

Fac/Perm/Co ID #	Initials Trail	Date	Doc ID #
4303	GL	9/1/2010	11566

Little, Geof

From: Ryan Sadler [ryan@ctclayton.com]
Sent: Wednesday, September 01, 2010 10:20 AM
To: Little, Geof
Cc: Shackelford, Dennis; Hammonds, Andrew; 'C. T. Clayton, Sr., P.E.'; tyrus@ctclayton.com; Dr. C. J. Poran; jchjbros@embarqmail.com; 'Jerry Blanchard'
Subject: Harnett County Shingle Recycling Pilot Program
Attachments: image002.jpg; 10 0831 Little Shingle Submittal Doc.pdf

Geof,

Per our previous conversations, please find attached our Shingle Recycling Pilot Program documentation for Harnett County. I would have sent sooner, but we were waiting for the Harnett County Board to approve the new shingle disposal rates. A hard copy has been sent via UPS, if you need additional copies let me know.

We understand from your latest correspondence that a processing permit will only be required if Johnson Brothers decides to take in shingles directly from the public at their facility. They have been made aware of this requirement. We plan on starting the program immediately after an initial planning & logistics meeting between Harnett County Solid Waste and Johnson Brothers. If you, Dennis, or Drew would like to attend this meeting, please let us know upon receipt of this email. We will also be taking a tour of the Johnson Brothers processing operation at their facility and providing you a report of our site visit at that time.

Regards,

Ryan Sadler
Project Manager



46 West Washington Street
Coats, North Carolina 27521

910-897-7070 office
910-897-6767 fax
919-795-6299 mobile
ryan@ctclayton.com

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August 31, 2010

PN: 03035

Mr. Geof Little
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
Mail Service Center 1646
Raleigh, NC 27699-1646

**RE: Asphalt Shingle Recycling Pilot Program
Anderson Creek Landfill Facility, Permit 43-03
Harnett County, North Carolina**

Dear Mr. Little:

On behalf of Harnett County, we are pleased to present you with this request to operate an Asphalt Shingle Recycling Pilot Program at the Anderson Creek C&D Landfill Facility, SWS Permit 43-03. The County has been working with Johnson Bros. Utility and Paving Company, Inc. (JBUPC), whom will utilize the recycled shingles for their paving operations, to set up the recycling program. A description of the Pilot Program process follows.

Harnett County will notify the customer base of the shingle recycling opportunity at its Anderson Creek C&D Landfill location. Customers will be instructed that shingle loads must be "clean" meaning that there should not be any metal flashing, wood, nails, or other non-shingle debris mixed in with the loads. The scale house operator will be trained to recognize clean vs. mixed loads. Clean loads will be allowed to dump at the designated shingle recycling area, while mixed loads will be sent to the C&D landfill for disposal.

The designated recycling area will take place within the old transfer station/current convenience center. Currently, the convenience center is broken up

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*Offices located in Coats and New Bern, North Carolina
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into two bays; one for tires and one for MSW separated by concrete blocks. To facilitate for shingle dumping, the MSW bay will become the new shingle disposal area. A new roll-off bin will be brought in to accommodate the MSW portion of the convenience center. The new roll-off bin will be positioned alongside the current recycling bins. A drawing depicting the locations described above is attached to this letter.

The shingle recycling area consists of a concrete floor with concrete block separators and no cover. Shingles will not be recovered from "mixed load waste". Shingles will not be dumped on the floor for separation; therefore, there will not be any clean-up or sorting required on a daily basis. Dust and litter should be kept at a minimum due to the weight of the materials.

When a pile of clean, recyclable shingles has accumulated, the landfill staff will utilize a front-end loader to load the shingles into the shingle bin. Landfill staff will notify JBUPC that a bin is ready for pickup and JBUPC will come haul away the container and replace with an empty one. We do not anticipate covering the shingle recycling bin or having multiple loaded bins remain stored within the facility. Upon departure from the facility, the weight of recycled shingles will be recorded at the landfill scalehouse. It is understood that JBUPC will require a treatment and processing (T&P) permit if they choose to receive shingles from a source other than ACLF. At this time, JBUPC will only receive shingles delivered from ACLF and will pursue a T&P permit at a later date if their intentions change.

JBUPC will be responsible for the training, asbestos testing, and grinding of the shingles as outlined in their November 12, 2009 letter to the North Carolina Health Hazards Control Unit (attached). If upon testing at their facility the load tests positive for asbestos, the load will be returned to the Dunn Erwin C&D Landfill (SWS Permit #43-02) for disposal in the asbestos monofill. Landfill staff will direct the



asbestos shingle load to the working face of the monofill and the shingles will be covered immediately the same day.

It is Harnett County's proposal (upon SWS approval) to operate the shingle recycling operation as a pilot program for the next several months. Harnett County hopes to forego the permit modification fee at this time and to include the shingle recycling operation as a permanent part of the Anderson Creek C&D Landfill operating permit which is planned for renewal with the submission of an expansion permit application before the end of 2010.

Should you have any questions or comments, please contact me or Ryan Sadler at the telephone numbers below or by e-mail tyrus@ctclayton.com or ryan@ctclayton.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Tyrus Clayton, Jr.", written in a cursive style.

Tyrus Clayton, Jr. PE
Vice President

attachments: Johnson Bros. Utility and Paving Company, Inc. Letter dated
November 12, 2009
Customer Notification Flyer
Anderson Creek Landfill Facility Proposed Shingle Recycling Site Plan
Dunn Erwin Landfill Facility Existing Asbestos Monofill Site Plan
ACLF Revised Operation Plan

cc: C. T. Clayton, Sr., P. E., CTC
Ryan Sadler, CTC
C. J. Poran, PhD, P. E., (ENSOL)
Carson Harrington
Jerry Blanchard
Dennis Shackelford SWS
Drew Hammonds SWS



JOHNSON BROS. UTILITY AND PAVING COMPANY, INC.

1924 NORTH MAIN STREET
LILLINGTON, NORTH CAROLINA 27546
TELEPHONE (910) 893-8378 - FAX (910) 893-6152

November 12, 2009

Health Hazards Control Unit
1912 Mail Service Center
Raleigh, NC 27699-1912
Attn: Jeff Dillinger

Dear Mr. Dellinger

As per your request this letter is a revision of the plan on how our company plans to handle "tear-off and grinding of post consumer roofing shingles" for use in our asphalt production. We have addressed the deficiencies listed in the first and second plan and ask you review this version before we proceed further. We have broken our plan into seven areas.

- 1) **Receiving:** "Post consumer asphalt roofing shingles" or as we will refer to them for the remainder of the plan "Tear-off shingles" will be received via truck from solid waste approved landfill(s). The truck(s) will haul approximately 21 tons per load (based on the maximum weight our trucks may legally haul). Currently we estimate receiving from 150 to 200 tons of tear-off shingles per month, and hauling on a weekly basis (2 to 3 loads). This may vary depending on how fast the landfill receives shingles and the space available. The shingles will be clean (free from wood, flashing and non shingle materials). We will not accept built-up roofing, roof flashing, or roofing shingles that have been coated with paints, sealants or mastics, or asbestos shingles. We do not intend to receive shingles directly from construction and demolition sources or act as a solid waste facility.
- 2) **Stockpiling:** Shingles will be received at our plant as stated above by truck. Each load will be weighed and given a numbered weight ticket. This number will be used to identify the individual loads for asbestos testing and record keeping. Each load will be dumped separately from the other incoming loads and marked with the corresponding weight ticket number in order not to contaminate the other loads should asbestos be present. Shingles will be stockpiled in three separate stockpile areas. Each stockpile area will be separate from the other and not allowed to touch. Stock piles will be visibly labeled to avoid intermixing or contamination. The first stockpile area will be for newly received shingles that have not been tested for asbestos. Once each load is tested and deemed to contain less than 1% asbestos it will be moved to another stockpile area to await processing (grinding). We anticipate a

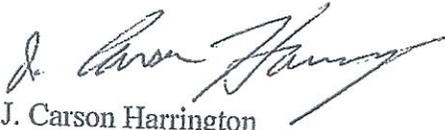
stockpile of 2500 tons will be required before grinding can be started. The third stockpile will be ground or processed shingles ready for use in asphalt production. No shingles that contain more than 1% asbestos will be ground. Attached is a sketch (not to scale) of our facility and the proposed location for stockpiling tear-off shingles.

- 3) **Grinding:** Grinding will be accomplished by specialized shingle processing equipment and screening machines. These machines come equipped with water systems to eliminate dust and aid in the cooling of the shingles during grinding. The grinding is a "wet" process. Water will also be available at our facility if needed by the grinding contractor to eliminate dust production and migration. Only shingles will be ground at our facility. No other roofing materials such as flashing, roof mastics or tar paper will enter the recycling stream. The shingles will be ground to a half inch or less in size. Initially we intend to rent or hire the equipment needed to process the shingles. Any hired equipment or personnel will have all the required permits for grinding shingles. In the future we may look at purchasing the appropriate equipment.
- 4) **Training:** We will provide National Emission Standards for Hazardous Air Pollutants (NESHAP) training as per N.C. Department of Health and Human Services Division of Public Health. This training includes:
 - a. Asbestos Roofing Supervisor training with annual refresher course.
 - b. Asbestos Inspector Training with annual refresher course.
- 5) **Testing:** Johnson Brothers Utility & Paving Company Inc. will have on hand an accredited asbestos inspector to sample the tear off shingles received from the Harnett County Landfill System. Each load received will be inspected, stockpiled and tested for asbestos by an accredited asbestos inspector. Bulk samples will be collected by accredited personnel and sent to an offsite accredited asbestos laboratory for analysis. Once we have properly trained and accredited our personnel we plan to expand our lab capabilities to conduct testing on site. Once a load is tested as clean (non-asbestos) it will be moved to another stockpile to await grinding. Contaminated loads will be dealt with appropriately (refer to Safety section).
- 6) **Safety:** Any load received at our facility that upon initial inspection includes recognizable suspect asbestos-containing material will be wetted and covered until tested by an accredited asbestos inspector. Any load which tests positive for asbestos will be immediately wet and covered. The appropriate personnel will be notified and the contaminated material transported by Johnson Brothers to the Harnett County Landfill which is permitted to receive asbestos-containing waste materials. No material which contains asbestos will be processed for grinding or enter the recycling stream. All personnel working around the tear-off shingles will receive annual training, through an accredited agency or in house, about the hazards and precautions of asbestos.
- 7) **Education:** We plan to work with the local landfills (our supplier) in an education program on sorting the shingles to eliminate wood, built-up roofing, roof flashing, roofing shingles coated with paints, sealants, mastics, or asbestos cements and other construction debris from entering the recycling stream. We intend to use printed fliers distributed at the landfill to educate the

public on sorting of tear-off shingles. We also plan to work with the local landfill(s) on a possible two tier fee schedule for "clean" and "dirty" tear-off singles.

Once again, these seven areas represent the program we plan to implement if our facility is allowed to receive and process tear-off shingles. As with any new program, as we gain experience and knowledge we will further refine our plans and procedures. Also attached please find our educational flyer for your records. If you need any further information please feel free to contact our office at 910-893-8378.

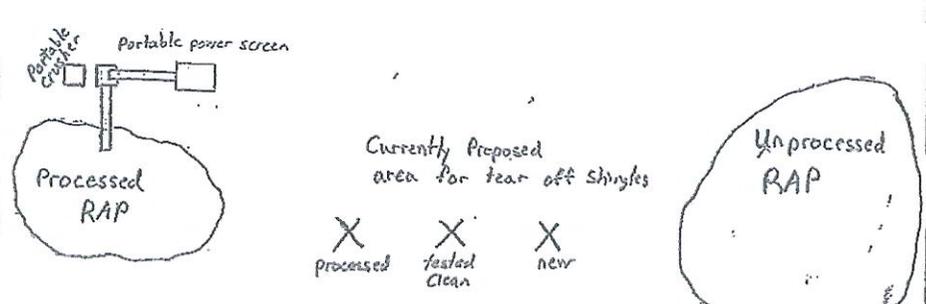
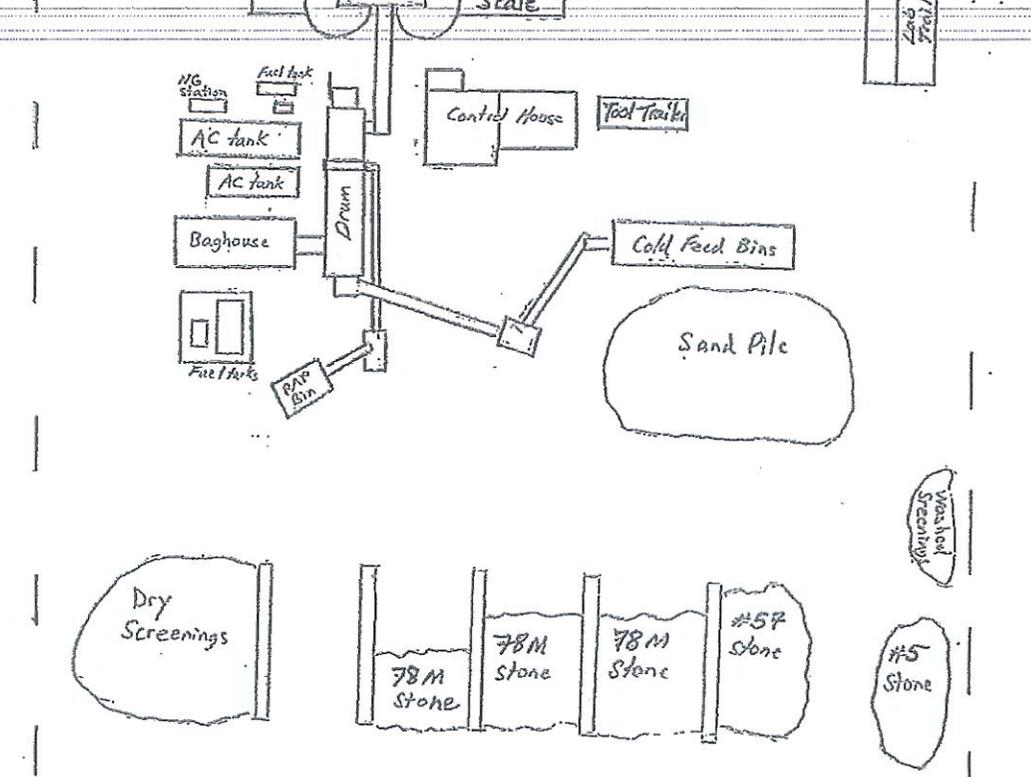
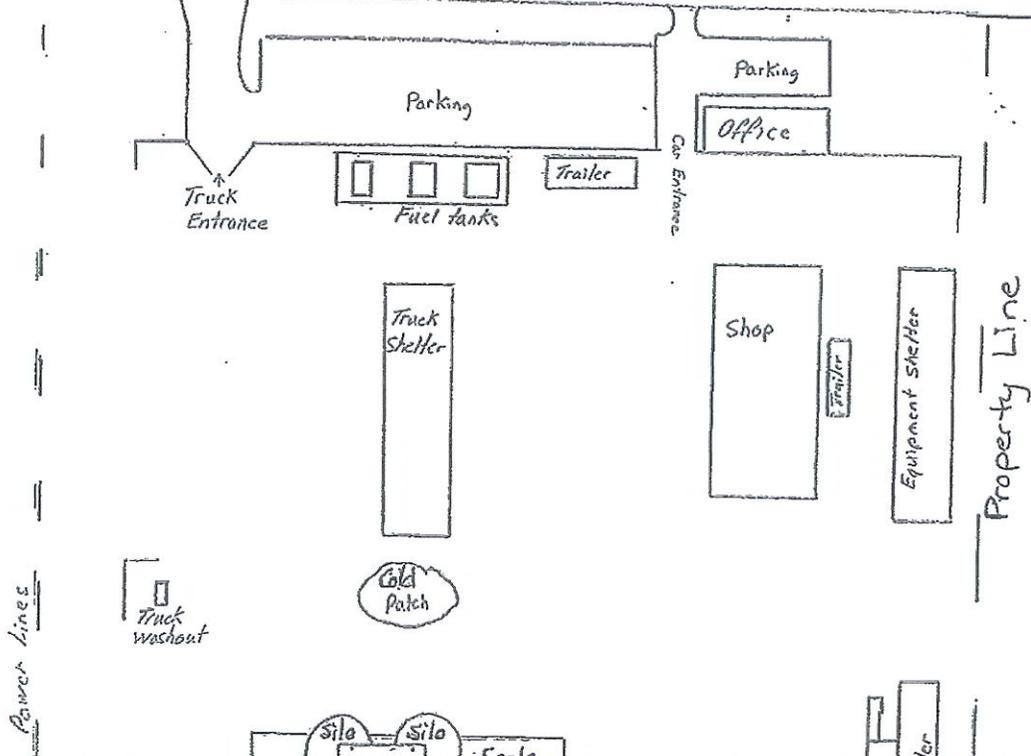
Sincerely,



J. Carson Harrington
Asphalt / Quality Control Manager
JCH/jbj

Johnson Bros. Utility & Paving
 1924 N. Main St.
 Lillington, NC 27546

NC 210



HARNETT COUNTY SHINGLE RECYCLING PROGRAM

ANDERSON CREEK C&D LANDFILL

NC State Road 1164/1086 Poplar Dr.
Anderson Creek, N.C.
910-893-5626

TEAR-OFF SHINGLES ACCEPTIBILITY GUIDE

WHAT **TO** INCLUDE

- * SHINGLES
- * FELT ATTACHED TO SHINGLES

DISPOSAL COST: \$20.00/TON

WHAT **NOT** TO INCLUDE

- * WOOD
- * METAL FLASHING, GUTTERS, ETC.
- * NAILS (best effort)
- * PLASTIC WRAP, BUCKETS
- * PAPER
- * GARBAGE, TRASH, DIRT, ETC.
- * BUILT-UP ROOFING & FLASHING
- * SHINGLES COATED WITH PAINT, SEALANTS, OR MASTICS
- * ASBESTOS SHINGLES

DISPOSAL COST: \$40.00/TON

THANK YOU FOR HELPING HARNETT COUNTY REDUCE WASTE

OPERATIONS PLAN

**ANDERSON CREEK LANDFILL
CONSTRUCTION AND DEMOLITION
LANDFILL**

HARNETT COUNTY, NORTH CAROLINA

PREPARED BY:



P.O. BOX 578
46 WEST WASHINGTON STREET
COATS, NORTH CAROLINA, 27521
PHONE: 910-897-7070 FAX: 910-897-6767
NC Firm C-2570

CTC PN: 3001C
August 2010 update to add Shingle Recycling Program
Original document submitted 12/31/08, SWS Doc.# 6546

OPERATIONS PLAN
CONSTRUCTION AND DEMOLITION LANDFILL

ANDERSON CREEK LANDFILL
HARNETT COUNTY, NORTH CAROLINA

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OPERATIONS PLAN
Anderson Creek Landfill Facility
Construction and Demolition Landfill

This Operation Plan has been prepared in accordance with Rule .0542. Harnett County shall maintain and operate the Anderson Creek Construction and Demolition Landfill (CDLF), in accordance with the design and drawings approved by the North Carolina Solid Wastes Section (NCSWS), the permit to operate issued by the NCSWS, and the following requirements.

1.0 Waste Acceptance and Disposal Requirements

The (CDLF) will accept construction/demolition debris and other wastes specifically approved by the division. The CDLF will only accept waste generated in Harnett County, and will not knowingly dispose of any type of C&D waste generated within the boundaries of a unit of local government that by ordinance prohibits generators or collectors of C&D waste from disposing of such waste

Construction/demolition debris is defined in the General Statutes as waste or debris resulting solely from construction, remodeling, repair, or demolition operations on pavement, building, or other structures

Disposal of yard trash will not be allowed in the CDLF Facility. Yard trash is defined in the North Carolina General Statutes 130A-290 as "solid waste consisting solely of vegetative matter resulting from landscaping maintenance".

The new CDLF will accept asbestos waste if packaged properly in accordance with 40 CFR 61 and G.S. 150B-14(c). The waste shall be disposed of in virgin soil and at the bottom of the working face or in an area not contiguous with other disposal areas. The area shall be covered with soil immediately in a manner to avoid any airborne conditions and the disposal area shall be marked and/or the location documented in the permanent operating record of the landfill so that the waste is not disturbed by future land filling activities.

All of the yard waste received at the Anderson Creek Landfill Facility will be ground and given free of charge to the citizens and non-commercial entities of Harnett County. Land clearing and inert debris materials such as stumps, brick, block, etc. will be disposed of in the permitted LCID cell located at the Harnett County owned and operated Dunn Erwin Landfill facility.

Anderson Creek Landfill Facility will operate a shingle recycling program as approved by NCSWS in cooperation with Johnson Bros. Utility and Paving Company, Inc. The operation will be conducted as follows:

- Shingle loads must be “clean” meaning that there should not be any metal flashing, wood, nails, or other non-shingle debris mixed in with the loads. The scale house operator will be trained to recognize clean vs. mixed loads. Clean loads will be allowed to dump at the designated shingle recycling area, while mixed loads will be sent to the C&D landfill for disposal.
- The designated recycling area will take place within the current convenience center. To facilitate for shingle dumping, the MSW bay will become the new shingle disposal area. A new roll-off bin will be brought in to accommodate the MSW portion of the convenience center. The new roll-off bin will be positioned alongside the current recycling bins.
- The shingle recycling area consists of a concrete floor with concrete block separators and no cover. Shingles will not be recovered from “mixed load waste”. Shingles will not be dumped on the floor for separation; therefore, there will not be any clean-up or sorting required on a daily basis. Dust and litter should be kept at a minimum due to the weight of the materials.
- When a pile of clean, recyclable shingles has accumulated, the landfill staff will utilize a front-end loader to load the shingles into the shingle bin. Landfill staff will notify JBUPC that a bin is ready for pickup and JBUPC will come haul away the container and replace with an empty one. We do not anticipate covering the shingle recycling bin or having multiple loaded bins remain stored within the facility. Upon departure from the facility, the weight of recycled shingles will be recorded at the landfill scalehouse.
- JBUPC will be responsible for the training, asbestos testing, and grinding of the shingles. If upon testing at their facility the load tests positive for asbestos, the load will be returned to the Dunn Erwin C&D Landfill (SWS Permit #43-02) for disposal in the asbestos monofill.

1.1. The following wastes are prohibited from disposal at the CDLF:

- Containers such as tubes, drums, barrels, tanks, cans, bottles, unless they are empty and perforated to ensure that no liquid, hazardous or municipal solid waste is contained therein.
- Garbage as defined by Statute 130A-290
- All municipal solid waste (MSW).
- All industrial waste.
- All medical waste.
- Hazardous waste as defined within 15A NCAC 13A, including hazardous waste from conditionally exempt small quantity generators.
- Polychlorinated biphenyls (PCB) waste as defined in 40 CFR 761.
- Radioactive waste as defined by Statute 104E-5(14).

- All liquid wastes are banned from the CDLF facility.
NOTES: Liquid Waste means any waste material that is determined to contain “free liquids” as defined by Methods 9095 Paint Filter Liquids Test), as described in “Test Methods for evaluating solid Wastes, Physical/Chemical methods” (EPA Pub. No.SW-846).

Paint Filter Liquids Test:

The test is performed by placing a 100-milliliter sample of the waste in question, in a conical, 400-micron paint filter. The waste is considered to be a liquid if any liquid from the waste passes through the filter within five minutes.

- Waste prohibited by Statute GS 130A-309.10 of the North Carolina Solid Waste Management Rules. These waste include:
 - used oil
 - yard trash
 - white goods
 - antifreeze (ethylene glycol)
 - whole scrape tires
 - lead-acid batteries
- Wastewater treatment sludges or any other waste containing organics.
- C&D waste that has been shredded, pulverized or processed to such an extent that the composition of the original waste cannot be determined, unless the waste is from a facility that received a permit from an authorized regulatory authority which specifies such activities are inspected by the authority and that the primary purpose is recycling and reuse of the C&D material.
- The following wastes are banned from the CDLF if separate from C&D waste: light bulbs or lamps, lighting ballast or fixtures, thermostats and light switches, batteries, lead pipes, lead roof flashing, transformers, capacitors and copper chrome arsenate (CCA) and creosote treated woods.

1.2. All waste containing asbestos shall be managed in accordance with 40 CFR 61. When possible, the waste shall be placed at the bottom of the working face. Large quantities of asbestos shall be designated and located by the landfill operator. The horizontal location should be measured between two (2) permanent points and the elevation estimated and both recorded. The waste shall be covered with soil immediately upon disposal in a manner not to cause airborne materials.

1.3. Harnett County shall continue a program at the landfill for detecting and preventing the disposal of hazardous or liquid waste or any other waste that the CDLF facility is not permitted to receive. The frequency of random inspections shall be based on the type and quantity of waste received daily, and the accuracy and confidence desired in conclusions drawn from inspection observations. All

incoming waste of an unidentifiable nature or origin will be inspected. This shall include but not be limited to haulers with unknown service area, to loads brought to the facility in vehicles not typically used for disposal of municipal solid waste, and to loads transported by previous would-be offenders. For waste of unidentifiable nature received from sources other than household (e.g., industrial or commercial establishments), the inspector should question the transporter about the source/composition of the materials. The program will include the following:

Landfill personnel will conduct random inspections of typical incoming loads. Inspections will occur at a designated site, adjacent to the working face of the landfill unit. The load will be carefully spread by a front-end loader with personnel trained to identify hazardous and liquid waste or any other unacceptable waste. The frequency of the random inspections will be based on the type and quantity of waste received, but not less than one inspection per week. A record will be kept of each inspection that is performed. These records will be included and maintained in the operating record of the landfill. A copy of the waste inspection record and flowchart of the random waste screening process are attached as Appendix 1.

Harnett County will provide annual training to all landfill personnel in regard to recognizing hazardous and liquid waste.

Harnett County has developed a contingency plan to properly manage identified hazardous or liquid waste. The plan involves the identification of the waste by inspection. If the inspector determines a load to be of a hazardous nature, the landfill will not accept the waste and require that hauler remove the waste from the facility. If the inspector determines a load of waste to include wastes that should not be disposed of in the CDLF but can be disposed of in a permitted MSW Landfill, then the hauler will be required to load the waste back into his vehicle and transport the load to the MSW Transfer Facility.

2.0 Cover Material Requirements

- 2.1. Harnett County shall cover the disposed waste with six (6) inches of earthen material once a week, or at more frequent intervals if necessary, to control disease, vectors, fire, odors, blowing litter, and scavenging.
- 2.2. As an alternative to the six inches of earthen material, Harnett County may use an alternative cover (AC) that has been approved by the Solid Waste Division.

The AC will only be placed in the vicinity of the active working face and primarily during wet weather conditions to assist in alleviating the muddy conditions that impede efficient operation. The AC will not be placed in areas that have a high potential for runoff, such as perimeter slopes. A full six (6) inch layer of native soil will continue to be placed in these areas in order to promote surface water runoff.

The daily cover will reduce nuisances caused by odors, vectors, litter, etc., and will assist landfill operations during wet weather conditions. The soil component of the daily cover will create isolated pockets of waste within the cell to prevent and control landfill fires. However, as an additional precaution, a full six (6)-inch layer of soil will be used to cover the working face at least once each week. Using the AC material should not increase the potential for landfill fires, since the material will be placed in conjunction with a separate soil layer and will be predominately used in wet weather conditions.

The AC's will be placed to meet or exceed the performance criteria of an AC as outlined in Rule .1626 2 (b) by providing control of disease, vectors, fires, odors, blowing litter, and scavenging.

- 2.3. Harnett County shall cover all waste areas that will be inactive for more than twelve (12) months and have not reached final elevations with a minimum of one foot of intermediate cover.

3.0 **Disease Vector Control**

- 3.1. Harnett County will control the spread of disease vectors by maintaining daily cover requirements and picking up windblown trash at the end of each day.

4.0 **Air Quality**

- 4.1. Harnett County shall operate the Anderson Creek CDLF in compliance with all applicable requirements developed under the State Implementation Plan (SIP) approved or promulgated by the U.S. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended. The Harnett County landfill should not be required to obtain a Title V operating permit. Currently, the Anderson Creek Landfill facility does not anticipate reaching an on-site volume of more than 2.5 million Megagrams of waste.
- 4.2. No open burning of solid waste shall be allowed at the landfill, except for the infrequent burning of land clearing debris that is generated by on-site clearing or debris from emergency clean-up operations. Any such infrequent burning will be approved by the local fire marshall and all local and state guidelines will be followed. The county will obtain all applicable permits prior to burning.
- 4.3. If a hot load of waste is delivered to the landfill, the driver shall not be allowed to dump the load. The driver shall be directed to a gravel or paved area West of the C&D waste area and instructed to dump the load there. The fire should be extinguished if possible and the local fire department called immediately.

If a load of waste is unknowingly a "hot" load and is discharged onto the working face, it will immediately be watered and extinguished by landfill personnel if possible and the local fire department will be called immediately.

Equipment and a stockpile of soil shall be maintained in close proximity to the working face for controlling accidental fires.

The local fire department, which is approximately located 3.5 miles from the Anderson Creek Landfill, will also be contacted and informed of the potential fire hazards at the landfill. Arrangements will be made with the fire department to provide access to the landfill site. They will also be provided with operational information of the facility in case of emergency.

- 4.4. Harnett County shall provide verbal notification to the Solid Waste Division within 24 hours of a fire at the landfill and written notice within 15 days.

5.0 Access and Safety Requirements

- 5.1. The site is currently enclosed by a fence with access controlled by means of gates. A security check station and weigh scales is located at the landfill entrance to evaluate waste stream and proper disposal. A properly trained and certified attendant will be on duty at the site at all times while it is open for public use to insure compliance with operation requirements. Restroom and maintenance facilities currently in place at the existing site will remain operational. Access roads to the site will be of all weather construction and maintained in good condition.
- 5.2. Dust generated due to landfill activities will be controlled. Dust will be controlled through the application of water by truck or other approved dust control products, if necessary. Removal of mud and dirt from the roads will also be a part of the dust control measures. Additionally, final cover will be vegetated as soon as practical in order to minimize the blowing of dust on-site.
- 5.3. Signs providing information on disposal procedures, the hours which the site is open for public use, the permit number, stating that no hazardous or un-permitted waste can be received without written permission, stating that no liquid waste can be received for disposal, and other pertinent information will be posted at the site entrance. Most of these signs are located at the landfill entrance, which currently provides access to the MSW transfer station and also provides access to the CDLF. Therefore traffic signs and markers shall be provided as necessary to promote an orderly traffic pattern and direct incoming vehicles to the proper dumping area (MSW or C&D). Adequate signage will be located along the access roads to direct vehicles to and from the discharge area and maintain efficient operating conditions. The scale house operator will give specific instructions to incoming waste loads as to the appropriate disposal area. A sign shall be placed in clear view of each incoming transporter, which shall read as follows:

NOTICE: RANDOM WASTE SCREENING PRACTICED HERE. WE RESERVE THE RIGHT TO INSPECT ANY LOAD OR PORTION OF A LOAD ARRIVING AT OUR FACILITY. WE

WILL REJECT ALL: HAZARDOUS WASTES, PCBs, LIQUIDS AND ANY UNACCEPTABLE WASTE AS DETERMINED BY OUR MANAGEMENT. YOUR PARTICIPATION IN THIS PROGRAM IS NOT OPTIONAL!

- 5.4. Scavenging of solid waste is prohibited unless approved by the owner or operator and the removal is not performed on the working face.
- 5.5. Harnett County will be implementing a new operating procedure for managing landfill customers in 2008 in an attempt to provide a safer and more cost effective facility for the citizens of Harnett County. All customers entering the landfill are required to follow these new operating procedures while on the Landfill property. A copy of the new operating procedures is attached as Appendix 2.

6.0 Erosion and sedimentation Control Requirements

Existing and proposed erosion/sedimentation control structures include sediment basins, storm drains, temporary slope drains, check dams, and diversion ditches. Sedimentation basins will be checked after periods of significant runoff. Sediment will be removed from the basin to its original dimension when sediment accumulates to one half of design depth. The sedimentation basins, embankment, ditches, inlets and outlets will also be inspected for erosion damage. All necessary repairs will be made immediately. Any trash or debris within the riser pipes will be removed.

Stormwater will be collected by constructing benches on the finished cap at an interval of approximately 35 vertical feet. This will maintain the maximum flow length on the cap surface to approximately 140 linear feet. A series of pipes will be used to transport water from the upper benches to the lower benches and eventually to a periphery ditch that will transport the storm water to two (2) existing sediment ponds. Each pipe will be sized for the final-developed condition, since the landfill will produce peak runoff at the final-developed condition. All of the Stormwater management structures and erosion control details are shown on the closure plans.

The erosion control structures are designed and will be maintained to manage the runoff generated by the 24- hour, 10-year storm event and will conform to the requirements of the Sedimentation Pollution Control Law (15A NCAC 4).

Storm drain outlets and diversion ditches will be inspected for damage after each runoff event. Riprap will be placed in ditches and at pipe outlets to prevent erosion and washouts. Provisions for a vegetative ground cover sufficient to control erosion must be accomplished within thirty (30) working days or 120 calendar days upon completion of any phase of CDLF development. Temporary grassing will also be utilized as necessary to stabilize temporary slopes that are susceptible to erosion.

Embankment slopes shall be periodically inspected for erosion. The embankment slopes shall be mowed at a frequency sufficient to maintain a good stand of vegetation. The slopes shall be mowed once in any one (1) year period. The embankment slopes shall be re-fertilized in the second year unless vegetation growth is fully adequate. Any damaged areas will be reseeded, fertilized and mulched immediately. Seeding, fertilizing, and mulching shall be in accordance with the North Carolina Erosion and Sedimentation Control Guidelines.

7.0 Drainage control and Water Protection Requirements

- 7.1. Surface water from outside the operation area will be diverted from the waste area by use of perimeter ditches. The perimeter ditches direct surface water to the sedimentation basins.
- 7.2. There shall be no discharge of pollutants from the landfill into waters of the U.S., including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination Systems (NPDES) requirements, pursuant to Section 402.

There shall be no discharge of a non-point source of pollution into waters of the U.S., including wetlands, that violates any requirement of area-wide or State-wide water quality management plan that has been approved under Section 208 or 219 of the Clean Water Act, as amended.

- 7.3. Solid waste shall never be disposed of in ponded water.

8.0 Record Keeping Requirements

- 8.1. Landfill personnel shall record and retain the following information in an operating record at the landfill, or at an alternate location that has been approved by the Division:

- Inspection of existing facilities,
- Inspection records and waste determination records,
- Training received by landfill personnel,
- Waste amounts received by weight, which includes source or generation,
- Semi-annual monitoring of ground water wells, and
- Any demonstration, certification, finding, monitoring, testing, or other analytical data required by the North Carolina Solid Waste Management Rules (15A NCAC 13B).

The CDLF obtains an annual aerial survey of all Landfill areas between April and June of each year in order to keep record of yearly contour transitions. An individual survey of the facility will be performed within 60 days of receiving a request to do so from the Division. The results of this survey, which shall include a map and discussion of whether or not operations are being conducted

in accordance with the approved design and operational plans, will be supplied to the Division within 90 days of receiving the original request.

- 8.2. This information shall be collected and documentation of such collection kept in the permanent record of the CDLF or at an alternate location approved by the Division. The Operating Record, this Operations Plan, and a copy of the approved design drawings and construction drawings will remain at the Anderson Creek Facility or approved alternate location at all times. This information will be readily available for inspection by the Solid Waste Section

9.0 Spreading and Compacting Requirements

Waste will be placed in the CDLF in lifts of approximately five (5) to ten (10) feet thick. Following placement in the initial lift, the solid waste will be compacted as densely as possible using compactors and dozers. Waste placement will be in lifts not to exceed 10 feet. In order to increase compaction, waste should be placed from the down gradient to the up gradient direction when possible. The working face shall be maintained in as small an area as possible to increase compaction and to reduce the amount of daily cover required.

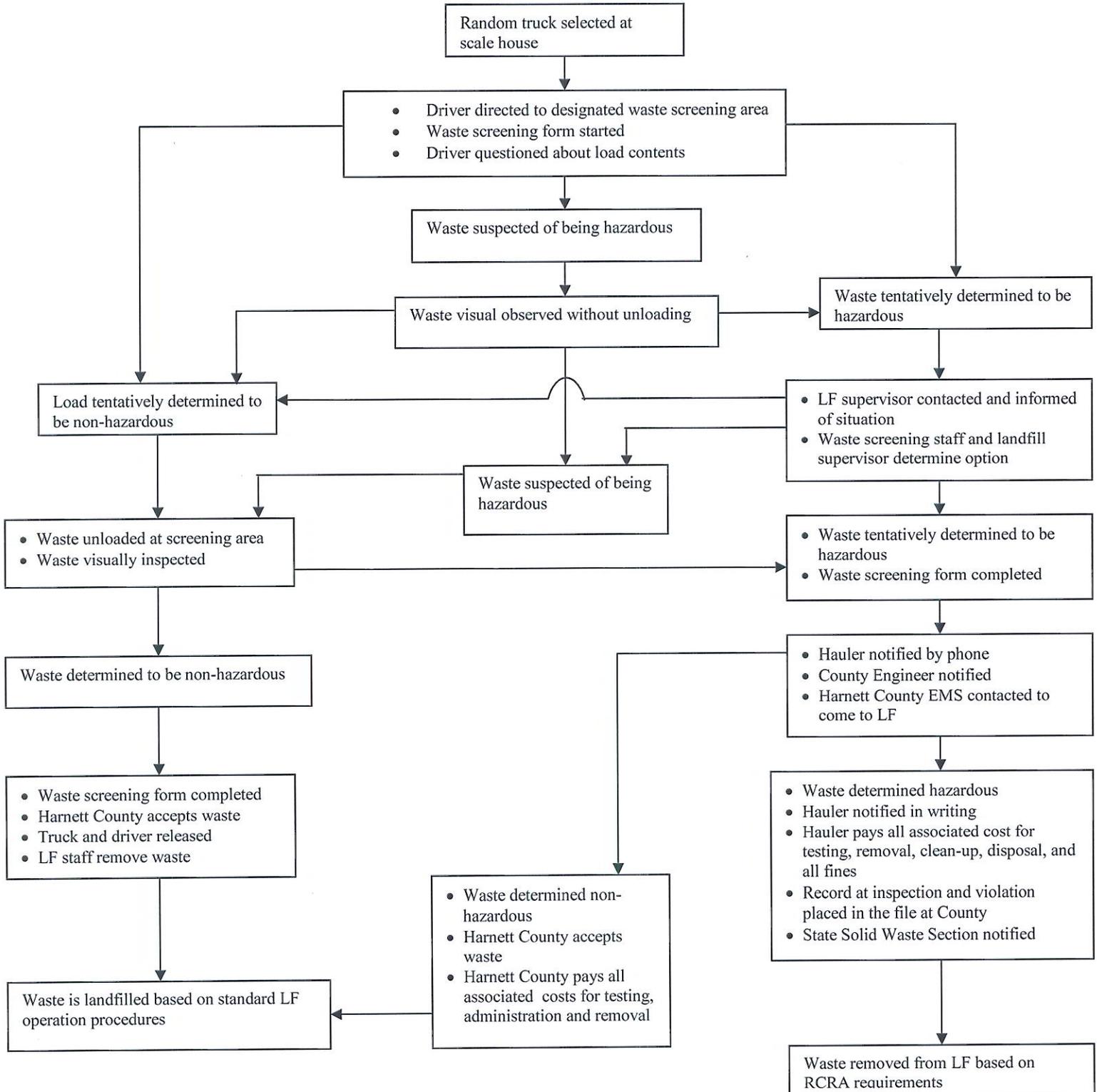
SECTION APPENDICES

APPENDIX 1

Waste Screening Flow Chart

Harnett County

Random Waste Screening Program Decision Tree



APPENDIX 2

Landfill Operating Guidelines

EFFECTIVE 2008

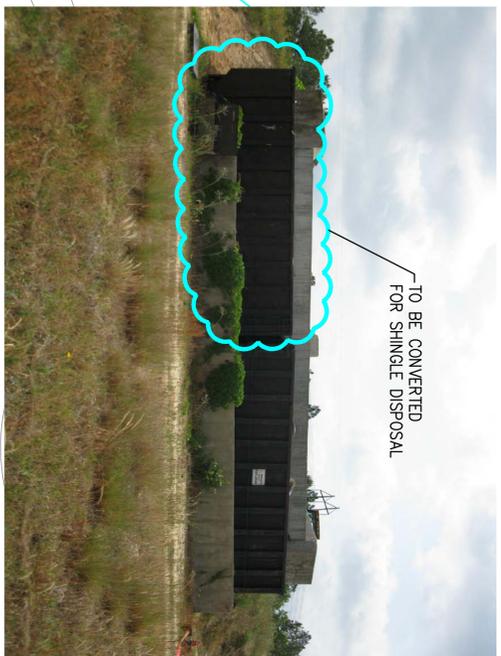
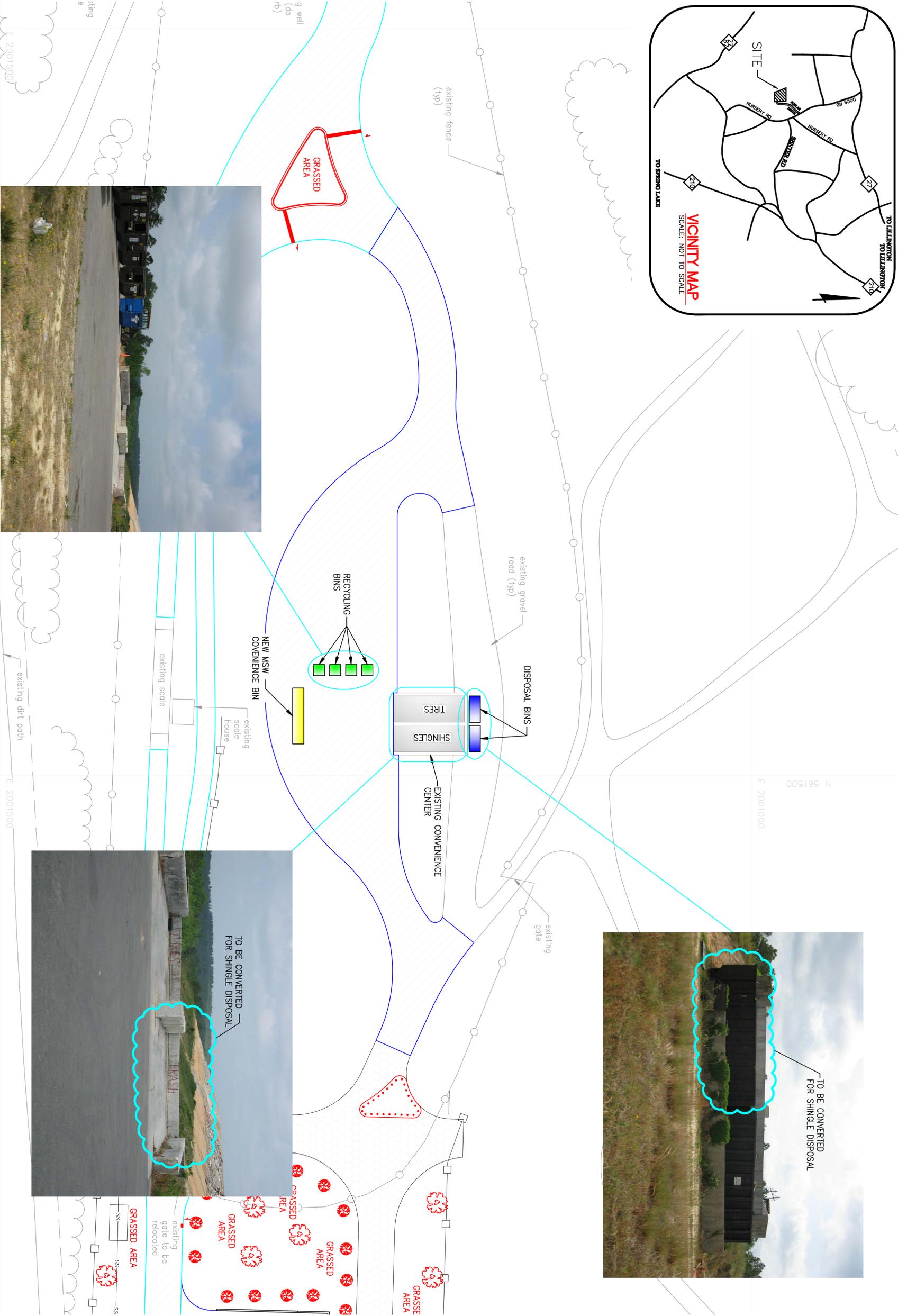
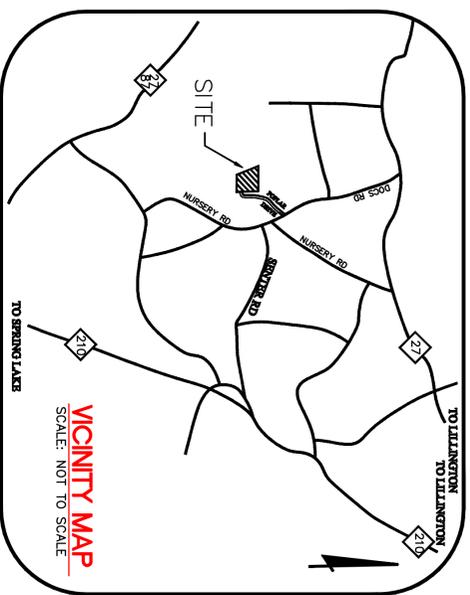
Harnett County Landfill Operating Procedures

The Harnett County Landfill's goal is to provide a safe and cost effective facility for our customers to dispose of solid waste from Harnett County. Upon entering landfill property, the following operating procedures shall be followed by all customers.

1. Harnett County Landfill personnel are the controlling authority when entering landfill property. Failure to follow these operating procedures will result in removal from landfill property.
2. Traffic gates at the scale house control when a vehicle pulls onto and leaves scales.
3. Scale attendant will process the customer's vehicle by weighing, applying applicable fees, visually screening the waste load, checking to see that all personnel in the vehicle has a safety vest, and giving instructions.
4. No more than five (5) customer vehicles will be allowed on the landfill work face at any one time (raised traffic gate and verbal instruction from the attendant will indicate when a vehicle will be allowed to leave the scales).
5. Proceed to the work face where you will back into an open space maintaining a ten (10) foot separation from other vehicles (all persons getting out of the vehicle will have a safety vest on or will be asked to leave). All customers shall follow manufactures safety procedures for unloading vehicle. Where possible, turnbuckles, or latches should be in unloading position before backing into unloading area. This should be done only if no waste will be lost in the process. At no time will any person be allowed to ride on vehicle outside of cab. It will be the responsibility of the owner of each vehicle to train employees on the proper way to unload the vehicle and provide personal protection equipment (PPE) for their employees.
6. After vehicle is unloaded, the customer will pull out of the compactor's way and secure vehicle for departure from landfill. **NO SCAVENGING** (picking up anything or looking through unloaded waste), **NO LOITERING, or CONGREGATING ON LANDFILL PREMISES.** Once the customer's vehicle is unloaded they will be required to leave the landfill.

GENERAL RULES:

- Speed limit while on property is 15 mph.
- No smoking while in landfill.
- Follow all posted rules and regulations.
- All vehicle that need to be unloaded by hand shall have sufficient employees to unload the vehicle in a timely manner
- Waste shall be unloaded in the smallest area possible (scattering of waste will not be permitted).
- Vehicles entering the landfill's working face will be in the same area as our heavy equipment. Drivers need to use caution and give heavy equipment the right of way.



GENERAL NOTES

PERMIT DOCUMENT
FOR REVIEW ONLY



No.	Revision/Issue	Date

Signature _____
Date _____

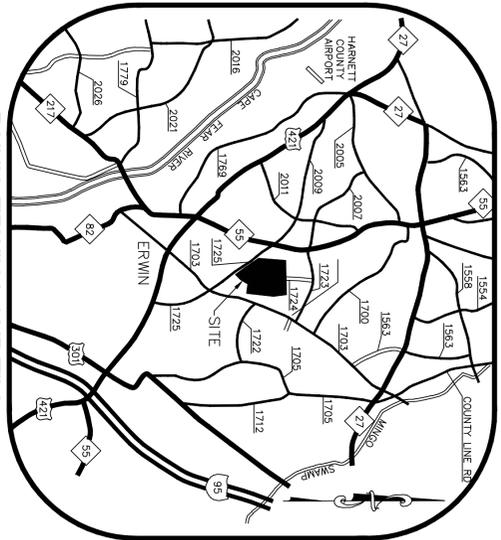
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ANDERSON CREEK LANDFILL

HARRETT COUNTY, NC

Project No.	3001	File Name	RECYCLING EXHIBIT
Designed By	CTC J.	Drawn By	SKK
Checked By	CTC J.	Proj Eng.	SKK

Sheet Title	RECYCLING CENTER EXHIBIT
Date	24 MAY 2010
Scale	1" = 30'
Sheet	1



LEGEND

PERMIT DOCUMENT
FOR REVIEW ONLY



No.	Revision/Issue	Date

Signature _____
Date _____

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DUNN ERWIN LANDFILL
HARNETT COUNTY, NC

Project No. **3035** File Name: 3035Mas Exhibit
Designed By: **CTC Jr.** Drawn By: **SRK**
Checked By: **CTC Jr.** Proj. Eng.: **SRK**
Sheet Title: **ASBESTOS MONOFILL EXHIBIT**

Date: **3 AUG 2010** Sheet
Scale: **1" = 200'** **2**