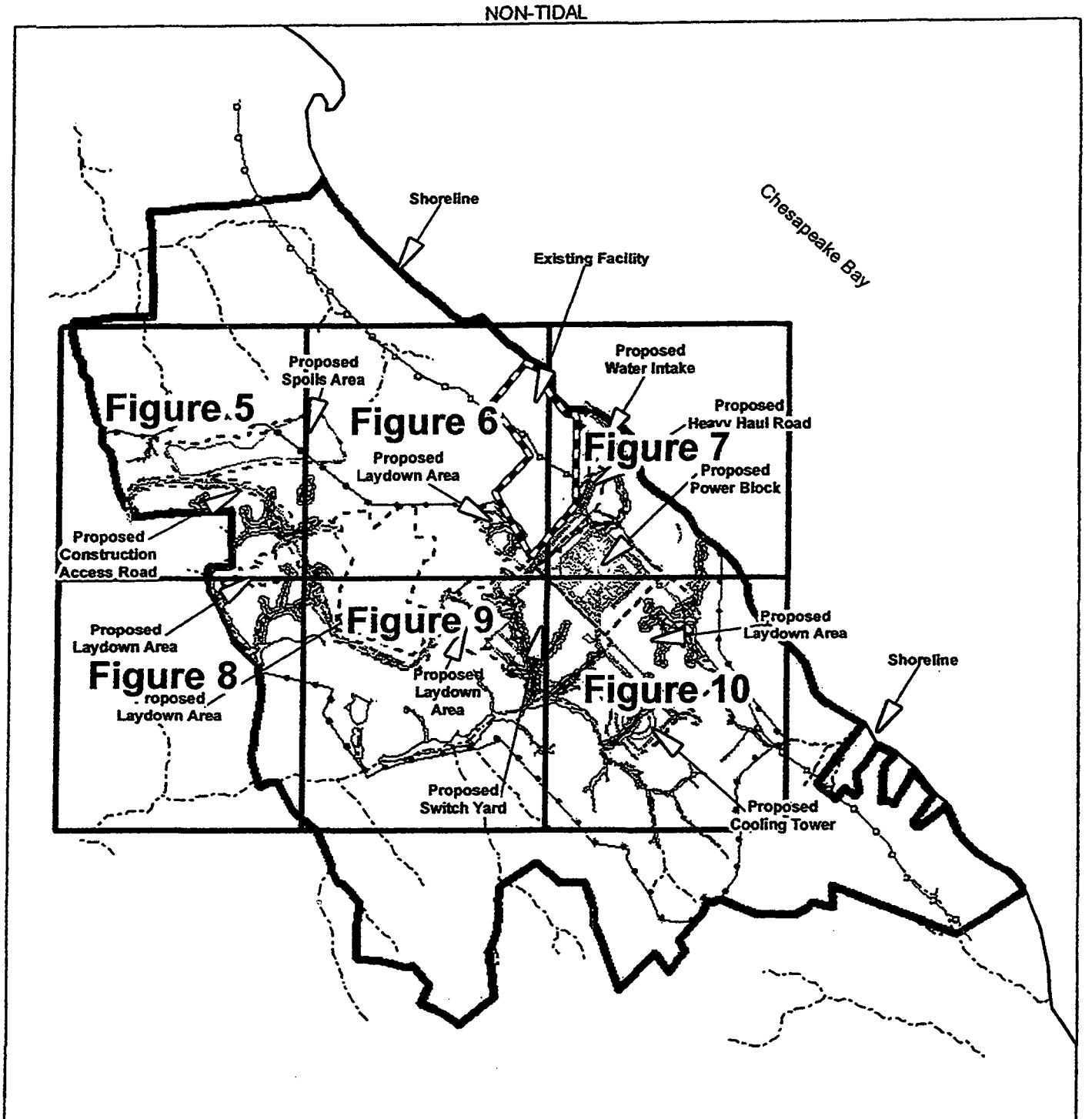
Construction Access Road:

To clear and grade for construction of the Unit 3 construction access road will require three separate road crossings. The first road crossing is 200 linear feet of 30-inch diameter reinforced concrete pipe (RCP); the second road crossing is 100 linear feet of 36-inch diameter RCP; and the third road crossing is 520 linear feet of two 54-inch diameter RCP. The invert of each pipe will be depressed to match the slope and invert of the stream or wetland being crossed. The work will include the emplacement of a 15-foot by 15-foot riprap scour pad at two of the road crossings and a 40-foot by 40-foot riprap scour pad at the third road crossing. All of the aforementioned work will permanently impact 31,363 square feet (0.72-acre) area of nontidal forested wetlands and 4,336 square feet (0.10 acres) along 1,084 linear feet of stream bed.

Heavy Haul Road:

To clear and grade for construction of a heavy haul road leading from the barge slip to the construction site, permanently impacting 2,570 square feet (0.06 acres) along 642 linear feet of stream bed.

NON-TIDAL



PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

KEY PLAN
FIGURE 4

SCALE IN FEET

0 2,000 4,000 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure4__key.mxd)
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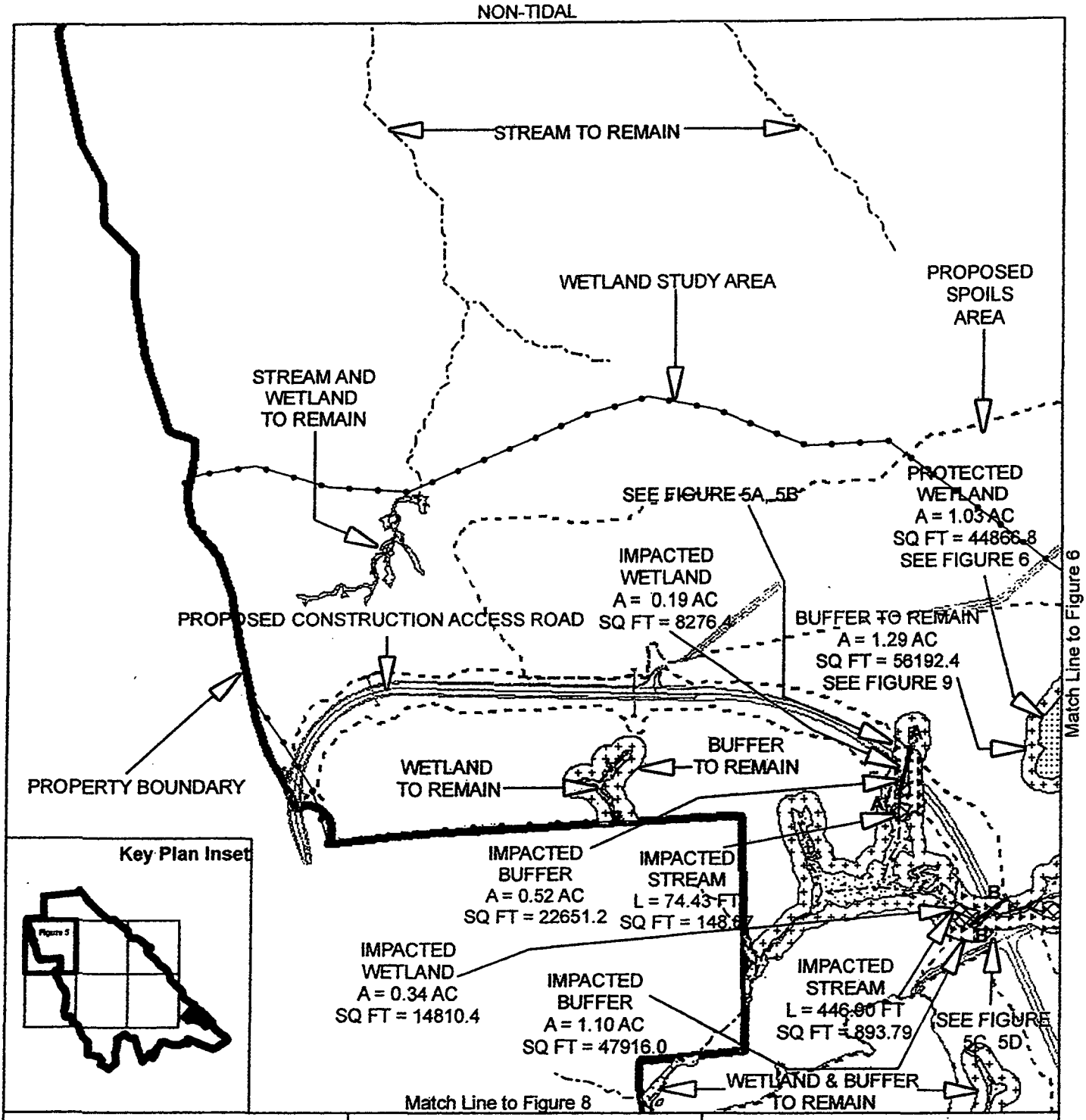

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 5

SCALE IN FEET

0 500 1,000 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure5.mxd)
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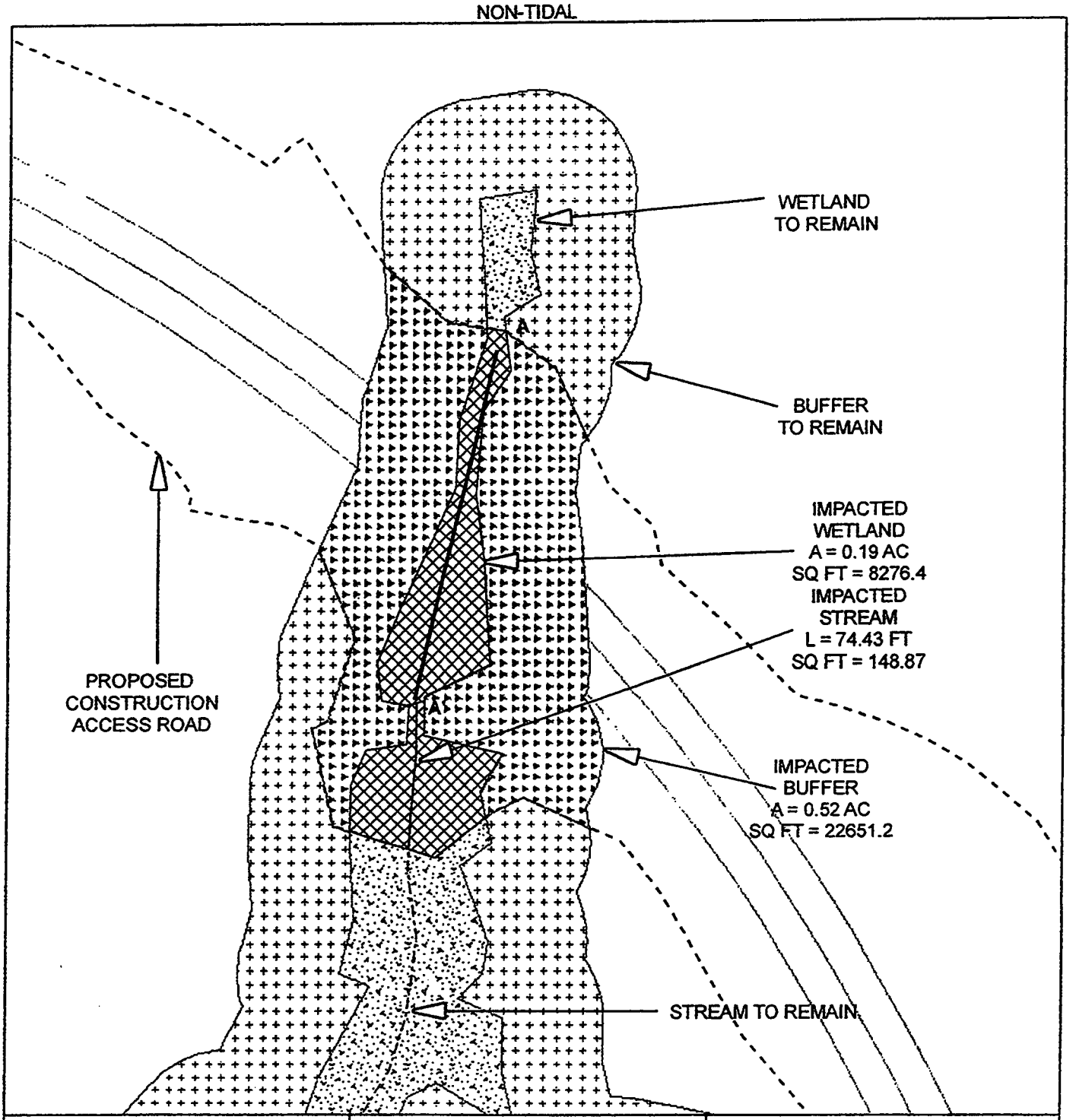

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 5A

SCALE IN FEET

0 70 140 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure5A.mxd)
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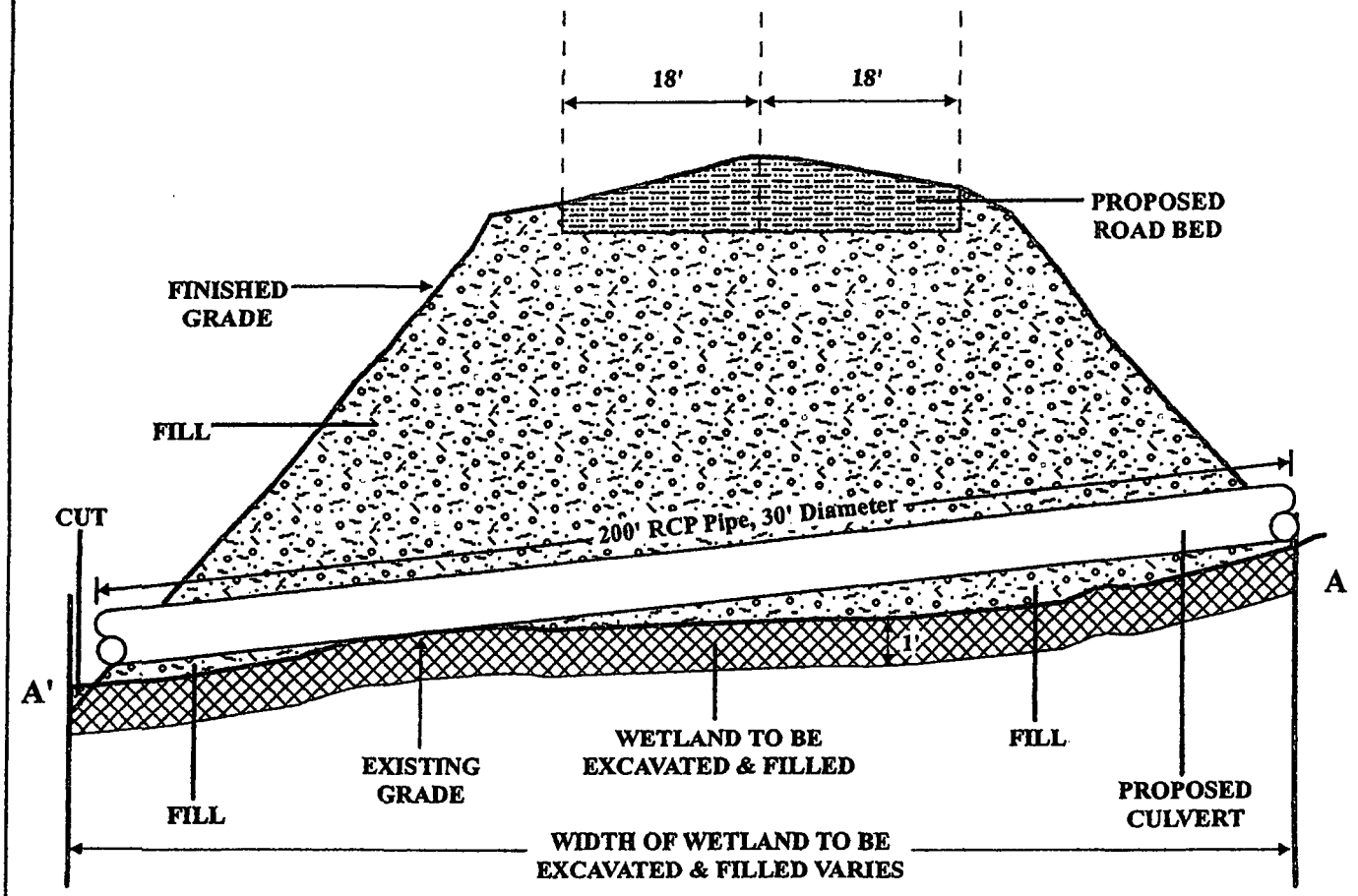

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 5B** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

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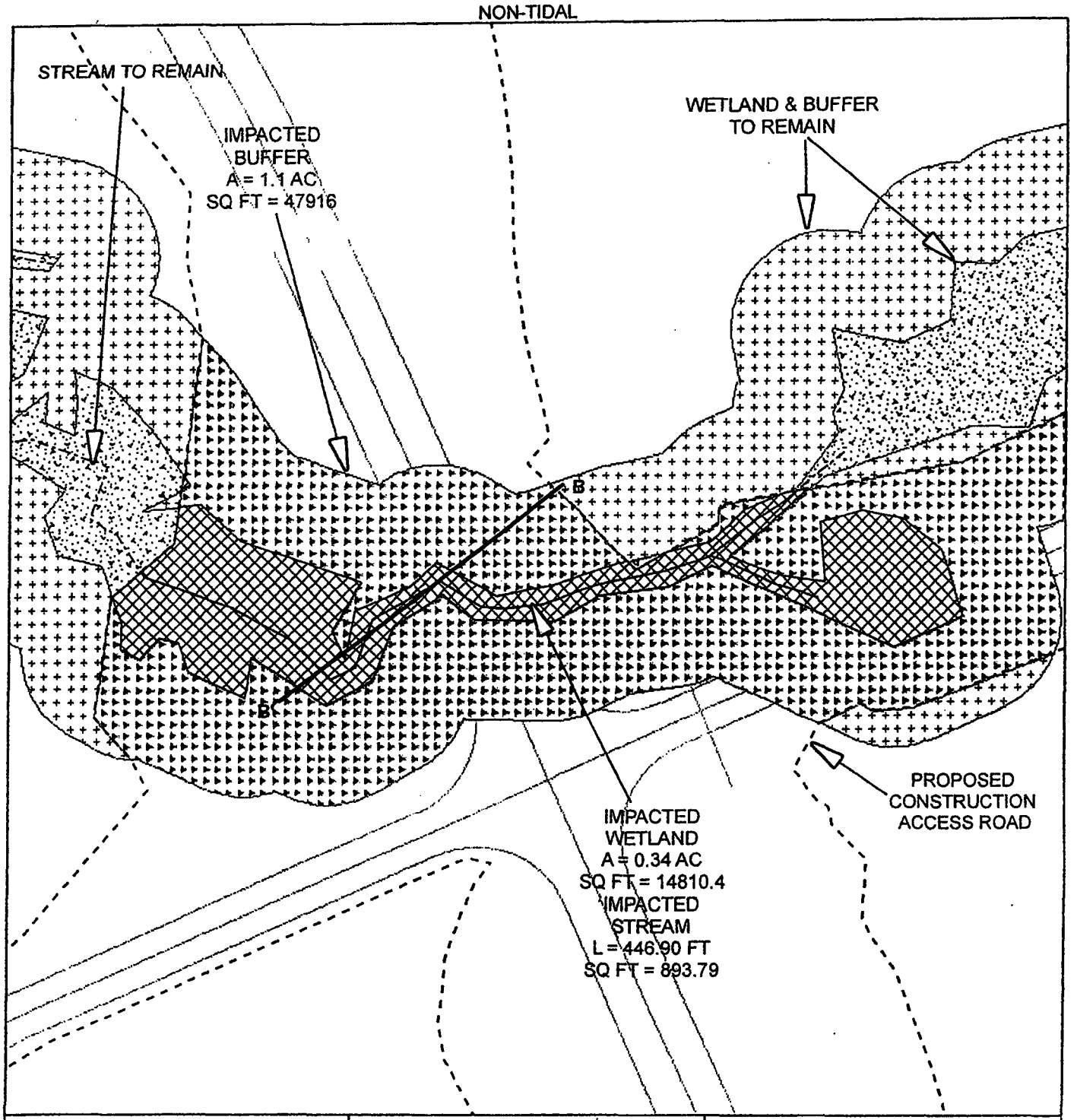

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 5C

SCALE IN FEET

0 60 120 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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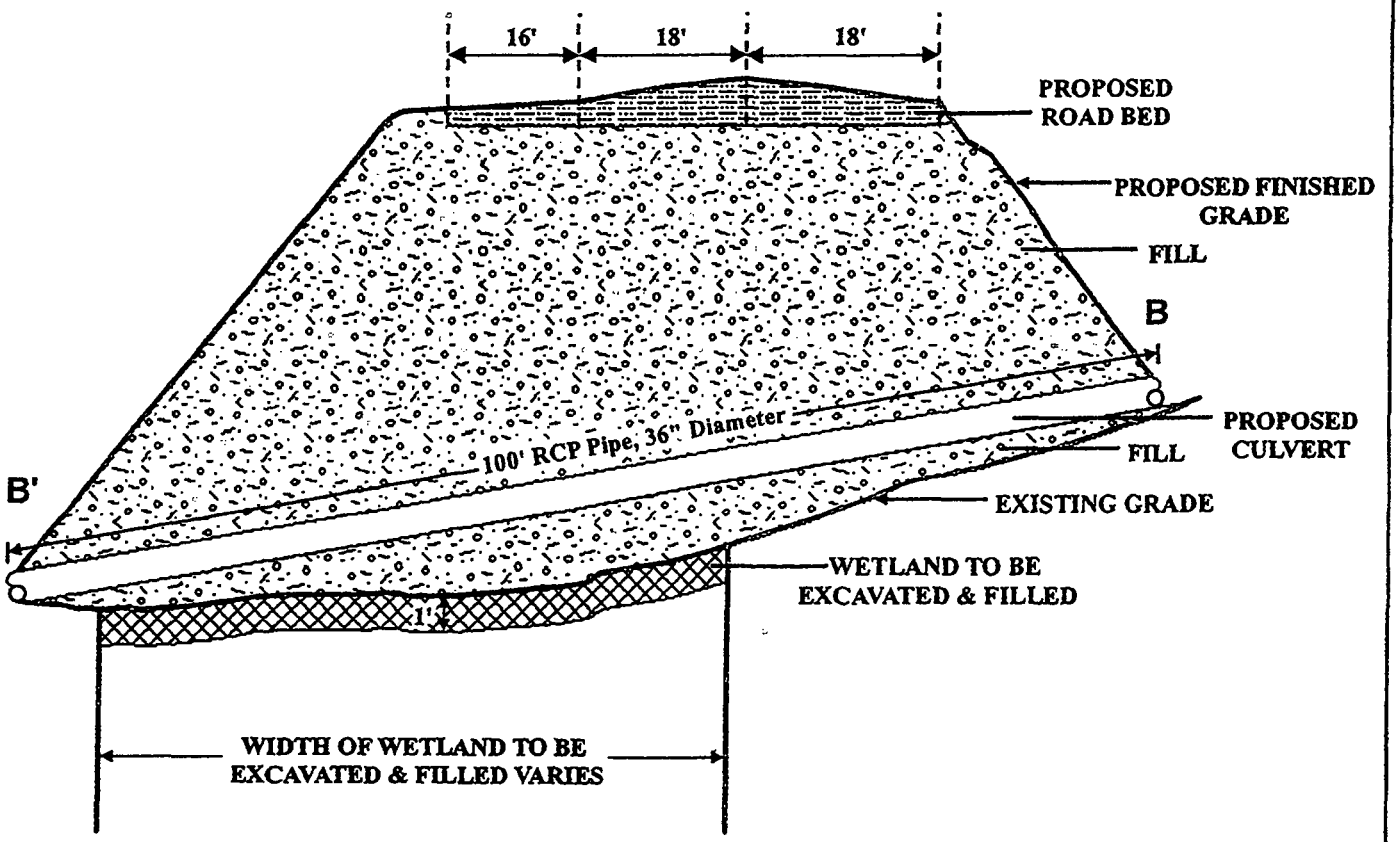

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 5D** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

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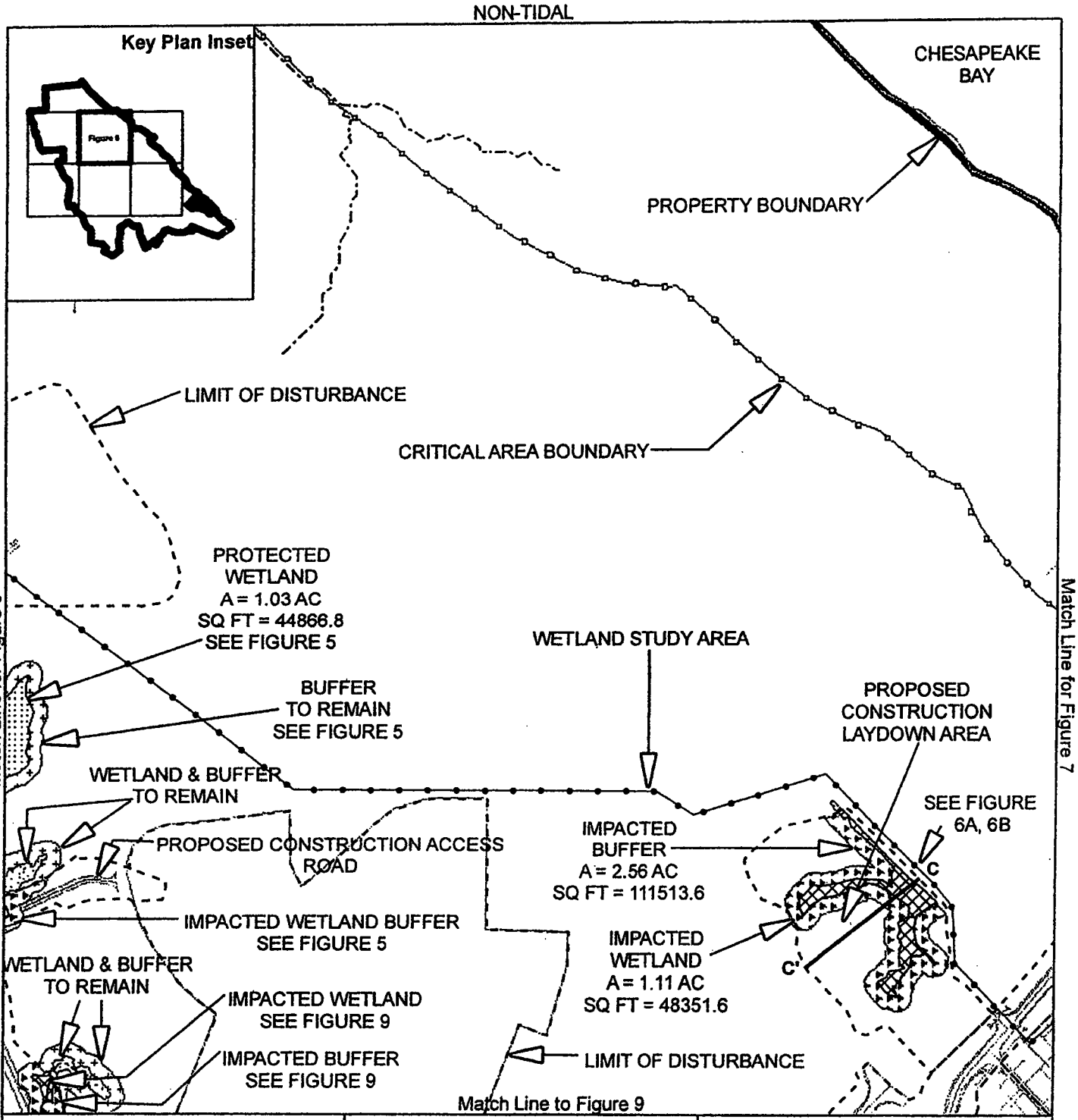

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 6

SCALE IN FEET

0 500 1,000 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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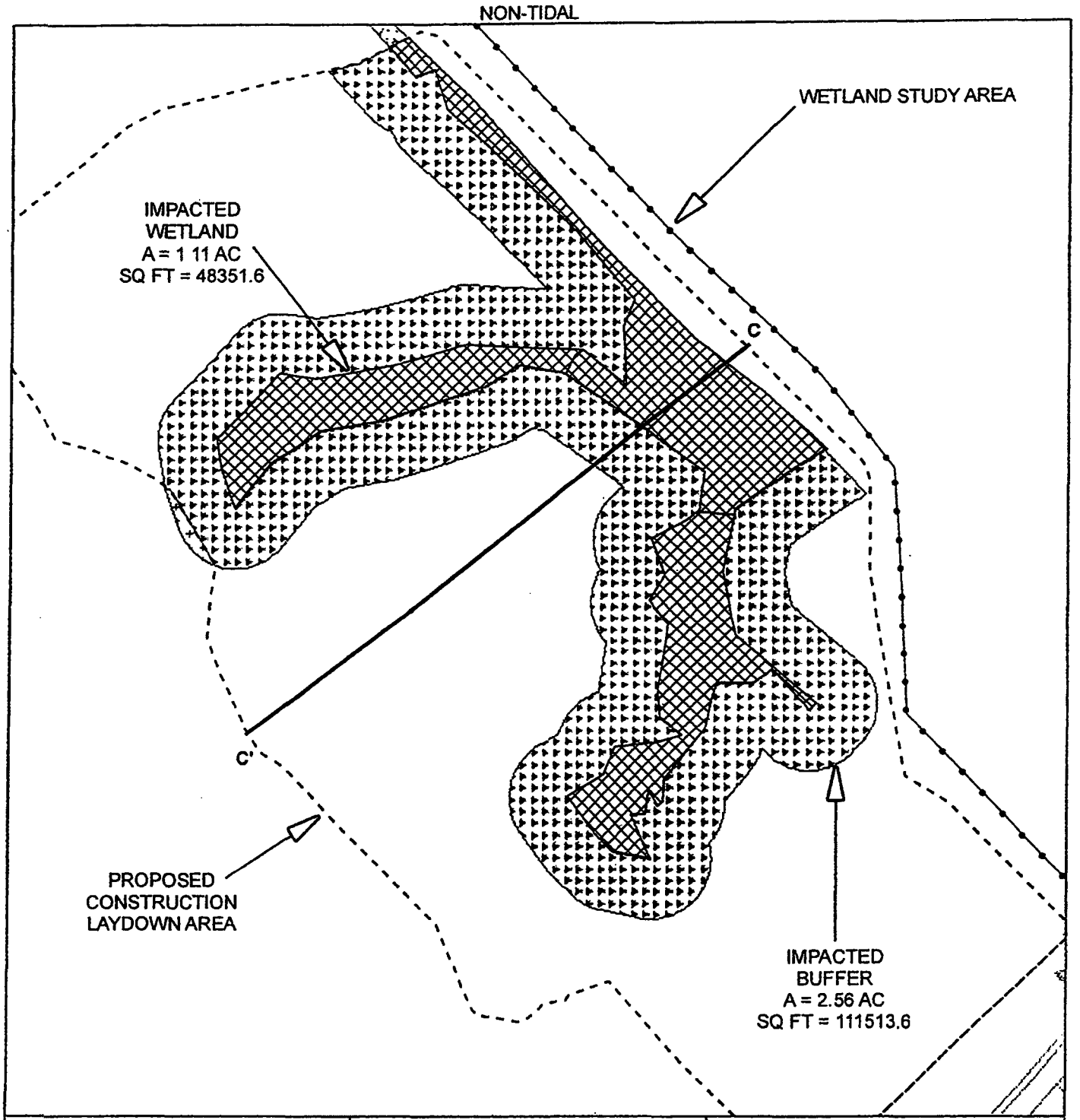

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 6A

SCALE IN FEET

0 100 200 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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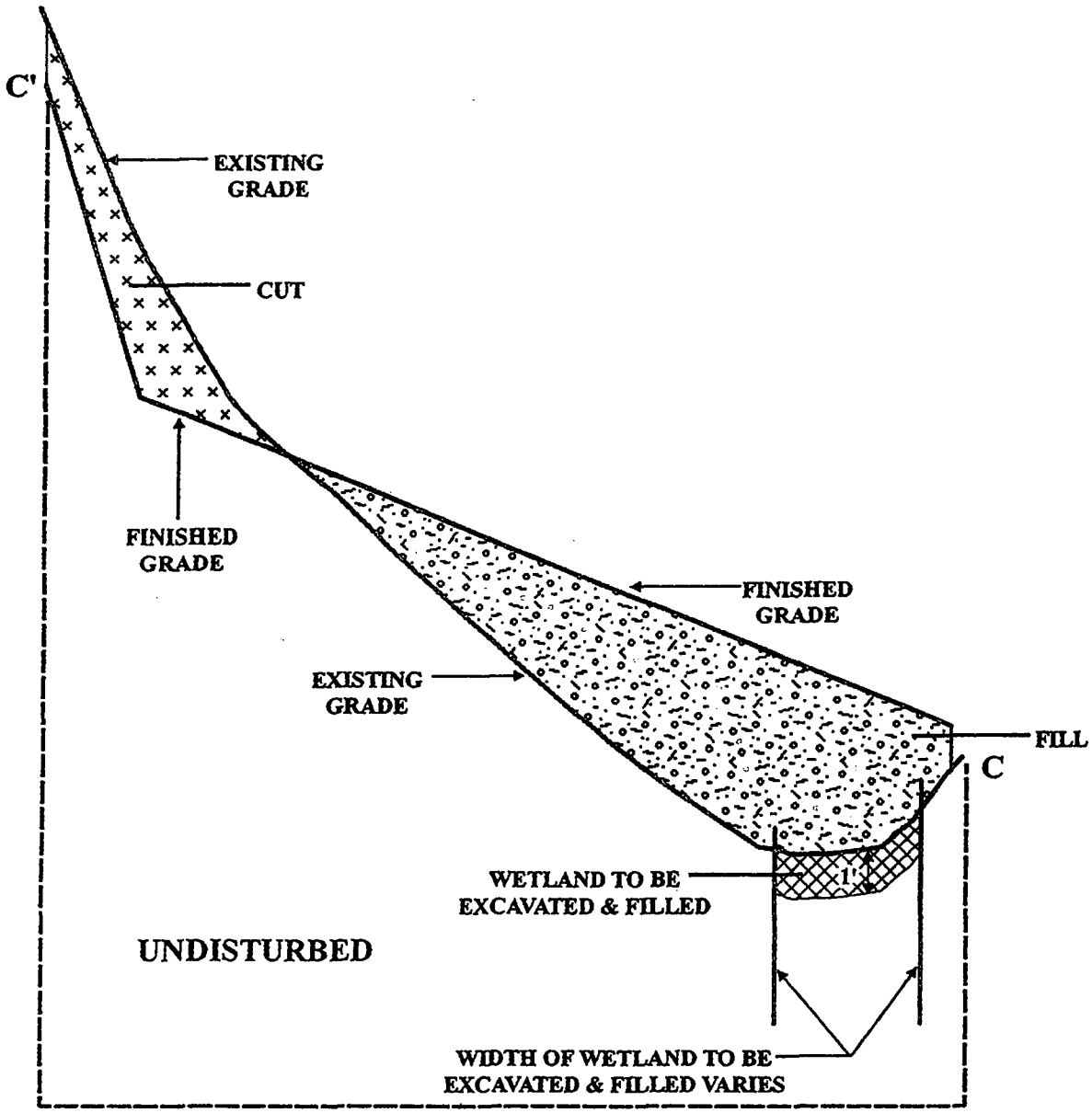

VERTICAL EXAGGERATION x 10

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	CROSS SECTION Figure 6B *NOT TO SCALE*	CALVERT CLIFFS NUCLEAR POWER PLANT IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\cross_sects\Cross_Sections.mxd)
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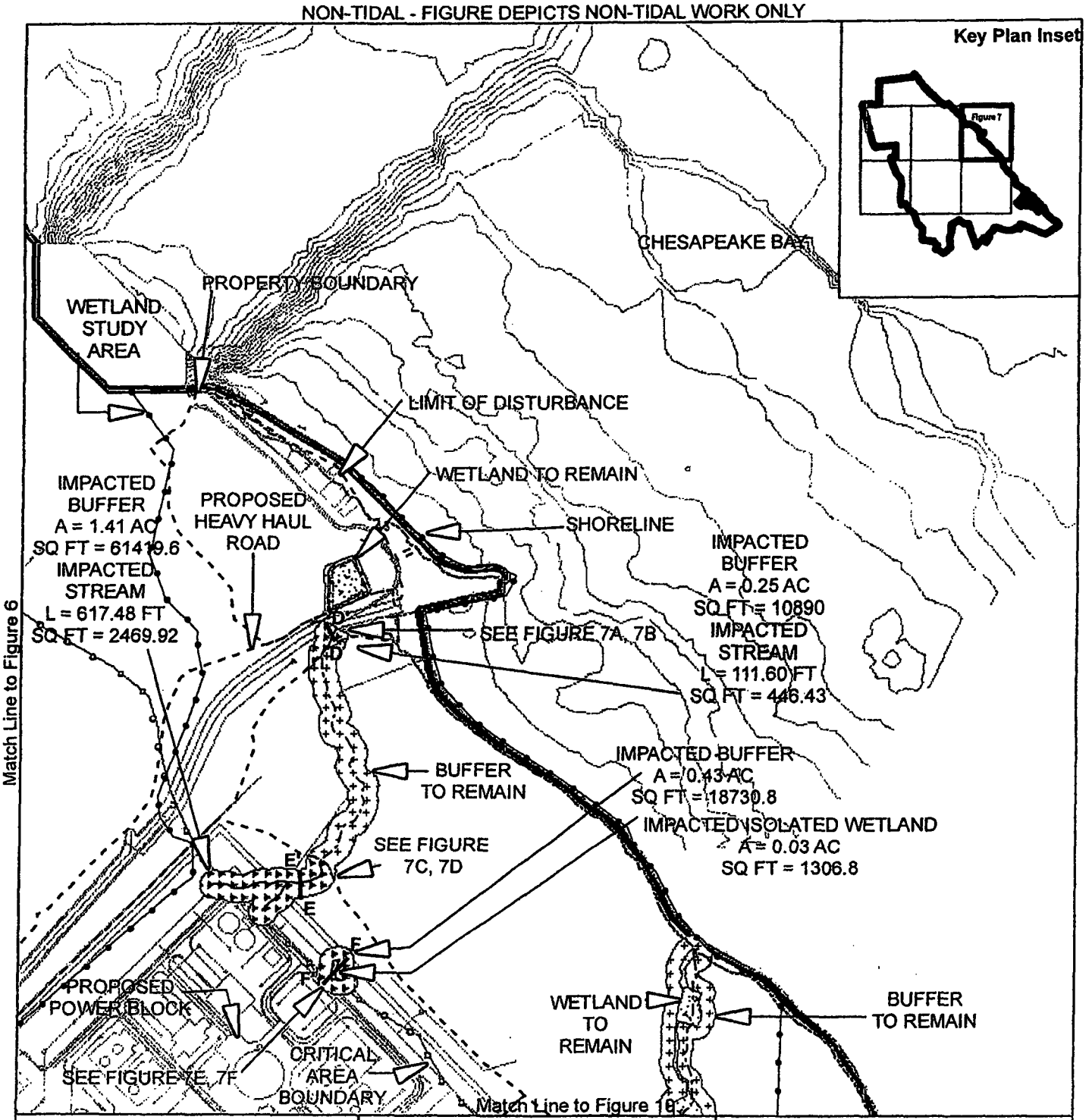
NON-TIDAL - FIGURE DEPICTS NON-TIDAL WORK ONLY



PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 7

SCALE IN FEET

0 500 1,000 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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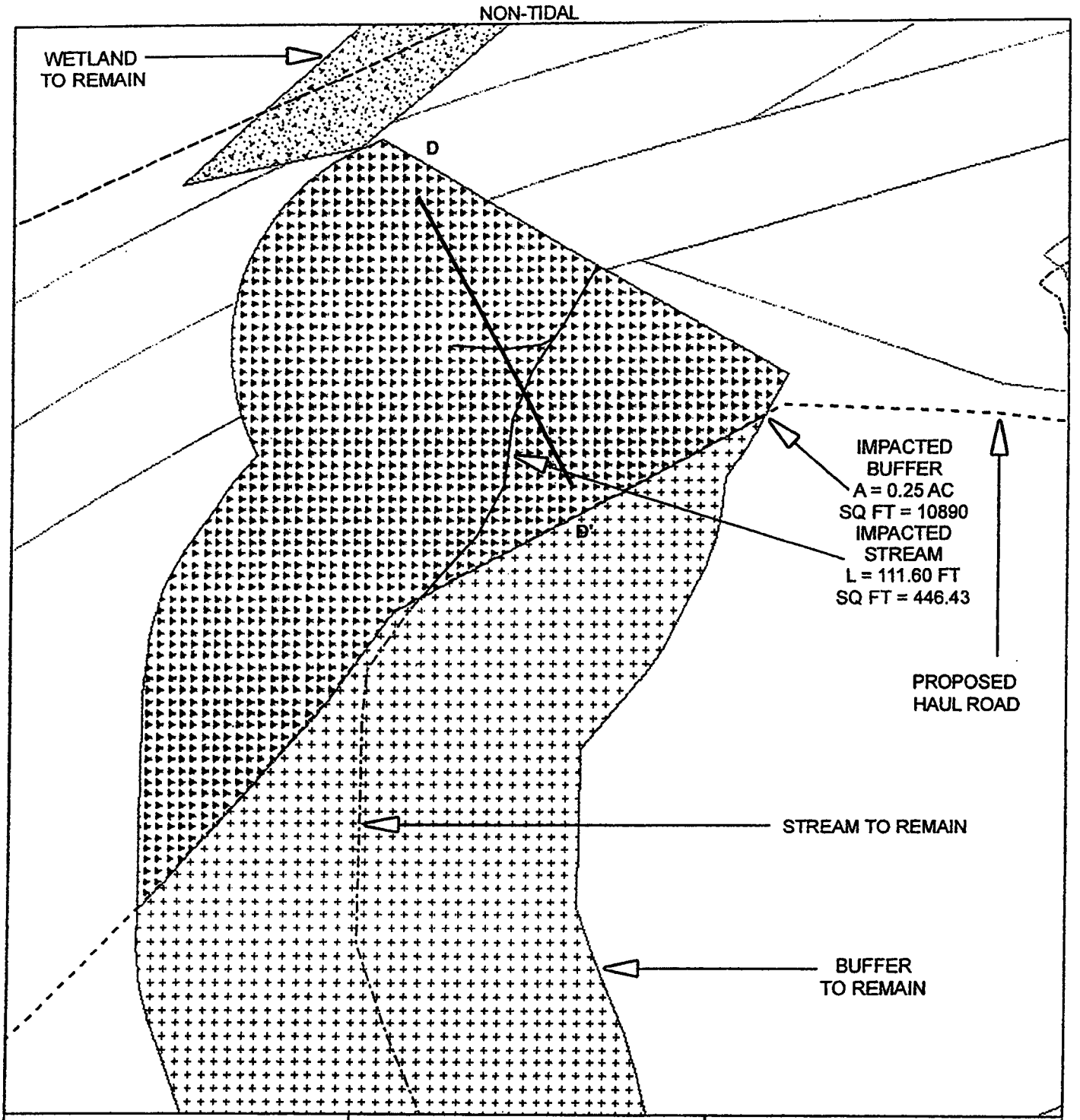

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 7A

SCALE IN FEET

0 30 60 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY
COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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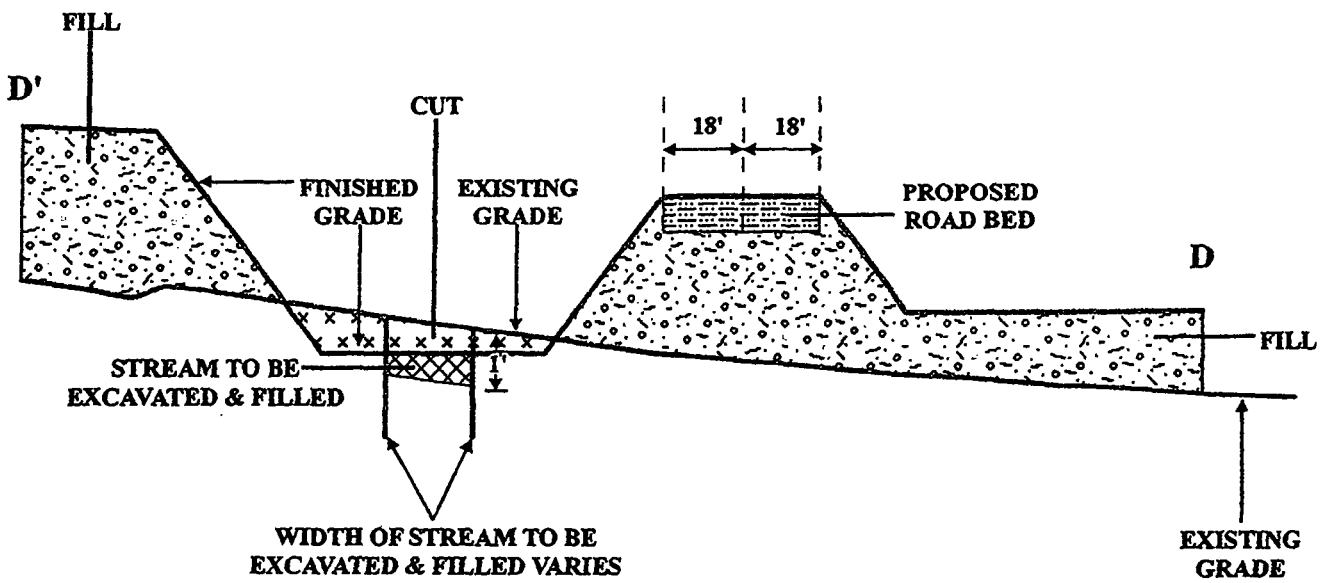

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 7B** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\cross_sects\Cross_Sections.mxd)
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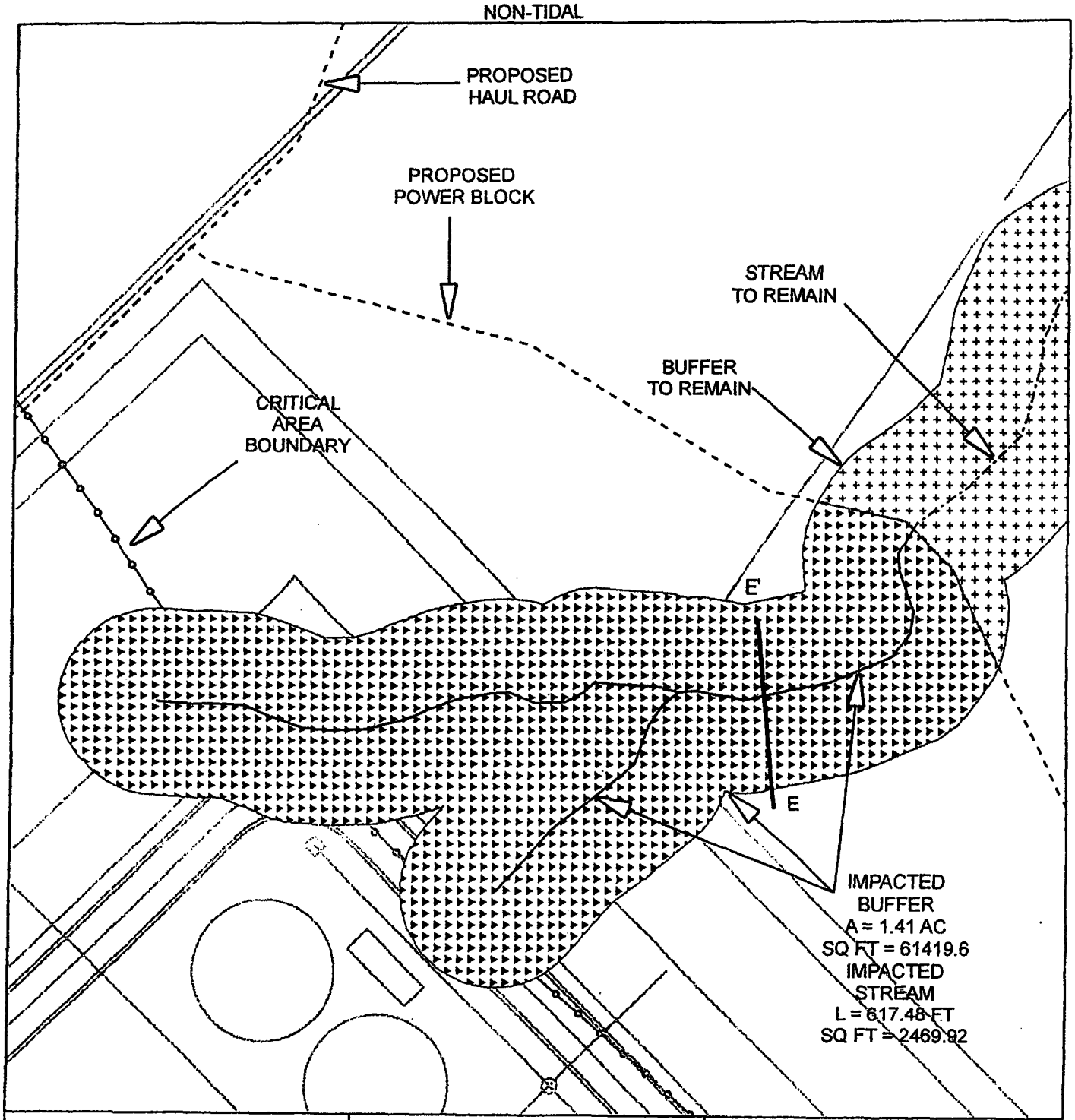

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 7C

SCALE IN FEET

0 75 150 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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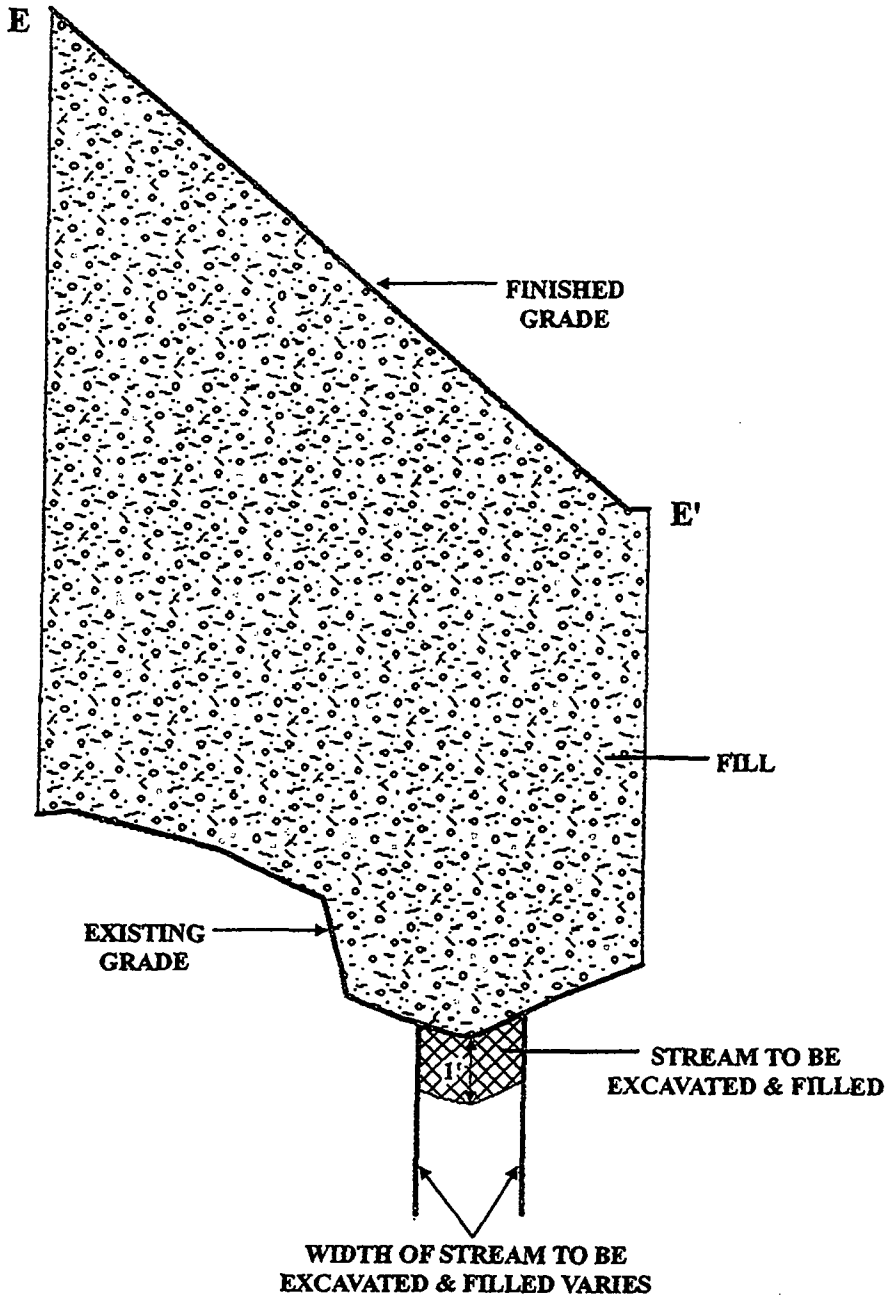

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 7D** ***NOT TO SCALE***	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

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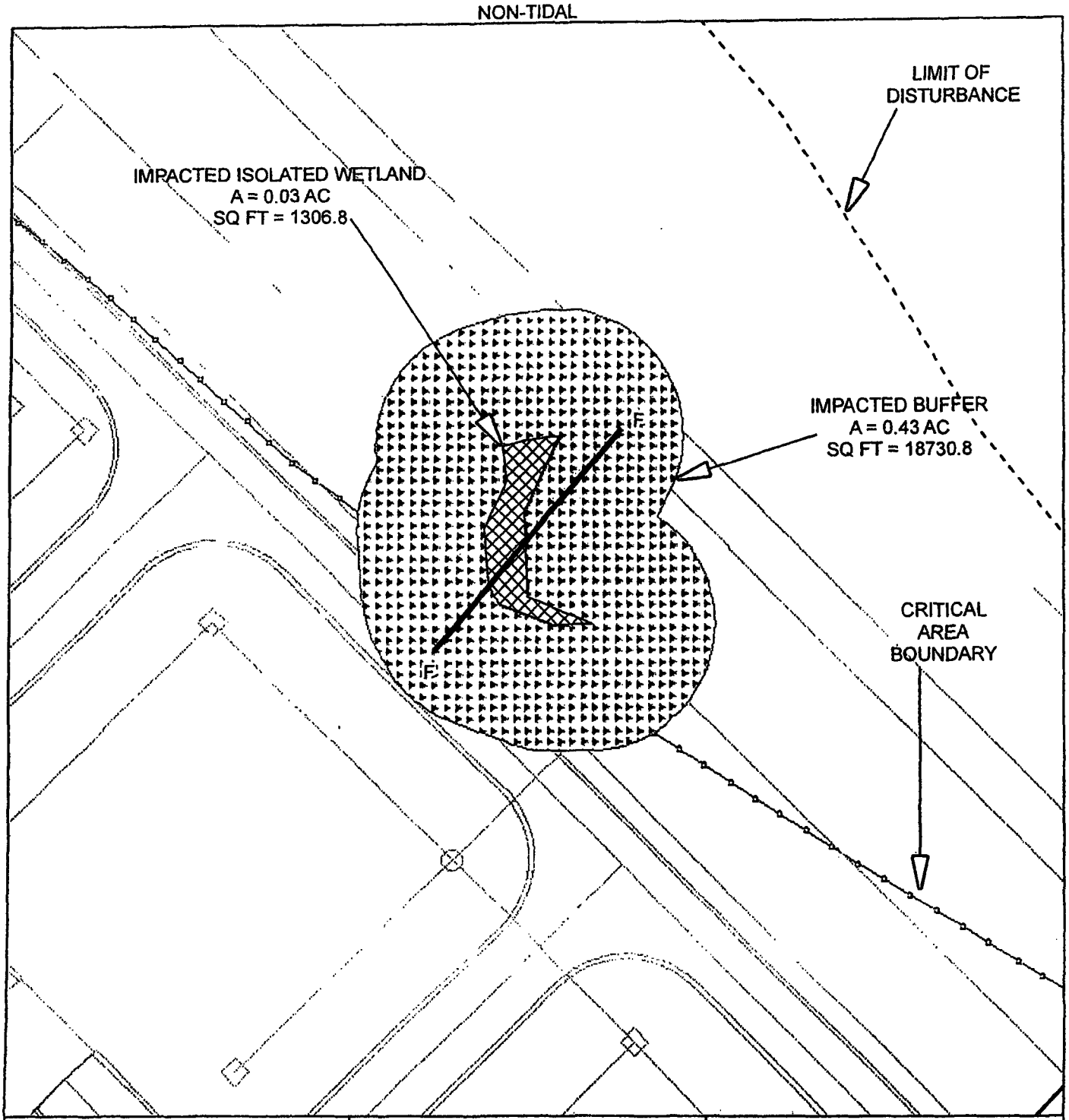

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 7E

SCALE IN FEET

0 50 100 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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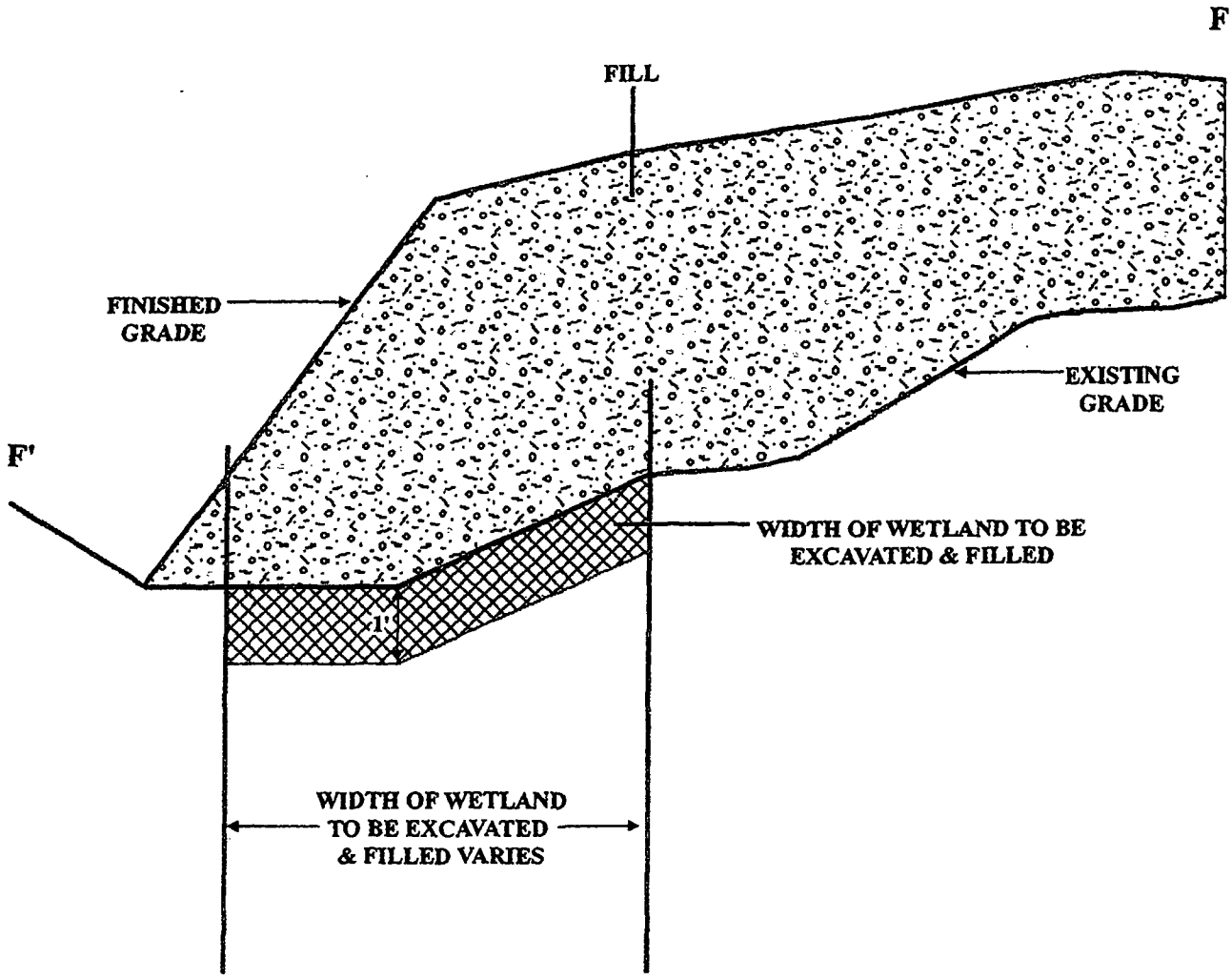

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 7F** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

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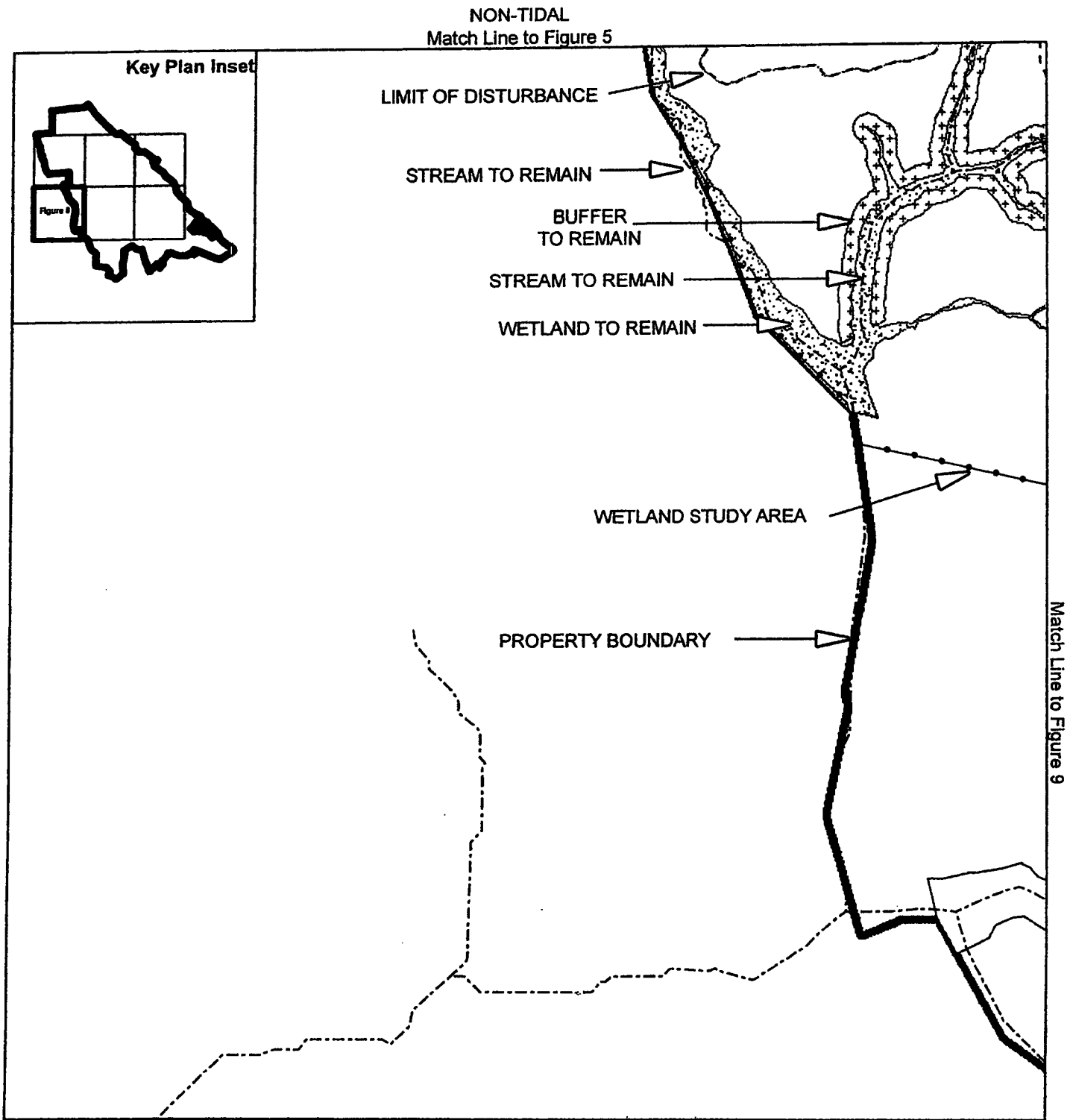

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 8

SCALE IN FEET

0 500 1,000 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure8.mxd)
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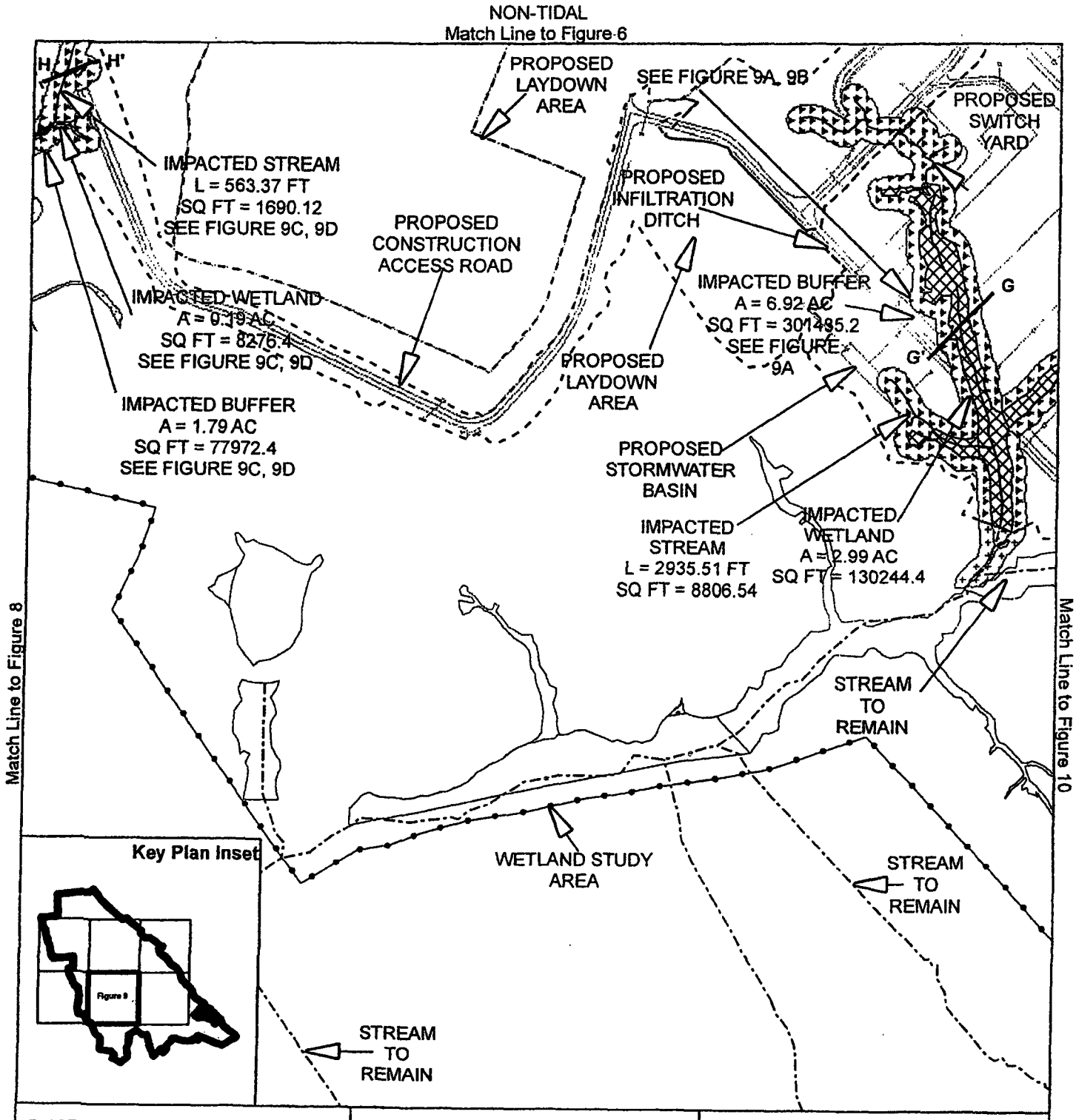

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 9

SCALE IN FEET

0 500 1,000 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure9.mxd)
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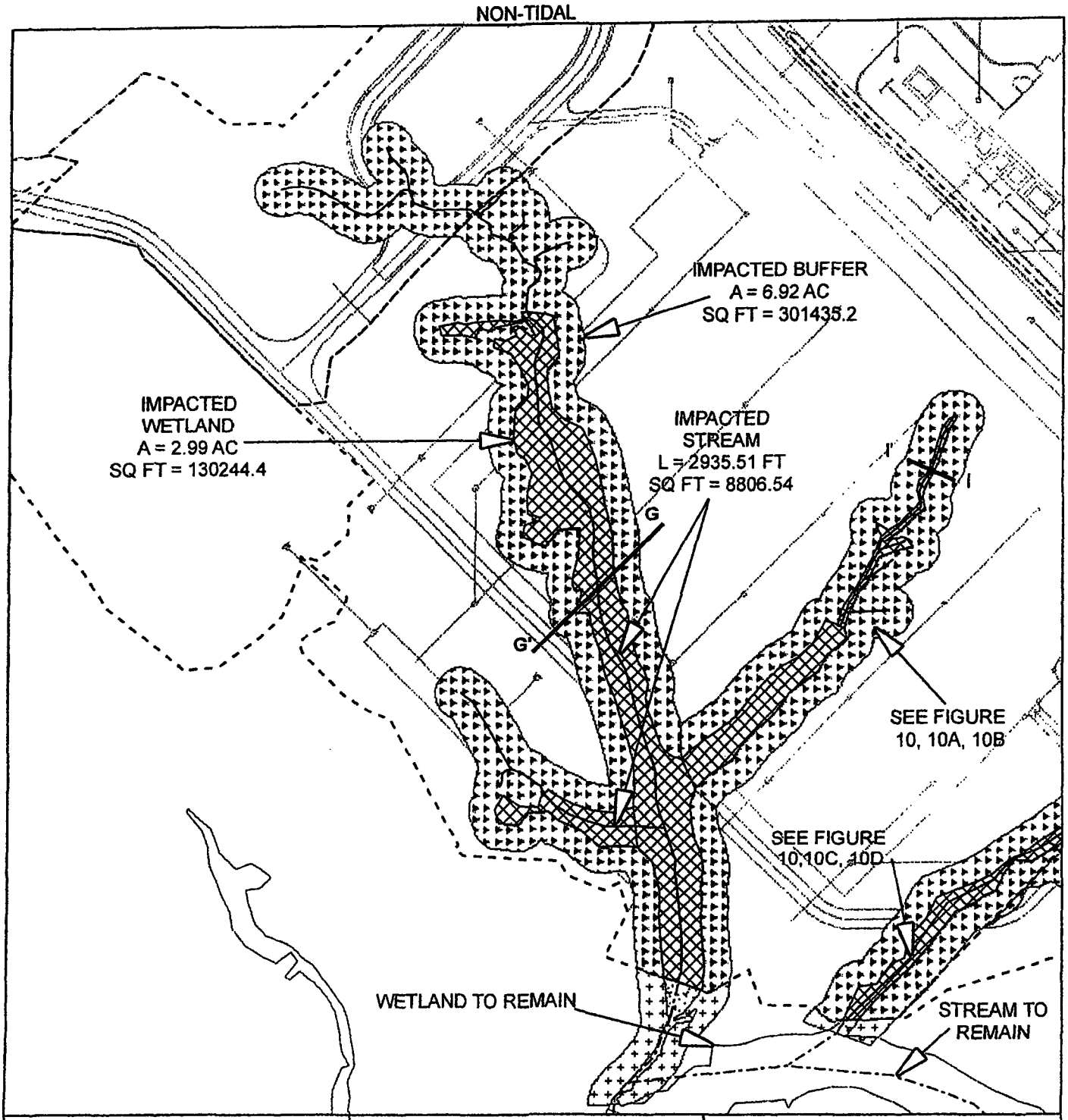

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 9A

SCALE IN FEET

0 250 500 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_06\404\Final Figures\figure9A.mxd)
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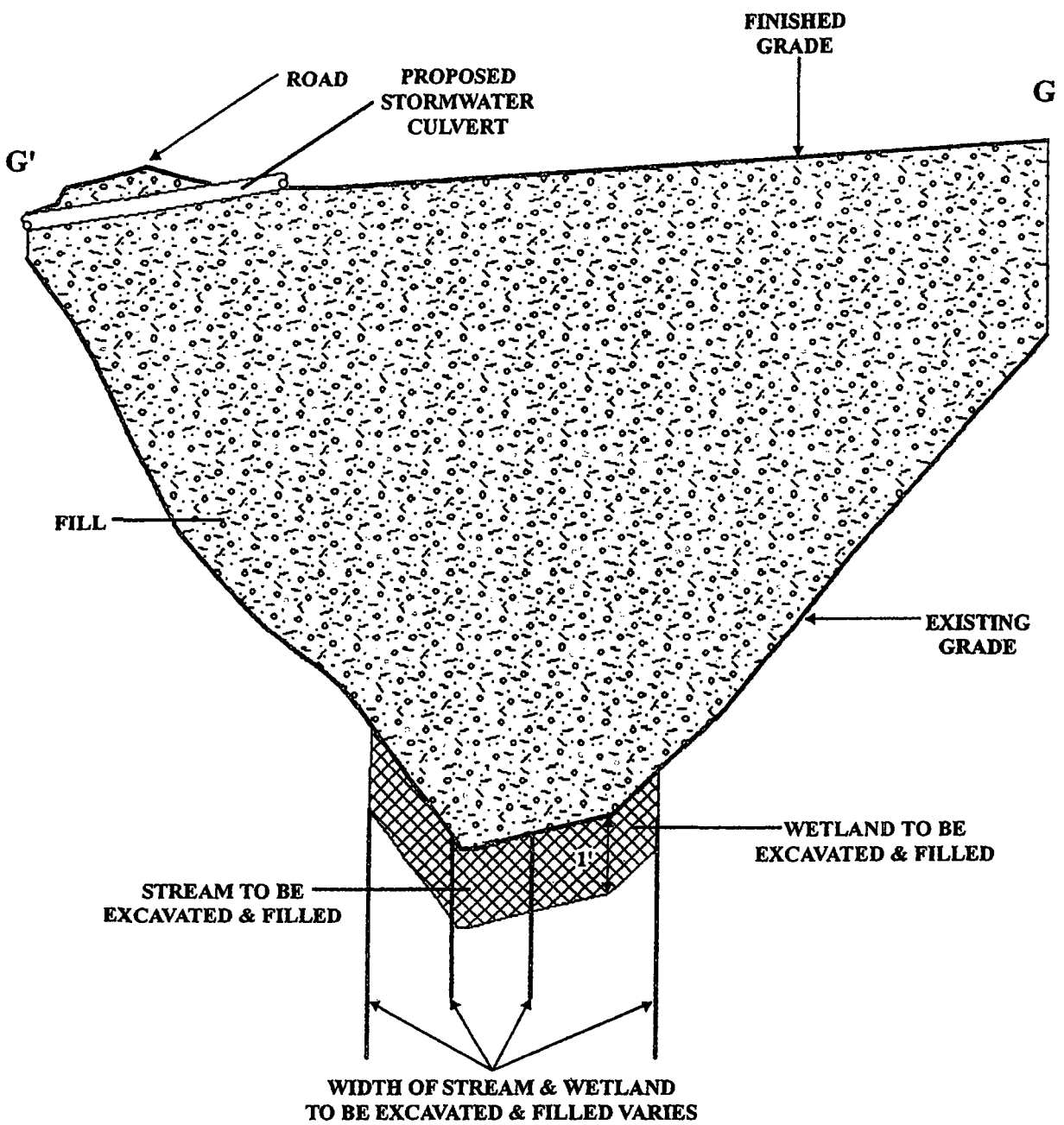

VERTICAL EXAGGERATION x 6

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 9B** ***NOT TO SCALE***	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\cross_sects\Cross_Sections.mxd)
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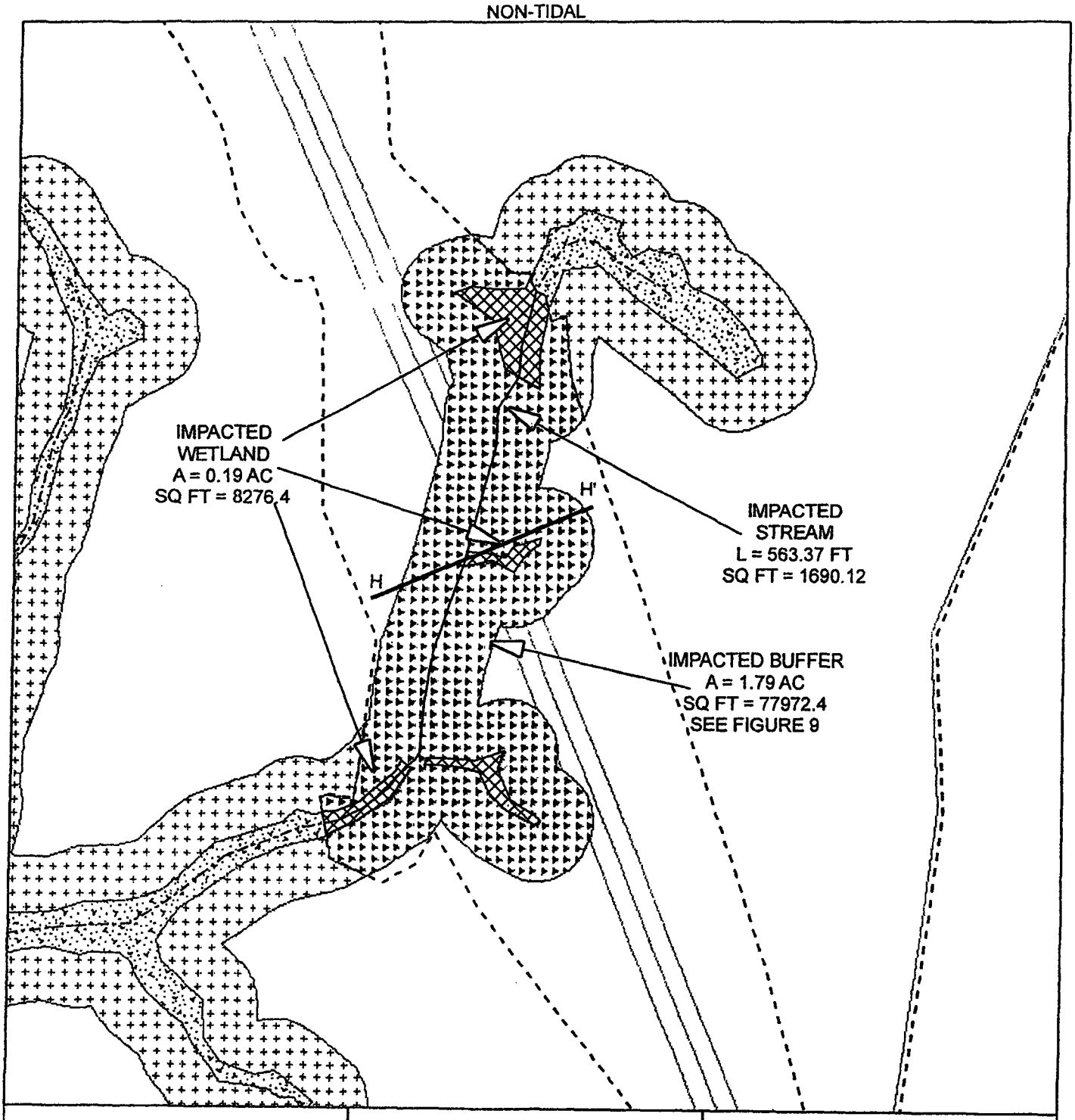

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 9C

SCALE IN FEET

0 100 200 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY
COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure9C.mxd)
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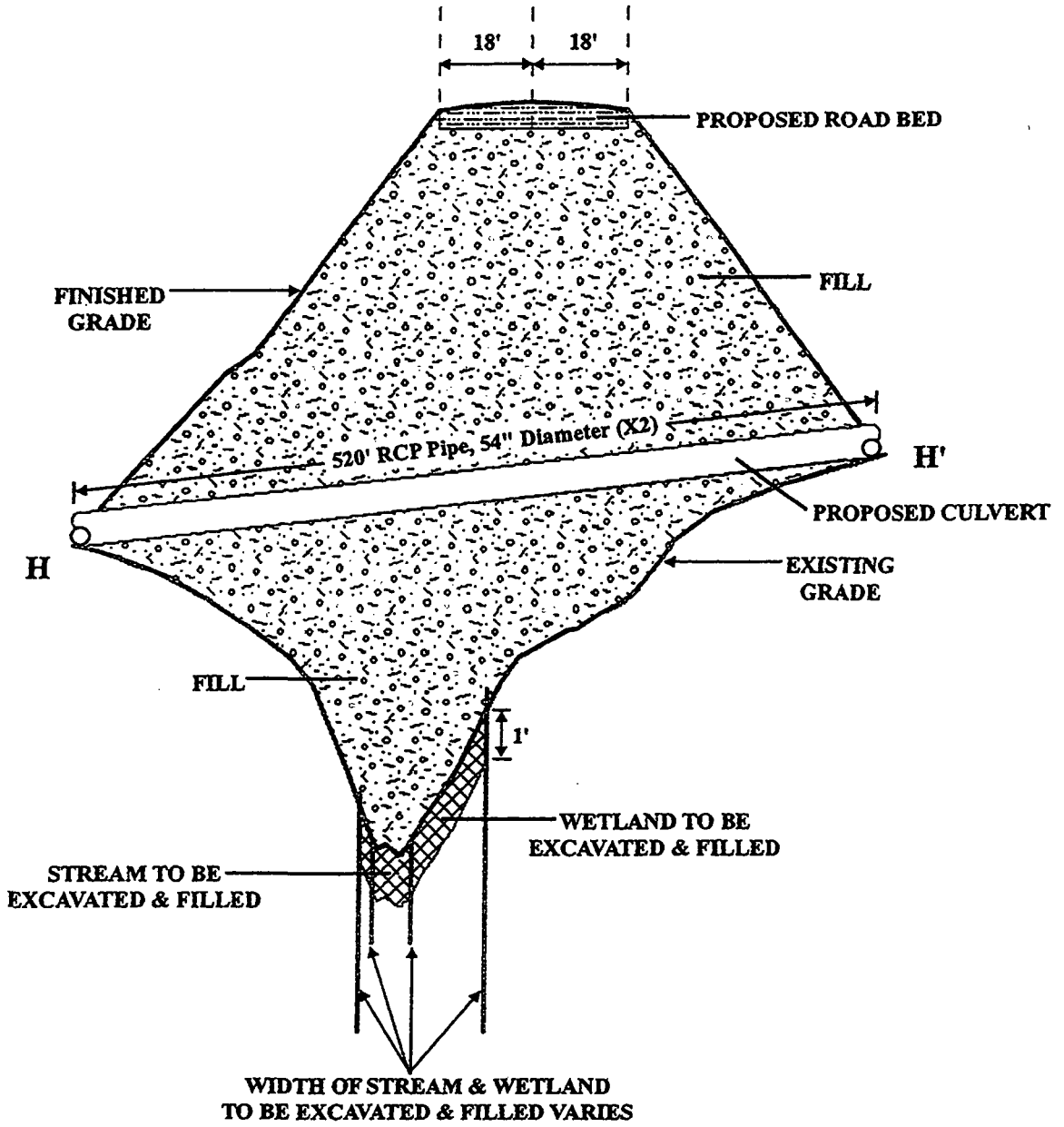

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 9D** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\cross_sects\Cross_Sections.mxd)
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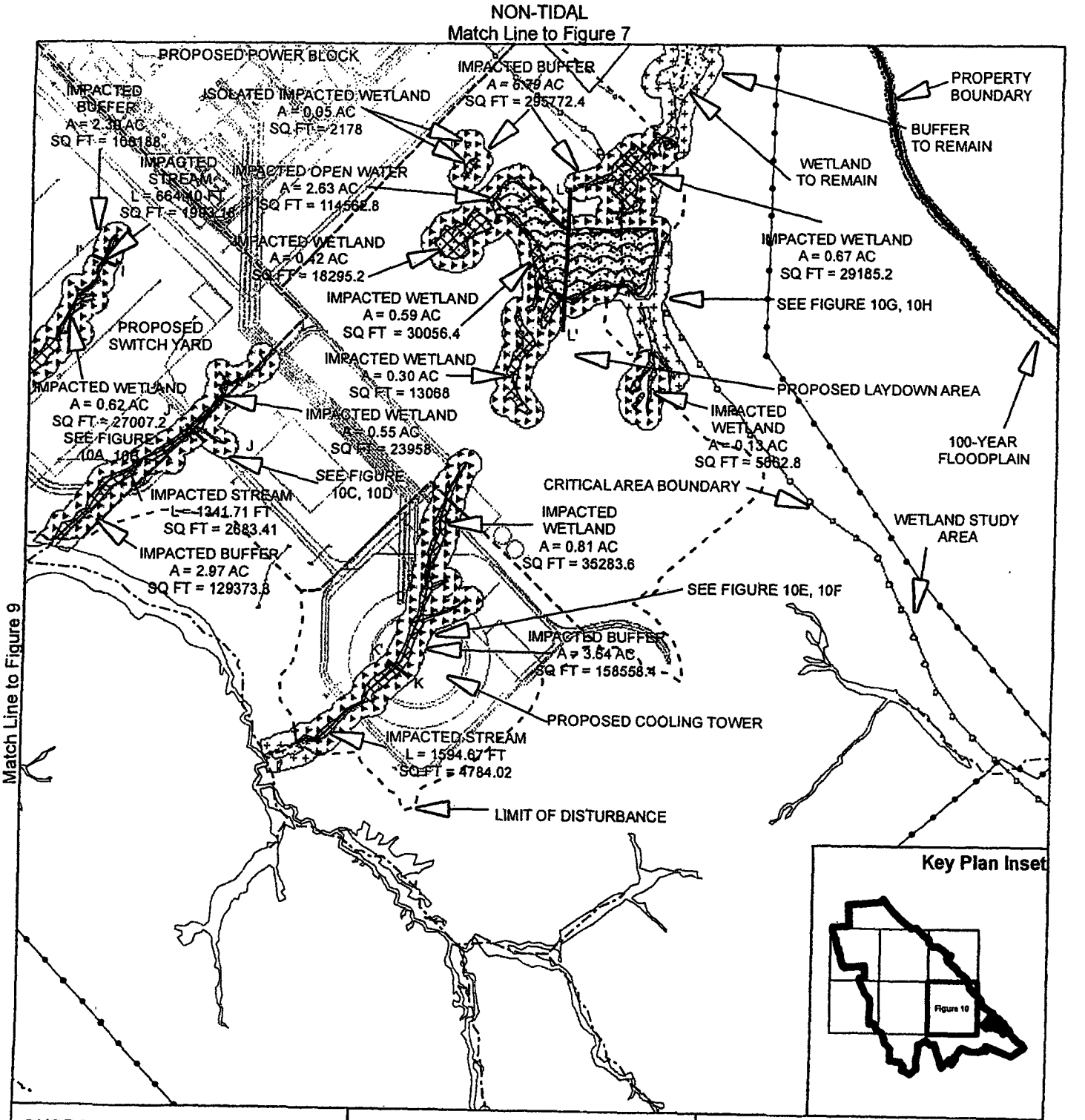

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 10

SCALE IN FEET

0 500 1,000 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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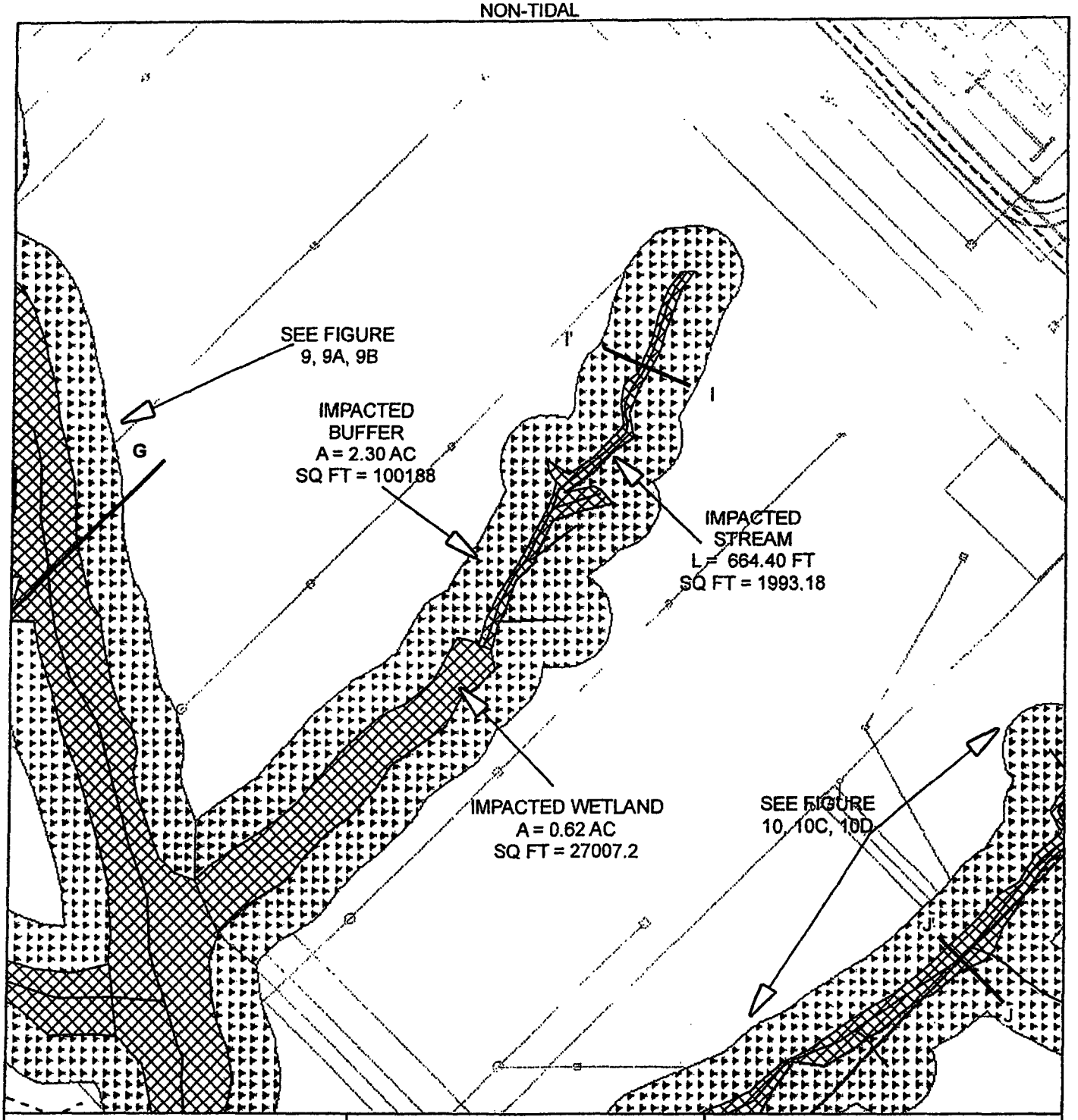
NON-TIDAL



PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 10A

SCALE IN FEET

0 100 200 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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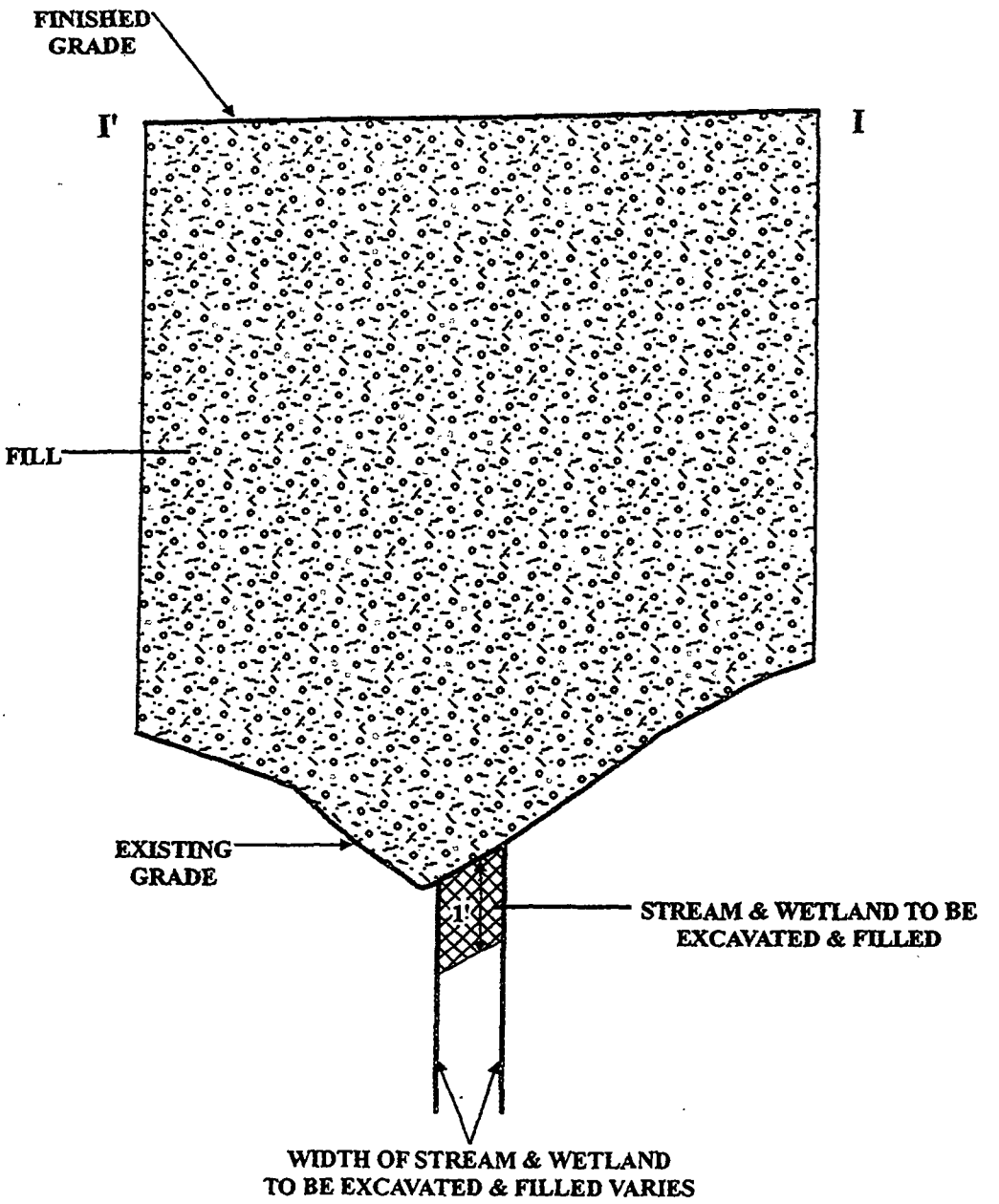

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 10B** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\cross_sects\Cross_Sections.mxd)
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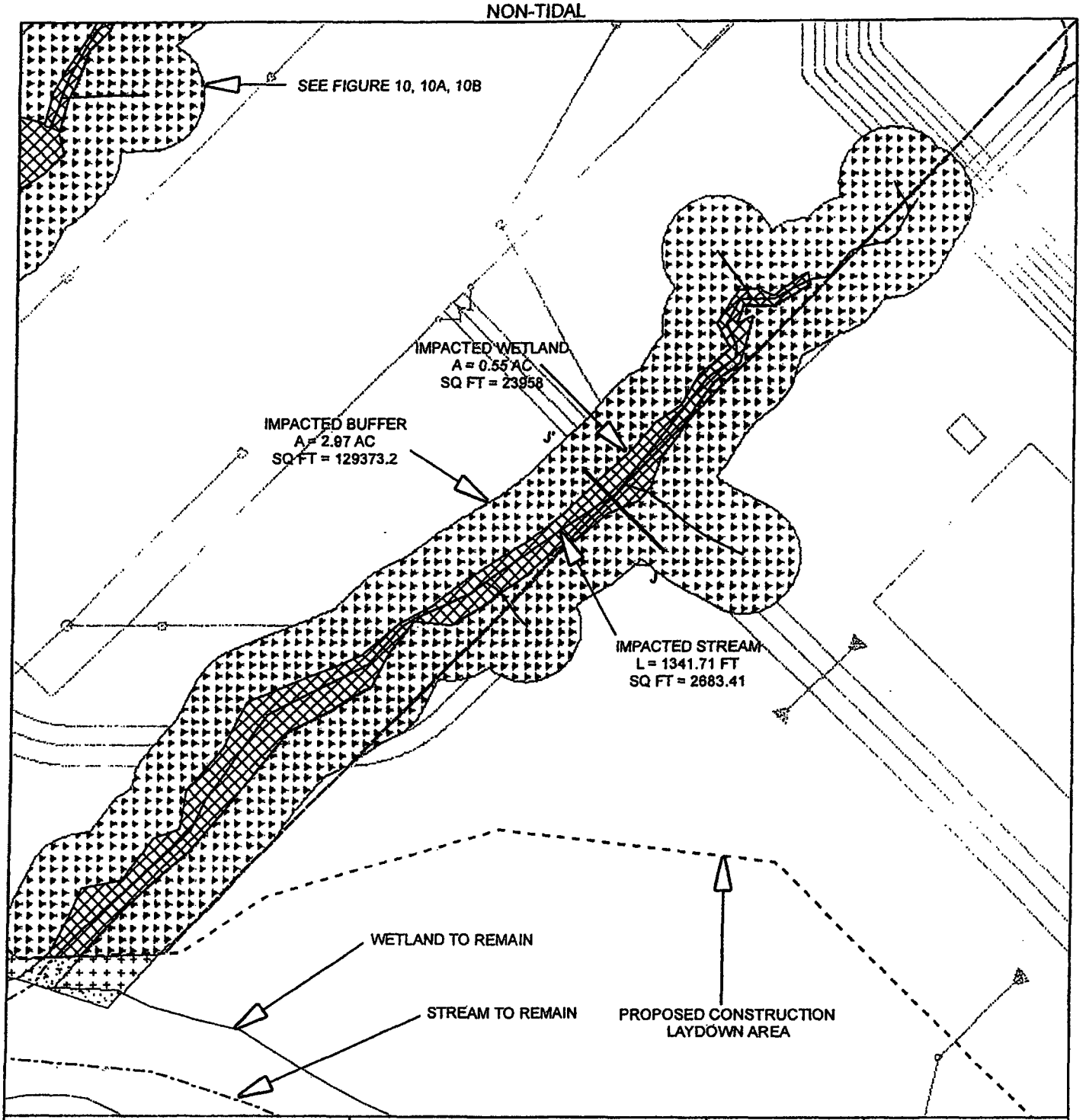
NON-TIDAL



PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 10C

SCALE IN FEET

0 120 240 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure10A.mxd)
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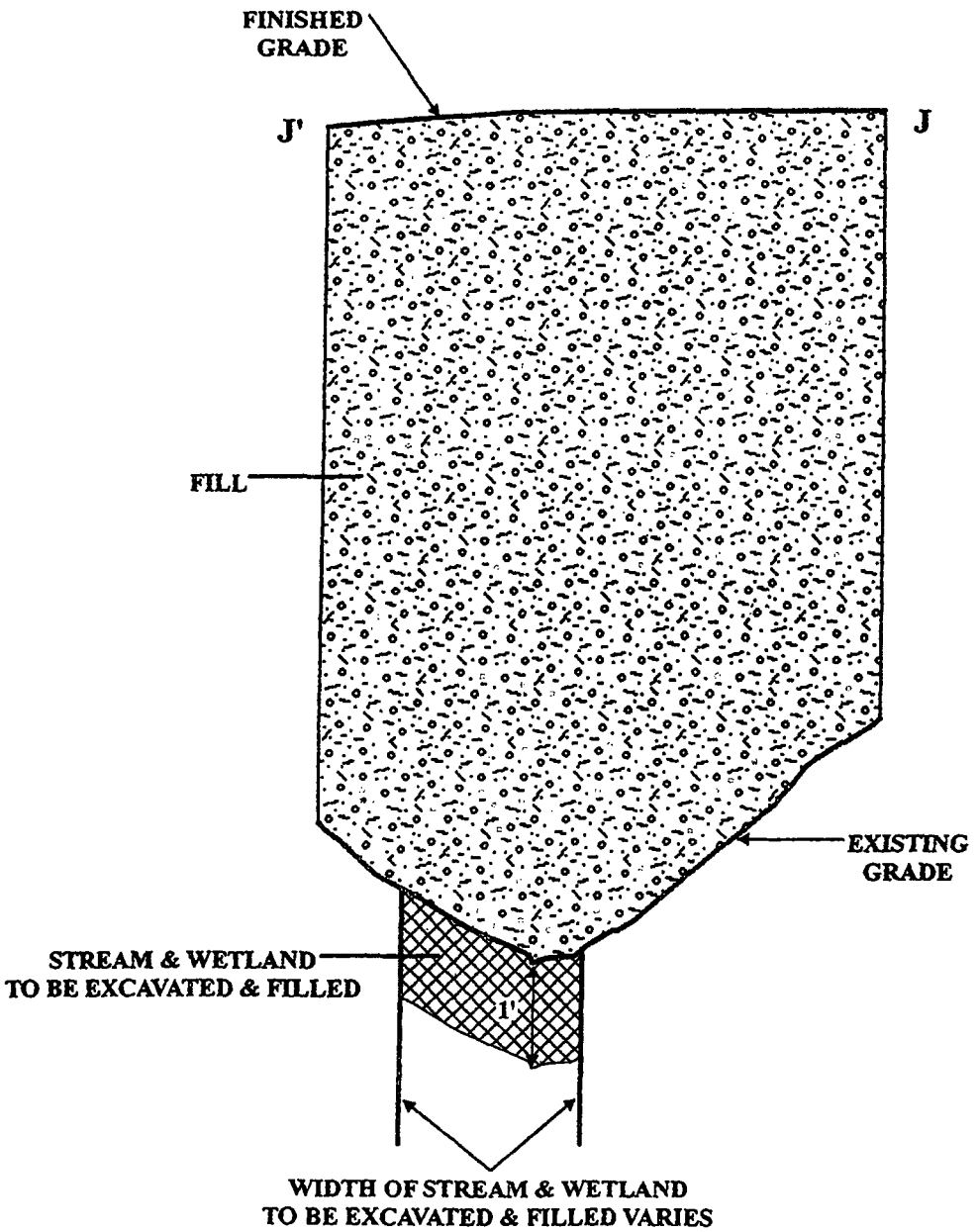

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 10D** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

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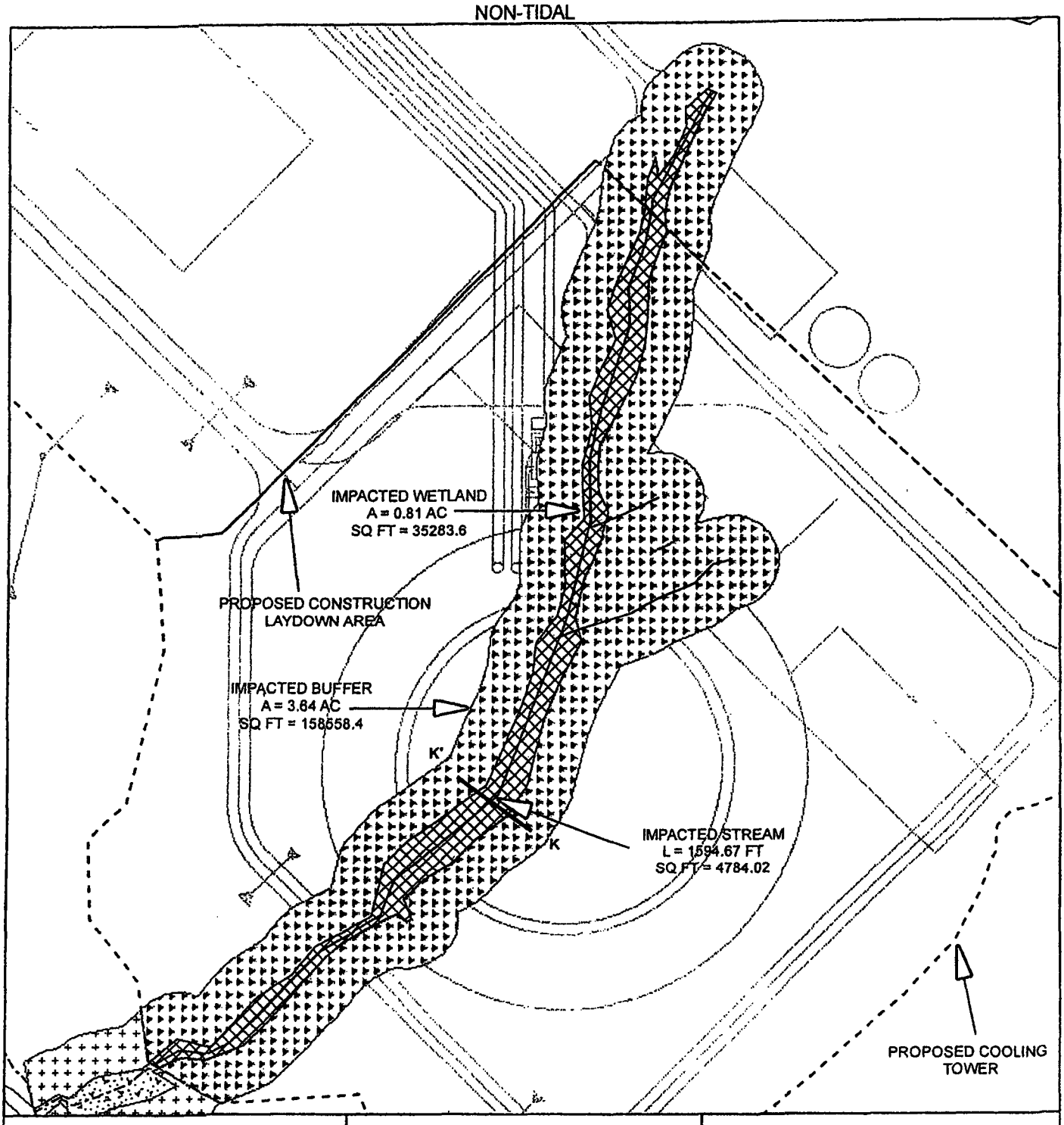

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 10E

SCALE IN FEET

0 150 300 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY

COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\Final Figures\figure10C.mxd)
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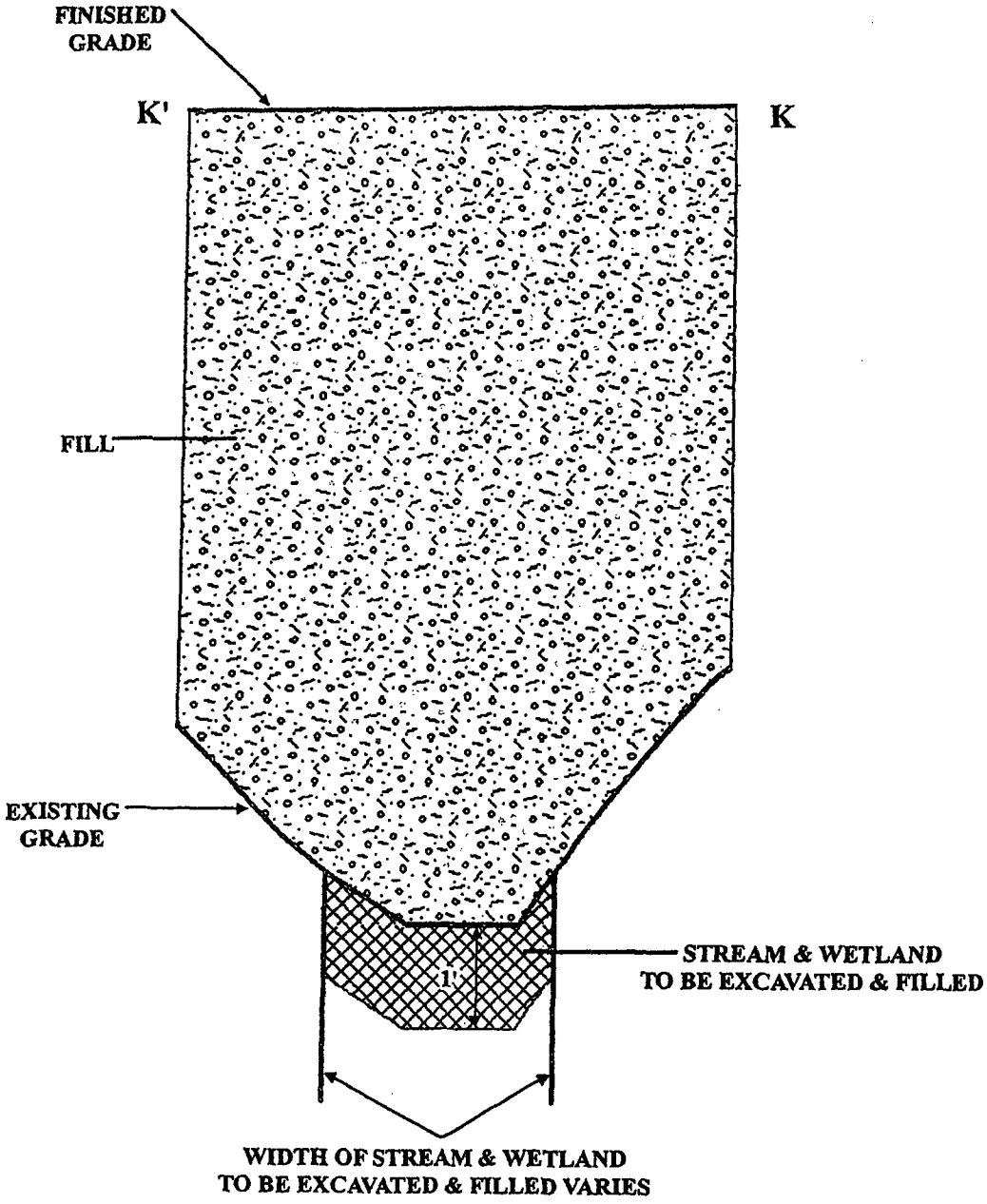

VERTICAL EXAGGERATION x 4

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 10F** *NOT TO SCALE*	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_08\404\cross_sects\Cross_Sections.mxd)
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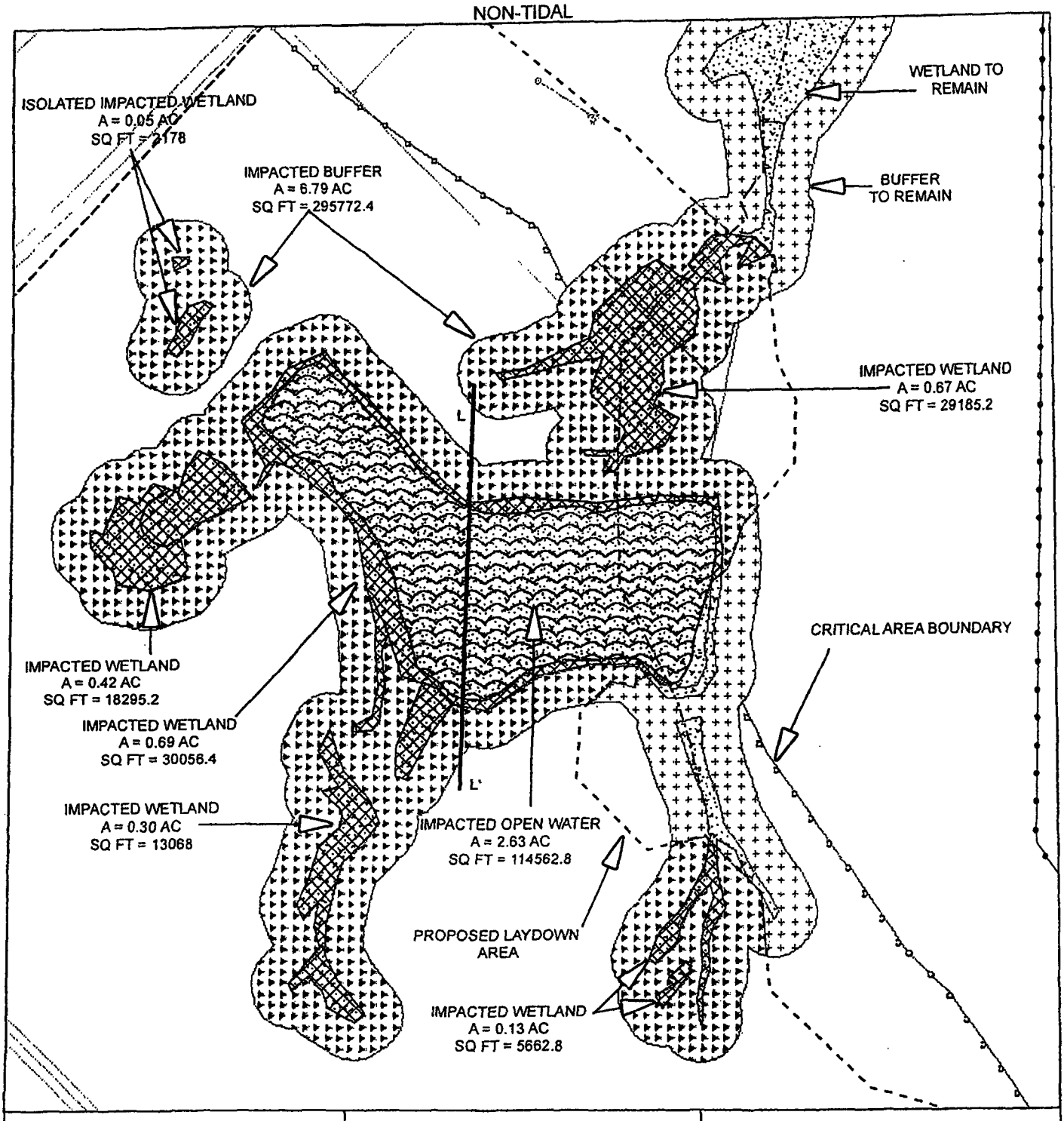

PURPOSE: PLANT EXPANSION

DATUM: (NGVD 29)

PROJECT LATITUDE/LONGITUDE:
38.424133
-76.441598

N

SITE LAYOUT
FIGURE 10G

SCALE IN FEET

0 175 350 Feet

CALVERT CLIFFS NUCLEAR POWER PLANT

IN:
PATUXENT / WEST CHESAPEAKE BAY
COUNTY OF: CALVERT STATE: MD

APPLICATION BY:
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC
AND UNISTAR NUCLEAR OPERATING SERVICES,LLC

DATE: 5/09/08 REV1 7/14/08

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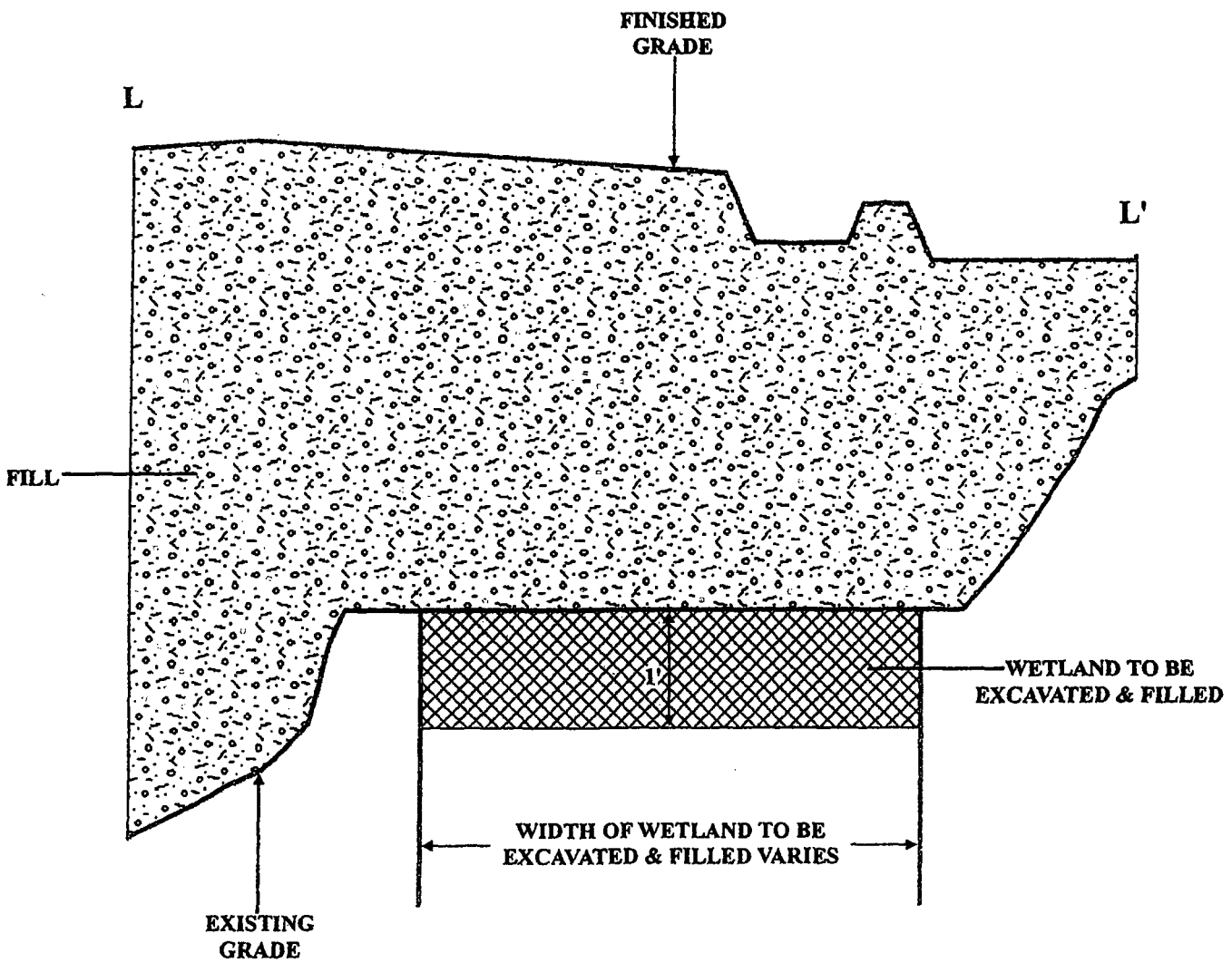

VERTICAL EXAGGERATION x 10

PURPOSE: PLANT EXPANSION PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598 N	**CROSS SECTION** **Figure 10H** ***NOT TO SCALE***	**CALVERT CLIFFS NUCLEAR POWER PLANT** IN: PATUXENT / WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC AND UNISTAR NUCLEAR OPERATING SERVICES,LLC DATE: 5/09/08 REV1 7/14/08

Map Document: (G:\Calvert Cliffs\frozen_5_1_080404\cross_sects\Cross_Sections.mxd)
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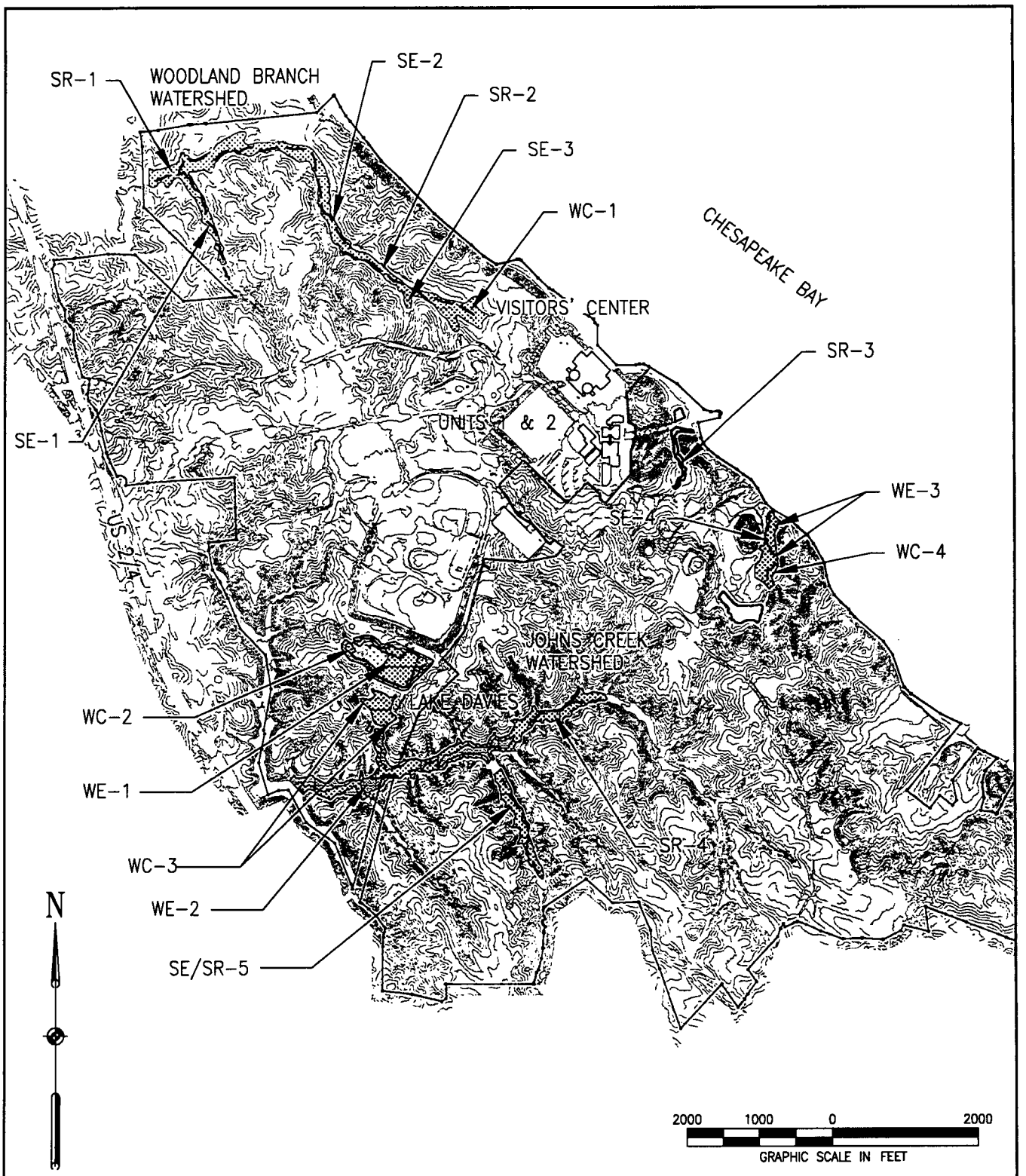


EA ENGINEERING, SCIENCE, AND TECHNOLOGY	UNISTAR NUCLEAR ENERGY CALVERT CLIFFS NUCLEAR POWER PLANT LUSBY, MARYLAND	FIGURE 2 – MITIGATION AREAS

PROJECT MGR	DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	DATE	PROJECT NO	FIGURE
RP	JJM/CJS	CJS	GAT	1"=2000'	OCT. 2010	1462103	2

FILE PATH: Q:\PROJECTS\1462103 - UNISTAR\MITIGATION DESIGN\FIGURE_MDE RESPONSE.DWG [LAYOUT1] 1/24/11

Response to MDE Comments – January 12, 2011
08-NT-0191 / 200862335
Calvert Cliffs Nuclear Power Plant, Unit 3

Table - Overview of the Phase II Mitigation Plan

Mitigation Area	Mitigation Type	Mitigation Dimensions
Woodland Branch Area		
SE-1	Stream Restoration	1,520 linear feet
SR-1	Stream Restoration	2,100 linear feet
SE-2	Stream Restoration	900 linear feet
SR-2	Stream Restoration	1,700 linear feet
SE-3	Stream Restoration	631linear feet
WC-1	Wetland Creation	1.1 acres (forested)
Camp Conoy Area		
SR-3	Stream Preservation	800 linear feet
WE-3	Wetland Enhancement	1.08 acres (emergent)
WC-4	Wetland Creation	2.86 acres (forested)
SE-4	Stream Restoration	1,044 linear feet
Johns Creek Area		
WC-2	Wetland Creation	7.8 acres (forested) / 1.61 acres (emergent) / 0.9 acres open water
WE-1	Wetland Enhancement	2.53 acres (forested)
WC-3	Wetland Creation	0.5 acres (forested)
WE-2	Wetland Enhancement	16.01 acres (forested)
SR-4	Stream Restoration	1,150 linear feet
SE/SR-5	Stream Restoration	1,700 linear feet

Date, Time, and Venue for Public Hearing

March 7, 2011 6-9:30pm
Hilton Garden Inn Solomons
13100 Dowell Road, Dowell, Maryland 20629

Enclosure 2

**Property Owner Notification Documents,
dated January 28, 2011**

Calvert Cliffs 3

A UNISTAR PROJECT

Edward P. Jarmas
General Manager
750 E. Pratt St., 14th Floor
Baltimore, MD 21202

Officers:

President
George Vanderheyden

Sr. Vice President
Didier Marchand

Chief Financial Officer
Treasurer
Patrick Blandin

Secretary
Debbie Hendell

General Manager
Edward Jarmas

January 28, 2011

UN#11-017

James E. Jr. and Mary Beth Backus
630 Camp Conoy Rd.
Lusby, MD 20657-2206

Subject: Maryland Department of the Environment Wetlands and Waterways Permit Application

Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC have submitted an application to the Wetlands and Waterways Division of the Maryland Department of the Environment for a permit to impact 5.7 acres of tidal wetlands, 11.72 acres of non-tidal wetlands, 30.69 acres of non-tidal wetland buffer, and 8,350 linear feet of stream. The project is located at the Calvert Cliffs Nuclear Power Plant site at 1650 Calvert Cliffs Parkway, Lusby, Maryland 20657.

The impacts, should they occur, are a result of constructing a third Unit at the Calvert Cliffs Nuclear Power Plant site.

Since you are a nearby property owner or an appropriate local official, you are being notified of this proposed project. The Maryland Department of the Environment will be providing you additional information.

If you have any questions on this notification, please contact Jim Burkman at 410-787-5130.

Sincerely,

Edward P. Jarmas

CERTIFICATION OF NOTIFICATION

ATTENTION APPLICANT:

Please complete this form and return to:
Nontidal Wetlands and Waterways Division,
Water Management Administration,
1800 Washington Boulevard, Suite 430,
Baltimore, Maryland 21230.

Be sure to include the Division number, a copy of the tax map and your notification letter, and sign the form. Please include complete names and complete addresses, including zip codes. Your application is incomplete until this certification is received.

08-WL-1462
Tracking No: 08-NT-0191/200862335 Division No:
Assigned Staff: Cheryl Kerr/Mohammad Ebrahimi/Kelly Neff

Description of the project: To construct a nuclear power plant - Calvert Cliffs 3.

Please list all persons notified below: (continue on reverse side or attach additional sheets if necessary)

NAME	ADDRESS
See Attached List	

If delivery was not made to certain persons, please list those persons and the reasons for non-delivery on the reverse side of this form.

I hereby certify that I have notified all persons who own properties which lie within the 100-year floodplain and that have a common boundary with my property. The appropriate local officials have been notified. I have notified them by certified mail or in person.

Signature of Applicant — January 28, 2011 Date

Edward P. Jarmas — Please Print Name

410-470-5857 — Telephone Number

Alfred B. and Mari L. Muirhead
P.O. Box 402
Lusby, MD 20657-0402

Bertina Weems
610 Camp Conoy Rd.
Lusby, MD 20657-2206

Billy Adams Prince
3655 Ash St.
Baltimore, MD 21211-1926

Bobby E. Janney
9490 H G Trueman Rd.
Lusby, MD 20657-2800

Brenda J. Fowler
865 Camp Conoy Rd.
Lusby, MD 20657-2203

Brian T. and Helen J. Griffin
10675 Old Mill Rd.
Lusby, MD 20657-2832

Calvary Bible Church of Lusby
P.O. Box 549
Lusby, MD 20657-0549

Carroll and Victoria R. Jefferson
P.O. Box 163
Lusby, MD 20657

Crystal Weems
635 Camp Conoy Rd.
Lusby, MD 20657-2207

Danny R. and Deborah M. Chapman
8160 Nursery Rd.
Lusby, MD 20657-4705

Donald & Vanessa Midkiff
1017 Vine St.
Lusby, MD 20657-2634

Donald and Agnes Jefferson
9470 H G Trueman Rd.
Lusby, MD 20657-2800

Earl G. and Irene Pardoe
8575 Nursery Rd.
Lusby, MD 20657-4719

Edward Scott and Jill Suzanne Emerson
8170 Nursery Rd.
Lusby, MD 20657-4705

Evan Slaughenhoupt
Board of County Commissioners
175 Main Street (Courthouse)
Prince Frederick, MD 20678

Frederick O. Collins
P.O. Box 724
Lusby, MD 20657-0724

Herschel C. Wilder, Jr.
8583 Nursery Rd.
Lusby, MD 20657-4719

Howlin Owings Lusby DS, LLC
2880 Dunkirk Way
Dunkirk, MD 20754-9103

Jacob & Ilana R. Miller
551 Camp Conoy Rd.
Lusby, MD 20657-2205

James E. Jr. and Heather L. Roe
8380 Nursery Rd.
Lusby, MD 20657-4706

James E. Jr. and Mary Beth Backus
630 Camp Conoy Rd.
Lusby, MD 20657-2206

Jerry Clark
Board of County Commissioners
175 Main Street (Courthouse)
Prince Frederick, MD 20678

John D. and Barbara Pardoe
8150 Nursery Rd.
Lusby, MD 20657-4705

John Douglas and Barbara Pardoe
John Douglas Jr. and Karen Pardoe
8090 Nursery Rd.
Lusby, MD 20657-4703

John F. and Judith E. Milling
P.O. Box 833
Lusby, MD 20657-0833

Joshua & Rebecca Corbin
8579 Nursery Rd.
Lusby, MD 20657-4719

Kenneth W. and Norie J. Smith Wilson
9450 H G Trueman Rd.
Lusby, MD 20657-2800

Kevin R. and Mary Jean Beccard
8070 Nursery Rd.
Lusby, MD 20657-4703

LBC Properties, LLC
8170 Nursery Rd.
Lusby, MD 20657-4705

Leah M. Ryan
9420 H G Trueman Rd.
Lusby, MD 20657-2800

Leroy & Jeanette Savage
370 Camp Conoy Rd.
Lusby, MD 20657

Lorenzo R. and Alberta W. Gross
P.O. Box 96
Lusby, MD 20657-0096

Lusby Industrial Property, LLC
2880 Dunkirk Way, Suite 303
Dunkirk, MD 20754-9103

Maryland Department of Natural Resources
580 Taylor Ave., Suite 3
Annapolis, MD 21401-2355

Matthew A. Nys, et. al.
4412 W. Virginia Ave.
Bethesda, MD 20814-4610

Nancy E. Ball
8190 Nursery Rd.
Lusby, MD 20657-4705

Nathaniel Mitchell, Jr.
P.O. Box 180
Lusby, MD 20657-0180

Nathaniel Sr. and Nathaniel Jr. Mitchell
8390 Nursery Rd.
Lusby, MD 20657-4706

Pat Nutter
Board of County Commissioners
175 Main Street (Courthouse)
Prince Frederick, MD 20678

Ronald H. and Jerri L. Lord
25102 Three Notch Rd.
Hollywood, MD 20636-2634

S D Property Development, LLC
1246 White Sands Rd.
Lusby, MD 20657-2017

Samuel and Mary E. Weems
625 Camp Conoy Rd.
Lusby, MD 20657-2207

Steve Weems
Board of County Commissioners
175 Main Street (Courthouse)
Prince Frederick, MD 20678

Stewart E. and Doris Ann Weems
P.O. Box 238
Lusby, MD 20657-0238

Susan Shaw, President
Board of Commissioners
175 Main Street (Courthouse)
Prince Frederick, MD 20678

Thomas W. Johnson
P.O. Box 59
Lusby, MD 20657-0059

Tommy O. and Carla S. Milling
P.O. Box 373
Lusby, MD 20657-0373

Walter T. and Vanessa M. Taylor
8559 Nursery Rd.
Lusby, MD 20657-4719

Enclosure 3

Tidal Wetland Work Descriptions and Figures

Unistar Nuclear Energy has applied, in support of a proposed nominal 1,710 Megawatt nuclear power generation station (Unit #3), (1) **to construct an intake area** by (1A) to construct an 18-inch thick sheet pile wall extending a maximum of 180 feet from the MHWL (Mean High Water Line) connecting to the existing baffle wall for the intake area of Unit #1 & #2; (1B) to construct 100 linear feet of stone armor protection a maximum of 95 feet wide extending a maximum of 100 feet from the MHWL parallel to the 180 foot sheet pile wall; (1C) to mechanically dredge a 30-foot long by 30-foot wide area, 900 square feet, to a depth of -25 feet at MLW (Mean Low Water) resulting in approximately 1000 cu. yd. (cubic yards) of dredge material; (1D) to construct a 30 foot by 30 foot trash rack containing two 60-inch intake pipes extending a maximum of 30 feet from the MHWL; (1E) to emplace 30 feet of stone revetment a maximum of 60 feet from the MHWL; (2) **to construct a new fish return** (2A) to mechanically dredge a 65-foot wide area extending a maximum 45 feet channelward of the MHWL to a maximum depth of – 6.5 ft at MLW resulting in approximately 500 cu. yd. of dredge material; (2B) to emplace 40 feet of 18-inch HDPE pipe extending a maximum of 40 feet channelward of the MHWL; (2C) to construct a 10-foot long by 10-foot wide by 2-foot thick stone apron extending a maximum 45 feet channelward of the MHWL; (2D) to emplace approximately 500 cu. yd. of clean sand/stone fill covering the 18-inch HDPE pipe (2E) to emplace 70 feet of stone revetment a maximum of 60 feet channelward from the MHWL; (3) **to construct a discharge pipe** by (3A) to mechanically dredge a 70 foot wide area extending a maximum of 550 feet channelward of the MHWL to a maximum depth of – 16.5 feet at MLW resulting in approximately 5,500 cu. yd.; (3B) to emplace 550' of 30-inch HDPE extending a maximum of 550 feet of the MHWL; (3C) to construct a 20-foot long by 40-foot wide by 2-foot thick stone scour pad extending a maximum of 560 feet channelward of the MHWL; (3D) to construct a discharge diffuser elevated approximately 3 feet above the bottom substrate extending a maximum of 555 feet channelward of the MHWL; (3E) to emplace approximately 5,500 cu. yd. of clean sand/stone fill covering the 30-inch HDPE pipe; (3F) to emplace 70 feet of stone revetment a maximum of 60 feet channelward of the MHWL; (4) **to restore a barge unloading facility** by (4A) to mechanically dredge a 1,500-foot long by 150-foot wide (195,000 sq. ft.) area extending a maximum of 1,500 feet channelward of the MHWL to a maximum depth of - 16 feet at MLW resulting in approximately 60,000 cu. yd. of dredge material; (4B) to construct a 90-foot long by 18-inch thick sheet pile wall within a maximum of 18-inches channelward of an existing deteriorated bulkhead; (4C) to construct a 40-foot long by 40-foot wide by 2-foot thick stone apron extending a maximum of 30 feet channelward of the MHWL; (5) **to dispose of dredge material by** (5A) to transport approximately 67,000 cu. yd. of dredge material to the approved upland disposal site known as Lake Davies located on-site. The purpose of the project is to provide supporting structures and facilities for a proposed nominal 1,710 Megawatt nuclear power generation station (Unit #3). For more information contact Jonathan Stewart at 410-537-3059 or jstewart@mde.state.md.us. The project is located at 1650 Calvert Cliffs Parkway in Lusby, Maryland on the Chesapeake Bay in Calvert County.

Enclosure 1

Updated Work Descriptions for Tidal Impact
October 2010

Work in Tidal Areas:

Work in tidal areas will be restricted to four major areas. The following paragraphs will describe the scope of work in each of these areas.

1. Unit 3 Intake Area

The work in the Unit 3 Intake area will include two major components: a) installation of a permanent sheet pile wall and b) installation of temporary sheet pile wall. The details of the work are shown on Figure 3.

a) Permanent Sheet Pile Wall: A new sheet pile wall will be installed to construct Unit 3 intake area. The sheet pile wall will extend approximately 180 feet from the existing shoreline to the existing baffle wall. The sheet pile wall will be located approximately 90 feet channelward of the approximate mean high water shoreline. The new sheet pile wall along with the existing baffle wall and the shoreline will create a 9,000 square foot wedge-shaped pool. To facilitate installation of the permanent sheet pile wall, approximately 50 feet of the existing shoreline armor protection will be removed. A new armor protection, approximately 75 feet long, will be installed adjacent to the new sheet pile wall. The armor protection, consisting of imported coarse sand / stone, will extend approximately 95 feet channelward.

b) Temporary Sheet Pile Wall: To facilitate the installation of the intake pipes, a temporary sheet pile wall will be installed after removal of the existing (approximately 60 feet along the shoreline) armor protection. The temporary sheet pile wall will extend approximately 35 feet (average) into the wedge-shaped pool. The area within the sheet piling will be dewatered and mechanically dredged to create an approximately 30-feet wide by 35-feet long by 25-feet deep area. Subsequently, extending approximately 20 feet channelward, two 60-inch diameter intake pipes (with trash rack and associated structures) will be installed with the bottom elevation at -25 feet mean low water. Shoreline armor protection (about 10 feet channelward) will be restored as required. The temporary sheet pile wall will then be removed to flood and submerge the intake pipes. The sand and gravel removed by dredging (approximately 1000 cubic yards) will be deposited onsite at an existing upland (non-wetland) environmentally controlled Lake Davies laydown area.

2. Unit 3 Fish Return

A fish return system similar to the existing Unit 1/Unit 2 fish return will be installed as part of the intake structures. The work related to the fish return system in the tidal areas includes installation of a discharge pipe and a rip-rap apron along with associated dredging.

The discharge pipe will consist of an 18-inch diameter high density polyethylene (HDPE) pipe which will be installed approximately 4 feet below the bay bottom in a mechanically excavated trench. The pipe will outfall about 40 feet channelwards from the existing shoreline. The location of the outfall will be protected with a riprap apron. To facilitate installation of the pipe, existing shoreline revetment (approximately 65 feet along the shoreline) will be removed and replaced. This dredging will temporarily impact approximately 100 cubic yards of material. The pipe trench will be filled with imported coarse sand/stone fill. The existing shoreline revetment will be restored to its original configuration after installation of the pipe. Turbidity curtains will be utilized during construction to contain suspended sediments. The sand and gravel removed by dredging will be deposited onsite at an existing upland (non-wetland) environmentally controlled Lake

Davies laydown area.

3. Discharge Outfall Pipe

A 30-inch diameter HDPE pipe with three single port diffusers will be installed in a mechanically excavated trench. The discharge point at the diffusers will be elevated approximately 3 feet above the bay bottom. The pipe will extend approximately 550 feet channelward and will be buried approximately 4 feet below the bay bottom. This burial depth will prevent damage of the pipe from storms and small boat anchors. To facilitate installation of the pipe, existing shoreline revetment (approximately 70 feet along the shoreline) will be removed and replaced. This installation will temporarily impact approximately 38,500 square feet (approximately 0.9 acres) area at the bay bottom. Additionally, a riprap scour pad will be installed at the diffuser outfall permanently impacting 800 square feet area at the bay bottom. The excavated trench will be filled with approximately 5,500 cubic yards of imported coarse sand/stone material. The dredged material (5,500 cubic yards) will be deposited onsite at an existing upland (non-wetland) environmentally controlled Lake Davies laydown area. Turbidity curtains will be utilized during construction to contain suspended sediments.

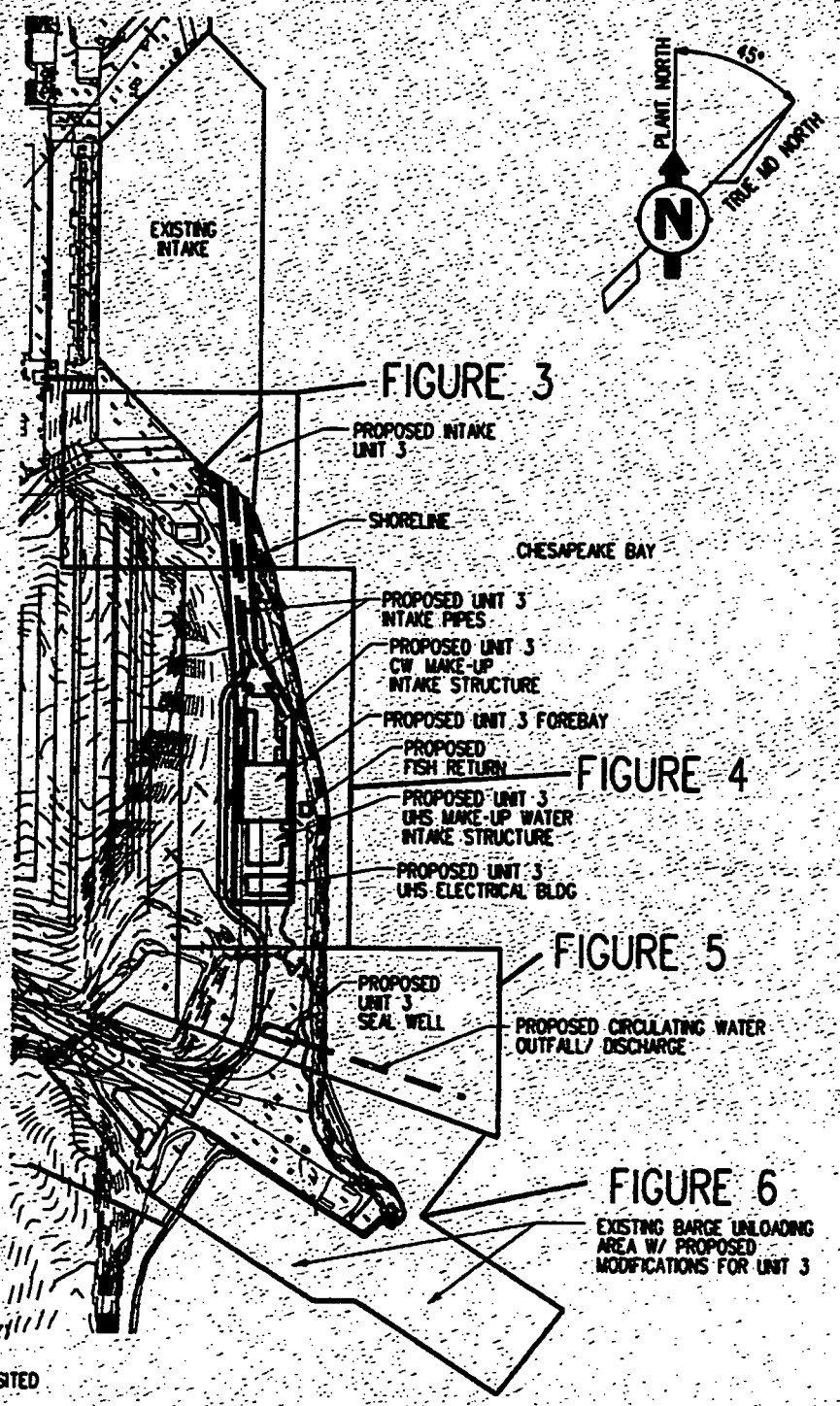
4. Restoration of Barge Unloading Facility including Maintenance and New Dredging

The existing barge unloading facility is intended to be utilized to receive equipment and materials for the construction of the Unit 3. The existing barge slip will be restored and extended to re-establish use of an approximately 1,500 feet long and 130 feet wide (average) channel. The channel area (about 195,000 square feet) will be dredged to a bottom elevation of -16 feet mean low water. The initial 1,065 feet length of the dredging is considered maintenance dredging. The remaining 435 feet is considered an extension beyond the original dredging limits to reach the bottom elevation of -16 feet mean low water. Of 60,000 cubic yards of total estimated dredging, 57,000 cubic yards are considered maintenance dredging and 3,000 cubic yards are considered new dredging. The two existing pile cap crane supports and one mooring bollard located in the channel will also be removed.

The dredged material will be deposited at existing onsite upland (non-wetland) environmentally controlled Lake Davies laydown area. Turbidity curtains will be utilized during construction to contain the suspended sediments.

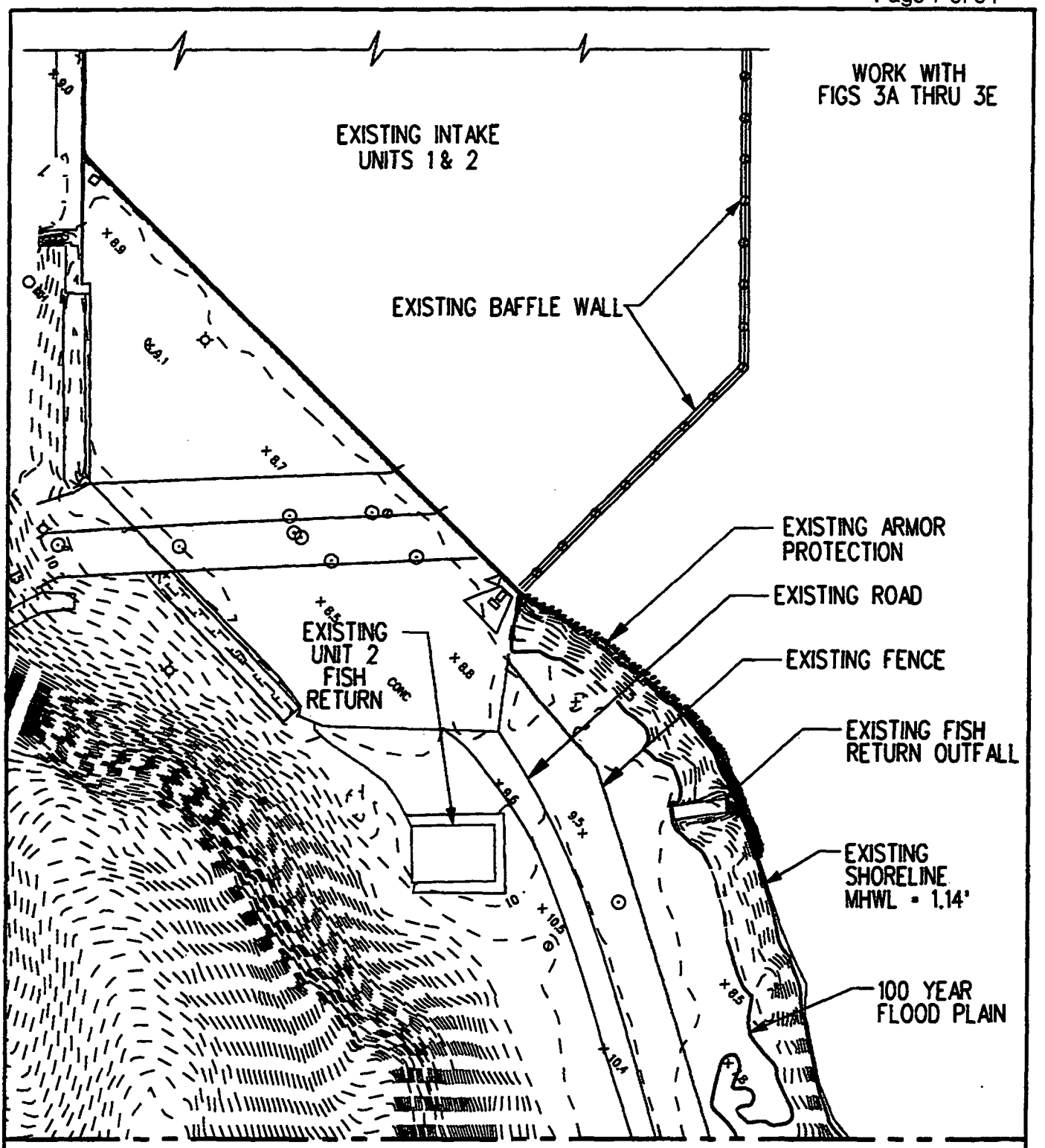
The scope of work in this area will also include maintenance dredging near the shoreline to remove sediments which have mounded up over the past 30 years and restoration of an existing culvert outfall. Due to silt build up over the years, the discharge from this outfall meanders in a north-south direction prior to discharging into the barge slip area. The restoration activities in this area will include the installation of a riprap apron (Figure 6J) in front the existing outfall allowing the discharge to flow directly in the bay as originally designed. The riprap apron will extend approximately 40 feet channelward.

Additionally, a new sheet pile wall will be installed along the shore line in front of the existing bulk head which was built as part of the original design. On the land side of the new sheet pile, a concrete apron will be placed along with a gravel apron to allow equipment to be off-loaded from barges with wheel mounted transporters.

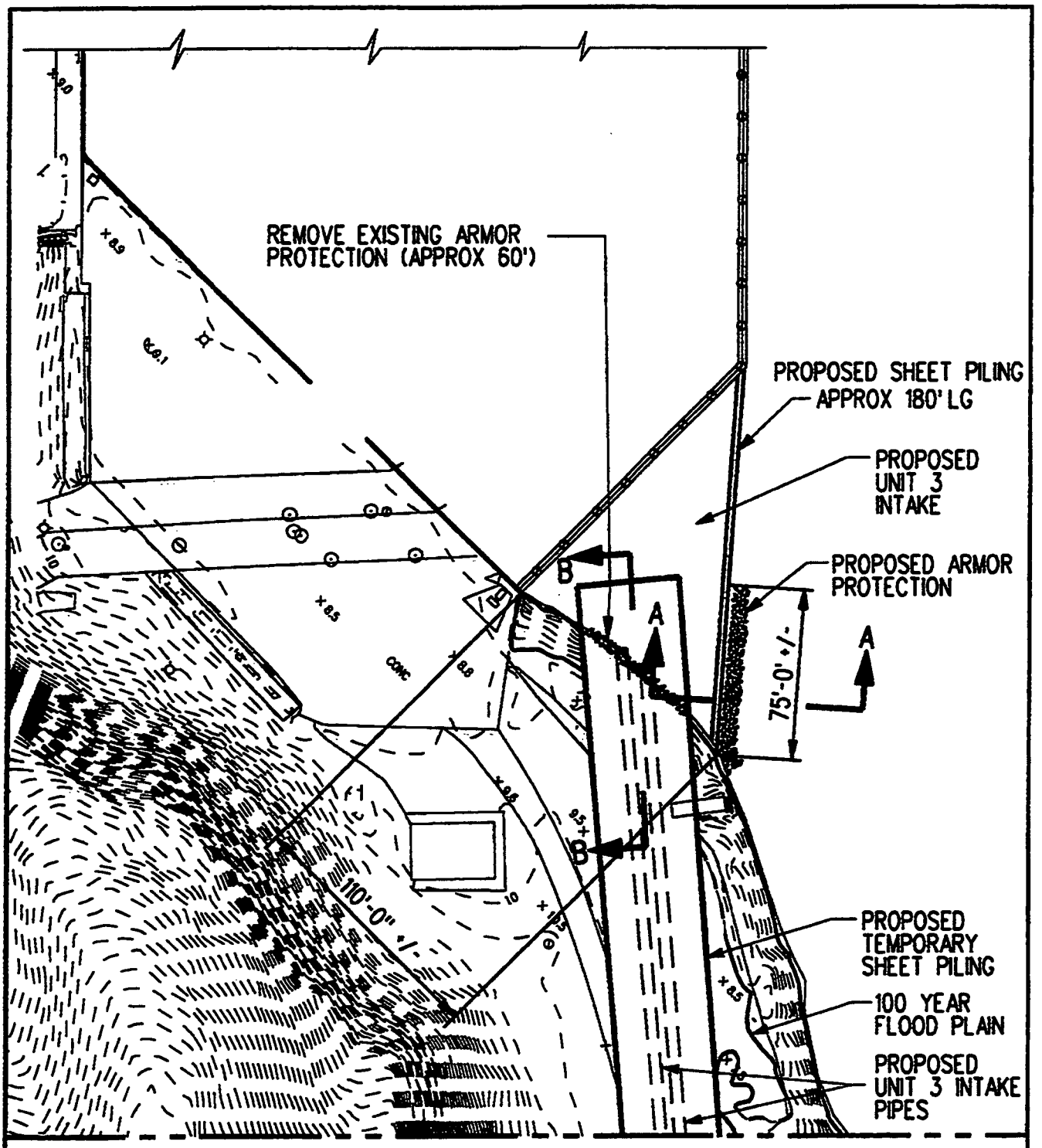


NOTES: 1. - MEAN HIGH WATERLINE: 1.14'
- MEAN LOW WATERLINE: 0.10'
- MAXIMUM SPRING WATERLINE: 1.47'
2. NAVIGATION CHANNEL: MIDDLE OF BAY/ APPROX. 3 MILES FROM SHORELINE.
3. ALL DREDGED MATERIAL TO BE DEPOSITED IN LAKE DAVIES AREA (ON SITE).

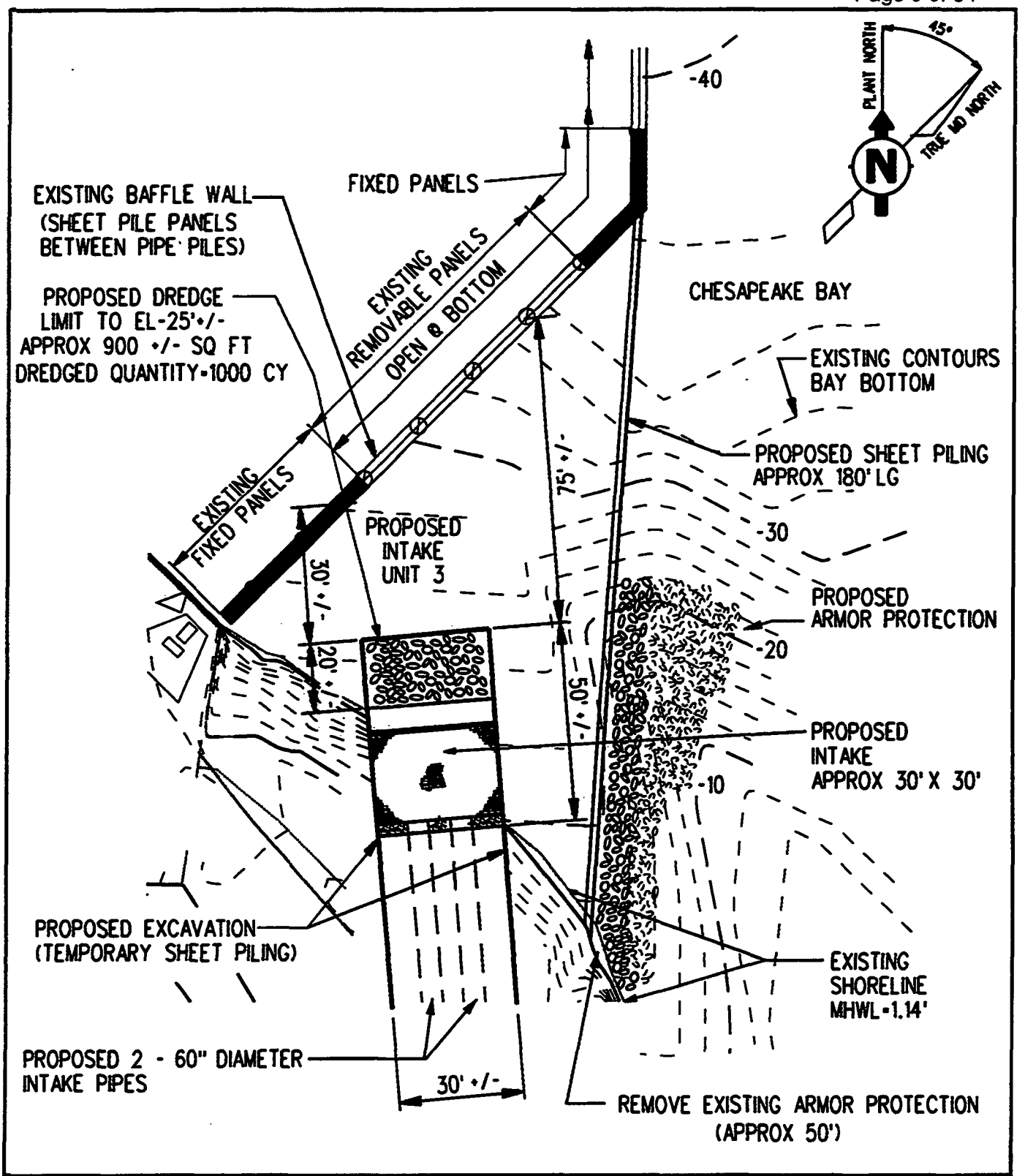
PURPOSE: PLANT EXPANSION	KEY PLAN	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)		IN: PATUXENT/ WEST CHESAPEAKE BAY
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	SCALE 0 300 600 FT	COUNTY OF: CALVERT STATE: MD
		APPLICATION BY: UNISTAR NUCLEAR ENERGY
		DATE: OCT 28, 2010



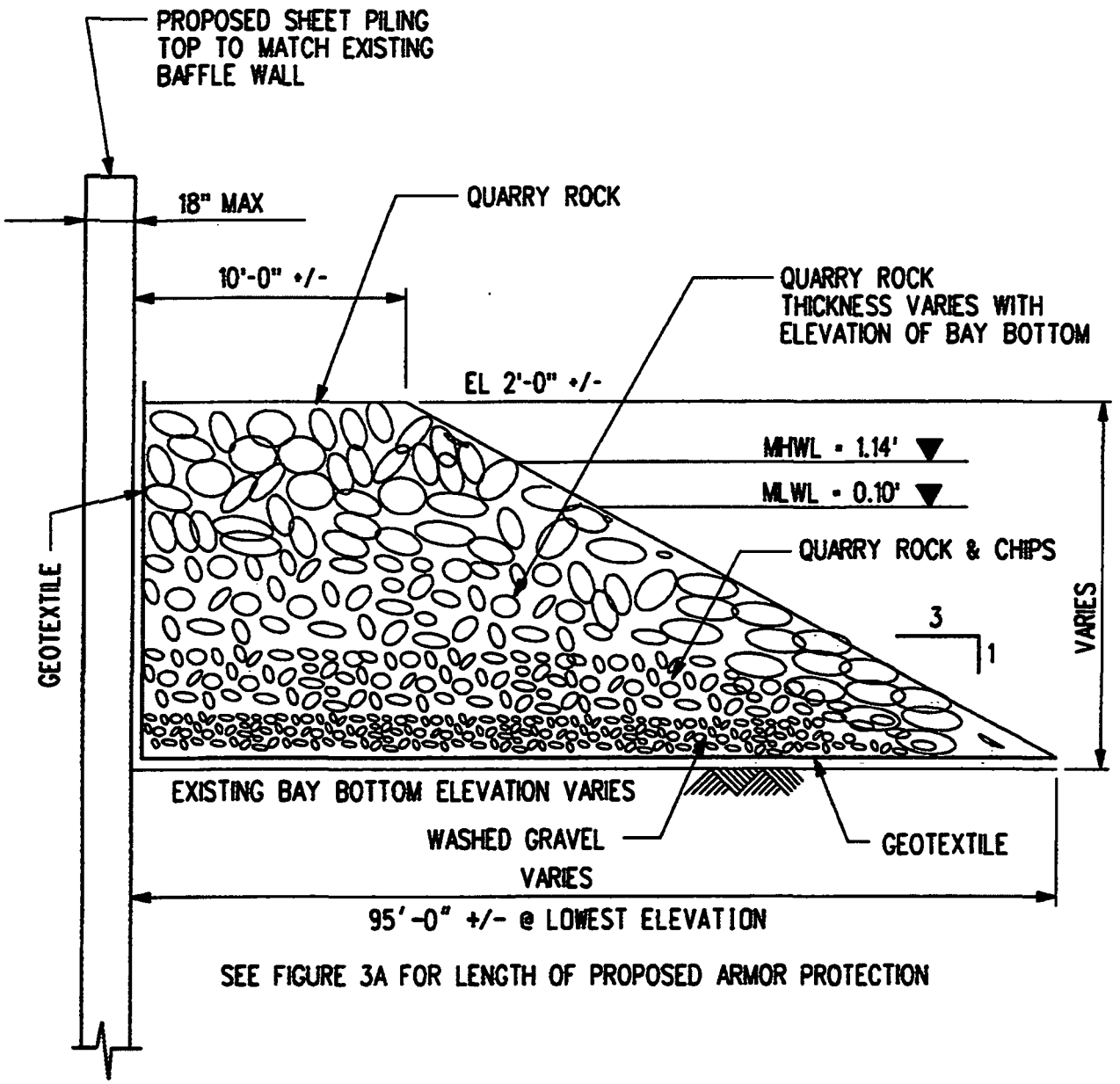
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 3 EXISTING SITE PLAN @ UNIT 3 INTAKE STRUCTURE SCALE 0 50 100 FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 1 OF 6 DATE: NOV 16, 2010



PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 3A SITE PLAN @ UNIT 3 INTAKE STRUCTURE SCALE 0 50 100 FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 2 OF 6 DATE: OCT 11, 2010



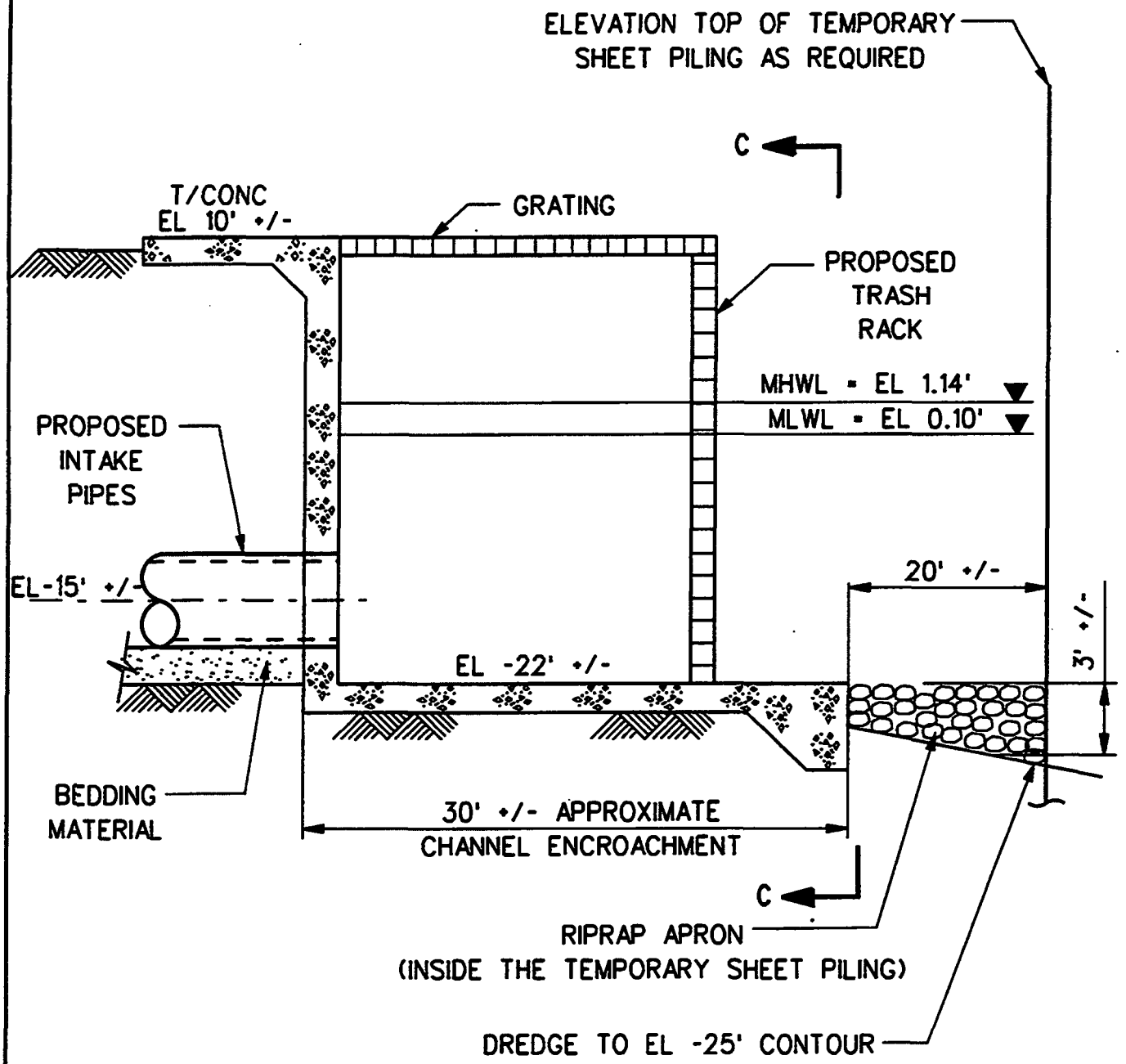
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 3B SITE PLAN @ UNIT 3 INTAKE STRUCTURE SCALE 0 25 50 FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 3 OF 6 DATE: NOV 16, 2010



SECTION A-A

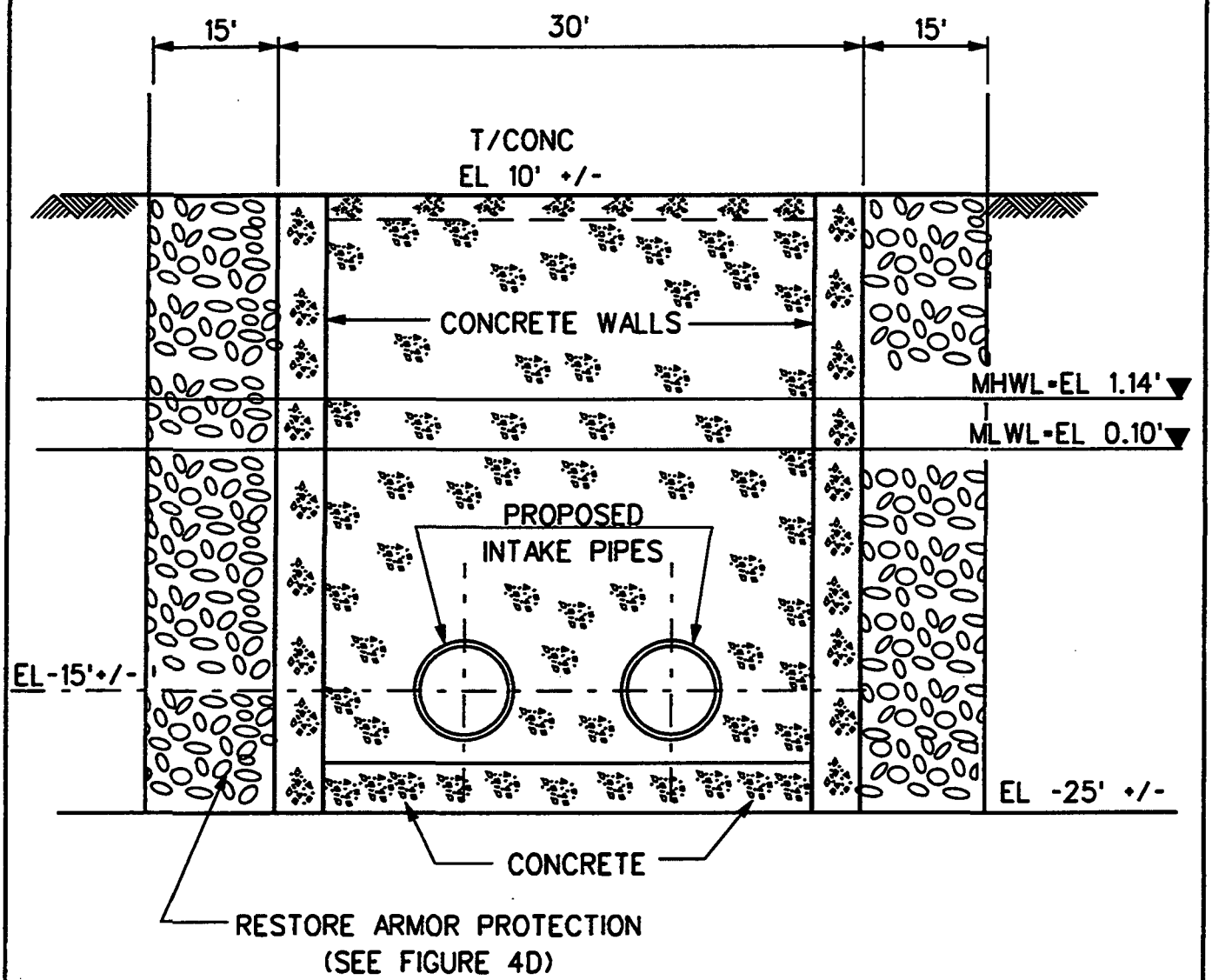
SEE FIGURE 3A

PURPOSE: PLANT EXPANSION	FIGURE 3C	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)	PROPOSED ARMOR PROTECTION	IN: PATUXENT/ WEST CHESAPEAKE BAY
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	NOT TO SCALE	COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY
		SHEET 4 OF 6 DATE: OCT 11, 2010



SECTION B-B

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 3D PROPOSED INTAKE PIPES @ SHORELINE NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 5 OF 6 DATE: NOV 16, 2010



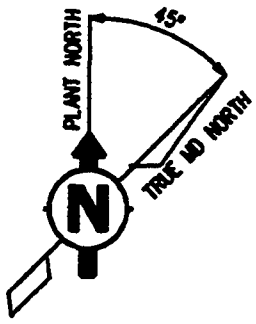
TRASH RACK
NOT SHOWN FOR CLARITY

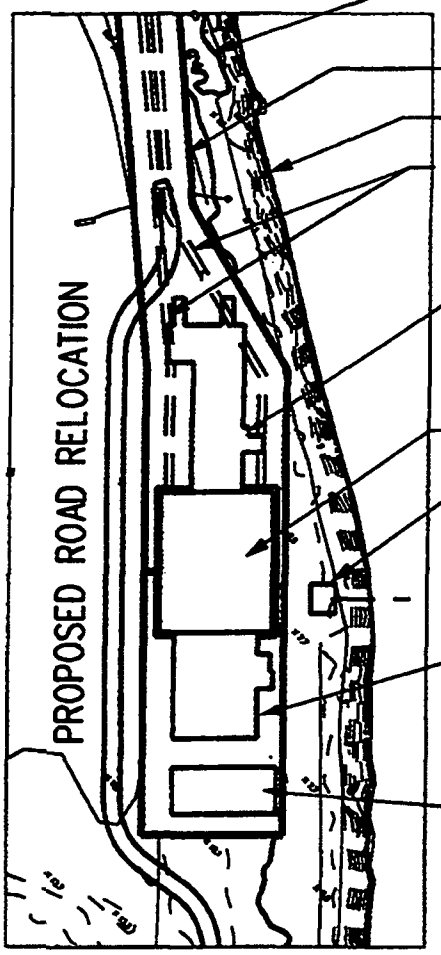
SECTION C-C

PROPOSED FINAL CONFIGURATION

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 3E PROPOSED INTAKE PIPES @ SHORELINE NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 6 OF 6 DATE: NOV 16, 2010

WORK WITH
FIGS 4A THRU 4D





100 YEAR FLOOD PLAIN

TEMPORARY UPLAND SHEET PILING

SHORELINE

PROPOSED UNIT 3 INTAKE PIPES

CHESAPEAKE BAY

PROPOSED CW MAKE-UP INTAKE STRUCTURE (APPROX. 120' X 60')

PROPOSED UNIT 3 FOREBAY

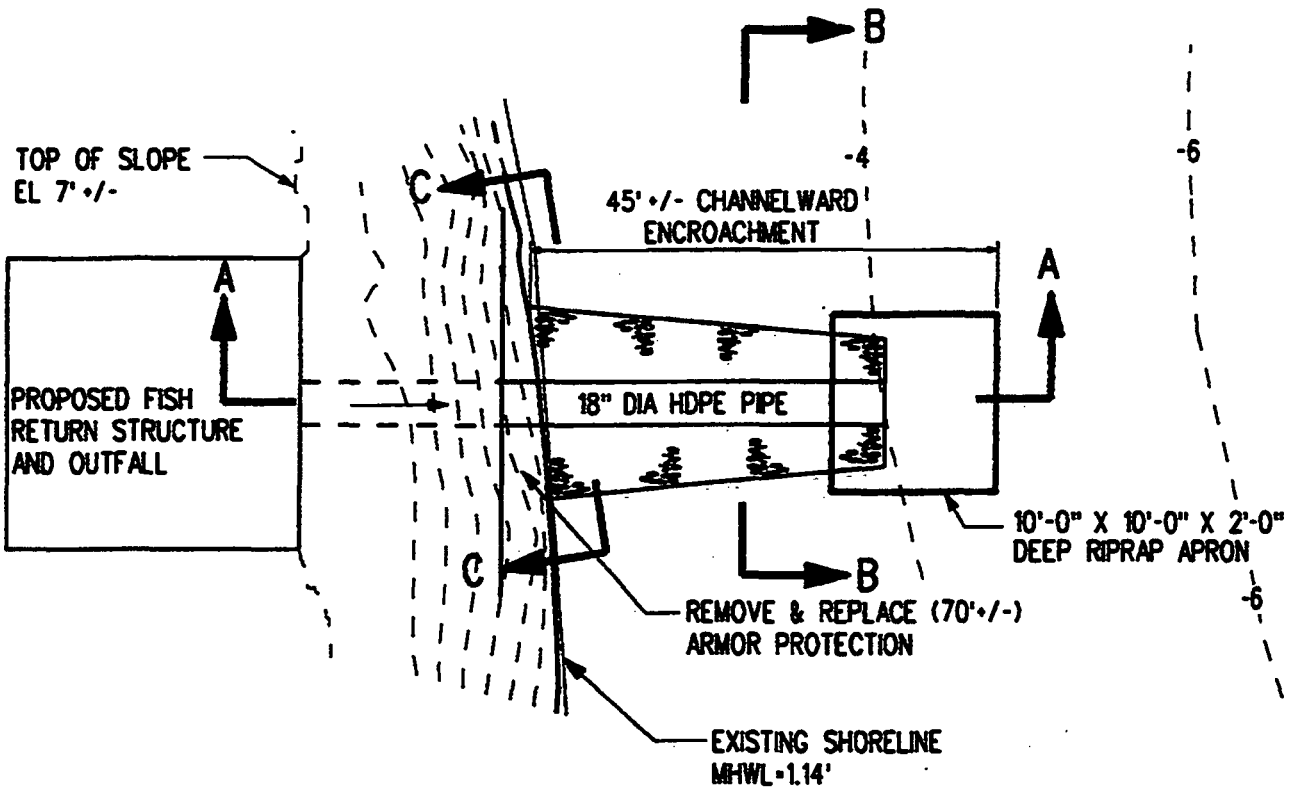
PROPOSED FISH RETURN

PROPOSED UHS MAKE-UP WATER INTAKE STRUCTURE (APPROX. 60' X 75')

PROPOSED UHS ELECTRICAL BLDG (APPROX. 35' X 75')

* ALL STRUCTURES IN UPLANDS

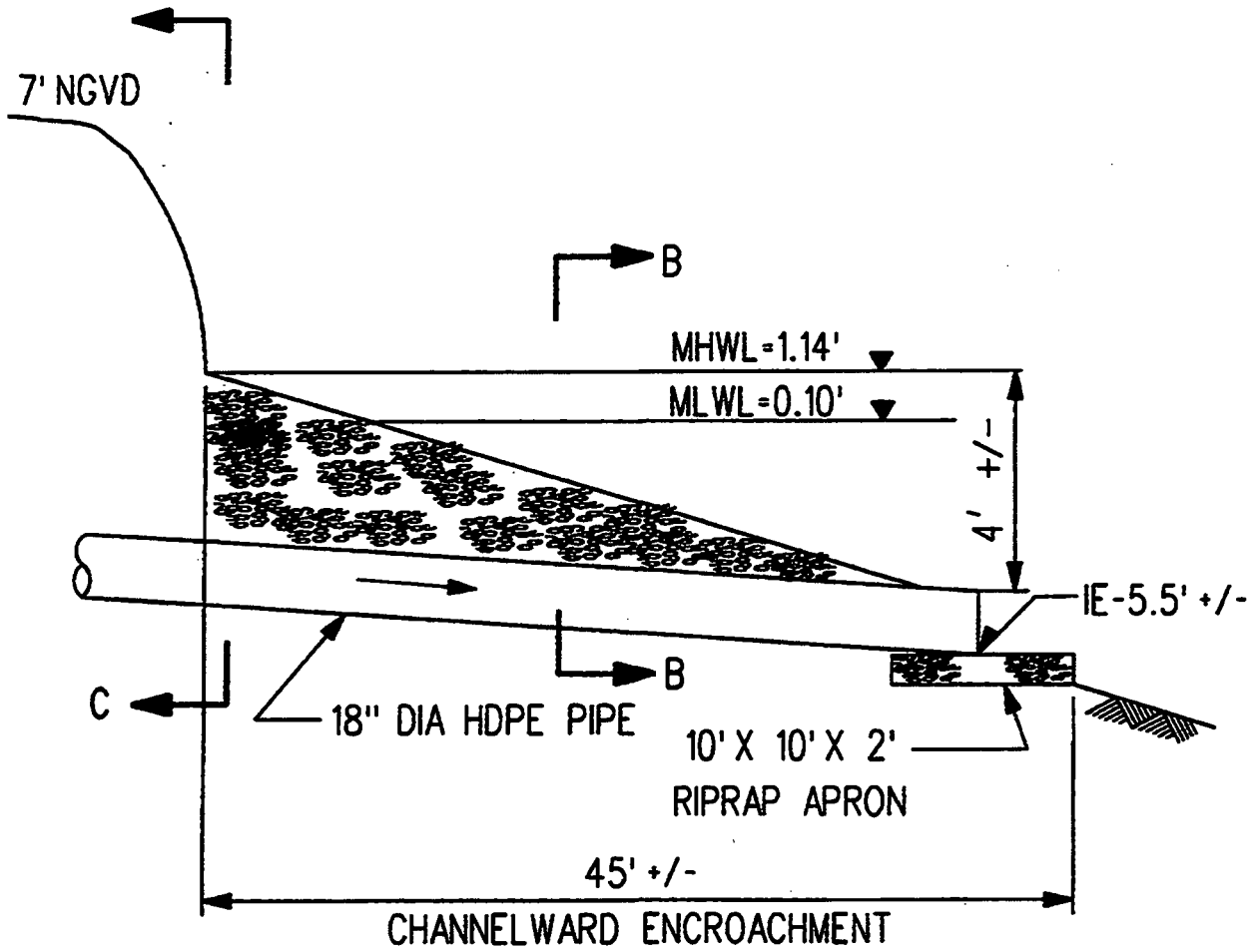
PURPOSE: PLANT EXPANSION	FIGURE 4 SITE PLAN ● UNIT 3 INTAKE STRUCTURE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)		IN: PATUXENT/ WEST CHESAPEAKE BAY
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	SCALE 0 180 360FT	COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY
		SHEET 1 OF 5 DATE: OCT 11, 2010



NOTE: DREDGED QUANTITY = 100 CY

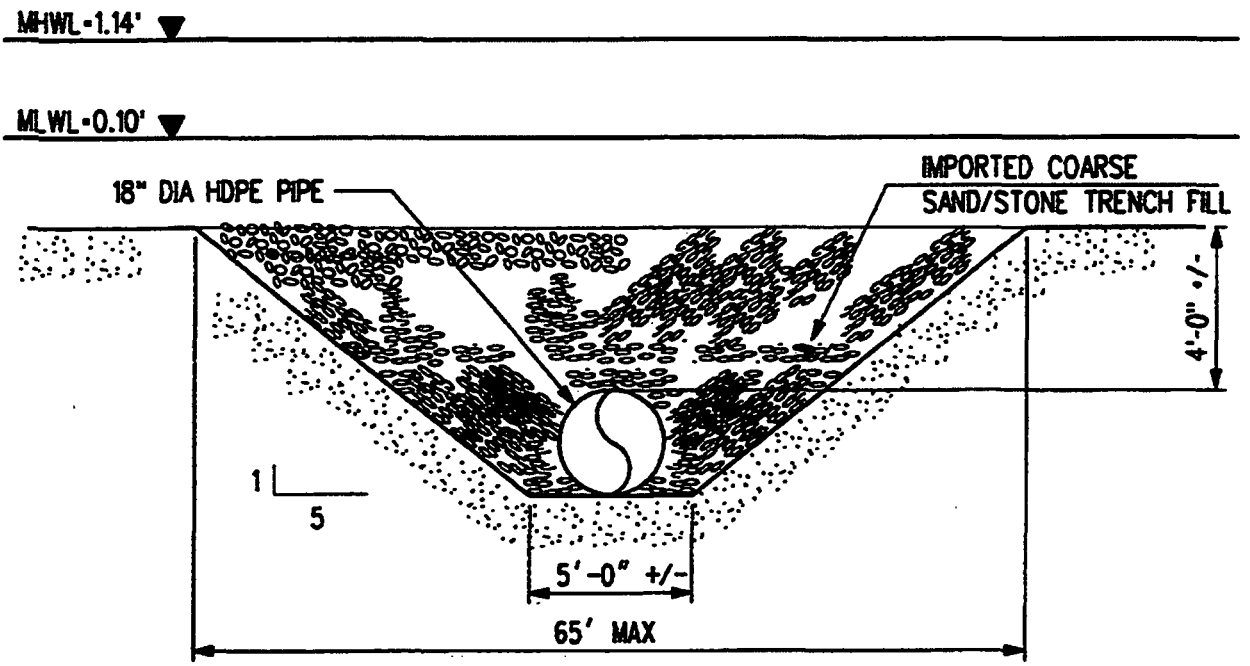
PLAN

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 4A FISH RETURN NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 2 OF 5 DATE: OCT 11, 2010



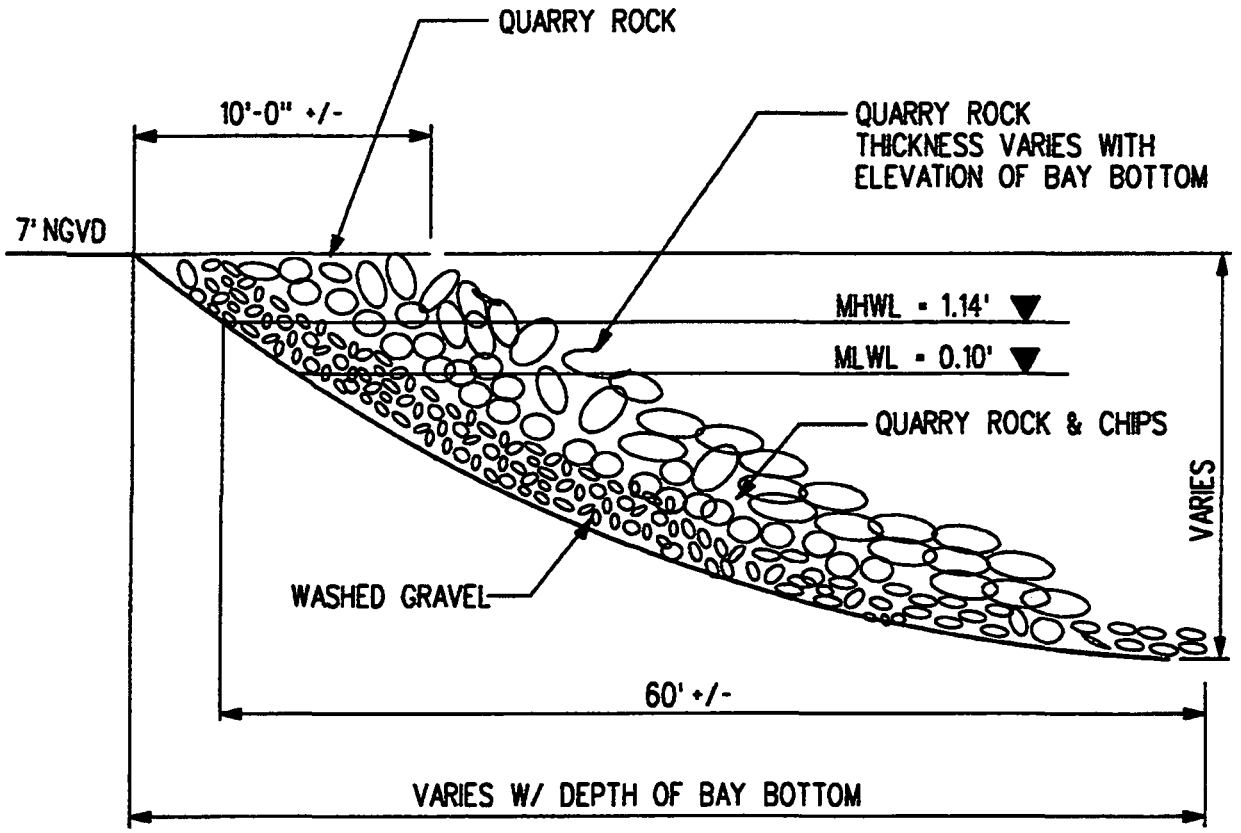
SECTION A-A

PURPOSE: PLANT EXPANSION	FIGURE 4B FISH RETURN	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)		IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	NOT TO SCALE	APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 3 OF 5 DATE: NOV 3, 2010



SECTION B-B

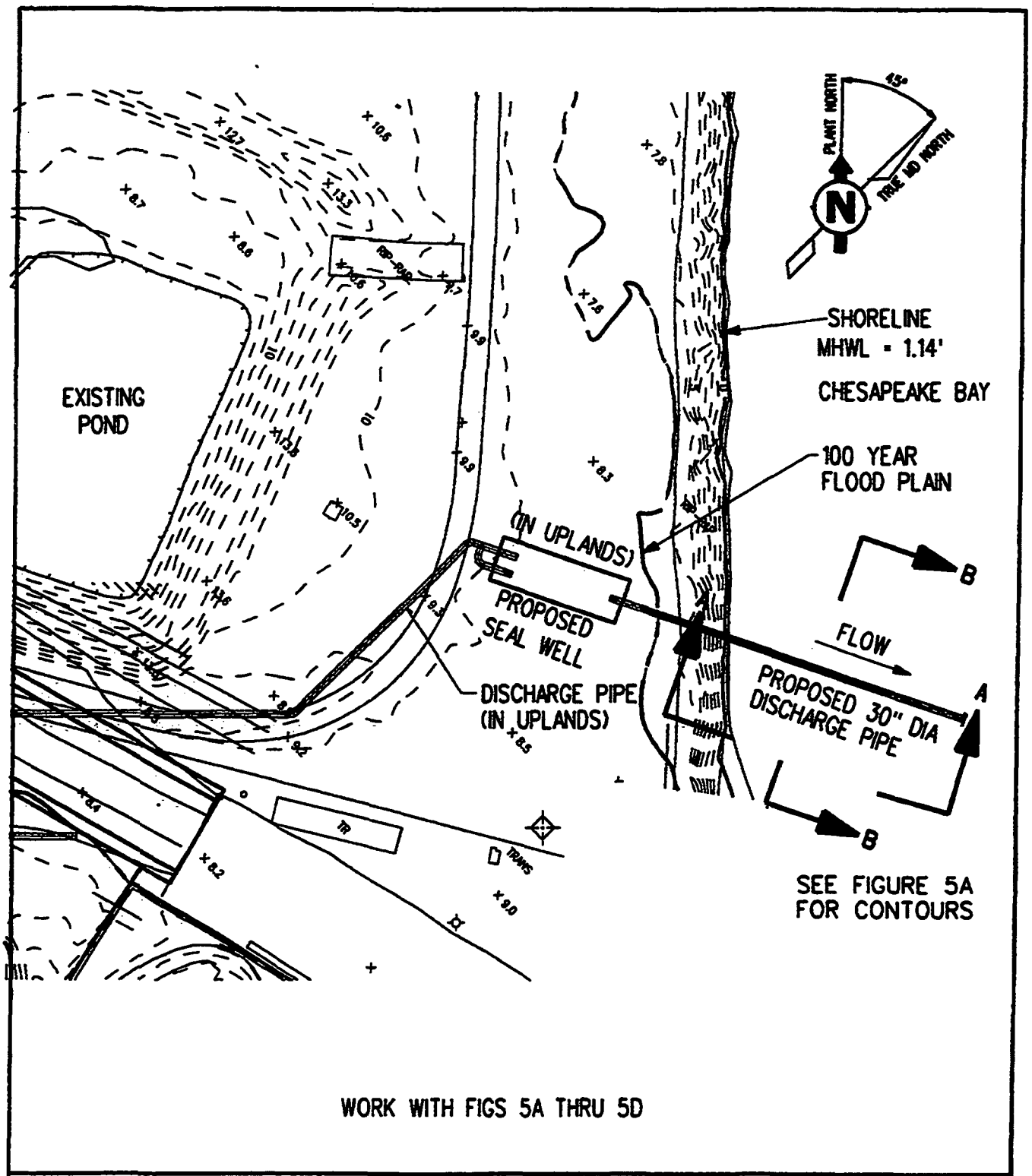
PURPOSE: PLANT EXPANSION	FIGURE 4C FISH RETURN	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)		IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	NOT TO SCALE	APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 4 OF 5 DATE: OCT 11, 2010



SEE PLAN FOR LENGTH OF PROPOSED ARMOR SHORELINE PROTECTION

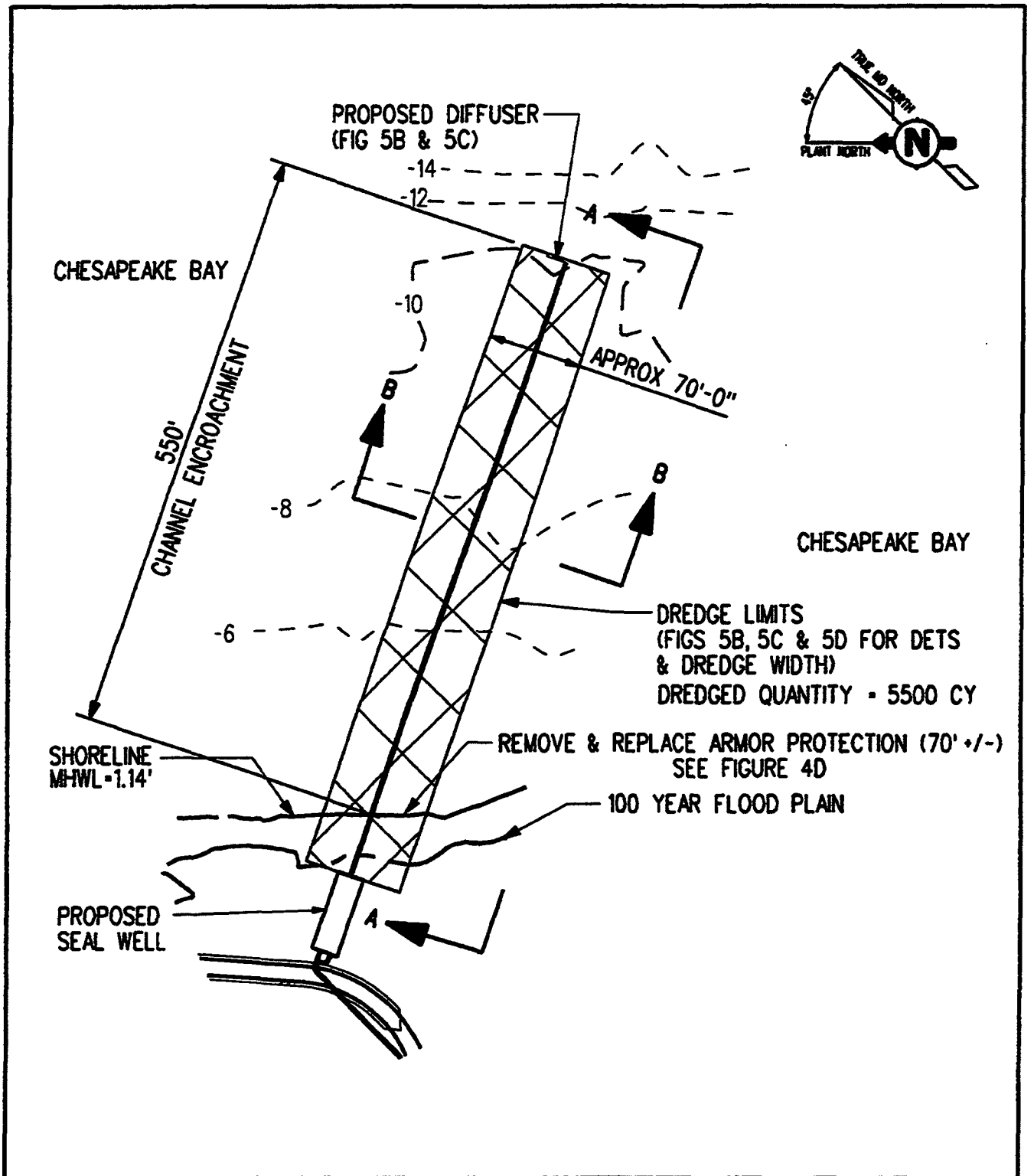
SECTION C-C

PURPOSE: PLANT EXPANSION	FIGURE 40 TYP ARMOR SHORELINE PROTECTION SECTION	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)		IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	NOT TO SCALE	APPLICATION BY: UNISTAR NUCLEAR ENERGY
		SHEET 5 OF 5 DATE: NOV 3, 2010

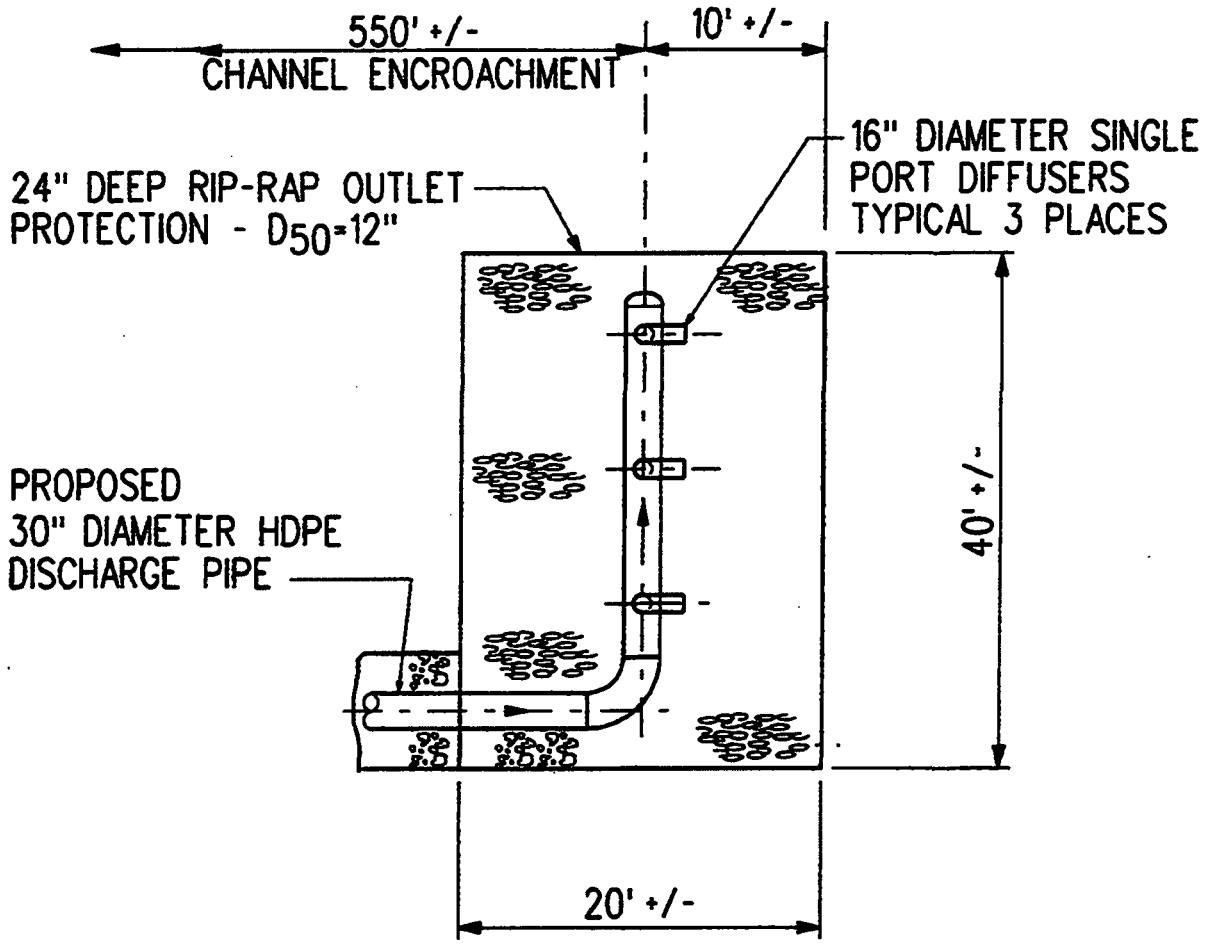


WORK WITH FIGS 5A THRU 5D

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 5 SEAL WELL & DISCHARGE PIPING SCALE 0 60 120 FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 1 OF 5 DATE: SEPT 24, 2010

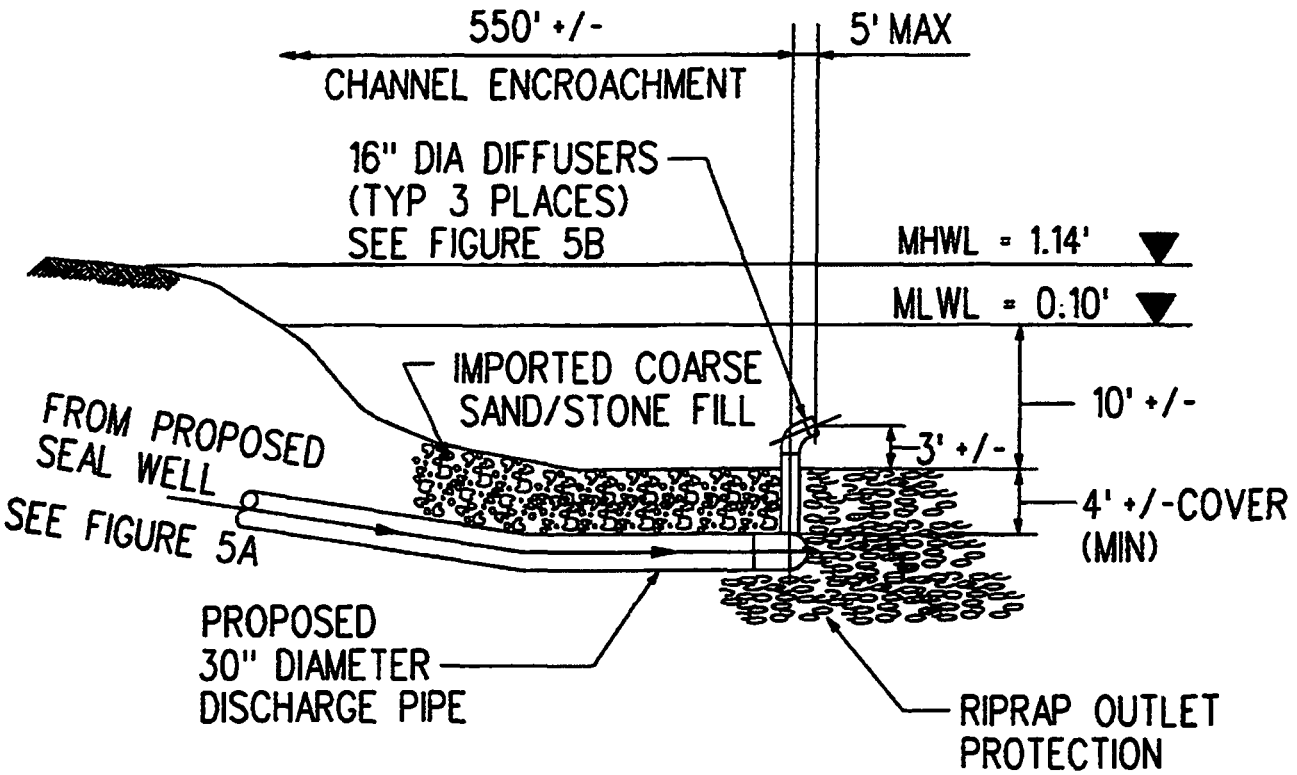


PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 5A SEAL WELL & DISCHARGE PIPING SCALE NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 2 OF 5 DATE: SEPT 24, 2010



DIFFUSER PLAN VIEW

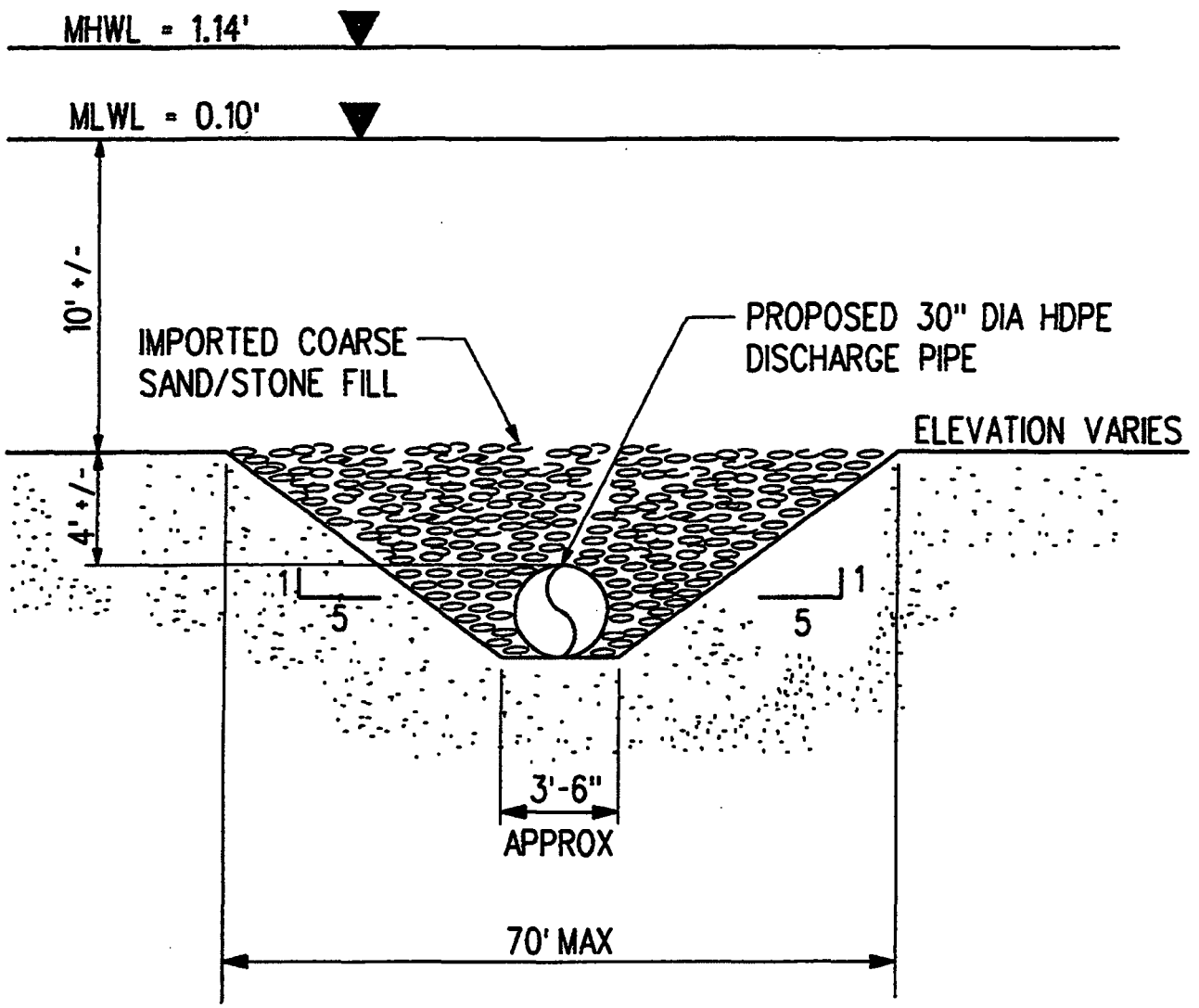
PURPOSE: PLANT EXPANSION	FIGURE 5B	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)	DISCHARGE OUTFALL DETAILS	IN: PATUXENT/ WEST CHESAPEAKE BAY
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	NOT TO SCALE	COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY
		SHEET 3 OF 5 DATE: SEPT 24, 2010



SECTION A-A

FIGURES 5 & 5A

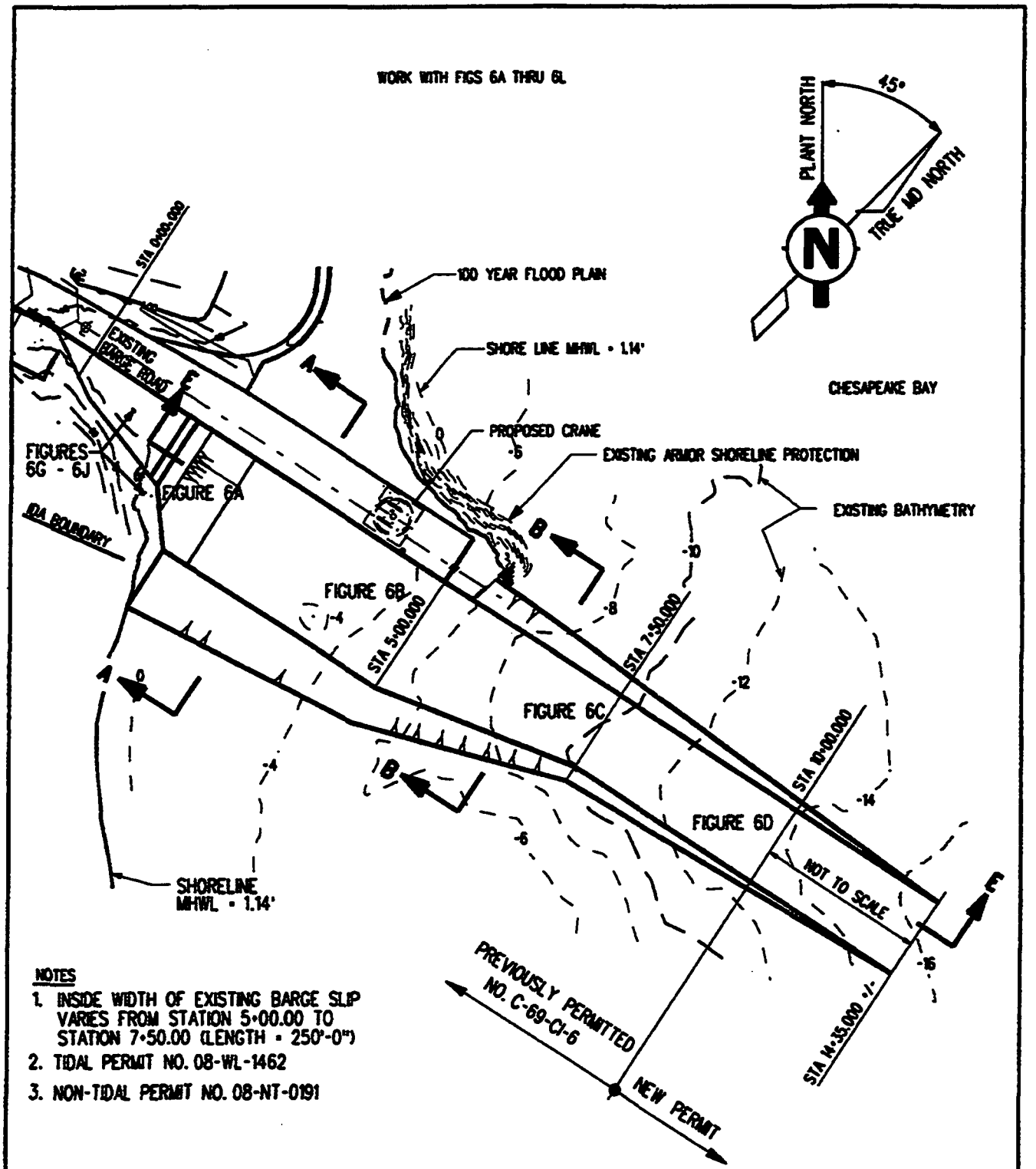
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 5C DISCHARGE OUTFALL DETAILS NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 4 OF 5 DATE: SEPT 24, 2010



SEE FIGURE 5C FOR RIP-RAP PROTECTION @ DIFFUSER END

SECTION B-B
FIGURES 5 & 5A

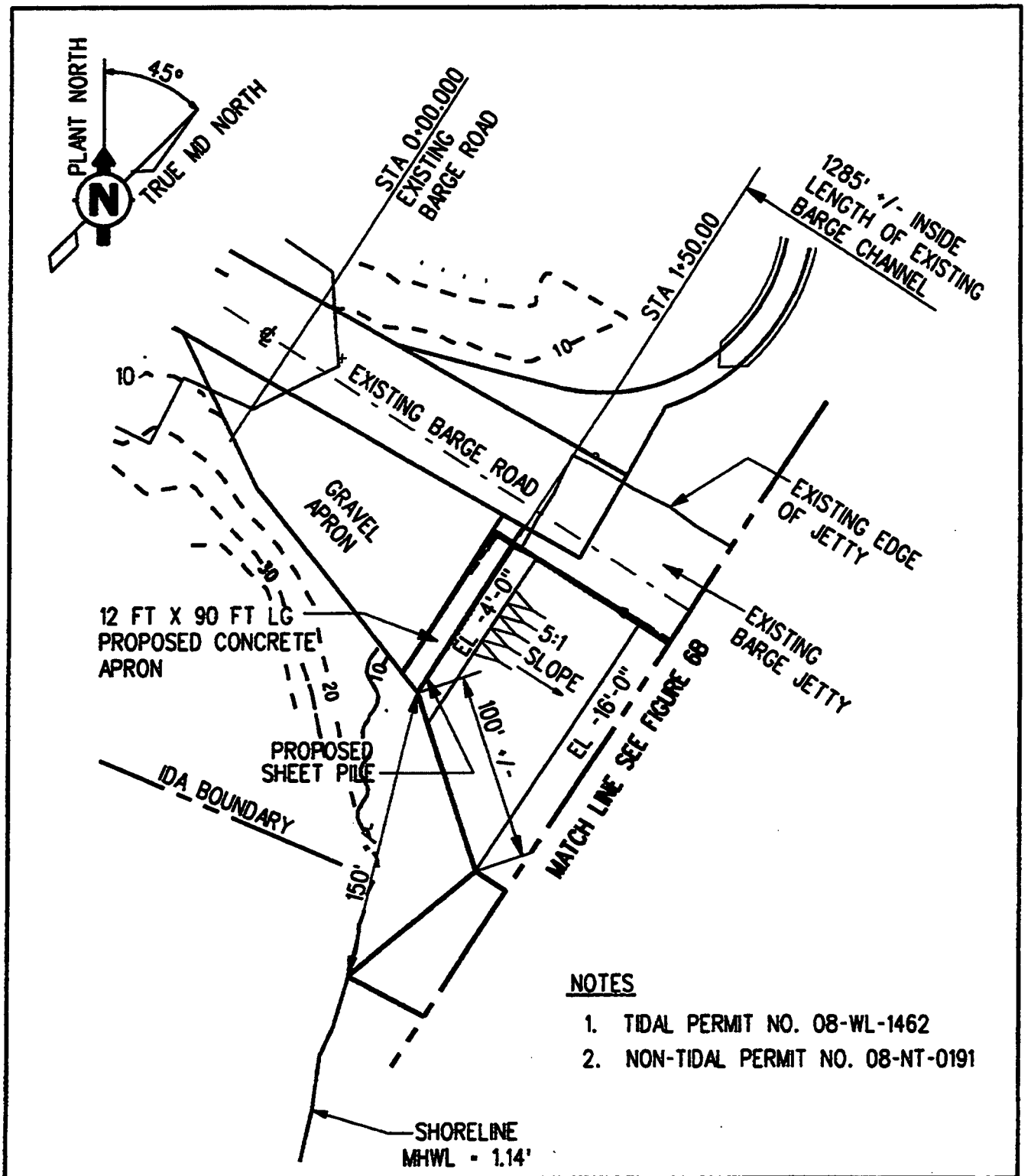
PURPOSE: PLANT EXPANSION	FIGURE 5D	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)	DISCHARGE OUTFALL DETAILS	IN: PATUXENT/ WEST CHESAPEAKE BAY
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	NOT TO SCALE	COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 5 OF 5 DATE: SEPT 24, 2010



NOTES

1. INSIDE WIDTH OF EXISTING BARGE SLIP VARIES FROM STATION 5+00.00 TO STATION 7+50.00 (LENGTH = 250'-0")
2. TIDAL PERMIT NO. 08-WL-1462
3. NON-TIDAL PERMIT NO. 08-NT-0191

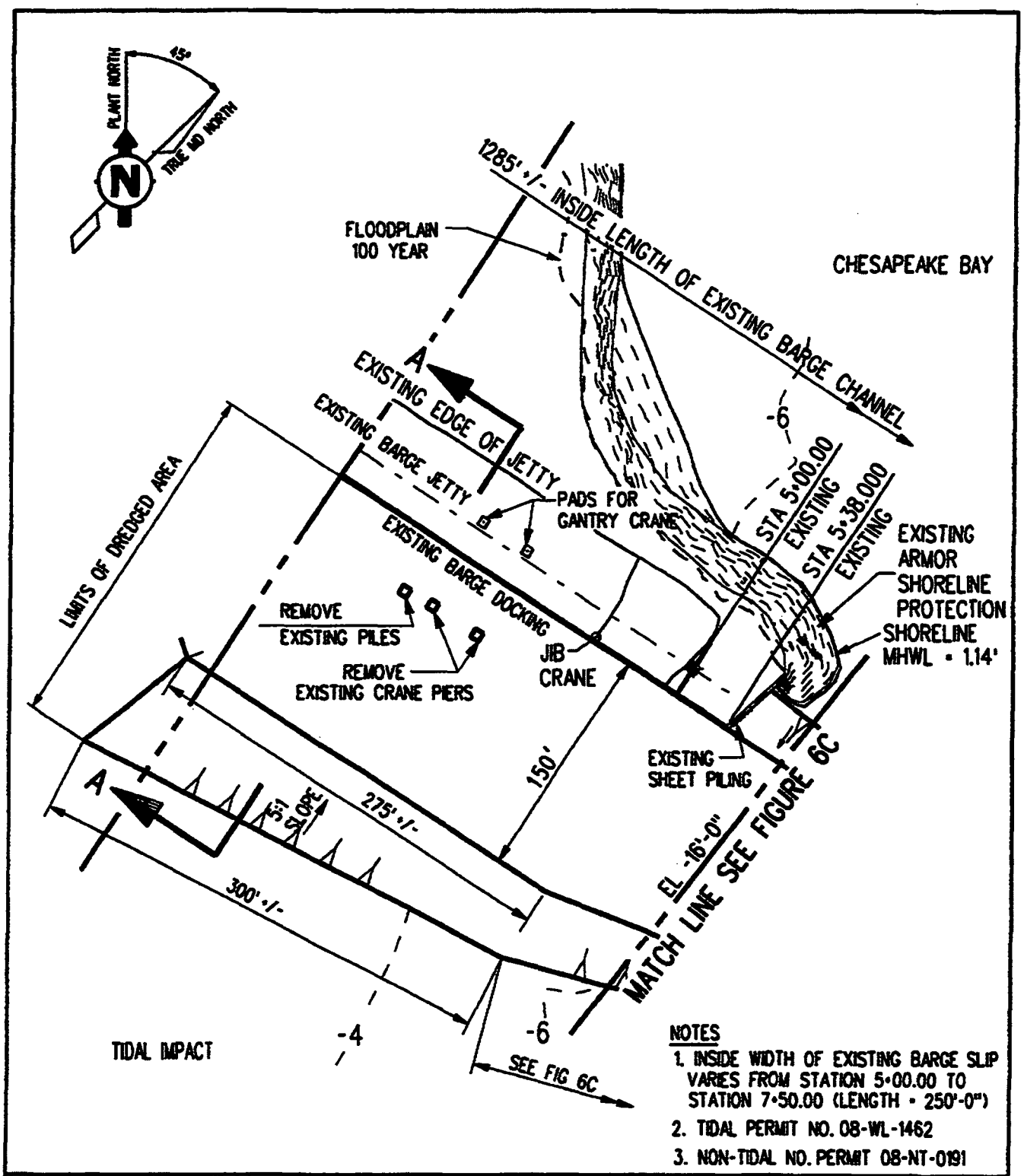
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6 PROPOSED DREDGING OF EXISTING BARGE SLIP (SHOWING EXISTING CONTOURS) SCALE 0 100 200 300FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 1 OF 12 DATE: OCT 11, 2010



NOTES

1. TIDAL PERMIT NO. 08-WL-1462
2. NON-TIDAL PERMIT NO. 08-NT-0191

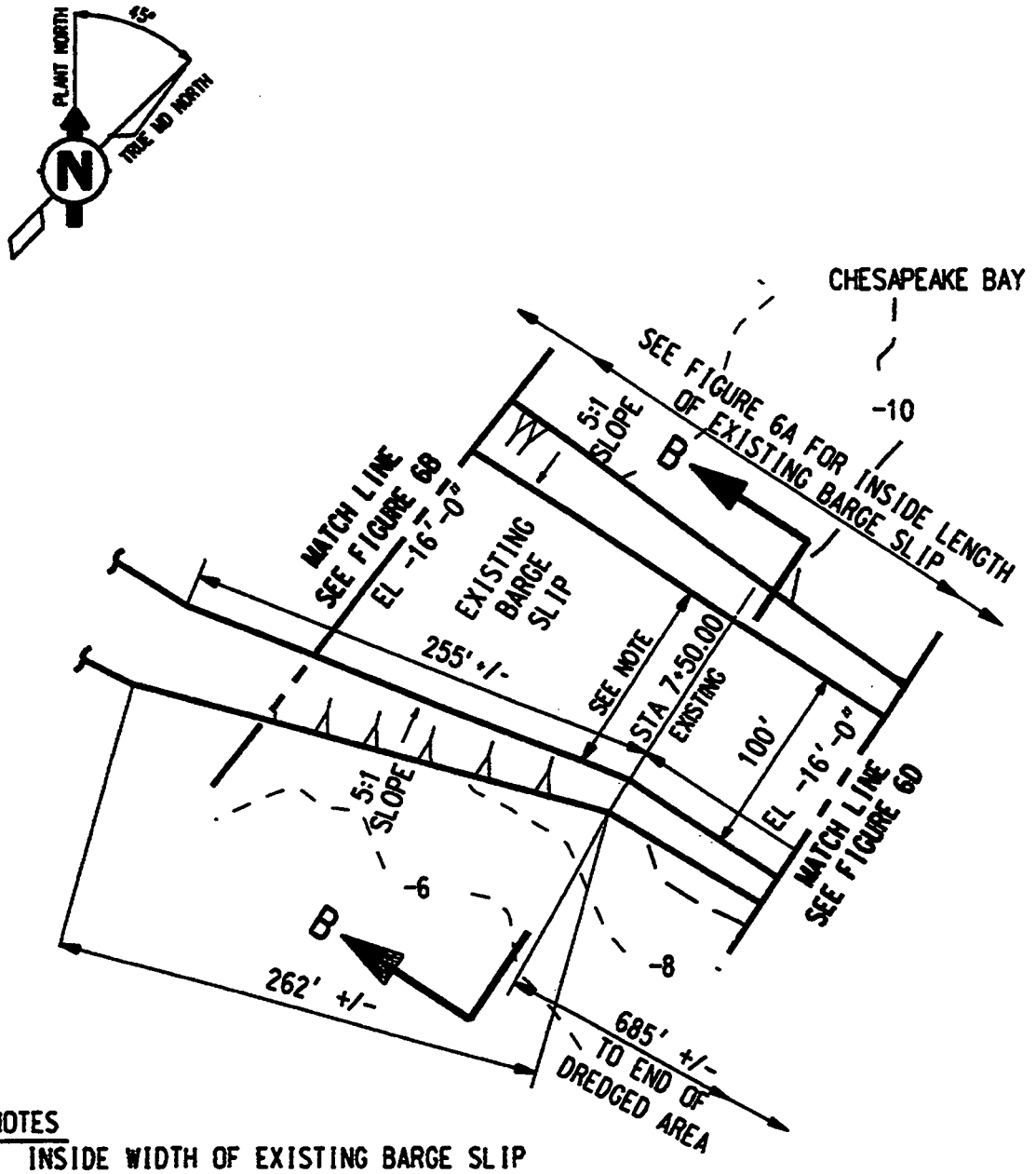
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6A DREDGING OF EXISTING BARGE UNLOADING FACILITY SCALE 0 75 150 225FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 2 OF 12 DATE: OCT 11, 2010



NOTES

1. INSIDE WIDTH OF EXISTING BARGE SLIP VARIES FROM STATION 5+00.00 TO STATION 7+50.00 (LENGTH = 250'-0")
2. TIDAL PERMIT NO. 08-WL-1462
3. NON-TIDAL NO. PERMIT 08-NT-0191

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6B DREDGING OF EXISTING BARGE UNLOADING FACILITY SCALE 0 60 120 180FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 3 OF 12 DATE: OCT 11, 2010

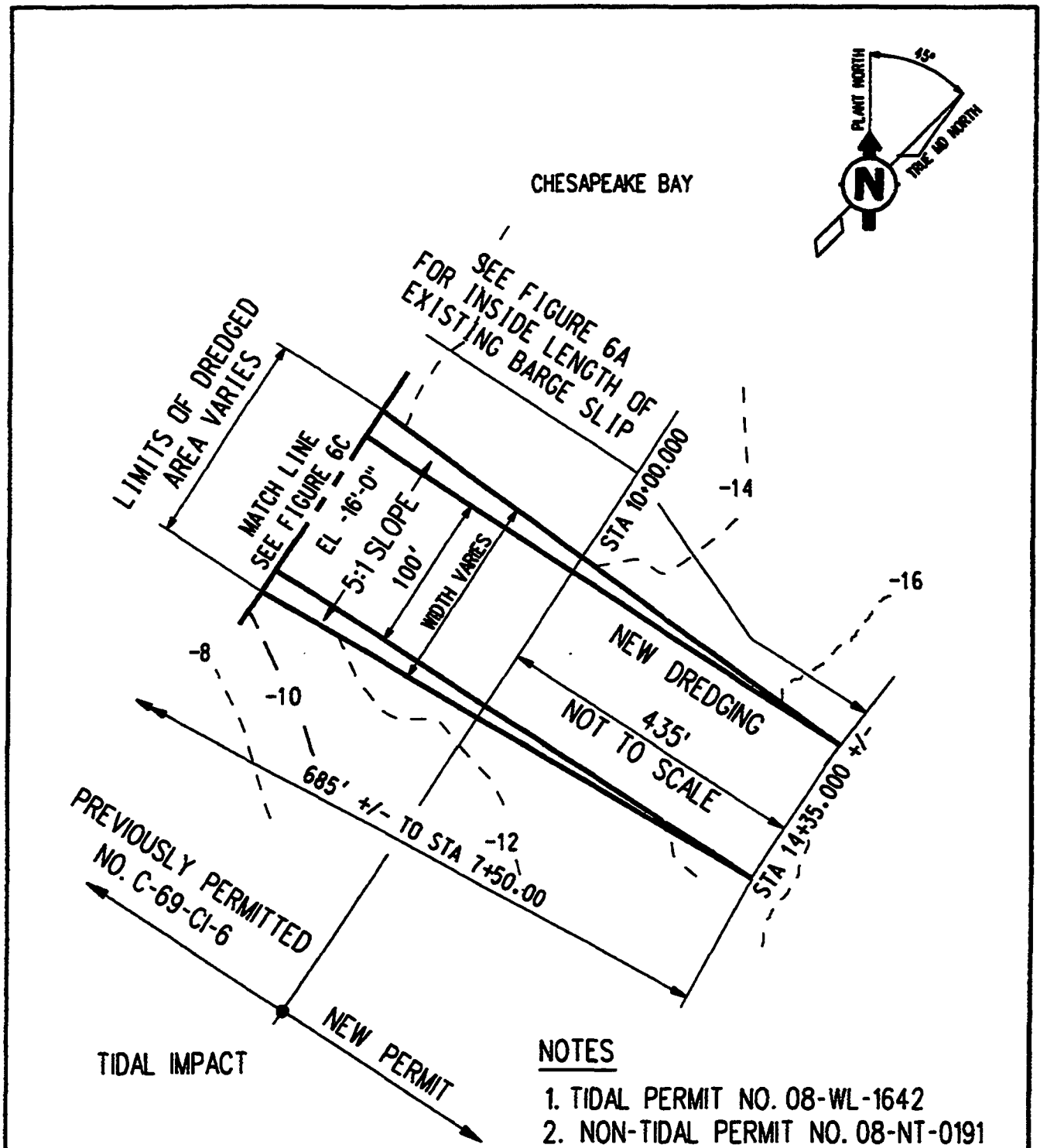


NOTES

1. INSIDE WIDTH OF EXISTING BARGE SLIP VARIES FROM STATION 5+00.00 TO STATION 7+50.00 (LENGTH = 250'-0")
2. TIDAL PERMIT NO. 08-WL-1462
3. NON-TIDAL PERMIT NO. 08-NT-0191

TIDAL IMPACT

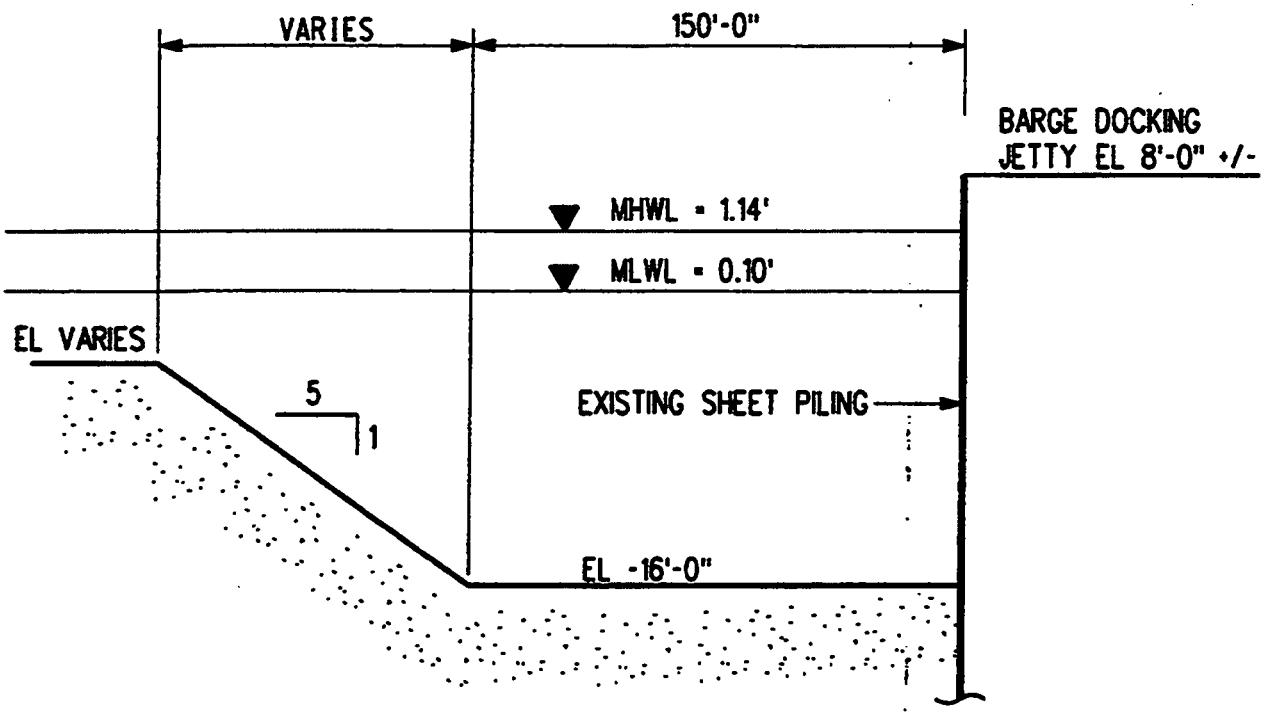
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6C DREDGING OF EXISTING BARGE UNLOADING FACILITY SCALE 0 60 120 180FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 4 OF 12 DATE: OCT 11, 2010



NOTES

1. TIDAL PERMIT NO. 08-WL-1642
2. NON-TIDAL PERMIT NO. 08-NT-0191

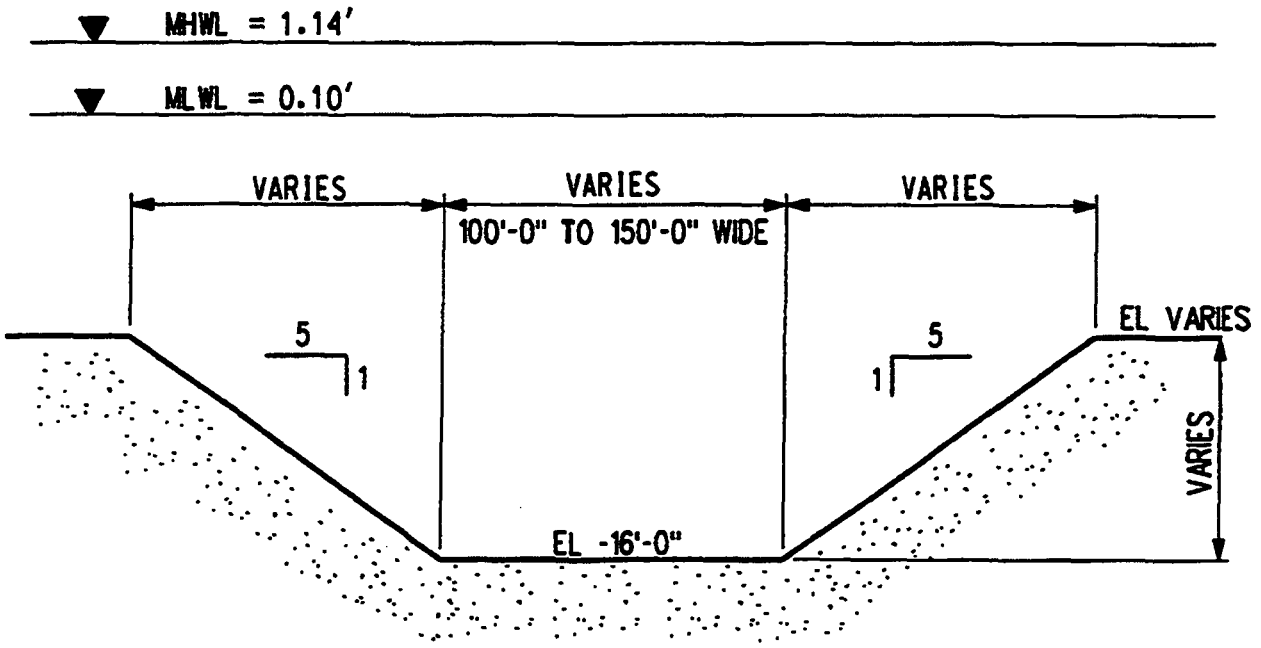
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6D DREDGING OF EXISTING BARGE UNLOADING FACILITY SCALE 0 60 120 180FT	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 5 OF 12 DATE: OCT 11, 2010



RESTORATION/EXCAVATION FOR BARGE SLIP SHALL BE TO ORIGINAL DREDGE ELEVATIONS SHOWN

SECTION A–A

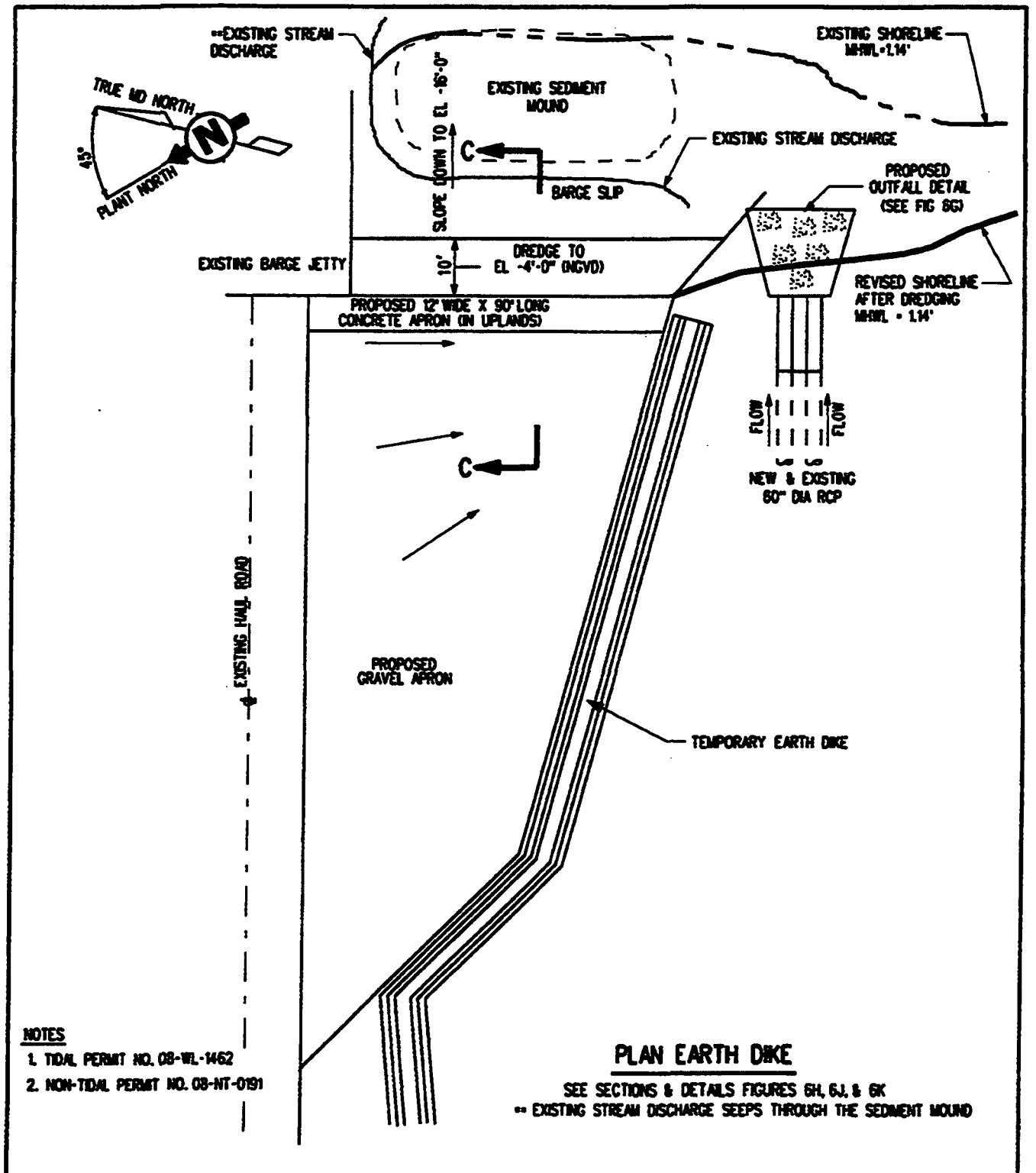
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6E SECTION @ PROPOSED BARGE SLIP MODIFICATION NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 SITE: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 6 OF 12 DATE: OCT 11, 2010



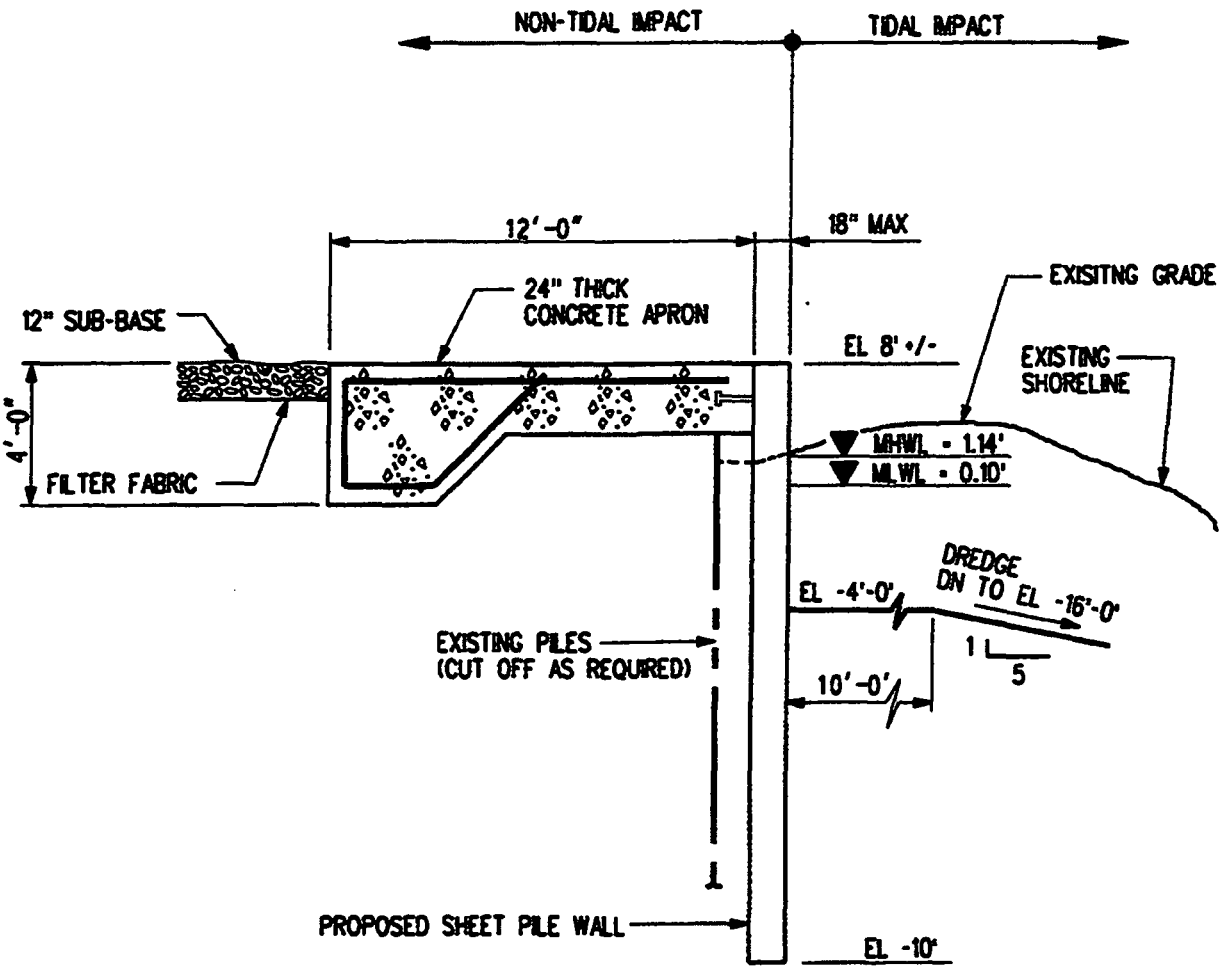
RESTORATION/EXCAVATION FOR BARGE SLIP SHALL BE TO ORIGINAL DREDGE ELEVATIONS SHOWN

SECTION B–B

PURPOSE: PLANT EXPANSION	FIGURE 6F SECTION @ PROPOSED BARGE SLIP MODIFICATION	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3
DATUM: (NGVD 29)	NOT TO SCALE	IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY
PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598		SHEET 7 OF 12 DATE: OCT 11, 2010



PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6G MODIFICATIONS FOR NEW BULKHEAD & APRON NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 8 OF 12 DATE: OCT 11, 2010



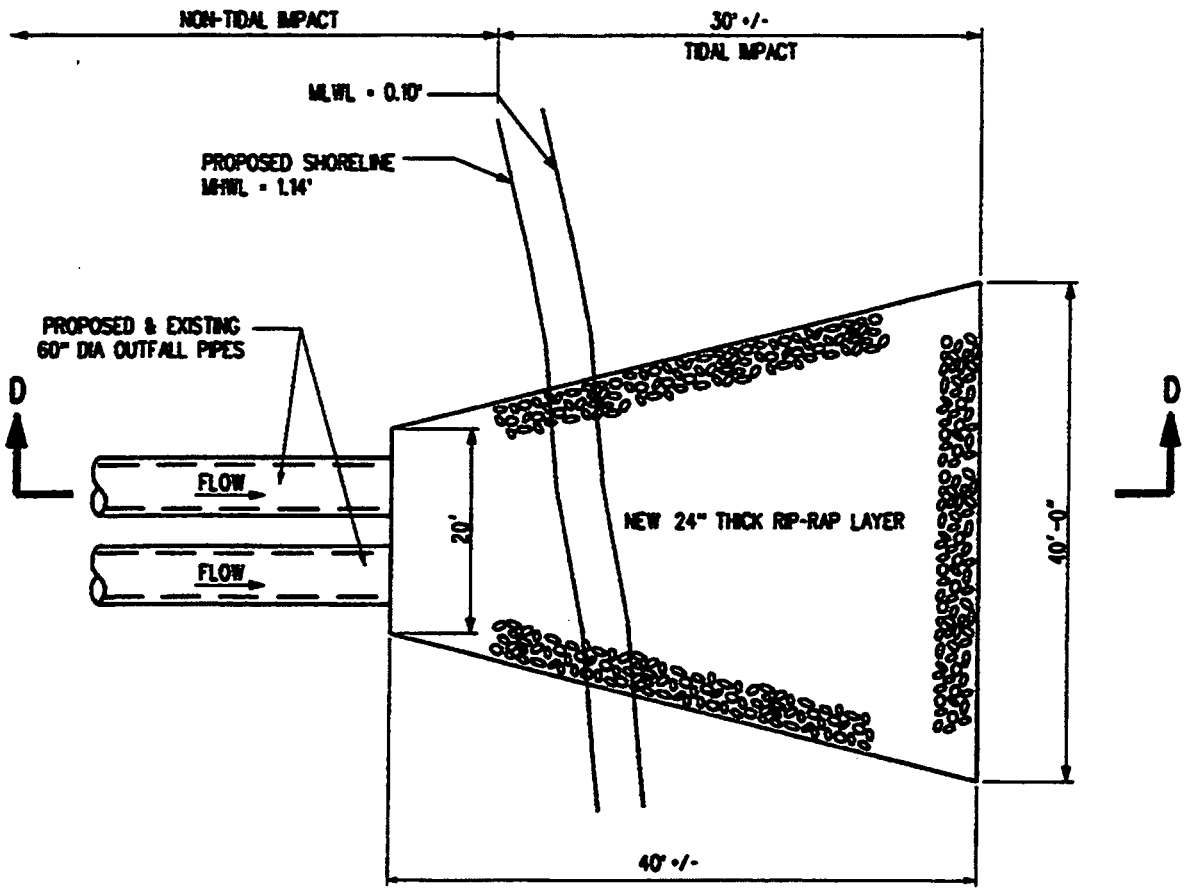
NOTES

1. TIDAL PERMIT NO. 08-WL-1462
2. NON-TIDAL PERMIT NO. 08-NT-0191

SECTION C-C

SEE FIGURE 6A FOR LOCATION OF APRON & SHEET PILING
SEE FIGURE 6G FOR MODIFICATIONS FOR NEW BULKHEAD & APRON

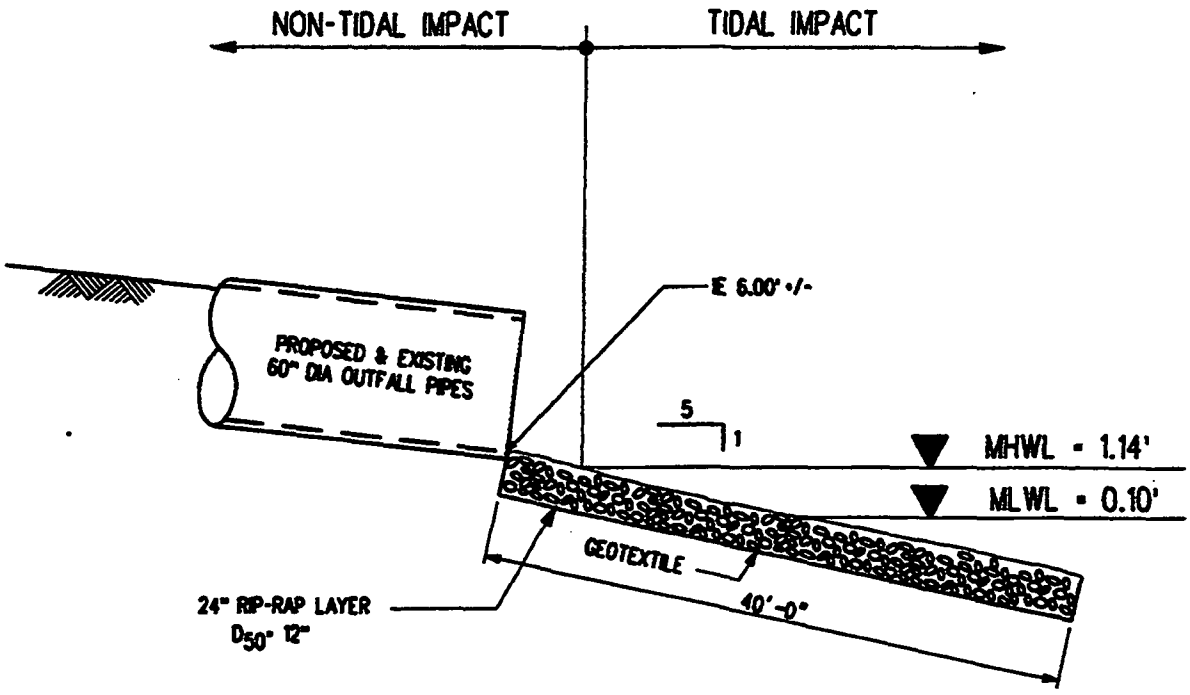
PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6H SECTION THRU CONCRETE APRON NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 9 OF 12 DATE: OCT 11, 2010



PROPOSED OUTFALL RIPRAP & APRON DETAILS

FOR LOCATION OF APRON SEE FIGURE 6G

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6J STREAM OUTFALL DETAILS NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 10 OF 12 DATE: OCT 11, 2010

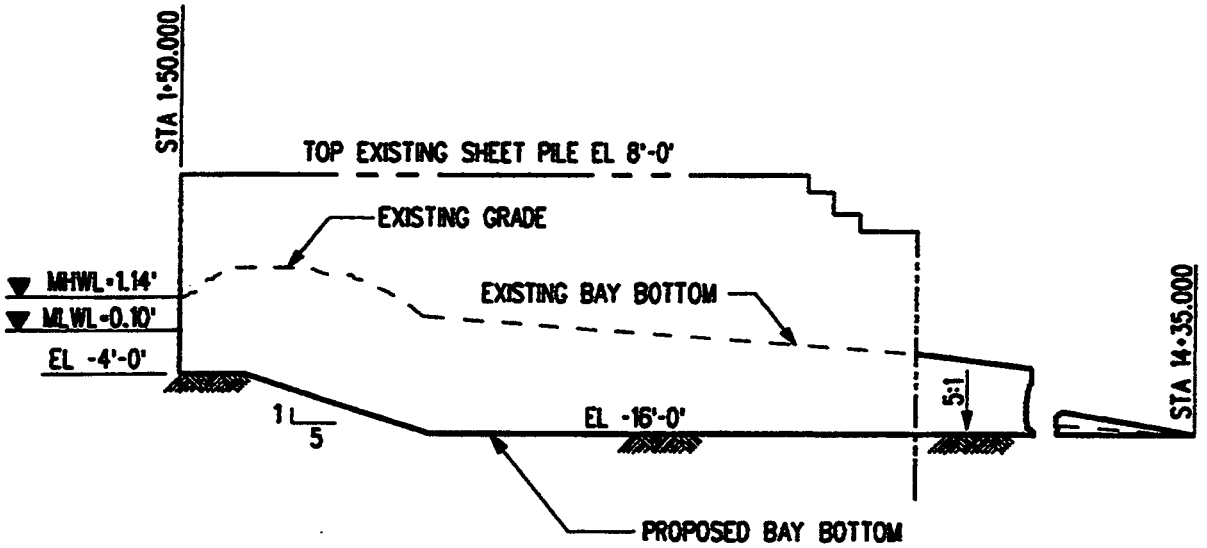


SECTION D-D

NOTES

1. TIDAL PERMIT NO. 08-WL-1462
2. NON-TIDAL PERMIT NO. 08-NT-0191

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6K STREAM OUTFALL DETAILS NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 11 OF 12 DATE: OCT 11, 2010



LONGITUDINAL SECTION E-E

(SEE FIGURE 6)

PURPOSE: PLANT EXPANSION DATUM: (NGVD 29) PROJECT LATITUDE/LONGITUDE: 38.424133 -76.441598	FIGURE 6L BARGE SLIP RESTORATION NOT TO SCALE	CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 3 IN: PATUXENT/ WEST CHESAPEAKE BAY COUNTY OF: CALVERT STATE: MD APPLICATION BY: UNISTAR NUCLEAR ENERGY SHEET 12 OF 12 DATE: OCT 11, 2010