

April 21, 2006

LCIDN26-G Permit Fort Bragg LCID

Mr. Geof Little
Environmental Engineer
Division of Waste Management – Solid Waste Section
NCDENR
401 Oberlin Rd., Suite 150
Raleigh, NC 27699

Re: **Ft. Bragg LCID/C&D Landfill (Permit No. 26-~~08~~⁵)**
LCID Final Cover Investigation
HDR Project No. 11236-31409-018

Dear Mr. Little:

On behalf of the Ft. Bragg Public Works Business Center, HDR Engineering, Inc. of the Carolinas (HDR) is pleased to submit the attached certification letters for the final cover of the Ft. Bragg Land Clearing and Inert Debris (LCID) Landfill for your review. In accordance with Permit No. 26-08, the final cover thickness of the LCID Landfill meets or exceeds the required 12 inches of soil cover. When your review is completed, we will forward additional copies, if necessary, of the certified letters for section approval and processing.

If you should have any questions or comments regarding this information, please feel free to contact me at (919) 232-6613.

Sincerely,



Douglas T. DeCesare, P.E.
Project Manager

DTD/bb

Attachments

Cc: Joe Readling (HDR w/out attachments)
George Whitely (Ft. Bragg w/out attachments)

26-G

April 20, 2006

Mr. George Whitley
XVIII Airborne Corps and Fort Bragg
Attn: AFZA-PW-CB
Building 3-1634 Butner Road
Ft. Bragg, NC 28310

Re: LCID/C&D Landfill Expansion
LCID Final Cover Investigation
HDR Project No. 11236-31409-018

Dear Mr. Whitley:

This letter report has been prepared to summarize the site investigation conducted on the Land Clearing and Inert Debris (LCID) landfill final cover system and to complete a previous final cover investigation prepared by HDR Engineering, Inc. of the Carolinas dated September 20, 2005.

Background

Prior to operating the proposed land clearing and inert debris and construction and demolition landfill (LCID/C&D), the existing LCID landfill must be closed with a minimum of 12 inches of soil material. A final cover investigation of the LCID landfill was conducted in March 2004 to determine the areas of sufficient and insufficient final cover thickness. However, since the March 2004 investigation, subsequent operational and cover placement activities have resulted in a revised site layout. As a result, it was determined to re-evaluate the LCID landfill final cover. Due to active operations of the site, the re-evaluation occurred in two investigations. The first final cover investigation was conducted on September 20, 2005 and focused on the inactive operational areas at that time. The evaluation resulted in the delineation of two distinct areas, inactive and active. The inactive area of the LCID landfill had 12 inches or more of soil cover, while the active area was not investigated due to two active operations (pallets and LCID material). Once active operations ceased or relocated, the second investigation was conducted.

Field Investigation

On April 13, 2006, the second field investigation was conducted on the LCID landfill to evaluate the soil cover thickness in the previous active area. A mechanical auger was used to dig test pits throughout the LCID cover. These test pits were frequently located to provide sufficient coverage and the depth of each pit was then recorded.

Findings

Previously, the pallet area and current fill area were difficult to evaluate due to operations. This area has been re-evaluated subsequent to the relocation of operation and completion of final cover. Please find attached a drawing of the existing LCID landfill with delineated areas indicating cover thickness. Test pits were conducted within the previous active areas which

Mr. George Whitley
April 20, 2006
Page 2

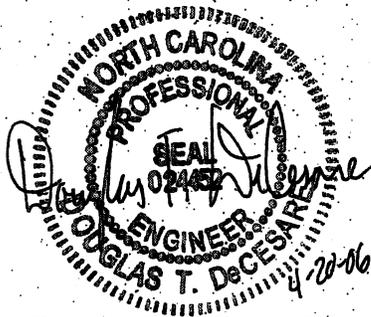
primarily includes the southeastern portion of the disposal area (refer to Final Investigation Report dated September 20, 2005). Each of the test pits resulted in a final cover thickness of 12 inches or more.

Conclusions and Recommendations

The area re-evaluated on April 13, 2006 yielded sufficient cover thickness such that additional cover is not warranted. Based on the previous final cover investigation dated September 20, 2005 and this investigation, the LCID landfill has received final cover in accordance with the LCID/C&D combined permit.

If you should have any questions, concerns, or comments regarding this information, please do not hesitate to contact me.

Sincerely,



Douglas T. DeCesare, PE
Project Engineer

DTD/

Attachment

cc: Mr. Joe Readling (HDR) w/o attachments



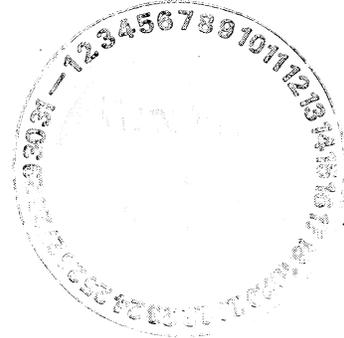
DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT AGENCY
HEADQUARTERS, FORT BRAGG GARRISON COMMAND (AIRBORNE)
FORT BRAGG, NORTH CAROLINA 28310

REPLY TO
ATTENTION OF:

October 31, 2005

Directorate of Public Works

Mr. Ed Mussler
North Carolina Department of Environment
and Natural Resources
Division of Waste Management
Solid Waste Section, Permitting Section
Raleigh, North Carolina 27699

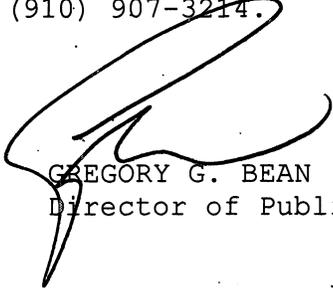


Dear Mr. Mussler:

Fort Bragg is requesting approval of the enclosed plan for recycling operations (Enclosure 1) on the certified portion of the Land Clearing and Inert Debris (LCID) Landfill, permit 26-G. Fort Bragg will be stock piling clean concrete to be crushed for reuse, stock piling and grinding pallets and clean wood for mulch, stock piling and grinding yard waste and tree waste for mulch, stock piling soil for reuse, and stock piling Class "A" Bio-Solids for mixing with soils and mulch for reuse.

The operations will be performed on the certified portion of the LCID that has adequate final closure cover (Enclosure 2). The LCID is in progress of being closed and this area is the identified to be the location for the future Landfill Recycling Area on the new permit application for the "Combined LCID and Construction and Demolition Landfill" submitted February 2004.

Point of contacts for this action is Sid Williamson, Solid Waste and Recycling Manager, (910) 396-3372 or Christine Hull, Chief, Environmental Compliance Branch, (910) 907-3214.


GREGORY G. BEAN
Director of Public Works

Enclosures

**Operations Plan
Lamont Landfill Recycling Area
Fort Bragg**

**Temporary Stock Pile Area and Equipment/Work Area
R-1 Area**

Southeast side of the R-1 Area will be the only portion of this area used, if needed. This portion of the R-1 will be used for stock piling soil or mulch used in the mixture at R-2 Area. This portion will be used for overflow of equipment and extra work area. Erosion controls and run-off controls, such as fencing or berms, will be in place at the R-1 Area. Roads to and from the R-1 Area will be monitored for rutting and eroding and repaired when needed. This area will be maintained in an orderly manner and cleaned as necessary. Foreign materials will be removed and placed in the proper waste stream area.

**Class "A" Bio-Solids, and Mixing Area,
R-2 Area**

Class "A" Bio-Solids will be transported from the Waste Water Treatment Plant by covered dump trucks to the R-2 Area to be stock piled. Approximately 6,000 Tons of Class "A" Bio-Solids will be transported to the site for the initial (first phase) mixing operations. The bio-solids will be used as part of the mixture with the mulch and soil. The remaining bio-solids will be transported in the second phase after the first phase of the mixture has been stock piled at R-2 Area or the mixture will be applied on the designated areas for soil amendment on the landfill cover or as a land application on Fort Bragg. The bio-solids will be mixed with soil and mulch to produce the mixture at the R-2 Area. Erosion controls and run-off controls, such as fencing or berms, will be in place at the R-2 Area. Roads to and from the R-2 Area will be monitored for rutting and eroding and repaired when needed. Area will be maintained in an orderly manner and cleaned as necessary. Foreign materials will be removed and placed in the proper waste stream area. The R-2 Area will be the designated area where soil, mulch, and bio-solids will be mixed and stock piled for use on designated areas.

**Pallets and Clean Wood Waste/Yard Waste/ Tree Waste Mulching Operations, and Soil
Stock Pile Area
R-3 and R-4 Areas**

The mulching of pallets, clean wood, yard waste and tree waste will be performed in the R-4 Area. The pallets and clean wood, yard waste and tree waste are presently stocked piled east of the certified area. The stock piled waste will be ground and the mulch will be transported to the R-3 Area to be stock piled for future mixing with soil and bio-solids. Future stock piling of pallets and clean wood will be mixed together and the yard waste and tree waste will be mixed together and will be placed at the R-4 Area. Soil will be transported from the landfill borrow areas and/or brought in from on-post construction sites and stock piled at the R-4 Area. Erosion controls and run-off controls, such as fencing or berms, will be in place at the R-3 and R-4 Areas. Roads to and from the R-3 and R-4 Areas will be monitored for rutting and eroding and repaired when needed. Areas will be maintained in an orderly manner and cleaned as necessary. Foreign materials will be removed and placed in the proper waste stream area. Scrap metal from the

mulching operations will be removed from the area and placed in the Scrap Metal Recycling roll-off container at the landfill.

**Concrete Grinding Operations,
R-5 and R-6 Areas**

Concrete, cement block, bricks, and asphalt will be transported to the designated Lamont Landfill Recycling Area from Fort Bragg to be stock piled at R-6 Area. The crushing equipment and crushing operations will be performed in R-6 Area. The crushing operation will be performed in R-6 Area. When crushing operations are being performed, dust control will be enforced. Erosion controls and run-off controls, such as fencing or berms, will be in place at the R-5 and R-6 Areas. Roads to and from the R-5 and R-6 Areas will be monitored for rutting and eroding and repaired when needed. Concrete Crushing Operations will only be performed when an adequate stock pile of materials are present. Approximately five crushing operations will be performed per year, if materials exist. After the first grinding phase is complete, the R-6 Area will be verified for adequate final cover. Areas will be maintained in an orderly manner and cleaned as necessary. Foreign materials will be removed and placed in the proper waste stream area. Scrap Metal from the operations will be removed from the area and placed in the Scrap Metal Recycling roll-off container at the landfill.

**Temporary Stock Pile Area
R-7 and R-8**

R-7 Area will be used as a Temporary Stock Pile Area for recyclables. R-8 Area will be used in the future as a Temporary Stock Pile Area after adequate final cover is verified. Erosion controls and run-off controls, such as fencing or berms, will be in placed at the R-7 and R-8 Areas. Roads to and from the R-7 and R-8 Areas will be monitored for rutting and eroding and repaired when needed. Areas will be maintained in an orderly manner and cleaned as necessary. Foreign materials will be removed and placed in the proper waste stream area.

Lamont Landfill Recycling Areas



Lamont Road

R-1 Area

Class A Bio Solids

R-2 Area

Mixture

R-3 Area

Mulch Area

Pallets/
Clean Wood

R-4 Area

Tree Waste
Yard Waste

Soil Stock Pile

R-5 Area

Crushed
Concrete

Concrete to
be Crushed

R-6 Area

R-7 Area

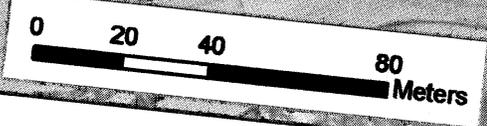
Temporary
Stock
Pile Area
(Mulch)

Temporary
Stock
Pile Area

R-8 Area

Access Road

Landfill
Entrance





October 11, 2005

Mr. George Whitley
XVIII Airborne Corps and Fort Bragg
Attn: AFZA-PW-CB
Building 3-1634 Butner Road
Ft. Bragg, NC 28310

Re: LCID/C&D Landfill Expansion
LCID Final Cover Investigation
HDR Project No. 11236-31409-018

Dear Mr. Whitley:

This letter report has been prepared to summarize the site investigation conducted on the Land Clearing and Inert Debris (LCID) landfill final cover system and to supplement a previous final cover investigation prepared by HDR Engineering, Inc. of the Carolinas dated March 26, 2004.

Background

Prior to operating the proposed land clearing and inert debris and construction and demolition landfill (LCID/C&D), the existing LCID landfill must be closed with a minimum of 12 inches of soil material. A final cover investigation of the LCID landfill was conducted in March 2004 to determine the areas of sufficient and insufficient final cover thickness. However, since the March 2004 investigation, subsequent operational and cover placement activities have resulted in a revised site layout of inactive and active areas. Thus, a more recent final cover investigation was conducted to be consistent with the current conditions. The inactive operational areas were the main focal point investigated.

Field Investigation

On September 20, 2005, the first of two field investigations was conducted on the LCID landfill to evaluate the existing soil cover thickness in the inactive areas. A hand auger was used to dig test pits throughout the existing LCID cover. These test pits were frequently located to provide sufficient coverage and the depth of each pit was then recorded. A second field investigation will be conducted upon the completion of placing cover over the current active areas.

Findings

Please find attached a drawing of the existing LCID landfill with delineated areas indicating cover thickness. Test pits were conducted within the inactive areas. The evaluation resulted in the delineation of two distinct areas, Areas A (inactive) and B (active). Area A represents a portion of the LCID landfill with 12 inches or more of soil cover. Area B is comprised of two active operations (pallets and LCID material) representing the portions of the LCID landfill with cover soil anticipated to be greater than or equal to 12 inches. Area B was not specifically investigated due to waste being placed in this area of the landfill.

Mr. George Whitley
October 11, 2005
Page 2

Conclusions and Recommendations

Area A yielded sufficient cover thickness such that additional cover is not warranted. The pallet area and current fill area were difficult to evaluate due to operations and will be re-evaluated prior to the transition to the approved combined LCID/C&D landfill. It is recommended that the current operations of pallets and LCID material may be relocated in Area A in order to complete final cover placement in Area B. A second field investigation will be conducted subsequent to the relocation of the pallet and LCID operations.

If you should have any questions, concerns, or comments regarding this information, please do not hesitate to contact me.

Sincerely,

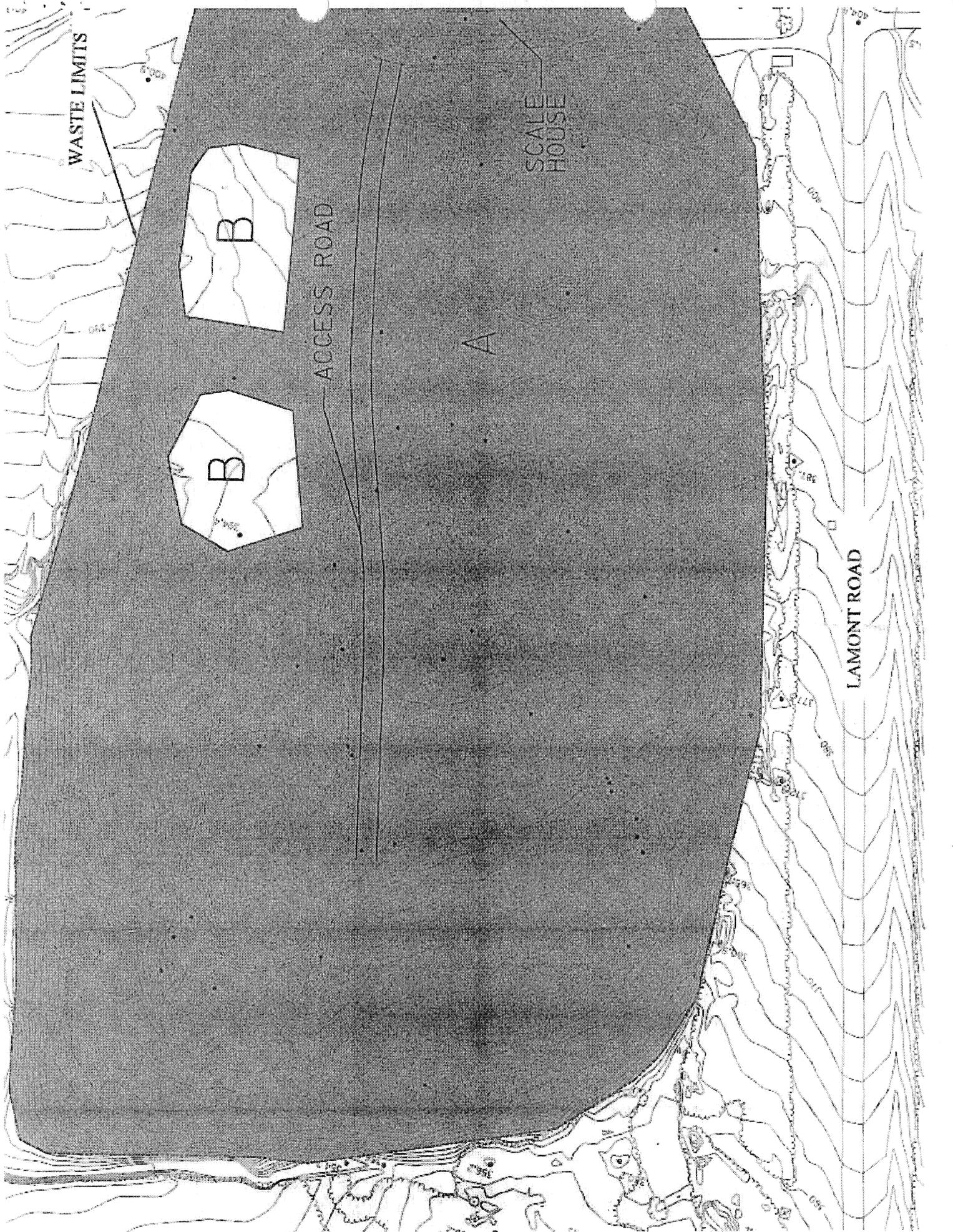


Douglas T. DeCesare, PE
Project Engineer

DTD/

Attachment

cc: Mr. Joe Readling (HDR) w/o attachments
Mr. Sid Williamson
Mr. Dan Messier



WASTE LIMITS

B

B

ACCESS ROAD

A

SCALE HOUSE

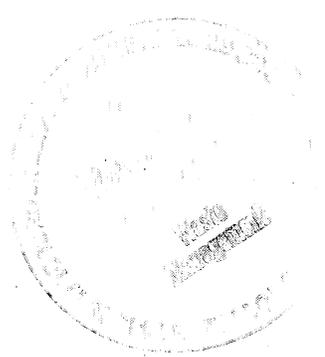
LAMONT ROAD

26-G

October 11, 2005

Mr. George Whitley
XVIII Airborne Corps and Fort Bragg
Attn: AFZA-PW-CB
Building 3-1634 Butner Road
Ft. Bragg, NC 28310

Re: LCID/C&D Landfill Expansion
LCID Final Cover Investigation
HDR Project No. 11236-31409-018



Dear Mr. Whitley:

This letter report has been prepared to summarize the site investigation conducted on the Land Clearing and Inert Debris (LCID) landfill final cover system and to supplement a previous final cover investigation prepared by HDR Engineering, Inc. of the Carolinas dated March 26, 2004.

Background

Prior to operating the proposed land clearing and inert debris and construction and demolition landfill (LCID/C&D), the existing LCID landfill must be closed with a minimum of 12 inches of soil material. A final cover investigation of the LCID landfill was conducted in March 2004 to determine the areas of sufficient and insufficient final cover thickness. However, since the March 2004 investigation, subsequent operational and cover placement activities have resulted in a revised site layout of inactive and active areas. Thus, a more recent final cover investigation was conducted to be consistent with the current conditions. The inactive operational areas were the main focal point investigated.

Field Investigation

On September 20, 2005, the first of two field investigations was conducted on the LCID landfill to evaluate the existing soil cover thickness in the inactive areas. A hand auger was used to dig test pits throughout the existing LCID cover. These test pits were frequently located to provide sufficient coverage and the depth of each pit was then recorded. A second field investigation will be conducted upon the completion of placing cover over the current active areas.

Findings

Please find attached a drawing of the existing LCID landfill with delineated areas indicating cover thickness. Test pits were conducted within the inactive areas. The evaluation resulted in the delineation of two distinct areas, Areas A (inactive) and B (active). Area A represents a portion of the LCID landfill with 12 inches or more of soil cover. Area B is comprised of two active operations (pallets and LCID material) representing the portions of the LCID landfill with cover soil anticipated to be greater than or equal to 12 inches. Area B was not specifically investigated due to waste being placed in this area of the landfill.

Mr. George Whitley
October 11, 2005
Page 2

Conclusions and Recommendations

Area A yielded sufficient cover thickness such that additional cover is not warranted. The pallet area and current fill area were difficult to evaluate due to operations and will be re-evaluated prior to the transition to the approved combined LCID/C&D landfill. It is recommended that the current operations of pallets and LCID material may be relocated in Area A in order to complete final cover placement in Area B. A second field investigation will be conducted subsequent to the relocation of the pallet and LCID operations.

If you should have any questions, concerns, or comments regarding this information, please do not hesitate to contact me.

Sincerely,



Douglas T. DeCesare, PE
Project Engineer

DTD/

Attachment

cc: Mr. Joe Reading (HDR) w/o attachments
Mr. Sid Williamson
Mr. Dan Messier

Subject: Re: Fort Bragg LCID Cover

From: Jim Barber <Jim.Barber@ncmail.net>

Date: Mon, 27 Jun 2005 13:22:49 -0400

To: "Whitley, George" <george.whitley@us.army.mil>, sidney.williamson@us.army.mil, JOHN CROWDER <JOHN.CROWDER@ncmail.net>, Dennis Shackelford <Dennis.Shackelford@ncmail.net>

George;

The information that you provided is fine. Ft. Bragg can use the area identified in your drawing to start the recycling of clean non-treated lumber/pallets/crates and non-painted concrete. In my telephone conversation with Sid Williamson on Thursday the 23rd of June, Sid indicated that Ft. Bragg would like to stage and mix Class A bio-solids with mulch at this location. At this time, Class A bio-solids are not allowed to be managed at the C&D landfill facility at Lamont Road. It would be preferable for the bio-solids to be managed off of the landfill site. If management at Lamont road C&D landfill facility is necessary, then the operations plan for the facility needs to be amended to address the management and storage of bio-solids at the C&D landfill site. Once the entire LCID landfill closure certification is submitted and the C&D construction certification is submitted, then the PTO for the site will be issued. Within the C&D landfill PTO will be conditions concerning the recycling activities at the facility. The operations plan for the C&D facility at Lamont road should address all recycling activities at the site to include location and amount of incoming materials, location and amount of processed materials, and proposed reuse of said materials.

If bio-solids are needed as a soil nutrient on closed portions of the C&D landfill cover or areas that have at least one foot of intermediate cover need amending for establishment of vegetation; then contact Ted Lyon at ted.lyon@ncmail.net or call 919-508-8508 to receive guidance as to soil sampling, bio-solids sampling and application rates.

jim barber

Whitley, George wrote:

Jim,

Attached is a cover letter about the Fort Bragg LCID. I certified that the area we want temporary approval for has adequate cover now, but that the whole LCID will be certified by HDR to close it out prior to the pre-operation inspection for the new C&D.

Also attached is pdf 1 showing the location of the borings, pdf 2 showing the boring numbers and depths, and the *.xls file showing boring coordinates.

Please let me know if this is acceptable so that we can move our recycling operation.

Thanks.

George

<<20 Jun 05 Letter2.pdf>> <<PDF 1.pdf>> <<PDF 2.pdf>> <<LCID Borings.xls>>

June 20, 2005

Mr. Jim Barber
NC Department of Environment, Health, & Natural Resources
Division of Waste Management, Solid Waste Section
Mail Service Center 1646
Raleigh, NC 27699-1646

Dear Mr. Barber:

This letter is to request temporary approval to use the area of Fort Bragg's land clearing and inert debris (LCID) landfill, permit 26-G, shown in the first attached PDF file as a recycling area for concrete and mulch. Temporary approval to use this area will allow Fort Bragg to move the concrete and mulch recycling operation from its current location on the east half of the LCID so that it can receive the required foot of earth cover. The west half has been partially stabilized with vegetation. Areas used for recycling will be stabilized as necessary with crushed concrete aggregate.

As described in Fort Bragg's construction permit application to combine its LCID and construction and demolition (C&D) landfills, approved September 21, 2004, the entire LCID will be closed before the new permit is approved and the area will be used for recycling until phase III of the new permit. Fort Bragg's consultant, HDR Engineering, will certify earth cover over the entire LCID prior to closing the LCID and a pre-operation inspection for the C&D with NC DENR.

On June 17, 2005 I observed the borings shown on the second attached PDF file. I certify that each boring showed earth cover in excess of the depths shown in the PDF file, with the minimum cover being over two feet. Borings were located by GPS with an accuracy of 2 to 5 meters and were made at the NC state plane coordinates shown on the attached Excel spreadsheet. I certify that the area of the Fort Bragg LCID landfill, permit 26-G, shown on the attached sketch has at least one foot of suitable earth cover, in compliance with Solid Waste Management Rules 15A NCAC 13B, .0566(5).

George Whitley
June 20, 2005

George Whitley
George Whitley, PE
Project Manager

Subject: Fort Bragg LCID Cover

From: "Whitley, George" <george.whitley@us.army.mil>

Date: Mon, 20 Jun 2005 10:21:50 -0400

To: "Jim Barber \ (E-mail\)" <jim.barber@ncmail.net>

Jim,

Attached is a cover letter about the Fort Bragg LCID. I certified that the area we want temporary approval for has adequate cover now, but that the whole LCID will be certified by HDR to close it out prior to the pre-operation inspection for the new C&D.

Also attached is pdf 1 showing the location of the borings, pdf 2 showing the boring numbers and depths, and the *.xls file showing boring coordinates.

Please let me know if this is acceptable so that we can move our recycling operation.

Thanks.

George

<<20 Jun 05 Letter2.pdf>> <<PDF 1.pdf>> <<PDF 2.pdf>> <<LCID Borings.xls>>

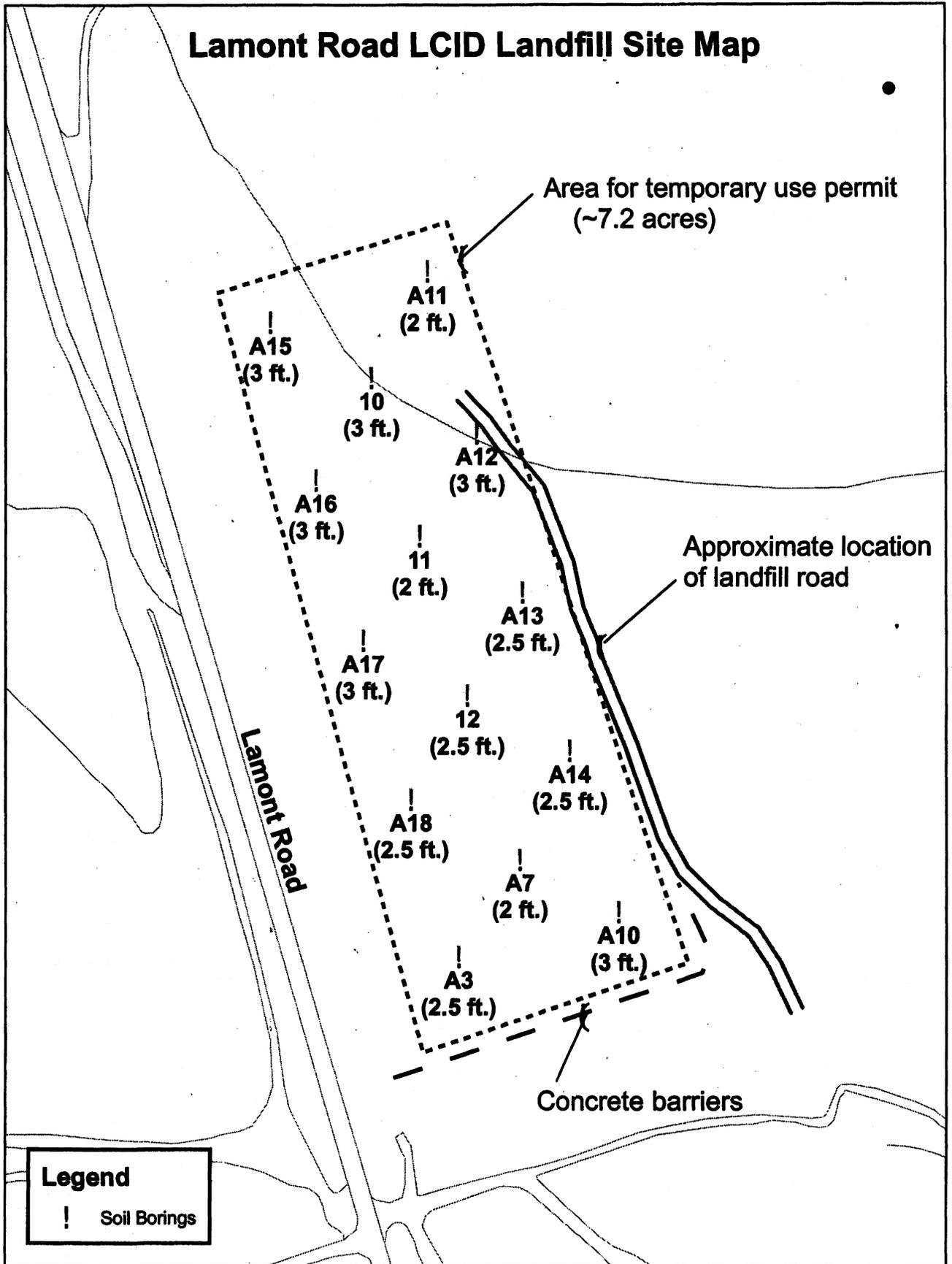
| | |
|------------------------------|---|
| 20 Jun 05 Letter2.pdf | Content-Description: 20 Jun 05 Letter2.pdf Content-Type: application/octet-stream Content-Encoding: base64 |
|------------------------------|---|

| | |
|------------------|---|
| PDF 1.pdf | Content-Description: PDF 1.pdf Content-Type: application/octet-stream Content-Encoding: base64 |
|------------------|---|

| | |
|------------------|---|
| PDF 2.pdf | Content-Description: PDF 2.pdf Content-Type: application/octet-stream Content-Encoding: base64 |
|------------------|---|

| | |
|-------------------------|--|
| LCID Borings.xls | Content-Description: LCID Borings.xls |
|-------------------------|--|

Lamont Road LCID Landfill Site Map



Boring LCID Borings.xls
Number Easting Northing Depth

| | | | |
|-----|---------|--------|-----|
| 10 | 1976916 | 508325 | 2.0 |
| 11 | 1976976 | 508126 | 2.5 |
| 12 | 1977035 | 507927 | 2.5 |
| A3 | 1977025 | 507598 | 2.5 |
| A7 | 1977102 | 507720 | 2.0 |
| A10 | 1977226 | 507654 | 3.0 |
| A11 | 1976986 | 508455 | 2.0 |
| A12 | 1977046 | 508255 | 3.0 |
| A13 | 1977105 | 508056 | 2.5 |
| A14 | 1977165 | 507857 | 2.5 |
| A15 | 1976787 | 508395 | 3.0 |
| A16 | 1976846 | 508196 | 3.0 |
| A17 | 1976906 | 507996 | 3.0 |
| A18 | 1976965 | 507796 | 2.5 |



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

Division of Waste Management
Dexter R. Matthews, Director

March 22, 2004

Colonel Gregory G. Bean, Director
Department of the Army
Installation Maintenance Agency
Public Works Business Center (AFZA-PW-E)
Headquarters, Fort Bragg Garrison Command (ABN)
Fort Bragg, NC 28310



Subject: Extension Request
Permit # 26-G
Cumberland County, NC

Dear Colonel Bean:

This is in response to your letter of March 1, 2004 whereby you requested an extension of time for compliance with the January 22, 2004 Audit (comment #2, cover on old demo area). We have reviewed the file and the efforts that are being put forth to achieve compliance at the facility and hereby grant the requested extension.

The new compliance date will be **May 1, 2004**. Your continued cooperation in this matter is greatly appreciated.

I would like to commend the efforts being put forth by you and your staff to correct the violations at the site. Much work has been done to achieve compliance with previous Audits. I appreciate your continued efforts to correct the deficiencies at the landfill and want to continue to build an outstanding relationship with you and your office in our collected efforts to protect the environment.

Sincerely,

Dennis E. Shackelford
Waste Management Specialist

Cc: Mark Poindexter, Field Operations Branch Head
Mark S. Fry, Eastern District Supervisor
Sid Williamson, Hazardous Waste / Solid Waste Manager

225 Green Street, Suite 714, Fayetteville, North Carolina 28301-5043
Phone: 910-486-1541 \ FAX: 910-486-1791 \ Internet: <http://wastenot.enr.state.nc.us>

CF
PERMIT
26-6

Subject: RE: New Truck Scales at Landfill

Date: Tue, 14 Jan 2003 08:53:48 -0500

From: "Crawford, Herman" <crawforh@BRAGG.ARMY.MIL>

To: "Jim Barber" <Jim.Barber@ncmail.net>

Jim, this is exactly what we needed. Thanks.

Herman

-----Original Message-----

From: Jim Barber [mailto:Jim.Barber@ncmail.net]

Sent: Tuesday, January 14, 2003 7:58 AM

To: Crawford, Herman; MARK FRY

Subject: Re: New Truck Scales at Landfill

Mr. Crawford;

I did speak with Scott Boulton a couple of weeks ago and we discussed the issues related to excavation at the old demo landfill at Lamont Road. The issues as I recall are as follows;

1. Excavation for the foundations is fine. Document with photos or excavation logs of the material removed and where this material is disposed of.

2. Have water available to wet down the excavated materials in the event that C&D type waste (shingles, wallboard, insulation etc.) are encountered to avoid airborne emissions (fibers/asbestos variety).

3. Provide a depth to virgin soils, if possible, and inform George Whitley so this information can be used in the future for possible C&D landfill expansion.

4. Methane monitoring should be available in the event that methane gas is present. A survey prior to excavation should be performed so no surprises arise.

5. Crushed stone or clean, crushed concrete should be used for the first half to three-quarter of the excavation fill to avoid worker exposure to cave-in.

If you have additional questions contact me at 919-733-0692 ext: 255 or Mark Fry at 910-486-1541. I will be in Pasquotank County 1/14 and Dare/Currituck 1/15 and return to the RCO on 1/16.

jim barber

"Crawford, Herman" wrote:

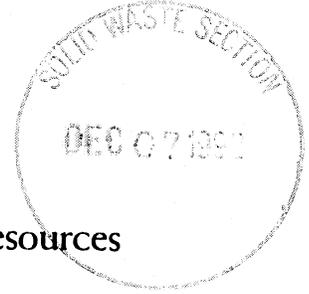
Hello Jim. I've been trying to return your call for a couple of days, but I wanted to explain what we want to do at the Fort Bragg MSW landfill. There is a project in the works to install new truck scales and the location chosen is within the boundary of the LCID portion of the landfill. The scale contractor has told us there is not sufficient foundation on which to construct the scale. The project manager (Scott Boulton, PWBC) wants to excavate a certain amount of LCID debris (10-15 feet down) and backfill with structural fill. Scott said he had talked with you about this, you had no problem with it, but to check with my office before proceeding. I gave Scott the go-ahead on Friday.

If you want to discuss or have any concerns on the subject, you can call me or just return the email. Thanks.

Herman Crawford
Solid Waste/Landfill Compliance Mgr

FT. BRAGG, NC

910-396-3341 Ext: 361



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management

South Central Regional Office • 225 Green Street, Suite 601 • Fayetteville, North Carolina 28301
Telephone: (919) 486-1191
Facs: (919) 486-1791

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

December 3, 1992

Colonel R. M. Danielson
Director of Engineering and Housing
Headquarters, XVIII Airborne Corps and Fort Bragg
Fort Bragg, North Carolina 28307-5000

SUBJECT: Request for Variance Permit # 26-G

Dear Colonel Danielson:

The Section has reviewed your letter of request concerning disposal of mattresses and box springs within the base demolition landfill.

We would like to point out that landfilling of these solid waste items is currently allowed within the Fort Bragg Sanitary Landfill Permit #26-02. Our office does not understand the rationale of this request and feels that no change is necessary.

If you or your staff have any questions we will be happy to meet with you.

Sincerely,

A handwritten signature in cursive script that reads "Terry F. Dover".

Terry F. Dover
Eastern Area Supervisor
Solid Waste Section

TFD:cft

cc: Isaiah Guyton
James Coffey
Central Files 26-G



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
HEADQUARTERS, XVIII AIRBORNE CORPS AND FORT BRAGG
FORT BRAGG, NORTH CAROLINA 28307-5000

November 12, 1992



**Directorate of Engineering
and Housing**

**Mr. Terry Dover
North Carolina Department of Environment,
Health, and Natural Resources
Wachovia Building, Suite 601
225 Green Street
Fayetteville, North Carolina 28302-0601**

RECEIVED

NOV 18 1992

SOLID WASTE MANAGEMENT
FAYETTEVILLE REGIONAL OFFICE

Dear Mr. Dover:

We request a variance to our current demolition landfill permit number 26-C to allow for the disposal of worn out mattresses and box springs. This waste can be better managed by Fort Bragg if landfilling is permitted.

If you have any questions, please contact Mr. Stephen J. Mackmull at (919) 396-3341/3372.

Sincerely,

**R. M. Danielson
Colonel, U.S. Army
Director of Engineering
and Housing**

87 SEP 16 PM 3:26

18th Airborne Corps (Brig) BK 3323 FG 03 180030 7

Directorate of Engineering & Housing
AFZA-DE-D
Fort Bragg, N.C. 28307-5000
Attn: Steve Mackmull



*Cum
Prints*

GEORGE E. TATUM
REGISTER OF DEEDS
CUMBERLAND CO., N.C.



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

35083

James G. Martin, Governor
David T. Flaherty, Secretary

Ronald H. LeVire, M.D., M.P.H.
State Health Director

CERTIFIED COPY OF SOLID WASTE PERMIT

I do hereby certify that the attached PERMIT is an exact and true copy of Permit No. 26-C.

Jerry Rhodes

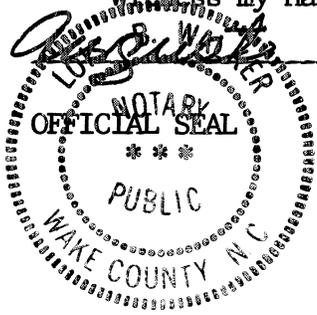
Jerry Rhodes, Assistant Branch Head
Solid and Hazardous Waste Management Branch
Environmental Health Section

North Carolina

Cumberland County

I, *Louis B. Walker*, a Notary Public for said County and State, do hereby certify that *Jerry Rhodes*, *Assistant Branch Head*, Solid and Hazardous Waste Management Branch, Environmental Health Section personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the *28th* day of _____, 1987



Louis B. Walker
NOTARY PUBLIC

My commission expires *1-29*, 198*7*

BK33230319



PERMIT NO. 20-9
DATE ISSUED 8/28/87

STATE OF NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
P. O. Box 2091 Raleigh, NC 27602

S O L I D W A S T E P E R M I T

FORT BRAGG

is hereby issued a permit to operate a
Demolition Landfill
located
on Lamont Road, Fort Bragg Military Reservation,

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 facility is located and described by the legal description of the site on the attached sheet.

Jerry Rhodes

Jerry Rhodes, Assistant Branch Head
Solid and Hazardous Waste Management Branch
Environmental Health Section

North Carolina: Cumberland County
Received 16 day of September 87 at 3:26 P
Recorded 16 day of Sept 87 Book 3323 Page 318
George E. Tatum, Register of Deeds

BK3323PGU320

METES AND BOUNDS DESCRIPTION
OF
PROPOSED DEMOLITION LANDFILL NUMBER 3
FORT BRAGG MILITARY RESERVATION
CUMBERLAND COUNTY, NORTH CAROLINA

27.7119 ACRES

30 OCTOBER 1986

Being a metes and bounds description of the proposed demolition landfill number 3 situated within the Fort Bragg military reservation on the east side of Lamont Road approximately 1,100 feet from the intersection of McKellar Road and said Lamont Road, Cumberland County, State of North Carolina, and being more particularly described as follows:

Beginning at an iron rod the most southern corner of said proposed demolition landfill number 3 located on the east side of said Lamont Road and south of the most southern soil access road, said beginning iron rod also being S 49° - 28' - 04" E a distance of 525.96 feet from concrete monument number A4-01 located on the west side of said Lamont Road, said beginning iron rod having a north coordinate of 507,053.22 and an east coordinate of 1,977,172.53 based upon the "North Carolina State Lambert Coordinate System" and running thence: The following new courses and distances N 21° - 46' - 37" W a distance of 1,505.46 feet to an iron rod; thence N 66° - 26' - 29" E a distance of 1,173.22 feet to an iron rod; thence S 02° - 43' - 00" W a distance of 1,516.62 feet to an iron rod; thence S 51° - 39' - 16" W a distance of 567.43 feet to the point and place of beginning, containing 27.7119 acres, according to a survey and map entitled "Boundary Survey of Proposed Demolition Landfill No. 3," Fort Bragg, North Carolina, DEH drawing number 4435, 31 October 1986.



SOLID WASTE PERMIT
(Demolition Lanfill)

Conditions of Permit:

1. This permit shall not be effective unless the certified copy is filed in the register of deeds' office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. After recordation, the certified copy shall be returned to the Solid & Hazardous Waste Management Branch and shall have indicated on it the page and book number, date of recordation and registrar's seal.
2. When this property is sold, leased, conveyed or transferred, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument a statement that the property has been used as a sanitary landfill.
3. The following requirements shall be met prior to receiving solid waste at the site:
 - a. Site preparation shall be in accordance with the construction plan.
 - b. Site inspection shall be made by a representative of the Division of Health Services.
4. This solid waste disposal site is permitted to receive solid waste as defined in 10 NCAC 10G, .0101(5); stumps, limbs, leaves, concrete, brick, wood, uncontaminated earth, or other solid wastes as approved by the Branch.
5. This permit is for construction according to attached plans. Any modification or deviation from the approved plans shall be approved by the North Carolina Solid and Hazardous Waste Management Branch.
6. Ground water monitoring wells and monitoring requirements:
 - a. Two wells shall be installed at locations as shown on attached map.
 - b. Installation shall conform to DHS well standard (Attachment 1).
 - c. A well completion record shall be submitted to DHS for each monitoring well constructed (Attachment 2) within 30 days upon completion.
 - d. The location of the monitoring wells shall be physically located in the field and approved by DHS prior to the well being constructed.
 - e. For new site locations, ground water monitoring wells shall be constructed and sampled prior to the acceptance of any waste at the landfill and conform to specifications outlined in the N.C. Water Quality Monitoring Guidance Document for Solid Waste Facilities. Complete specifications are delineated in this document which is available from DHS.
 - f. Surface water sampling shall be performed at the locations specified on the construction plans as per methods outlined in the above-referenced Guidance Document.

- g. Fort Bragg shall sample monitoring wells and surface waters, semi-annually, for the first year and annually thereafter as per the above-referenced Guidance Document.
 - h. A readily accessible unobstructed path shall be initially cleared and maintained so that 4-wheel drive vehicles may access the monitoring wells at all times.
7. This facility shall conform to operating procedures in Rule .0507 of the Solid Waste Management Rules.
 8. Ground water quality at this facility is subject to the classification and remedial action provisions of 15 NCAC 2L.
 9. All earth-disturbing activities will be conducted in accordance with the Sedimentation Pollution Control Act of 1973 (15 NCAC 4)



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
David T. Flaherty, Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

August 17, 1987

Colonel Eugene S. Witherspoon
Director of Engineering and Housing
Head Quarters XVIII
Airborne Corps and Fort Bragg
Fort Bragg, N.C. 28307-5000

RE: Fort Bragg Demolition Landfill, Permit # 26-G, Cumberland County

Dear Colonel Witherspoon:

Please find enclosed a Solid Waste Permit, a certified copy, and conditions of the permit for the referenced site.

The types of material to be disposed of include roofing shingles, tires, and steel, which are not "demolition" wastes. Therefore, special conditions must be required for such wastes to be disposed of in a demolition landfill.

Please note the specific conditions of the permit, especially Condition #6, Ground water monitoring requirements.

If there are any questions, please contact me at (919) 733-2188.

Sincerely,

A handwritten signature in cursive script that reads "James C. Coffey".

James C. Coffey, Environmental Engineer
Solid & Hazardous Waste Management Branch
Environmental Health Section

JCC/mj

cc: Terry Dover

Enclosure

PERMIT NO. 26-C

DATE ISSUED 8/28/87

STATE OF NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES

P. O. Box 2091 Raleigh, NC 27602

S O L I D W A S T E P E R M I T

FORT BRAGG

is hereby issued a permit to operate a
Demolition Landfill

located

on Lamont Road, Fort Bragg Military Reservation,

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 facility is located and described by the legal description of the site on the attached sheet.



Jerry Rhodes, Assistant Branch Head
Solid and Hazardous Waste Management Branch
Environmental Health Section

METES AND BOUNDS DESCRIPTION
OF
PROPOSED DEMOLITION LANDFILL NUMBER 3
FORT BRAGG MILITARY RESERVATION
CUMBERLAND COUNTY, NORTH CAROLINA

27.7119 ACRES

30 OCTOBER 1986

Being a metes and bounds description of the proposed demolition landfill number 3 situated within the Fort Bragg military reservation on the east side of Lamont Road approximately 1,100 feet from the intersection of McKellar Road and said Lamont Road, Cumberland County, State of North Carolina, and being more particularly described as follows:

Beginning at an iron rod the most southern corner of said proposed demolition landfill number 3 located on the east side of said Lamont Road and south of the most southern soil access road, said beginning iron rod also being S 49° - 28' - 04" E a distance of 525.96 feet from concrete monument number A4-01 located on the west side of said Lamont Road, said beginning iron rod having a north coordinate of 507,053.22 and an east coordinate of 1,977,172.53 based upon the "North Carolina State Lambert Coordinate System" and running thence: The following new courses and distances N 21° - 46' - 37" W a distance of 1,505.46 feet to an iron rod; thence N 66° - 26' - 29" E a distance of 1,173.22 feet to an iron rod; thence S 02° - 43' - 00" W a distance of 1,516.62 feet to an iron rod; thence S 51° - 39' - 16" W a distance of 567.43 feet to the point and place of beginning, containing 27.7119 acres, according to a survey and map entitled "Boundary Survey of Proposed Demolition Landfill No. 3," Fort Bragg, North Carolina, DEH drawing number 4435, 31 October 1986.



METES AND BOUNDS DESCRIPTION
OF
PROPOSED DEMOLITION LANDFILL NUMBER 3
FORT BRAGG MILITARY RESERVATION
CUMBERLAND COUNTY, NORTH CAROLINA

27.7119 ACRES

30 OCTOBER 1986

Being a metes and bounds description of the proposed demolition landfill number 3 situated within the Fort Bragg military reservation on the east side of Lamont Road approximately 1,100 feet from the intersection of McKellar Road and said Lamont Road, Cumberland County, State of North Carolina, and being more particularly described as follows:

Beginning at an iron rod the most southern corner of said proposed demolition landfill number 3 located on the east side of said Lamont Road and south of the most southern soil access road, said beginning iron rod also being S 49° - 28' - 04" E a distance of 525.96 feet from concrete monument number A4-01 located on the west side of said Lamont Road, said beginning iron rod having a north coordinate of 507,053.22 and an east coordinate of 1,977,172.53 based upon the "North Carolina State Lambert Coordinate System" and running thence: The following new courses and distances N 21° - 46' - 37" W a distance of 1,505.46 feet to an iron rod; thence N 66° - 26' - 29" E a distance of 1,173.22 feet to an iron rod; thence S 02° - 43' - 00" W a distance of 1,516.62 feet to an iron rod; thence S 51° - 39' - 16" W a distance of 567.43 feet to the point and place of beginning, containing 27.7119 acres, according to a survey and map entitled "Boundary Survey of Proposed Demolition Landfill No. 3," Fort Bragg, North Carolina, DEH drawing number 4435, 31 October 1986.



SOLID WASTE PERMIT
(Demolition Lanfill)

Conditions of Permit:

1. This permit shall not be effective unless the certified copy is filed in the register of deeds' office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. After recordation, the certified copy shall be returned to the Solid & Hazardous Waste Management Branch and shall have indicated on it the page and book number, date of recordation and registrar's seal.
2. When this property is sold, leased, conveyed or transferred, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument a statement that the property has been used as a sanitary landfill.
3. The following requirements shall be met prior to receiving solid waste at the site:
 - a. Site preparation shall be in accordance with the construction plan.
 - b. Site inspection shall be made by a representative of the Division of Health Services.
4. This solid waste disposal site is permitted to receive solid waste as defined in 10 NCAC 10G, .0101(5); stumps, limbs, leaves, concrete, brick, wood, uncontaminated earth, or other solid wastes as approved by the Branch.
5. This permit is for construction according to attached plans. Any modification or deviation from the approved plans shall be approved by the North Carolina Solid and Hazardous Waste Management Branch.
6. Ground water monitoring wells and monitoring requirements:
 - a. Two wells shall be installed at locations as shown on attached map.
 - b. Installation shall conform to DHS well standard (Attachment 1).
 - c. A well completion record shall be submitted to DHS for each monitoring well constructed (Attachment 2) within 30 days upon completion.
 - d. The location of the monitoring wells shall be physically located in the field and approved by DHS prior to the well being constructed.
 - e. For new site locations, ground water monitoring wells shall be constructed and sampled prior to the acceptance of any waste at the landfill and conform to specifications outlined in the N.C. Water Quality Monitoring Guidance Document for Solid Waste Facilities. Complete specifications are delineated in this document which is available from DHS.
 - f. Surface water sampling shall be performed at the locations specified on the construction plans as per methods outlined in the above-referenced Guidance Document.

- g. Fort Bragg shall sample monitoring wells and surface waters, semi-annually, for the first year and annually thereafter as per the above-referenced Guidance Document.
 - h. A readily accessible unobstructed path shall be initially cleared and maintained so that 4-wheel drive vehicles may access the monitoring wells at all times.
7. This facility shall conform to operating procedures in Rule .0507 of the Solid Waste Management Rules.
 8. Ground water quality at this facility is subject to the classification and remedial action provisions of 15 NCAC 2L.
 9. All earth-disturbing activities will be conducted in accordance with the Sedimentation Pollution Control Act of 1973 (15 NCAC 4)



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
David T. Flaherty, Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

CERTIFIED COPY OF SOLID WASTE PERMIT

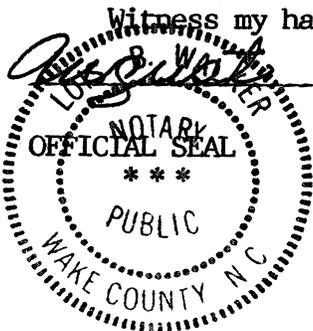
I do hereby certify that the attached PERMIT is an exact and true copy of Permit No. 26-C.

Jerry Rhodes
Jerry Rhodes, Assistant Branch Head
Solid and Hazardous Waste Management Branch
Environmental Health Section

North Carolina
Cumberland County

I, Lois B. Walker, a Notary Public for said County and State, do hereby certify that Jerry Rhodes, Solid and Hazardous Waste Management Branch, Environmental Health Section personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the 28th day of August, 1987



Lois B. Walker
NOTARY PUBLIC

My commission expires 1-29, 1987. ⁹⁰

Date 24 Jun 87

ROUTING AND TRANSMISSION SLIP

| TO: (Name, office symbol, room number, building, Agency/Post) | Initials | Date |
|--|-----------------|-------------|
| 1. Terry Dover | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |

| Action | File | Note and Return |
|--------------|----------------------|------------------|
| Approval | For Clearance | Per Conversation |
| As Requested | For Correction | Prepare Reply |
| Circulate | For Your Information | See Me |
| Comment | Investigate | Signature |
| Coordination | Justify | |

REMARKS

Enclosed is the information requested for completion of the demolition landfill application. The original letter was previously submitted, while this information was omitted. Please excuse the inconvenience.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

| | |
|---|--|
| FROM: (Name, org. symbol, Agency/Post) Roderick A. Chisholm Environmental Office Directorate of Engineering & Housing 5041-102 | Room No.—Bldg. Phone No. 396-3372/8207 |
|---|--|

GPO : 1985 O - 485-151

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

June 23, 1987

Directorate of Engineering
and Housing

Mr. Terry Dover, Eastern Area Supervisor
Solid and Hazardous Waste Management Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27601



Dear Mr. Dover:

Information to complete the application for the Fort Bragg demolition landfill on Lamont Road is provided.

The demolition landfill for Fort Bragg is located at Cooilyconch Mountain. The top of the demolition area is located at approximately 395 ft, and the elevation relief is from 328 ft to 460 ft. The mountain also serves as a clay borrow pit. Medium quality clay is utilized for construction of roads, runways, and structure foundations. The entire west side of the mountain has been stripped of all vegetation. Excavation of the area has produced vertical walls around the entire borrow and demolition area, ranging from 15 to 30 ft high. Surface water cannot escape from this site. Borrow and demolition activities are managed to mitigate ponding of water, channeling, creating safety hazard and erosion in the area. There is no drainage outlet.

Fort Bragg's decision to dispose of tires, steel, and roofing shingles in the demolition landfill versus the sanitary landfill was based on soil characteristics and the distance to ground water. The demolition landfill exhibits a very thick layer of clay from the bottom of the pit to the groundwater table. The Corps of Engineers completed a drilling and boring project in February 1986 at Cooilyconch Mountain. The study area included the demolition landfill. Sample bores were drilled at the demolition area 25 feet down and did not encounter any ground water. The moisture content at 24.5 to 25 feet was 6.9%. This indicates a substantial distance between the bottom of the demolition landfill to the groundwater table. On the other hand, the sanitary landfill contains a sandy clay soil. The monitoring wells contain water 13 ft below the cell bottoms. Due to the depth of the groundwater table at the demolition landfill and the clay base, it was determined that contaminants contained in rubber, steel, and shingles would be more stable and better contained at Cooilyconch Mountain than at the sanitary landfill. Contamination of the ground water is very unlikely.

RECORD COPY - RETURN TO AFZA-DE-D FOR FILE

The demolition landfill utilizes a telephone pole and cable fence to control access into the area. A gate attendant checks vehicles for permits which are issued by the Environmental Office. If the vehicle does not have a proper permit, it is not allowed to dump until a permit is obtained.

If you have any questions, contact Stephen J. Mackmull, Directorate of Engineering and Housing, Environmental Office, at (919) 396-3372/8207.

Sincerely,

Original Signed By: WITHERSPOON

Eugene S. Witherspoon
Colonel, U. S. Army
Director of Engineering and Housing



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
Phillip J. Kirk, Jr., Secretary

January 9, 1987

Ronald H. Levine, M.D., M.P.H.
State Health Director

Colonel Eugene S. Witherspoon
Director of Engineering and Housing
Headquarters XVIII
Airborne Corps and Fort Bragg
Fort Bragg, North Carolina 28307-5000

Dear Colonel Witherspoon:

Please be informed that Fort Bragg is operating a non-conforming solid waste disposal facility on the east side of Lamont Road. This facility is operating illegally in that it has not received a permit as required under Section .0201 of the North Carolina Solid Waste Management Rules, codified at 10 NCAC 10G.

A permit application was received on the facility December 2, 1986 by the Branch. The application is presently being processed and you will be notified in the near future of its' status.

In the interim, in order for Fort Bragg to continue to operate the facility, the following actions must be taken immediately:

1. The site shall be adequately secured, by means of gates, chains, berms, fences, etc., to prevent unauthorized entry except when a trained operator is on duty. An attendant shall be on duty at the site at all times while it is open for public use to assure compliance with operational requirements and to prevent entry of hazardous waste and other unacceptable waste onto the site.
2. Dispose of only stumps, limbs, leaves, concrete, brick, wood and uncontaminated earth.

Failure to take the above actions will result in administrative penalties as set forth in Section .0700 of the Rules.

If you have any questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in cursive script that reads "Terry F. Dover".

Terry F. Dover, Eastern Area Supervisor
Solid & Hazardous Waste Management Branch
Environmental Health Section

TFD:bw
6130A-3

CC: Regional File

METES AND BOUNDS DESCRIPTION
OF
PROPOSED DEMOLITION LANDFILL NUMBER 3
FORT BRAGG MILITARY RESERVATION
CUMBERLAND COUNTY, NORTH CAROLINA

27.7119 ACRES

30 OCTOBER 1986

Being a metes and bounds description of the proposed demolition landfill number 3 situated within the Fort Bragg military reservation on the east side of Lamont Road approximately 1,100 feet from the intersection of McKellar Road and said Lamont Road, Cumberland County, State of North Carolina, and being more particularly described as follows:

Beginning at an iron rod the most southern corner of said proposed demolition landfill number 3 located on the east side of said Lamont Road and south of the most southern soil access road, said beginning iron rod also being S 49° - 28' - 04" E a distance of 525.96 feet from concrete monument number A4-01 located on the west side of said Lamont Road, said beginning iron rod having a north coordinate of 507,053.22 and an east coordinate of 1,977,172.53 based upon the "North Carolina State Lambert Coordinate System" and running thence: The following new courses and distances N 21° - 46' - 37" W a distance of 1,505.46 feet to an iron rod; thence N 66° - 26' - 29" E a distance of 1,173.22 feet to an iron rod; thence S 02° - 43' - 00" W a distance of 1,516.62 feet to an iron rod; thence S 51° - 39' - 16" W a distance of 567.43 feet to the point and place of beginning, containing 27.7119 acres, according to a survey and map entitled "Boundary Survey of Proposed Demolition Landfill No. 3," Fort Bragg, North Carolina, DEH drawing number 4435, 31 October 1986.





DEPARTMENT OF THE ARMY
HEADQUARTERS XVIII AIRBORNE CORPS AND FORT BRAGG
FORT BRAGG, NORTH CAROLINA 28307-5000

REPLY TO
ATTENTION OF:

NOV 26 1986

Directorate of Engineering
and Housing

Solid and Hazardous Waste Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27601



Dear Sir:

Enclosed is an application for the construction and operation of a new demolition landfill located at Fort Bragg, North Carolina.

Information is provided per the requirement of State law, 10 NCAC 10G, Solid Waste Management.

A description of the site is at enclosure 1. The site is not located in a 100 year floodplain.

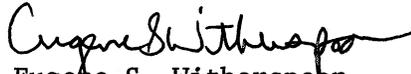
The type of material to be disposed of at the site includes construction debris such as concrete, steel, wood, sheetrock, roof shingles and tires. The Directorate of Engineering and Housing Maintenance Division's Larry Herring, 919 396-1920, will be the individual responsible for the operation and maintenance of the site. An attendant shall be on duty at the site while it is open for public use to ensure compliance with operational requirements and to prevent entry of hazardous waste and other unacceptable waste onto the site.

Provisions for controlling erosion include specific operational instructions avoiding steep slopes (greater than 2.5:1), channelizing, and creating low areas for water accumulation. Cutting ditches to run water off the site will be stabilized by grassing, gravel silt fences, hay bales, riprap, and turnouts. No sedimentation will be allowed to leave the site. Vegetation will be promoted once an area has been filled and closed to demolition debris. As soon as all landfill operations have ceased in an area, seeding and fertilizing immediately will begin. Enclosures 2 and 3 provide a guide for seedbed preparation and planting. Once a permanent cover crop has been established and the demolition landfill use has been completed, the area will not be utilized.

NOV 26 1946

Point of contact for the Environmental Office is Mr. Stephen J. Mackmull,
(919) 396-3372/8207.

Sincerely,



Eugene S. Witherspoon
Colonel, Corps of Engineers
Director of Engineering and Housing

Enclosures

Seedbed Preparation

- 1.) Chisel compacted areas and spread topsoil 3 inches deep over adverse soil conditions, if available.
- 2.) Rip the entire area to 6 inches depth.
- 3.) Remove all loose rock, roots, and other obstructions leaving surface reasonably smooth and uniform.
- 4.) Apply agricultural lime, fertilizer, and superphosphate uniformly and mix with soil (see below*).
- 5.) Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared 4 to 6 inches deep.
- 6.) Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
- 7.) Mulch immediately after seeding and anchor mulch.
- 8.) Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be over 60% damaged, reestablish following original lime, fertilizer and seeding rates.
- 9.) Consult Conservation Inspector on maintenance treatment and fertilization after permanent cover is established.

* Apply: Agricultural Limestone - 2 tons/acre (3 tons/acre in clay soils)
Fertilizer - 1,000 lbs./acre - 10-10-10
Superphosphate - 500 lbs./acre - 20% analysis
Mulch - 2 tons/acre - small grain straw
Anchor - Asphalt Emulsion @ 300 gals./acre



| Common Name | Botanical Name | 1/ Germ. Time, Days | 2/ Growth Habit | Season | | Drainage Class | | | | pH Range | Flooding Tolerance | Critical Areas | Waterways & Channels | Shade Tolerance | Foot Traffic & Playgrounds Lawns | 3/ Beautification | Levels of Maintenance | | |
|---|---|------------------------|--------------------|--------|------|--------------------|--------------|-------------------------|-------------|----------|--------------------|----------------|----------------------|-----------------|----------------------------------|----------------------|-----------------------|-----|---|
| | | | | Cool | Warm | Dry, Not Droughty) | Well Drained | Somewhat Poorly Drained | High | | | | | | | | Medium | Low | |
| | | | | | | | | | | | | | | | | | | | |
| Bahiagrass Pensacola Wilmington | Paspalum notatum | 14 | PL S | - | x | x | x | x | 4.5 -7.5 | - | x | x | - | x | 3/ | - | - | x | x |
| Barley, winter | Hordeum vulgare | 7-12 | A | x | - | - | x | - | 5.5 -7.8 | - | x | - | - | - | - | - | - | x | - |
| Bermudagrass | Cynodon dactylon | Plant Veg. | PL RS | - | x | - | x | x | 4.5 -7.5 | x | x | x | - | x | x | x | x | x | x |
| Bluegrass, Kentucky | Poa pratensis | 21-28 | P L R | x | - | - | x | x | 5.5 -7.0 | x | x | x | - | x | x | x | x | x | - |
| Canarygrass, Reed | Phalaris arundinacea | 21 | PL R | x | - | x | x | x | 5.0 7.5 | x | x | x | - | - | - | - | x | x | - |
| Fescue, creeping red | Festuca rubra | 21-28 | PL R | x | - | x | x | x | 4.5 -7.5 | x | x | x | x | x | x | x | x | x | - |
| Fescue, tall (KY-31) | Festuca arundinacea | 7-14 | PL BR | x | - | - | x | x | 5.0 -8.0 | x | x | x | x | x | x | x | x | x | - |
| Lovegrass, weeping | Eragrostis curvula | 5-14 | Ps B | - | x | x | x | x | 4.5 -8.0 | - | x | - | - | - | - | - | - | x | x |
| Millet Browntop Gahi or Star Foxtail | Setaria Panicum & Pennisetum spp. | 7-14 | A | - | x | x | x | x | 4.5 -7.0 | - | x | - | - | - | - | - | - | - | x |
| Oats | Avena sativa | 10 | A | x | - | - | x | - | 5.5 -7 | - | x | - | - | - | - | - | - | x | - |
| Redtop | Agrostis alba | 10 | Ps R | x | - | x | x | x | 4.0- 7.5 | x | x | x | - | x | x | - | - | x | x |
| Rye, winter | Secale cereale | 7 | A | x | - | - | x | - | 5.5- 7 | - | x | - | - | - | - | - | - | x | x |
| Ryegrass, Italian | Lolium multiflorum | 14 | A | x | - | - | x | x | 5.5- 7.5 | - | x | - | - | - | x | - | - | x | x |
| Sudangrass | Sorghum sudanesse | 10 | A | - | x | x | x | x | 4.5- 7.5 | - | x | - | - | - | - | - | - | x | x |
| Clover, Alsike | Trifolium hybridum | 7 | Ps B | x | - | - | x | x | 5.0- 7.5 | - | - | - | - | - | - | x | - | x | x |
| Clover, white (common) | Trifolium repens | 7 | Ps R | x | - | - | x | x | 5.5- 7.0 | x | x | - | x | - | x | - | - | x | x |
| Crownvetch | Coronilla varia | 14-21 | PL R | x | - | x | x | - | 5.5- 7.5 | - | x | - | x | - | - | x | - | x | x |
| Lespedeza, Korean | Lespedeza stipulacea | 7-14 | A | - | x | x | x | x | 5.5- 7.0 | - | x | - | - | - | - | - | - | - | x |
| Lespedeza, sericea | Lespedeza cuneata | 7-28 | PL B | - | x | x | x | x | 5.5- 7.0 | - | x | - | - | - | - | - | - | x | x |
| wheat, winter | Triticum aestivum | 7-10 | A | x | - | - | x | - | 5.5- 7 | - | x | - | - | - | - | - | - | x | - |

- Notes: 1/ Germination time Days - No. of days required for majority of seeds to germinate and emerge. (Temperature and moisture will affect this.)
2/ Growth Habit: A - annual; B1 - biennial; P - perennial; L - long-lived; s - short-lived; R - rhizomatous or spreads by rootstocks; S - stoloniferous; B - bunch
3/ Excellent plant for lawns on sandy sites. Seed heads may be objectionable.

Sand - 1-2 tons of lime/acre
 clays - 3 tons/acre
 800-1000 lbs fertilizer/acre



DEPARTMENT OF THE ARMY
HEADQUARTERS XVIII AIRBORNE CORPS AND FORT BRAGG
FORT BRAGG, NORTH CAROLINA 28307-5000

REPLY TO
ATTENTION OF:

NOV 26 1986

Directorate of Engineering
and Housing

Solid and Hazardous Waste Branch
Division of Health Services
Post Office Box 2091
Raleigh, North Carolina 27601



Dear Sir:

Enclosed is an application for the construction and operation of a new demolition landfill located at Fort Bragg, North Carolina.

Information is provided per the requirement of State law, 10 NCAC 10G, Solid Waste Management.

A description of the site is at enclosure 1. The site is not located in a 100 year floodplain.

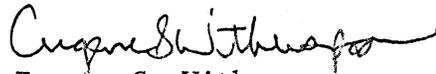
The type of material to be disposed of at the site includes construction debris such as concrete, steel, wood, sheetrock, roof shingles and tires. The Directorate of Engineering and Housing Maintenance Division's Larry Herring, 919 396-1920, will be the individual responsible for the operation and maintenance of the site. An attendant shall be on duty at the site while it is open for public use to ensure compliance with operational requirements and to prevent entry of hazardous waste and other unacceptable waste onto the site.

Provisions for controlling erosion include specific operational instructions avoiding steep slopes (greater than 2.5:1), channelizing, and creating low areas for water accumulation. Cutting ditches to run water off the site will be stabilized by grassing, gravel silt fences, hay bales, riprap, and turnouts. No sedimentation will be allowed to leave the site. Vegetation will be promoted once an area has been filled and closed to demolition debris. As soon as all landfill operations have ceased in an area, seeding and fertilizing immediately will begin. Enclosures 2 and 3 provide a guide for seedbed preparation and planting. Once a permanent cover crop has been established and the demolition landfill use has been completed, the area will not be utilized.

NOV 26 1968

Point of contact for the Environmental Office is Mr. Stephen J. Mackmull,
(919) 396-3372/8207.

Sincerely,



Eugene S. Witherspoon
Colonel, Corps of Engineers
Director of Engineering and Housing

Enclosures

Seedbed Preparation

- 1.) Chisel compacted areas and spread topsoil 3 inches deep over adverse soil conditions, if available.
- 2.) Rip the entire area to 6 inches depth.
- 3.) Remove all loose rock, roots, and other obstructions leaving surface reasonably smooth and uniform.
- 4.) Apply agricultural lime, fertilizer, and superphosphate uniformly and mix with soil (see below*).
- 5.) Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared 4 to 6 inches deep.
- 6.) Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
- 7.) Mulch immediately after seeding and anchor mulch.
- 8.) Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be over 60% damaged, reestablish following original lime, fertilizer and seeding rates.
- 9.) Consult Conservation Inspector on maintenance treatment and fertilization after permanent cover is established.

* Apply: Agricultural Limestone - 2 tons/acre (3 tons/acre in clay soils)
Fertilizer - 1,000 lbs./acre - 10-10-10
Superphosphate - 500 lbs./acre - 20% analysis
Mulch - 2 tons/acre - small grain straw
Anchor - Asphalt Emulsion @ 300 gals./acre

| Common Name | Botanical Name | 1/ Germ. Time, Days | 2/ Growth Habit | Season | | Drainage Class | | | | pH Range | Flooding Tolerance | Critical Areas | Waterways & Channels | Shade Tolerance | Foot Traffic & Playgrounds Lawns | Beautification | Levels of Maintenance | | |
|---|---|------------------------|--------------------|--------|------|--------------------|--------------|-------------------------|-------------|----------|--------------------|----------------|----------------------|-----------------|----------------------------------|----------------|-----------------------|-----|---|
| | | | | Cool | Warm | Dry, Not Droughty) | Well Drained | Somewhat Poorly Drained | High | | | | | | | | Medium | Low | |
| | | | | | | | | | | | | | | | | | | | |
| Bahiagrass Pensacola Wilmington | Paspalum notatum | 14 | PL S | - | x | x | x | x | 4.5 -7.5 | - | x | x | - | x | 3/ | - | - | x | x |
| Barley, winter | Hordeum vulgare | 7-12 | A | x | - | - | x | - | 5.5 -7.8 | - | x | - | - | - | - | - | - | x | - |
| Bermudagrass | Cynodon dactylon | Plant Veg. | PL RS | - | x | - | x | x | 4.5 -7.5 | x | x | x | - | x | x | x | x | x | x |
| Bluegrass, Kentucky | Poa pratensis | 21-28 | P L R | x | - | - | x | x | 5.5 -7.0 | x | x | x | - | x | x | x | x | x | - |
| Canarygrass, Reed | Phalaris arundinacea | 21 | PL R | x | - | x | x | x | 5.0 7.5 | x | x | x | - | - | - | - | x | x | - |
| Fescue, creeping red | Festuca rubra | 21-28 | PL R | x | - | x | x | x | 4.5 -7.5 | x | x | x | x | x | x | x | x | x | - |
| Fescue, tall (KY-31) | Festuca arundinacea | 7-14 | PL BR | x | - | - | x | x | 5.0 -8.0 | x | x | x | x | x | x | x | x | x | - |
| Lovegrass, weeping | Eragrostis curvula | 5-14 | Ps B | - | x | x | x | x | 4.5 -8.0 | - | x | - | - | - | - | - | - | x | x |
| Millet Browntop Gahi or Star Foxtail | Setaria Panicum & Pennisetum spp. | 7-14 | A | - | x | x | x | x | 4.5 -7.0 | - | x | - | - | - | - | - | - | - | x |
| Oats | Avena sativa | 10 | A | x | - | - | x | - | 5.5 -7 | - | x | - | - | - | - | - | - | x | - |
| Redtop | Agrostis alba | 10 | Ps R | x | - | x | x | x | 4.0- 7.5 | x | x | x | - | x | x | - | - | x | x |
| Rye, winter | Secale cereale | 7 | A | x | - | - | x | - | 5.5- 7 | - | x | - | - | - | - | - | - | x | x |
| Ryegrass, Italian | Lolium multiflorum | 14 | A | x | - | - | x | x | 5.5- 7.5 | - | x | - | - | - | x | - | - | x | x |
| Sudangrass | Sorghum sudanesse | 10 | A | - | x | x | x | x | 4.5- 7.5 | - | x | - | - | - | - | - | - | x | x |
| Clover, Alsike | Trifolium hybridum | 7 | Ps B | x | - | - | x | x | 5.0- 7.5 | - | - | - | - | - | - | x | - | x | x |
| Clover, white (common) | Trifolium repens | 7 | Ps R | x | - | - | x | x | 5.5- 7.0 | x | x | - | x | - | x | - | - | x | x |
| Crownvetch | Coronilla varia | 14-21 | PL R | x | - | x | x | - | 5.5- 7.5 | - | x | - | x | - | - | x | - | x | x |
| Lespedeza, Korean | Lespedeza stipulacea | 7-14 | A | - | x | x | x | x | 5.5- 7.0 | - | x | - | - | - | - | - | - | - | x |
| Lespedeza, sericea | Lespedeza cuneata | 7-28 | PL B | - | x | x | x | x | 5.5- 7.0 | - | x | - | - | - | - | - | - | x | x |
| wheat, winter | Triticum aestivum | 7-10 | A | x | - | - | x | - | 5.5- 7 | - | x | - | - | - | - | - | - | x | - |

- Notes: 1/ Germination time Days - No. of days required for majority of seeds to germinate and emerge. (Temperature and moisture will affect this.)
 2/ Growth Habit: A - annual; B1 - biennial; P - perennial; L - long-lived; s - short-lived; R - rhizomatous or spreads by rootstocks; S - stoloniferous; B - bunch
 3/ Excellent plant for lawns on sandy sites. Seed heads may be objectionable.

Sand - 1-2 tons of lime/acre
 clays - 3 tons/acre
 800 - 1000 lbs fertilizer/acre