

Permit No.	Date	Document ID No.
98-09	January 10, 2011	12667

RECEIVED  
January 07, 2010 via an e-mail  
Solid Waste Section  
Raleigh Central Office

## Chao, Ming-tai

---

**From:** Gary Ahlberg [gary@blackrocke2.com]  
**Sent:** Friday, January 07, 2011 4:36 PM  
**To:** Chao, Ming-tai  
**Cc:** Ritter, Christine; adavis@wilson-co.com  
**Subject:** Re: Fwd: FW: Wilson County Westside C&DLF  
**Attachments:** G-p8 Dwg D1 notation.pdf; H1-Gas Monitoring Plan Final.pdf; I -Westside Facilities Plan-R4 p1-p2.pdf; G Title Revision.pdf; Asbestos Disposal Manifest Form.pdf; D-Operation PlanR2 p15rev.pdf; D-Operation PlanR2 p2rev.pdf; I-Wilson Co Landfill White Goods-Mulch Area S&EC Permit.pdf; G-Figure5 Inert Debris and Asbestos Unit.pdf

Ming,

Attached are the selected revisions and copies of documents you requested for substitution/addition to the existing application Dec 2010 version.

Please call me if you have any questions. Within 10 days, Wilson County will submit a separate letter notifying the SWS and DHS for the closure of the asbestos trench disposal area approved under SWP#98-01 and outlining closure documentation and post closure.

We will publish/transmit one hard copy with draft permit.

Thanks,  
Gary

Gary W. Ahlberg, P.E.

BlackRock Engineers, Inc.  
5102 Wrightsville Avenue  
Wilmington, NC 28403  
910.232.6696

On 1/6/2011 11:59 AM, Ritter, Christine wrote:

Hi Gary-

The gas monitoring plan submitted for the Wilson County Westside C&DLF satisfies the minimum Rule requirements for landfill gas monitoring. Please submit the final plan with drawing LFG1 so that we may finalize the permit application.

Thank you,  
Christine

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**From:** Gary Ahlberg [<mailto:gary@blackrocke2.com>]  
**Sent:** Tuesday, January 04, 2011 10:33 PM  
**To:** Ritter, Christine  
**Cc:** Chao, Ming-tai; Andy Davis  
**Subject:** Re: Fwd: FW: Wilson County Westside C&DLF

Christine,

Please review this draft and let me know if this is complete for gas monitoring plan at Westside. Final would include drawing LFG1 attached.

Thanks,  
Gary

Gary W. Ahlberg, P.E.

BlackRock Engineers, Inc.  
5102 Wrightsville Avenue  
Wilmington, NC 28403  
910.232.6696

On 1/4/2011 12:21 PM, Gary Ahlberg wrote:

Christine,

Thanks for calling me back to discuss your preliminary comments provided to Andy Davis. As we discussed, the explosive gas monitoring plan we submitted was intended to be all on drawing LFG1, as per our notation. In our quest to make the drawing the standalone plan, we have not met the expectations and efforts to standardize these plans.

We understand you would like to see a brief narrative incorporating the rationale for our proposed gas monitoring probes relative to site/geologic criteria. We will add a page of text including the existing notes and a more comprehensive discussion that can be referenced in the future by the compliance group. While monitoring and recordkeeping is required, there is no quarterly report submittal for %LEL observations in compliance. We will provide a draft copy of this text for your review this afternoon.

As I mentioned, we do have some comments on the Draft guidance document that we believe would make it more accurate for explosive gas monitoring. We will provide these comments separately for agency consideration.

Please let me know if I summarized our discussion sufficiently.

Thanks,  
Gary

---

**From:** Ritter, Christine [<mailto:christine.ritter@ncdenr.gov>]  
**Sent:** Monday, January 03, 2011 4:50 PM  
**To:** Andy Davis  
**Cc:** Chao, Ming-tai; Mussler, Ed  
**Subject:** Wilson County Westside C&DLF

Andy-

There was no landfill gas monitoring plan contained in your most recent submittal to the Solid Waste Section. **15A NCAC 13B .0544 (d) Monitoring Plans and Requirements for C&DLF Facilities** requires a landfill gas monitoring plan. Your December 1, 2010 response to comments and Attachment H-Monitoring Plan contained a drawing with the proposed locations of three gas monitoring probes but included no discussion related to landfill gas monitoring. Please submit a landfill gas monitoring plan in accordance with the above referenced Solid Waste Rule. We previously sent you copies of the NC Solid Waste Section's Landfill Gas Monitoring Guidance document. If you need additional copies, you may access the Solid Waste Section's website at the address below and the specific guidance is located under the Environmental Monitoring section. If you need additional hard copies, let me know and I will send one to you. Please let me know if you have any questions.

Thank you,  
Christine

**Christine Ritter** ([christine.ritter@ncdenr.gov](mailto:christine.ritter@ncdenr.gov))

Hydrogeologist

NC Department of Environment and Natural Resources

Division of Waste Management - Solid Waste Section

1646 Mail Service Center

Raleigh, North Carolina 27699-1646

Tel: 919.508.8506 web: <http://portal.ncdenr.org/web/wm/sw>

Asbestos Waste Disposal Manifest  
Example Form

Generator	1. Work site name and mailing address		Owner's name	Owner's telephone no.
	2. Operator's name and address			Operator's telephone no.
	3. Waste disposal site (WDS) name, mailing address, and physical site location			WDS phone no.
	4. Name, and address of responsible agency			
	5. Description of materials		6. Containers No. Type	7. Total quantity m <sup>3</sup> (yd <sup>3</sup> )
	8. Special handling instructions and additional information			
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.			
	Printed/typed name & title		Signature	Month Day Year
	10. Transporter 1 (Acknowledgment of receipt of materials)			
Transporter	Printed/typed name & title		Signature	Month Day Year
	Address and telephone no.			
	11. Transporter 2 (Acknowledgment of receipt of materials)			
	Printed/typed name & title		Signature	Month Day Year
Address and telephone no.				
Disposal Site	12. Discrepancy indication space			
	13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.			
	Printed/typed name & title		Signature	Month Day Year

(Continued)

Figure 4. Waste Shipment Record

## INSTRUCTIONS

### Waste Generator Section (Items 1-9)

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.
2. If a demolition or renovation, enter the name and address of the company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator.
3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.
4. Provide the name and address of the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program.
5. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is
  - Friable asbestos material
  - Nonfriable asbestos material
6. Enter the number of containers used to transport the asbestos materials listed in item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below):
  - DM - Metal drums, barrels
  - DP - Plastic drums, barrels
  - BA - 6 mil plastic bags or wrapping
7. Enter the quantities of each type of asbestos material removed in units of cubic meters (cubic yards).
8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.
9. The authorized agent of the waste generator must read and then sign and date this certification. The date is the date of receipt by transporter.

NOTE: The waste generator must retain a copy of this form.

(continued)

Transporter Section (Items 10 & 11)

10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport. Enter date of receipt and signature.

NOTE: The transporter must retain a copy of this form.

Disposal Site Section (Items 12 & 13)

12. The authorized representative of the WDS must note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste material to nonasbestos material is considered a WDS.
13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in item 12. The date is the date of signature and receipt of shipment.

NOTE: The WDS must retain a completed copy of this form. The WDS must also send a completed copy to the operator listed in item 2.

## TYPICAL SIGNAGE FOR ASBESTOS DISPOSAL AREA



### *1.13.4 Disposal Area and Cover*

A map shall be maintained locating the active asbestos fill area within the Westside C&D landfill unit or Inert Debris unit. Location of the asbestos area shall consider future gas vent drilling, and buffer those planned locations.

At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall be covered with at least 15 centimeters (6 inches) of compacted soil.

### *1.13.5 Asbestos Recordkeeping*

Receipt of asbestos for disposal requires the maintenance of the following records and notifications.

for C&D landfills, will also be accepted for disposal. Specific approval must be received from the Division for other waste types that Wilson County may want to accept for disposal; typically, this will require a demonstration to the Division that the waste type is "Inert Debris". The Inert Debris evaluation may require chemical analysis to document that potential leaching from the material will not exceed 15A NCAC 2L Groundwater Standards. Asbestos waste is received on a project specific basis and is directed for separate burial in the Inert Debris Unit as delineated in Figure 5, or a marked area of the C&D unit (see Section 1.13).

#### *1.4.2 Waste Exclusions*

As specified in .0542(e) Waste Exclusions, the following wastes must not be disposed of in a C&DLF unit:

- (1) Containers such as tubes, drums, barrels, tanks, cans, and bottles unless they are empty and perforated to ensure that no liquid, hazardous or municipal solid waste is contained therein,
- (2) Garbage as defined in G.S. 130A-290(a)(7),
- (3) Hazardous waste as defined in G.S. 130A-290(a)(8), to also include hazardous waste from conditionally exempt small quantity generators,
- (4) Industrial solid waste unless a demonstration has been made and approved by the Division that the landfill meets the requirements of Rule .0503(2)(d)(ii)(A),
- (5) Liquid wastes,
- (6) Medical waste as defined in G.S. 130A-290(a)(18),
- (7) Municipal solid waste as defined in G.S. 130A-290(a)(18a),
- (8) Polychlorinated biphenyls (PCB) wastes as defined in 40 CFR 761,
- (9) Radioactive waste as defined in G.S. 104E-5(14),
- (10) Septage as defined in G.S. 130A-290(a)(32),
- (11) Sludge as defined in G.S. 130A-290(a)(34),
- (12) Special wastes as defined in G.S. 130A-290(a)(40),
- (13) White goods as defined in G.S. 130A-290(a)(44), and

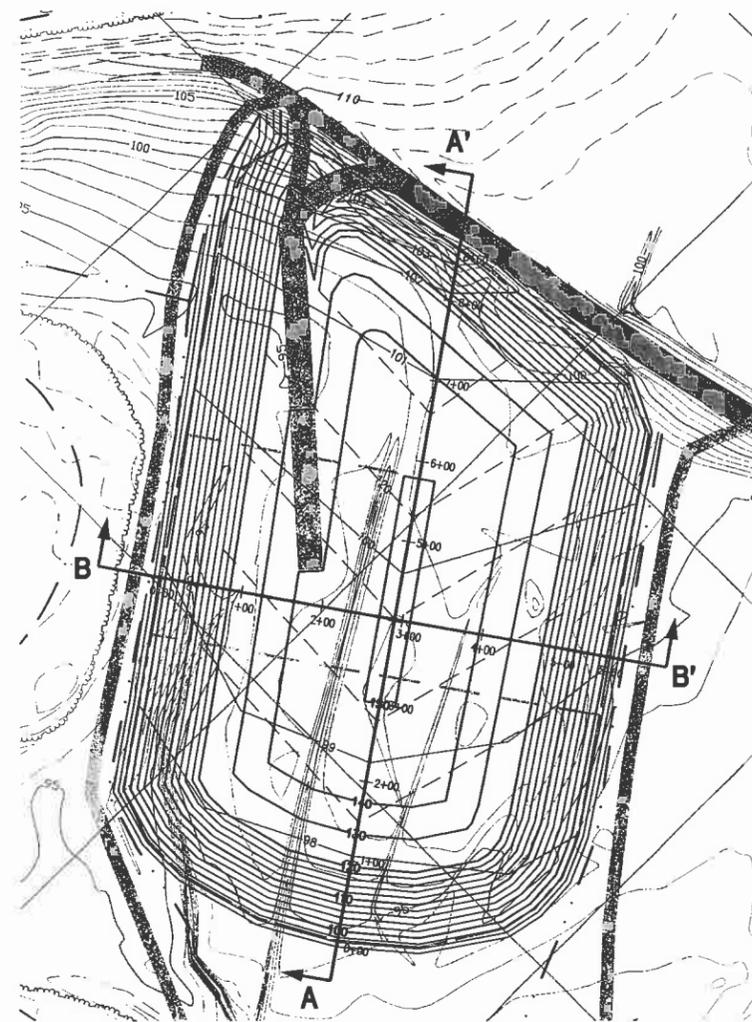
## ATTACHMENT G

### PERMIT AMENDMENT DRAWINGS

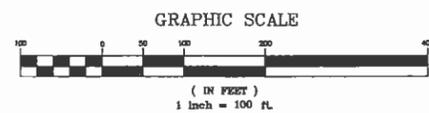
**Figures 1 and 2 are added to the 2004 Approved Construction Plan Drawings. Drawing D1 is not used for Phase 2; superseded by Figure 4. Figure 3 is not used; superseded by Dwg S1.**

**Supplemental to Attachment G, additional Figures and Drawings are included for the General Wilson County Landfill Site Plan (S1), Updated mapping and Cross-sections (Figures 4 and 5), Phase 2 Grading, and Landfill Gas Monitoring, and T&P Bartlett E&SC Plans.**

NOT USED FOR PHASE 2  
SEE FIGURE 4

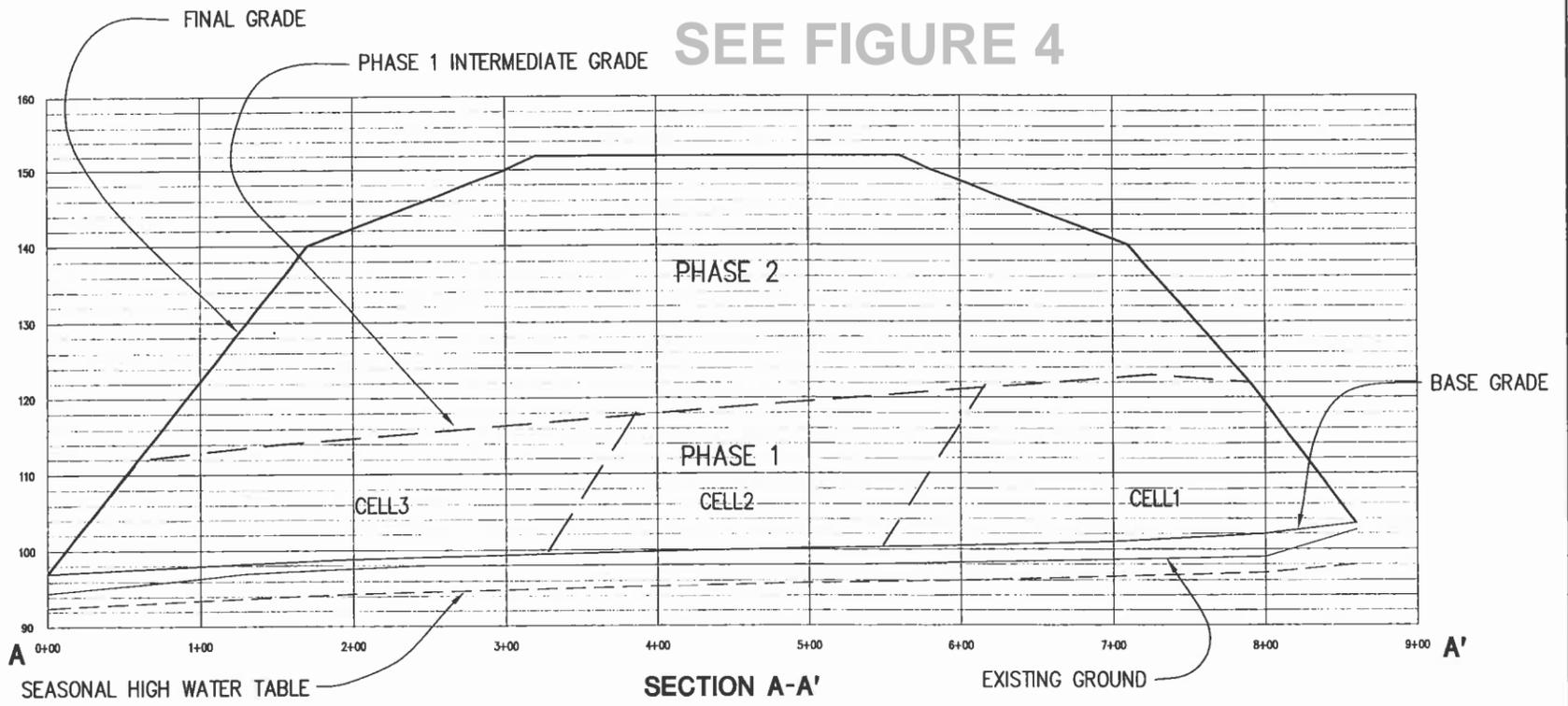


PLAN SECTION ALIGNMENT  
SCALE 1" = 100'



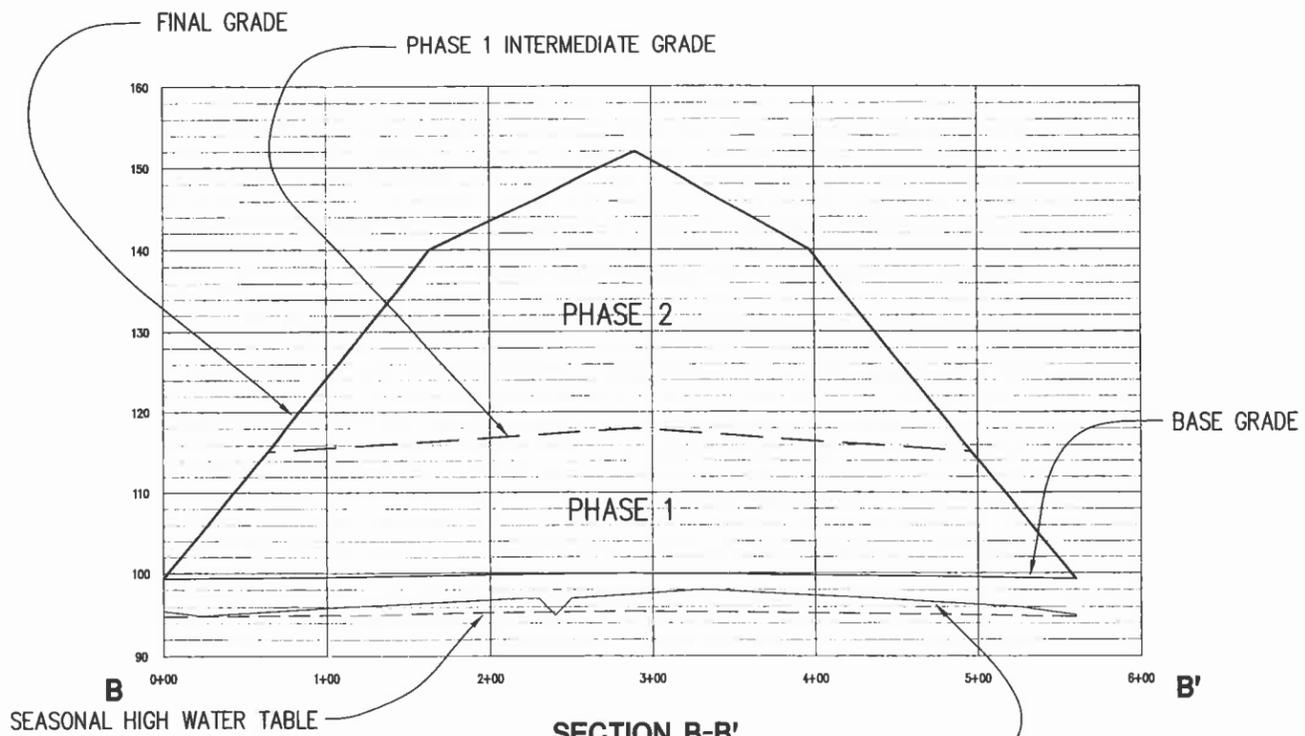
LEGEND

- LANDFILL FOOTPRINT  
10.5 ACRES
- LANDFILL BASE GRADE 1-FT CONTOUR
- P1 INTERMEDIATE GRADE 2-FT CONTOUR
- FINAL GRADE 2-FT CONTOUR
- 2003 TOPOGRAPHY 1-FT CONTOUR
- 1998 TOPOGRAPHY 2-FT CONTOUR
- DRAINAGE CHANNEL



SECTION A-A'

HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 10'



SECTION B-B'

HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 10'

PERMIT ISSUE  
NOT FOR CONSTRUCTION

GARY W. AHLBERG, P.E.  
POST OFFICE BOX 58  
WILMINGTON, NORTH CAROLINA 28402  
910.232.6696  
gahw@earthlink.net

PROJECT:  
WESTSIDE C&D LANDFILL  
CONSTRUCTION PLAN PERMIT  
WILSON, NORTH CAROLINA

PREPARED FOR:  
WILSON COUNTY  
DEPARTMENT OF SOLID WASTE  
113 E. NASH STREET  
WILSON, NORTH CAROLINA 27894

NO.	DESCRIPTION	DATE

REVISIONS



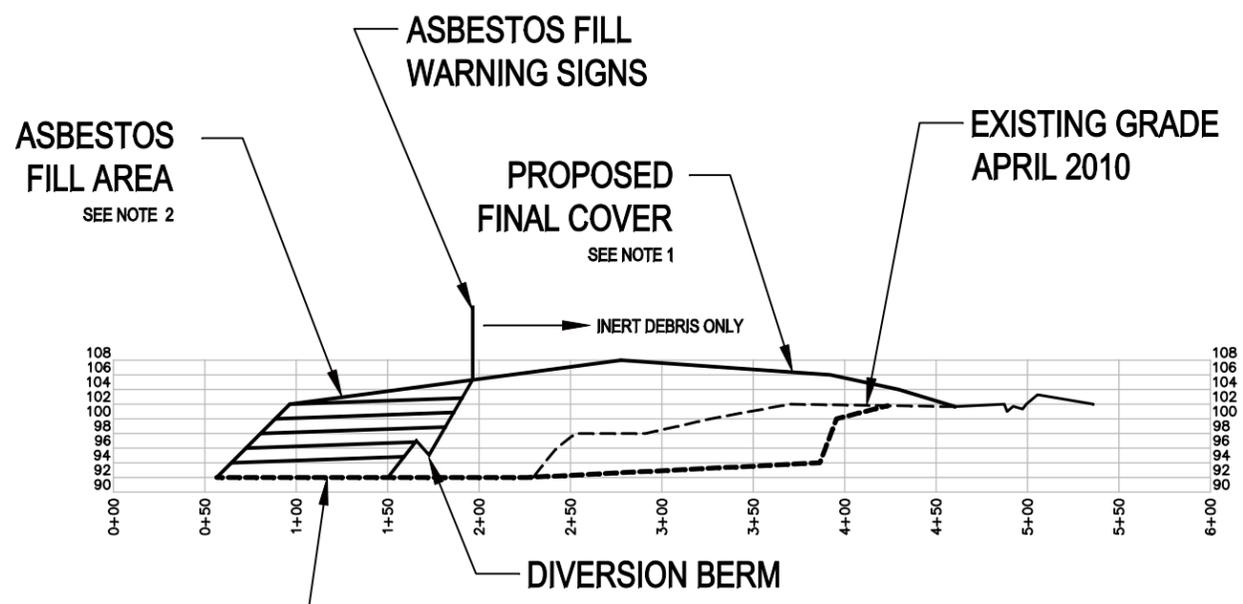
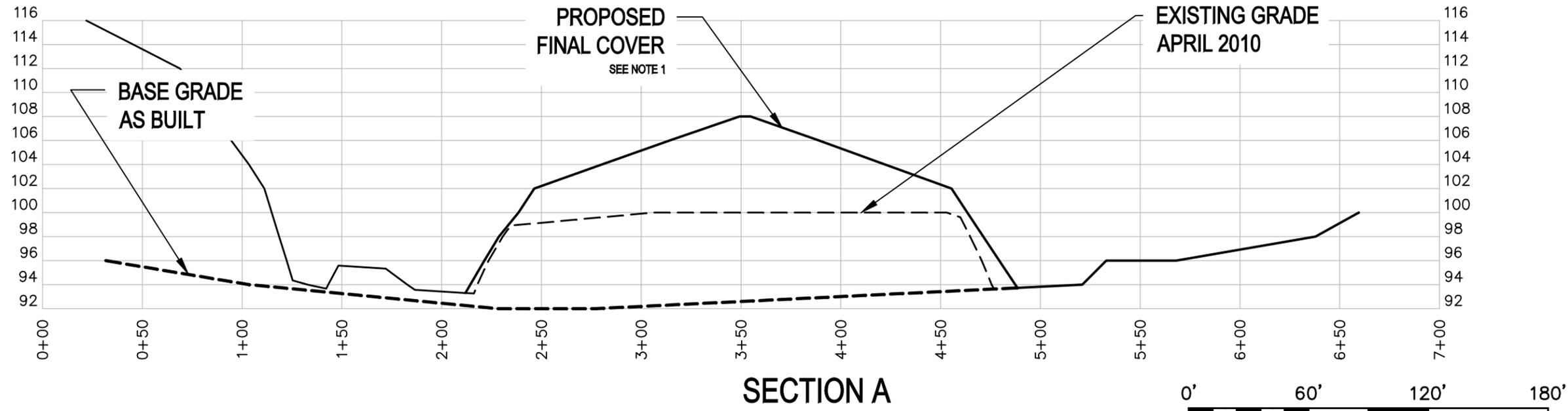
LANDFILL  
CROSS  
SECTIONS

SCALE: 1" = 100'  
DATE: 9/01/04  
DRN. BY: GWA  
CHECKED BY: GWA

PROJECT NO:

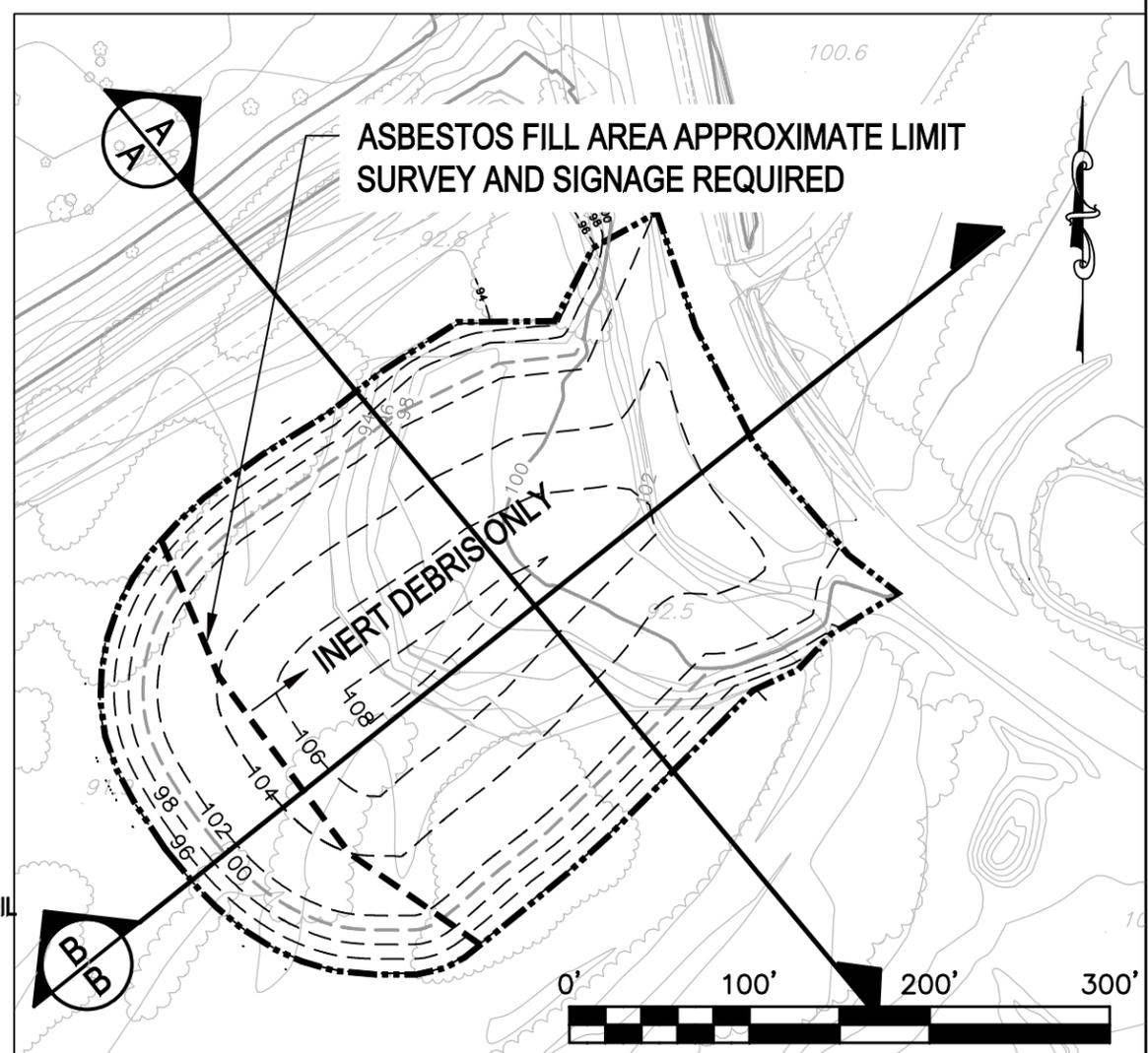
DRAWING NO.

D1



**SECTION B**

- NOTE:**
1. FINAL COVER. A 2-FT. VEGETATED SOIL LAYER SHALL BE PLACED AS FINAL OVER, INCLUDING A 6-INCH TOPSOIL LAYER. SEE DWG C4 GRADING PLAN.
  2. ASBESTOS MATERIAL SHALL BE COVERED WITH A MINIMUM 6" LAYER OF SOIL COVER IMMEDIATELY FOLLOWING PLACEMENT AS PER OPERATION PLAN.
- REFERENCE NOTE:**
1. EXISTING GRADE APRIL 2010 SURVEYED BY BARTLETT ENGINEERING WILSON, N.C. NC SURVEYOR LIC. #



**BLACKROCK ENGINEERS, INC.**

POST OFFICE BOX 58  
WILMINGTON, NORTH CAROLINA 28401  
PHONE: 910.232.6696

FIGURE NO.	5	FILE NAME	
SCALE:	AS SHOWN	PROJECT NO.	WCL10-07
CHECKED BY:	G.W.A.	DATE:	01.04.11
DRAWN BY:	J.W.G.		

**WILSON COUNTY LANDFILL  
INERT DEBRIS UNIT  
CROSS SECTIONS**

TITLE:

ATTACHMENT H-1

EXPLOSIVE GAS  
MONITORING PLAN

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## 1.0 EXPLOSIVE GAS MONITORING PLAN

This Explosive Gas Monitoring Plan is designed to address regulatory requirements as set forth in the Rules to detect explosive gases that may be generated by decomposition of Construction and Demolition wastes in the Westside C&D landfill unit. The monitoring plan is designed to detect explosive gases that may accumulate in on-site enclosed structures or migrate in unsaturated soils toward the property boundary.

Attached to this plan is project Drawing LFG1, illustrating the proposed site characteristics relevant to gas monitoring and including the proposed gas monitoring system. As described in the site study permit documents and water quality monitoring plan, the surficial soils above the seasonal high water table have been excavated and removed from the site for historic landfill soil cover use. Sandy clay soil was placed and compacted to construct the landfill base grade and establish a 4' separation from the seasonal high water table. Offset and downgradient or side gradient to the landfill unit, wetlands draining to the adjacent streams limit potential gas migration. The upgradient boundary to the northeast of the landfill unit is the only property boundary subject to gas migration monitoring. No structures are present on the Westside site.

Generally, gas wells are boreholes installed in the landfill to vent or recover landfill gas. For gas monitoring purposes, three gas monitoring probes GP-1, GP-2, and GP-3 are proposed at approximate 500-foot spacing inside the upgradient property line and adjacent Piedmont Natural Gas service line. The gas probes construction will be similar to Type II groundwater monitoring wells with locking steel casings set in a concrete pad, protecting 2" Sch40 pipe, with .010" slotted screen and sand backfill from a depth of 2 feet below grade to just above the observed water table

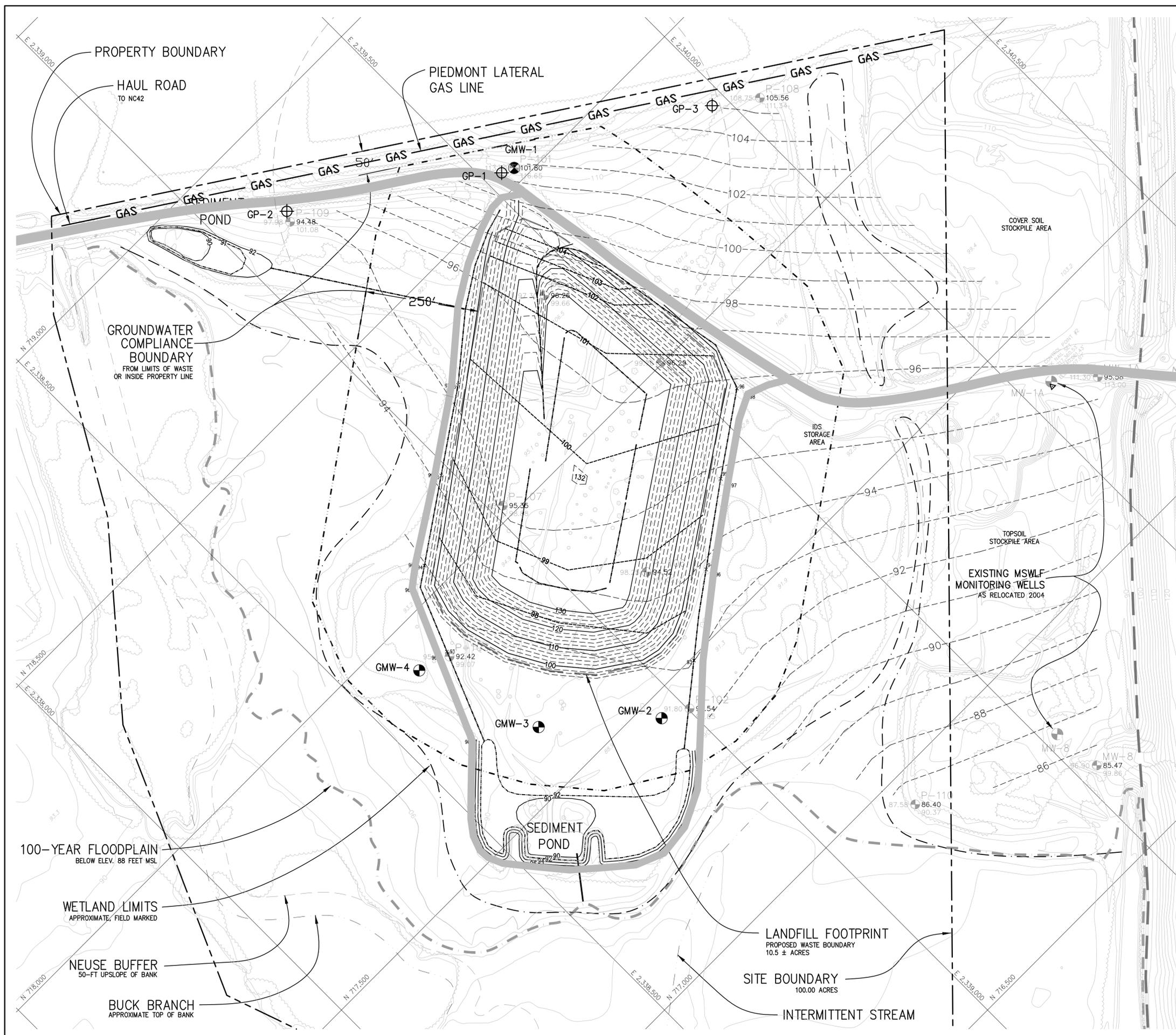
(less than 15 feet total depth). The top of casing will be slip capped and fitted with a quick-connect, valve or hose barb to connect the monitoring equipment.

The gas probes and any future on-site structures shall be monitored by Wilson County quarterly for the presence of explosive gases measured in % Lower Explosive Limit. The monitoring equipment shall meet industry standards for measuring % LEL for explosive gases and shall be calibrated according to manufacturer's procedures prior to each monitoring event. At least two observations should be obtained for repeatable results at each monitoring location. The sampling location, date, time, staff initials and observed % LEL shall be recorded and maintained in the operating record. Due to the local gas line present along the property boundary, it is recommended that any the total explosive gas concentration be measured to identify the potential sources triggering action. Landfill gas is generally less than 60% explosive gas by volume, where pipeline gas will be greater than 60% total explosive concentration. The following .0544 rules apply to gas monitoring at the C&DLF facility.

- (1) Owners and operators must ensure that:
  - (A) the concentration of methane gas or other explosive gases generated by the facility does not exceed 25 percent of the lower explosive limit in on-site facility structures (excluding gas control or recovery system components);
  - (B) the concentration of methane gas or other explosive gases does not exceed the lower explosive limit for methane or other explosive gases at the facility property boundary; and
  - (C) the facility does not release methane gas or other explosive gases in any concentration that can be detected in offsite structures.
- (2) Owners and operators of all C&DLF units must implement a routine methane monitoring program to ensure that the standards of this Paragraph are met.
  - (A) The type of monitoring must be determined based on soil conditions, the hydrogeologic conditions under and surrounding the facility, hydraulic conditions on and surrounding the facility, the location of facility structures and property boundaries, and the location of all off-site structures adjacent to property boundaries.

- (B) The frequency of monitoring shall be quarterly or as approved by the Division.
- (3) If methane or explosive gas levels exceeding the limits specified in Subparagraph (d)(1) of this Rule are detected, the owner and operator must:
  - (A) immediately take all steps necessary to ensure protection of human health and notify the Division;
  - (B) within seven days of detection, place in the operating record the methane or explosive gas levels detected and a description of the steps taken to protect human health; and
  - (C) within 60 days of detection, implement a remediation plan for the methane or explosive gas releases, place a copy of the plan in the operating record, and notify the Division that the plan has been implemented. The plan must describe the nature and extent of the problem and the proposed remedy.
- (4) Based on the need for an extension demonstrated by the operator, the Division may establish alternative schedules for demonstrating compliance with Parts (3)(B) and (3)(C) of this Paragraph.
- (5) For purposes of this section, "lower explosive limit" means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25 C and atmospheric pressure.

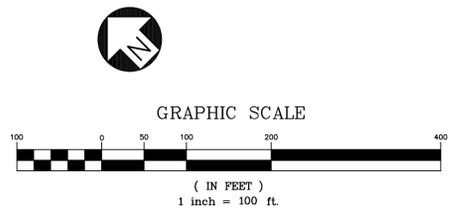
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- NOTES:**
1. PURPOSE. THIS GAS DETECTION MONITORING PLAN IS PROPOSED FOR THE WESTSIDE CONSTRUCTION AND DEMOLITION LANDFILL FACILITY, OWNED BY WILSON COUNTY, NORTH CAROLINA, PREPARED FOR APPROVAL BY THE NC DENR DIVISION OF WASTE MANAGEMENT IN ACCORDANCE WITH THE 15A NCAC 13B.
  2. TOPOGRAPHIC FEATURES. SITE TOPOGRAPHY IS FROM AERIAL PHOTOGRAMMETRIC MAPPING PERFORMED BY GEODATA CORP., ZEBULON, NC. MAPPED CONDITIONS FROM MARCH 1998 ARE GENERALLY REPRESENTATIVE OF EXISTING CONDITIONS (JULY 2003). REFERENCE DRAWING SC1 FOR STREAM, WETLAND, FLOODPLAIN, AND OTHER SOURCES.
  3. WESTSIDE C&D LANDFILL SITE. THE 100.00 ACRE SITE PROPERTY BOUNDARY ILLUSTRATED ON THIS DRAWING IS REPRESENTATIVE OF THE "RECOMBINATION PLAT FOR THE WESTSIDE C&D LANDFILL SITE" PREPARED BY HERRING-SUTTON & ASSOCIATES, P.C. (WILSON, NORTH CAROLINA), APRIL 2003.
  4. GAS PROBE. GAS MONITORING PROBES SHALL BE INSTALLED WITH A TOTAL DEPTH JUST ABOVE THE WATER TABLE.
  5. EXPLOSIVE GAS MONITORING. EXPLOSIVE GAS CONCENTRATIONS SHALL BE MONITORED QUARTERLY AND RECORDED AS A PERCENTAGE OF THE LOWER EXPLOSIVE LIMIT (LEL).
  6. GAS PROBE INSTALLATION AND MONITORING SHALL CONFORM TO THE CURRENT SWS GUIDANCE, EQUIPMENT MANUFACTURER'S RECOMMENDATIONS, AND ACCEPTED STANDARDS OF PRACTICE.
  7. INSTALLATION AND SURVEY RECORDS, AND MONITORING RESULTS SHALL BE PLACED IN THE OPERATING RECORD AND SUBMITTED TO THE SWS IN ACCORDANCE WITH PERMIT CONDITIONS.

- LEGEND**
- GP-1 GAS PROBE PROPOSED LOCATION
  - GMW-2 MONITORING WELL DETECTION MONITORING STATION
  - POTENTIOMETRIC CONTOUR 1-FOOT CONTOUR INTERVAL, 19 NOV 02
  - BASE CONTOUR 1-FOOT 1-FOOT CONTOUR INTERVAL, 19 NOV 02
  - WESTSIDE SITE BOUNDARY
  - LANDFILL FOOTPRINT PROPOSED 10.5 ACRES
  - EXISTING LANDFILL LIMITS OFFSITE MSWLF UNIT
  - 100-YEAR FLOODPLAIN
  - NEUSE BUFFER
  - SURFACE WATER
  - WETLAND BOUNDARY
  - CONTOUR 2-FOOT MAR98 MAPPING
  - CONTOUR 10-FOOT MAR98 MAPPING
  - GROUND ELEVATION
  - WELL COORDINATES ON CENTER
  - BORING/PIEZO ID WATER ELEVATION AT INSTALLATION 11/19/02
  - TOP OF CASING SURVEYED ELEVATION

**PERMIT ISSUE  
NOT FOR CONSTRUCTION**



**BLACKROCK ENGINEERS, INC.**  
 POST OFFICE BOX 58  
 WILSON, NORTH CAROLINA 28401  
 107 PLUMTREE LANE  
 CASTLE HAYNE, NORTH CAROLINA 28429  
 PHONE: 910.232.6696  
 NC LIC. # C-2919

PROJECT:  
 WESTSIDE C&D LANDFILL  
 CONSTRUCTION PLAN  
 WILSON, NORTH CAROLINA

PREPARED FOR:  
 WILSON COUNTY  
 DEPARTMENT OF SOLID WASTE  
 113 E. NASH STREET  
 WILSON, NORTH CAROLINA 27894

NO.	DESCRIPTION	DATE
REVISIONS		



**GAS  
MONITORING  
PLAN**

SCALE: 1"=100'  
 DATE: 11.24.10  
 DRN. BY: JWG  
 CHECKED BY: GWA

PROJECT NO:  
 WCL10-07

DRAWING NO.

**LFG1**

## **1.0 SOLID WASTE MANAGEMENT FACILITIES**

This report provides a general plan for solid waste management (SWM) activities associated with site operation of the Westside CDLF. Attachment G includes Dwg S1 - Facility Site Plan with aerial photography that delineates all SWM activities on the County Property and identifies pertinent characteristics of the surrounding land. Attached to this report is a zoning compliance letter that documents approval of solid waste management activities in accordance with the Wilson County Zoning Ordinance. Descriptions of activities at the following SWM facilities, located at the Wilson County Landfill site include:

- Convenience Center
- Wood Waste Processing
- Mulch Compost
- White Goods Storage
- Inert Debris Area

### **1.1 CONTROLLED ACCESS**

Access to the site is controlled via security fencing, locking gates, and physical barriers. Primary access is from NC 42, where the weighmaster initially screens and directs customers to the appropriate management area. In general, all SWM activities are limited to the following operating hours:

- Monday – Friday 8:00 a.m. to 5:00 p.m.
- Saturday 8:00 a.m. to 12:00 p.m.

### **1.2 CONVENIENCE CENTER**

The convenience center is open for use by Wilson County residents to deliver recycled materials, used tires, and municipal solid waste for transfer to permitted facilities. Signage identifies materials for segregation in the appropriate container. Containers are hauled and replaced as they are filled, typically twice a week. Sedimentation and erosion control for the Convenience Center and

Scalehouse Offices are NC LQS approved by an individual plan. MSW is hauled by the County to ***Black Creek Road Transfer Facility, SW Permit #98-08T.***

### **1.3 WOOD WASTE PROCESSING**

Stumps and wood waste exceeding 2 feet in diameter are typically routed to the C&D landfill for disposal. All other wood wastes are stockpiled for periodic processing by a contractor at the wood on-site wood processing site. Approximately 2,000 tons of wood waste is processed quarterly. The contractor typically recovers a majority of the wood waste as wood chips used as commercial biomass fuel. The residual wood fines are combined with yard trash and windrowed in the yard waste compost area. The residual soil generated from processing is stockpiled separately as topsoil for use in landfill cover operations or public distribution. Wood Processing operations are described in Section 3 with Mulch Compost.

### **1.4 MULCH COMPOST**

Residuals from wood processing are typically composted with yard trash. The mulch or compost product is primarily used on County property as a soil amendment. The mulch compost operation is designed to meet the criteria of a small Type 1 composting facility according to 15A NCAC 13B .1402. The facility typically processes and stores less than 2,000 CY of yard waste per quarter, and the compost area will not exceed 2 Acres. The maximum processing and storage criteria for a small Type 1 compost site is 6,000 CY per quarter. The mulch and compost operation is described in Section 3.

The yard trash is primarily grass, leaves and small branches. Sedimentation and erosion control for the wood waste, yard trash, and white goods areas are LQS approved by an individual plan (attached Bartlett Plans). The yard trash site will be operated in accordance with .1406 for Type 1 compost.

Attn: Jon Meade



North Carolina Department of Environment and Natural Resources  
**Division of Land Resources**

**Land Quality Section**

James D. Simons, PG, PE  
 Director and State Geologist

Beverly Eaves Perdue, Governor  
 Dee Freeman, Secretary

December 07, 2009

**LETTER OF APPROVAL WITH MODIFICATIONS**

County of Wilson  
 ATTN :- Ellis Williford  
 P.O. Box 1728  
 Wilson, NC 27893

RE: Project Name: Wilson Co. Landfill Mulch Area  
 Project ID: WILSO-2010-003 Acres Approved: 10.71  
 County: Wilson, NC Hwy 42, Wilson, NC  
 River Basin: Neuse Stream Classification: Other  
 Submitted By: Robert S Bartlett, Bartlett Engineering  
 Date Received by LQS: 11/12/09; 12/2/09  
 Plan Type: New

Dear Sir or Madam:

This office has reviewed the subject erosion and sedimentation control plan. We find the plan to be acceptable with modifications and hereby issue this letter of Approval with Modifications. The Modifications Required for Approval are listed on the attached page. This plan approval shall expire three (3) years following the date of approval, if no land-disturbing activity has been undertaken, as is required by Title 15A NCAC 4B .0129.

Please be advised that Title 15A NCAC 4B .0118(a) requires that a copy of the approved erosion control plan be on file at the job site. Also, you should consider this letter to give the Notice required by G.S. 113A-61.1(a) of our right of periodic inspection to insure compliance with the approved plan.

North Carolina's Sedimentation Pollution Control Program is performance-oriented, requiring protection of existing natural resources and adjoining properties. If, following the commencement of this project, it is determined that the erosion and sedimentation control plan is inadequate to meet the requirements of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statute 113A-51 through 66), this office may require revisions to the plan and implementation of the revisions to insure compliance with the Act.

Letter of Approval With Modifications  
Project - Wilson Co. Landfill Muleh Area  
December 07, 2009  
Page 2 of 3

Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations, and standards. These laws, regulations, and standards may also apply to this land-disturbing activity. This approval does not supersede any other permit or approval.

Please be aware that your project will be covered by the enclosed NPDES General Stormwater Permit NCG01000 (CONSTRUCTION ACTIVITIES). You should first become familiar with all of the requirements for compliance with the enclosed general permit.

Due to the location of this project, it should be noted that a rule to protect and maintain existing buffers along watercourses in the Neuse River Basin became effective on July 22, 1997. The Neuse River Riparian Area Protection and Maintenance Rule (15A NCAC 2B .0233) applies to all perennial and intermittent streams, lakes, ponds and estuaries in the Neuse River Basin with existing vegetation on the adjacent land or "riparian area". In riparian areas with existing vegetation in the first 30 feet directly adjacent to the stream, the rule prohibits land disturbance or new development within the first 30 feet of land next to the water (the remaining 20 feet of the total buffer must be revegetated upon completion of any proposed land-disturbing activity). In riparian areas with existing vegetation that is less than 30 feet wide, the rule prohibits land disturbance or new development within the area that contains the existing vegetation (but not the entire 50 foot riparian area). For more information about this riparian area rule, please contact the Division of Water Quality's Wetland/401 Unit at 919-733-1786, or a Division of Water Quality representative at this regional office.

Please note that this approval is based in part on the accuracy of the information provided in the Financial Responsibility Form, which you have provided. You are requested to file an amended form if there is any change in the information included on the form. In addition, it would be helpful if you notify this office of the proposed starting date for this project. Please notify us if you plan to have a preconstruction conference.

Your cooperation is appreciated.

Sincerely,

  
Karyn Pageau, EIT, CPESC  
Assistant Regional Engineer  
Land Quality Section

Enclosures: Certificate of Approval  
Modifications Required for Approval  
NPDES Permit

cc: Robert S Bartlett, PE, Bartlett Engineering, 1906 Nash Street, North Wilson, NC 27893-1726  
Danny Smith, DWQ - SWP Supervisor, Raleigh Regional Office

Letter of Approval With Modifications  
Project :- Wilson Co. Landfill Mulch Area  
December 07, 2009  
Page 3 of 3

**MODIFICATIONS REQUIRED FOR APPROVAL**

Project Name: Wilson Co. Landfill Mulch Area  
Project ID: WILSO-2010-003  
County: Wilson

1. Provide revised construction entrance detail to show stone size of 2-3 in. and check dam detail to show structural stone size of Class B. Provide 1 copy of drawings revised as a result of requested changes to this office by January 5, 2010 or prior to construction beginning, whichever is sooner.

Letter of Approval With Modifications  
Project :- Wilson Co. Landfill Mulch Area  
December 07, 2009  
Page 2 of 2

Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations, and rules. In addition, local city or county ordinances or rules may also apply to this land-disturbing activity. This approval does not supersede any other permit or approval.

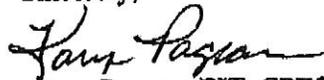
Please be aware that your project will be covered by the enclosed NPDES General Stormwater Permit NCG01000 (Construction Activities). You should first become familiar with all of the requirements for compliance with the enclosed general permit.

Due to the location of this project, it should be noted that a rule to protect and maintain existing buffers along watercourses in the Neuse River Basin became effective on July 22, 1997. The Neuse River Riparian Area Protection and Maintenance Rule (15A NCAC 2B .0233) applies to all perennial and intermittent streams, lakes, ponds and estuaries in the Neuse River Basin with existing vegetation on the adjacent land or "riparian area". In riparian areas with existing vegetation in the first 30 feet directly adjacent to the stream, the rule prohibits land disturbance or new development within the first 30 feet of land next to the water (the remaining 20 feet of the total buffer must be revegetated upon completion of any proposed land-disturbing activity). In riparian areas with existing vegetation that is less than 30 feet wide, the rule prohibits land disturbance or new development within the area that contains the existing vegetation (but not the entire 50 foot riparian area). For more information about this riparian area rule, please contact the Division of Water Quality's Wetland/401 Unit at 919-733-1786, or a Division of Water Quality representative at this regional office.

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Your cooperation is appreciated.

Sincerely,

  
Karyn Pageau, EIT, CPESC  
Assistant Regional Engineer  
Land Quality Section

Enclosures: Certificate of Approval  
Modifications Required for Approval  
NPDES Permit

cc: Robert S Bartlett, PE, Bartlett Engineering, 1906 Nash Street, North Wilson, NC 27893-1726  
Danny Smith, DWQ – SWP Supervisor, Raleigh Regional Office

Enclosures: Certificate of Approval

## Chao, Ming-tai

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**From:** Gary Ahlberg [gary@blackrocke2.com]  
**Sent:** Wednesday, January 12, 2011 12:06 PM  
**To:** Chao, Ming-tai  
**Subject:** Re: Wilson Co Landfill Mulch Area S&E permit

Ming,

Barlett Engineering prepared the approved plans which are included in Attachment G-1 Drawings. The NC LQS approval letter was attached to our recent email correspondence 01.07.11 entitled "I-Wilson White Goods-Mulch S&EC Plan Approval.pdf"

See thread below with Bartlett.

Gary W. Ahlberg, P.E.

BlackRock Engineers, Inc.  
5102 Wrightsville Avenue  
Wilmington, NC 28403  
910.232.6696

On 1/7/2011 3:11 PM, Jon Meade wrote:  
[That is correct.](#)

[Thanks, jon](#)

---

**From:** Gary Ahlberg [<mailto:gary@blackrocke2.com>]  
**Sent:** Friday, January 07, 2011 2:55 PM  
**To:** Jon Meade  
**Subject:** Re: Wilson Co Landfill Mulch Area S&E permit

So the drawing set we have is the complete plan document, right?  
Thanks

Gary W. Ahlberg, P.E.

BlackRock Engineers, Inc.  
5102 Wrightsville Avenue  
Wilmington, NC 28403  
910.232.6696

On 1/6/2011 2:44 PM, Jon Meade wrote:  
Andy, Gary,

Attached is the S&E approval letter from DENR. All calculations should appear on the drawings. Let me know if you need any additional info.

Thanks, jon

Jonathan Meade, Ph.D.  
Environmental Specialist

**BARTLETT ENGINEERING & SURVEYING, PC**

1906 Nash Street North  
Wilson, North Carolina 27893-1726  
252.399.0704 Office  
252.399.0804 Fax  
252.205.5289 Cell  
[www.bartlett.us.com](http://www.bartlett.us.com)

**Our mission ... "TO SERVE OTHERS WITH ALL OUR HEART,  
AS IF WORKING FOR THE LORD." Colossians 3:23 (NIV)**

## Chao, Ming-tai

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**From:** Gary Ahlberg [gary@blackrocke2.com]  
**Sent:** Wednesday, January 12, 2011 12:05 PM  
**To:** Chao, Ming-tai  
**Cc:** Mussler, Ed; Ritter, Christine; Barnes, Ben  
**Subject:** Re: Fwd: FW: Wilson County Westside C&DLF

Ming,

See **response** by item. Call me to discuss any further clarification required in comments 1-3. We will call you regarding #4.

Regards,  
Gary

Gary W. Ahlberg, P.E.

BlackRock Engineers, Inc.  
5102 Wrightsville Avenue  
Wilmington, NC 28403  
910.232.6696

On 1/10/2011 2:38 PM, Chao, Ming-tai wrote:

**Gary: I have completed a review of the submittal dated 01/07/2011 via an email message and have some questions need your clarification:**

My understanding that there is an Erosion and Sediment Control Plan (ESCP), recently approved by the NC Land Quality Section for the wood T&P and composting area and other recycle unit on the west side the C&DLF area. The 12/22/2010 Comment No. 6 requested for a copy of the ESCP which is not included in the 01/07/2011 submittal. Please provide an electronic copy (CD) of the ESCP.

**A forward of our correspondence threadn with design engineer Bartlett to follow separately. The complete plan is included in G-1 Drawings and 01.07.11 copy attachment of NC LQS approval letter.**

Section 1.4.1 of the Operations Plan described that asbestos waste will be disposed in the closed "Asbestos Trench Disposal Area" adjacent to the MSWLF. This description is not consistent with that described in Section 1.13 of the Operations Plan – co-disposal asbestos containing wastes (ABS) with C&D wastes or inert debris. Please revise the description of Section 1.4.1 consistent to the descriptions in Section 1.13 of the Operations Plan.

**Submitted 01.07.11 as attachment "D-Operations Plan R2 p2rev. All Asbestos disposal is specified in Section 1.13.**

Section 1.6 of the Attachment I proposed that "As an option for DWM approval, the inert debris area could be divided to provide a separate asbestos area. If approved in the permit, operations shall be conform to the operational requirements of the Westside Operations Plan, Section 1.13. However, the first paragraph of Section 1.6 proposed that" inert debris is recovered for on-site projects as beneficial fill." If County intends to reclaim beneficial fill from the inert debris unit where is a co-disposal unit for ABS

in the future, County must (a) describe the provisions according to 40 CFR 61 and Solid Waste Management Rule 15A NCAC 13B .0542(c)(2) to protect workers and general public from exposure of the co-disposed ABS while conducting land-disturbing activities and (b) respond the 12/22/2010 Comment No. 7.

As illustrated in 01.07.11 revision to Figure 5, Asbestos disposal is in a discrete area adjacent to the Inert Debris that must be marked with required signage throughout operation so that it is not disturbed by any beneficial fill. The section line illustrates how signage is conservatively placed along any adjacent boundary with C&D waste. The discrete area marked by survey and signage is not co-disposal.

Section 3.5.1 of the Attachment I. It is County's responsibility to demonstrate that the soil texture in the Small Type 1 Composting Unit is finer than loamy sand and that the surface grade receiving wastes maintains at least 12 inches from the seasonal high water table. Please provide data appended to the Attachment I in compliance with Solid Waste Management Rule 15A NCAC 13B .1404(10)(B).

We will call you to discuss this comment further; we believe the current submittal exceeds regulatory requirements for approval of Small Type 1 Composting Unit.

Please contact me if you have any questions of the comments. Thanks.

Ming-Tai Chao, P.E.  
Environmental Engineer II  
Permitting Branch, Solid Waste Section  
Division of Waste Management  
1646 Mail Service Center  
Raleigh, NC 27699-1646  
401 Oberlin Road, Suite 150, NC 27605  
Tel: 919.508.8507, Fax 919.733.4810  
[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)  
<http://portal.ncdenr.org/web/wm/sw>

*E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.*

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**From:** Gary Ahlberg [<mailto:gary@blackrocke2.com>]  
**Sent:** Friday, January 07, 2011 4:36 PM  
**To:** Chao, Ming-tai  
**Cc:** Ritter, Christine; [adavis@wilson-co.com](mailto:adavis@wilson-co.com)  
**Subject:** Re: Fwd: FW: Wilson County Westside C&DLF

Ming,

Attached are the selected revisions and copies of documents you requested for substitution/addition to the existing application Dec 2010 version.

Please call me if you have any questions. Within 10 days, Wilson County will submit a separate letter notifying the SWS and DHS for the closure of the asbestos trench disposal area approved under SWP#98-01

and outlining closure documentation and post closure.

We will publish/transmit one hard copy with draft permit.

Thanks,  
Gary

Gary W. Ahlberg, P.E.

BlackRock Engineers, Inc.  
5102 Wrightsville Avenue  
Wilmington, NC 28403  
910.232.6696

On 1/6/2011 11:59 AM, Ritter, Christine wrote:

Hi Gary-

The gas monitoring plan submitted for the Wilson County Westside C&DLF satisfies the minimum Rule requirements for landfill gas monitoring. Please submit the final plan with drawing LFG1 so that we may finalize the permit application.

Thank you,  
Christine

---

**From:** Gary Ahlberg [<mailto:gary@blackrocke2.com>]  
**Sent:** Tuesday, January 04, 2011 10:33 PM  
**To:** Ritter, Christine  
**Cc:** Chao, Ming-tai; Andy Davis  
**Subject:** Re: Fwd: FW: Wilson County Westside C&DLF

Christine,

Please review this draft and let me know if this is complete for gas monitoring plan at Westside. Final would include drawing LFG1 attached.

Thanks,  
Gary

Gary W. Ahlberg, P.E.

BlackRock Engineers, Inc.  
5102 Wrightsville Avenue  
Wilmington, NC 28403  
910.232.6696

On 1/4/2011 12:21 PM, Gary Ahlberg wrote:

Christine,

Thanks for calling me back to discuss your preliminary comments provided to Andy Davis. As we discussed, the explosive gas monitoring plan we submitted was intended to be all on drawing LFG1, as per our notation. In our quest to make the drawing the standalone plan, we have not met the expectations and efforts to standardize these plans.

We understand you would like to see a brief narrative incorporating the rationale for our proposed gas monitoring probes relative to site/geologic criteria. We will add a page of text including the existing notes and a more comprehensive discussion that can be referenced in the future by the compliance group. While monitoring and recordkeeping is required, there is no quarterly report submittal for %LEL observations in compliance. We will provide a draft copy of this text for your review this afternoon.

As I mentioned, we do have some comments on the Draft guidance document that we believe would make it more accurate for explosive gas monitoring. We will provide these comments separately for agency consideration.

Please let me know if I summarized our discussion sufficiently.

Thanks,  
Gary

---

**From:** Ritter, Christine [<mailto:christine.ritter@ncdenr.gov>]  
**Sent:** Monday, January 03, 2011 4:50 PM  
**To:** Andy Davis  
**Cc:** Chao, Ming-tai; Mussler, Ed  
**Subject:** Wilson County Westside C&DLF

Andy-

There was no landfill gas monitoring plan contained in your most recent submittal to the Solid Waste Section. **15A NCAC 13B .0544 (d) Monitoring Plans and Requirements for C&DLF Facilities** requires a landfill gas monitoring plan. Your December 1, 2010 response to comments and Attachment H-Monitoring Plan contained a drawing with the proposed locations of three gas monitoring probes but included no discussion related to landfill gas monitoring. Please submit a landfill gas monitoring plan in accordance with the above referenced Solid Waste Rule. We previously sent you copies of the NC Solid Waste Section's Landfill Gas Monitoring Guidance document. If you need additional copies, you may access the Solid Waste Section's website at the address below and the specific guidance is located under the Environmental Monitoring section. If you need additional hard copies, let me know and I will send one to you. Please let me know if you have any questions.

Thank you,  
Christine

**Christine Ritter** ([christine.ritter@ncdenr.gov](mailto:christine.ritter@ncdenr.gov))  
Hydrogeologist  
NC Department of Environment and Natural Resources  
Division of Waste Management - Solid Waste Section  
1646 Mail Service Center  
Raleigh, North Carolina 27699-1646  
Tel: 919.508.8506 web: <http://portal.ncdenr.org/web/wm/sw>