John W. Harris, P. E.

CONSULTING ENGINEER, INC.
5112 BUR OAK CIRCLE
RALEIGH NC 27612

Telephone (919) 789-0744
Fax (919) 789-0784
www.harriseng.net

RECEIVED
MAR 10 2015
SOLID WASTE SECTION

12, March 2015

Elizabeth S. Werner
Hydrogeologist
Solid Waste Section
NC Division of Waste Management
217 W. Jones Street
Raleigh, NC 27699

RE: Alan Stone Landfill, Stone Company, LLP
PERMIT NO. 1909-LCID-2010

Elizabeth;

Please accept for review and subsequent approval our Application for renewal and expansion (permit amendment) of the existing LCID Landfill for Alan Stone. The Landfill is located north of the intersection of Rock Hill Drive and Big Woods Road, Chapel Hill, Williams Township, Chatham County, North Carolina.

We are submitting the following in support of our application.

1. General Narrative
2. Property Information
3. Operation Plan
4. Erosion Control Narrative
5. Signature Pages
6. Engineering Drawings
7. This Cover Letter/Application

If you should have any questions or need additional information, please do not hesitate to contact me.

Sincerely;

John W. Harris, P.E.
Consulting Engineer, Inc.

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

June 7, 2010

Alan Stone
348 Bush Creek Lane
Chapel Hill, NC 27517

Re: Permit to Construct and Operate LCID Landfill
Stone Landfill
Chatham County, North Carolina
Permit No. 1909-LCID-2010
Doc ID No. 10746

Dear Mr. Stone:

Attached is the above referenced combined Permit to Construct and Operate [DIN 10409]. You should carefully review the permit and contact me immediately with any questions or comments.

The following items are of special concern and are contained in the Permit to Construct:and Operate.

1. Please note that Permit Condition No. 3 under Attachment 1 Part IV requires the following:

   This permit shall not be effective unless the certified copy [attached at the back of the permit in the mailed package] is filed in the Register of Deeds Office and indexed in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy of the permit, affixed with the Register's seal and the date, book, and page number of recording must be returned to the Division of Waste Management, within 30 (thirty) calendar days. If the Section does not receive the certified copy of the recorded permit within 30 calendar days of issuance of the permit, the permit is suspended and of no effect until the date the Section receives the certified copy of the recorded permit.

2. The facility is not authorized for operation until you demonstrate that the facility has been constructed in accordance with the approved plans and the NC Solid Waste Rules and a preoperation meeting is held between you and Robert Hearn [919.508.8525], the Environmental Senior Specialist for your site.

3. Prior to operation, the permittee must acquire and maintain all other permits, licenses and authorizations necessary to properly operate the facility. All other permits, licenses and authorizations must be maintained current during the term of the Permit to Operate.

When facility construction is completed in accordance with the permit to construct, you must arrange with Robert Hearn, Environmental Senior Specialist for the facility, at 919.508.8525, to arrange a site inspection with you. You must demonstrate and provide written certification during the site inspection that the facility was constructed in accordance with the permit and approved documents.

Thank you for your cooperation in this matter. If you have questions about the permit conditions or questions arise during construction, please contact either me at 919.508.8498 or Robert Hearn, Environmental Senior Specialist for the facility, at 919.508.8525.

Sincerely

Digitally signed by Geoffrey H. Little
Location: NC-DENR DWM Solid Waste Section
Date: 2010.06.07 15:10:46 -04'00'

Geoffrey H. Little
Environmental Engineer

c: Paul Crissman, DWM
Ed Mussler, DWM
Robert Hearn, DWM
Donald Herndon, DWM
Jeff Skabo, DWM

Enclosure

North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

LAND CLEARING AND INERT DEBRIS (LCID) LANDFILL PERMIT NO. 1909-LCID-2010

STONE COMPANY, LLP
and Allan Hugh Stone
are hereby issued a

PERMIT TO CONSTRUCT AND OPERATE

STONE LANDFILL PHASES 1 THROUGH 4

Located north of the intersection of Rock Hill Drive and Big Woods Road, Chapel Hill, Williams Township, Chatham County, North Carolina, in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The legal description of the site is identified on the deeds recorded for this property listed in Attachment No. 1 of this permit.

cn=Edward F. Mussler III P. E., o=Division of Waste Mngt, ou=Solid Waste Section, email=ed.mussler@ncdenr.gov, c=US
2010.05.28 09:27:40 -04'00'

Edward F. Mussler, III, P.E.
Permitting Branch Supervisor
Solid Waste Section

GENERAL PROJECT NARRATIVE

Alan Stone Landfill is a 4.00 Acre site located off of Big Woods Rd. in Chatham County. This landfill is a Land Clearing and Inert Debris Landfill (LCID Landfill). Acceptable materials include the following; stumps, tree limbs, grass, untreated wood, unpainted concrete and concrete block, bricks, unpainted asphalt, and uncontaminated soil.

This application is an expansion to the existing Alan Stone Landfill. The additional landfill material will be placed alongside the existing landfill in four (4) separate phases, and then covered with a minimum of one (1) foot of clean fill from the stock pile area on site. All waste and clean fill will be placed at a maximum 3:1 slope, with a slope liner placed on top of everything at a 3:1 slope or less.

Test pits were dug in various locations where the proposed landfill expansion will be placed in order to ensure groundwater was not present. This procedure was done to ensure the Seasonal High Water Table was not within four (4) feet of the proposed landfill location.

Stormwater will be handled by a detention and settling ponds located at the lowest points of the facility. This basin will capture all surface water run-off and allow sediments to settle prior to release. The Basin shall be inspected after each rainfall event and at a minimum of weekly with repairs performed immediately if needed. Silt fencing is used around the site to ensure sediment coming from the proposed 3:1 slopes does not make its way off site.

All traffic entering and exiting the site will cross over a temporary 50' x 25' Construction Entrance.

OPERATIONS PLAN

FOR

STONE LANDFILL EXPANSION

Date: February 20, 2015

LAND CLEARING AND INERT DEBRIS (LCID) LANDFILL
PERMIT NO. 1909-LCID-2010
STONE COMPANY, LLP
and Allan Hugh Stone
5180-A Big Woods Road
Chapel Hill, N.C. 27517
(919) 933-8467
alanrocs@gmail.com

This Plan has been prepared by:

John Harris, principal in charge.
JohnHarris@HarrisEng.net

JOHN W. HARRIS, P.E.
CONSULTING ENGINEER, Inc.
5112 Bur Oak Circle
RALEIGH, N.C. 27612
(919) 789-0744

Maintenance and Operations Plan

I. Operations Narrative:

The Operations Plan should include a narrative of the following information:

1. Description of the wastes to be accepted (e.g., municipal solid waste, commercial waste, industrial, construction debris, demolition debris).

   Due to the fact that this is a LCID landfill, the only wastes accepted will be; stumps, brush, land debris, rock, dirt, asphalt and concrete.

2. Estimate in tons per day expected

   It is estimated that this Facility will average between 50 to 100 tons of waste material daily.

3. List the service area for the facility.

   The Facility is an 18.7-Acre expansion of an existing 4-Acre LIDC Landfill. It is anticipated that the service area will generally be the eastern portion of Chatham and western portion of Wake County.

4. Description of the equipment, scales, structures, water source for cleaning.

   Equipment used will include excavators and bulldozers.

5. Describe site security and access control. Access roads must be of all weather construction. Also describe hours of operation.

   The site is fully surrounded by the owner's property, which is heavily wooded. Also, the main gate will be cabled, and the entrance road will be graveled and maintained for weather conditions.

6. Hours of operation.

   The facility will operate Monday to Saturday from +/- 7:00 am to 6:00 pm.

7. Description of signs to be posted at the entrance and within the site to direct traffic. Signs must provide a description of the types of waste received, the types of waste prohibited, operating hours, permit number, and emergency contact phone numbers.

   A sign will be posted at the entrance to direct the truck traffic and advise as to what types of waste are and are not allowed to be placed in this facility. Additionally a sign will be posted to indicate the operational hours as well as emergency contact numbers.

8. Maintenance of all weather access roads.

   Operator shall keep all roads in good care. He will refresh gravel as required and will re-level as needed to assure safe ingress and egress of the facility. Incoming traffic will use the main (only) entrance and room will be made available for the carrier to circle or turn to exit after the waste is dumped.

9. The procedures for handling unacceptable wastes including the storage of unacceptable wastes and the frequency of unacceptable waste. Unacceptable waste such as waste tires, appliances, construction and demolition waste, and household garbage must not be disposed in the LCID landfill. (Personnel requirements, qualifications, responsibilities. The plan must indicate that a trained employee must be onsite at all times the site is open, overseeing the loading and unloading of waste.)

A qualified operator shall be on duty at this facility at all times while it is open. His responsibilities shall be, but are not limited to the following. Inspect all waste as it is brought into the landfill and to authorize only low impact and construction debris be unloaded. Assist in the placement of the waste, direct the incoming traffic, compact the waste, measure waste lift, place soil cap, etc…

10. Surface water control features including run-on and run-off. Describe plan for operation of the facility in wet weather. A copy of the storm water application and permit must be provided.

    All surface water shall be handled appropriately with detention and settling pond facilities located at the lowest points of drainage. These basins will capture all surface water run-off and allow sediments to settle prior to release. The Basins shall be inspected after each rainfall event and at a minimum of weekly with repairs performed immediately if needed. Permits will be maintained on site.

11. Plan for fire prevention and actions to be taken in the event of an accidental fire.

    Fire safety precautions shall include the access of fire extinguishers, and water, as well as the safe storage of fuel and inflammables used in the maintenance and operation of the equipment.

12. Describe recordkeeping (daily records of amounts by weight received waste screening, inspection records, training). The facility must also keep a copy of the permit, operations plan, and site drawings on site at all times.

    All records, including site plans, operational manuals, permits, and a daily log of who dumps on site, as well as daily dump tickets shall be keep on-site with the operator.

13. Application of cover material including the source and frequency of the cover material

    The landfill will use suitable soil excavations to be stockpiled and stored on site for the purpose of use for cover material. Cover material shall be a minimum of 1.0' thick and shall be applied daily to completely seal and cover all imported LCID waste materials.

14. Provisions for proper closure of the facility including the source of the equipment, labor, final cover soil, and ground cover.

    The operator shall keep sufficient stock piled cover material at all times. Closure of the facility shall encompass the final sealing and cover of all waste. The operator shall assure that proper equipment for the operations and closing of the facility are kept on site and in suitable working order.

SEDIMENT AND EROSION CONTROL PLAN

GENERAL INFORMATION

Stone Landfill Expansion is a proposed 18.7 acre expansion of an existing 4 acre LCID Landfill. The Landfill Expansion is located +/- 6000 LF southeast of the intersection of Jack Bennett Road and Big Woods Road. Stone Landfill Expansion is located in Chatham County. The owner of the site is Alan Stone of Stone Excavation, Inc., 348 Bush Creek Lane, Chapel Hill, NC 27517. Alan Stone is also the operator of Stone Landfill. The Engineer for the project is John W. Harris, P.E. Consulting Engineer, Inc., 5112 Bur Oak Circle, Raleigh, NC 27612, (919)789-0744. The Surveyor for the project is Smith and Smith Surveyors, P.O. Box 457, Apex, NC 27502, (919)362-7111.

CLEAN FILL AND COVER

Appropriate clean fill cover shall be applied monthly, or when the active dumping area reaches one acre in size, whichever occurs first.

120 Calendar days after completion of any phase of disposal operations, or upon revocation of a permit, the disposal area shall be covered with a minimum of one foot of suitable soil cover sloped to allow surface water runoff in a controlled manner.

Provisions for a ground cover sufficient to restrain erosion must be accomplished within 30 working days or 120 calendar days upon completion of any phase of landfill development.

EQUIPMENT

Equipment used on site will include excavators and bulldozers.

SECURITY

The site is fully surrounded by the owner's property, which is heavily wooded. The main gate will also remain cabled and locked while the landfill is not in operation.

TRAFFIC AND SIGNS

Incoming traffic will use the main (only) entrance and room will be made available for the carrier to circle or turn to exit after the waste is dumped. A sign will be posted at the entrance to direct the truck traffic and advise as to what types of waste are and are not allowed to be placed in this facility. Additionally, a sign will be posted to indicate the operational hours as well as the emergency contact number and the permit number.

EQUIPMENT OPERATORS

A qualified operator shall be on duty at this facility at all times while it is open. His responsibilities shall be, but are not limited to the following; assist in the placement of the waste, direct the incoming traffic, compact the waste, measure waste lift, place soil cap, etc.

EROSION & STORMWATER DEVICES

Stormwater will be handled by a detention and settling pond located at the lowest point of the facility. This basin will capture all surface water run-off and allow sediments to settle prior to release. All surface water will be diverted from the working face and shall not be impounded over waste.

RECORDKEEPING

All records, including site plans, operational manuals, permits, a daily log of who dumps on site, as well as daily dump tickets shall be keep on-site with the operator. The proposed construction modifications require an Erosion and Sedimentation Control Permit. A sedimentation and erosion control plan is required by Chatham County. And the permit will be kept on site. Sediment and erosion control is already in effect, silt fences and sediment basins already in place due to existing property.

FIRE PROTECTION

Fire safety precautions shall include the access of fire extinguishers, and water, as well as the safe storage of fuel and inflammables used in the maintenance and operation of the equipment.

MAINTENANCE PLAN

ROAD

Entrance road will be graveled and maintained monthly for weather conditions.

EQUIPMENT

The breakdown of equipment shall be handled by the owner. Additional mechanical pieces will be kept on site, no shut down of the facility will be necessary.

SEDIMENT BASIN

Inspect skimmer sediment basins at least weekly and after each significant (one-half inch or greater) rainfall event and repair immediately. Remove sediment and restore the basin to its original dimensions when sediment accumulates to one-half the height of the first baffle. Pull the skimmer to one side so that the sediment underneath it can be excavated. Excavate the sediment from the entire basin, not just around the skimmer of the first cell. Make sure vegetation growing in the bottom of the basin does not hold down the skimmer.

Repair the baffles if they are damaged. Re-anchor the baffles if water is flowing underneath or around them.

If the skimmer is clogged with trash and there is water in the basin, usually jerking on the rope will make the skimmer bob up and down and dislodge the debris and restore flow. If this does not work, pull the skimmer over to the side of the basin and remove the debris. Also check the orifice inside the skimmer to see if it is clogged; if so remove the debris.

If the skimmer arm or barrel pipe is clogged, the orifice can be removed and the obstruction cleared with at plumber's snake or by flushing with water. Be sure and replace the orifice before repositioning the skimmer.

Check the fabric lined spillway for damage and make any required repairs with fabric that spans the full width of the spillway. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement. Make all necessary repairs immediately. Remove all trash and other debris from the skimmer and pool areas.

Freezing weather can result in ice forming in the basin. Some special precautions should be taken in the winter to prevent the skimmer from plugging with ice.

SEEDING

Reseed and mulch areas where seeding emergence is poor, or where erosion occurs, as soon as possible. Do not mow. Protect from traffic as much as possible. Generally, a stand of vegetation cannot be determined to be fully established until soil cover has been maintained for one full year from planting. Inspect seeded areas for failure and make necessary repairs and reseedings

within the same season, if possible. Reseeding- if a stand has inadequate cover, re-evaluate choice of plant materials and quantities of lime and fertilizer. Re-establish the stand after seedbed preparation or over-seed the stand. Consider seeding temporary, annual species if the time of year is not appropriate for permanent seeding.

GRADING

Periodically check all graded areas and the supporting erosion and sedimentation control practices, especially after heavy rainfalls. Promptly remove all sediment from diversions and other water-disposal practices. If washouts or breaks occur, repair them immediately. Prompt maintenance of small eroded areas before they become significant gullies is an essential part of an effective erosion and sedimentation control plan.

BAFFLES

Inspect baffles at least once a week and after each rainfall. Make any required repairs immediately.

Be sure to maintain access to the baffles. Should the fabric of a baffle collapse, tear, decompose, or become ineffective, replace it promptly.

Remove sediment deposits when it reaches half full to provide adequate storage volume for the next rain and to reduce pressure on the baffles. Take care to avoid damaging the baffles during cleanout. Sediment depth should never exceed half the design storage depth.

After the contributing drainage area has been properly stabilized, remove all baffle materials and unstable sediment deposits, bring the area to grade, and stabilize it.

SILT FENCE

Inspect sediment fences at least once a week and after each rainfall. Make any required repairs immediately.

Should the fabric of a sediment fence collapse, tear, decompose or become ineffective, replace it promptly. Replace burlap every 60 days.

Remove sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid undermining the fence during clean out.

Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

CONSTRUCTION ENTRANCE

Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic top dressing with 2-inch stone.

After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.

Applicant Signature Page

Name of Facility Stone LandFill

I certify that I have read and understand this application and that the information provided is true, accurate, and complete to the best of my knowledge.

I understand that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars ($15,000.00) per day per each violation of the Solid Waste Management Rules. I further understand that the Solid Waste Management Rules may be revised or amended in the future and that the facility siting and operations of this solid waste management facility will be required to comply with all such revisions or amendments.

Signature	Print Name	Date
Alan Stone	ALAN Stone	2/24/15

President
Title

ASE Inc.
Business or Organization Name

Certification by Operator (if different from Applicant)

Name of facility Stone LAND FILL

I hereby certify that _____ has an agreement with the solid waste facility owner to operate a land clearing and inert debris landfill on the land and the land owner has specifically granted permission for the operation of the facility. I understand that both the operator and owner are jointly and severally liable for improper operations and proper closure of the landfill.

I understand that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars ($15,000.00) per day per each violation of the Solid Waste Management Rules. I further understand that the Solid Waste Management Rules may be revised or amended in the future and that the facility siting and operations of this solid waste management facility will be required to comply with all such revisions or amendments.

Alan Stone — Signature

ALAN Stone — Print Name

3/24/15 — Date

president — Title

ASE Inc. — Business or organization name

NORTH CAROLINA

_____ County

I, a Notary Public for said County and State, do hereby certify that

_____ personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

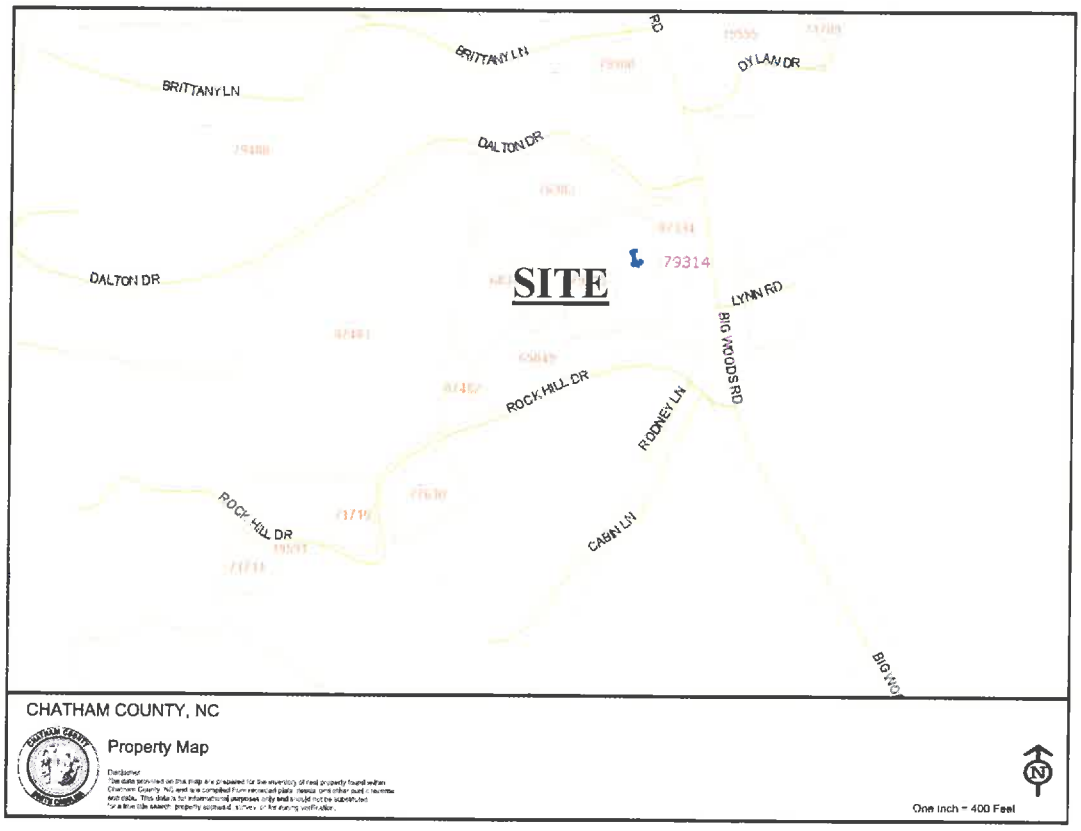
Witness my hand and official seal, this the ___day of _____, 20__.

Notary Public _____

My commission expires_____, 20__

PROPERTY INFORMATION AND MAPS

Alan Stone Landfill is located north of the intersection of Rock Hill Drive and Big Woods Road, Chapel Hill, Williams Township, Chatham County, North Carolina. The current landfill is 4.00 Acres in size, and will accept trash from the LCID (Land Clearing and Inert Debris) Category. Some things accepted at an LCID Landfill include stumps, tree limbs, grass, untreated wood, unpainted concrete and concrete block, bricks, unpainted asphalt, and uncontaminated soil. All siting criteria for Chatham County LCID Landfills have been met.



The deed references are as noted on the previous permit.

ATTACHMENT 1

PART I: PERMITTING HISTORY

Permit	Date
Original Issuance Permit to Construct/Operate [DIN10409]	May 28, 2010

PART II: LIST OF DOCUMENTS FOR THE APPROVED PLAN

1. *Application for LCID Landfill Permit*. Prepared for: Stone Landfill, Big Woods Road, NC. Prepared by: John H. Harris, P.E. Consulting Engineer, Inc., Raleigh, NC. September 3, 2009 [DIN10383].

PART III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY

PIN	Book	Page	Acreage	Grantor	Grantee
9794-16-0956.000 9794-06-8964.000 9794-06-6670.000	0595	0291	2.00 2.00 2.60	A. Hugh Stone and Helen B. Stone	Alan Hugh Stone
9794-16-1724.000	1411	0517	2.21	Cynthia W. Stone	Alan Hugh Stone
9794-07-5081.000	0524	0747	4.25	A. Hugh Stone and Helen B. Stone	Allan Hugh Stone
9794-07-7340.000	0826	0314	3.39	A. Hugh Stone and Helen B. Stone	Allan Hugh Stone
Total Site Acreage:			**16.45**		

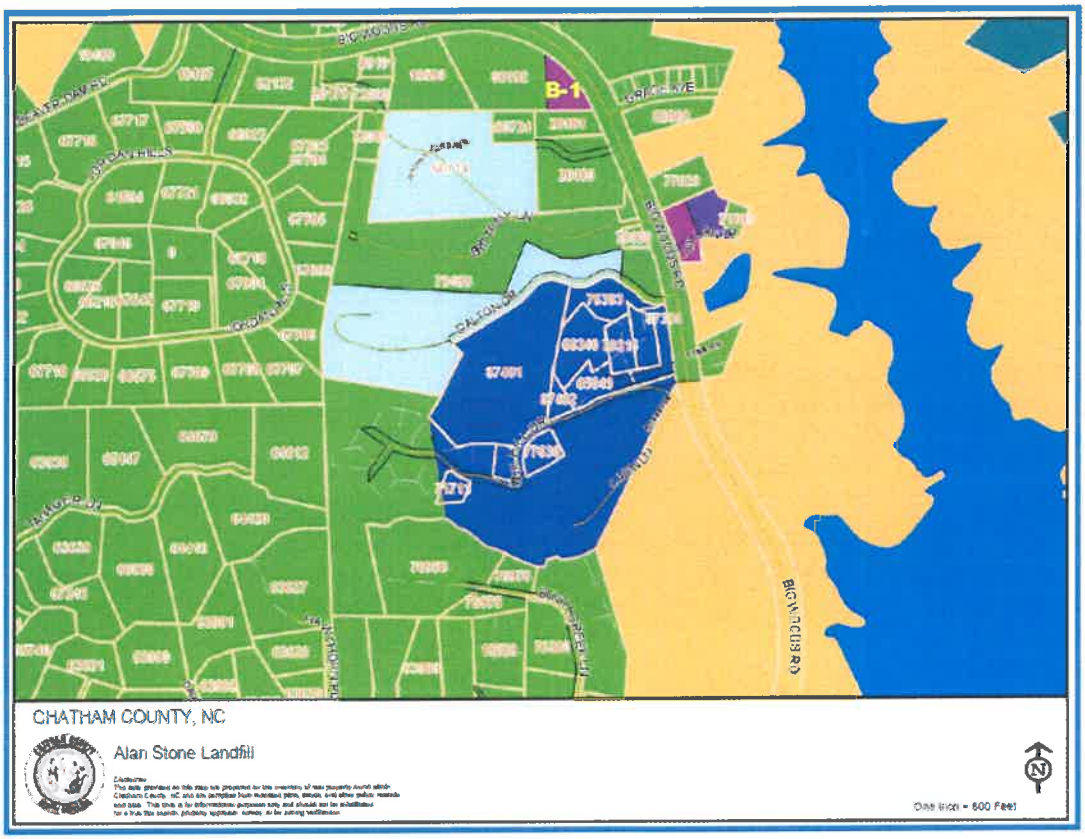
Note: Deed book reference is from the Chatham County, NC, Register of Deeds office.

U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

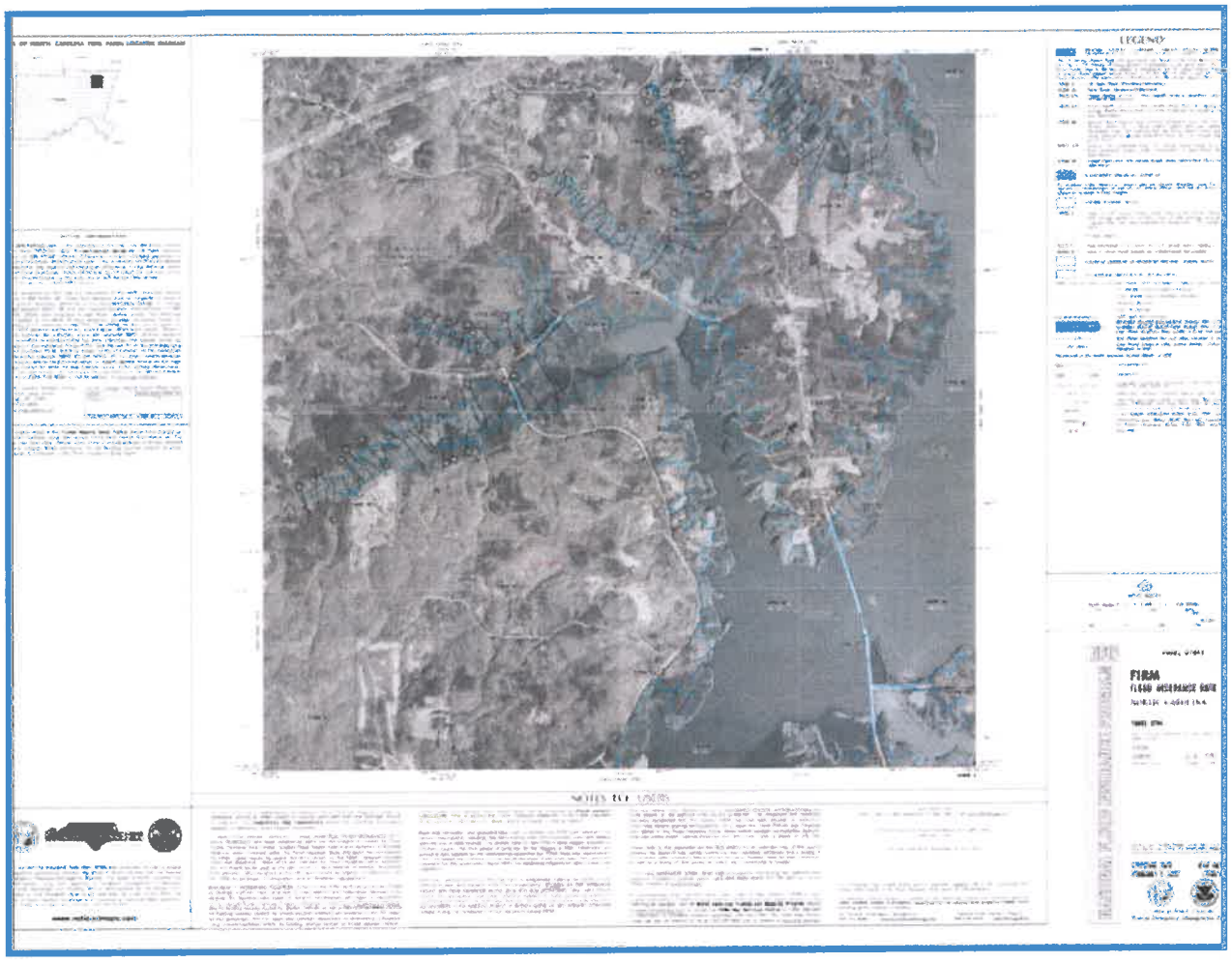
FARRINGTON QUADRANGLE
NORTH CAROLINA
7.5-MINUTE SERIES

FARRINGTON, NC
2013

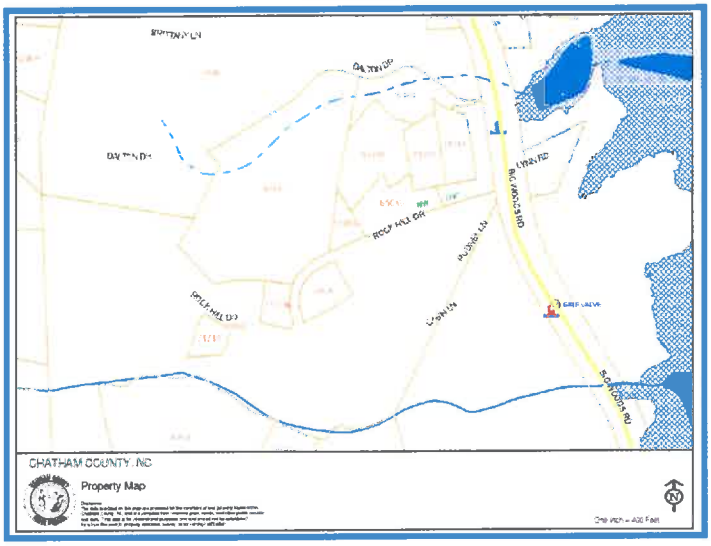
Chatham County Zoning Map: Site is properly zoned and has been operating as an existing LCID site.



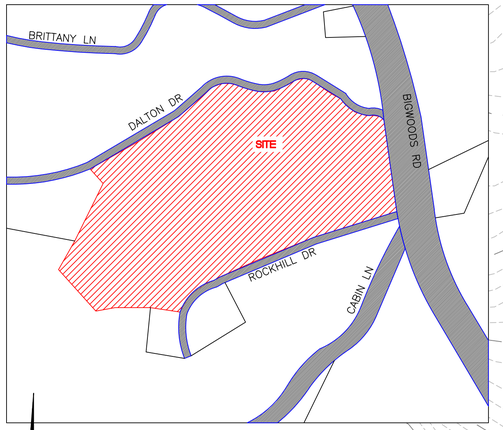
FEMA Map

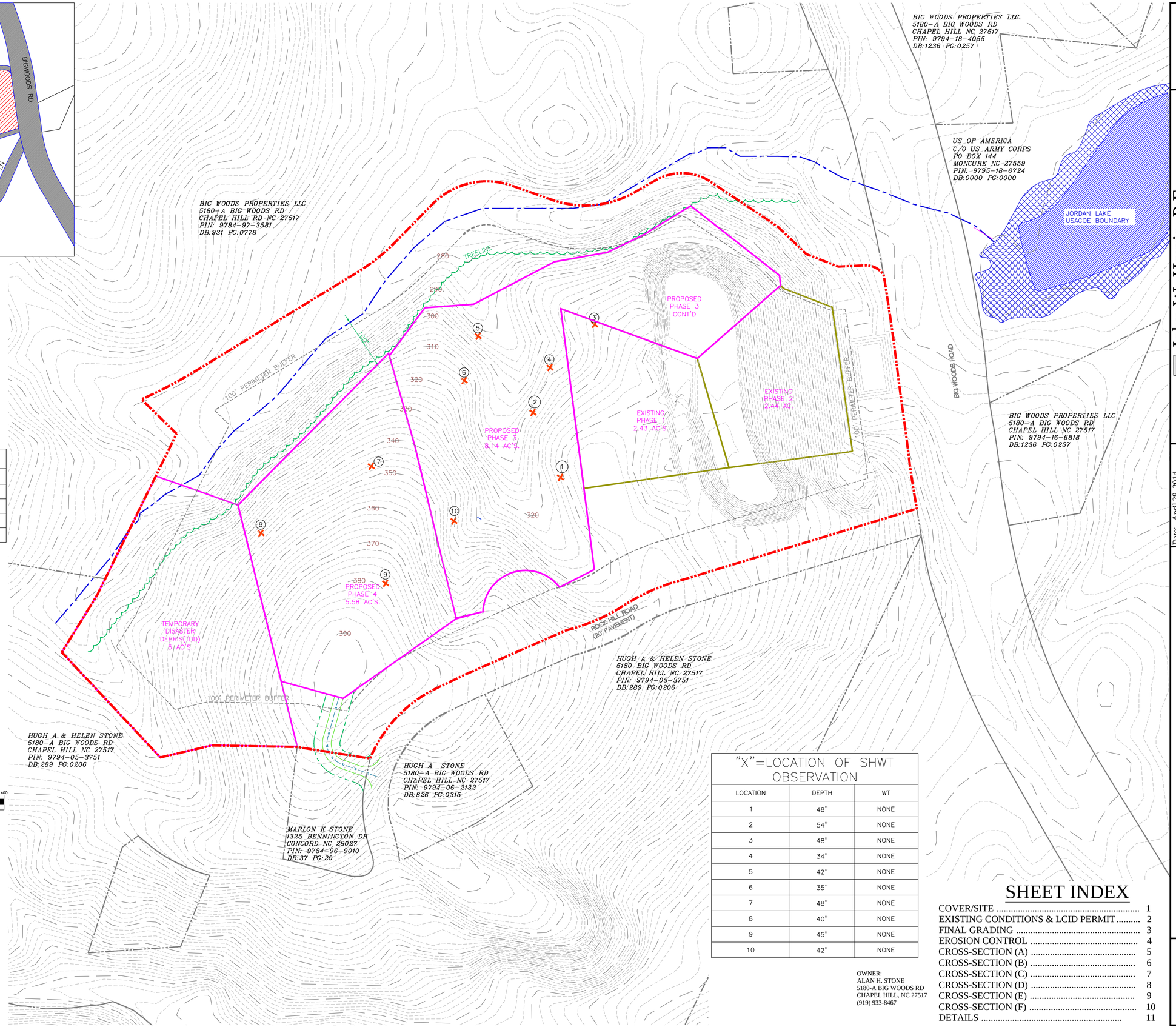


Chatham County Flood Map:



Aerial Map:





AREA OF SITE

AREA	CYDS	ACREAGE
PHASE 3	352,836	8.1
PHASE 4	243,936	5.6
AREA FOR TDD	217,800	5
TOTAL	814,572	18.7

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

"X"=LOCATION OF SHWT OBSERVATION

LOCATION	DEPTH	WT
1	48"	NONE
2	54"	NONE
3	48"	NONE
4	34"	NONE
5	42"	NONE
6	35"	NONE
7	48"	NONE
8	40"	NONE
9	45"	NONE
10	42"	NONE

OWNER:
ALAN H. STONE
5180-A BIG WOODS RD
CHAPEL HILL, NC 27517
(919) 933-8467

SHEET INDEX

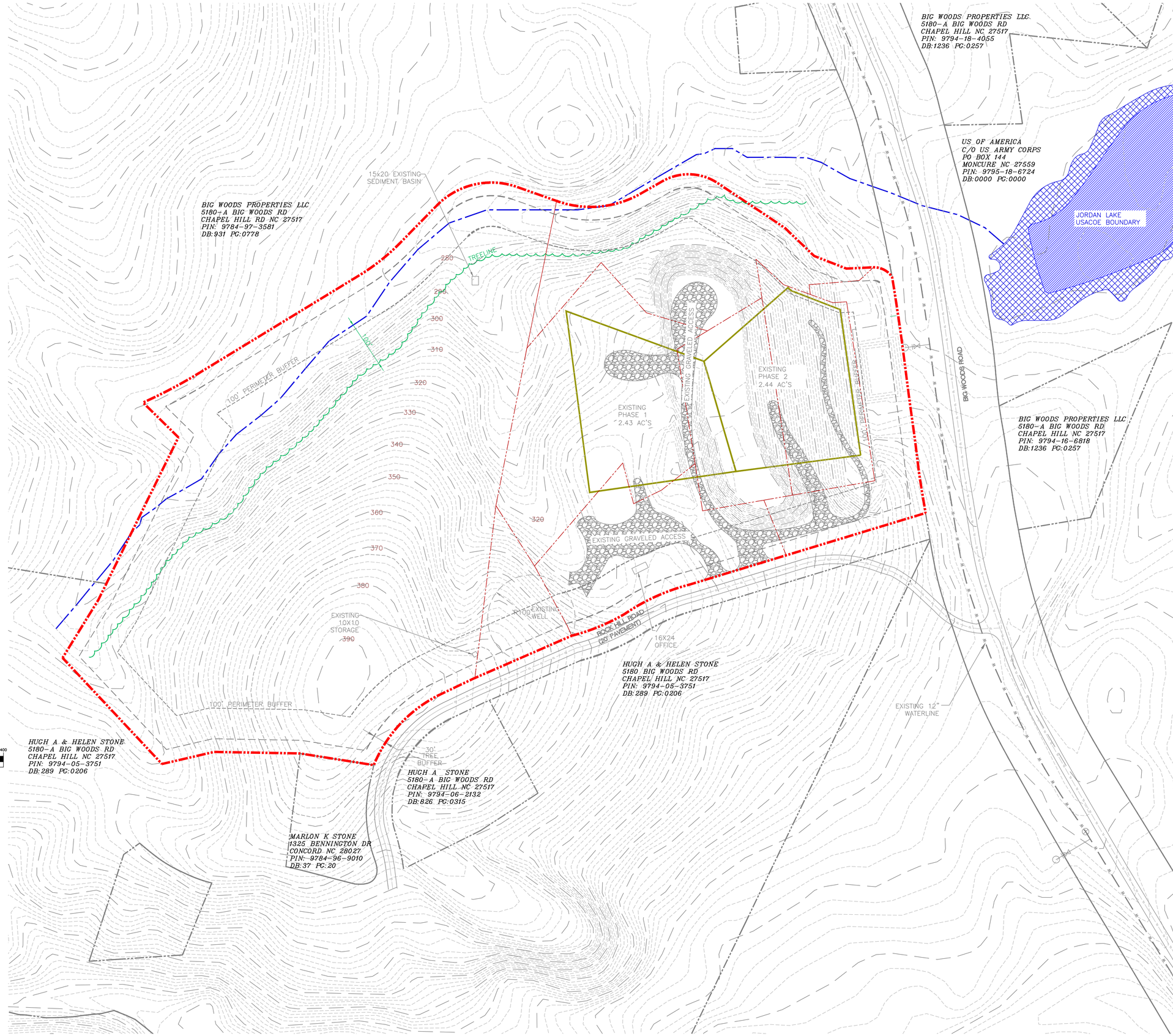
COVER/SITE 1
EXISTING CONDITIONS & LCID PERMIT 2
FINAL GRADING 3
EROSION CONTROL 4
CROSS-SECTION (A) 5
CROSS-SECTION (B) 6
CROSS-SECTION (C) 7
CROSS-SECTION (D) 8
CROSS-SECTION (E) 9
CROSS-SECTION (F) 10
DETAILS 11

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 100'
Drawn By: EDS
Job #: 181-0414
File: M:\Projects\Files\Stone Land\EDS\Alan Stone X Site.dwg
Printed Date: 9 March 2015
Revision: No Revision as of the printed date

COVER/SITE For Alan Stone LCID Landfill

1



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

N.C. UNDERGROUND UTILITIES

3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949

A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

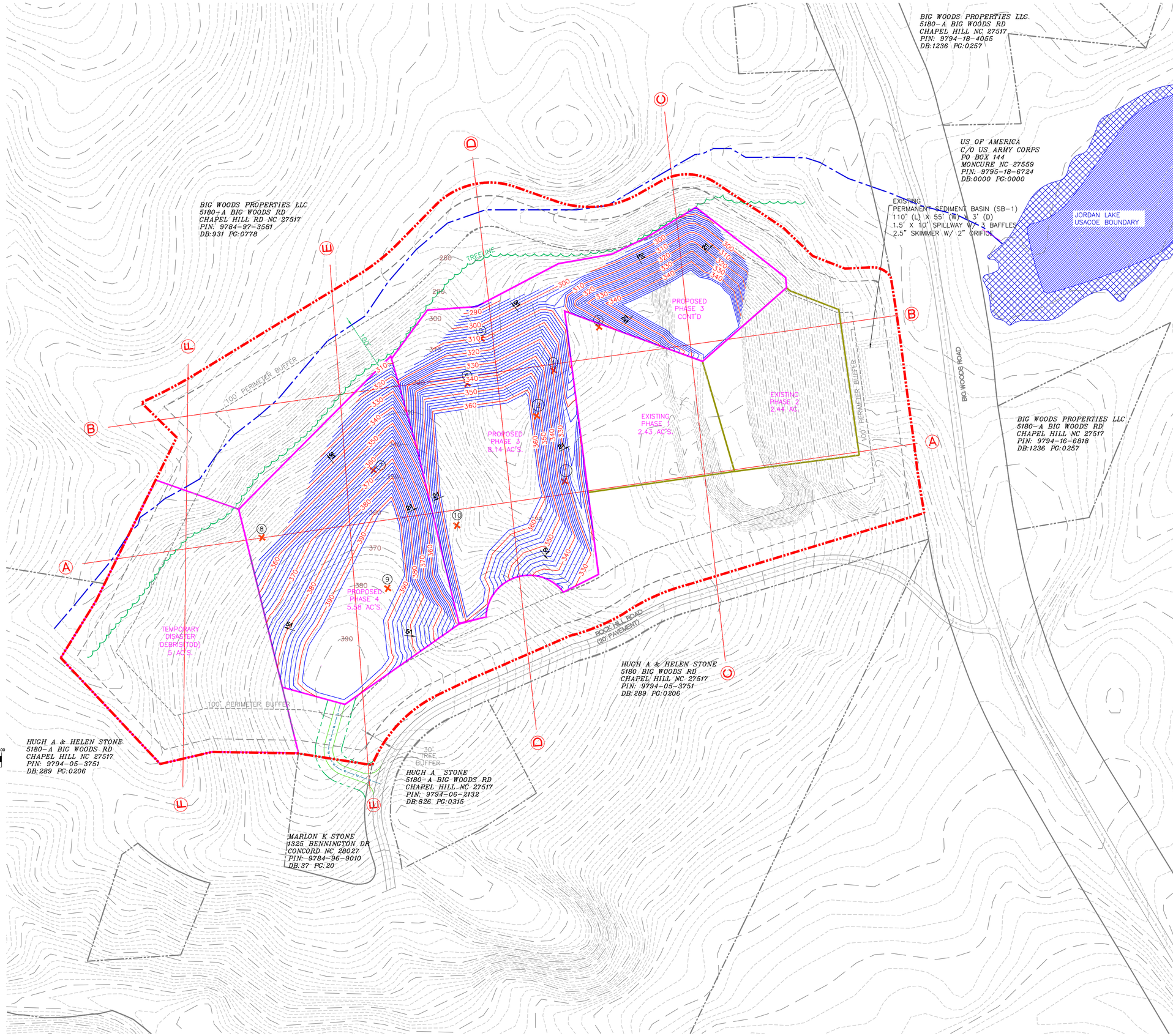
NORTH CAROLINA PROFESSIONAL SEAL ENGINEER JOHN W. HARRIS

John W. Harris, P.E.
Consulting Engineer, Inc.
Engineers • Consultants
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 100'
Drawn By: EDS
Job #: 181-0414
File: 9679Stone-Existing-LandfillAlan-Stone & Title.dwg
Printed Date: 4 March 2015
Revision: No Revision as of the printed date

EXISTING CONDITIONS & LCID PERMIT
For
Alan Stone LCID Landfill

2



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

NORTH CAROLINA PROFESSIONAL SEAL ENGINEER JOHN W. HARRIS

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporation # C-1101
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 100'
Drawn By: EDS
Job #: 181-0414
File: 90-Plans-2-Grading-Landfill-Alan-Stone & Title.dwg
Printed Date: 4-March-2015
Revision: No Revision as of the printed date

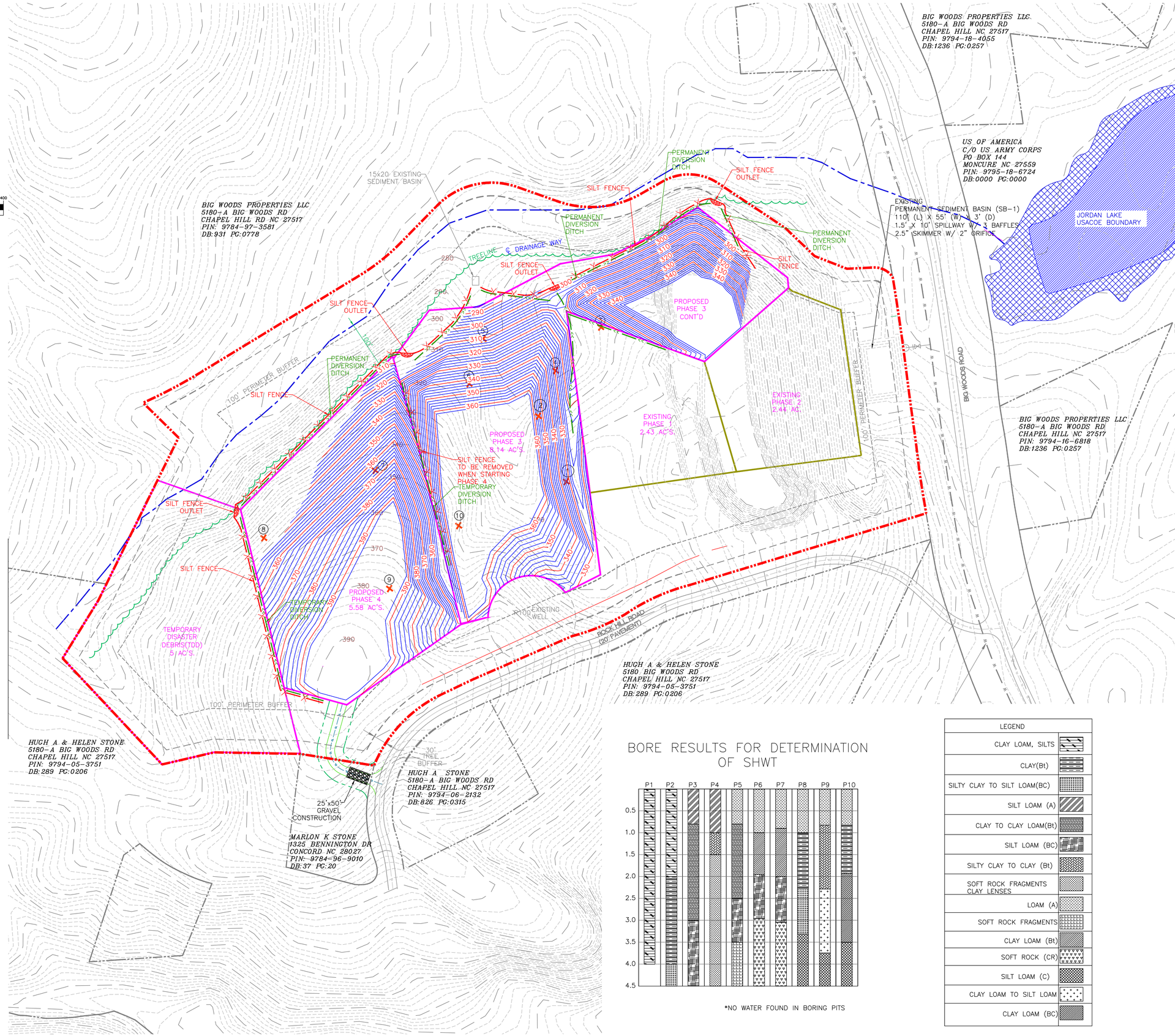
FINAL GRADING
For
Alan Stone LCID Landfill

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY



BORE RESULTS FOR DETERMINATION OF SHWT

*NO WATER FOUND IN BORING PITS

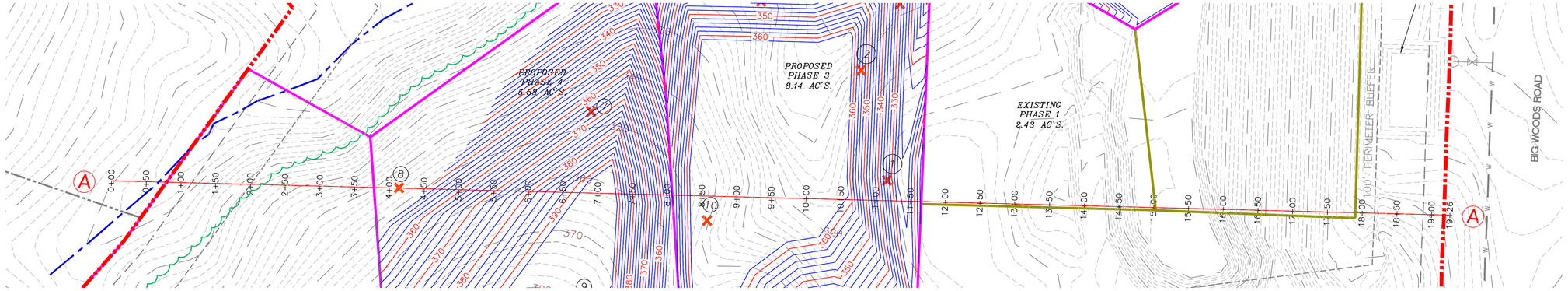
LEGEND
CLAY LOAM, SILTS
CLAY(Bt)
SILTY CLAY TO SILT LOAM(BC)
SILT LOAM (A)
CLAY TO CLAY LOAM(Bt)
SILT LOAM (BC)
SILTY CLAY TO CLAY (Bt)
SOFT ROCK FRAGMENTS CLAY LENSES
LOAM (A)
SOFT ROCK FRAGMENTS
CLAY LOAM (Bt)
SOFT ROCK (CR)
SILT LOAM (C)
CLAY LOAM TO SILT LOAM
CLAY LOAM (BC)

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporation # C-1737
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

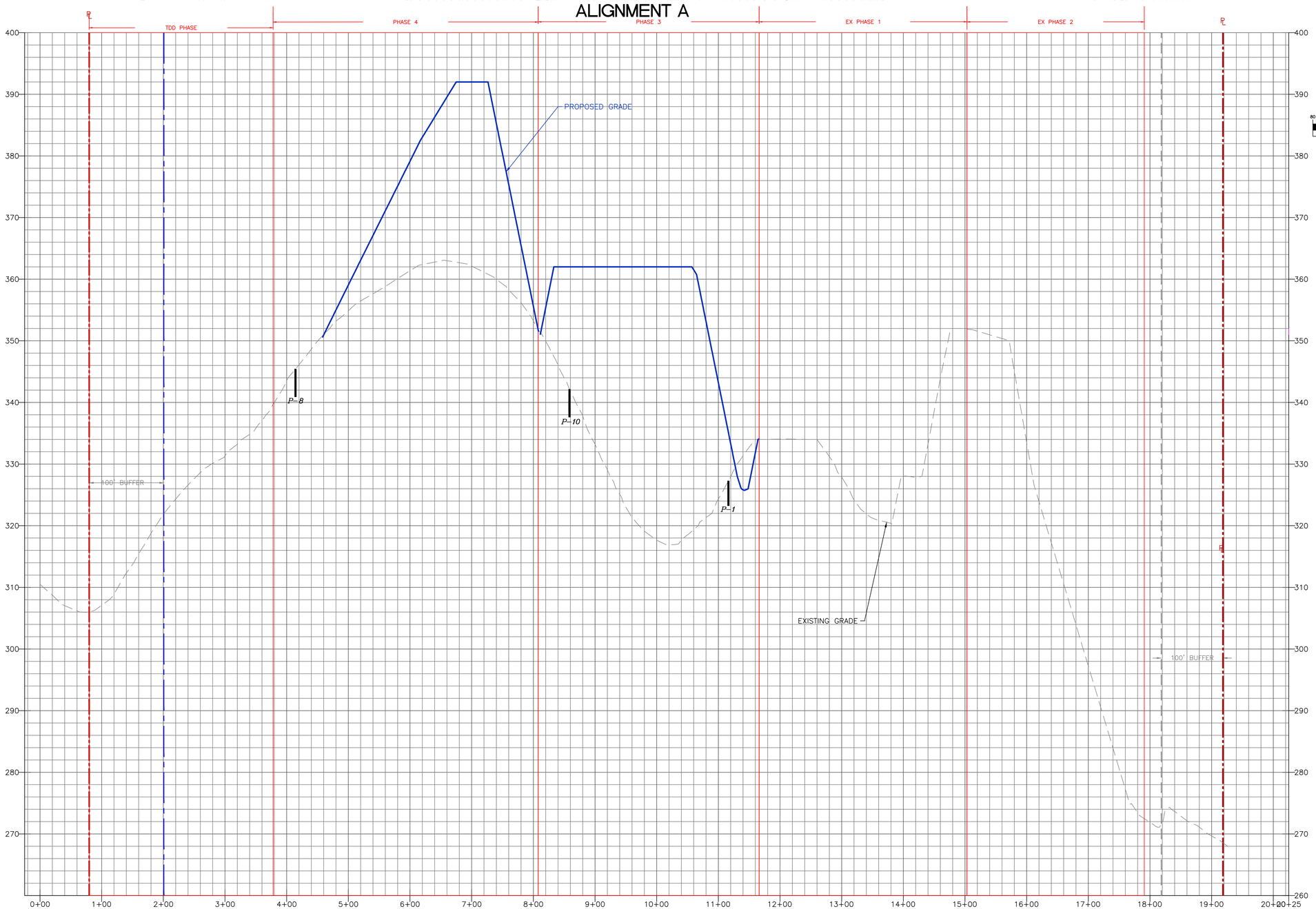
Date: April 28, 2014
Scale: 1" = 100'
Drawn By: EDS
Job #: 181-0414
File: W:\Projects\Stone Landfill\Stone Site 4-28-14.dwg
Printed Date: 4 March 2015
Revision: No Revision as of the printed date

EROSION CONTROL
For
Alan Stone LCID Landfill

4



ALIGNMENT A



GRAPHIC SCALE

(IN FEET)
1 inch = 80 ft.

SCALE:
1" = 80' HORIZONTAL
1" = 8' VERTICAL

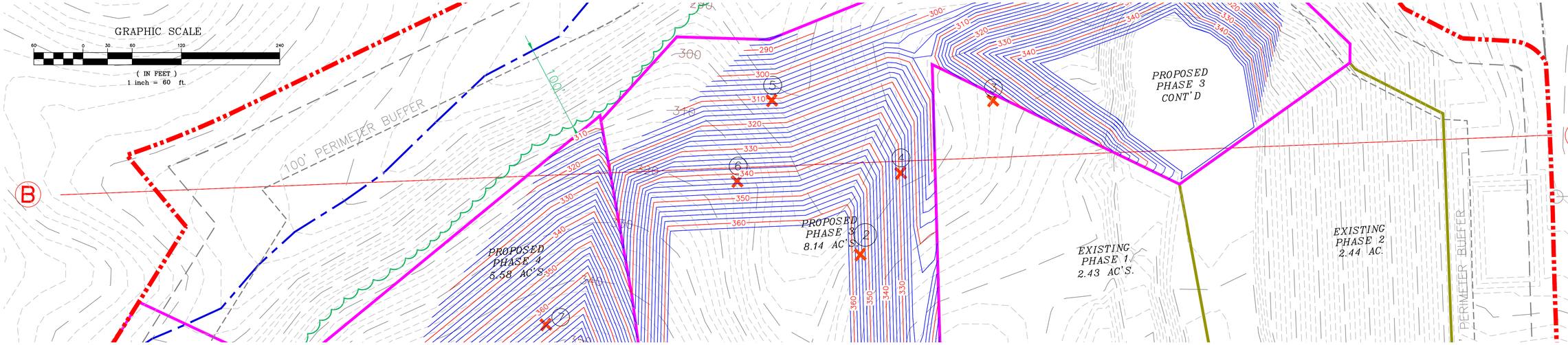
N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 80'
Drawn By: EDS
Job #: 181-0414
File: M:\Project Files\Stone Land\EIS\Alan Stone X Sfc.dwg
Printed Date: 9 March 2015
Revision: No Revision as of the printed date

CROSS-SECTION (A)
For
Alan Stone LCID Landfill

5



ALIGNMENT B

SCALE:
1" = 80' HORIZONTAL
1" = 8' VERTICAL

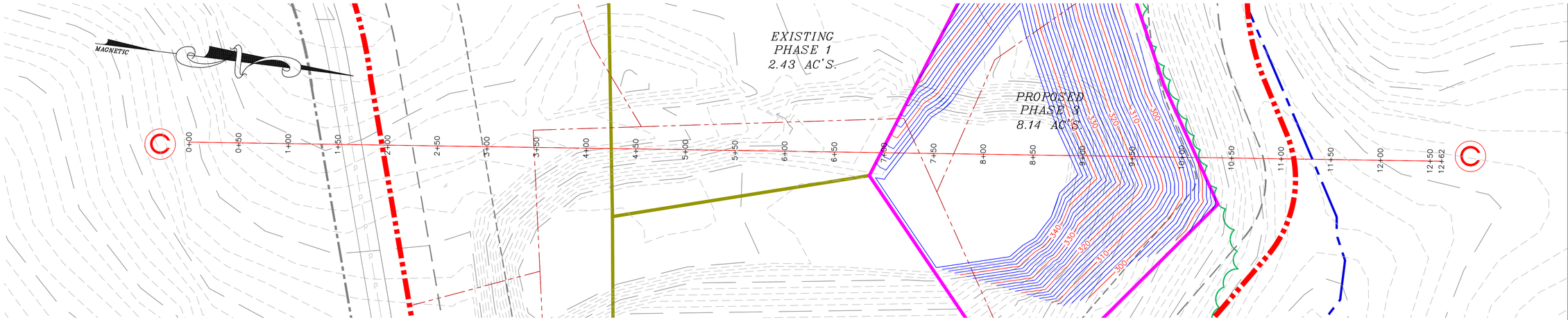
N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

NORTH CAROLINA PROFESSIONAL SEAL 10742 ENGINEER JOHN W. HARRIS

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 60'
Drawn By: EDS
Job #: 181-0414
File: M:\Projects\Fire\Stone Landfill\Alan Stone X Fire.dwg
Printed Date: 5 March 2015
Revision: No Revision as of the printed date

CROSS-SECTION (B)
For
Alan Stone LCID Landfill

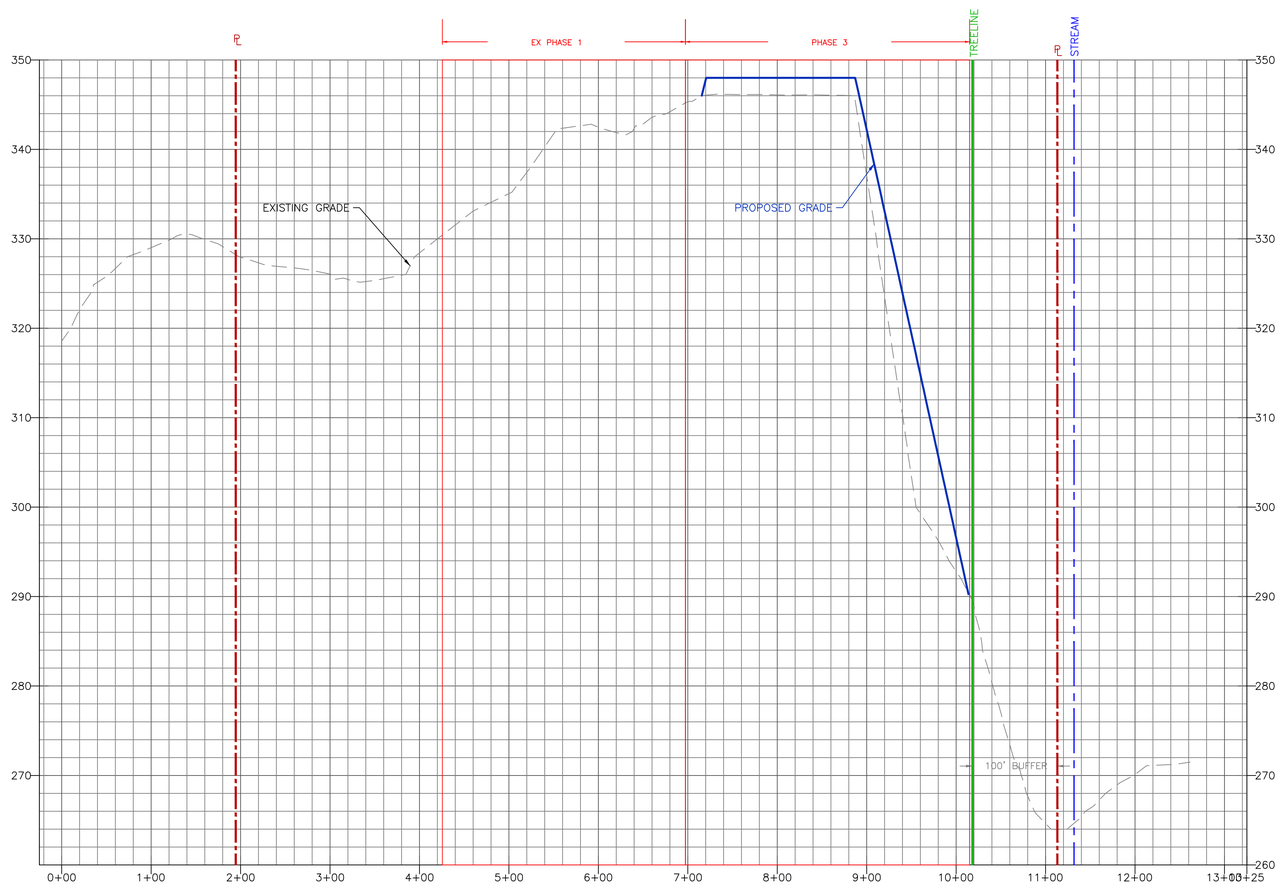


GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

ALIGNMENT C



SCALE:
1" = 80' HORIZONTAL
1" = 8' VERTICAL

N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

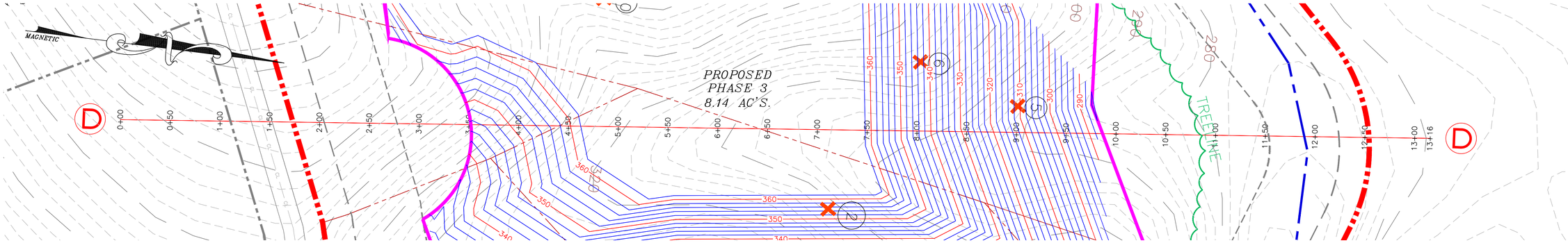
NORTH CAROLINA PROFESSIONAL SEAL 10742 ENGINEER JOHN W. HARRIS

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 50'
Drawn By: EDS
Job #: 181-0414
File: M:\Projects\Files\Stone Landfill\Alan Stone X Sfile.dwg
Printed Date: 9 March 2015
Revision: No Revision as of the printed date

CROSS-SECTION (C)
For
Alan Stone LCID Landfill

7

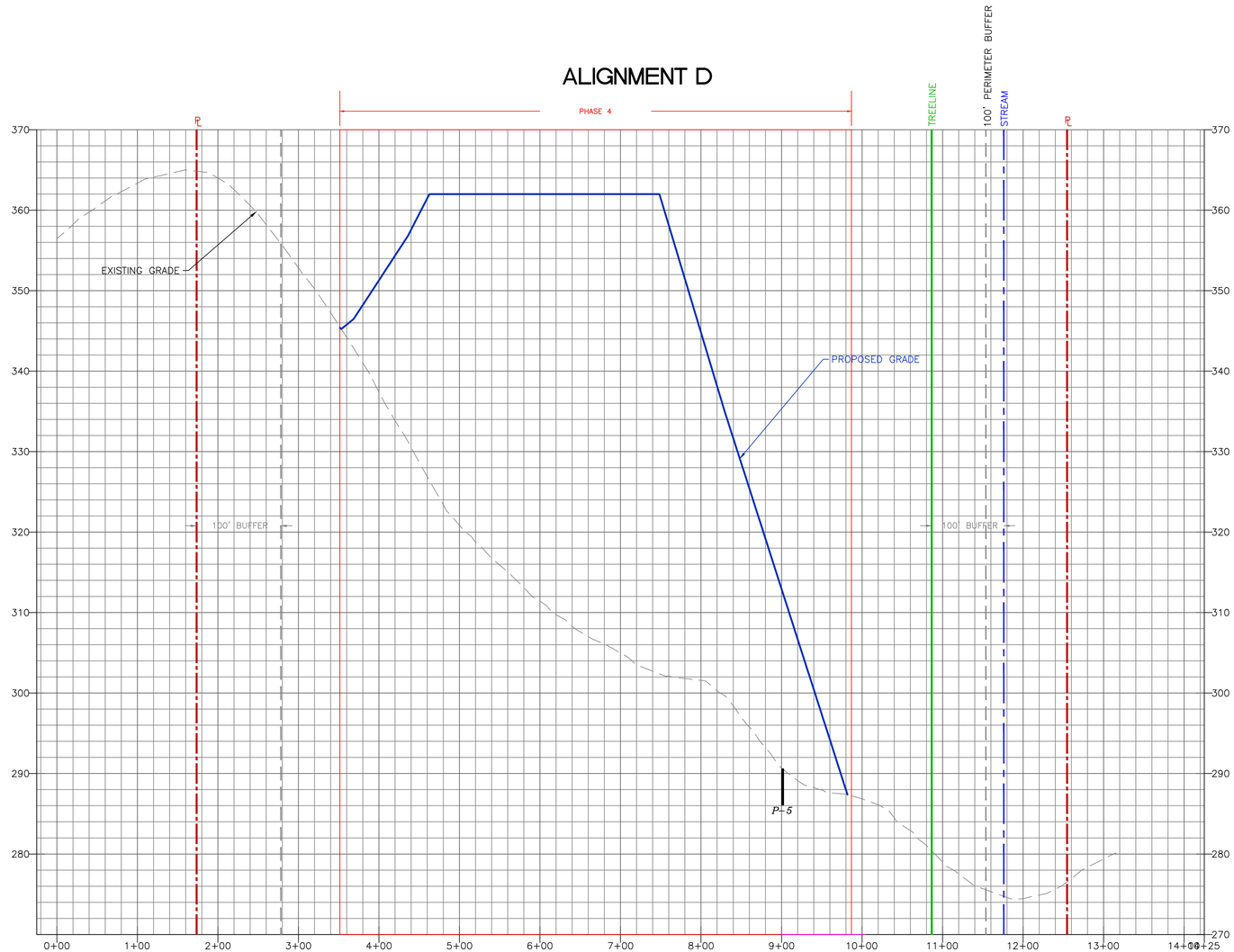


GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

ALIGNMENT D



N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

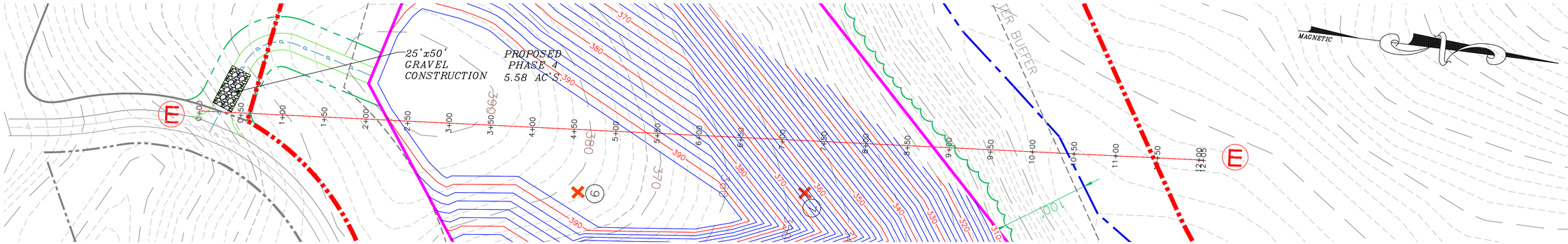
SCALE:
1" = 80' HORIZONTAL
1" = 8' VERTICAL

NORTH CAROLINA PROFESSIONAL SEAL 10742 ENGINEER JOHN W. HARRIS

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 50'
Drawn By: EDS
Job #: 181-0414
File: M:\Projects\Files\Stone Landfill\Alan Stone X Sfc.dwg
Printed Date: 9 March 2015
Revision: No Revision as of the printed date

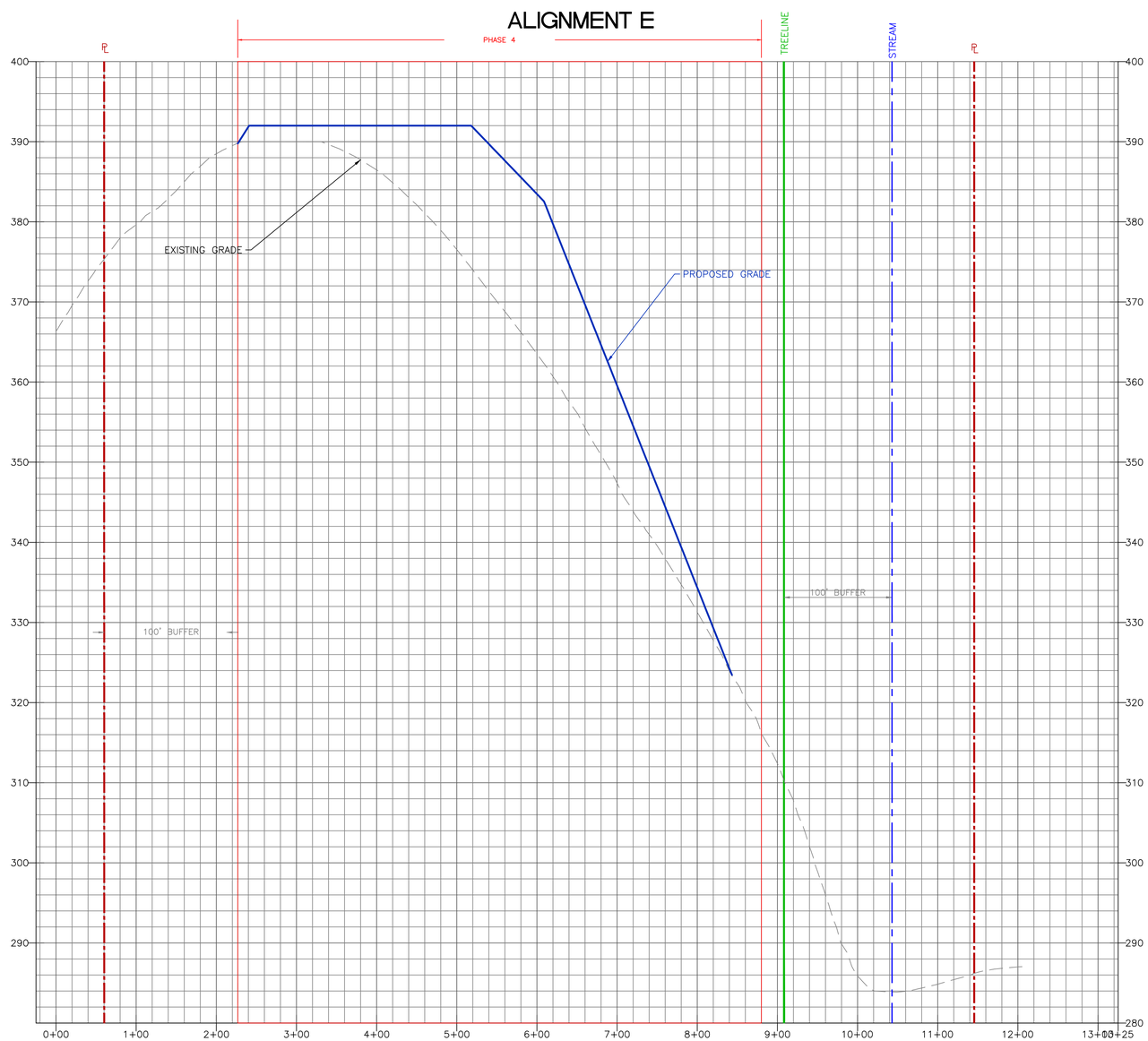
CROSS-SECTION (D)
For
Alan Stone LCID Landfill



GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.

ALIGNMENT E



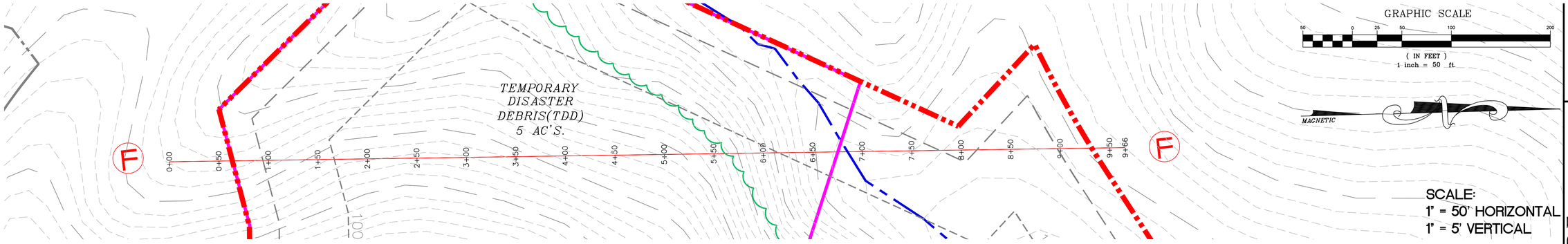
N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY

SCALE:
1" = 80' HORIZONTAL
1" = 8' VERTICAL

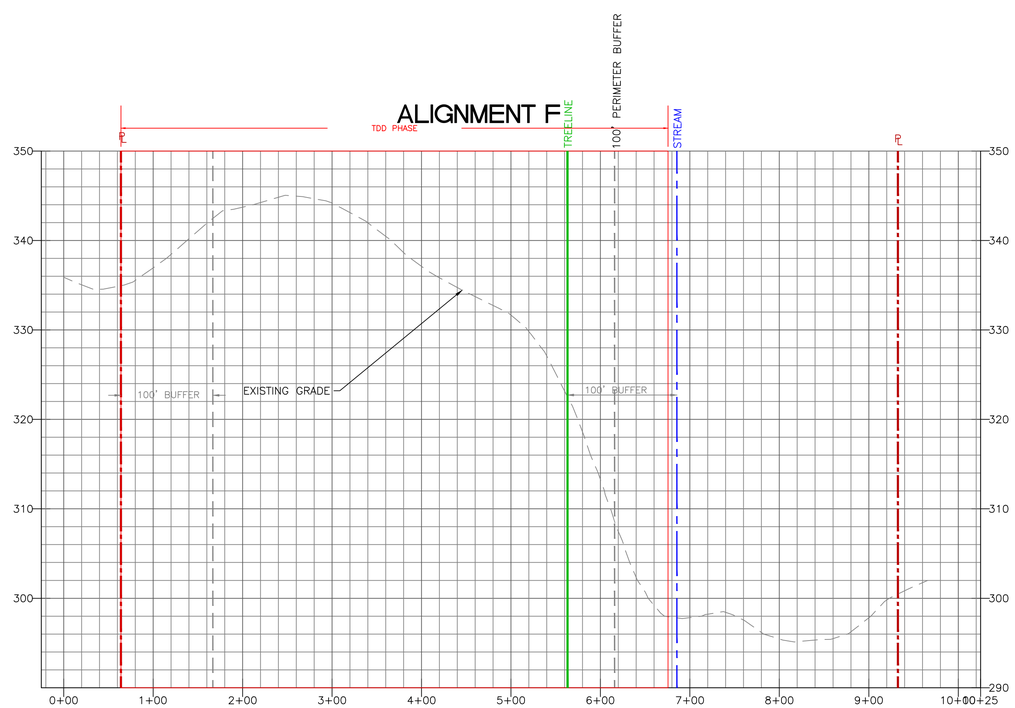
John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

Date: April 28, 2014
Scale: 1" = 60'
Drawn By: EDS
Job #: 181-0414
File: M:\Projects\Fire\Stone Landfill\Alan Stone X Fire.dwg
Printed Date: 9 March 2015
Revision: No Revision as of the printed date

CROSS-SECTION (E)
For
Alan Stone LCID Landfill



N.C. UNDERGROUND UTILITIES
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY



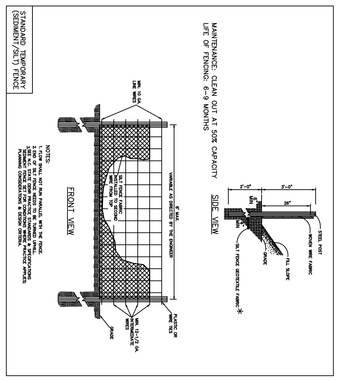
SCALE:
1" = 80' HORIZONTAL
1" = 8' VERTICAL

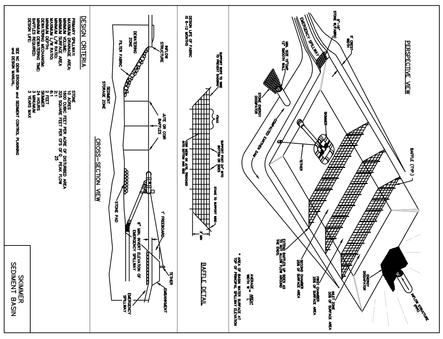
John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

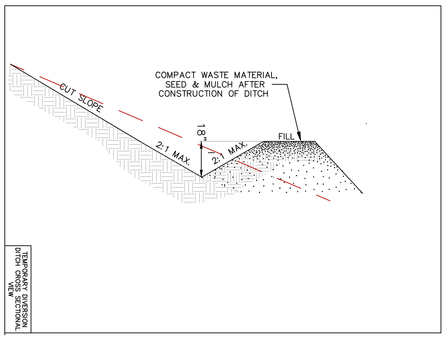
Date: April 28, 2014
Scale: 1" = 50'
Drawn By: EDS
Job #: 181-0414
File: M:\Projects\Fire\Stone Landfill\Alan Stone & Fire.dwg
Printed Date: 19 March 2015
Revision: No Revision as of the printed date

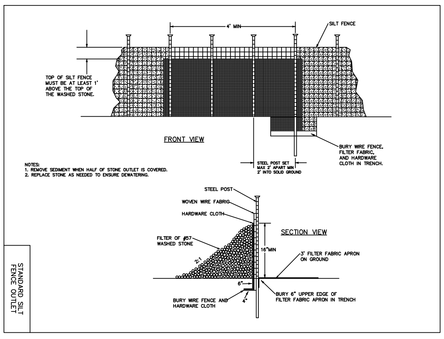
CROSS-SECTION (F)
For
Alan Stone LCID Landfill

10









DETAILS
For
Alan Stone LCID Landfill

Date:	April 28, 2014
Scale:	NTS
Drawn By:	EDS
Job #:	181-0414
File:	M:\Projects\Cleveland Landfill\Alan Stone S Fill.dwg
Printed Date:	9:34AM 6/6/2011
Revision:	No Revision as of the printed date

John W. Harris, P.E.
Consulting Engineer, Inc.
Corporate # C-3017
5112 Bur Oak Circle
Raleigh, N.C. 27612
(919) 789-0744
www.harriseng.net

NORTH CAROLINA PROFESSIONAL SEAL 10742 ENGINEER JOHN W. HARRIS