



RICHARDSON SMITH GARDNER & ASSOCIATES, INC.

Engineering and Geological Services

June 3, 2008

Ms. Donna J. Wilson
Environmental Engineer
NC DENR – Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

Re: **Response to Comments**
Application for Thornton Road Mixed Waste Transfer Station
Shotwell Transfer Station, Inc.

Dear Ms. Wilson

On behalf of Shotwell Transfer Station, Inc., Richardson Smith Gardner & Associates, Inc (RSG) has prepared this response to the comments issued in correspondence dated May 14, 2008 (**copy attached**). The following responses address each comment and reference any revisions to the application previously submitted on December 14, 2007. Please find each comment in *italics* and the associated response below.

Comment No. 1

Please clarify in the application the acreage of the total property and the acreage of the transfer station area. The stormwater report is confusing in that it lists different acreages.

Response No.1

The total property area is 9.849 acres as shown as “New Lot 3 Area” in the Recombination Plat recorded in the Wake County Book of Maps 2007, Page 2838. Based on the site plan provided in the City of Raleigh Grading Permit Application dated March 3, 2008, the “limits of disturbance” are 7.4 acres for the purposes of grading impacts. In the Transfer Station Permit Application dated December 14, 2007 on Drawing No. S2, a “facility boundary” is introduced to outline extent of transfer and recycling activities.

Comment No. 2

The grading plan indicates that up to 10 feet of LCID fill will be removed, and lesser amounts will be filled. Please discuss how this will be accomplished and what will be done with the excavated waste. What will be done if unacceptable waste (hazardous) is excavated? To which facility will the wastes be taken? The wastes may include demolition debris in addition to land clearing debris.

Response No.2

Areas where LCID materials are encountered will be simply excavated and hauled to the Shotwell Landfill, Inc. C&D facility (NC Solid Waste Permit No. 92-26) for either grinding or disposal as outlined in the Application Executive Summary. If unacceptable non-hazardous, non-C&D or non-LCID wastes are encountered, they will be containerized and covered until a load is generated wherein it will be transported to a facility licensed to accept MSW materials such as South Wake Landfill (NC Solid Waste Permit No. 92-22). If hazardous wastes are encountered, construction operations will cease and will be assessed by a hazardous removal contractor wherein the Division of Waste Management will be notified and an appropriate response plan will be developed dependent on the nature of the hazard.

Comment No. 3

In the executive summary, please add current address, phone, and email address information for David King. Also include the attached signed applicant signature page.

Response No. 3

Under Property Ownership and Operation, this information has been added as follows:

Owner and Operator: Dynasty Holdings, LLC and Shotwell Transfer Station, Inc.
Contact: Mr. David King
Address: 3209 Gresham Lake Road, Suite 115
Raleigh, North Carolina 27615
Phone: (919) 773-9899
Email: daviddebris@bellsouth.net

The revised executive summary and the applicant signature page are provided as **Attachment A**.

Comment No. 4

Attachment A – Please correct the deed information.

Response No. 4

Per our discussions, three (3) deeds are referenced to complete the property as shown as “New Lot 3 Area” in the Recombination Plat described in Wake County BM 2007 PG 2838, referenced above. The property deeds required for the property are as follows:

Wake County Deed Book 12249, Pages 225-227; Deed Book 12876, Pages 394-397;
and Deed Book 12876, Pages 398-303.

Each of these deeds and map are included in **Attachment B**.

Comment No. 5

Appendix B – Please provide the attached signed landowner authorization form.

Response No. 5

The executed authorization form is provided as **Attachment C**.

Comment No. 6

Section 2.2.1 of the Operating Plan – Please provide a list of the types of waste that will be accepted at the MSW transfer station. The reference provided, 15A NCAC 13A .0101 (36) is incorrect.

Response No. 6

The reference has been updated to NC General Statute 130A-290 (a) (18a) in Section 2.2.1 of the Operating Plan and has been provided as **Attachment D**.

Comment No. 7

Section 2.2.2 of the Operating Plan – Please correct the references to the General Statutes, as listed for land clearing debris and asphalt.

Response No. 7

The references have been updated as follows and the revised operations manual is provided as **Attachment D**:

Land Clearing and Inert Debris (LCID) to G.S. 130A-290 (a) (15)

Asphalt to G.S. 130A-294 (m)

Comment No. 8

Section 2.3.1 of the Operating Plan – Please correct the reference to the NCAC for the definition of hazardous waste.

Response No. 8

The reference has been updated to NC General Statute 130A-290 (a) (8) in Section 2.3.1 of the Operating Plan and is provided as **Attachment D**.

Comment No. 9

Section 2.3.1 – The transfer facility should not accept leachate or gas condensate derived from a MSW landfill unit. Please clarify why the paint filter liquids test is in the Operating Plan.

Response No. 9

Similar to MSW landfills, the paint filter test is used in confirming a solid waste is, in fact, solid. Therefore, if questionable waste (state) is identified at the facility, this test may be used to determine its acceptance. No liquid wastes will be accepted and the reference in this section to leachate and gas condensate has been deleted. The revised operations manual is provided as **Attachment D**.

Comment No. 10

The service area of the facility is listed in the report as the State of North Carolina but generally concentrated in Wake County and surrounding counties. How will the facility be operated to ensure that for wastes transferred to an MSW or C&D landfill, the source of generation for the waste is within the disposal facility's approved service area? For example, the approved service area for the Upper Piedmont Landfill includes the counties that are within 60 miles of Person County, and the approved service area for the South Wake MSW Landfill is only Wake County.

Response No. 10

Waste will not be accepted from out of state or from Orange County. The site will employ an accounting and tracking software program (PDOX, see **brochure attached as Attachment E**) to record both incoming and outgoing waste (by weight). Each load that enters the site will be recorded for hauler, waste type, waste location/source, and weight. This information will be available for the volume transferred through the same software by generating reports summarizing all sources. This information can then be manifested to the transfer trucks for delivery to the ultimate disposal facility.

Comment No. 11

How will each type of recyclables be stored, handled, and removed? Show recyclable storage areas on the site sketch, indicating the types of materials stored, proposed storage areas, storage conditions, traffic lanes, etc. Material other than brick, concrete, concrete block, or asphalt shall either have a

designated storage container or be stored covered on a concrete or asphalt pad. The recyclable material should be processed and removed no longer than one year from receipt at the site.

Response No. 11

Each recycleable material will be stored in the "Recycling Area" north of the transfer station and will be collected and stored until a "load" is generated at which time it will be hauled to its respective recycling market. In some cases, the materials will be stockpiled on the ground and in other cases materials will be containerized. After further review, Shotwell intends to recycle the following materials:

- Non-treated, non-painted clean wood (lumber);
- Pallets (damaged and un-damaged);
- Cardboard;
- Brick and block (undamaged and un-painted); and
- Metal (ferrous and non-ferrous).

Section 2.2.3 has been revised for recyclable material and is provided as **Attachment D**. All recycling containers and piles will be separated by a minimum 25 foot access path and will generally be as shown on the revised site plan provided in **Attachment F**. In general materials which have valid markets will be recycled. As you are aware, these markets change from time to time. In any case, no more than a load (respective of the material) will be stored at any one time and in no case more than one year. Please also note that the site plan has been updated to include recent revisions in response to the City of Raleigh Tree Conservation Ordinance. It is further noted that this ordinance prompted the site to relocate the entrance to its original and current location.

Comment No. 12

Will the wood recyclables be chipped or otherwise processed? If yes, the storage areas must meet the siting and operational compost rules found in the .1400 rules. All sides of storage areas for flammable materials/waste should be clear and drivable, to provide vehicular access in the event of a fire.

Response No. 12

Yes, Shotwell intends to collect the wood materials and haul to the Shotwell C&D Landfill facility and grind. Therefore, no grinding, processing, or composting will be performed on site.

Comment No. 13

Section 2.7.2 – Wood pallets and wood debris are not considered inert and must be stored covered on a pad or in containers.

Response No. 13

All wood materials are non-treated, non-painted clean material and will be stored until a load is generated (~100 CY) at which time it will be loaded in a trailer and hauled to the Shotwell C&D Landfill for grinding. Therefore, this quantity is considered nominal and, in our opinion, does not require a concrete pad. We request that the Division reconsider this request.

Comment No. 14

Will demolition debris be sorted? An asbestos screening plan must be submitted to the Division of Epidemiology of the Department of Health and Human Services for approval. Otherwise, asbestos containing material or material suspected to contain asbestos must not be place in the sorting area.

Comment No. 19

Please clarify the source of paper, newsprint, and magazines for recycling. Will MSW waste be sorted?

Response No. 19

MSW and paper products (other than cardboard) will not be recycled.

Comment No. 20

Please provide a list of all proposed end uses for the recycled materials.

Response No. 20

Anticipated end markets for the recycleable materials are as follows:

- Metals: TT&E, Wise Recycling, Raleigh Metals, etc.
- Pallets: Shotwell C&D Landfill for grinding to Craven County WTE or McGill Environmental for compost.
- Clean Wood: Shotwell C&D Landfill for grinding to Craven County WTE or McGill Environmental for compost.
- Cardboard: Paper Stock Dealers, Sonoco Products, etc.

Comment No. 21

Please provide leachate drainage locations and details (drain, tank) on the drawings.

Response No. 21

Drawing No. L1 has been added to the drawing set and is provided in **Attachment F**.

Comment No. 22

On at least on drawing, please clarify the ground cover (concrete, gravel, asphalt, etc.) for the traffic areas and waste management areas.

Response No. 22

Two (2) types of ground cover are provided. The hatched areas are all weather access (aggregate) and the other areas will be grass covering. It is noted that all areas of the site drain to one (1) of two (2) sediment basins. A revised drawing has been provided in **Attachment F**.

Comment No. 23

Page 3-2 – The transfer areas should be washed down daily instead of weekly.

Response No. 23

Each day the transfer station will be cleaned prior to exit. This may include wash down daily, however, in the case of C&D materials, the area may require sweeping instead of washing. Therefore, we have added the statement in Section 3.4, Vector Control, as follows:

“The transfer areas will be cleaned, as necessary, each day to maintain a sanitary operation.”

The revised Operational Plan is provided as **Attachment D**.

Comment No. 24

The Operating Plan should also address litter control, and should include the days/hours of operation.

Response No. 24

Facility operating hours and litter control are added as Section 1.6, Facility Operating Hours, as follows:

“Normal hours of operation will be 6:00 A.M. to 5:00 P.M. Monday to Friday and 7:00 A.M. to 2:00 P.M. Saturday. Facility will be closed on Sunday.

In the event of disaster or other emergency situations the supervisor will request approval from the commission’s regional office to allow additional temporary operating hours.”

And in Section 1.7, Litter Control, as follows:

“The Transfer Building and litter fencing within the site provide barriers against scattering litter; the perimeter fence acts as barrier to keep litter contained within the site. Transfer Station Operators pick up litter within the site daily and respond to weather and heavy wind conditions that may spread litter.

The litter control crew picks up litter outside the site fences and on access roads each weekday. Any load that is not secured in a manner that would prevent material from leaving the vehicle while it is in motion is subject to an additional fee. Transfer trailers are covered by heavy tarp lids to minimize litter and potential for birds to enter the trailer and spread litter.”

This revised operations manual has been provided as **Attachment D**.

Comment No. 25

Please clarify what will be done with the junk cars and the tire pile on the site.

Response No. 25

Prior to the final property transaction as described in **Response No. 4**, above, the junk cars and tires were transferred, by the previous owner, to the ProDev property and are no longer under the control of Dynasty Holdings, LLC or Shotwell Transfer Station, Inc.

Comment No. 26

Will the site continue to operate during construction of the new transfer station facilities? If so, how will this be managed?

Response No. 26

Yes, the current transfer area is just outside the construction area of the proposed transfer station. Therefore, most all of the new construction will not interfere with existing operation. Once the new transfer station is ready for operations and approved by the Division, operations will transfer away from the existing area. This area will then be graded and placed into its final condition as shown on the Permit Drawings.

Comment No. 27

Recordkeeping – How will the volumes/weight of waste and the volumes/weight of recyclables be measured, when a truck load may contain both waste and recyclables? These amounts are to be

reported in the annual report of the facility, and are important to state planning, reporting, and calculations of the Solid Waste Disposal Tax.

Response No. 27

As described in **Response No. 10**, the scale software will record all necessary information for annual reporting and may be accessed through standard reports within the system. All incoming waste and outgoing recycleable materials will be weighed at the scale house.

Comment No. 28

Appendix J – The financial assurance amount should be equal to the cost to hire a third party to remove and clean up waste from the facility, haul, and dispose of the waste, in the event of site abandonment. The amount of waste and product for this calculation is equal to 5 days worth of transfer station volume plus the maximum amount of waste and product that could be stored at the facility at any time, including a full sorting pad.

Response No. 28

It is our opinion that two (2) days of storage is an adequate storage of material on-site, such waste on the tipping floor and potential waste in the transfer trailer. Five (5) days of volume is the equivalent of approximately 10,000 to 15,000 CY of material. This level of volume would well exceed the tipping floor and is not reasonable. For the purposes of the financial assurance estimate, we have revised the form to include two (2) days of volume as well as an additional 300 CY of recycling storage as demonstrated in **Response No. 15**. Therefore, please reconsider this justification as a the revised estimated is provided as **Attachment G**.

Comment No. 29

Once the amount of financial assurance is agreed upon, please clarify which financial assurance mechanism will be used for financial assurance, in accordance with N.C.G.S. 130A-295.2 (f).

Response No. 29

Financial assurance for the site will be provided through an Irrevocable Letter of Credit.

Comment No. 30

The letter from the Department of Transportation indicates that roadway improvements and pavement strengthening may be required to mitigate impacts on traffic along Thornton Road, and that these improvements will be made requirements of any subsequent Driveway Permit issued by the District Engineer. Please clarify the status of the Driveway Permit and whether these improvements will be made. If required by DOT, a permit condition will require that these improvements be made prior to implementation of the proposed changes to the facility operation.

Response No. 30

Until such time that a Permit to Construct is issued no other permits have been pursued with the NC Department of Transportation. Upon issuance of the PTC, Shotwell will pursue a driveway permit and any associated road improvements which may be required by its approval by the District Engineer. Shotwell is in concurrence that a any roadway improvements will be completed prior to the issuance of a Permit to Operate.

Ms. Donna Wilson
June 3, 2008
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Should you have any questions or require clarification, please contact us at your earliest convenience at (919) 828-0577 or by email listed below.

Sincerely,
Richardson Smith Gardner & Associates, Inc.

Kinjal B. Shah, E.I.
Staff Engineer (ext. 128)
kinjal@rsgengineers.com

Stacey A. Smith, P.E.
Project Manager (ext. 127)
stacey@rsgengineers.com

Attachments

Cc: Mr. David King, Shotwell Transfer Station, Inc.
Ms. Michelle Pearson, Debris Removal Partners
Mr. Bradley Bailey, NCDENR
File



William G. Ross Jr., Secretary

May 14, 2008

Mr. David King
Shotwell Transfer Station, Inc.
3209 Gresham Lake Road, Suite 115
Raleigh NC 27615

Re: Application for Thornton Road Mixed Waste Transfer Station
Shotwell Transfer Station, Inc.
Transfer of permit from PCM Construction
Permit No. 92-27T
Wake County, Doc ID No. 4480

Dear Mr. King:

An application for a municipal solid waste and construction and demolition debris transfer station, hereafter referred to as a mixed waste transfer station, has been submitted to the Division of Waste Management, Solid Waste Section (Section) on your behalf by your consultant RSG Engineers. In accordance with GS 130A-295.8(e), the Section has reviewed your application and found it to be complete within the meaning of the statute. A determination of completion means that the application includes all required components but does not mean that the required components provide all the information that is required for the Section to make a decision on the application. We have performed a technical review of the submitted application and request the following:

1. Please clarify in the application the acreage of the total property and the acreage of the transfer station area. The stormwater report is confusing in that it lists different acreages.
2. The grading plan indicates that up to 10 feet of LCID fill will be removed, and lesser amounts will be filled. Please discuss how this will be accomplished and what will be done with the excavated waste. What will be done if unacceptable waste (hazardous) is excavated? To which facility will the wastes be taken? The wastes may include demolition debris in addition to land clearing debris.
3. In the executive summary, please add current address, phone, and email address information for David King. Also include the attached signed applicant signature page.
4. Attachment A - Please correct the deed information.
5. Appendix B – Please provide the attached signed landowner authorization form.

6. Section 2.2.1 of the Operating Plan – Please provide a list of the types of waste that will be accepted at the MSW transfer station. The reference provided, 15A NCAC 13A .0101 (36) is incorrect.
7. Section 2.2.2 of the Operating Plan – Please correct the references to the General Statutes, as listed for land clearing debris and asphalt.
8. Section 2.3.1 of the Operating Plan – Please correct the reference to the NCAC for the definition of hazardous waste.
9. Section 2.3.1 – The transfer facility should not accept leachate or gas condensate derived from a MSW landfill unit. Please clarify why the paint filter liquids test is in the Operating Plan.
10. The service area of the facility is listed in the report as the State of North Carolina but generally concentrated in Wake County and surrounding counties. How will the facility be operated to ensure that for wastes transferred to an MSW or C&D landfill, the source of generation for the waste is within the disposal facility's approved service area? For example, the approved service area for the Upper Piedmont Landfill includes the counties that are within 60 miles of Person County, and the approved service area for the South Wake MSW Landfill is only Wake County.
11. How will each type of recyclables be stored, handled, and removed? Show recyclable storage areas on the site sketch, indicating the types of materials stored, proposed storage areas, storage conditions, traffic lanes, etc. Material other than brick, concrete, concrete block, or asphalt shall either have a designated storage container or be stored covered on a concrete or asphalt pad. The recyclable material should be processed and removed no longer than one year from receipt at the site.
12. Will the wood recyclables be chipped or otherwise processed? If yes, the storage areas must meet the siting and operational compost rules found in the .1400 rules. All sides of storage areas for flammable materials/waste should be clear and drivable, to provide vehicular access in the event of a fire.
13. Section 2.7.2 – Wood pallets and wood debris are not considered inert and must be stored covered on a pad or in containers.
14. Will demolition debris be sorted? An asbestos screening plan must be submitted to the Division of Epidemiology of the Department of Health and Human Services for approval. Otherwise, asbestos containing material or material suspected to contain asbestos must not be placed in the sorting area.
15. Please provide a sketch of the building layout, showing storage and sorting areas, and the cardboard compactor. Is the cardboard compactor under roof? How will sorted recyclables be moved from sorting to storage in the recycling area?
16. Please provide the maximum size of each waste/product pile, for each waste/product type (height, width, length). What is the maximum amount of each waste or product that will be stored onsite at any time? What is the combined volume of the maximum amount of the wastes or products that will be stored on the property at any time?
17. Why will the recycling area contain commingled recyclables? Will waste be sorted in the recycling area? If yes, the sorting area should be on a pad. If the sorting operation is to operate during precipitation events, the tipping pad area must be sheltered from precipitation.
18. Section 2.7.2 – What other new construction materials besides wood will be recycled?
19. Please clarify the source of paper, newsprint, and magazines for recycling. Will MSW waste be sorted?

20. Please provide a list of all proposed end uses for the recycled materials.
21. Please provide leachate drainage locations and details (drain, tank) on the drawings.
22. On at least one drawing, please clarify the ground cover (concrete, gravel, asphalt, etc.) for the traffic areas and waste management areas.
23. Page 3-2 – The transfer areas should be washed down daily instead of weekly.
24. The Operating Plan should also address litter control, and should include the days/hours of operation.
25. Please clarify what will be done with the junk cars and the tire pile on the site.
26. Will the site continue to operate during construction of the new transfer station facilities? If so, how will this be managed?
27. Recordkeeping – How will the volumes/weight of waste and the volumes/weight of recyclables be measured, when a truck load may contain both waste and recyclables? These amounts are to be reported in the annual report of the facility, and are important to state planning, reporting, and calculations of the Solid Waste Disposal Tax.
28. Appendix J - The financial assurance amount should be equal to the cost to hire a third party to remove and clean up waste from the facility, haul, and dispose of the waste, in the event of site abandonment. The amount of waste and product for this calculation is equal to 5 days worth of transfer station volume plus the maximum amount of waste and product that could be stored at the facility at any time, including a full sorting pad.
29. Once the amount of financial assurance is agreed upon, please clarify which financial assurance mechanism will be used for financial assurance, in accordance with N.C. G.S. 130A-295.2 (f).
30. The letter from the Department of Transportation indicates that roadway improvements and pavement strengthening may be required to mitigate impacts on traffic along Thornton Road, and that these improvements will be made requirements of any subsequent Driveway Permit issued by the District Engineer. Please clarify the status of the Driveway Permit and whether these improvements will be made. If required by DOT, a permit condition will require that these improvements be made prior to implementation of the proposed changes to the facility operation.
31. Please re-check the report for spelling and grammatical errors.

Please submit response to comments as replacement pages to the December 2007 report. Only one paper copy is necessary, but an electronic copy is also needed, either sent by email, or on a CD.

For your reference, the Solid Waste Section rules can be found on the Section's website at <http://www.wastenotnc.org/swhome/rule.htm>; the North Carolina General Statutes concerning solid waste are located at http://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_130A/Article_9.html; and the 2007 legislation can be found at <http://www.ncleg.net/Sessions/2007/Bills/Senate/PDF/S1492v6.pdf> and <http://www.ncleg.net/Sessions/2007/Bills/Senate/HTML/S6v4.html>.

If you have any questions or comments, please contact me at (919) 508-8510, or by email at donna.wilson@ncmail.net.

Sincerely,



Donna J. Wilson
Environmental Engineer
Solid Waste Section

Attachments

cc: Stacey Smith, RSG&A
Jason Watkins, Central Regional Supervisor, DWM
Brad Bailey, Waste Management Specialist, DWM

Signature page of applicant –

Name of facility _____

I certify that the information provided by me in this application is true, accurate, and complete to the best of my knowledge.

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

Signature _____

Title _____

Date _____

Certification by Land Owner (if different from Applicant):

I hereby certify that I have read and understand the application submitted by

_____ for a permit to operate a municipal solid waste transfer station
on land owned by the undersigned located at (address) _____;
(city) _____, NC, in _____ County, and described in Deed
Book and Page(s) _____.

I specifically grant permission for the proposed municipal solid waste transfer station planned for operation within the confines of the land, as indicated in the permit application. I understand that any permit will be issued in the names of both the operator and the owner of the facility/property. I acknowledge that ownership of land on which a solid waste management facility is located may subject me to cleanup of said property in the event that the operator defaults as well as to liability under the federal Comprehensive Environmental Responsibility, Compensation and Liability Act ("CERCLA"). Without accepting any fault or liability, I recognize that ownership of land on which a solid waste management facility is located may subject me to claims from persons who may be harmed in their persons or property caused by the solid waste management facility.

I am informed that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars (\$15,000) per day per each violation of the Solid Waste Management Rules. I understand that the Solid Waste Management Rules may be revised or amended in the future, and that the siting and operation of the facility will be required to comply with any such revisions or amendments.

Signature

Date

Print name

NORTH CAROLINA

_____ County

I, _____, Notary Public for said County and State, do hereby certify that
_____ personally appeared before me this day and acknowledged the due
execution of the foregoing instrument.

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

(Official Seal)

Notary Public

My commission expires _____.

Attachment A

Applicant's Signature Page

Signature page of applicant --

Name of facility Thornton Road Mixed Waste Transfer Station

I certify that the information provided by me in this application is true, accurate, and complete to the best of my knowledge.

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

Signature  David King

Title President, Shotwell Transfer Station, Inc.

Date May 23, 2008

Attachment B

Deeds

BK012249PG00225

WAKE COUNTY, NC 194
LAURA M RIDDICK
REGISTER OF DEEDS
PRESENTED & RECORDED ON
11/02/2006 AT 12:06:20
STATE OF NORTH CAROLINA
REAL ESTATE EXCISE TAX: \$900
BOOK:012249 PAGE:00225 - 00227

NORTH CAROLINA GENERAL WARRANTY DEED

Excise Tax: \$ 900.00

Parcel Identifier No. 1738425833 Verified by _____ County on the _____ day of _____, 20____
By: _____

Mai/Box to: GRANTEE

This instrument was prepared by: Tenika Hall, Attorney at Law

Brief description for the Index: 10 ACRE TRACT

THIS DEED made this 31st day of October, 2006, by and between

GRANTOR	GRANTEE
Lemuel H. Thornton and wife, Hazel R. Thornton 5325 Thornton Road Raleigh, NC 27604	Dynasty Holdings, LLC 4070 Barrett Drive Raleigh, NC 27609

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of Raleigh, _____ Township, Wake County, North Carolina and more particularly described as follows:

BEING 10 acres as shown on map recorded in Book of Maps 1985, page 935, Wake County Registry.

The property hereinabove described was acquired by Grantor by instrument recorded in Book 3554 page 249.

A map showing the above described property is recorded in Plat Book _____ page _____.

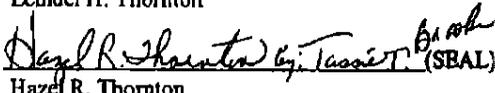
BK012249PG00226

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever, other than the following exceptions:

IN WITNESS WHEREOF, the Grantor has duly executed the foregoing as of the day and year first above written.

 (Entity Name)  (SEAL)
 Lemuel H. Thornton

By: _____
 Title: _____  (SEAL)
 Hazel R. Thornton

By: _____
 Title: _____ _____ (SEAL)

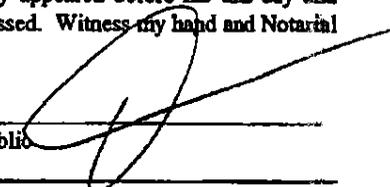
By: _____
 Title: _____ _____ (SEAL)

State of North Carolina - County of Wake

I, the undersigned Notary Public of the County and State aforesaid, certify that Lemuel H. Thornton and wife, Hazel R. Thornton personally appeared before me this day and acknowledged the due execution of the foregoing instrument for the purposes therein expressed. Witness my hand and Notarial stamp or seal this 31st day of October, 2006

My Commission Expires: _____

Belrdre L. Leach
Notary Public, Johnston Co., N.C.
My Commission Exp 12-15-07

 Notary Public 

State of North Carolina - County of _____

I, the undersigned Notary Public of the County and State aforesaid, certify that _____ personally came before me this day and acknowledged that he is the _____ of _____ a North Carolina or _____ corporation/limited liability company/general partnership/limited partnership (strike through the inapplicable), and that by authority duly given and as the act of such entity, he signed the foregoing instrument in its name on its behalf as its act and deed. Witness my hand and Notarial stamp or seal, this _____ day of _____, 20__.

My Commission Expires: _____

 Notary Public

State of North Carolina - County of _____

I, the undersigned Notary Public of the County and State aforesaid, certify that _____

Witness my hand and Notarial stamp or seal, this _____ day of _____, 20__.

My Commission Expires: _____

 Notary Public

The foregoing Certificate(s) of _____ is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

 Register of Deeds for _____ County
 By: _____ Deputy/Assistant - Register of Deeds

BK012249PG00227



BOOK:012249 PAGE:00225 - 00227

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**Wake County Register of Deeds
Laura M. Riddick
Register of Deeds**

This Customer Group
_____ # of Time Stamps Needed

This Document
_____ 3 New Time Stamp
_____ # of Pages

NORTH CAROLINA SPECIAL WARRANTY DEED

The attorneys preparing this instrument have made no title examination of this property and express no opinion as to the title unless contained in a separate written certificate.

Excise Tax \$0.00	Brief Description: Addition to New Lot 1
-------------------	------------------------------------------

This instrument was prepared by Williams Mullen Maupin Taylor, P.A. and should be mailed after recording to:

Ronald R. Rogers, Esq.
Williams Mullen Maupin Taylor
P.O. Box 19764
Raleigh, North Carolina 27619

Parcel # part of 043452 +
0351348

THIS DEED made this 14th day of December, 2007, by and between

GRANTOR	GRANTEE
Dynasty Holdings, LLC	ProDev VIII, LLC c/o Mr. Edward Brantley <u>5501 Thornton Rd</u> <u>Raleigh, NC 27616</u>

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey

unto the Grantee in fee simple, all that certain lot or parcel of land situated in Wake County, North Carolina and more particularly described as follows (the "Property"):

SEE EXHIBIT A ATTACHED HERETO AND BY THIS REFERENCE INCORPORATED HEREIN.

TO HAVE AND TO HOLD the Property and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And Grantor covenants with the Grantee, that Grantor has done nothing to impair such title as Grantor received, and Grantor will warrant and defend the title against the lawful claims of all persons claiming by, under or through Grantor, except for the exceptions hereinafter stated.

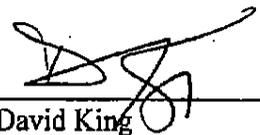
Title to the Property is subject to the following exceptions:

- (a) Ad valorem taxes for the current year.
- (b) Easements, restrictions and right-of-ways of public record.
- (c) Matters of survey.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be signed as of the date first above written.

GRANTOR

DYNASTY HOLDINGS, LLC

By: 
 Name: David King
 Title: Manager

Wake County, North Carolina

I certify that the following person personally appeared before me this day acknowledging to me that he signed the foregoing document: David King, manager of Dynasty Holdings, LLC.

Date: December 14, 2007



Angela P. Wright, Notary Public
Angela P. Wright
 (Print or Type Name of Notary Public)

My commission expires: 12/27/08

TRACT I

COMMENCING AT AN AXLE HAVING NORTH CAROLINA GRID COORDINATE VALUES OF Y=239038.405m AND X=650598.177m (NAD83) ; THENCE IN A GENERALLY SOUTHEASTERLY DIRECTION, S11°05'09"E, FOR A DISTANCE OF 979.95' TO A POINT IN THE NORTHEAST CORNER OF THAT CERTAIN 9.849 ACRE TRACT CONVEYED TO DYANSTY HOLDINGS, LLC BY DEED RECORDED IN DEED BOOK 12555, PAGE 2556, WAKE COUNTY REGISTRY (DESCRIBED THEREIN AS "TRACT 1"), AND SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE WITH THE BOUNDARY LINE OF CERTAIN PROPERTY NOW OWNED BY PRODEV VIII, LLC IN A GENERALLY SOUTH EASTERLY DIRECTION, S12°23'35"E, FOR A DISTANCE OF 338.03' TO A POINT; THENCE IN A GENERALLY NORTHWESTERLY DIRECTION, N86°58'38"W, FOR A DISTANCE OF 10.30' TO AN IRON PIPE SET; THENCE IN A GENERALLY SOUTHEASTERLY DIRECTION, S16°37'48"E, FOR A DISTANCE OF 40.71' TO AN IRON PIPE SET; THENCE IN A GENERALLY SOUTHWESTERLY DIRECTION, S48°26'54"W, FOR A DISTANCE OF 136.73' TO AN IRON PIPE SET; THENCE IN A GENERALLY SOUTHWESTERLY DIRECTION, S30°45'48"W, FOR A DISTANCE OF 258.23' TO AN IRON PIPE SET; THENCE IN A GENERALLY SOUTHEASTERLY DIRECTION, S17°48'42"E, FOR A DISTANCE OF 325.54' TO AN IRON PIPE SET; THENCE WITH THE NORTHERLY LINE OF THORNTON ROAD IN A GENERALLY SOUTHWESTERLY DIRECTION, S72°49'49"W, FOR A DISTANCE OF 18.87' TO AN IRON PIPE SET; THENCE CONTINUING WITH THE NORTHERLY LINE OF THORNTON ROAD IN A GENERALLY SOUTHWESTERLY DIRECTION, S71°39'37"W, FOR A DISTANCE OF 161.84' TO AN EXISTING IRON PIPE IN THE SOUTHEAST CORNER OF THAT CERTAIN PARCEL NOW OR FORMERLY OWNED BY TASSIE THORNTON BROOKS AS DESCRIBED IN A DEED RECORDED IN BOOK 12409, PAGE 877, WAKE COUNTY REGISTRY; THENCE WITH THE EASTERN LINE OF SAID TASSIE THORNTON BROOKS' PARCEL, N12°23'35"W, FOR A DISTANCE OF 244.55' TO AN IRON PIPE SET IN THE NORTHEAST CORNER OF SAID TASSIE THORNTON BROOKS' PARCEL; THENCE CONTINUING IN A GENERALLY NORTHWESTERLY DIRECTION ALONG THE OLD PROPERTY LINE OF DYNASTY HOLDINGS, LLC, N12°23'35"W, FOR A DISTANCE OF 723.45' TO A POINT IN THE CORNER OF THAT CERTAIN PARCEL CONVEYED TO PRODEV VIII, LLC BY DEED RECORDED IN BOOK 12841, PAGE 416, WAKE COUNTY REGISTRY; THENCE WITH THE OLD PROPERTY LINE OF PRODEV VIII, N76°56'05"E, FOR A DISTANCE OF 452.00' TO THE POINT AND PLACE OF BEGINNING, CONTAINING 293,637 SQUARE FEET OR 6.741 ACRES, MORE OR LESS ACCORDING TO SURVEY PREPARED BY JONATHAN F. MURPHY PLS-4382, TO WHICH REFERENCE IS MADE FOR A MORE PERFECT AND COMPLETE DESCRIPTION, AND BEING A PORTION OF NEW LOT 1 AS SHOWN ON A MAP

NOT OWNED BY PRODEV VIII, LLC IMMEDIATELY PRIOR TO THE DELIVERY OF DYNASTY HOLDINGS, LLC'S DEED TO PRODEV VIII, LLC DATED DECEMBER 14, 2007.

TRACT 2

BEING ALL OF THAT CERTAIN PROPERTY PREVIOUSLY ACQUIRED BY DYNASTY HOLDINGS, LLC BY DEED RECORDED IN BOOK 12249, PAGE 215, WAKE COUNTY REGISTRY, AND REACQUIRED BY DYNASTY HOLDINGS, LLC BY DEED RECORDED IN BOOK 12555, PAGE 2559, WAKE COUNTY REGISTRY (DESCRIBED THEREIN AS "TRACT TWO") AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN EXISTING IRON PIPE LOCATED S 55 DEGS 19' 27" E 4078.07 FEET FROM NCGS MONUMENT "WOMBLE" (N784501.233, E 2130926.8010, NAD 83), SAID EXISTING IRON PIPE BEING ALSO LOCATED IN THE NORTHERN RIGHT-OF-WAY OF THORNTON ROAD (SR 2043), IN NORTHERN WAKE COUNTY; RUNS THENCE FROM SAID BEGINNING POINT N 16 DEGS 45' 07" W 343.00 FEET TO AN IRON PIPE SET; RUNS THENCE S 73 DEGS 14' 54" W 11.85 FEET TO AN IRON PIPE SET; RUNS THENCE N 16 DEGS 45' 07" W 508.97 FEET TO A POINT IN THE LINE OF CERTAIN PROPERTY NOW OR FORMERLY OWNED BY THE CITY OF RALEIGH; RUNS THENCE WITH SAID LINE N 20 DEGS 00' 45" E 447.80 FEET TO A POINT; RUNS THENCE S 12 DEGS 23' 35" E 1215.21 FEET TO A POINT IN THE NORTHERN EDGE OF THE RIGHT-OF-WAY OF THORNTON ROAD (SR 2043); RUNS THENCE WITH THE NORTHERN EDGE OF THE RIGHT-OF-WAY OF THORNTON ROAD (SR 2043) S 73 DEGS 14' 43" WEST 163.81 FEET TO THE POINT AND PLACE OF BEGINNING. FOR FURTHER REFERENCE SEE A MAP AND SURVEY OF THE SAME ENTITLED "RECOMBINATION AND BOUNDARY SURVEY FOR THE PROPERTY OF TASSIE T. BROOKS", DATED JANUARY 8, 1996 AND PREPARED BY DAVID BARRIER, RLS.

SAVE AND EXCEPT THE FOLLOWING:

BEGINNING AT AN EXISTING IRON PIPE IN THE NORTHERN RIGHT-OF-WAY OF THORNTON ROAD; THENCE WITH THE LINE OF VOLKOV N 16 DEG 45' 07" W FOR A DISTANCE OF 257.75 FEET TO A POINT; THENCE WITH THE LINE OF BROOKS N 77 DEGS 36' 25" E FOR A DISTANCE OF 244.55 FEET TO AN EXISTING IRON PIPE; THENCE WITH THE LINE OF THORNTON ROAD NORTHERN RIGHT-OF-WAY S 73 DEGS 14' 43" W, FOR A DISTANCE OF 163.81 FEET TO THE POINT AND PLACE OF BEGINNING, CONTAINING 43,477 SQUARE FEET OR 0.998 ACRES.

AN OLD LOT AREA OF 4.9/4 ACRES) ON A MAP RECORDED IN BOOK OF
MAPS 2007, PAGE 2838, WAKE COUNTY REGISTRY, AND BEING A PORTION
OF "NEW LOT 1" ON SAID RECORDED MAP.

544849v1

BOOK:012876 PAGE:00398 - 00403

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**Wake County Register of Deeds
Laura M. Riddick
Register of Deeds**

NORTH CAROLINA GENERAL WARRANTY DEED

Excise Tax: 0

Parcel Identifier No. 2010F0363497 Verified by _____ County on the _____ day of _____, 20____
By: 0173766

Mail/Box to: GRANTEE

This instrument was prepared by: Tenika Hall, Attorney at Law

Brief description for the Index: LT 9.849 ACRE TRACT ON THORNTON ROAD,

THIS DEED made this 14th day of December, 2007, by and between

GRANTOR	GRANTEE
ProDev XXX, LLC a Virginia Limited Liability Company	Dynasty Holdings, LLC 3209 Gresham Lake Road, Ste 115 Raleigh, NC 27615

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of _____, _____ Township, _____ County, North Carolina and more particularly described as follows:

See Attached

The property hereinabove described was acquired by Grantor by instrument recorded in Book _____ page _____.

A map showing the above described property is recorded in Plat Book _____ page _____.

NC Bar Association Form No. L-3 © 1976, Revised © 1977, 2002

Printed by Agreement with the NC Bar Association - 1981 SofiPro Corporation, 333 E. Six Forks Rd., Raleigh, NC 27609

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever, other than the following exceptions:

IN WITNESS WHEREOF, the Grantor has duly executed the foregoing as of the day and year first above written.

ProDev XXX, LLC a Virginia Limited Liability _____ (SEAL)

By: [Signature] _____ (SEAL)
Title: Manager/Member

By: _____ (SEAL)
Title: _____

By: _____ (SEAL)
Title: _____

State of North Carolina - County of _____

I, the undersigned Notary Public of the County and State aforesaid, certify that _____ personally appeared before me this day and acknowledged the due execution of the foregoing instrument for the purposes therein expressed. Witness my hand and Notarial stamp or seal this _____ day of _____, 20__.

My Commission Expires: _____
Notary Public

State of North Carolina - County of _____

I, the undersigned Notary Public of the County and State aforesaid, certify that Edward Brantley personally came before me this day and acknowledged that he is the Manager/Member of ProDev XXX, LLC a Virginia Limited Liability Company, a North Carolina or _____ corporation/limited liability company/general partnership/limited partnership (strike through the inapplicable), and that by authority duly given and as the act of such entity, he signed the foregoing instrument in its name on its behalf as its act and deed. Witness my hand and Notarial stamp or seal, this 14 day of December, 2007.

My Commission Expires: _____
Deirdre L. Leach
Notary Public, Johnston Co., N.C.
My Commission Exp 12-15-2012
Notary Public

State of North Carolina - County of _____

I, the undersigned Notary Public of the County and State aforesaid, certify that _____

Witness my hand and Notarial stamp or seal, this _____ day of _____, 20__.

My Commission Expires: _____
Notary Public

The foregoing Certificate(s) of _____ is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

By: _____ Register of Deeds for _____ County
Deputy/Assistant - Register of Deeds

COMMENCING AT AN AXLE HAVING NORTH CAROLINA GRID COORDINATE VALUES OF Y=239038.405m AND X=650598.177m (NAD83) ; THENCE IN A GENERALLY SOUTHEASTERLY DIRECTION, S33°19'26"E, FOR A DISTANCE OF 1918.51' TO A POINT IN THE NORTHERN BOUNDARY OF THE RIGHT OF WAY OF THORNTON ROAD AND SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE WITH THE NORTHERLY RIGHT OF WAY OF THORNTON ROAD ALONG THE ARC OF A CIRCULAR CURVE HAVING A DELTA ANGLE OF 04°13'14", A RADIUS OF 1103.28' AND AN ARC LENGTH OF 81.27' SUBTENDED BY A CHORD BEARING S55°34'42"W, FOR A DISTANCE OF 81.25' TO AN IRON PIPE SET; THENCE CONTINUING WITH SAID NORTHERLY LINE OF THORNTON ROAD ALONG THE ARC OF A CIRCULAR CURVE HAVING A DELTA ANGLE OF 05°10'17", A RADIUS OF 1103.28' AND AN ARC LENGTH OF 99.58' SUBTENDED BY A CHORD BEARING S60°16'28"W, FOR A DISTANCE OF 99.54' TO AN IRON PIPE SET; THENCE CONTINUING WITH SAID NORTHERLY LINE OF THORNTON ROAD ALONG THE ARC OF A CIRCULAR CURVE HAVING A DELTA ANGLE OF 10°30'33", A RADIUS OF 989.64' AND AN ARC LENGTH OF 181.52' SUBTENDED BY A CHORD BEARING S66°51'01"W, FOR A DISTANCE OF 181.27' TO AN IRON PIPE SET; THENCE CONTINUING WITH SAID NORTHERLY LINE OF THORNTON ROAD ALONG THE ARC OF A CIRCULAR CURVE HAVE A DELTA ANGLE OF 01°00'35", A RADIUS OF 6739.57' AND AN ARC LENGTH OF 118.76' SUBTENDED BY A CHORD BEARING S72°36'35"W, FOR A DISTANCE OF 118.76' TO AN IRON PIPE SET; THENCE CONTINUING WITH SAID NORTHERLY LINE OF THORNTON ROAD S73°30'52"W, FOR A DISTANCE OF 241.61' TO AN IRON PIPE SET IN THE SOUTHEASTERN CORNER OF THAT CERTAIN PARCEL NOW OWNED BY DYNASTY HOLDINGS, LLC AS DESCRIBED IN A DEED RECORDED IN BOOK 12555, PAGE 2556, WAKE COUNTY REGISTRY; THENCE IN A GENERALLY NORTHWESTERLY DIRECTION WITH THE EASTERN BOUNDARY OF THE AFORESAID PARCEL NOW OWNED BY DYNASTY HOLDINGS, LLC, N12°23'35"W, FOR A DISTANCE OF 595.74' TO A POINT; THENCE IN A GENERALLY SOUTHEASTERLY DIRECTION, S86°58'38"E, FOR DISTANCE OF 498.53' TO AN IRON PIPE SET; THENCE IN A GENERALLY SOUTHEASTERLY DIRECTION, S46°00'28"E, FOR A DISTANCE OF 410.28' TO THE POINT AND PLACE OF BEGINNING, CONTAINING 293,608 SQUARE FEET OR 6.740 ACRES, MORE OR LESS ACCORDING TO SURVEY PREPARED BY JONATHAN F. MURPHY PLS-4382, TO WHICH REFERENCE IS MADE FOR A MORE PERFECT AND COMPLETE DESCRIPTION, AND BEING THE PORTION OF NEW LOT 3 AS SHOWN ON A MAP RECORDED IN BOOK OF MAPS 2007, PAGE 2838, WAKE COUNTY REGISTRY, NOT OWNED BY DYNASTY HOLDINGS, LLC IMMEDIATELY PRIOR TO THE DELIVERY OF PRODEV VIII, LLC'S DEED TO DYNASTY HOLDINGS, LLC DATED DECEMBER 14, 2007.



BOOK:012876 PAGE:00394 - 00397

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**Wake County Register of Deeds
Laura M. Riddick
Register of Deeds**

Attachment C

Landowner Authorization Form

Certification by Land Owner (if different from Applicant):

I hereby certify that I have read and understand the application submitted by Shotwell Transfer Station, Inc for a permit to operate a municipal solid waste transfer station on land owned by the undersigned located at (address) 5505 Thornton Road; (city) Raleigh, NC, in Wake County, and described in Deed

Book and Page(s) DB 12249/PG 225; DB 12876/PG 400; DB 12876/PG 396; BM 2007/PG 2838

I specifically grant permission for the proposed municipal solid waste transfer station planned for operation within the confines of the land, as indicated in the permit application. I understand that any permit will be issued in the names of both the operator and the owner of the facility/property. I acknowledge that ownership of land on which a solid waste management facility is located may subject me to cleanup of said property in the event that the operator defaults as well as to liability under the federal Comprehensive Environmental Responsibility, Compensation and Liability Act ("CERCLA"). Without accepting any fault or liability, I recognize that ownership of land on which a solid waste management facility is located may subject me to claims from persons who may be harmed in their persons or property caused by the solid waste management facility.

I am informed that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars (\$15,000) per day per each violation of the Solid Waste Management Rules. I understand that the Solid Waste Management Rules may be revised or amended in the future, and that the siting and operation of the facility will be required to comply with any such revisions or amendments.

[Signature]
Signature

May 23, 2008
Date

David King, President, Dynasty Holdings, LLC
Print name

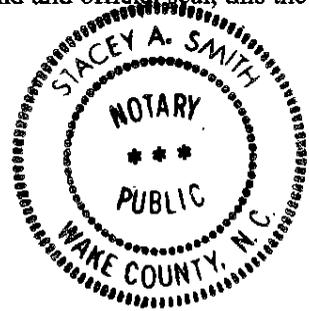
NORTH CAROLINA

WAKE County

I, STACEY A. SMITH, Notary Public for said County and State, do hereby certify that DAVID KING personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the 23rd day of MAY, 2008

(Official Seal)



[Signature]
Notary Public

My commission expires 7-11-2009

EXECUTIVE SUMMARY

GENERAL

The following is a Transfer Facility Permit Application submitted on behalf of Shotwell Transfer Station, Inc. (Shotwell) for the construction and operation of a Mixed Waste Transfer Station and Recycling Center over the closed¹ Neuse Demolition Landfill and at the current location of Shotwell Transfer Station, Inc.² Construction Waste Transfer Facility (NC Solid Waste Permit No. 92-27T), *formerly known as PCM North Raleigh C&D Transfer Facility*, site in Wake County, North Carolina. It is the intent of Shotwell to expand the existing facility operations to include MSW and C&D transfer operations and recycling upon approval of this application.

This submittal focuses on the application and operational requirements of the proposed transfer and recycling facility. The attachments included herein comply with the submittal requirements under 15A NCAC 13B .0400 (Transfer Facilities), *Guidelines for the Preparation of Permit Applications for Transfer*, and applicable sections of Session Law 2007-550 (Solid Waste Management Act of 2007).

REGULATORY REFERENCES

This submittal has been prepared in accordance with the requirements of the North Carolina Transfer Facilities Rules (15A NCAC 13B.0400), *Guidance for Preparation of Permit Applications for Transfer Facilities*, Wake County Stormwater Ordinances, and the North Carolina Sedimentation Control Rules (15A NCAC 4) which are enforced by the Division of Waste Management (DWM), Wake County Environmental Services, and the Division of Land Quality, respectively, of the North Carolina Department of Environment and Natural Resources.

Included in this document are the following attachments (*with applicable rule(s) in italics*):

Legal Description of the Property (.0401 (3));
Erosion and Sediment Control Plan (.0401 (3));
Landfill Closure Documentation (.0401 (3));
Wetlands Determinations (.0401 (3));
Zoning Documentation (.0401 (2));
Operations Manual (.0402);
Traffic Requirements (§130A-295.5);
Financial Assurance (§130A-294 (b2)); and
Project Drawings (.0401(1)).

¹ Correspondence dated February 8, 1999 from Mr. Wayne Woodlief of Wake County to Mr. Wayne Adams of Neuse Landfill, Inc. accepting closure of the facility.

² Correspondence dated May 4, 2007 from Mr. J. Gardner of RSG to Mr. E. Mussler, NCDENR requesting change in owner/applicant/operator.

PROPERTY DESCRIPTION

The proposed development is proposed on property owned by Dynasty Holdings, LLC. However, the proposed facility will be confined to a smaller area as the delineated **Facility Boundary** in the Project Drawings provided in **Attachment K**. Legal descriptions for this property is included in **Attachment A**.

PROPERTY OWNERSHIP AND OPERATION

The proposed facility will be operated by Shotwell Transfer Station, Inc. on property owned by Dynasty Holdings, LLC as described in correspondence to the Division dated May 4, 2007. A Landowner Authorization is provided as **Attachment B**. The owner of Dynasty formed Shotwell Transfer Station, Inc. to operate the facility. Articles of Incorporation for this new entity are also provided as **Attachment B**. *It is our understanding that the both the owner, Dynasty Holdings, LLC, and the operator, Shotwell Transfer Station, Inc., will be named on the permit.*

Owner and Operator: Dynasty Holdings, LLC & Shotwell Transfer Station, Inc.
Contact: Mr. David King
Address: 3209 Gresham Lake Road, Suite 115
Raleigh, North Carolina 27615
Phone: (919) 773-9899
Email: daviddebris@bellsouth.net

APPLICATION REQUIREMENTS

The following sections correspond with the permit application for a treatment and processing facility as outlined in the North Carolina Solid Waste Transfer Facilities Rules. The site plan drawing was prepared by a professional engineer duly registered in the State of North Carolina.

SITING AND DESIGN STANDARDS

The following sections explain how the transfer and recycling facility complies with siting and design standards in Transfer Facilities Guidelines provided by the North Carolina Division of Waste Management and 15A NCAC 13B.0400.

Floodplain

The transfer and recycling facility is not located within a floodplain. However, the floodplain boundaries which border the property are shown on the project site plan and a copy of the flood plain map is included in **Attachment C**.

Surface Water Quality Standards

The facility is located over the closed Neuse Demolition Landfill and is bordered by wetlands and shallow surface water bodies (“beaver impoundments”) to the

north. An un-named tributary is located to the northwest of the site that discharges into the Neuse River. All runoff within the facility boundary is controlled through channels and by two (2) sediment basins prior to discharge off site. All site development will be conducted in accordance with the Neuse River Basin - Nutrient Sensitive Waters Management Strategy (15A NCAC 2B .0235) and Wake County Stormwater Ordinances. The site does not include any wetlands within the development based on recent evaluation, currently under review by the Division of Water Quality and the Army Corps of Engineers. A copy of a preliminary wetlands evaluation determination by Jonathon Hopkins of Delineation Plus and surveyed by Murphy Geomatics is included in **Attachment D**.

Property Line Buffer

Although transfer facilities do not have a minimum buffer requirement, City of Raleigh Zoning buffers exist as follows:

- C 50 foot buffer from development along the road frontage
- C 20 foot side yard buffer from development within the I-1 zoning district
- C 40 foot transitional side yard buffer from development adjacent to the R-4 zoning district.

Residential and Well Buffers

The nearest residence is approximately 500 feet from the transfer area. The transfer area, at its closed point, is greater than 300 feet from the property line bordering these residences.

Public Access

The site will not allow uncontrolled public access. The entrance road to the site passes the guard house. The boundaries outside the transfer and recycling areas are currently include wetlands to the north and east, Thornton Road to the south, and a residential property to the west. The site will be protected from uncontrolled access through the use of fencing and gates.

Sedimentation Pollution Control Law

A Sedimentation and Erosion Control Plan and Stormwater Plan will be submitted to Wake County for approval. A preliminary plan is included in **Attachment E**. All future correspondence will be copied to the Division of Waste Management. This plan outlines measures to be taken during facility construction to minimize any sediment run-off due to land disturbance and will comply with both Wake County and City of Raleigh erosion control and stormwater ordinances.

Existing Closed Neuse Demolition Landfill

The proposed development occurs over a closed land clearing and inert debris (LCID) landfill which will require additional design and management concerns as follows:

- C All structures shall be equipped with gas monitoring equipment to detect, at a minimum, the presence of H₂S and CH₄;
- C All sediment basins shall be lined with a low permeability liner to minimize infiltration;
- C All grading activities shall be conducted to replace a minimum of one (1) foot of soil cover and shall not allow standing water inside the limits of the closed landfill. Any waste encountered or excavated shall be disposed at a facility permitted to receive LCID waste or any other specific material encountered during the activity. All waste manifests shall be obtained and recorded.;
- C All structures shall be designed by a licensed Professional Engineer.

The Neuse Demolition Landfill was operated under a Wake County Solid Waste Permit and was closed in 1999. A copy of the landfill permit and the closure acceptance by Mr. Wayne Woodlief of Wake County is included as **Attachment F**.

ZONING

A letter from the City of Raleigh Planning & Zoning Department, the agency having zoning jurisdiction, has been obtained for the proposed project and has been included in **Attachment G**. The proposed transfer and recycling activities are allowed within the existing zoning.

OPERATIONS MANUAL

The Operations Manual outlines and describes protocols for facility operation and maintenance and was prepared to provide facility personnel with a clear understanding of how the Design Engineer assumed that the completed facility would be operated. Along with the Project Drawings, the Operations Manual has been prepared to comply with the requirements of 15A NCAC 13B.0402. A copy of the Operations Manual is included in **Attachment H**

TRAFFIC STUDY

In accordance with Session Law 2007-550, documentation from Mr. J.W. Bowman, P.E., Division Engineer with the North Carolina Department of Transportation (DOT) has been obtained and has been included in **Attachment I**. The proposed transfer and recycling center will not have a substantial impact on the limited controlled access highway (US 1).

FINANCIAL ASSURANCE

In accordance with Session Law 2007-550, an estimate has been provided for financial assurance of the transfer and recycling facility center. A copy of the estimate has been included in **Attachment J**.

Attachment D

Revised Operations Manual
(Section 1.0 & Section 2.0)

SECTION 1.0 GENERAL FACILITY OPERATIONS

1.1 OVERVIEW

This Operations Manual was prepared for operations of the Thornton Road Mixed Waste Transfer Station facility (Permit No. 92-27T) located at 5565 Thornton Road (SR 2043) in Raleigh, North Carolina as shown in **Figure 1**. This document discusses the operation of the transfer station and other solid waste management activities as follows:

- C&D Transfer Station;
- MSW Transfer Station; and
- Recycling Center.

Refer to **Figure 2** for the general layout of the facility.

The information contained herein was prepared to provide personnel with an understanding of how the Design Engineer envisioned that the completed facility would be operated. While deviations from the operations outlined here may be acceptable, they should be reviewed and approved by the Design Engineer. Please refer to the appropriate permit application for a detailed discussion and calculations for the individual components of operation and process unit.

All personnel involved with the management or supervision of the facility shall review the documents and update from time to time as needed. A copy of this Operations Manual will be kept at the facility and will be available for use at all times.

1.2 CONTACT INFORMATION

All correspondence and questions concerning the operation of the Thornton Road Transfer Station should be directed to the appropriate company and regulatory personnel listed below. For fire or police emergencies dial 911.

1.2.1 Shotwell Transfer Station, Inc. (Operator)

Shotwell Transfer Station, Inc.
3209 Gresham Lake Road, Suite 115
Raleigh, North Carolina, NC 27615
Phone: (919) 773-9899
Fax: (919) 773-9898

Contact: David King
daviddbris@bellsouth.net

1.2.2 Dynasty Holdings, LLC (Owner)

Dynasty Holdings, LLC
3209 Gresham Lake Road, Suite 115
Raleigh, North Carolina, NC 27615
Phone: (919) 773-9899
Fax: (919) 773-9898

Contact: David King
daviddbris@bellsouth.net

1.2.2 Richardson Smith Gardner & Associates, Inc. (Design Engineer)

Richardson Smith Gardner & Associates, Inc.
14 N. Boylan Avenue
Raleigh, North Carolina, NC 27603
Phone: (919) 828-0577
Fax: (919) 828-3899

Contact: Stacey A. Smith, P.E.
stacey@rsgengineers.com

1.2.3 North Carolina Department of Environment and Natural Resources

North Carolina DENR - Raleigh Central Office
401 Oberlin Road, Suite 150
Raleigh, NC 27605
Phone: (919) 508-8400
Fax: (919) 715-3605

Division of Waste Management (DWM) - Solid Waste Section:

Field Operations Branch Head:	Mark Poindexter
Eastern Regional Supervisor:	Dennis Shackelford
Waste Management Specialist:	Bradley Bailey

1.3 ACCESS CONTROL

Limiting access to the solid waste management facility is important for the following reasons:

- Unauthorized and illegal dumping of waste materials is prevented.
- Trespassing, and injury resulting therefrom, is discouraged.
- The risk of vandalism is greatly reduced.

Access to active areas of the transfer stations will be controlled by a combination of fences and natural barriers, and strictly enforced operating hours. An attendant will be on duty at all times

when the facility is open for public use to enforce access restrictions.

1.3.1 Physical Restraints

The site will be accessed by an entrance on Thornton Road as shown on **Figure 2**. Scales and a scale house and office are provided at the entrance. All waste will have been weighed prior to being processed on the site. The entrance will have a gate which will be securely locked during non-operating hours.

1.3.2 Security

Frequent inspections of gates and fences will be performed by facility personnel. Evidence of trespassing, vandalism, or illegal operation will be reported to the Owner.

1.4 SIGNAGE

A prominent sign(s) containing the information required by the DWM will be placed at the main facility entrance. This sign(s) will provide information on operating hours, operating procedures, and acceptable wastes. Additional signage will be provided as necessary within the facility to distinctly distinguish the roadway to the transfer station and recycling area(s). Service and maintenance roads for use by operations personnel will be clearly marked and barriers (e.g., traffic cones, barrels, etc.) will be provided as required.

1.5 COMMUNICATIONS

The scale house/office have telephones in case of emergency and for the conduct of day-to-day business. Emergency telephone numbers are displayed in the scale house and office.

1.6 FACILITY OPERATING HOURS

Normal hours of operation will be 6:00 A.M. to 5:00 P.M. Monday to Friday and 7:00 A.M. to 2:00 P.M. Saturday. Facility will be closed on Sunday.

In the event of disaster or other emergency situations the supervisor will request approval from the commission's regional office to allow additional temporary operating hours.

1.7 LITTER CONTROL

The Transfer Building and litter fencing within the site provide barriers against scattering litter; the perimeter fence acts as barrier to keep litter contained within the site. Transfer Station Operators pick up litter within the site daily and respond to weather and heavy wind conditions that may spread litter.

The litter control crew picks up litter outside the site fences and on access roads each weekday. Any load that is not secured in a manner that would prevent material from leaving the vehicle

while it is in motion is subject to an additional fee. Transfer trailers are covered by heavy tarp lids to minimize litter and potential for birds to enter the trailer and spread litter.

1.8 FIRE AND SAFETY

1.8.1 Fire Control

The possibility of fire within the transfer station or a piece of equipment must be anticipated in the daily operation of the facility. Fire suppression equipment shall be provided to control accidental fires and arrangements shall be made with the local fire protection agency. The transfer station building shall be equipped with hose bibs located on each wall of the facility an appropriate number of fire extinguishers to effectively control accidental fires. A combination of factory installed fire suppression systems and/or portable fire extinguishers will be operational on all heavy pieces of equipment at all times. For larger or more serious outbreaks, the local fire department will respond.

The Owner will verbally notify the DWM (see **Section 1.2.2**) within 24 hours of discovery of a fire within any transfer or recycling area. In addition, written documentation describing the fire, the actions carried out to extinguish the fire, and a strategy for preventing future occurrences will be provided to the DWM within 15 days following any such occurrence.

1.8.2 Safety

All aspects of the operation of the facility were developed with the health and safety of operations staff, customers, and neighbors in mind. Prior to commencement of operations, a member of the operating staff will be designated site safety officer. This individual, together with the facility's management will modify the site safety and emergency response program to remain consistent with National Solid Waste Management Association and Occupational Safety and Health Administration (OSHA) guidance.

Safety equipment provided includes equipment rollover protective cabs, seat belts, audible reverse warning devices, hard hats, safety shoes, and first aid kits. All personnel will be encouraged to complete the American Red Cross Basic First Aid Course. Other safety requirements as designated by the Owner will also be implemented.

1.9 SEVERE WEATHER CONDITIONS

Unusual weather conditions can directly affect the operation of the facility. Some of these weather conditions and recommended operational responses are as follows.

1.9.1 Ice Storms

An ice storm can make access to the facility dangerous, prevent movement and, thus,

may require closure of the facility until the ice is removed or has melted.

1.9.2 Heavy Rains

Exposed soil surfaces can create a muddy situation in some portions of the facility during rainy periods. The control of drainage and use of crushed stone on unpaved roads should provide all-weather access for the site and promote drainage away from critical areas. In areas where the aggregate surface is washed away or otherwise damaged, new aggregate should be used for repair.

Intense rains can affect leachate managements systems. As applicable, staff shall maintain adequate temporary storage capacity in the leachate management systems. After such a rain event, inspection by personnel will be initiated and corrective measures taken to dispose of any additional leachate before the next rainfall.

1.9.3 Electrical Storms

The open recycling areas of the facility are susceptible to the hazards of an electrical storm. If necessary, recycling activities will be temporarily suspended during such an event. To guarantee the safety of all field personnel, refuge will be taken in the on-site buildings or in rubber-tired vehicles.

1.9.4 Windy Conditions

Facility operations during a particularly windy period may require that the active tipping area be temporarily shifted to a more sheltered area.

1.9.5 Violent Storms

In the event of hurricane, tornado, or severe winter storm warning issued by the National Weather Service, facility operations may be temporarily suspended until the warning is lifted.

1.10 EQUIPMENT REQUIREMENTS

The Owner will maintain on-site equipment required to perform the necessary transfer and recycling activities. Periodic maintenance of all equipment, and minor and major repair work will be performed at designated maintenance zones.

1.11 PERSONNEL REQUIREMENTS

At least one member of the supervisory staff will be experienced in the management of transfer station operations. Each facility employee will go through an annual training course (led by supervisory staff). As part of this training, personnel learn to recognize loads which may contain prohibited wastes.

1.12 HEALTH AND SAFETY

All aspects of the transfer and recycling center operations were developed with the health and safety of the operating staff, customers, and neighbors in mind. Prior to commencement of operations of the facility, a member of the operating staff will be designated site safety officer. This individual, together with the facility's management will modify the site safety and emergency response program to remain consistent with National Solid Waste Management Association and Occupational Safety and Health Administration (OSHA) guidance.

Safety equipment provided includes equipment rollover protective cabs, seat belts, audible reverse warning devices, hard hats, safety shoes, and first aid kits. Facility personnel will be encouraged to complete the American Red Cross Basic First Aid Course. Other safety requirements as designated by the Owner will also be implemented.

Each facility employee will go through annual training course in health and safety (led by supervisory staff). All training shall be documented and attested to by signatures of the trainer and trainee. The following are some general recommendations for the health and safety of workers at the Thornton Road Mixed Waste Transfer and Recycling Center.

1.12.1 Personal Hygiene

The following items are recommended as a minimum of practice:

- C Wash hands before eating, drinking, or smoking.
- C Wear personal protective equipment as described in **Section 1.10.2**.
- C Wash, disinfect, and bandage ANY cut, no matter how small it is. Any break in the skin can become a source of infection.
- C Keep fingernails closely trimmed and clean (dirty nails can harbor pathogens).

1.12.2 Personal Protective Equipment

Personal Protective Equipment (PPE) must be evaluated as to the level of protection necessary for particular operating conditions and then made available to facility employees. The list below includes the PPE typically used and/or required in a solid waste management facility workplace.

- C Safety shoes with steel toes.
- C Noise reduction protection should be used in areas where extended exposure to continuous high decibel levels are expected.
- C Disposable rubber latex or chemical resistant gloves for handling and/or sampling of waste materials.
- C Dust filter masks

Following use, PPE's should be disposed of or adequately cleaned, dried, or readied for reuse.

1.12.3 Mechanical Equipment Hazard Prevention

The loaders and other equipment should be operated with care and caution. All safety equipment such as horns, backup alarms, and lights should be functional. A Lockout-Tagout program shall be used to identify equipment in need or under repair and insure that operation is “off-limits” prior to maintenance or repair. All operators shall be trained in the proper operation of equipment.

1.12.4 Employee Health and Safety

Some general safety rules are:

- C Consider safety first when planning and conducting activities.
- C Review the equipment O&M Manual prior to attempting repairs/changes.
- C Remember the buddy system in case of repair of mechanical equipment
- C Post emergency contact phone numbers.
- C Provide easy and visible access to the Right to Know materials.
- C Provide easy and visible access to the first aid kit and fire extinguishers.

1.12.5 Physical Exposure

Facility personnel may come in contact with the fluids, solids, and airborne constituents found at the transfer and recycling center. Routine training should be conducted regarding the individual and collective materials used in the recycling process and their associated hazards. Training concerning safe work practices around these potential exposures should use equipment and proper disposal procedures.

1.12.6 Material Safety Data Sheets

Material Safety Data Sheets (MSDS) shall be collected on every waste (if available) that enters the facility. Information shall also be made available for all chemicals stored on site for use by the County. MSDS sheets shall be stored in a location with all other Right to Know information for the site.

1.13 UTILITIES

Electrical power, water, and telephone will be provided at the scale house/office. Restrooms will be provided at the site.

1.14 RECORD KEEPING PROGRAM

The Owner will maintain the following records in an operating record at the landfill:

- A. Waste inspection records (see **Section 2.4**);

- B. Daily tonnage records - including source of generation, scale certifications;
- C. Waste determination records;
- D. List of generators and haulers that have attempted to dispose of restricted wastes;
- E. Employee training procedures and records of training completed;
- F. Leachate records (see **Section 3.3.3**);
- G. Annual facility reports;
- H. Cost estimates or financial assurance documentation.

The operating record will be kept up to date by the Owner or his designee. It will be presented upon request to the DWM for inspection. A copy of this **Operations Manual** will be kept at the facility and will be available for use at all times.

SECTION 2.0 WASTE HANDLING OPERATIONS

2.1 OVERVIEW

This section describes the required waste handling operations for the Thornton Road Transfer Station facility. In addition to the MSW and C&D waste received at this facility, the facility also processes recyclables new construction wastes such as lumber, ferrous and non-ferrous metals, etc. These materials are stored at the facility until there are sufficient quantities for pick up by various recycling contractors.

2.2 ACCEPTABLE WASTES

2.2.1 MSW Transfer Station

Only the waste as defined by NC General Statute 130A-290 (a) (18a) may be received at the MSW transfer station.

2.2.2 C&D Transfer Station

Only the following wastes may be received at the C&D transfer station:

- C Construction and Demolition Debris Waste: (Waste or debris from construction, remodeling, repair, or demolition operations on pavement or other structures)
- C Inert Debris Waste: (Concrete, brick, concrete block, uncontaminated soils and rock, untreated and unpainted wood, etc.)
- C Land Clearing & Inert Debris: as defined by G.S. 130A-290 (a) (15), specifically, waste that is generated solely from land-clearing activities, such as stumps, trees, etc.
- C Asphalt: in accordance with G.S. 130A-294 (m)
- C Other Wastes as Approved by the Solid Waste Section of the Division of Waste Management.

2.2.3 Recycling Area

Only the following wastes may be received at the facility recycling area or as source separated in the transfer area(s):

- C Non-treated, non-painted clean wood (lumber);
- C Pallets (damaged and un-damaged);
- C Cardboard;
- C Brick and block (undamaged and un-painted); and
- C Metal (ferrous and non-ferrous).

2.3 PROHIBITED WASTES

2.3.1 MSW Transfer Station

Only wastes as defined in **Section 2.2.1** above may be accepted in the MSW transfer station. No other wastes may be accepted including the following wastes:

- Whole Scrap Tires
- Used Oil
- White Goods
- Lead Acid Batteries
- Yard Waste
- Construction and Demolition Debris (C&D) (Except as allowed in the C&D transfer station)
- Discarded computer equipment
- Oyster Shells
- Rigid plastic containers
- Aluminum Cans

In addition, operating criteria prohibit other materials from receipt within the MSW transfer station. These materials include:

- Hazardous waste as defined by NC General Statute 130A-290 (a) (8), including hazardous waste from conditionally exempt small quantity generators.
- Polychlorinated biphenyls (PCB) wastes as defined in 40 CFR 761 with the exception of trace amounts found in materials such as consumer electronics.
- Bulk or non-containerized liquid wastes unless the waste is household waste other than septic waste and waste oil. A liquid determination will be performed by the paint filter test (see **Appendix A** for apparatus and procedure).
- Containers holding liquid wastes unless the waste is household waste.

2.3.2 C&D Transfer Station

Only wastes, as defined in **Section 2.2.2** above may be accepted in the C&D transfer station. No other wastes may be accepted.

2.4 WASTE SCREENING PROGRAMS

In order to assure that prohibited wastes are not entering the facility, screening programs have been implemented. Waste received at both the scale house entrance and waste taken to the tipping areas or recycling areas are by trained personnel. These individuals have been trained to spot indications of suspicious wastes, including: hazardous placarding or markings, liquids, powders or dusts, sludges, bright or unusual colors, drums or commercial size containers, and "chemical" odors. Screening programs for visual and olfactory characteristics of prohibited

wastes are an ongoing part of the facility operation.

2.4.1 Waste Receiving and Inspection

All vehicles must stop at the scale house located at the entrance of the facility and visitors are required to sign-in. All waste transportation vehicles are weighed and the content of the load assessed. The scale attendant(s) requests from the driver of the vehicle a description of the waste it is carrying to ensure that unacceptable waste is not allowed into the facility. The attendant(s) then visually checks the vehicle as it crosses the scale. Signs informing users of the acceptable and unacceptable types of waste are posted at the scale house. Once passing the scales, the vehicles are routed to the appropriate transfer or recycling area as appropriate.

Vehicles are randomly selected for screening on a regular basis, depending on personnel available. At least one vehicle per week will be randomly selected by inspection personnel. A random truck number and time will be selected (e.g., the tenth load after 10:00 a.m.) on the day of inspections. However, if something looks suspicious is spotted in any waste load, that load is inspected further.

Vehicles selected for inspection are directed to an area on the tipping floor where the vehicle will be unloaded. Waste is carefully spread using suitable equipment. An attendant trained to identify wastes that are unacceptable inspects the waste discharged at the screening area. If unacceptable waste is found, the load will be isolated, reloaded, and the generator/hauler will be logged and escorted out of the facility. For unacceptable wastes that are non-hazardous, the Owner will then notify officials of the DWM (see **Section 1.2.2**) within 24 hours of attempted disposal of any waste the facility is not permitted to receive in order to determine the proper course of action. The hauler is responsible for removing unacceptable waste from the facility property.

If no unacceptable waste is found, the load will be pushed into the transfer trailer and/or equipment. All random waste inspections will be documented by operations staff using the waste screening form provided in **Appendix B**.

In addition to random waste screening described above, waste unloaded on the tipping floor face will be inspected by the equipment operators, trained to spot unacceptable wastes, before and during pushing into the transfer trailer and/or equipment. Any suspicious looking waste is reported immediately to the designated primary inspector for further evaluation.

2.5 FACILITY OPERATIONS

2.5.1 Operating Capacity

The Operating Capacity for the transfer area is estimated to be approximately 1,000 tons per day of mixed waste (MSW and C&D wastes).

2.5.2 Service Area

The anticipated service area for the transfer facility (subject to change) is generally anticipated to be concentrated in Wake County and its surrounding counties as follows: Johnston, Durham, Granville, Franklin, Nash, Harnett, and Chatham. Waste will not be accepted from out of state or from Orange County.

2.5.3 Disposal Facility

The anticipated disposal facilities for the transfer station (subject to change) includes any facility in the State of North Carolina or the Commonwealth of Virginia that holds a solid waste permit for the specific waste disposed. However, is generally anticipated for disposal at the following facilities (In order of priority):

MSW

1. Upper Piedmont Regional Landfill (Permit No. 73-04)
2. Sampson County MSW Landfill (Permit No. 82-02)
3. South Wake MSW Landfill (Permit No. 92-22)

C&D

1. Shotwell C&D Landfill (Permit No. 92-26)
2. WCA Material Recovery C&D Landfill (Permit No. 92-31)
3. Red Rock Disposal C&D Landfill (Permit No. 92-28)

In the event that new disposal facility agreements are negotiated other than the list (above). Shotwell will provide a notice to the Division of Waste Management within 30 calendar days.

2.5.4 Personnel Requirements

The anticipated personnel requirements for operation and maintenance of the site are listed in the following table.

Description	Primary Function (Allocation)
1) Site Manager	Overall management of the facility
2) Scalehouse Attendant	Receiving and weight for incoming loads
3) Operators (3)	Management of tipping floor and recycling areas
4) Commercial Drivers (4-6)*	Transfer of C&D and MSW Waste
5) Labor (3)	General labor and operational staff around the site

* Commercial drivers subject to change in response to actual volume of waste received.

2.5.5 Equipment Requirements

The anticipated equipment requirements for operation and maintenance of the site are

listed in the following table.

Description	Primary Function (Allocation)
1)	Recycling operations and sorting
2) Front End Loader	Loading, recycling, and site cleanup
3) Skid Steer Loader	Loading, recycling, and site cleanup
4) Transfer Trucks (4-6)*	Collection and transfer of C&D and MSW Waste
5) Compaction System	Package product system to achieve higher compaction rates of MSW in transfer operations
6) Dump Truck	hauling material around site.

* Commercial drivers subject to change in response to actual volume of waste received.

2.5.5 Building Features

The anticipated building features of the transfer area are listed in the following table.

Description	MSW	C&D
1) Roof	Yes	Yes
2) Sides (3)	Yes	Yes
3) Concrete Floor	Yes	Yes
4) Leachate Collection and Storage	Yes	Yes
5) Ventilation	Yes	Yes
6) Water Supply	Yes	Yes
7) Lighting	Yes	Yes
8) Interior Office & Bathrooms	No	No
9) Explosive Gas Monitoring	Yes	Yes
10) Communications (Telephone, Radios, Cell Phones)	Yes	Yes
11) Fire Suppression/Sprinkler System	No	No

2.6 TRANSFER OPERATIONS

2.6.1 Access

Traffic will be clearly directed to the appropriate transfer or recycling area. For the transfer area(s). Traffic speed on the site should be less than 10 MPH. Rutting of gravel roadway surfaces must be repaired by placement of additional gravel on the roadway and not solely by grading the rut. This will maintain the separator geotextile placed below most gravel roadway surfaces.

2.6.2 General Procedures

The transfer operations will be conducted in accordance with the approved Operation Plan and conditions of the Solid Waste Permit issued by the North Carolina Division of Solid Waste Management (DWM).

Facility operations are anticipated as follows:

1. Collection vehicles delivering waste to the facility will enter through the main entrance;
2. Pass by and over the scales and scalehouse for weight;
3. Continue along the access road until reaching the transfer station tipping area or recycling area;
4. The tipping area has “push” walls running along the interior of the building that direct the waste to feed “hoppers”overlying the transfer trailers and/or equipment on the lower level of the building. The building is divided into two separate tipping areas, one for MSW and one for C&D. The attendant will direct vehicles, waiting to unload, to back into the facility through the entrance. Adequate area is available in front of the transfer area for drivers to queue their vehicles into a backing maneuver. Station operating personnel will be on the station floor to direct and guide the vehicles.
5. The vehicles will back onto the tipping floor to an area designated by the attendant. MSW vehicles will be directed to one side of the floor, whereas C&D vehicles will be directed to the opposite portion of the building.
6. Once the vehicle is in position, the waste load will be discharged directly onto the tipping floor.
7. A spotter will inspect the discharged waste before it is mixed with other waste on the tipping floor and pushed by a rubber-tired loader into the open top transfer trailers, specifically designed for hauling MSW and C&D wastes, respectively, located in the lower level of the Transfer Station. All MSW waste will stay in the covered area of the transfer station.

2.6.3 Recycling/Source Separation

As a means of capturing recycleable materials and/or waste screening, source separation will be conducted on the tipping floor as follows:

1. The track hoe, loader, or laborers will separate materials to be recycled and/or

processed from the loads before the waste is pushed into the open top transfer trailers. It is anticipated that most of the recyclables and materials to be separated will arrive at the transfer area as C&D waste.

2. Materials to be recycled and/or processed may stay on the floor of the building (not in containers) for no more than 48 hours or two (2) working days.
3. Treated wood (any wood other than virgin wood) waste has to be discarded in the C&D trailer.
4. Materials, as defined in **Section 2.2.3**, to be recycled will be pulled from the MSW/C&D waste and loaded into roll-off containers in the transfer floor area or immediately outside the transfer station to the recycling area in appropriately labeled bins or roll-off containers.
5. Cardboard will be loaded into a compactor located off to one side of the transfer area.
6. Concrete (cement and asphaltic/bituminous) may be delivered and stockpiled at the limits of the recycling area. The concrete waste will be crushed and subsequently stockpiled in this same area until it is removed from the site for sale as fill, aggregate, etc., as markets allow.

2.7 RECYCLING AREA OPERATIONS

The facility's recycling area is used to store, separate, and contain commingled recyclable materials from source separated from the transfer station and/or pre-sorted materials such as new C&D materials. The facility is equipped with equipment to facilitate hand sorting of materials, and bins for storage as defined in **Section 2.5.5**.

2.7.1 Containers

Containers (generally 8'x20' or 8'x15') holding various recyclable, separated, or other transfer related items will be stored in the recycling area. The containers will be removed from the site as they are filled.

2.7.2 Other Storage Areas

All other recyclable waste products will be stored around the recycling area. These products are considered inert and will be maintained in discrete pile as follows:

- C Wood pallets will be delivered and stockpiled;
- C Concrete/asphalt materials; and
- C Clean wood debris and other re-useable new construction materials.

2.7.3 Markets

The final destination of the recyclable materials separated from the waste may vary depending on market prices for such materials.

SECTION 3.0 ENVIRONMENTAL MANAGEMENT

3.1 OVERVIEW

This section reviews the overall environmental management tasks required for the successful operation of the facility.

3.2 SURFACE WATER CONTROL

As used herein, the definition of “surface water” is water which results from precipitation or site run-on that has not contacted the waste.

Proper control of surface water at the transfer or recycling areas will accomplish the following goals:

- Prevent the run-on of surface water into waste handling area(s);
- Prevent the run-off of surface water that has come into contact with the waste (i.e. leachate);
- Limit the erosion caused by surface waters; and
- Limit sediments carried off-site by surface waters.

Separate erosion and sedimentation control plans are provided for the site to Wake County. These plans describe both short and long term engineered features and practices for preventing erosion and controlling sedimentation at this site.

3.2.1 Erosion Control

Erosion control measures have been taken within the drainage channels and at points of stormwater discharge. All site features should be inspected regularly for erosion damage and promptly repaired.

3.2.2 Sedimentation Control

Stormwater run-off from the site is conveyed to an on-site sediment basin and/or trap. The basin and/or trap should be inspected regularly for sediment build-up or erosion damage. The basin and/or trap should be cleaned out when sediment fills the lower half of the basin.

3.3 LEACHATE MANAGEMENT

The leachate management system for the proposed MSW & C&D transfer station consists of concrete tipping floor, collection trenches and leachate transmission piping, pumps, valve boxes, valves, leachate storage tanks prior to either pump and hauling or direct connection to the City of

Raleigh sewer system.

3.3.1 Leachate Collection

Leachate from each transfer area unit is collected in perimeter floor drains that drain to low end(s) of each area. Leachate collected drains to a central leachate storage tank and pumped via an HDPE force main to the City of Raleigh sewer system or directly to a truck for hauling to a local publicly owned treatment works (POTW).

3.3.2 Operation and Maintenance of Leachate Pumps and Storage Tanks

Operation and maintenance of leachate pumps and the storage tanks shall be in accordance with the appropriate manufacturer's recommendations. The Solid Waste Manager or his designee will be responsible for following and documenting, as required, these activities.

3.3.4 Record Keeping

Accurate records will be maintained at the facility in accordance with **Section 1.12**.

3.4 VECTOR CONTROL

Control of insects, rodents, and birds will be accomplished by periodic cleaning of the facility. Spilled or wind-blown debris along the access road will be cleaned up daily and placed in the transfer truck. The transfer areas will be cleaned, as necessary, each day to maintain a sanitary operation. If vector control becomes a problem, additional measures will be taken to ensure the protection of human health.

3.5 ODOR CONTROL

Odoriferous or potentially odoriferous materials will be pushed into the transfer truck covered as soon as possible to avoid odor problems. Additionally, the transfer areas will be cleaned and swept daily and washed down weekly, at a minimum. If odor control becomes a problem, additional measures will be taken to ensure odor control.

3.6 DUST CONTROL

Dust related to waste hauler traffic on the access roads will be minimized by using a water truck or a sprinkler system to limit dust on the gravel portion of the road.

Attachment E

PDOX Truck Scale Data management

Avery Weigh-Tronix

PDOX Truck Scale Data Management

When your needs go beyond simple ticketing, PDOX Truck Scale Data Management System provides one of the fastest, easiest to use, and most comprehensive truck scale data management solutions.

Fast, accurate ticketing

Field #	Field Name	Value	Field #	Field Name	Value
1	PLANT	000000	11	WEIGHT	10000
2	PLANT	000000	12	WEIGHT	10000
3	PLANT	000000	13	WEIGHT	10000
4	PLANT	000000	14	WEIGHT	10000
5	PLANT	000000	15	WEIGHT	10000
6	PLANT	000000	16	WEIGHT	10000
7	PLANT	000000	17	WEIGHT	10000
8	PLANT	000000	18	WEIGHT	10000
9	PLANT	000000	19	WEIGHT	10000
10	PLANT	000000	20	WEIGHT	10000

Fast, accurate ticketing

Comprehensive reporting

Custom data queries

PLANT	WEIGHT								
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000
000000	10000	10000	10000	10000	10000	10000	10000	10000	10000



Comprehensive

Loaded with features, the PDOX System provides truck scale users with all of the tools needed to quickly process truck weighing, process inbound/outbound truck transactions, capture essential transaction information and provide powerful reporting capabilities. While powerful, the PDOX System is designed for maximum ease of use, with intuitive screens and short-cut keys to speed up all operations and to reduce operator training time.

Flexible

PDOX Truck Scale Management Systems are available for single user sites, network sites and unattended operations. Select the system best suited for local operational requirements. PDOX is suited for a wide variety of truck scale applications including landfills, recycling, stone and aggregate, asphalt, agricultural, chemical, food and general industrial applications. PDOX will work with most truck scale brands or models in the field!

Quick Return on Investment

PDOX saves labor, from producing ready to mail invoices to automating special report requirements. Once the transactions are complete, they can be exported to most accounting packages and host mainframe platforms for tracking receivables, production, and inventory. Contact your Avery Weigh-Tronix distributor for details.

Software Specifications

PC software – Supports Windows 98/NT/2000/XP (2000 recommended).

Compatibility & Data Storage – Standard (Trucks, Customers, Materials, etc.) and user configurable databases. Export to CSV, Fixed Record Length, SQL Server, DB2, Oracle, Sybase, Access, dBase, Paradox, FoxPro, Excel, and other ODBC compliant databases.

Reports – Comprehensive standard report system. User guided Report and Graph Wizard. Ad-hoc Query system for user definable custom reports.

Invoicing – Produces ready to mail invoices for any time period: daily, weekly, monthly, etc.

Security – Five level user password system. Tracks and records all user actions in system log files.

Transaction Speed – Perform data entry, weighing, ticket print, and data store in a matter of seconds.

Online Help – Comprehensive online help with lookup index.

Remote Support – Remote support provided with annual support agreement via PC Anywhere, Carbon Copy, WinVNC, or VPN (Virtual Private Network).

Support – 90 days included, annual contracts available.

Options

Unattended Unit – Allows simultaneous operation of unattended and attended scales. Unattended station simultaneously displays Truck #, Customer, Contract, Material, Source, Location.

Network Support – Windows Network ready. Data can be stored anywhere on network. Data is retrieved from the unattended scale using RS-232 or TCP/IP sockets via wired Ethernet or industry standard Wi-Fi IEEE 802.11a/b components.

Multi-Scale Support – Supports up to four scales per computer. Additional scales supported via network.

Barcode/Mag-Stripe/RFID – Supports scanning of Truck, Trailer, Customer, Contract, Material, Source or Location from office or unattended station.

Accounting Export – Create export files for accounting systems including Business Works, Peachtree, QuickBooks, AccPac, CSV, Fixed Record Length, others. Also export to ODBC compliant databases.

Off-site Data Transfer – Transfer data from the scale site to an off-site location using a modem.

Cash Drawer Compatible

Security Camera /or Traffic Light Support – Sends ticket data to a video camera while recording the vehicle on the scale. Traffic light control also available.

Multi-site Office Reporting – Allows a central office to produce reports on several off-site scale stations. Each site's data is kept separate.

System Requirements –

Hardware Requirements

- Pentium II processor or greater
- 1 GB available hard disk space
- 256 MB RAM
- 56kb modem w/ PC Anywhere 10.0 software
- RS232 serial port or Ethernet port (for scale interface)

For professional technical support before or after the sale call 800-788-1879.

AUTHORIZED DISTRIBUTORS

Ask the experts.

Weigh-Tronix distributors are complete support centers, providing needs assessment, technical information, product sales and service. Their experience is a valuable resource that is readily available to you. We recommend you consult these knowledgeable industrial applications specialists for all of your weight measurement needs.

Avery Weigh-Tronix

Falmouth, Minnesota U.S.A.
USA Toll-Free: 800-368-2039
USA Phone: 507-238-4461
www.wtxweb.com

Pointe Claire, Quebec Canada
CAN Toll-Free: 800-561-9461
CAN Phone: 514-695-0388
www.weigh-tronix.ca



OMC*

SHOTWELL TRANSFER STATION, INC.
3209 GRESHAM LAKE ROAD/SUITE 114-115
RALEIGH, NC 27615
919-790-1119

Waste In - Charge Scale Ticket

Ticket # : 6063 Operator: MH Date: 05/22/2008

Vehicle : 0691

* Customer : 0419 DOWN HOME CONSTRUCTION, L

* Material : DEMOLITION C&D

* Source : WAKE WAKE COUNTY

Location : Units : 1.23 TONS

Time In : 11:48:36 Unit price: \$ 38.00

Time Out : 11:56:23

Net Amount: \$ 46.74

Haul Chg: \$ 0.00

Gross Wt : 13480 lb State Fee : \$ 0.00

Tare Wt : 11020 lb MAN WT. Local Fee : \$ 0.00

* Net Wt : 2460 lb

TOTAL DUE : \$ 46.74

SIGNATURE: 

Monday thru Friday - 7:00 4:00
TRANSFER STATION PHONE
(919) 872-5807 Phone
(919) 872-5817 Fax

EXAMPLE

Attachment F

Revised Engineering Drawings

Attachment G

Revised Financial Assurance



DATE: 03-Jun-08
BY: SAS

Financial Assurance
Shotwell Transfer Station, Inc.
Thornton Road Mixed Waste Transfer & Recycling Center
Engineer's Remedial Cost Estimate (6-02-08 Revision)

Item No.	Item Description	Unit	Contractor			Comments
			Quantity	Unit Price	Total Price	
Facility Area (Horizontal Plan) ---->		AC	8			
1.0	Pre-Remedial Response			Subtotal	\$4,000.00	
1.1	Coordination, Contracts, and Management	AC	8	\$500.00	\$4,000.00	RSGA Estimate
2.0	Remedial Response Activities				\$90,000.00	Ref. 1
2.1	Surveys and Layout	AC	8	\$250.00	\$2,000.00	RSGA Estimate
2.2	Mobilization, Demobilization, and Project Closeout	AC	8	\$500.00	\$4,000.00	RSGA Estimate
2.3	Wash Down & Cleanup of the Transfer Station	DY	2	\$1,500.00	\$3,000.00	Assume single work crew per day.
2.4	Fencing & Concrete Barrier Protection	LF	200	\$15.00	\$3,000.00	Assume close transfer station door and place concrete barriers across wall.
2.5	Excess Waste Disposal (C&D & MSW)	TN	2,000	\$30.00	\$60,000.00	Assume one (1) day of waste.
2.6	Excess Recycling Disposal	CY	300	\$10.00	\$3,000.00	Assume cost of loading and transport.
2.7	Leachate Disposal	GAL	50,000	\$0.10	\$5,000.00	Assume one (1) week capacity of leachate
2.8	Erosion & Sediment Control (grading, silt fence, maintenance, etc.)	AC	8	\$500.00	\$4,000.00	RSGA Estimate
2.9	Revegetation	AC	4	\$1,500.00	\$6,000.00	RSGA Estimate
3.0	Quality Assurance, Certification, & Deed Notation				\$3,000.00	
3.1	Engineering and Reporting	LS	1	\$2,500.00	\$2,500.00	RSGA Estimate
3.2	Surveying and Deed Notation	LS	1	\$500.00	\$500.00	RSGA Estimate
Remedial Response Estimate ---->					\$97,000	
10% Contingency ---->					\$9,700	
Total Estimate ---->					\$106,700 (2007\$) (See Note 1)	

Notes:

- All costs are presented in current dollars and should be increased at an inflation rate of 1.5% if additional review is not performed annually.
- This ESTIMATE has been prepared for financial assurance purposes only and shall not be considered a replacement for an actual bid from a licensed contractor and is considered acceptable within a +/- 10% of the Total Estimate value.

References:

- Thornton Road Mixed Waste Transfer & Recycling Center Permit Application by Richardson Smith Gardner & Associates, Inc dated November 2007.

Denotes values calculated in spreadsheet.