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Revised
6-23-08,
7-21-08,
8-19-08

C&D TRANSFER STATION PERMIT APPLICATION

**Burnt Poplar Transfer, LLC
C&D Transfer Station
Greensboro, North Carolina**

Prepared for:

MRR Southern, LLC
(Developer)
421 Raleigh View Road
Raleigh, North Carolina 27610

On Behalf of:

Burnt Poplar Transfer, LLC
(Owner/Operator)
6313 Burnt Poplar Road
Greensboro, North Carolina

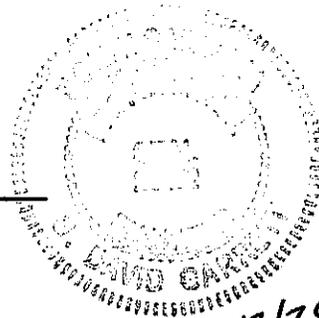
And

WCA Waste Systems, Inc.
(Owner/Operator)
421 Raleigh View Road
Raleigh, North Carolina 27610



[Handwritten Signature]

G. David Garrett, P.G., P.E.
Principal



December 2007

David Garrett, P.G., P.E.
Engineering and Geology



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David Garrett, PG, PE

Engineering and Geology

5105 Harbour Towne Drive, Raleigh, North Carolina 27604



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Engineering and Geology



David Garrett & Associates

Engineering and Geology



June 19, 2008

NC DENR Division of Waste Management
Solid Waste Section, Permitting Branch
1646 Mail Service Center
Raleigh, NC 27699-1646

Attn: Karim Pathan
Environmental Engineer

Re: Updated Permit Application
Burnt Poplar Transfer, LLC
C&D Transfer Station
Greensboro, North Carolina

Dear Karim:

Please find attached an updated application for the referenced project. This application was originally prepared ca. August 2006, but the facility has since undergone a name change in keeping with a corporate identity change, previously considered by the Division. The facility will be owned and operated by Burnt Poplar Transfer, LLC, a subsidiary of WCA Waste Systems, Inc. A copy of an agreement furnished by WCA follows this letter, acknowledging that corporation's consent to being added to the permit. The project began under the ownership of and development by MRR Southern, LLC, who is still involved with the permitting process (pending completion of a real estate transfer), but it is understood by all parties that the permit will be issued to WCA Waste Systems, Inc., and Burnt Poplar Transfer, LLC.

This revised application (Rev. 0.2) incorporates your review comments, presented in a letter to WCA (Vernon Smith) dated March 27, 2008 – to which a written response was made April 2, 2008, followed by our verbal discussion. Please note that this document includes the entity name change of the Owner/Operator to Burnt Polar Transfer, LLC within the Operations Plan and construction plans, along with minor stormwater design revisions to the construction plans required by the City of Greensboro Technical Review Committee, who approved the site plan to be built in their jurisdiction. Further design work and applications for grading and building permits from the City of Greensboro are required, but the City has essentially approved the project concept and site development plan.

Please contact me if you have questions or if I can be of further service.

Sincerely yours,

A handwritten signature in black ink, appearing to read "G. David Garrett".

G. David Garrett, P.G., P.E.

cc: Vernon Smith, Regional Vice President, WCA Waste Systems, Inc.
Chris Roof, General Manager, MRR Southern, LLC

5105 Harbour Towne Drive • Raleigh • North Carolina • 27604
919-418-4375 (Mobile) • 919-231-1818 (Office fax) • E-mail: david@davidgarrettpe.com

David Garrett & Associates

Engineering and Geology



December 27, 2007

NC DENR Division of Waste Management
Solid Waste Section, Permitting Branch
1646 Mail Service Center
Raleigh, NC 27699-1646

Attn: Mr. Geof Little
Environmental Engineer

Re: Updated Permit Application
Burnt Poplar Transfer, LLC
C&D Transfer Station
Greensboro, North Carolina

Dear Geof:

Please find attached an updated application for the referenced project. This application was originally prepared ca. August 2006, but the facility has since undergone a name change in keeping with a corporate identity change, previously considered by the Division. The facility will be owned and operated by Burnt Poplar Transfer, LLC, a subsidiary of WCA Waste Systems, Inc. A copy of an agreement furnished by WCA follows this letter, acknowledging that corporation's consent to being added to the permit. The project began under the ownership of and development by MRR Southern, LLC, who is still involved with the permitting process (pending completion of a real estate transfer), but it is understood by all parties that the permit will be issued to WCA Waste Systems, Inc., and Burnt Poplar Transfer, LLC.

This revised application (Rev. 0.1) is essentially unchanged from the original, with the exception of the name change of the Owner/Operator to Burnt Polar Transfer, LLC within the Operations Plan and construction plans, and the incorporation of minor stormwater design revisions to the construction plans required by the City of Greensboro Technical Review Committee, who has now approved the site plan. Further design work and applications for grading and building permits from the City of Greensboro are required, but the City has essentially approved the project concept and site development plan.

Please contact me if you have questions or if I can be of further service.

Sincerely yours,

A handwritten signature in black ink, appearing to read "G. David Garrett".

G. David Garrett, P.G., P.E.

cc: Vernon Smith, Regional Vice President, WCA Waste Systems, Inc.
Chris Roof, General Manager, MRR Southern, LLC

5105 Harbour Towne Drive • Raleigh • North Carolina • 27604
919-418-4375 (Mobile) • 919-231-1818 (Office fax) • E-mail: david@davidgarrettpe.com

**WRITTEN CONSENT
OF
WCA WASTE SYSTEMS, INC.**

WCA Waste Systems, Inc., a Delaware corporation (the "Corporation"), does hereby adopt the following action by signing its written consent hereto:

WHEREAS, the Corporation is a manager member of:

Burnt Poplar Transfer, LLC- Permit # _____
(the "LLC"); and

WHEREAS, the North Carolina Department of Environment and Natural Resources has requested that the Corporation be added to the LLC's solid waste management facility permit; and

WHEREAS, the Corporation has determined it to be in the best interest of the LLC, who is operating the solid waste management facility, for the Corporation to be added to the LLC's solid waste management permit.

NOW, THEREFORE, the Corporation hereby consents to being added to the LLC's solid waste management permit.

This action is effective as of the 10th day of December, 2007.

WCA WASTE SYSTEMS, INC.

By: 
Vernon Smith Regional Vice President



C&D TRANSFER STATION PERMIT APPLICATION

Burnt Poplar Transfer, LLC
C&D Transfer Station
Greensboro, North Carolina

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APPENDICES

1	City of Greensboro Zoning Information Traffic Impact Evaluation (NCDOT Division 7 Engineer letter, October 24, 2007) WCA and Hilltop Properties Site Purchase Agreement Hilltop Properties Affidavit acknowledging solid waste activities at the site Letter of Intent from Potential Customer to Accept Recycled Goods
2	Waste Screening and Inspection Program
2A	Waste Screening Form
3	Hazardous Waste Contingency Plan
3A	Hazardous Waste Responders
3B	Useful Agencies and Contacts
4	Storm Water Pollution Prevention Plan (<i>NC DENR Division of Water Quality</i>)
4A	Inspection Records
4B	Certification of Evaluation of Non-Storm Water Discharges
4C	Storm Water Sampling Results (<i>Report Forms</i>)
4D	Storm Water General Permit
	Facility Map showing SWPPP features (<i>folded insert</i>)
5	Storm Water Inspection and Maintenance Plan (<i>City of Greensboro</i>)
5A	City of Greensboro Storm Water Management Manual (<i>Excerpt</i>)
5B	Storm Water Pond Inspection Checklist
6	Fire Notification Form (<i>NC DENR Division of Solid Waste</i>)



**BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION
OPERATIONS PLAN**



1.0 FACILITY DESCRIPTION

1.1 Physical Location – This facility is a proposed C&D transfer station located at 6313 Burnt Poplar Road in southwest Greensboro (Guilford County), North Carolina. The site is situated in a commercial-industrial district, approximately 1.5 miles (by road) from the intersection of I-40 and Guilford College Road to the east and approximately 2 miles from the intersection of I-40 and NC Highway 68 to the west. The site is within the city limits of Greensboro, with has jurisdiction over zoning, building permits, and storm water management. The site is within the Upper Randleman General Watershed Area, subject to riparian buffer regulations and certain water quality criteria for storm water discharges (discussed later). Zoning is Heavy Industrial with Special Use Permit #33 (**Appendix 1**), allowing the solid waste transfer station.

1.2 Site Description – The site encompasses approximately 6.8 acres, now wooded and undeveloped. The tract was subdivided from an adjacent parcel to the east that formerly hosted a petroleum distributor – now the site of an asphalt-batch plant – from which a shared entrance and utility corridor has been deeded. Ingress/egress is a paved driveway from Burnt Poplar Road. Undeveloped wooded acreage surrounds the subject site on three other sides. Riparian buffers required along a perennial stream form a portion of the north property line that will provide permanent screening to the nearest neighbor in that direction (a work and storage yard for a bus manufacturing firm). Much of the adjacent property to the south is within NC DOT highway right-of-way. The site cannot be seen directly from Burnt Poplar Road or any public road.

1.3 Facility Plan Overview – The facility plan includes an open, asphalt-paved area for tipping, pre-sorting, and loading inert wastes, a paved employee parking area, a gravel or paved parking area for transport vehicles, scales and a mobile office building/scale house, open space, and a storm water wet detention basin (designed per City of Greensboro ordinances). Incoming wastes will be unloaded on the paved pad and may be pre-sorted (like materials grouped) in temporary stockpiles. The sorted materials will be loaded onto waiting open-top transport trailers – all wastes will be covered prior to transport. Recyclable metals may be separated and placed in roll-off boxes of trailers parked on the paved tipping pad (see **Drawing S2**). Storm water shall be managed in a network of open ditches, catch basins, and underground pipes leading to the basin. A grade separation has been planned between the tipping/pre-sorting and truck loading areas. Security fences and a gate across the main entrance driveways (to the east), with natural barriers restricting access from other directions, will prevent unauthorized access.

1.4 Drainage – Due to the inert nature of the wastes, all drainage will be handled under an approved storm water management plan permitted by the City of Greensboro, which has completed a thorough review of the site plan, including storm water management measures, pursuant to site plan approval by the City’s Technical Review Committee. All City requirements regarding storm water management have been (and will be) met. A NPDES Permit from the NCDENR Division of Water Quality will be procured for the storm water discharge prior to final permitting. Public water and sewer are available for the office building.

1.5 Public Road Access – Access to the transfer station will be via a private driveway on the south side of Burnt Poplar Road, which is to be shared with the adjacent business (asphalt plant). All streets in the vicinity of the transfer station are paved. Ingress/egress visibility along Burnt Poplar Road is adequate, and local traffic patterns will not altered. The existing driveway serves heavy trucks and will remain unaltered except for widening as needed meet local ordinances.

A traffic impact evaluation was performed by the City of Greensboro Department of Transportation in conjunction with NCDOT Division 7, which is documented in a letter from the NCDOT Division 7 Engineer, dated October 24, 2007 (see **Appendix 1**). The evaluation found no impact anticipated to the local highways and streets associated with the project.

1.6 Disposal Facilities and Service Area – The primary disposal site is WCA of High Point, LLC (Permit #41-16); the backup disposal site is Cobles C&D Landfill (Permit #01-05). The service area will be the same as the more restrictive of either of the potential disposal facilities. The service area for WCA of High Point, LLC (Permit #41-16) includes Guilford, Forsyth, Randolph, and Davidson Counties, which will be service area for Burnt Poplar Transfer, LLC. The service area for Cobles C&D Landfill (Permit #01-05) covers a wider geographic area, including Alamance, Cabarrus, Caswell, Chatham, Davidson, Durham, Forsyth, Green, Guilford, Lee, Orange, Randolph, Rockingham, and Wake Counties. The operator shall be responsible for knowing from where his waste stream is derived and making sure the transferred materials are directed to the appropriate receiving landfill.

1.7 Facility Ownership – This project is being developed by MRR Southern, LLC, with the intent of selling the transfer station to WCA Waste Corporation, Inc., who will operate it as Burnt Poplar Transfer, LLC. While the ownership is still in the name of Hilltop Properties, LLC, WCA has a purchase agreement in place (see **Appendix 1**), which is to be executed upon successful completion of a permit. In response to regulatory comments, an affidavit has been signed by the Owner of Hilltop Properties, LLC, agreeing that the solid waste activities may be conducted at his property and that he assumes the liabilities from those activities (**Appendix 1**). Once the real estate transfer has been completed, a new plat will be prepared (for filing with Guilford County) and presented to the Division of Waste Management.

2.0 DESCRIPTION OF THE WASTE STREAM

The transfer station will accept construction and demolition (C&D) wastes, as defined by North Carolina Solid Waste Rules, originating from residential, commercial, and industrial projects. Accepted materials include brick, block, rock, uncontaminated soil, treated and untreated wood, stumps, limbs, brush and other vegetative material, construction debris, demolition debris (including properly packaged and transported asbestos wastes, by prior arrangement), land clearing debris, metals, and miscellaneous other recyclables from non-C&D waste streams (e.g., cardboard, metals, wood wastes, subject to approval by NC DENR Division of Waste Management). The anticipated waste stream is between 250 to 500 tons per day.

No sludges, special waste, regulated medical waste, or hazardous waste shall be accepted at the transfer station, and no putrescible municipal solid wastes (MSW) shall be accepted. A sign posted at the entrance shall state that no hazardous or liquid waste shall be received. Burnt Poplar Transfer, LLC shall conduct random waste screenings to insure that prohibited materials are not accepted. The **Waste Screening and Inspection Program (Appendix 2)** and the **Hazardous Waste Contingency Plan (Appendix 3)** are incorporated into this plan.

C&D wastes may be pre-sorted at the transfer station for transport and disposal. Depending on the waste load, outbound trucks will transport the waste to a processing or disposal facility located offsite. Recyclable metals, cardboard, wood waste, soil, masonry, sheetrock, and/or beneficial fill will be transported to the WCA of High Point, LLC, recycling facility or to market-driven destinations. Non-recyclables shall be transported to the disposal facility in High Point or to another approved destination. Each outgoing load shall be weighed and destination records kept for all materials processed at the facility.

3.0 DAILY OPERATIONS

3.1 Facility Contacts –

On-Site Facility Manager: Personnel To Be Determined
Local Contact Number to be Determined

Corporate Contact: Vernon Smith, Regional Vice President
WCA Waste Systems, Inc.
421 Raleigh View Road
Raleigh, NC 27610
Tel. 919-866-1211

3.2 Routine Material Handling – Collection vehicles consisting of (but not limited to) dump trucks, dump trailers, pickup trucks, and roll-off trucks will transport waste to the facility. Incoming trucks shall be weighed upon arrival with permanent scales. Materials shall be deposited on a paved outdoor tipping area, where they will be sorted and pushed into open bunkers and/or transferred into transport trucks. A “cherry picker” material handler, front-end loader, or other suitable equipment may be used. Efforts shall be made to move the debris from the tipping/pre-sorting area into waiting transport vehicles and/or designated short-term stockpiles as quickly and efficiently as possible.

The transport vehicles shall typically consist of a road-tractor and trailer. The trailers shall be covered with tarps before leaving the transfer station. Trailers may be filled and covered with a tarp and placed in a designated on-site holding area until an available road-tractor hauls off the trailers. The majority of wastes shall be transferred each working day, except for inert debris and/or recyclables (e.g., scrap metal), which may be left in designated stockpiles until a full load is made. Inert materials may be kept in the tipping area or open bunkers up to one week (7 days) or until a trailer-load quantity exists. No long-term storage of waste shall occur at this facility.

3.3 Recycling Activities – This facility is designed to promote separation of the recyclable inert materials from non-recyclable wastes. Recycling activities will be limited to metals and cardboard. All recyclable goods shall be segregated and placed in covered roll-off boxes or trailers located on the asphalt-paved pad and stored in until a full load is gathered – anticipated holding times are one month, or less – unless circumstances allow the materials to be loaded and shipped quickly. The General Facility Plan (**Drawing S2**) shows a tentative location of the trailers for recyclable goods while they are being loaded, although full, covered trailers may be staged elsewhere on the premises to await shipment. These materials shall be transported to a recycling facility, e.g., the WCA of High Point, LLC recycling facility (adjacent to the landfill), or other local markets that coincide with the established markets for WCA of High Point, LLC, destinations depending on market conditions. That facility is an ongoing operation that has demonstrated abilities in moving its recyclables – documentation of current markets for recyclables, i.e., letters of intent, are provided in **Appendix 1** to this document.

3.4 Asbestos Wastes – Asbestos-containing materials will NOT be accepted at this facility. Contractors wishing to dispose of asbestos will be directed to a local landfill.

3.5 Contingency Operations – In the event a loader or material handler breaks down, substitute loaders can be easily rented or brought in from nearby facilities as backup. If a transfer truck breaks down, the trucking contractor shall provide a replacement unit so that no delays will result. Natural light is sufficient for normal operations; therefore a loss of power will not affect transfer activities. During inclement weather, e.g., high winds, excess snowfall, or

unusual circumstances that would endanger personnel, operations shall be temporarily discontinued. Litter fencing will be used to control blowing debris on windy days. Dust control will be implemented during dry conditions – working surfaces will be sprinkled with water as needed; a water truck will be kept available. Windblown material will be kept picked up.

3.6 Hours of Operation – The transfer station will be open to the public from 6:30 AM to 5:30 PM Monday – Friday and from 7:00 AM to 1:00 PM Saturday (closed Sunday). Operations with no public access (i.e., material loading, site maintenance and clean up) may take place outside these hours, during which the gate shall be closed.

3.7 Operator Responsibilities – An operator (certified by NC DENR Division of Waste Management or SWANA) shall be present at the transfer station when the facility is operating. The operator is responsible for the operations, maintenance, and general housekeeping of the facility. The operator directs all traffic into and out of the transfer station and is responsible for the orderly movement of waste from the tipping area into the trailers. The operator is also responsible for site security, general safety, and regulatory compliance on a daily basis.

3.8 Housekeeping/Vector Control Measures – No C&D waste shall be stored at the site longer than 7 days. A majority of the inert waste shall be transported within 24 hours, with the exception of weekends and holidays. Any putrescible wastes shall be immediately placed into designated MSW containers and removed in accordance with a routine collection schedule (this may be contracted out).

All debris shall be removed from the tipping area and loaded onto vehicles or into storage bunkers by the end of each shift. Wind-blown debris shall be picked up and placed into suitable containers by the end of each shift.

The tipping area shall be washed down as necessitated by operations to minimize dust. Any wet or muddy waste materials may be placed in a bunker to allow drying. Standing water shall not be allowed within the tipping area and/or material sorting and storage areas. Dusty wastes shall be lightly sprinkled with water prior to highway transport – all outgoing waste loads shall be covered. Wash-down water shall be managed in accordance with the SWPPP.

4.0 SAFETY CONSIDERATIONS

Emergency procedures for fire and personal injury shall be posted at the facility. Employees will be trained in the location and use of these extinguishers. Brooms, shovels, and hoses are also available. Also present are routine equipment such as phones, radios, and first aid kits.

A sign indicating the facility permit number, and emergency contact and phone number will be located at the entrance to the facility. The site is located approximately 1.5 miles from the City of Greensboro Fire Station Number 19, located on Market Street, which is the initial response location in the event of a fire. Cone Memorial Hospital is located approximately 8 miles northeast of the site near the intersection of Market Street and Wendover Avenue (go one mile north on Wendover to the intersection of Benjamin Parkway). For all emergencies, employees should dial "911".

5.0 ENVIRONMENTAL REQUIREMENTS AND FEATURES

5.1 Erosion Control – The City of Greensboro has tentatively approved temporary measures for construction phase sedimentation and erosion control (included in the construction plans), which are subject to final approval with the issuance of a grading permit (application pending as of this writing). Temporary erosion control measures for the site construction include:

- Three sediment traps with gravel-filter discharge weirs.
- Sedimentation basin with floating skimmer and top-discharging primary discharge.
- Vegetated channels and diversion berms.
- Silt fence.
- Establishment of vegetation within regulatory requirements.

5.2 Drainage Control – The paved tipping area is sloped away from the pre-sorting and loading areas to minimize the contact of storm water runoff with the solid waste. All site drainage is channeled into the permanent wet detention basin via underground drainage piping. The waste is not anticipated to generate leachate, as such all storm water shall be diverted to the basins and allowed to slowly discharge into surface drainage features.

In the event of a spill (fuel, hydraulic fluid, etc.), or a load of unacceptable materials being discharged in the tipping area, surface flow to storm water inlets can be isolated via absorbent booms and appropriate measures for capture and containment can be implemented. A **Storm Water Pollution Prevention Plan (SWPPP)** is incorporated into this Operations Plan (**Appendix 4**).

5.3 Storm Water Management – The City of Greensboro has approved a storm water management system design (included in the construction plans) that shall be operated and maintained throughout the operation of the facility. Permanent Best Management Practices for the site operation include:

- A wet detention basin capable of containing the first inch of runoff.
- The basin is capable of passing a 25-year, 24-hour design storm through the primary discharge outlet without activating the emergency overflow weir.
- The emergency weir will safely pass the 100-year, 24-hour design storm.
- Vegetated channels and diversion berms (some continuous are from construction).
- Preservation of open space and riparian buffers to promote water quality.
- The system provides the ability to isolate and restrict runoff from various zones within the waste processing area for spill control.
- A Stormwater BMP Inspection and Maintenance Plan is required by the City of Greensboro, included with this document (**Appendix 5**).

5.4 Air Quality Criteria – Appropriate measures will be taken to control fugitive emissions (dust) that might be generated during dry seasons. Water shall be sprinkled on roads and other exposed soil surfaces as needed to control dust. No open burning of any waste shall be allowed.

5.5 Fire Control – The possibility of fire within the facility, e.g., a piece of equipment or a “hot load”, must be anticipated in the daily operation of the facility. A combination of factory installed fire suppression systems and/or portable fire extinguishers shall be operational on all heavy pieces of equipment at all times. Fire extinguishers shall be placed strategically throughout the facility. Fires within the waste may be smothered with soil, if combating the fire poses no danger to the staff. The use of water to combat the fire is allowable, but soil is preferable. A stockpile of soil shall be kept on-hand for combating small fires. For larger or more serious fire outbreaks, the local fire department shall be called.

In the event of any size fire at the facility, the Owner shall contact NC DENR Division Waste Management personnel immediately and complete a **Fire Notification Form (Appendix 6)**, which will be placed in the Operating Record.

Appendix 1

City of Greensboro Zoning Information

Traffic Impact Evaluation

Ownership Information

Market Information

City of Greensboro
North Carolina

February 24, 2006

Mr. D.H. Griffin
Hilltop Properties, LLC
4700 Hilltop Road
Greensboro, NC 27404

Dear Mr. Griffin:

At their February 13, 2006 meeting, the Greensboro Zoning Commission approved your request for a Special Use Permit for a Refuse and Raw Materials Transfer Point in a Heavy Industrial District. This Special Use Permit is subject to the limitations and conditions listed below:

- 1) The property will be developed and utilized in conjunction with the contiguous property to the east for which Special Use Permit #33 has been granted and will be subject to the same conditions as contained in Special Use Permit #33.

In addition, we would like to remind you that plans for any development of this property are subject to these conditions. The Plans must be submitted to the Technical Review Committee prior to any changes in the property. This includes subdivision approval, site plan approval, grading of the property, installation of any utilities and/or application for any building permits.

If you have any questions, please call me at (336) 373-2748.

Sincerely,



William F. Ruska, Jr., AICP
Zoning Administrator

cc: Building Inspections
Charles E. Melvin, Jr.



March 1, 2005

Mr. D. H. Griffin, Sr.
Hilltop Properties, LLC
4700 Hilltop Road
Greensboro, NC 27407

Dear Mr. Griffin:

At their February 14, 2005 meeting, the Greensboro Zoning Commission approved your request for a Special Use Permit for a Refuse and Raw Materials Transfer Point for the property located south of Burnt Poplar Road west of Chimney Rock Road. This Special Use Permit is subject to the limitations and conditions listed below:

- 1) Access will be shared with adjacent property to the east.
- 2) Maximum building size will be 7,000 square feet.
- 3) There will be an on-site facility for watershed compliance.

In addition, we would like to remind you that plans for any development of this property are subject to these uses/conditions. The Plans must be submitted to the Technical Review Committee prior to any changes in the property. This includes subdivision approval, site plan approval, grading of the property, installation of any utilities and/or application for any building permits.

If you have any questions, please call me at (336) 373-2748.

Sincerely,

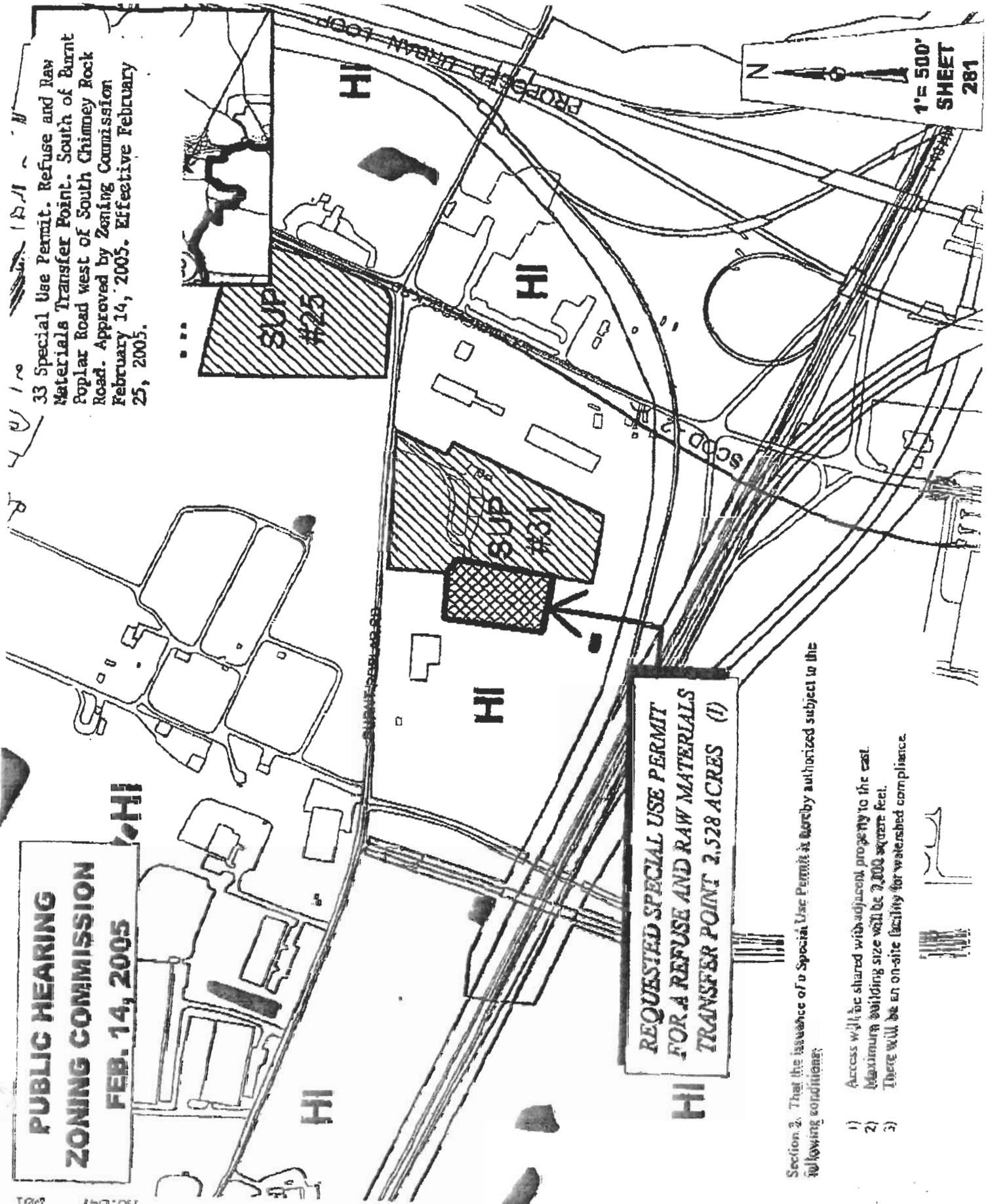
William F. Ruska, Jr.

William F. Ruska, Jr., AICP
Zoning Administrator

cc: Building Inspections
Charles E. Melvin, Jr.

33 Special Use Permit. Refuse and Raw Materials Transfer Point. South of Burnt Poplar Road west of South Chimney Rock Road. Approved by Zoning Commission February 14, 2005. Effective February 25, 2005.

N
1" = 500'
SHEET
281



**PUBLIC HEARING
ZONING COMMISSION
FEB. 14, 2005**

**REQUESTED SPECIAL USE PERMIT
FOR A REFUSE AND RAW MATERIALS
TRANSFER POINT 2.528 ACRES (1)**

Section 2. That the issuance of a Special Use Permit is hereby authorized subject to the following conditions:

- 1) Access will be shared with adjacent property to the east.
- 2) Maximum building size will be 7,000 square feet.
- 3) There will be an on-site facility for watershed compliance.

**AMENDING OFFICIAL ZONING MAP AND
AUTHORIZING ISSUANCE OF SPECIAL USE PERMIT**

SOUTH OF BURNT POPLAR ROAD WEST OF SOUTH CHIMNEY ROCK ROAD

BE IT ORDAINED BY THE ZONING COMMISSION OF THE CITY OF GREENSBORO:

Section 1. The Official Zoning Map is hereby amended by the issuance of a Special Use Permit authorizing use of the property described below for a Refuse and Raw Materials Transfer Point in a Heavy Industrial District (subject to those conditions and limitations as set forth in Section 2, 3, and 4 of this ordinance):

BEGINNING at a point in the line of Truckworks LTD, LLC as recorded in Deed Book 4484, Page 1970 in the Office of the Guilford County Register of Deeds, thence S55°47'24"E 68.37 feet to a point; thence S11°46'43"W 413.94 feet to a point; thence N78°13'17"W 250.13 feet to a point; thence N10°20'10"E 418.26 feet to a point; thence S85°24'40"E 200.45 feet to the point and place of BEGINNING, containing approximately 2.53 acres as shown on "Construction and Demolition Recycling Facility Hilltop Properties, LLC" prepared by Borum, Wade and Associates and dated January 5, 2005.

Section 2. That the issuance of a Special Use Permit is hereby authorized subject to the following conditions:

- 1) Access will be shared with adjacent property to the east.
- 2) Maximum building size will be 7,000 square feet.
- 3) There will be an on-site facility for watershed compliance.

Section 3. For use as a Refuse and Raw Materials Transfer Point, this property will be perpetually bound and subject to the conditions imposed in Section 2, unless subsequently changed or amended, or until such time as this Special Use Permit shall expire or the permitted activity shall be discontinued, as provided for in Chapter 30 of the Greensboro Code of Ordinances. Final plans for any development to be made pursuant to this Special Use Permit shall be submitted to the Technical Review Committee for approval.

Section 4. Any violations of, or failure to accept, any conditions and limitations imposed herein shall be subject to the remedies provided in Chapter 30 of the Greensboro Code of Ordinances.

Section 5. This ordinance shall be effective on February 25, 2005.



July 17, 2006

L. James Blackwood, II, Esq.
Tuggle Duggins & Meschan, P.A.
100 N. Greene Street, Suite 600
Greensboro, NC 27401

RE: Purchase of land from Hilltop Properties, LLC

Dear Jim:

Enclosed please find two (2) originals of the Agreement for Purchase and Sale of Real Property by and between WCA Waste Corporation and Hilltop Properties, LLC, each of which is signed by Jerry Kruszka as President of WCA Waste Corporation.

Please have each original executed by D.H. and return one fully executed original to me. I look forward to receiving the Memorandum of Option to Purchase from you at your earliest convenience.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Menger", is written over the typed name below.

J. Edward Menger
Vice President and
General Counsel

Encls.

TUGGLE DUGGINS

ATTORNEYS AT LAW

L. James Blackwood, II
Telephone: (336) 378-1431
Direct Line: (336) 271-5211
lblackwood@tuggleduggins.com

August 10, 2006

VIA FEDEX

Mr. J. Edward Menger
Vice President and General Counsel
WCA Waste Corporation
One Riverway, Suite 1400
Houston, TX 77056

Re: Burnt Poplar Road Transfer Station Real Estate Purchase Agreement with
Hilltop Properties, LLC

Dear Ed:

Concerning the above, enclosed please find an original of the Agreement for Purchase together with Addendums thereto which have been duly executed by D. H. Griffin, Sr., as Manager of Hilltop Properties. Now that this has been executed, I will prepare and forward to you for comment and execution a proposed Memorandum of Option to Purchase which can be subsequently recorded in the Register of Deeds.

Also, for your information, I have spoken with the surveyor who has been in touch with the Engineer David Garrett working on the permitting process and plat layout for the property. In connection therewith, please advise to whom I should forward for review at WCA preliminary plats that will have been tentatively reviewed for acceptance by the City of Greensboro Departments.

Very truly yours,

TUGGLE DUGGINS & MESCHAN, P.A.

L. James Blackwood, II

LJB/b

Enclosure

cc: D. H. Griffin, Sr.

Tuggle Duggins
& Meschan, P.A.
Attorneys at Law

Mailing Address
P.O. Box 2888
Greensboro, NC 27402

Offices
100 N. Greene St., Suite 600
Greensboro, NC 27401

Phone 336.378.1431
Fax 336.274.6590
www.tuggleduggins.com

**AGREEMENT FOR PURCHASE AND SALE
OF REAL PROPERTY**

THIS AGREEMENT made this _____ day of April, 2006, by and between
WCA Waste Corporation ("Buyer"), and
HILLTOP PROPERTIES, LLC ("Seller").

FOR AND IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH HEREIN AND OTHER GOOD AND VALUABLE CONSIDERATION, THE RECEIPT AND SUFFICIENCY OF WHICH ARE HEREBY ACKNOWLEDGED, THE PARTIES HERETO AGREE AS FOLLOWS:

Section 1. Terms and Definitions: The terms listed below shall have the respective meaning given them as set forth adjacent to each term.

- (a) **"Property":** (Address) Portion of the property known as 6311 Burnt Poplar Road, Greensboro, North Carolina as defined in
(Legal Description/Description) Exhibit A and B attached hereto.

If this box is checked, "Property" shall mean that property described on Exhibit A attached hereto and incorporated herewith by reference as if fully set forth herein, together with all buildings and improvements thereon and all fixtures and appurtenances thereto and all personal property, if any, itemized on Exhibit A.

§ See Exhibit B (b) **"Purchase Price"** shall mean the sum of See Exhibit B attached

_____ Dollars,
payable on the following terms:
\$ -0- (i) **"Earnest Money"** shall mean None Dollars
or terms as follows: None

Upon acceptance of this contract, the Earnest Money shall be promptly deposited in escrow with N/A (name of person/entity with whom deposited), to be applied as part payment of the purchase price of the Property at the time sale is closed, or disbursed as agreed upon under the provisions of Section 9 herein.

THE EARNEST MONEY IS TO BE DEPOSITED IN AN INTEREST BEARING ACCOUNT, TO BE APPLIED AS PART PAYMENT OF THE PURCHASE PRICE OF THE PROPERTY AT THE TIME SALE IS CLOSED, OR DISBURSED AS AGREED UPON UNDER THE PROVISIONS OF SECTION 9 HEREIN.



\$ -0-

(ii) Proceeds of a new Loan in the amount of N/A

Dollars for a term of N/A years, at an interest rate not to exceed N/A % per annum with mortgage loan discount points not to exceed N/A % of the loan amount; Buyer shall pay all costs associated with any such loan.

\$ -0-

(iii) Delivery of a promissory note secured by a deed of trust, said promissory note in the amount of N/A

Dollars being payable over N/A months in equal monthly installments of principal, together with accrued interest on the outstanding principal balance at the rate of N/A percent (N/A %) per annum, with the first principal payment beginning on the first day of the month next succeeding the date of Closing. At any time, the promissory note may be prepaid in whole or in part without penalty and without further interest on the amounts prepaid from the date of such prepayment. A partial prepayment will be credited against the next installment of principal due. In the event of Buyer's subsequent default upon a promissory note and deed of trust given hereunder, Seller's remedies will be limited to foreclosure of the property.

\$ -0-

(iv) Assumption of that unpaid obligation of Seller secured by a deed of trust on the Property, such obligation having an outstanding principal balance of \$

-0- and evidenced by a note bearing interest at the rate of -0- percent (-0- %) per annum, or -0-

See Exhibit B (v) Cash at closing in the amount of See Exhibit B Dollars, balance of Purchase Price.

(c) "Closing" shall occur on or before See Exhibit B, or _____

(d) "Broker(s)" shall mean:
None _____ ("Listing Agency"),
None _____ ("Listing Agent")
Acting as: Seller's Agent; Dual Agent
and None _____ ("Selling Agency"),
None _____ ("Selling Agent").
Acting as: Buyer's Agent; Seller's (Sub) Agent; Dual Agent

(e) "Examination Period" shall mean the period beginning on the date hereof and extending through _____, or See Exhibit B

(f) "Intended Use" shall mean the use of the Property for the following purpose: _____
See Exhibit B attached

(g) "Seller's Notice Address" shall be as follows:
Hilltop Properties, LLC
c/o D. H. Griffin, Sr.
4700 Hilltop Road, Greensboro, N.C. 27407
except as same may be changed pursuant to Section 10.

(h) "Buyer's Notice Address" shall be as follows:
WCA Waste Corporation
c/o Ed Menger - Vice President
One Riverway, Suite 1400, Houston, Texas 77056
except as same may be changed pursuant to Section 10.

(i) If this block is marked, additional terms of this Agreement are set forth on Exhibit B attached hereto and incorporated herein by reference.

Section 2. Proration of Expenses and Payment of Costs: Seller and Buyer agree that all property taxes, leases, rents, mortgage payments and utilities or any other assumed liabilities as detailed on attached Exhibit B, if any, shall be prorated as of the date of Closing. Seller shall pay deed stamps and other conveyance fees or taxes, and Buyer shall pay recording costs, costs of any title search, title insurance, survey and
See Exhibit B attached

Section 3. Sale of Property: Seller agrees to sell the Property for the Purchase Price set forth on page 1.

Section 4. Payment of Purchase Price: Buyer shall pay the Purchase Price in accordance with all the terms and conditions of this contract.

Section 5. Title: Seller agrees to convey fee simple marketable title to the Property by general warranty deed, subject only to the exceptions hereinafter described. Seller represents and warrants that Seller is the fee simple owner of the Property, and at Closing, Seller shall deliver to Buyer good and marketable fee simple title to said Property, free and clear of all liens, encumbrances and defects of title other than zoning ordinances affecting the Property, utility easements of record serving the Property, taxes not yet due and payable, road rights-of-way of record and those other encumbrances, reservations, restrictions and easements and other exceptions set forth on Exhibit C attached hereto ("Permitted Exceptions").

Section 6. Conditions: This Agreement and the rights and obligations of the parties under this Agreement are hereby made expressly conditioned upon fulfillment (or waiver by Buyer) of the following conditions:

(a) **New Loan:** The Buyer must be able to obtain the loan, if any, referenced in Section 1(b)(ii). Buyer must be able to obtain a firm commitment for this loan on or before N/A, effective through the date of closing. Buyer agrees to use its best efforts to secure such commitment and to advise Seller immediately upon receipt of lender's decision.

(b) Qualification for Financing: If Buyer is to assume any indebtedness in connection with payment of the Purchase Price, Buyer agrees to use its best efforts to qualify for the assumption. Should Buyer fail to qualify, Buyer shall notify Seller in writing immediately upon lender's decision, whereupon this Agreement shall terminate, and Buyer shall receive a return of Earnest Money.

(c) Title Examination: After the date of execution of this Agreement by Seller, Buyer shall, at Buyer's expense, cause a title examination to be made of the Property before the end of the Examination Period, as defined in Section 1(e). In the event that such title examination shall show that Seller's title is not good, marketable, fee simple and insurable, then the Buyer shall immediately notify the Seller in writing of all such title defects and exceptions, as of the date Buyer learns of the title defects, and Seller shall have thirty (30) days to cure said noticed defects. If Seller does not cure the defects or objections within thirty (30) days of notice thereof, the Buyer may terminate this Agreement and receive a return of Earnest Money (notwithstanding that the Examination Period may have expired). If Buyer is to purchase title insurance, the insuring company must be licensed to do business in the state in which the property is located. Title to the Property must be insurable at regular rates, subject only to standard exceptions and Permitted Exceptions.

(d) Intended Use: Seller represents and warrants that, to the best of Seller's knowledge, use of the Property for its Intended Use will not violate any private restrictions or governmental regulations. If Buyer determines, prior to the date of Closing, that use of the Property for its Intended Use will violate any such private restrictions or governmental regulations, then Buyer may terminate the Agreement by written notice and receive a return of the Earnest Money, and neither party shall then have any further obligations in connection with this Agreement.

(e) Same Condition: If the Property is not in substantially the same condition as of the date of the offer, reasonable wear and tear excepted, then the Buyer may terminate the Agreement and receive a return of the Earnest Money.

(f) Inspections: Buyer, its agents or representatives, at Buyer's expense and at reasonable times during normal business hours, shall have the right to enter upon the Property for the purpose of inspecting, examining, performing soil boring and other testing, conducting timber cruises, and surveying the Property. Buyer shall also have a right to review and inspect all leases, contracts or other agreements affecting or related directly to the Property and shall be entitled to review such books and records of Seller as relate directly to the operation and maintenance of the Property. Buyer assumes all responsibility for the acts of itself, its agents or representatives in exercising its rights under this Paragraph and agrees to indemnify and hold Seller harmless from any damages resulting therefrom. Except as provided in Section 6(c) above, Buyer shall have from the date of acceptance through the end of the Examination Period to perform the above inspections, examinations and testing to determine if the Property is suitable for the Intended Use. If, prior to the expiration of the Examination Period, Buyer determines that the Property is unsuitable, in Buyer's sole discretion, and provides written notice to Seller thereof, then this Agreement shall terminate, and Buyer shall receive a return of the Earnest Money.

Section 7. Environmental: Seller represents and warrants that it has no actual knowledge of the presence or disposal within the buildings or on the Property of hazardous or toxic waste or substances, which are defined as those substances, materials, and wastes, including but not limited to, those substances, materials and wastes listed in those substances, materials, and wastes, including but not limited to, those substances, materials and wastes listed in the United States Department of Transportation Hazardous Materials Table (49 CFR 172.101) or by the Environmental Protection Agency as hazardous substances (40 CFR Part 302) and amendments thereto, or such substances, materials and wastes, which are or become regulated under any applicable local, state or federal law, including, without limitation, any material, waste or substance which is (i) petroleum, (ii) asbestos, (iii) polychlorinated biphenyls, (iv) designated as a Hazardous Substance pursuant to Section 331 of the Clean Water Act, 33 U.S.C. Sec. 1251, et. seq. (33 U.S.C. 1321) or listed pursuant to Section 307 of the Clean Water Act (33 U.S.C. Sec. 1371) (v) defined as a hazardous waste pursuant to Section 1004 of the Resource Conservation and Recovery Act, 42 U.S.C. Sec. 6901, et. seq. (42 U.S.C. Sec. 6903) or (vi) defined as a hazardous substance pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Sec. 9601, et. seq. (42 U.S.C. 9601). Seller further states that it has no actual knowledge of any contamination of the Property from such substances as may have been disposed of or stored on neighboring tracts, and it has no reason to suspect that such use or disposal has occurred, either during or prior to its ownership of the Property.

Section 8. Risk of Loss/Damage/Repair: Until the Closing, the risk of loss or damage to the Property, except as otherwise provided herein, shall be borne by Seller. In the event the Property is damaged so that the Property cannot be conveyed in substantially the same condition as it was prior to Closing, Buyer may elect to terminate this Agreement, and the Earnest Money shall be returned to the Buyer. Except as to maintaining the Property in its same condition, Seller shall have no responsibility for the repair of the Property, including any improvements, unless the parties hereto agree in writing.

Section 9. Earnest Money Disbursement: In the event this offer is not accepted, or in the event that any of the conditions hereto are not satisfied, or in the event of a breach of this Agreement by Seller, then the Earnest Money shall be returned to Buyer, but such return shall not affect any other remedies available to Buyer for such breach. In the event this offer is accepted and Buyer breaches this Agreement, then the Earnest Money shall be forfeited, but such forfeiture shall not affect any other remedies available to Seller for such breach. NOTE: In the event of a dispute between Seller and Buyer over the return or forfeiture of Earnest Money held in escrow by a licensed real estate broker, the broker is required by state law to retain said Earnest Money in its trust or escrow account until it has obtained a written release from the parties consenting to its disposition or until disbursement is ordered by a court of competent jurisdiction.

Section 10. Closing: The Closing shall consist of the execution and delivery by Seller to Buyer of a General Warranty Deed and other documents customarily executed by a seller in similar transactions, including without limitation, an owner's affidavit, lien waiver forms and a non-foreign affidavit and the payment by Buyer to Seller of the Purchase Price in accordance with the terms of the Purchase Price. At Closing, the Earnest Money shall be applied as part of the Purchase Price or as otherwise provided in Section 1(b)(i). The Closing shall be held at the office of Buyer's attorney or such other place as the parties hereto may mutually agree. Possession shall be delivered at closing, unless otherwise agreed herein.

Section 11. Notices: Unless otherwise provided herein, all notices and other communications which may be or are required to be given or made by any party to the other in connection herewith shall be in writing and shall be deemed to have been properly given and received on the date delivered in person or deposited in the United States mail, registered or certified, return receipt requested, to the addresses set out in Section 1(g) as to Seller and in Section 1(h) as to Buyer, or at such other addresses as specified by written notice delivered in accordance herewith.

Section 12. Entire Agreement: This agreement constitutes the sole and entire agreement among the parties hereto and no modification of this Agreement shall be binding unless in writing and signed by all parties hereto.

Section 13. Adverse Information and Compliance with Laws:

(a) **Seller Knowledge:** Seller has no knowledge of (i) condemnation(s) affecting or contemplated with respect to the Property; (ii) actions, suits or proceedings pending or threatened against the Property; (iii) changes contemplated in any applicable laws, ordinances or restrictions affecting the Property; or (iv) governmental special assessments, either pending or confirmed, for sidewalk, paving, water, sewer, or other improvements on or adjoining the Property, and no owners' association special assessments, except as follows: See Exhibit B
regarding use

(Insert "None" or the identification of such assessments, if any). Seller shall pay all confirmed owners' association assessments and all confirmed governmental assessments, if any, and Buyer shall take title subject to all pending assessments, if any, unless otherwise agreed as follows: None

(b) **Compliance:** To the best of Seller's knowledge and belief, (i) Seller has complied with all applicable laws, ordinances, regulations, statutes, rules and restrictions pertaining to or affecting the Property; (ii) performance of the Agreement will not result in the breach of, constitute any default under or result in the imposition of any lien or encumbrance upon the Property under any agreement or other instrument to which Seller is a party or by which Seller or the Property is bound; and (iii) there are no legal actions, suits or other legal or administrative proceedings pending or threatened against the Property, and Seller is not aware of any facts which might result in any such action, suit or other proceeding.

Section 14. Survival of Representations and Warranties: All representations, warranties, covenants and agreements made by the parties hereto shall survive the Closing and delivery of the deed. Seller shall, at or within six (6) months after the Closing, and without further consideration, execute, acknowledge and deliver to Buyer such other documents and instruments, and take such other action as Buyer may reasonably request or as may be necessary to more effectively transfer to Buyer the Property described herein in accordance with this Agreement.

Section 15. Applicable Law: This Agreement shall be construed under the laws of the state in which the Property is located.

Section 16. Tax-Deferred Exchange: In the event Buyer or Seller desires to effect a tax-deferred exchange in connection with the conveyance of the Property, Buyer and Seller agree to cooperate in effecting such exchange; provided, however, that the exchanging party shall be responsible for all additional costs associated with such exchange, and provided further, that a non-exchanging party shall not assume any additional liability with respect to such tax-deferred exchange. Seller and Buyer shall execute such additional documents, at no cost to the non-exchanging party, as shall be required to give effect to this provision.

THIS DOCUMENT IS A LEGAL DOCUMENT. EXECUTION OF THIS DOCUMENT HAS LEGAL CONSEQUENCES THAT COULD BE ENFORCEABLE IN A COURT OF LAW. THE NORTH CAROLINA ASSOCIATION OF REALTORS® MAKES NO REPRESENTATIONS CONCERNING THE LEGAL SUFFICIENCY, LEGAL EFFECT OR TAX CONSEQUENCES OF THIS DOCUMENT OR THE TRANSACTION TO WHICH IT RELATES. IF YOU DO NOT FEEL THIS DOCUMENT MEETS YOUR NEEDS, YOU MAY WISH TO CONSULT YOUR ATTORNEY.

BUYER:

SELLER:

Individual

Individual

_____(SEAL)

_____(SEAL)

Date: _____

Date: _____

_____(SEAL)

_____(SEAL)

Date: _____

Date: _____

Business Entity

Business Entity

WCA WASTE CORPORATION
(Name of Firm)

HILLTOP PROPERTIES, LLC
(Name of Firm)

By: [Signature] (SEAL)

By: [Signature] (SEAL)

Title: President

Title: Manager

Date: 7-14-05

Date: _____

The undersigned hereby acknowledges receipt of the Earnest Money set forth herein and agrees to hold said Earnest Money in accordance with the terms hereof.

N/A _____
(Name of Firm)

Date: N/A

By: N/A

EXHIBIT A

PROPERTY DESCRIPTION

The property to be conveyed is a portion of that property generally known as 6311 Burnt Poplar Road, Greensboro, North Carolina, Guilford County Tax Map #: 94-7031;959;10, said property further being all of the property that was conveyed to Seller by certain Deed recorded in Book 6058, Page 991, Guilford County Public Registry, SAVE AND EXCEPT therefrom certain portion of the same leased for an asphalt plat to Sharpe Hot Mix, LLC but subject to adjustment as herein provided. The property heretofore leased to Sharp Hot Mix, LLC as an asphalt plant will be reduced in area and will be further be subject to an Access and Utility Easement sufficient with two-way traffic from Burnt Poplar Road to the property being purchased under this Agreement and further including the northwestern corner of the property heretofore leased for the asphalt plant, the overall property owned by owner as subdivided for the Transfer Station to be sold to Buyer and the other portion to be retained for the asphalt plat are further delineated on attached Schedule 1 "Site Plan" prepared by David Garrett, PG, PE with the property being conveyed under this Agreement being that property designated as the property indicted as Lot 1 including 0.417 acres cross-hatched in the northwestern corner of the prior leased portion to be added to the same and together with the Access and Utility Easement from the Transfer Station lot across the Lot 1 asphalt plant to the public access on Burnt Poplar Road, all of the same being subject to final preparation of survey and approval of plat for the same by the City of Greensboro setting forth the subdivision of the land as shown on attached Schedule 1.

The property to be purchased is further shown on attached Schedule 1, survey by CPT Engineering and Surveying, Inc., and being the western portion of the tract outside of the leased tract delineated on said survey as the Asphalt Plant and said tract further being tract shown on attached. It is further understood and agreed that at Seller's expense the property to be conveyed will be subject to survey and will be that property as heretofore stated together with non-exclusive right of access from said property across the leased property of Sharpe Hot Mix, LLC to the public right-of-way of Burnt Poplar Road.

EXHIBIT B

**ADDENDUM TO AGREEMENT FOR PURCHASE AND SALE OF REAL PROPERTY;
BETWEEN WCA WASTE CORPORATION AS BUYER AND
HILLTOP PROPERTIES, LLC AS SELLER**

1. Buyer and Seller agree that the property being sold is approximately eight (8) acres representing approximately half of the total acreage Seller purchased under the Deed described in Exhibit A and being that portion other than the portion described in Exhibit A leased to Sharpe Hot Mix, together with access and utility rights across the leased premises to Burnt Poplar Road. The final acreage description will be determined by survey at Seller's expense which is acceptable to both Buyer and Seller and further delineates legally described Access and Utility Easement from the property to Burnt Poplar Road.
2. The purchase price Buyer shall pay to Seller at closing as hereafter defined shall be the acreage as determined by the survey times Seventy Five Thousand Dollars (\$75,000.00) per acre, all of said amount due and payable in cash or other readily available funds acceptable to Seller at time of closing.
3. Seller and Buyer acknowledge that Seller has been in the process and has obtained a Special Use permit for a Transfer Station and proceeding with the process of having the same approved by all of the appropriate governmental entities including agencies of the State of North Carolina. Costs and expenses of such approval process shall be at Seller's expense.
4. Buyer's intended use is for a Transfer Station as and in the manner stated in the previous paragraph of which Seller is in the process of having permitted. Seller agrees upon closing to transfer and assign to Buyer all necessary permits including Permit to Construct and to provide Buyer with any and all appropriate documents and reports relating to the Permit as it applies to such Transfer Station. In the event Seller is unsuccessful in obtaining a Permit to Construct from the State of North Carolina for the Transfer Station then the parties agree that all terms and provisions relating to Buyer's purchase of this property will terminate and be no longer of any force and effect.
5. The parties contemplate that the time period for Seller to obtain the Permit to Construct is indefinite and may be many months away. Buyer and Seller agree that closing for the purchase under this Agreement by Buyer from Seller shall occur within forty-five (45) days of Seller obtaining a non-appealable Permit to Construct.
6. All rights of examination and inspection provided in this Agreement to Buyer shall continue until closing. All costs and expenses of inspection or title examination by Buyer shall be at Buyer's expense. Buyer further agrees that in conducting any inspections or examinations of the property that it agrees to indemnify and hold harmless Seller as a result of any injury or damage to the property arising out of said inspections or examinations and to further repair the same at its cost.

7. Buyer shall have the right to assign its rights and obligations under this Agreement to a company to be formed or to another legal entity of Buyer so long as Buyer remains the principal owner and in control over the same.

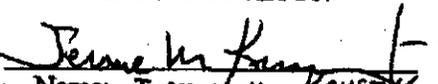
8. The parties agree that upon execution of this Agreement to execute a Memorandum of Option to Purchase in accordance with North Carolina General Statutes §47-119.

9. Buyer and Seller further agree and acknowledge that the terms and provisions contained in the preprinted Agreement for Purchase and Sale Paragraph 7 Environmental is hereby modified and amended to provide that the overall property owned by Seller which was deeded to it by Marathon Ashland was the subject of prior petroleum incident and corrective action taken by Marathon Ashland and clean-up the same and to the extent that any further corrective action is required the Deed into Seller from Marathon Ashland reserves Marathon Ashland's rights to enter upon the property to perform the same. Other than matters related to Marathon Ashland's corrective action which has been performed by it, Seller otherwise represents and reiterates as its warranty the terms and provisions of Section 7 of the Agreement for Purchase.

10. To the extent of any conflict between the terms and provisions of this Exhibit B Addendum and the standard terms of the Agreement for Purchase and the terms and provisions set forth in this Exhibit B Addendum shall control.

BUYER:

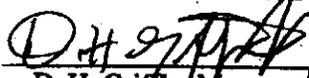
WCA WASTE CORPORATION

By: 
Name: Terence M. KRUSZKA
Title: Pres.

SELLER:

HILLTOP PROPERTIES, LLC

WCA WASTE CORPORATION

By:  (SEAL)
D. H. Griffin/Manager

**Certification by Land Owner
For Permitting a Solid Waste Management Facility**

I hereby certify that I have read and understand the application submitted by WCA Waste Systems, Inc. and MRR Southern, LLC for a permit to operate a solid waste management transfer station for construction and demolition waste on land owned by the undersigned: Hilltop Properties, LLC, located at (address): 6313 Burnt Poplar Road; (city) Greensboro, NC, in Guilford County, and described in Deed Book and Page(s): 6058 / 991.

I specifically grant permission for the proposed solid waste management transfer station for the management of Construction and Demolition Waste planned for operation within the confines of Building(s)/Property existing and/or to be built on the land, as indicated in the permit application. I understand that any permit will be issued in the names of both the operator(s) and the owner(s) 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.

Hilltop Properties, LLC
Corporation Name (Print)

4/2/08
Date

(Corporate Seal)

Attest: Christy J. Roof

Corporate Secretary Name (Print)

D.H. GRIFFIN SR.
President or Vice-President Name (Print)

Corporate Secretary Signature

D.H. Griffin Sr.
President or Vice-President Signature

NORTH CAROLINA
Wake County

I, Angela A. Jones, Notary Public for said County and State, do hereby certify that

D.H. Griffin, Sr. personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this 2 day of April (month), 2008 (year).

(Official Seal)



Angela A. Jones
Notary Public

5-18-2008
My Commission Expires (Date)



D.H. GRIFFIN WRECKING CO., INC

March 31, 2008

Mr. Vernon Smith
WCA
40 Estes Plant Rd
Piedmont, SC 29673

Dear Mr. Smith,

Thank you for your most recent visit; it was a pleasure to see you again.

Per our conversation, please accept this correspondence as acknowledgement that DH Griffin Wrecking Co., Inc. will certainly market/purchase all of your ferrous and non-ferrous metals produced from your proposed C&D facility to be located at 6313 Burnt Poplar Road in Greensboro, as well as any old corrugated cardboard (OCC), and aggregates.

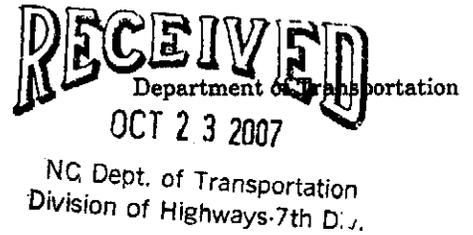
As we currently service your WCA High Point reclamation site, we look forward to working with you in Greensboro.

Should you have any questions, please do not hesitate to contact myself or my office.

Regards,

DH Griffin, Sr.

A handwritten signature in black ink, appearing to read "DH Griffin, Sr.", with a stylized flourish at the end.



October 22, 2007

Mike Mills, P.E.
Division Engineer
NCDOT
PO Box 14996
Greensboro, NC 27415

Subject: City of Greensboro Traffic Review - Proposed C&D Transfer Station at
6311 Burnt Poplar Road (SR 1556)

Mike,

I am in receipt of your October 18, 2007 memo requesting our traffic review of the proposed C&D transfer station to be located at 6311 Burnt Poplar Road (SR 1556).

The subject proposed site/plan was reviewed and received approval from the City of Greensboro TRC and City of Greensboro DOT back in 2006.

Therefore and based on our previous review of the site/area, the proposed C&D transfer station use, and low traffic generation, we find the proposed facility will not have a substantial impact on highway traffic.

Please advise if you have questions or other needs.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Westmoreland".

Jim Westmoreland, P.E.
Director of Transportation



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

October 24, 2007

Mr. Chris Roof
MRR Southern
431 Raleigh View Road
Raleigh, NC 27610

Dear Mr. Roof:

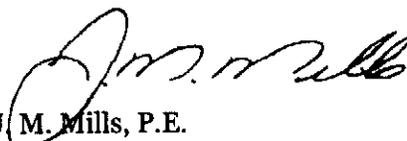
Thank you for the information concerning the proposed construction and demolition transfer station to be located at 6311 Burnt Poplar Road.

Since this road is on the City of Greensboro's street system, I have requested Mr. Jim Westmoreland, P.E., Director of Transportation, to also review this information.

Therefore, please find a copy of Jim Westmoreland's letter and also my certification, that based on the information provided, this proposed transfer station will not have a substantial impact on highway traffic.

If you need any additional information, please do not hesitate to contact this office.

Sincerely,



J. M. Mills, P.E.
Division Engineer

JMM/jm
Atta.

cc: Mr. Jim Westmoreland
Mr. Lane Hall



Appendix 2

Waste Screening and Inspection Program

WASTE SCREENING AND INSPECTION PROGRAM
BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION

1.0 INTRODUCTION

This prohibited waste exclusion program is designed to prevent prohibited wastes from entering the transfer station and designated landfill. Prohibited wastes include regulated hazardous wastes, regulated PCB wastes, and other wastes prohibited by state or local regulations or permit conditions. *The Facility managers have decided to not accept asbestos wastes.*

For the purposes of this section, regulated hazardous waste means a solid waste that is a hazardous waste as defined in 40 CFR 261. 3, that is not excluded from regulation as a hazardous waste under 40 CFR 261.4 (b) or was not generated by a conditionally exempt generator.

Personnel shall be trained in recognition of hazardous and otherwise prohibited wastes, and procedures for accepting or rejecting wastes shall be implemented.

2.0 PROHIBITED WASTES

This transfer station is allowed to receive inert wastes classified as Construction and Demolition (C&D) wastes.

The transfer station shall not accept the following:

- municipal/commercial solid wastes and household waste
- regulated hazardous wastes
- special wastes
- PCB wastes
- other prohibited wastes

2.1 REGULATED HAZARDOUS WASTE

Regulated hazardous waste must be disposed of or treated at a permitted hazardous waste disposal/treatment facility. **Any material contaminated by a hazardous waste is also deemed to be a hazardous waste.** RCRA permits are required to store, transport, and treat hazardous waste.

The USEPA has given exemptions from storage, transport, and disposal requirements to certain generators based on source and quantities. All hazardous waste generated by households during their normal course of activities is exempt from regulation. Regulated generators must notify the EPA that they generate hazardous waste and receive an identification number from EPA or an authorized state agency.

2.2 PCB WASTES

No PCB wastes shall be accepted at the facility.

2.3 EXAMPLES OF OTHER PROHIBITED WASTES

WASTE	BASIS OF PROHIBITION
Radioactive Wastes	Nuclear Regulatory Commission regulations
Bulk Liquids	RCRA Subtitle D (40 CFR 258.28)
Medical Wastes (infectious)	State Solid Waste Regulations
Whole Tires	State Solid Waste Regulations

3.0 LOAD INSPECTION PROGRAM

The purpose of the load inspection program is to detect prohibited wastes and discourage attempts to handle them at the transfer station.

3.1 INITIAL PROCEDURES ON THE TIPPING AREA

The initial step in the inspection program is to review incoming loads in the tipping area. The operator will observe incoming loads for any indication of the presence of prohibited wastes. Should the operator encounter suspicious-looking loads, they will summon appropriate personnel for further evaluation of the load. If prohibited wastes are identified during inspection of a load, the prohibited load will be reloaded, rejected and sent back to the generator.

3.2 WASTE SCREENING SCHEDULE AND DOCUMENTATION

A waste screening form follows this text (**Appendix 2A**); this (or a similar form) shall be used for random load inspections and for documentation of rejected waste loads. The inspections are to be conducted on a random basis, at a minimum of **twice per day**, including (but not limited to) any suspicious load (e.g., that which might contain prohibited or unauthorized wastes).

3.2 LOAD INSPECTION PROCEDURES

The major elements of load inspections are:

- spread, break up, and visually examine wastes
- flag suspicious wastes
- maintain proper records

The origin of all loads is identified prior to proceeding onto the scales and tipping floor. All load inspections are performed at the tipping floor. The Transfer Station Manager will train transfer station operations employees in waste identification procedures.

4.0 PROHIBITED OR UNAUTHORIZED WASTES

4.1 IDENTIFYING PROHIBITED WASTES

- Questioning the driver about the source of the load and the nature of generators.
- Examining product labels, especially warning labels.
- Rejecting bulk liquids in containers and sludges.
- Separating powders, granular material or materials with unusual colors for evaluation and possible rejection.
- Inspecting containers to ensure that they are empty or do not contain prohibited wastes.
- Inspecting for “hot loads” (smoldering or burning materials) emitting fumes or vapors.
- Evaluating the load for odors that are not characteristic of C&D waste.
- **Inspectors should never inhale vapors from suspicious materials or containers because this may lead to injury or death.**
- Searching for special items that have a high probability of containing prohibited waste:
 - transformers
 - batteries
 - filters
 - compressors (freon)
 - mechanical equipment (capacitors)
 - red bags (medical waste)
 - bags that may contain asbestos (without prior notification to the operator)
 - obvious prohibited wastes such as tires, etc.

4.2 MANAGING PROHIBITED WASTES

The results of the load inspection will identify wastes as:

- Acceptable
- Prohibited

Acceptable waste can be moved from the tipping area to the transport trailer. The area should be cleaned to the extent that materials from this inspection do not impact the next load to be inspected.

Prohibited wastes detected during the inspection shall be prevented from being unloaded (if possible) and/or reloaded onto the delivery vehicle (if safe to do so) – in such cases the driver shall be advised of the hazardous waste contingency plan (see below). A contingency plan for removal/clean-up of hazardous, liquid or other unacceptable waste follows.

Refer to the **HAZARDOUS WASTE CONTINGENCY PLAN (Appendix 3)**.

5.0 TRAINING

The management staff, equipment operators, and scale house staff will be trained in the contents of this plan. Training will address the following topics:

- Inspection of tipping area and load inspection procedures.
- Identification of hazardous wastes, PCB wastes and other prohibited wastes.
- Waste handling procedures (acceptable and prohibited wastes).
- Health and safety.
- Record keeping.

6.0 RECORD KEEPING

Records of all incoming waste should be kept by the facility – at a minimum, the date, tonnage, material type and hauler should be recorded.

If prohibited wastes are detected requiring notification of haulers and/or regulatory agencies, records of time of notification, the agency and individuals contacted with phone numbers, and the information that was reported.

Records documenting the successful completion of training will be maintained on-site.

Random waste screening forms and hazardous waste records.

Appendix 2A
Waste Screening Form

WASTE SCREENING FORM

Facility I.D.
Permit No.

Day / Date: _____

Time Weighed in: _____

Truck Owner: _____

Driver Name: _____

Truck Type: _____

Vehicle ID/Tag No: _____

Weight: _____

Tare: _____

Waste Generator / Source: _____

Inspection Location: _____

Reason Load Inspected:	Random Inspection	_____	Staff Initials	_____
	Detained at Scales	_____	Staff Initials	_____
	Detained by Field Staff	_____	Staff Initials	_____

Description of Load: _____

Approved Waste Determination Form Present? (Check one) Yes _____ No _____ N/A _____

Load Accepted (signature) _____ Date _____

Load Not Accepted (signature) _____ Date _____

Reason Load Not Accepted (complete below only if load not accepted) _____

Description of Suspicious Contents: Color _____ Haz. Waste Markings _____
 Texture _____ Odor/Fumes _____
 Drums Present _____ Other _____
 (describe) _____

Est. Cu. Yds. Present in Load _____

Est. Tons Present in Load _____

Identified Hazardous Materials Present: _____

County Emergency Management Authority Contacted? Yes _____ No _____

Generator Authority Contacted? _____

Hauler Notified (check if waste not accepted)? _____ Phone _____ Time Contacted _____

Final Disposition of Load _____

Signed _____ Date _____
Solid Waste Director

Attach related correspondence to this form. File completed form in Operating Record.

Appendix 3

Hazardous Waste Contingency Plan

HAZARDOUS WASTE CONTINGENCY PLAN
BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION

1.0 HOT LOADS CONTINGENCY PLAN

In the event of a "hot" load attempting to enter the facility, the scale house staff will turn away all trucks containing waste that is suspected to be hot, unless there is imminent danger to the driver, in which case the situation will be treated as a fire – the vehicle will be isolated away from structures and other traffic and the fire department will be called. The vehicle driver will be instructed unload – if safe to do so – and to move the vehicle to a safe location. Other traffic will be redirected to another portion of the tipping area (away from the fire), or other waste deliveries may be suspended until the fire is out. Facility staff may assist the fire department (at the scene manager's direction) by smothering the fire with dirt from an on-site stockpile. If the fire cannot be controlled, the fire department will be notified and the area cleared of non-essential personnel. Once the fire is out the waste shall be inspected in accordance to the Waste Screening Plan (**Appendix 2**) and, if the material is deemed acceptable under the waste acceptance criteria, it will be loaded into transport vehicles. If the material is not acceptable, it will be loaded back onto the delivery vehicle and sent to an appropriate landfill.

2.0 HAZARDOUS WASTE EMERGENCIES CONTINGENCY PLAN

In the event that an obvious hazardous waste is detected at the scales or on the tipping pad, appropriate steps shall be implemented to safeguard the staff and public. Hazardous waste identification may be based on (but not limited to) the detection of strong odors, fumes or vapors, unusual colors or appearance (e.g., liquids), smoke, flame, or excess dust. All waste receipts shall be suspended and non-essential personnel cleared from the facility. The fire department will be called immediately in the event a hazardous material is detected. The waste will not be allowed to unload if hazardous waste is detected in advance of unloading.

If unloaded waste is deemed to be hazardous, an attempt will be made to isolate the wastes in a designated area where runoff is controlled, and/or personnel will be cleared from the vicinity of the waste. Staff will act prudently to protect personnel, but no attempt will be made to remove the material until trained emergency personnel (fire department or haz-mat team) arrive. A partial listing of regional **Hazardous Waste Responders** and disposal firms is found in **Appendix 3A**. These firms have the training and equipment to deal with hazardous materials, as needed. The Division of Waste Management's list of "**Useful Agencies and Contacts**" is presented in **Appendix 3B**.

The Operator will notify the Division of Waste Management regional specialist that an attempt was made to dispose of hazardous waste at the facility. If the vehicle attempting disposal of such waste is known, attempts will be made to prevent that vehicle from leaving the site until it is identified (license tag, truck number driver and/or company information) or, if the vehicle leaves the site, immediate notice will be served on the owner of the vehicle that hazardous waste, for

which they have responsibility, has been disposed of at the facility. The cost of the removal and disposing of the hazardous waste may be charged to the owner of the vehicle involved. Any vehicle owner or operator who knowingly dumps hazardous waste in the landfill may be barred from using the facility and/or reported to law enforcement authorities.

3.0 NON-EMERGENCY HAZARDOUS WASTE CONTINGENCY PLAN

Some wastes that are considered as hazardous or otherwise prohibited from the facility – even those that do not constitute an emergency – may require special handling by licensed contractors. Such materials shall be prohibited from being unloaded, if possible, and the driver of the delivery vehicle made aware of options for legal disposal (addressed below). Some hazardous materials may be inadvertently unloaded at the facility and require the services of licensed contractors, who will be sought to dispose of the prohibited materials.

Appendices 3A and 3B, found immediately following this section, provide a list of specialty waste haulers (licensed contractors) and/or disposal sites, furnished on the NC DENR Division of Waste Management web site. These firms may be contacted to dispose of hazardous materials in non-emergency situations. If the materials are not unloaded from the delivery vehicle, the driver will be furnished with the list of Hazardous Waste Responders or “Useful Contacts”, and the owner of the vehicle will be responsible for appropriately disposing of the materials – this might involve isolating the vehicle on the premises until a licensed contractor can arrive, in which case steps shall be taken to prevent access by non-authorized personnel.

Should such materials be detected at the facility after unloading, the materials will be located to a holding area away from personnel and away from drainage ways, isolated to prevent contact with water or runoff (e.g., covering with tarps, surrounding the materials with absorbent booms or soil berms, as appropriate), and the appropriate licensed contractor contacted immediately. In either case (still loaded or unloaded), arrangements shall be made for the isolated materials to be removed as soon as possible.

4.0 RECORD KEEPING

State or EPA notification is required whenever a hazardous or PCB waste is detected. Records of these notifications will be kept and will include the date and time of notification, agency and individual contacted with phone numbers, and the information that was reported.

Any hazardous waste found at the facility that requires mitigation under this plan shall be documented by staff using the **Waste Screening Form** provided in **Appendix 2A**. Records of information gathered as part of the waste screening programs will be maintained throughout the operational life of the facility.

SPECIAL NOTE: The Operator of this facility is encouraged to keep a current list of Hazardous Waste Responders handy, as the firms and/or contact numbers may change over time.

Appendix 3A
Hazardous Waste Responders

HAZARDOUS WASTE CONTACTS

The following contacts were taken from the NC DENR Division of Waste Management web site in early 2007; the availability and local phone numbers should be verified before a emergency, or modify this list as needed. For more information see <http://www.wastenot.org/hwhome>.

EMERGENCY RESPONSE

Clean Harbours	Reidsville, NC	336-342-6106
GARCO, Inc.	Asheboro, NC	336-683-0911
Safety-Kleen	Reidsville, NC	800-334-5953

TRANSPORTERS

ECOFLO	Greensboro, NC	336-855-7925
GARCO, Inc.	Asheboro, NC	336-683-0911
Zebra Environmental Services	High Point, NC	336-841-5276

DISPOSAL AND LANDFILLS

ECOFLO	Greensboro, NC	336-855-7925
Safety-Kleen	Reidsville, NC	800-334-5953
Zebra Environmental Services	High Point, NC	336-841-5276

USED OIL AND ANTIFREEZE

3RC Resource Recovery	Winston-Salem, NC	336-784-4300
Carolina Environmental Associates	Burlington, NC	336-299-0058
Environmental Recycling Alternatives	High Point, NC	336-869-8785

FLUORESCENT HANDLERS

3RC Resource Recovery	Winston-Salem, NC	336-784-4300
Carolina Environmental Associates	Burlington, NC	336-299-0058
ECOFLO	Greensboro, NC	336-855-7925
GARCO, Inc.	Asheboro, NC	336-683-0911
Safety-Kleen	Reidsville, NC	800-334-5953

PCB DISPOSAL

ECOFLO	Greensboro, NC	336-855-7925
GARCO, Inc.	Asheboro, NC	336-683-0911
Zebra Environmental Services	High Point, NC	336-841-5276

Appendix 3B

Useful Agencies and Contacts

USEFUL AGENCIES and CONTACTS			
<p><u>Air Permits</u> NC Div. of Air Quality 919-733-3340</p>	<p>Indoor <u>Air Quality</u>, US EPA Info Hotline 1-800-438-4318</p>	<p><u>Asbestos</u> Environmental Epidemiology Mary Giguere 919-707-5950</p>	<p><u>Customer Call Center</u> DENR 1-877-623-6748</p>
<p><u>Drinking Water</u> Environmental Health Jessica Miles 919-715-3232</p>	<p>Safe <u>Drinking Water</u> US EPA 1-800-426-4791</p>	<p>Emergencies 24 hours <u>Emergency Management</u> 919-733-3300 919-733-9070 1-800-858-0368</p>	<p>Energy Division Hotline NC Commerce Dept. 1-800-662-7131</p>
<p><u>Environmental Education</u> Office of Env. Education 1-800-482-8724</p>	<p><u>Environmental Education</u> NC Cooperative Ext. Service NCSU 919-515-2770</p>	<p><u>Federal Register</u> RCRA/Superfund/UST 1-800-424-9346</p>	<p>Fluorescent Lights Green lights Hotline 202-775-6650 EPA Energy Star 1-888-782-7937</p>
<p>Freon US EPA Region 4 Pam McIlvane 404-562-9197</p>	<p><u>Groundwater</u> Division of Water Quality None Dedicated Soil Disposal Ted Bush 919-733-3221</p>	<p><u>Hazardous Waste</u> Hazardous Waste Section 919-508-8400</p>	<p><u>Household Hazardous Waste</u> Solid Waste Section Bill Patrakis 336-771-5091</p>
<p><u>Lab Certification</u> Water Quality Jim Meyer 919-733-3908 ext. 207</p>	<p>Land Farm Division of Water Quality David Goodrich 919-715-6162</p>	<p><u>Landfills</u> Solid Waste Section Division of Waste Management 919-508-8400</p>	<p>Lead Abatement Division of Public Health Jeff Dellinger 919-733-0668</p>
<p>Childhood <u>Lead Poisoning</u> Environmental Health Ed Norman 919-715-3293</p>	<p>National Lead Info. Center 1-800-LEAD-FYI 1-800-532-3394</p>	<p>Medical Waste Solid Waste Section Bill Patrakis 919-508-8512</p>	<p>Oil Pollution Aquifer Protection Section Debra Watts 919-715-6699</p>
<p>OSHA-Health Consultations NC Dept of Labor Roedreick Wilce 919-852-4379</p>	<p>OSHA Training & Outreach NC Dept. of Labor Joe Bailey 919-807-2891</p>	<p>Stratosphere <u>Ozone</u> US EPA Information Hot Line 1-800-296-1996</p>	<p>PCBs TSCA, EPA Region 4 Craig Brown 404-562-8980 TSCA Assistance Info. 202-554-1404</p>
<p><u>Pesticides Disposal</u> Assistance Program NC Dept. of Agriculture Hazardous Waste Royce Batts 919-715-9023</p>	<p>Pesticide Info. Hotline 1-800-858-7378</p>	<p>Petroleum Product Soil Disposal, UST Scott Ryals 919-733-8486</p>	<p><u>Pollution Prevention</u> & Environmental Assistance 919-715-6500 1-800-763-0136</p>

<p><u>Public Affairs</u>, DENR Diana Kees Acting Director 919-715-4112</p>	<p>Public Right to Know Employee Right to Know OSHA, Dept. of Labor Anthony Bonapart 919-807-2846</p>	<p><u>Radiation Materials</u> Radiation Protection Beverly Hall 919-571-4141</p>	<p><u>Recycling Markets Directory</u> What Can I do with it? 919-715-6500</p>
<p>Toxic Release Reporting Emergency Planning SARA Title III Richard Berman 919-733-1361 1-800-451-1403 (24 hours)</p>	<p><u>Run Off</u> Water Quality 919-733-5083</p>	<p><u>Safety Hotline</u> NC Dept. Of Labor 1-800-LABOR-NC 919-807-2796</p>	<p><u>Septic Tanks</u>, On-site Treatment System Environmental Health Steven Berkowitz 919-733-2895</p>
<p>Sewer Discharges Pre-Treatment Public Owned Treatment (POTW) 919-733-5083</p>	<p><u>Small Business Ombudsman</u> US EPA 1-800-368-5888</p>	<p>Spill Reporting 1-800-858-0368</p>	<p>State Operator 919-733-1110</p>
<p><u>Stormwater</u>, Permits Unit Water Quality 919-733-5083 1-800-858-0368</p>	<p>Superfund Federal Sites Dave Lown 919-508-8464 State Inactive Sites Charlotte Jesneck 919-508-8460</p>	<p><u>Toxicology Env. Epidemiology</u> Occupational Surveillance 919-707-5900</p>	<p>Transport Hazardous Waste Division of Motor Vehicle (NC DOT) Sgt. T.R. Askew 919-715-8683</p>
<p><u>US DOT</u> Regulations Office of Motor Carriers Chris Hartley 919-856-4378</p>	<p><u>Underground Storage Tanks</u> Grover Nicholson 919-733-1300</p>	<p>Waste Minimization Pollution Prevention & Environmental Assistance 919-715-6500 1-800-763-0136</p>	<p><u>Wetlands Info Hotline</u> US EPA 1-800-832-7828</p>
<p>North Carolina Division of Waste Management - 1646 Mail Service Center, Raleigh, NC 27699-1646 - (919) 508-8400</p>			

Appendix 4

Storm Water Pollution Prevention Plan

STORM WATER POLLUTION PREVENTION PLAN

Burnt Poplar Transfer, LLC
C&D Transfer Station

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RECORD OF DOCUMENT REVISIONS

DRAFT DOCUMENT

DATE PREPARED: April 7, 2008

NAME OF PREPARER: G. David Garrett, PG, PE
David Garrett & Associates

SIGNATURE OF PREPARER: _____

REVISION NO. 1

DATE:

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

REVISION NO. 2

DATE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

REVISION NO. 3

DATE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

REVISION NO. 4

DATE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

1.0 INTRODUCTION

1.1 Storm Water Pollution Prevention Plan Overview

This document was designed to comply with the requirements set forth in NC DENR Division of Water Quality **Storm Water General Permit, NCG130000** – application pending – which will effective prior to the commencement of operations. This is a preliminary draft of the SWPPP, developed during the permitting effort, which is subject to revision with site specific information upon opening the site and periodically (as needed) to reflect actual site conditions throughout the operational life of the facility.

The **General Permit NCG130000** authorizes Burnt Poplar Transfer, LLC to discharge storm water in accordance with this plan until permit expiration on **XXXXXX XX, 20xx**. This plan provides an assessment of potential sources of storm water pollution associated with the C&D waste transfer activities to be conducted at the facility. In addition, the plan provides for the implementation of best management practices (BMPs) to reduce pollutants in storm water discharges, and recommends physical or procedural changes that may be necessary to prevent or reduce pollution of storm water discharges.

1.2 Facility Information

This SWPPP was prepared specifically for the Burnt Poplar Road C&D Transfer Station. A vicinity map is provided as Exhibit 1. The facility is identified as follows:

- Facility: Burnt Poplar Road C&D Transfer Station
- Location: 6313 Burnt Poplar Road
- Mailing Address: 6313 Burnt Poplar Road
Greensboro, North Carolina 27406
- Operator: Burnt Poplar Transfer, LLC
- Acres: approximately 6.8 acres
- SIC Codes: 4953 (refuse systems)
- NAICS Codes: 562119 (non-hazardous waste collection)

1.3 Site Description

Burnt Poplar Transfer, LLC is a waste transfer facility permitted to accept and transfer non-hazardous construction and demolition (C&D) debris. Site facilities include a scale and scale house, paved driveways and tipping area, a transfer trailer loading area, paved parking areas for trucks, trailers, and staff vehicles, and non-utilized open space. Equipment fueling will be provided by a delivery service (no on-site storage of fuel except in over-the-road tanker trucks); only minor or emergency equipment maintenance will be conducted on site via contacted services (no equipment maintenance yard or shop will be located at this facility). Sanitary sewerage is provided for the scale house/office building. The site covers approximately 6.8 acres total **Drawing S6C** depicts the general configuration of the site, the location of key site elements, and drainage directions.

The site features a “storm water containment zone” consisting of two separate storm drain systems that serve the tipping and loading areas of the site and a permanent storm water sediment basin. Both storm drain systems feature a series of in-pavement swales and catch basins (sized for their respective drainage areas), which convey runoff to the basin via smooth-wall pipes fitted with cut-off valves near the inlet to the basin – this configuration allows the storm drains to be isolated from the basin and each other. Runoff to the catch basins is directed via shallow paved swales (formed within the driveways and parking areas) and/or shallow berms and ditches formed within soil. All drainage within the developed portions of the site is captured in one or the other storm drain and directed to the basin, which provides a single storm water discharge point. A small quantity of off-site drainage from the adjacent asphalt plant (stockpile area) that does not flow to that facility’s basin is diverted around the transfer station via a shallow swale/berm combination and directed to a sediment trap remaining from the transfer station construction, which constitutes a second storm water discharge on the subject site.

1.4 Topography, Surface Water Bodies and Wells

Drawing S6C shows the general drainage direction westward to an unnamed tributary to Deep River (the tributary is a blue-line stream). Site grades vary from El. 904 to El. 898 within the tipping area, decreasing to approximately El. 888 within the loading area and approximately El. 878 in the bottom of the storm water basin. There are no wells on the property or known within the vicinity.

2.0 SOURCES OF POLLUTANTS

2.1 Source Identification

Activities at this site with the greatest potential for storm water pollution relate to sediment from dirt and dust associated with the waste stream, solid particles from the waste stream entering the storm water system (e.g., small plastic debris), the potential for a spill or leak of fuel or fluids from on-site equipment and transport vehicles, and the unlikely possibility of runoff from fighting a fire (a soil stockpile shall be kept on-hand as the first-choice fire-fighting material) or a spill of a liquid waste substance on the tipping pad (liquids are prohibited at the gate but could conceivably slip through). The following are considered to be the primary potential pollutant sources:

- Clean Soil (silt)
- Vehicle fuels
- Vehicle lubricants and fluids
- Waste oil, engine fluids, and coolants
- Solid waste residues in wash water runoff

2.2 Material Inventory

Site operations involve the outdoor storage and handling of the following significant materials (refer to **Drawing S6C**):

Table 1
Significant Outdoor Materials

Material	Maximum On-Site Storage	Storage Method	Location
Clean Soil	N/A – As Required	Above Ground	Designated stockpile
Off-road diesel fuel	1,000 gallon	Fuel truck	Upper parking area
On-road diesel fuel	1,000 gallon	Fuel Truck	Near trailer loading area
Small-engine fuel and lubricants	Undefined	Outdoor storage building or shed	Near scale house
Waste oil	200 gallons	Outdoor storage building or shed	Near scale house

Clean soil kept on-hand for fighting fires shall be kept covered with tarps to prevent erosion. Vehicle (off-road) fuel tanks are filled as needed by contractors or Burnt Poplar Transfer, LLC employees trained in fueling and spill response procedures. Fuel shall be stored in tanker trucks and administered as needed to on-site equipment and road tractors. Due to the portable nature of this equipment, no secondary containment areas will be required. No vehicle or equipment maintenance is planned for this facility, except for oil changes and breakdown repairs. Small equipment, e.g., lawnmowers, pumps, etc., along with fuel and lubricant and miscellaneous equipment (hoses, etc.), small quantities of paint, grease, detergents and spill response materials (absorbent booms, absorbent clay, other cleanup items), shall be kept in a small storage building on a paved pad.

2.3 Assessment of Potential Pollution Sources

The potential for pollution of storm water runoff at this facility is limited due to the material storage and management practices that will be observed. Nevertheless, the following table identifies those potential pollutants associated with the industrial activities on site:

**Table 2
Potential Pollutants**

Potential Pollutant	Source	Estimated Annual Amount*
Acids and bases	Solid waste residues	Negligible
Aromatic hydrocarbons	Fuels, hydraulic fluids, lubricants	Small amount from diesel fuel, negligible from others
Biological/chemical oxygen demand (BOD and COD)	Solid waste residues	Negligible
Chlorides	Solid waste residues	Negligible
Solids	Soil Stockpiles	Small Amount due to erosion control practice
Detergents	Truck wash fluids	Negligible
Glycol ethers	Fuels, hydraulic fluids, lubricants	Small amount from diesel fuel, negligible from others
Inorganic nitrogen	Solid waste residues	Negligible
Metals	Water base paint	Small
Oil and grease	Fuels, hydraulic fluids, lubricants	Small amount from diesel fuel, negligible from others
Organic carbons	Solid waste residues	Negligible
Phosphates	Solid waste residues	Negligible
Polynuclear aromatics (PNA)	Used oil	Negligible
Sulfates	Solid waste residues	Negligible

- * In view of the operational and structural management practices identified in **Section 3.0**, most potential pollutants are effectively isolated from storm water runoff. Consequently, no significant annual quantities of potential pollutants are likely to be present in storm water runoff. The potential for pollutants from diesel fueling to be present in storm water runoff is minimized by implementation of the spill and response procedures in **Section 4.0**.

Those pollutants associated with vehicle refueling spills and normal dirt and dust from waste handling activities have the greatest potential for contacting storm water. Leaks of engine and hydraulic fluids from unloading and loading activities are not likely to impact storm waters as these activities are performed in relatively isolated areas. The soil stockpiles will be managed so that the exposure to rain is minimized.

Whereas this is a new facility (yet to be permitted and built), there is no operational history of spills to report. Documentation of all future spills, leaks, or similar incidences shall be maintained in the permanent operating record. This plan will be updated as necessary in the future per regulatory requirements of storm water General Permit.

Storm water discharges shall be inspected weekly and/or after any ½ inch or greater rain event using the Inspection Record form found in **Appendix 4A**. Records need not be submitted, but are required to be retained on site with this plan.

3.0 BEST MANAGEMENT PRACTICES

BMPs are defined in the General Permit as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials.

BMPs in this plan describe techniques, both operational and structural, which are used to limit pollutants in storm water discharges to acceptable levels. BMPs include both “source controls” intended to minimize accidental pollutant contact with storm water as well as “storm water management practices” in which pollutants having entered storm water are captured and removed prior to discharge.

3.1 Operational Controls

Operational controls are targeted at improving the manner in which site activities are performed so as to minimize the potential for pollutant contact with storm water.

3.1.1 Materials Transport and Handling

- Whenever possible, loading and unloading of waste materials is avoided during periods of heavy rainfall. During inclement weather, extra care should be taken to observe runoff from the active areas, such as to minimize sediment loss to the storm drains. If excess sediment transport is observed, steps should be taken to cover the waste materials or capture the sediment with filter booms upstream of the catchments.
- During unloading and loading activities, employees shall be responsible for inspecting the premises for spills, leaks, and fugitive debris – if such incidents are detected, appropriate steps shall be taken to avoid contaminating storm water. Corrective steps may be as simple as pushing debris into a tight pile while waiting to be loaded onto a transport truck to avoid wind or water transport from the tipping and loading area. Minor spills of diesel fuel can be contained with applying absorbent materials and sweeping up; other minor spills can be cleaned up promptly utilizing dry methods and disposed of as solid waste. Large spills trigger the spill and response procedure as outlined in Section 4.4.2.
- Some spilt or leaked materials may require collection and disposal a qualified subcontractor.
- All loading/unloading activities will take place within the storm water containment zone defined by the perimeter swales and catch basins.

3.1.2 Material Storage

- Stockpiles of C&D debris awaiting transport are to be stored inside the containment zone defined by the perimeter swales and catch basins (Drawing S6C).
- Soils stockpiled for firefighting is to be kept in a covered stockpile away from heavy traffic area.

- All other potential pollutants (e.g., fuels, lubricants) shall be stored and used within the storm water containment zone.

3.1.3 Vehicle Fueling

- Trained employees shall perform the fueling.
- Fueling activities should be avoided during heavy rainfall.
- An adequate supply of absorbent materials is kept in the storage shed.

3.1.4 Maintenance and Repair

- No vehicle or equipment maintenance shall be performed on the site except breakdown repairs – normally this includes changing engine oil.
- When necessary, vehicle repairs shall be conducted in a designated area that can be isolated from the general storm water drainage systems.
- During and after equipment repairs, a visual inspection of the work site fluid leaks shall be performed.
- Visual inspection of the entire premises to detect fluid leaks shall be performed on a regular basis. If leaks are discovered, drip pans shall be used to contain leaks until repairs can be performed. Drip pans shall be emptied into a waste oil tank.
- If engine oil is to be changed at the site, such activities shall be performed in a designated area that can be isolated from the general storm water drainage systems; a waste oil tank shall be placed at the site under a cover to prevent exposure to rainfall.
- Any waste oil shall collected in the waste oil tank be disposed of as soon as possible in accordance with federal and state regulations.
- Maintenance and repair wastes, including used parts and filters, oily rags, and soiled absorbent materials shall be placed into trash disposal vessels and disposed off-site.

3.1.5 Vehicle and Equipment Parking

- All vehicle and equipment shall be parked in designated areas within the storm water containment zone – this includes overnight parking of waste handling equipment and road tractors
- The vehicle parking areas shall be inspected regularly for fluid leaks.
- The parking areas shall be kept clear of debris.

3.1.6 Washing and Painting

- All washing of vehicles shall be performed in the designated area.
- Cleaning of pumps, hoses, and other equipment shall be performed with a damp mop or cloths; oily discharges shall be contained and not allowed into the catch basins.
- Paved areas of potential pollutant contact, including parking areas, refueling areas, and maintenance/repair areas, shall be cleaned using dry sweeping or air blasting to remove large particles prior to washing with water.
- No sandblasting or painting shall be performed on the premises; painting of buildings, pavements, other minor structures shall be conducted to avoid spills to the storm water system – residue from brushes and equipment shall not be washed into the storm water system; leftover paint and solvents shall not be placed into the storm water system.

3.1.7 Runoff Control

- Site topography directs storm water flow to the perimeter drainage swales and ditches – these features shall inspected periodically and kept clear of debris.
- All drainage facilities (including gutters, downspouts, ditches, pumps, and basins) shall be inspected and maintained for reliable operation and kept free of materials that would impede the flow of storm water.

3.1.8 Sediment and Erosion Control

- All areas of significant erosion shall be filled, compacted, graded, and new vegetation established – this includes drainage ditches and non-paved slopes on the premises.
- Areas of insufficient vegetative cover shall be reseeded and mulch maintained until new vegetation is established.
- Silt fencing, swales, ditches and/or catch basins shall be maintained and excess silt build-up removed as necessary.
- Sediment basin slopes shall be inspected for erosion and excess sediment build up. The basins shall be cleaned out and repaired as needed.
- The integrity of the dam and outlet works for the storm water basin shall be inspected and repaired as needed – refer to the separate Storm Water Maintenance Plan.
- All storm water catchments and conveyances shall be inspected periodically to detect contaminants, e.g., oily sheens, discoloration, foreign debris – appropriate steps shall be taken to correct any conditions noted.
- The catch basins and storm water pipes shall be cleaned after any spill that reaches the storm water drainage system. Depending on the nature and severity of the spill, it may be necessary to bring in a specialty contractor with the ability to wash out the storm water pipes, capture the runoff and remove the runoff for disposal offsite.
- The storm water basin should be cleaned out when excess sediment buildup is noted or after a major spill or incident that potentially brought contaminants into the basin, e.g., a fire, fuel spill, or significant equipment leak.

3.1.9 Control of Dust and Particulates

- The paved portion of the facility shall be swept or air blasted regularly to minimize the accumulation of dust and particulates – the collected materials shall not be allowed to enter the storm water system.

3.2 Structural Controls

Proper operation and maintenance of the storm water system will facilitate the effective containment of potential pollutants and reduce the possibility that significant quantities of pollutants will be discharged from the facility. The facility staff should become familiar with the **Stormwater BMP Inspection and Maintenance Plan**, included elsewhere within the Operations Plan for this facility (see **Appendix 5**). A brief description of the function and routine inspection and maintenance concerns for the major components of the storm water system follows:

3.2.1 Storm Water Containment Zone

- This includes all paved areas on the premises – including the driveways, tipping and loading areas – and the storm water diversions – in-pavement swales, ditches, and berms – that direct runoff to the drainage systems.
- Routine cleaning, inspection and maintenance is required to assure effective performance – at a minimum, dirt and solid waste residuals should be cleared off the pavement at regular intervals (in accordance with the Operations Plan) and any damage from erosion (non-paved areas) or equipment should be repaired promptly

3.2.2 Catch Basins

- In-pavement catch basins are designed per City of Greensboro standards and should provide years of trouble-free service. The serial connection of the catch basins along two distinct storm water pipe networks allows for isolation of the two catchment systems in the event of a spill. The catch basins can be used as pumping points to intercept a spill. The catch basins should be protected with absorbent booms to prevent entry by smaller spills – this will minimize clean up efforts after a spill.
- The catch basins should be inspected periodically for the buildup of sediment and foreign debris – this should be removed if/when excess buildup is noted – or staining that might indicate a spill occurred. Grates on the catch basins should be inspected for damage or excess wear and repaired or replaced as needed. Periodic cleaning of the catch basins and pipe networks is recommended (at least once per year).

3.2.2 Ball-Valve Cutoffs

- Two ball-valves are located on the storm drain pipe network, one near each pipe inlet to the sediment basin. These valves should be closed in the event of a spill to prevent potential contamination of the sediment/storm water basin.
- The valves should be turned at least once per month to assure unrestricted operation; the valves should be lubricated as needed in accordance with the manufacturer's recommendations.

3.2.3 Storm Water Basin

- The basin was designed in accordance with NC DENR Division of Land Quality regulations and City of Greensboro development ordinances. The basin features a stone baffle to serve as a sediment trap and a floating skimmer on the outlet works to provide top-discharging drainage. A trash rack is provided to prevent large debris from entering the outlet works.
- The basin requires frequent inspection and – as needed – removal of accumulated sediment and foreign debris (typically, the basin should require cleaning on an annual basis). Other inspections of the inlets and outlet works should be performed at least monthly to assure proper operation. Employees should note any discoloration or stains that might indicate spills or leakage that has otherwise gone undetected.
- The primary and secondary outlets merge into a single level spreader (designated as Storm Water Outfall 001 on **Drawing S6C**), which was designed in accordance with State and local regulations. This feature should be inspected periodically for erosion, bypass, and debris accumulation.
- A secondary discharge (Outfall 002) occurs at the end of the storm water diversion ditch that isolates the transfer station from the stockpile area of the adjacent asphalt plant. This discharge may be eliminated in time by rerouting the ditch to the asphalt plant's storm water basin or merging it with the level spreader (described above), depending on site geometry and Owner preferences. The flow in the diversion ditch is expected to be minimal, except under extreme precipitation conditions.

4.0 MANAGEMENT PROCEDURES

4.1 Pollution Prevention Team

Officials for WCA Waste Systems (acting on behalf of Burnt Poplar Transfer, LLC) coordinated the development of this plan. Once the facility becomes operational, a site manager will become responsible for implementing and maintaining this SWPPP, working under the supervision of a Regional General Manager and a Regional Engineer.

Table 3
Pollution Prevention Team Duties

Name	Title	Duty
TBA	Site Manager	Responsible for implementing SWPPP; assesses feasibility of BMPs; responsible for all spill prevention and all response activities
TBA and TBA	General or Regional Manager and Regional Engineer	Maintains SWPPP; assesses potential effects of major process changes; ensures personnel receive SWPPP training; evaluates effectiveness of SWPPP; oversees annual site SWPPP compliance evaluation; maintains all documentation and regulatory notifications; ensures that periodic SWPPP inspections are conducted; follows up spill prevention planning and all response activities

4.2 Preventative Maintenance

4.2.1. Drainage Structures

- Drainage conveyances and catchment structures shall be inspected on a regular basis for evidence of erosion, excess debris or sediment accumulation, stains or other indications of undetected spills or leaks, damage or excess wear.
- Inspections shall be logged into the Operating Record (e.g., field log book), and all maintenance and repairs shall be documented; emergency response activities shall be permanently logged, along with documentation of the regulatory agency notifications.

4.2.2 Equipment and Vehicles

- Regular equipment maintenance shall be performed in accordance with WCA preventative maintenance protocols and consistent with the manufacturer's recommendations. Any leaks or conditions of disrepair are noted during regular visual inspections and are promptly repaired.
- Damaged or faulty equipment shall be taken out of service until repairs are made; all equipment shall be maintained in proper working order.

4.2.3 Access to BMPs

- City of Greensboro regulations require a 15-foot clear pathway be maintained around the storm water basin (this is the Drainage and Maintenance of Utilities Easement shown on Drawing E6S).
- Clear access to all conveyances and catchments shall be maintained at all times.

4.3 Good Housekeeping

The site shall be kept neat and orderly per the requirements of the Operations Plan; at minimum, loose debris shall be removed daily, more frequently as required.

4.4 Spill Prevention and Response

4.4.1 General Provisions

- Sufficient quantities of absorption materials (oil dry, absorbent socks) shall be kept on site for use on minor spills and leaks.
- Absorption materials shall be located on-site, within easy access of parking, refueling, and repair areas.
- Absorption materials shall be applied in accordance with the manufacturers' specifications to contain minor spills and leaks.
- Used absorption materials shall be containerized and properly disposed of as non-hazardous waste.

4.4.2 Spill Response

In the event of a spill or release, employees shall respond as follows:

- Identify the product, assess whether a threat to human health or safety exists and notify emergency authorities if hazardous conditions are present.
- Furnish necessary personal protective equipment (PPE) and conduct any necessary rescue operations.
- Close the shut-off valves at the storm water pond inlets (except in case of a fire).
- Report the incident to the Regional Manager as soon as possible.
- Deploy spill socks around spill area.
- Apply oil dry to spilled liquids, and
- Package clean-up material for disposal in accordance with all environmental regulations – the services of a licensed emergency responder may be required.

4.4.3 Reporting Procedures

- Internal Reporting Procedures – The Regional Manager or Regional Engineer shall report spill and leak incidents to Corporate (Regional Vice President). Based upon the specific incident, Corporate shall determine the need for outside reporting to governmental agencies.
- Outside Agency Reporting Procedures – Reporting to governmental agencies shall be carried out in accordance with federal, state, and local requirements such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Department of Transportation (DOT) reportable quantities (RQs). At a minimum, incidents pertaining to storm water shall likely require reporting to NC DENR Division of Waste Management – Solid Waste Section, and to the City of Greensboro Planning Department – Storm Water Unit.

4.5 Training

4.5.1 Training Program

- All employees shall receive annual training regarding potential causes of pollution as well as practical methods for reducing pollutant contact with storm water, including spill response, good housekeeping, and material management practices.

4.5.2 New Employees

- Each new employee shall receive training on the significant aspects of storm water management. This SWPPP will be located at the facility office and shall be available for review by all employees.

4.5.3 Ongoing Education

- Annual training of facility employees shall be conducted to present updated information and to maintain a level of employee awareness regarding storm water pollution prevention practices.

4.6 Inspections

Informal facility inspections are conducted daily. Storm water management structures are formally inspected weekly and after a ½ inch rain event and recorded on the **Storm Water Management Inspection Form (Appendix 4A)**. General environmental compliance inspections are conducted semi-annually.

An annual facility inspection shall be conducted. Inspections shall be conducted to verify that all elements of the SWPPP (i.e., site map, potential pollutant sources, structural and non-structural controls to reduce pollutants in industrial storm water discharge) are accurate. Based on the results of the inspection, the description of potential pollutant sources (**Sections 2.0** and **3.0** of this plan) shall be revised as appropriate within two weeks following such inspection. Any necessary changes to the SWPPP will be made in a timely manner, but in no case more than 12 weeks after the inspection.

4.7 Record keeping

Inspection forms (**Appendix 4A**) used for recording inspection findings and all necessary or appropriate follow-up actions to an inspection will be retained with this plan. The inspection shall be summarized to include:

- The reason for the inspection,
- Name of personnel making the inspection, the date(s) of inspection,
- Major observations relating to the SWPPP, and
- Any necessary plan revisions.

The record shall also identify any incidents of non-compliance or contain a certification that the facility is in compliance with the SWPPP and the General Permit. These records should be retained as part of the SWPPP for at least one year after the Permit terminates.

This SWPPP shall be retained on site at the facility office and shall be made available upon request by an authorized representative of the NCDENR.

4.8 SWPPP Amendments

If notified by NC DENR that the SWPPP does not meet one or more of the minimum requirements of General Permit, the Owner/Operator shall respond in writing. Within 30 days of notice (or as otherwise provided), the Owner/Operator shall make the required changes to the plan to conform with the minimum requirements of the General Permit, and shall promptly certify in writing that the required changes have been made.

The Owner/Operator shall amend the SWPPP whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the potential for pollutants to discharge to the waters of the United States. The SWPPP shall also be amended if the plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified as potential pollutants in this plan, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity.

5.0 NON-STORM WATER DISCHARGES

This plan includes a certification that the discharge has been evaluated for the presence of non-storm water discharges.

5.1 Certification

As part of this SWPPP, the Owner/Operator certifies that, to the best of his/her knowledge, no non-storm water discharge other than those allowed currently exists on this site (see **Appendix 4B, Certification of Evaluation of Non-Storm Water Discharges**).

5.2 Description of Testing

No pollutant testing was performed in preparing this SWPPP. Information referenced in this initial document was obtained during a visual inspection of the site performed prior to development – future certifications shall be made based on first-hand experience of operations personnel at this facility, and from a review of material safety data sheets (MSDSs).

5.3 Allowable Discharges

The following discharges and others of a similar nature are specifically allowed under this plan. Unless emergency conditions exist, runoff across areas of potential pollutant concentration shall be kept to a minimum. Allowable non-storm water discharges may include, but shall not be limited to, the following:

- Discharges from fire fighting activity
- Fire hydrant flushing
- Irrigation drainage
- Air conditioner condensate

6.0 GLOSSARY OF TERMS

BMP	Best Management Practices
CERCLA Act	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	Department of Transportation
MSDS	Material Safety Data Sheet
NPDES	National Pollutant Discharge Elimination System
PPE	Personal Protective Equipment
RQ	Reportable Quantity
SIC	Standard Industrial Classification
SPCC	Spill Prevention, Control, and Countermeasure Plan
SWPPP	Storm Water Pollution Prevention Plan
WWTP	Wastewater Treatment Plant

Appendix 4A

Inspection Records

Good Housekeeping Inspection Form

Date: _____ Time: _____

Inspected by:

Signature: _____

Areas Inspected	Observations	Actions Taken
Tipping/Sorting Pad		
Trailer Loading Bay		
Trailer/Equipment Parking		
Heavy Equipment Fueling		
Storm Water Basin		
Small Equipment Shed		
Small Equipment Fueling		
Personal Vehicle Parking		
Entrance Gate/Waiting Lane		
Scales		
Office/Scale House Proximity		
General Grounds		
Storm Drain Covers		
Storm Water Conveyances		

Spill Report Form – Use ONLY for “Significant¹” Spills

Date of Occurrence: _____

Discovered by Whom: _____

Location: _____

Material Type & Volume: _____

Cause of Spill: _____

Corrective Action Taken: _____

Agencies/Persons Contacted: _____

Signature: _____

Employee Training Record

Date of Session: _____ Time: _____

Trainer: _____ Topic _____

Employees Attending (names, printed):

Signature:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Specifics of Training:

Storm Water Monitoring Sampling Record

Site being sampled: _____

Date and time of sample: _____

Name and title of person sampling: _____

Sample location (outfall number(s)): _____

Weather conditions at time of sample collection:

 Approximate time rainfall began: _____

 Rainfall intensity (heavy, light,): _____

 Approximate time rainfall ended: _____

 Date and duration, in hours, of the storm event sampled: _____

 Rainfall measurement or estimate (in inches): _____

 Rainfall amount in past 72 hours: _____

An estimate of the total volume (in gallons) of the discharge sampled: _____

Samples collected for:

 Y/N Total suspended solids (TSS)(mg/L)

 Y/N Nitrate plus nitrite nitrogen (mg/L)

Appendix 4B

Certification of Evaluation of Non-Storm Water Discharges

This certification will be made based on a field assessment of the site and forwarded with the completed General Permits, either NCG 010000 which pertains to the construction activities or NCG 130000 which pertains to the waste handling operations

Appendix 4C

Storm Water Sampling Results

4. **Clarity:** Choose the number which best describes the clarity of the discharge, where 1 is clear and 5 is very cloudy:

1 2 3 4 5

5. **Floating Solids:** Choose the number which best describes the amount of floating solids in the stormwater discharge, where 1 is no solids and 5 is the surface covered with floating solids:

1 2 3 4 5

6. **Suspended Solids:** Choose the number which best describes the amount of suspended solids in the stormwater discharge, where 1 is no solids and 5 is extremely muddy:

1 2 3 4 5

7. Is there any **foam** in the stormwater discharge? Yes No

8. Is there an **oil sheen** in the stormwater discharge? Yes No

9. Is there evidence of **erosion or deposition** at the outfall? Yes No

10. **Other Obvious Indicators of Stormwater Pollution:**

List and describe _____

Note: Low clarity, high solids, and/or the presence of foam, oil sheen, or erosion/deposition may be indicative of pollutant exposure. These conditions warrant further investigation.

**STORMWATER DISCHARGE OUTFALL (SDO)
MONITORING REPORT**

Certificate of Coverage No. NCG _____

SAMPLES COLLECTED DURING CALENDAR YEAR: _____
(This monitoring report shall be received by the Division no later than 30 days from the date the facility receives the sampling results from the laboratory.)

FACILITY NAME _____
PERSON COLLECTING SAMPLE(S) _____
CERTIFIED LABORATORY(S) _____ Lab # _____
_____ Lab # _____

COUNTY _____
PHONE NO. (____) _____

(SIGNATURE OF PERMITTEE OR DESIGNEE)
By this signature, I certify that this report is accurate complete to the best of my knowledge.

Part A: Vehicle Maintenance Activity Monitoring Requirements (only if, on average, more than 55 gallons per month of new motor oil is used)

Outfall No.	Date Sample Collected, mo/dd/yr	Total Rainfall, inches	New Motor Oil Usage, Annual average gal/mo	00556	00530	00400
				Oil and Grease, mg/L	Total Suspended Solids, mg/L	pH, Standard units
Benchmark	-	-	-	30	100	6.0 – 9.0

Note: If you report a sampled value in excess of the benchmark value, or outside the benchmark range for pH, you must implement Tier 1 or Tier 2 responses in the General Permit.

Mail Original and one copy to:
Division of Water Quality
Attn: Central Files
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

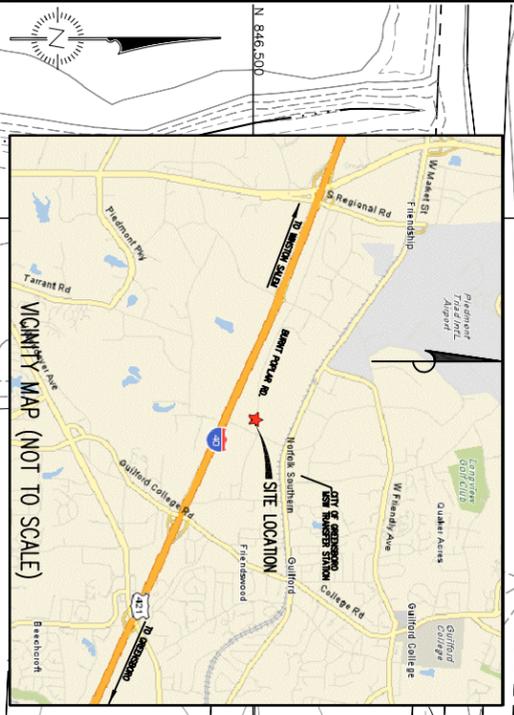
(Signature of Permittee)

(Date)

Appendix 4D

NC DENR Storm Water General Permit 130000

*The completed General Permits, NCG 010000 which pertains to
the construction activities and/or
NCG 130000 which pertains to the waste handling operations will
be forwarded when certificates are issued by the
NC DENR Division of Water Quality*



- EMERGENCY SPILL RESPONSE NOTES:**
1. IN CASE OF SPILL, FIRE, OTHER CHEMICAL EMERGENCY, FIRST SAFEGUARD HUMAN SAFETY, THEN ASSESS ENVIRONMENTAL CONCERNS
 2. CALL 911 TO REPORT THE EMERGENCY IF SAFETY IS AN ISSUE
 3. FOR SMALL SPILLS, CLOSE THE STORM WATER DRAIN VALVES, DEPLOY BOOMS AND SOBBANT MATERIALS AS NEEDED
 4. TRY TO PREVENT SPILL FROM REACHING CATCH BASINS. IF THIS CANNOT BE AVOIDED, CONTAIN THE SPILL IN THE STORM DRAIN SYSTEM AND PUMP FROM THE LOWEST CATCH BASIN

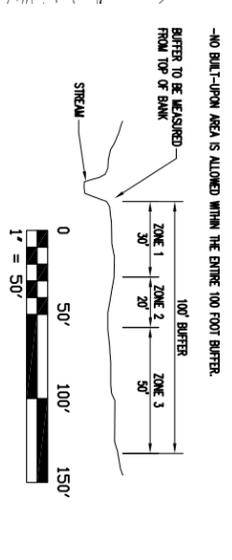
5. DEPENDING ON THE NATURE OF THE SPILL, PUMPING TO THE ON-SITE SANITARY SEWER MANHOLE MAY ALLOWED. OTHERWISE CALL A LICENSED EMERGENCY RESPONSE CONTRACTOR TO REMOVE THE SPILL WITH A VAC-TRUCK AND PERFORM SITE CLEANUP
6. FOR FIRES OR VERY LARGE SPILLS, LEAVE THE STORM DRAIN VALVES OPEN - ALLOW THE BASIN TO CONTAIN THE SPILL AND/OR RUNOFF (THE BASIN MAY REQUIRE CLEANING AFTER THE EMERGENCY)
7. ALL SPILLS AND RESPONSE ACTIVITIES SHOULD BE RECORDED IN THE OPERATING RECORD AND REPORTED TO CITY OF GREENSBORO

- 15' WIDE CITY-OF-GREENSBORO TREE CONSERVATION BUFFER
- 5' WIDE TYPE "D" PLANTING YARD (EX. TREES TO BE PRESERVED)
- PRELIMINARY NOT FOR CONSTRUCTION

LOT #1 N/F SHARPE HOT-MIX

OFFSITE DRAINAGE LOT #1, 1.8 AC. (STOCKPILES), WILL BE DIVERTED AROUND LOT #2

UPPER RANDOLPH LANE WATERSHED STREAM BUFFER REQUIREMENTS:
(HIGH DENSITY OPTION-FREEMAN STREAM)



- NOTE:**
1. THIS DRAWING ACCOMPANIES THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND SPILL PREVENTION AND RESPONSE PLAN (SPRP).
 2. SEPARATE STORM WATER DRAINAGE SYSTEMS ALLOW ISOLATION OF SURFACE DRAINAGE FROM TIPPING AND LOADING AREAS FOR SPILL CONTROL.
 3. BOTH STORM DRAIN PIPES LEADING TO THE BASIN HAVE EMERGENCY CUTOFF VALVES, WHICH NEED TO BE TURNED PERIODICALLY TO ASSURE RELIABLE OPERATION.
 4. THE LAST CATCH BASIN ON EACH LINE WILL SERVE AS A PUMPING POINT IN THE EVENT OF A SPILL - USE VAC TRUCK OR USE 2" CREEK PUMP TO ON-SITE SANITARY SEWER MANHOLE.
 5. OPERATORS OF THE TRANSFER STATION ARE REQUIRED TO BE FAMILIAR WITH THE DRAINAGE PATTERNS AND SAFETY FEATURES OF THIS SITE, AND THE RESPONSE PROCEDURES TO PROTECT STORM WATER QUALITY IN THE EVENT OF A SPILL.

UPPER RANDOLPH LANE WATERSHED STREAM BUFFER REQUIREMENTS:
(HIGH DENSITY OPTION-FREEMAN STREAM)

- ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS:
- RANDELMAN ZONE 1: (20') WHEN IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA LOCATED IN UPPER AND LOWER RANDOLPH LANE WATERSHEDS LOCATED CLOSEST TO THE STREAM, IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
- RANDELMAN ZONE 2: (20') WHEN IT IS THE REMAINDER OF A RIPARIAN PROTECTION AREA, IT IS INTENDED TO PROVIDE PROTECTION THROUGH A VEGETATED RIPARIAN ZONE WHICH PROVIDED FOR DIFFUSION AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
- RANDELMAN ZONE 3: (50') WHEN IT IS NOT PART OF A RIPARIAN PROTECTION AREA, AND THEREFORE IS SUBJECT TO LESS STRESS THAN ARE RANDELMAN ZONES 1 AND 2, RANDELMAN ZONE 3 COVERS THE OUTERMOST FIFTY (50) FEET OF ONE HUNDRED (100) FOOT PERMANENT STREAM BUFFERS UNDER THE HIGH DENSITY OPTION IN THE UPPER AND LOWER RANDOLPH LANE WATERSHEDS.

NOTES:

- REFER TO SECTION 30-7-1.8 OF THE GREENSBORO DEVELOPMENT ORDINANCE FOR BUFFER RESTRICTIONS, ETC.
- NO BUILD-UP OR AREA IS ALLOWED WITHIN THE ENTIRE 100 FOOT BUFFER.

30' ACCESS & UTILITY EASEMENT FOR THE BENEFIT OF LOT #2

REVISIONS:

NO.	DATE	REVISION
1	4-7-08	REVISED FROM DRAWING S6 TO BE SPECIFIC TO SWPPP/SPRP

<p>DRAWING TITLE:</p> <p>STORM WATER DRAINAGE SYSTEM LAYOUT FOR SPILL PREVENTION AND RESPONSE</p>	<p>PROJECT TITLE:</p> <p>BURNT POPLAR ROAD C&D TRANSFER STATION 6313 BURNT POPLAR ROAD GREENSBORO, NORTH CAROLINA</p>	<p>SCALE:</p> <p>1" = 50'</p>	<p>DATE:</p> <p>APRIL 2008</p>	<p>DESIGNED BY:</p> <p>G.D.G.</p>	<p>CHECKED BY:</p> <p>A.W.H.</p>	<p>PROJECT NO.:</p> <p>MRR-3</p>	<p>FILE NAME:</p> <p>MRR-3-00015</p>	<p>SHEET NO.:</p> <p>7C</p>	<p>DRAWING NO.:</p> <p>S6C</p>	<p>SEAL:</p> <p>NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 25462 DAVID GARRETT</p>	<p>David Garrett, PG, PE. Engineering and Geology 5105 Harbour Towne Drive, Raleigh, North Carolina 27604 Email: david.garrett_pg@mindspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)</p>
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Appendix 5

Stormwater BMP Inspection and Maintenance Plan

**STORM WATER FACILITIES INSPECTION
AND MAINTENANCE MANUAL**

Project: BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION

Location: GREENSBORO, NORTH CAROLINA

Owners: BURNT POPLAR TRANSFER, LLC
421 Raleigh View Road
Raleigh, North Carolina 27610

Prepared By: David Garrett, P.G., P.E.

Date: AUGUST 31, 2006 (Rev. 0.1 12/27/07)

Receiving Stream: Unnamed Tributary to Deep River
Upper Randleman General Watershed

Contractors: (List below)

General Contractor:

Grading Contractor:

Impoundment & Dam Spillway:

Material Supplies (List Below):

Riser Structure	To be determined
Floating Skimmer	
Gate Valve	
CAP Outlet Pipe and Bottom Drain	
Trash Rack	

STORMWATER BMP INSPECTION & MAINTENANCE MANUAL

Burnt Poplar Transfer, LLC C&D Transfer Station

This manual established procedures for maintenance and operation of the Wet Detention Basin and other BMP's in accordance with NC DENR guidelines as set forth in "Storm Water Best Management Practices" (current version), pursuant to T15A NCAC 02H .1000. Incorporated into this plan are excerpts of Section 3.6 of the City of Greensboro "Stormwater Management Manual," i.e., the Stormwater Inspection and Maintenance Guidelines – providing a slightly different perspective – presented as **Attachment 1**. The responsible party for facility maintenance shall become familiar with these requirements, which provide guidance for maintenance of the storm water facilities associated with the project. The stormwater measures are subject to inspection by the City of Greensboro. An Inspection and Maintenance checklist is provided as **Attachment 2**.

The following briefly describes the permanent stormwater facilities, termed BMP's or "best management practices" in the regulatory literature:

1. Wet Detention Pond – an impoundment contained behind an earthen embankment, designed to capture and treat (primarily via settling) runoff from the operations area. The pond features a permanent pool (i.e., the water quality volume) and sufficient storage capacity to contain the first inch of runoff from a typical storm event. A forebay contained behind a stone rip-rap embankment near the pond inlet is designed to capture a majority of the sediment load. The pond inlets (or pipe and channel outlets) consist of stone rip-rap aprons that dissipate flow energy and prevent scouring below the discharge. The pond outlet is a complex riser-barrel structure, constructed of aluminum pipe, with a floating skimmer and other low-flow orifices that limit discharge during low intensity storms (2-year to 10-year) to pre-development levels. The top-discharging riser activates during high intensity storms (25-year and greater); an emergency overflow (stone-lined channel) will safely pass the 100-year storm event. A trash rack that extends below the normal pool surrounds the discharge orifices, except for the skimmer, which has its own trash rack. These facilities need to be kept clear of debris and accumulated sediment. Erosion needs to be repaired regularly, and vegetation needs to be maintained.
2. Level Spreader – a stone-lined channel that stills the discharge from the primary overflow of the pond and spreads it over a large, level area that establishes sheet flow prior to entering Zone 2 of the riparian buffer area. This structure needs to be kept clear of debris and the discharge lip keep level; downstream erosion needs to be repaired as needed and vegetation maintained to prevent channelized flow.
3. Drainage Pipe – smooth-wall solid pipe consisting of PVC or HDPE that conveys flow collected in the catch basins to the stormwater basin; the pipes are intended to be low-maintenance, but sediment removal is required as needed.

4. Grated Catch Basins – masonry or pre-fabricated drop boxes that capture surface runoff and direct to the drain pipes. The drop boxes may be susceptible to sediment buildup and need to be inspected frequently. Grates need to be kept clear of debris that would prevent efficient flow.

The following sections are dedicated to specific routine activities to assure the proper performance of the BMP's. The reader is encouraged to review the excerpts from the Greensboro Stormwater Management Manual. In cases where these guidelines might conflict, the more stringent of the two should be observed.

I. Maintenance of Embankments

A. Vegetation

The embankment has a ground cover of fescue, which if properly maintained will prevent erosion of the embankment and provide an easy surface for inspection. The grass will be most difficult to obtain in the area subject to water level fluctuation below the top of the riser. Grass should be fertilized every October and April.

- Re-Seeding – periodically re-seeding may be required to establish grass on areas where seed did not take or has been destroyed. Before seeding, fertilizer (12-12-12) should be applied at a minimum rate of 12 to 15 pounds per 1,000 SF. The seed should be evenly sown at a rate of three pounds per 1,000 SF. The seed should be covered with soil to the depth of approximately ¼". Immediately following the planting, the area should be mulched with straw.
- Trees & Shrubs – trees, shrubs, and other landscape vegetation should be permitted only as shown on the approved planting plan.
- Mowing – grass mowing, brush cutting and removal of weed vegetation will be necessary for the proper maintenance of the embankment. All embankment slopes and vegetation of spillways should be mowed when the grass exceeds 8" in height. Acceptable methods include the use of weed whips or power brush cutters and mowers.

B. Erosion

Erosion occurs when the water concentrates causing failure of the vegetation or when vegetation dies and sets up the environment for rill erosion and eventually gullies from the stormwater runoff. The dam should be inspected for these areas. Proper care of vegetative areas that develop erosion is required to prevent more serious damage to the embankment. Rills and gullies should be filled with suitable soil compacted and then seeded. Methods described in

Section I-A, on vegetation, should be used to properly establish the grass surface. Where eroded areas are detected, the cause of the erosion should be addressed to prevent a continued maintenance problem. Frequently problems result from the concentration of runoff to one point of the embankment crest instead of a uniform distribution of runoff. This can be corrected by reshaping the crest to more evenly distribute the runoff to areas, which are not experiencing erosion problems. The top of the dam should not be allowed to be used for regular vehicle, pedestrian or bicycle traffic.

- **Abutment Areas** – the abutment is the line formed where the embankment fill comes into contact with the existing slope. Runoff from rainfall concentrates in these gutter areas and can reach erosive velocities because of the steep slopes. If a normal stand of grass cannot be maintained on the abutments, additional measures may be needed such as jute matting to provide for the establishment of a good ground cover.
- **Upstream Embankment Slope** – Erosion problems can develop on the upstream face of the dam due to the fluctuation of water level in the pond. This is a result of a combination of wave actions and ground saturation, which occurs from the elevated water levels. The erosion generally occurs as the water level falls and the saturated ground becomes subjected to the wave action. If erosion becomes a problem, it may necessitate the installation of a stone armoring along the zone subject to fluctuating water level. This would consist of 18” of NCDOT Class B stone for erosion control, underlain with Mirifi 140 (or equivalent) geotextile. It should be centered at the point of the erosion problem and covering an area 2’ above and below the approximate center of the eroded area.

C. Seepage

- **Detection** – due to the fact that the “permanent” impoundment level is only 6’ deep, and the road embankment is immediately downstream and continuous with the dam embankment, seepage should not be expected on the downstream slope of the embankment. However, a cursory inspection of the road embankment should be made for completeness of the inspection. Seepage may vary in appearance from a soft wet area to a flowing spring. It may show up first as only an area where the vegetation is more lush and darker green. Cattails, reeds, mosses and other marsh vegetation often become established in a seepage area. The downstream abutment areas where the embankment fill and natural ground interface are very common locations for seepage. Also the contact between the embankment and the spillway conduit is a very common location, which is generally attributed to poor compaction around the conduit. Due to the way in which conduits are put in, this is generally most evident on the underside of the conduit.

Slides may result from excessively saturated embankment slopes. The natural foundation area immediately downstream of the dam abutment should also be inspected to ensure that “piping” is not occurring underneath the embankment. “Piping” may appear as a “boil” evident as spring carries soil. The soil usually deposits around the boil area and is evident by the sedimentary deposits accompanying it. Seepage can also occur into the spillway conduit through cracks in the pipe or improperly sealed joints. These can be seen by observing the conduit when the water level is high. The movement of the water itself is not dangerous, but if soil particles are being carried with it, then it can create a shortcut for the piping of soil. This might show up on the upstream face of the embankment roughly along the line of the conduit itself.

D. Cracks, Slides, Sloughing, and Settlement

- Cracks – the entire embankment should be inspected for cracks. Short, isolated cracks are usually not significant, but larger cracks (wider than ¼”), well-defined cracks indicate a serious problem. There are two types of cracks: transverse and longitudinal. Transverse cracks appear crossing the embankment and indicated difference of settlement within the embankment. Cracks provide avenues for excess seepage, which could lead to piping (internal soil loss). Longitudinal cracks run parallel to the embankment and may signal the early stages of a slide. In recently built structures, these cracks may be indicative of poor compaction or poor foundation preparation resulting in consolidation after construction.
- Slides – Slides and slumps are potentially serious threats to the integrity of an embankment. Slides can be detected easily unless obscured by vegetation. Arch shaped cracks are indications that slides are slipping, or beginning to slip. These cracks soon develop into large scarps in the slope at the top of the slide.
- Settlement – settlement occurs both during construction and after the embankment has been completed and places in service. To a certain degree this is normal and should be experienced. It is usually the most pronounced at the location of maximum foundation depth or embankment height. Excessive settlement will reduce the free board (difference in elevation between the water surface and the top of the dam). Any area of excessive settlement should be restored to original elevation and condition to reduce the risk of overtopping. A relatively large settlement (more than 6 inches) within a small area could indicate serious problems in the foundation or perhaps the lower part of the embankment. Settlement accompanied by cracking often precedes failure.
- What to do if seepage, cracks, slides or settlement are detected: If any of the above items are detected there may be signs of significant problems,

which could lead, to the failure of the structure. A geotechnical or civil engineer should be consulted regarding the origin of these problems and for the assessment of the appropriate solutions for correcting them. If the professional is not immediately able to inspect the dam, then the bottom drain should be opened and the water level lowered to remove the risk of failure until a professional can observe these problems.

E. Rodent Control

Generally in this urban environment, rodents are not a problem. Rodents such as ground hogs, muskrats, and beavers are attracted to dams and reservoirs and can be quite dangerous to structural integrity and proper performance of the embankment and spillway. Groundhog and muskrats thrive on burrowing in the manmade earth embankments, which become pathways for seepage. If burrows are detected on the dam, the rodents should be removed.

II. MAINTENANCE OF SPILLWAYS & CONTROL STRUCTURES

A. Inspection of Spillway Conduits

Conduits should be inspected thoroughly once a year. Conduits should be visually inspected by actually entering the conduit a sufficient distance between the riser structure and the outlet to check all the joints. Because the outlet works tie into the street storm sewer system, catch basins and pipes. Conduit should be inspected for proper alignment (sagging), elongation and displacement at joints, cracks, leaks, surface water, surface wear, loss of protective coating, corrosion and blocking. Problems with conduits most often occur at joints and special attention should be given to them during inspection. Joints should be checked for gaps caused by elongation or settlement and loss of joint filler material. Open joints can permit erosion of the embankment material and possibly the piping of soil material through the joints. A depression in the soil surface over the pipe may indicate that soil is being removed from around the pipe.

- What to do if problems are detected with the spillway: Retain the assistance of a civil engineer or geotechnical engineer qualified in the design of embankments to perform an inspection of the dam. If in doubt, lower the water surface elevation of the pond until such time as a qualified professional can perform an inspection.

B. Trash Racks on Pipe Spillways

The intake structure has been fitted with a trash rack to prevent debris from entering the spillway structure. Most of the runoff entering the pond comes in through grated inlets, which have essentially provided filtration of the runoff

and should limit the size of the debris that enters the basin to floating debris, which will most likely pass through the trash rack. The opening between the trash rack and riser is smaller than the opening of the outlet pipe, thus the pipe outlet will easily pass any debris that passes through the trash rack. Maintenance should include periodically checking the rack for rusted or broken sections and repairing as needed. The trash rack should be checked frequently during and after storm events to ensure that it is properly functioning and to remove accumulated debris.

III. OPERATION

A. Pond Drains

Pond drains should always be operable so that the pool level can be drawn down in case of an emergency or for repairs or maintenance. Pond drain valves or gates that have not been operated for a long time present a special problem. Generally, when draining the pond, it should be drained slowly. Open the drain until a good flow of water is present but not a torrent, so that the water level can be drained over a period of 48 hours or more. Rapidly lowering the water level in the pond can cause permanent damage to the embankment, or downstream erosion, and must be avoided. The gate valve controlling the pond drain should be operated from fully closed to fully opened position at least twice a year.

B. Record Keeping

Operation of a dam should include recording of the following:

- Annual Inspection Reports – a collection of written inspection reports should be kept on record with this manual.
- Periodic Inspection – routine observation should be performed at least weekly and following any rainfall event of one-half, or more. Documentation of routine observation should be kept on record with this manual. Where periodic inspections are performed following significant rainfall events, these inspections should be logged into the Periodic Inspection, Operation & Maintenance Form found in the back of this manual (see Attachment 2).
- Maintenance – written records of maintenance and/or repairs should be recorded on the Periodic Inspection, Inspection & Maintenance Form in the back of this manual (see Attachment 2).
- Other Operation Procedures – the owner should maintain a complete and up-to-date set of plans (as-built drawings) and all changes made to the dam over time should be recorded on the as-built drawings.

C. Sedimentation & Dredging

Sedimentation from establishing areas tributary to the pond will eventually

result in the reduction of the retention pool and eventually will have to be removed. The frequency of this sediment removal can be reduced by ensuring that the site areas around the building be stabilized with a vegetative ground cover such that it restrains erosion. This would include a periodic application of fertilizer and other treatments necessary to promote a stable groundcover and minimize sedimentation to the pond. Sediment in the forebay should be removed when the sediment level reaches a maximum El. 881, as determined by a permanent gauge stick installed in the forebay. Any sediment buildup in the main basin should be removed when the level reaches a maximum El. 881, but if sediment buildup in the main basin is observed, the forebay should be cleaned more frequently. Sediment removal should begin with the removal of as much water as possible; then the deposited sediment can be excavated with conventional equipment. The removed material should be drained and hauled offsite or mounded somewhere on site and stabilized with a groundcover sufficient to restrain erosion.

IV. INSPECTION, OPERATION & MAINTENANCE CHECKLISTS

See forms in Attachment 2.

V. SPECIAL CONSIDERATIONS

Observe periodic storm water sampling and analytical requirements.

Attachment No. 1
City of Greensboro
Stormwater Management Manual
(Excerpt)

The following excerpts were recreated verbatim from the referenced publication:

3.6 Structural BMP Maintenance and Inspection Guidelines

3.6.1 Introduction

The purpose of this section is to provide owners of structural BMP's with guidelines to help maintain the BMP's. It is often the case that owners do not fully understand what the BMP on their property is designed to do, much less how to properly maintain it. With different and more complex stormwater BMP's being introduced, it is even more crucial that owners know about the maintenance required for a particular BMP before they decide on one to implement. For owners to appreciate the need for maintenance, it is important that owners are aware that BMP's provide value to the quality of our surface waters and in many cases can be an amenity to their property.

Periodic inspections and maintenance are key factors in preserving the functionality of structural stormwater BMP's. Stormwater BMP's are not self-maintaining systems, and over time the efficiency of structural BMP's to remove pollutants will diminish. Trapped sediments and other pollutants can potentially reduce the volume capacity of the BMP's, decrease filtration rates for filtering BMP's, and damage plantings used for treatment. The following guidelines are provided for the benefit of owners of structural BMP's to help ensure that the BMP will continue to meet the objectives they were designed for.

Besides inspecting and maintaining components in which a BMP's water quality functionality is to be sustained, attention must also be paid to the structural components to sustain its hydraulic functionality as well. Minimizing the risk of hydraulic malfunction (potentially leading to structural failure) is essential, especially for larger impoundment structures such as wet detention ponds, since the majority of the stormwater BMP's in Greensboro are located in urbanized settings, where structural failure may jeopardize downstream life and property.

Maintenance is also important to prevent the decline in the appearance of the BMP. Unhealthy conditions (such as noxious vegetation, stagnant water, etc.) may occur within and around the BMP, which may affect the aesthetics and economic value of the surrounding property.

3.6.2 BMP Maintenance Requirements

The City's water-supply watershed (Ch 30) ordinance and the 1999 stormwater management (Ch 27) ordinance require that BMP's which are constructed to meet these requirements must be maintained by the property owner or owners' association. The BMP's must be maintained to continue to function to meet the regulations it was designed for. The City has the authority to inspect these BMP's periodically and require the BMP owner to perform maintenance activities, when necessary.

The City, as required by the State, will conduct periodic inspections of structural BMP's implemented for water-supply watershed protection. The City will advise the owner of recommended and required maintenance actions needed to maintain BMP functionality.

The design engineer and developer should be responsible for providing BMP owners with inspection and maintenance guidelines and educating them on it.

3.6.3 General Maintenance Guidelines

Dam Safety (This section is applicable to all above ground BMP's that utilize a dam to permanently or temporarily retain or detain water).

Preserving the structural integrity of the dam of a pond BMP is important in protecting downstream life and property. There are at least four aspects of the dam that require specific attention: (1) *assessment of hazard potential* due to changes in downstream development; (2) *seepage*; (3) *dam material problems*; and (4) *vegetation growth* on the dam embankments.

Assessment of Hazard Potential

Before any dam is constructed, the design engineer is responsible for notifying the NC State Dam Safety Office of the proposed dam. If the dam falls under State Dam Safety jurisdiction, the dam must be constructed, maintained and operated according to their design and construction guidelines. Even if the dam does not fall under the NC Dam Safety Office's jurisdiction, the dam should be designed and constructed in accordance with current good engineering practice. The City has requirements concerning the maintenance of dams associated with required BMP's.

As new development occurs downstream of the BMP, the chance of significant property damage or danger to human life may increase if catastrophic failure of the dam occurs. Although the dam may be initially exempt from regulation by the State, the owner is responsible for reporting to the State Dam Safety Office downstream development that may affect the hazard classification of the dam.

Seepage

The downstream side of the dam should be inspected regularly for evidence of significant seepage. Seepage can emerge anywhere below the normal pool elevation, including the downstream slope of earth dams, areas beyond the toe of the dam, and around the spillway or pond outlet conduit. Indications of significant seepage include areas where the soil is saturated or where there is a flowing "spring" or leak. If "sinkholes" in the dam embankment are noticed, or if constant flowing water is noticed on the downstream side of the dam, then seepage has become excessive and professional engineering advice should be sought immediately to avert a major structural problem or a catastrophic failure of the dam.

Dam Material Problems

For earth dams, pronounced cracks on the embankment surface indicate the first stages of potential dam failure. Transverse cracks (running perpendicular to the embankment face) generally indicating differential settlement of the dam, can provide pathways for excessive seepage. Longitudinal cracks (running parallel to the embankment face) may be due to inadequate compaction of the dam during construction or shrinkage of the clay (desiccation) in the top of the embankment during prolonged dry conditions. These cracks may eventually lead to slope failure such as sliding or sloughing.

For reinforced concrete dams, the concrete should be checked for pronounced cracking, leakage from the joints, and displacement (noticeable leaning or bulging). Also, excessive seepage, leakage, or springs just downstream of the concrete dam could be indicative of potential seepage-related “piping” problems under the dam.

If such problems or other structural problems are observed, professional engineering advice should be sought.

Vegetative Growth

Trees and other woody vegetation are not permitted on the top slopes or dam embankments. Large root systems from woody vegetation can weaken the dam structure and provide seepage pathways. Thick vegetative cover can also provide a haven for burrowing animals such as the groundhog. These animals can create a network of burrows in the dam embankments that can significantly weaken the dam, by creating seepage paths, which may eventually lead to dam failure. Mowing of the dam embankments should occur, at a minimum, once every 6 months to prevent woody vegetation growth and cover for burrowing animals.

Reduction of Pollutants Entering BMP's

Stormwater BMP's are not 100% efficient in removing pollutants; therefore, when the amount of pollutants into the BMP is higher, the amount of pollutants discharged from the BMP will be higher. Also, increased amounts of pollutants to the BMP will increase the maintenance required to keep the BMP functioning properly. Maintenance to BMP's can be very expensive.

Pollution prevention activities

To assist the stormwater pond in stormwater quality enhancement, every effort should be made to reduce the pollutant load entering the pond system. Pollution prevention BMP's described in Section 3 of this manual should be implemented along with the following efforts:

- Outside trash dumpsters should be kept covered, and the area around the dumpster should be kept neat and clean.
- Chemicals, petroleum products and other pollution sources (such as machinery) should be stored in a covered area away from possible stormwater contact. Spent chemicals are to be properly disposed or recycled.
- Fertilizers and pesticides should be used conservatively on the property

grounds. Excessive amounts of these chemicals can be washed away with stormwater runoff increasing the nutrient load to the pond.

- Chemicals such as copper sulfate used to inhibit algae growth in the water quality pond degrade water quality. Since the pond's main function is to enhance water quality, these chemicals should not be used. Rather, reducing the amount of fertilizer application and ensuring that the pond outlets are properly functioning so the pool is flushed periodically will help to deter algae growth.
- Trash and vegetative floatables (grass clippings, leaves, limbs, etc.) should be cleaned from the pond surface and surroundings periodically to promote a healthy, aesthetically pleasing environment, and to prevent blockage of the pond outlets. Studies have shown that people are less likely to litter ponds that are aesthetically pleasing and support wildlife.

Stabilization of BMP drainage area

The area draining to the BMP pond should remain stabilized to prevent excessive sediment from entering the BMP facility. When the bare soil is directly exposed to precipitation the sediment concentration in runoff is much higher than for soil that is stabilized. A stabilized area is covered by impervious surfaces (pavement, buildings), grass cover, landscaped cover (mulch, pine straw), etc.

For filtration practices such as sand filtration facilities and bioretention, maintaining a stabilized drainage area is especially important. Eroded sediment can quickly "seal" the filtration bed, drastically decreasing its filtration capacity.

3.6.4 Grass Swales, Filter Strips

Grass Cover

After initial seeding, the grass should be watered, as needed.

The grass should be mowed periodically (usually when mowing the rest of the property). To maintain the filtering capability of the grass, it should not be mowed to close to the ground (three to four inches minimum).

The ground should be inspected to make sure there is dense growth on all portions of the control device. Bare spots or areas where there is sparse grass cover should be reseeded. It may be necessary to use a temporary erosion resistant matting or to use sod to repair these areas.

As always for grassed areas, fertilizers and pesticides should not be over-applied. Refer to product directions for correct application quantity.

The grass used should be erosion resistant and can tolerate frequent inundation (standing water). Tall fescue is an appropriate choice.

Erosion Problems

The inlet and outlet areas, side slopes (swales), and the rest of the conveyance area should be inspected for erosion problems.

Where water discharges from a pipe and where the stormwater runs off impervious area onto pervious area, there may be erosion problems. The BMP should have riprap protection at the end of pipes and a gravel trench at the edge of impervious areas to help prevent erosion. These devices should be inspected to ensure they are functioning properly. If erosion is noticed in within the rip rap pad or along the edges of the pad, more rock may be needed or it may have been improperly placed (no geotextile liner or improper placement of liner, rip rap not well graded, etc.) If the rock or gravel is displaced downstream, a larger size rock or gravel should be used.

Rill erosion (small channels or gulleys in the ground) is a common problem found in these control devices where the water runoff is naturally trying to channelize. Rill erosion can be repaired by filling in the rills with suitable (clayey) soils and reseeding. It may be necessary to use a temporary erosion resistant matting or to use sod to repair these areas.

Sediment Build-up

Because these BMPs are designed to slow stormwater flows down, sedimentation of coarse particles will occur. Over time the sediment level within the bottom of the swale or filter strip will increase, especially at the upstream area. Sediment will need to be removed periodically (once build-up exceeds one to two inches) from the BMP.

3.6.5 Dry Detention Basins, Wet Detention Ponds, Stormwater Wetlands

The following items should be inspected/maintained on a quarterly basis. These items are in addition to any NC Dam Safety requirements for dams regulated by that agency.

Buffer Vegetation

Strong rooted grasses that have a high tolerance for erosion should be planted on embankments around the pond. Good grass cover should be maintained around the pond perimeter to prevent excessive sediment from entering the pond. The following should be used as guidelines for maintaining buffer vegetation.

- To sustain the structural integrity of the dam, no trees or woody vegetation should be allowed on the dam embankments or top of dam. These areas should be mowed on a quarterly basis.
- To preserve the hydraulic capacity of the pond system and to prevent runoff from backing up, inlet and outlet areas should be kept clear of heavy vegetation.
- To provide easy access to the pond, the maintenance access around the pond should be free of trees and mowed on a periodic basis.
- Trees and brush, if desired, are acceptable on pond embankments other than the dam.

Erosion Problems

Unsuitable fill material, inadequate compaction, and/or poor stabilization of earth structures can result in accelerated erosion where high runoff velocities exist. High velocities usually occur on steep pond embankments, at pond inlet and outlet discharge areas, and where the water is constricted to channel flow. The entire pond area should be inspected quarterly for signs of erosion, paying special attention to the following areas:

Embankments

If pond embankments are not kept well vegetated with grasses, rill erosion (small channels formed in the embankment due to poor grass cover) may occur. Rill erosion can be repaired by filling the small channels with suitable soil, compacting, and seeding. It may be necessary to install temporary erosion control (such as hay bales) along heavily eroded areas to allow the repaired areas to stabilize. It is especially important to inspect for and immediately repair any erosion on the dam embankments.

Pipe Inlet and Outlet areas

Where erosion causes the undercutting of the downstream end of pipe, the undercut should be stabilized immediately to prevent the end pipe section from “breaking” off. Eroded areas should be filled with good compactable soil and covered with geotextile and riprap.

Open Channel Flow

Eroded areas should be seeded/sodded and protected with temporary velocity dissipation (such as excelsior matting, straw bales, etc.) If erosion continues, a more robust lining should be used.

Blockage of Outlets

Wet extended detention ponds are designed for the water to exit the pond through the low flow orifice(s), the principal spillway, and the emergency spillway. It is important to check all three outlets for blockage that would impair the pond’s water quality and hydraulic functionality.

Low Flow Orifice(s)

Unless an inverted orifice is used, some type of trash guard is to be maintained over the low flow orifice(s) to prevent clogging. When the orifice becomes clogged the water level rises to the principal spillway elevation and the benefits associated with temporary storage and its gradual release are lost. To preserve “extended detention” the low flow orifice should be inspected for blockage **twice a month and after large storms**.

Principal and Emergency Spillway

Principal and emergency spillways are designed to safely convey larger than one inch storms that produce runoff which exceed the water quality volume of the BMP. If these spillways are blocked so they do not operate at full capacity, the risk of dam overtopping or other uncontrolled releases may result. To ensure the hydraulic capacity of the spillways, the spillways should be inspected for blockage **twice a month and after large storms**.

If a riser/barrel is used for the principal spillway, a trash rack is to be maintained on the riser. Vegetative growth in the riser should be removed promptly so that the design capacity of the spillway is maintained. Also, the outlet area where the barrel projects from the fill should be clear of tree limbs, sediment accumulation, etc.

Sediment Accumulation

To preserve the BMP’s pollutant removal capability, sediment must be removed in areas where the capacity of the design sediment storage volume has been exceeded.

Section on dry detention removed.

Wet Detention Pond

The forebay helps to improve the removal efficiency of the pond system by trapping the majority of coarser suspended solids behind the baffle. When sediment deposition in the forebay exceeds the designed sediment storage capacity for the forebay, the forebay must be dredged. An indication of when the forebay sediment capacity is exceeded is when sediment bars are visible near the inlet discharge or when the sediment level at the inlet to the pond is less than one foot below the normal pool surface (the elevation of the pool is at the bottom of the low flow orifice). Typically, forebays will need to be dredged every 5 to 10 years.

Depth measurements relative to the normal surface elevation (bottom of water quality orifice) should be taken at several locations around the pond. The sediment is to be removed when the measured depth is less than the design permanent pool depth. If a forebay is used at the inlet area of the pond and is regularly dredged, the frequency of dredging the entire pond could be greatly reduced.

Section on wetland removed.

Sediment from most sources is usually not hazardous or contaminated, however, it is very “soupy” and is difficult to manage. It is good idea to provide a storage area near the BMP to place sediment once it is dredged to allow it to dry. If desired, sediment may be land applied and seeded. If land applied on-site, it should be within the drainage area to the BMP so sediment that runs off can be recaptured.

Attachment No. 2

Stormwater Pond Inspection Checklist

POND INSPECTION CHECKLIST

Date: _____

Time: _____

SPILLWAYS – DRAINS – OUTLETS

Check/Circle Condition Noted	Observations	Action – Repair	Action – Monitor	Action Investigative
Principal Spillway	Type:			
Trash racks/Debris				
Cracks/Deterioration				
Joint Deterioration				
Improper Alignment				
Cracks/Deterioration				
Joint Deterioration				
Seepage/Piping				
Undercutting				
Erosion				
Debris				
Pond Drain/Other Outlets	Type:			
Gates/Valves				
Operability				

General Comments, Sketches & Field Measurements

POND INSPECTION CHECKLIST

Date: _____

Time: _____

EMBANKMENT -- POOL

Check/Circle Condition Noted	Observations	Action – Repair	Action – Monitor	Action Investigative
U/S Slope	Type:			
Vegetation/Riprap				
Beaching/slides/cracks				
Undermining/erosion				
Rodent burrows				
Crest	Type:			
Ruts/erosion				
Cracks/settlement				
Poor alignment				
D/S Slope	Type:			
Vegetation/erosion				
Rodent burrows				
Sloughs/slides/cracks				
Seepage/wetness				
Pool	Type:			
Erosion/ground cover				
Sedimentation				
Water quality				
Abutment	Type:			
Vegetation/erosion				
Slough/slides/cracks				
Seepage/wetness				

General Comments, Sketches & Field Measurements

Appendix 6

Fire Notification Form

FIRE OCCURRENCE NOTIFICATION

NC DENR Division of Waste Management Solid Waste Section



The Solid Waste Rules [15A NCAC 13B, Section 1626(5)(d) and Section .0505(10)(c)] require verbal notification within 24 hours and submission of a written notification within 15 days of the occurrence. The completion of this form shall satisfy that requirement. *(If additional space is needed, use back of this form)*

NAME OF FACILITY: _____ PERMIT # _____

DATE AND TIME OF FIRE ____/____/____ @ ____: ____ AM / PM (circle one)

HOW WAS THE FIRE REPORTED AND BY WHOM _____

LIST ACTIONS TAKEN _____

WHAT WAS THE CAUSE OF THE FIRE _____

DESCRIBE AREA, TYPE, AND AMOUNT OF WASTE INVOLVED _____

WHAT COULD HAVE BEEN DONE TO PREVENT THIS FIRE _____

CURRENT STATUS OF FIRE _____

DESCRIBE PLAN OF ACTIONS TO PREVENT FUTURE INCIDENTS: _____

NAME	TITLE	DATE
------	-------	------

THIS SECTION TO BE COMPLETED BY SOLID WASTE SECTION REGIONAL STAFF

DATE RECEIVED _____

List any factors not listed that might have contributed to the fire or that might prevent occurrence of future fires:

FOLLOW-UP REQUIRED:
 NO PHONE CALL SUBMITTAL MEETING RETURN VISIT BY: _____ (DATE)

ACTIONS TAKEN OR REQUIRED:

DATE	NO.	REVISION
4-1-08	1	REVISED HOURS OF OPERATION PER NCDEP SWS COMMENTS
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
4-13-07	2	REPHRASED FOR FINAL ITC REVIEW (ADDED GILMER TOWNSHIP LABEL)
08-21-06	1	SITE PLAN REVISIONS PER CITY OF GREENSBORO TECHNICAL REVIEW COMMITTEE

CITY OF GREENSBORO SIGN REQUIREMENTS: A FREE STANDING SIGN MOUNTED ON TWO WOODEN POSTS SHALL BE ERECTED NEAR THE ENTRANCE DRIVE, OFF THE ROAD, RIGHT-OF-WAY. THE SIGN SHALL ANNOUNCE THE NAME OF THE FACILITY AND BE VIEWABLE FROM APPROXIMATELY 1/4 MILE AWAY. THE SIGN SHALL BE APPROXIMATELY 10 FEET HIGH AND APPROXIMATELY 8 FEET WIDE (LETTERED PLACARD AREA). THE HEIGHT OF THE MOUNTED SIGN SHALL BE 14 TO 16 FEET (TOP OF PLACARD TO GROUND).

POST DIMENSIONS: 12-INCH DIAMETER WOODEN POSTS, I.E. UTILITY POSTS.
SPACED A MAXIMUM DISTANCE OF 8 FEET

Lettering: 12"-inch high block letters, red on white background, siding
6"-inch high block lettering, block on white background, siding

BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION

NC DENR Solid Waste Permit No. XX-XXX

Hours of Operation: 6:30 am to 5:30 pm, Monday-Friday
7:00 am to 1:00 pm, Saturday

Owner/Emergency Contact: (CONTACT NAME)
(CONTACT ADDRESS 1)
(CONTACT ADDRESS 2)
(CONTACT NUMBER)

Allowable Wastes: Brick, block, rock, clean soil, treated and untreated wood, stumps, limbs, brush, other vegetative material, construction debris, demolition debris, land clearing debris, metals, asbestos wastes by prior arrangement and subject to NC DENR Division of Waste requirements.

Excluded Wastes: Household garbage, liquids and/or hazardous wastes.
FOR AFTER HOURS EMERGENCIES CALL 911

BURNT POPLAR TRANSFER, LLC

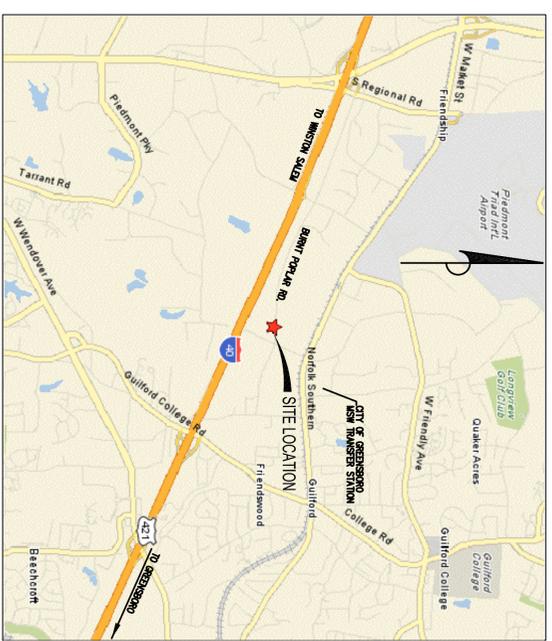
C&D TRANSFER STATION

6313 BURNT POPLAR ROAD

GILMER TOWNSHIP / GUILFORD COUNTY

GREENSBORO, NORTH CAROLINA

SITE PLAN APPLICATION



THESE DRAWINGS WERE APPROVED BY THE CITY OF GREENSBORO, NORTH CAROLINA, TECHNICAL REVIEW COMMITTEE (TRC) FOR SITE PLAN APPROVAL, CASE #2006-1355, COVERING SUCH ITEMS AS GRADING AND DRAINAGE, STORM WATER MANAGEMENT, BUFFER PROTECTION, BASIC LANDSCAPING, BASIC STREET AND UTILITY CONNECTIONS, BASIC BUILDING AND PARKING LAYOUT (W.R.T. HANDICAP ACCESSIBILITY).

THE DRAWINGS ARE REPRESENTED HERE EXACTLY AS THEY WERE APPROVED BY THE CITY OF GREENSBORO TRC. FUTURE APPROVAL FROM THE CITY WILL BE REQUIRED FOR THE BUILDING PERMIT FOR THE OFFICE/SCALE HOUSE AND UTILITIES, AND A GRADING PERMIT APPLICATION WITH SEDIMENT AND EROSION CONTROL WILL BE REQUIRED.

SUBMITTED TO THE NORTH CAROLINA DENR
DIVISION OF WASTE MANAGEMENT
AUGUST 2006 (REVISED DECEMBER 2007)

INDEX OF DRAWINGS

SUBJECT PROPERTY:	SHEET NO.	DRAWING NO.	DRAWING TITLE
6313 BURNT POPLAR ROAD, GREENSBORO, NORTH CAROLINA	1	-	TITLE/COVER SHEET
LOCATED ON THE SOUTH SIDE OF BURNT POPLAR ROAD (SR 1556) APPROXIMATELY 700 FEET WEST OF SOUTH CHIMNEY ROCK ROAD (SR 1554). GUILFORD COUNTY TAX MAP: ACL-94-7031-959-10, D.B. 6058, PG. 991, 6.33 ACRES. UPPER RANDELMAN LAKE WATERSHED.	2	S1	EXISTING CONDITIONS
	3	S2	SITE PLAN - GENERAL FACILITY PLAN
	3A	S2A	SITE PLAN - PRELIMINARY BUILDING DETAILS
	4	S3	SITE PLAN - ON-SITE TRAFFIC PLAN
	5	S4	SITE PLAN - UTILITY PLAN
	6	S5	SITE PLAN - LANDSCAPE PLAN
	7	S6	SITE PLAN - STORMWATER PLAN
	7A	S6A	SITE PLAN - GRADING AND S&EC PLAN - STAGE 1
	7B	S6B	SITE PLAN - GRADING AND S&EC PLAN - STAGE 2
	8	EC1	SEDIMENTATION & EROSION CONTROL DETAILS (SHEET 1 OF 3)
	9	EC2	SEDIMENTATION & EROSION CONTROL DETAILS (SHEET 2 OF 3)
	10	EC3	SEDIMENTATION & EROSION CONTROL DETAILS (SHEET 3 OF 3)
	11	EC4	SEDIMENTATION & EROSION CONTROL SCHEDULES AND NARRATIVE

NOTE REQUIRED BY CITY OF GREENSBORO:

ENGINEER'S CERTIFICATION OF STORMWATER QUALITY CONTROL

I CERTIFY THAT, PURSUANT TO GENERALLY ACCEPTED ENGINEERING STANDARDS IN THE COMMUNITY, IT IS MY PROFESSIONAL OPINION THAT RUNOFF FROM THE FIRST INCH OF RAINFALL FROM AREAS THAT ARE REQUIRED TO BE CONTROLLED PER SECTION 30-7-112 OF THE GREENSBORO DEVELOPMENT ORDINANCE IS CONTROLLED BY A PERMANENT ENGINEERED STORMWATER QUALITY CONTROL THAT HAS BEEN DESIGNED TO MEET OR EXCEED THE REQUIREMENTS OF THE GREENSBORO STORMWATER MANAGEMENT MANUAL.

P.E. SEAL NORTH CAROLINA P.E. 25462
SIGNATURE _____
DATE 4-13-2007 (ORIG. SUBMITTED TO TRC)

David Garrett, PG, PE.

Engineering and Geology

5105 Harbour Towne Drive, Raleigh, North Carolina 27604
Email: david_garrett_pg@indspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)

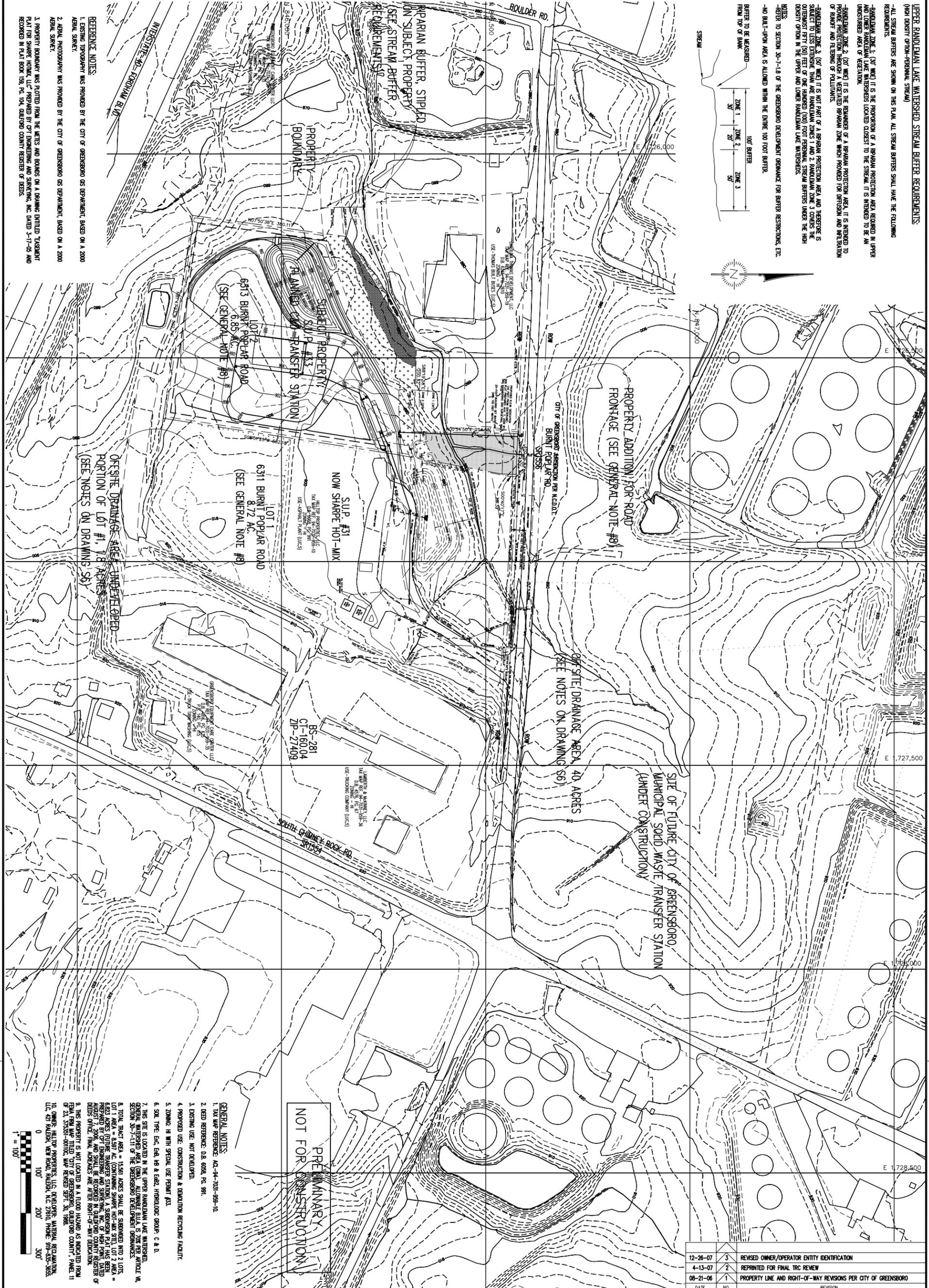


PRELIMINARY
NOT FOR CONSTRUCTION

UPPER RANDOLPH LAKE WATERSHED STREAM BUFFER REQUIREMENTS:
(FROM DESIGN OPTION-FINAL STREAM)

- ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS.
- RANDOLPH ZONE 1: (50' WIDE) IT IS THE PORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDOLPH LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
- RANDOLPH ZONE 2: (50' WIDE) IT IS THE REMAINDER OF A RIPARIAN PROTECTION AREA. IT IS INTENDED TO PROVIDE PROTECTION THROUGH A VEGETATED RIPARIAN ZONE WHICH PROVIDES FOR OUTFLOW AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
- RANDOLPH ZONE 3: (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS RESTRICTIONS THAN THE RANDOLPH ZONES 1 AND 2. RANDOLPH ZONE 3 COVERS THE OUTSLOPE (LEFT) (50') FEET OF ONE HUNDRED (100') FOOT PERMANENT STREAM BUFFERS UNDER THE DESIGN OPTION IN THE UPPER AND LOWER RANDOLPH LAKE WATERSHEDS.

- NOTES:**
- REFER TO SECTION 30-1-18 OF THE GREENSBORO DEVELOPMENT ORDINANCE FOR BUFFER RESTRICTIONS, ETC.
 - NO BUILD-UPON AREA IS ALLOWED WITHIN THE ENTIRE 100' FOOT BUFFER.
 - BUFFER TO BE MEASURED FROM TOP OF BANK.



REFERENCE NOTES:

1. EXISTING TOPOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
2. AERIAL PHOTOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
3. PROPERTY BOUNDARY WAS OBTAINED FROM THE METES AND BOUNDS ON A DRAWING ENTITLED 'EASEMENT PLAN FOR SHARPE HOLDING, LLC' PREPARED BY CDT ENGINEERING AND SURVEYING, INC. DATED 3-17-06 AND RECORDED IN PLAN BOOK 159, PG. 104, OUTLORD COUNTY REGISTER OF DEEDS.

OFF-SITE DRAINAGE AREA UNDEVELOPED PORTION OF LOT #1, 1.8 ACRES (SEE NOTES ON DRAWING S6)

- GENERAL NOTES:**
1. TAX MAP REFERENCE: A02-94-7031-89-10.
 2. DEED REFERENCE: D.B. 6098, P.C. 991.
 3. EXISTING USE: NOT DEVELOPED.
 4. PROPOSED USE: CONSTRUCTION & REMEDIATION RECEIVING FACILITY.
 5. ZONING: H WITH SPECIAL USE PERMIT ACT.
 6. SOIL TYPE: E6C, E6B, H6 & E6B2, HYDROLOGIC GROUP: C & D.
 7. THIS SITE IS LOCATED IN THE UPPER RANDOLPH LAKE WATERSHED SECTION 30-1-18 OF THE GREENSBORO DEVELOPMENT ORDINANCE.
 8. TOTAL TRACT AREA = 15.501 ACRES SHALL BE SUBDIVIDED INTO 2 LOTS. LOT 1 AREA = 6.897 AC. (CONTAINING SHARPE HOLDING STATE LOT 2 AREA) PREPARED BY CDT ENGINEERING AND SURVEYING, INC. OF 16th FLOOR DATED AUGUST 7, 2006, AND SHALL BE RECORDED IN OUTLORD COUNTY REGISTER OF DEEDS OFFICE. FINAL ASSESSMENTS ARE AFTER RIGHT-OF-WAY DEDICATION.
 9. THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AS INDICATED FROM FEMA FIRM MAP TITLED 'DTT OF GREENSBORO, OUTLORD COUNTY', PANEL 11 OF 23, 37531-0010C, MAP REVISION SEPT. 30, 1988.
 10. OWNER: HILTOP PROPERTIES, LLC DEVELOPER: MATERIAL REGULATION, LLC 421 PALMER, NEW ROWN, PALMER, N.C. 27810, PHONE: 919-435-3653.

PRELIMINARY NOT FOR CONSTRUCTION

DATE	NO.	REVISION
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
4-13-07	2	REPRINTED FOR FINAL TRC REVIEW
08-21-06	1	PROPERTY LINE AND RIGHT-OF-WAY REVISIONS PER CITY OF GREENSBORO

DRAWING TITLE: **EXISTING CONDITIONS**

DESIGNED BY: G.D.G.

DRAWN BY: A.W.H.

CHECKED BY: G.D.G.

PROJECT NO.: MRR-3

DATE: JULY 2006

FILE NAME: MRR3-00001

SHEET NO.: 2

DRAWING NO.: S1

PROJECT TITLE: **BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION
6313 BURNT POPLAR ROAD
GREENSBORO, NORTH CAROLINA**

SCALE: AS SHOWN

DATE: JULY 2006

FILE NAME: MRR3-00001

SHEET NO.: 2

DRAWING NO.: S1

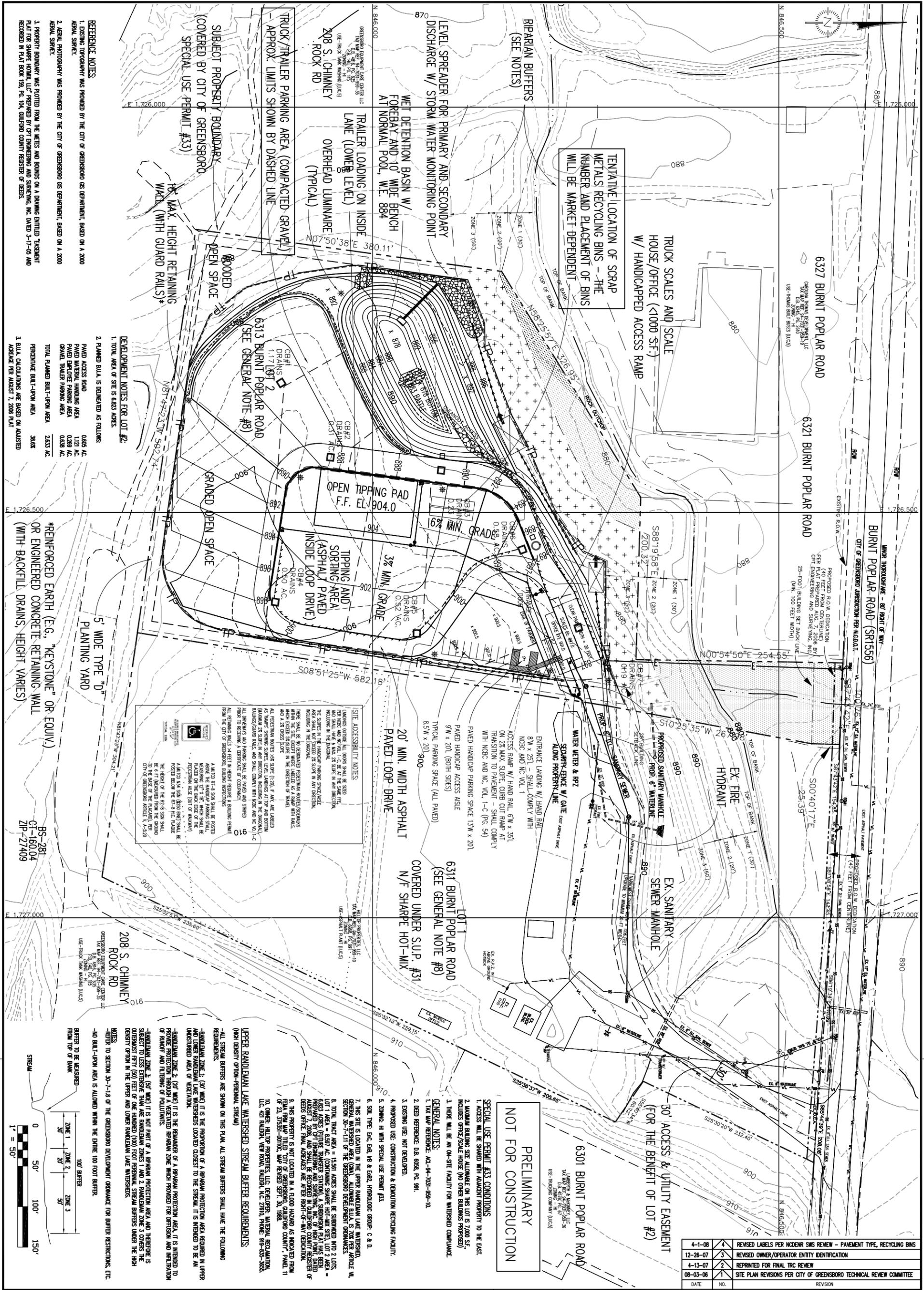
David Garrett, PG, PE.

Engineering and Geology

5105 Harbour Towne Drive, Raleigh, North Carolina 27604

Email: david_garrett_pg@mindspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)

6/4/2008



REFERENCE NOTES:
 1. DESIGN THROUGHOUT WAS PROVIDED BY THE CITY OF GREENSBORO SS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 2. AERIAL PHOTOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO SS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 3. PROPERTY BOUNDARY WAS PLOTTED FROM THE METES AND BOUNDS ON A DRAWING ENTITLED 'SUBSISTANT PLANT FOR SHARPE HOLDING, LLC' PREPARED BY CPT ENGINEERING AND SURVEYING, INC. DATED 5-17-05 AND RECORDED IN PLAT BOOK 159, PG. 104, GUILFORD COUNTY REGISTER OF DEEDS.

DEVELOPMENT NOTES FOR LOT #2:
 1. TOTAL AREA OF SITE IS 6.823 ACRES.
 2. PLANNED BUA IS DEMONSTRATED AS FOLLOWS:
 PAVED ACCESS ROAD 0.045 AC
 PAVED MATERIAL HANDLING AREA 1.170 AC
 PAVED DRIVEWAY/TURNING AREA 0.289 AC
 GRAVEL TRAILER PARKING AREA 0.839 AC
 TOTAL PLANNED BUILT-UPON AREA 2.343 AC
 PERMISSIBLE BUILT-UPON AREA 38.65 AC
 3. BUA CALCULATIONS ARE BASED ON ADJUSTED AVERAGE PER AUGUST 7, 2006 PLAT

SITE ACCESSIBILITY NOTES:
 LANDINGS OUTSIDE ALL DOORS SHALL BE SIZED TO ACCOMMODATE A WHEELCHAIR AND SHALL HAVE A MAX. 2% SLOPE IN ANY DIRECTION. THE SLOPE IN THE HANDICAP PARKING SPACE/AREA SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION. THESE SHALL BE NO DESIGNATED RESTROOM ROUTES/SERVICES WHICH EXCEED 5% SLOPE IN THE DIRECTION OF TRAVEL AND A 2% CROSS SLOPE.
 ALL RESTROOM ROUTES 5/8" SLOPE (1:20), IF ANY, ARE LABELED AS 'RESTROOM ROUTES'. LEVEL LANDINGS AT TOP AND BOTTOM OF RAMP/SLOPE SHALL BE LABELED AS 'RAMP/SLOPE'. ALL RAMP/SLOPE SHALL BE LABELED WITH 'RAMP' AND 'SLOPE' (E.G., '1:12'). ALL RAMP/SLOPE SHALL BE LABELED AND SLOPED FROM THE 5' OF GREENSBORO SIDEWALK/STREET FROM THE 5' OF GREENSBORO SIDEWALK/STREET.
 A MINIMUM 24" x 36" SIGN SHALL BE POSTED ON THE BACK SIDE OF THE RESTROOM (SEE DETAIL OF THE RESTROOM).
 A MINIMUM 24" x 36" SIGN SHALL BE POSTED ON THE BACK SIDE OF THE RESTROOM TO THE 5' OF GREENSBORO SIDEWALK/STREET.
 A MINIMUM 24" x 36" SIGN SHALL BE POSTED ON THE BACK SIDE OF THE RESTROOM TO THE 5' OF GREENSBORO SIDEWALK/STREET.

UPPER RANDELMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:
 (HIGH DENSITY OPTION-FERRELL STREET)
 -ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS:
 -RANDELMAN ZONE 1: (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA LOCATED IN UPPER AND LOWER RANDELMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
 -RANDELMAN ZONE 2: (20' WIDE) IT IS THE REMAINDER OF A RIPARIAN PROTECTION AREA. IT IS INTENDED TO PROVIDE PROTECTION FROM POLLUTANTS.
 -RANDELMAN ZONE 3: (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS RESTRICTIONS THAN ARE RANDELMAN ZONES 1 AND 2. RANDELMAN ZONE 3 COVERS THE OUTERMOST FEET (50 FEET) OF ONE HANDED (100 FOOT PERMANENT STREAM BUFFERS UNDER THE HIGH DENSITY OPTION IN THE UPPER AND LOWER RANDELMAN LAKE WATERSHEDS.

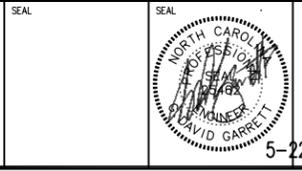
NOTES:
 -REFER TO SECTION 30-7-1.8 OF THE GREENSBORO DEVELOPMENT ORDINANCE FOR BUFFER RESTRICTIONS, ETC.
 -NO BUILT-UPON AREA IS ALLOWED WITHIN THE ENTIRE 100 FOOT BUFFER.
 -BATTER TO BE MAINTAINED FROM TOP OF BANK.



DATE	NO.	REVISION
4-1-08	4	REVISED LABELS PER NC DENR SWS REVIEW - PAVEMENT TYPE, RECYCLING BINS
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
4-13-07	2	REPRINTED FOR FINAL TRC REVIEW
08-03-06	1	SITE PLAN REVISIONS PER CITY OF GREENSBORO TECHNICAL REVIEW COMMITTEE

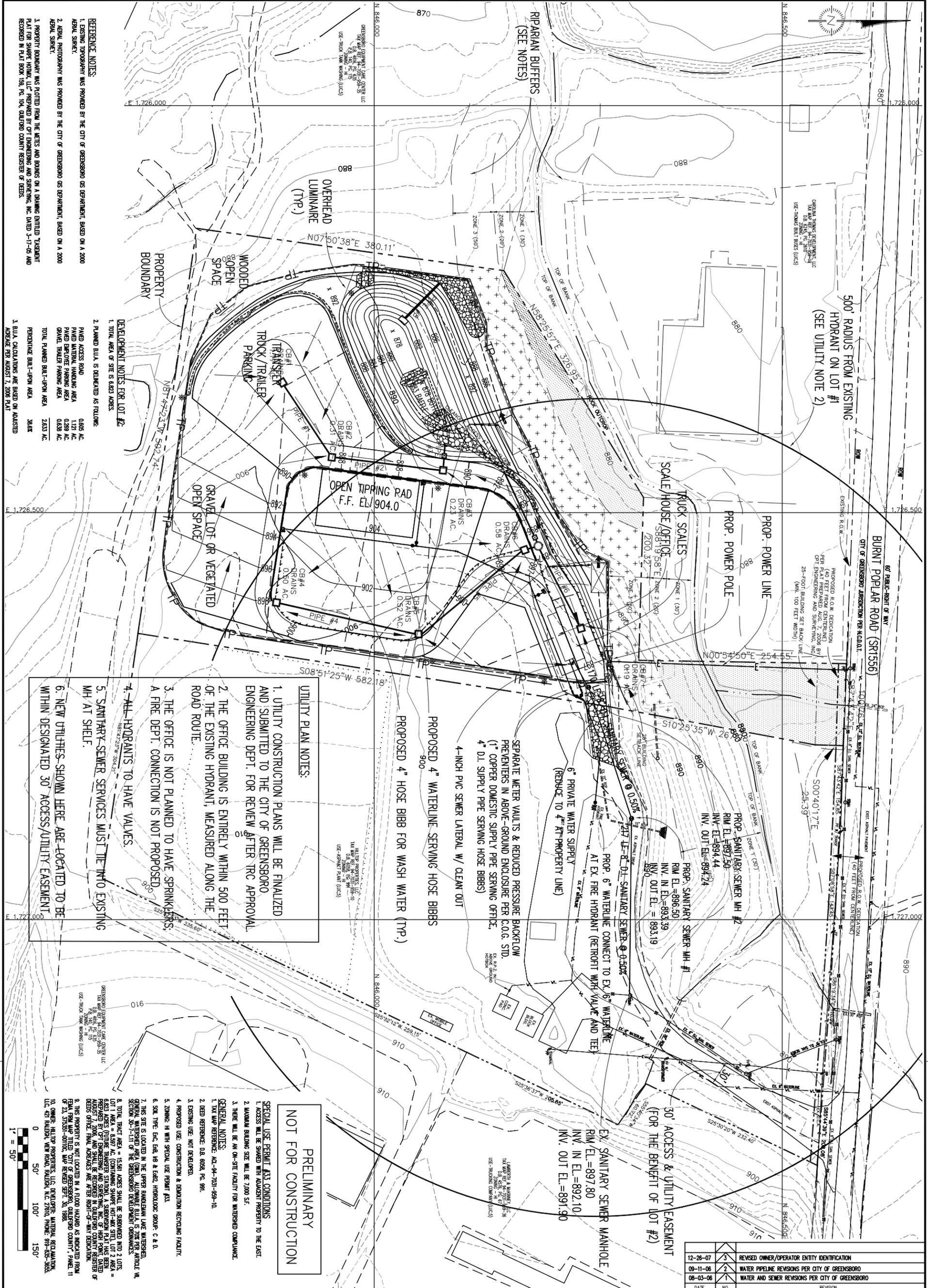
DRAWING TITLE:
 SITE DEVELOPMENT
 GENERAL FACILITY PLAN

PROJECT TITLE:
 BURNT POPLAR TRANSFER, LLC
 C&D TRANSFER STATION
 6313 BURNT POPLAR ROAD
 GREENSBORO, NORTH CAROLINA



David Garrett, PG, PE.
 Engineering and Geology
 5105 Harbour Towne Drive, Raleigh, North Carolina 27604
 Email: david.garrett_pg@mindspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)

5-22-2008



REFERENCE NOTES:
 1. EXISTING TOPOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 2. AERIAL PHOTOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 3. PROPERTY BOUNDARY WAS DERIVED FROM THE METES AND BOUNDS ON A DRAWING ENTITLED "EASEMENT PLAN FOR SHARPE HOLDING, LLC, PREPARED BY C&D ENGINEERING AND SURVEYING, INC. DATED 3-17-06 AND RECORDED IN PLAN BOOK 159, PG. 104, OUTDOWD COUNTY REGISTER OF DEEDS."

DEVELOPMENT NOTES FOR LOT #2:
 1. TOTAL AREA OF SITE IS 6.823 ACRES.
 2. PLANNED BUILD AREA IS DELINEATED AS FOLLOWS:

PAVED ACCESS ROAD	0.065 AC.
PAVED MATERIAL HANDLING AREA	1.121 AC.
PAVED OVERLOVE PARKING AREA	0.289 AC.
GRAVEL TRAILER PARKING AREA	0.038 AC.
TOTAL PLANNED BUILT-UPON AREA	2.533 AC.
PERCENTAGE BUILT-UPON AREA	36.8%

3. BUILD CALCULATIONS ARE BASED ON ADJUSTED ACREAGE PER AUGUST 7, 2006 PLAN.

UTILITY PLAN NOTES:

- UTILITY CONSTRUCTION PLANS WILL BE FINALIZED AND SUBMITTED TO THE CITY OF GREENSBORO ENGINEERING DEPT. FOR REVIEW AFTER TRC APPROVAL.
- THE OFFICE BUILDING IS ENTIRELY WITHIN 500 FEET OF THE EXISTING HYDRANT, MEASURED ALONG THE ROAD ROUTE.
- THE OFFICE IS NOT PLANNED TO HAVE SPRINKLERS. A FIRE DEPT. CONNECTION IS NOT PROPOSED.
- ALL HYDRANTS TO HAVE VALVES.
- SANITARY SEWER SERVICES MUST BE TIED INTO EXISTING MH AT SHELF.
- NEW UTILITIES SHOWN HERE ARE LOCATED TO BE WITHIN DESIGNATED 30' ACCESS/UTILITY EASEMENT.

PRELIMINARY NOT FOR CONSTRUCTION

SPECIAL USE PERMIT #33 CONDITIONS:
 1. ACCESS WILL BE SHARED WITH ADJACENT PROPERTY TO THE EAST.
 2. MAXIMUM BUILDING SIZE WILL BE 7,000 SF.
 3. THERE WILL BE AN ON-SITE FACILITY FOR WATERSHED COMPLIANCE.

GENERAL NOTES:
 1. TAX MAP REFERENCE: AQ-94-7031-899-10.
 2. ZONING REFERENCE: D.B. 605A, PG. 991.
 3. EXISTING USE: NOT DEVELOPED.
 4. PROPOSED USE: CONSTRUCTION & DEMOLITION RECYCLING FACILITY.
 5. ZONING: H WITH SPECIAL USE PERMIT #33.
 6. SIGN: TYPE: ENC. BAR 18 & 24; HORIZONTAL; GROUP: C & D.
 7. THIS SITE IS LOCATED IN THE UPPER RAVENHOLE LAKE WATERSHED, SECTION 30-1-111 OF THE GREENSBORO DEVELOPMENT ORDINANCES.
 8. TOTAL TRACT AREA = 16.581 ACRES SHALL BE SUBDIVIDED INTO 2 LOTS, LOT 1 AREA = 6.597 AC. (CONTAINING SHAPER HOT-AIR STEEL, LOT 2 AREA = 9.984 ACRES (CONTAINING TRAILER PARKING AND STORAGE). THIS SITE BEING RECORDED IN PLAN BOOK 159, PG. 104, OUTDOWD COUNTY REGISTER OF DEEDS OFFICE FINAL ACKNOWLEDGEMENT AFTER RIGHT-OF-WAY DEDICATION.
 9. THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AS INDICATED FROM FEMA FIRM MAP TITLED "CITY OF GREENSBORO, CALDWELL COUNTY, NORTH CAROLINA, JULY 2006 AND SHALL BE RECORDED IN CALDWELL COUNTY REGISTER OF DEEDS OFFICE OFFICE FINAL ACKNOWLEDGEMENT AFTER RIGHT-OF-WAY DEDICATION.
 10. ALL UTILITIES PROPOSED: U.S. DEPARTMENT OF AGRICULTURE, NATIONAL ENGINEERING EXPERTS INC., 4671 RAINBOW, NEW RIVER, NORTH CAROLINA 27644, PHONE: 919-455-3665.

DATE	NO.	REVISION
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
09-11-06	2	WATER PIPELINE REVISIONS PER CITY OF GREENSBORO
08-03-06	1	WATER AND SEWER REVISIONS PER CITY OF GREENSBORO

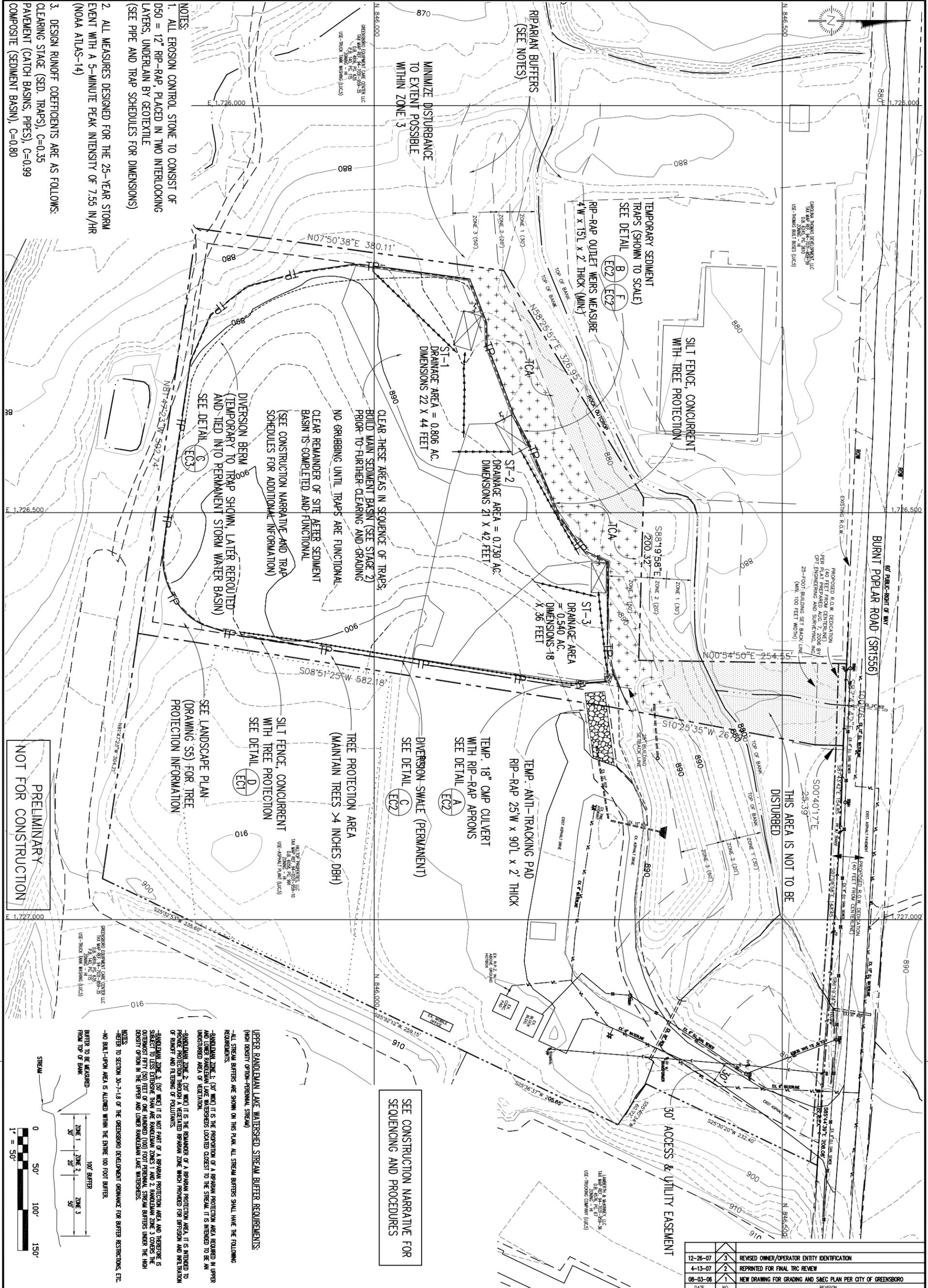
SITE DEVELOPMENT UTILITY PLAN

PROJECT TITLE:
 BURNT POPLAR TRANSFER, LLC
 C&D TRANSFER STATION
 6313 BURNT POPLAR ROAD
 GREENSBORO, NORTH CAROLINA



David Garrett, PG, PE.
 Engineering and Geology
 5105 Harbour Towne Drive, Raleigh, North Carolina 27604
 Email: david.garrett_pg@mindspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)

DESIGNED BY:	G.D.G.
CHECKED BY:	A.W.H.
SCALE:	AS SHOWN
DATE:	JULY 2006
FILE NAME:	MRR3-00013
SHEET NO.:	5
DRAWING NO.:	S4



- NOTES:**
1. ALL EROSION CONTROL STONE TO CONSIST OF D50 = 12" RIP-RAP, PLACED IN TWO INTERLOCKING LAYERS, UNDERLAIN BY GEOTEXTILE (SEE PIPE AND TRAP SCHEDULES FOR DIMENSIONS)
 2. ALL MEASURES DESIGNED FOR THE 25-YEAR STORM EVENT WITH A 5-MINUTE PEAK INTENSITY OF 7.55 IN/HR (NOAA ATLAS-14)
 3. DESIGN RUNOFF COEFFICIENTS ARE AS FOLLOWS:
CLEARING STAGE (SED. TRAPS), C=0.35
PAVEMENT (CATCH BASINS, PIPES), C=0.99
COMPOSITE (SEDIMENT BASIN), C=0.80

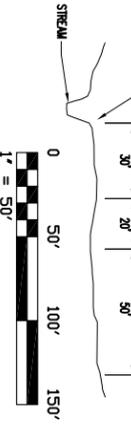
**PRELIMINARY
NOT FOR CONSTRUCTION**

SEE CONSTRUCTION NARRATIVE FOR SEQUENCING AND PROCEDURES

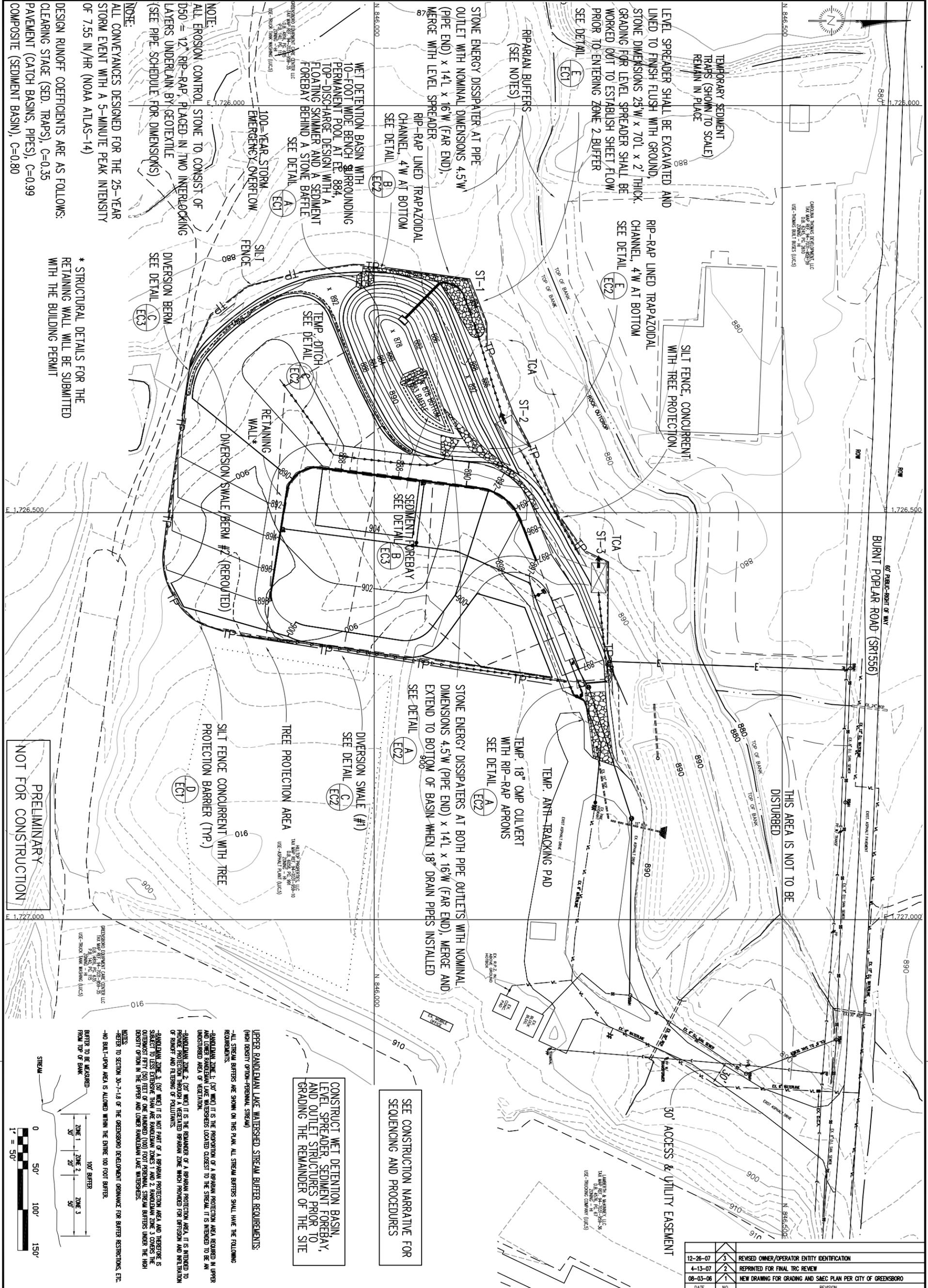
DATE	NO.	REVISION
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
4-13-07	2	REPRINTED FOR FINAL TRC REVIEW
08-03-06	1	NEW DRAWING FOR GRADING AND S&EC PLAN PER CITY OF GREENSBORO

UPPER RANDELMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:
(HIGH DENSITY URBAN-PERENNIAL STREAM)

-ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS:
-RANDELMAN ZONE 1: (50' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDELMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
-RANDELMAN ZONE 2: (20' WIDE) IT IS THE REMAINDER OF A RIPARIAN PROTECTION AREA. IT IS INTENDED TO PROVIDE PROTECTION THROUGH A VEGETATED RIPARIAN ZONE WHICH PROVIDED FOR EROSION AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
-RANDELMAN ZONE 3: (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS RESTRICTIONS THAN THE RANDELMAN ZONES 1 AND 2. RANDELMAN ZONE 3 COVERS THE HIGH DENSITY URBAN IN THE UPPER AND LOWER RANDELMAN LAKE WATERSHEDS.
NOTES:
-REFER TO SECTION 30-7-1.8 OF THE GREENSBORO DEVELOPMENT ORDINANCE FOR BUFFER RESTRICTIONS, ETC.
-NO BUILD-UPON AREAS IS ALLOWED WITHIN THE ENTIRE 100 FOOT BUFFER.
-BUFFERS TO BE MEASURED FROM TOP OF BANK



DRAWING TITLE: SITE DEVELOPMENT GRADING AND S&EC PLAN STAGE 1	PROJECT TITLE: BURNT POPLAR TRANSFER, LLC C&D TRANSFER STATION 6313 BURNT POPLAR ROAD GREENSBORO, NORTH CAROLINA	DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.	SCALE: AS SHOWN	DATE: AUG 2006	FILE NAME: MRR3-00015A	SHEET NO.: 7A	DRAWING NO.: SGA
		SEAL: 	SEAL: 	David Garrett, PG, PE. Engineering and Geology 5105 Harbour Towne Drive, Raleigh, North Carolina 27604 Email: david_garrett_pg@mindspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)				



DATE	NO.	REVISION
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
4-13-07	2	REPRINTED FOR FINAL TRC REVIEW
08-03-06	1	NEW DRAWING FOR GRADING AND SA&EC PLAN PER CITY OF GREENSBORO

CONSTRUCT WET DETENTION BASIN, LEVEL SPREADER, SEDIMENT FOREBAY, AND OUTLET STRUCTURES PRIOR TO GRADING THE REMAINDER OF THE SITE

SEE CONSTRUCTION NARRATIVE FOR SEQUENCING AND PROCEDURES

UPPER RANDELMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:

- ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS.
 - ZONED ZONE 1: (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDELMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
 - ZONED ZONE 2: (20' WIDE) IT IS THE REMAINDER OF A RIPARIAN PROTECTION AREA. IT IS INTENDED TO PROVIDE PROTECTION THROUGH A VEGETATED RIPARIAN ZONE WHICH PROVIDED FOR EROSION AND MITIGATION OF RUNOFF AND FILTERING OF POLLUTANTS.
 - ZONED ZONE 3: (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS EXTENSIVE THAN THE RANDELMAN ZONES 1 AND 2. RANDELMAN ZONE 3 COVERS THE HIGHEST POINT IN THE UPPER AND LOWER RANDELMAN LAKE WATERSHEDS.
- NOTES:
-REFER TO SECTION 30-7-1.8 OF THE GREENSBORO DEVELOPMENT ORDINANCE FOR BUFFER RESTRICTIONS, ETC.
-NO BUILD-UPON AREA IS ALLOWED WITHIN THE ENTIRE 100 FOOT BUFFER.
-BUFFER TO BE MEASURED FROM TOP OF BANK



PRELIMINARY
NOT FOR CONSTRUCTION

TEMPORARY SEDIMENT TRAPS (SHOWN TO SCALE) REMAIN IN PLACE

LEVEL SPREADER SHALL BE EXCAVATED AND LINED TO FINISH FLUSH WITH GROUND, STONE DIMENSIONS 24" W x 70" L x 2" THICK. GRADING FOR LEVEL SPREADER SHALL BE WORKED OUT TO ESTABLISH SHEET FLOW PRIOR TO ENTERING ZONE 2 BUFFER. SEE DETAIL E (EC1)

RIPIARIAN BUFFERS (SEE NOTES)

STONE ENERGY DISSIPATER AT PIPE OUTLET WITH NOMINAL DIMENSIONS 4.5' W (PIPE END) x 14' L x 16" W (FAR END), MERGE WITH LEVEL SPREADER. RIP-RAP LINED TRAPEZOIDAL CHANNEL, 4' W AT BOTTOM. SEE DETAIL B (EC2)

WET DETENTION BASIN WITH 10-FOOT WIDE BENCH SURROUNDING PERMANENT POOL AT ELEV. 884, TOP-DISCHARGE DESIGN WITH A FLOATING SKIMMER AND A SEDIMENT FOREBAY BEHIND A STONE BAFLE. SEE DETAIL A (EC1)

100-YEAR STORM EMERGENCY OVERFLOW

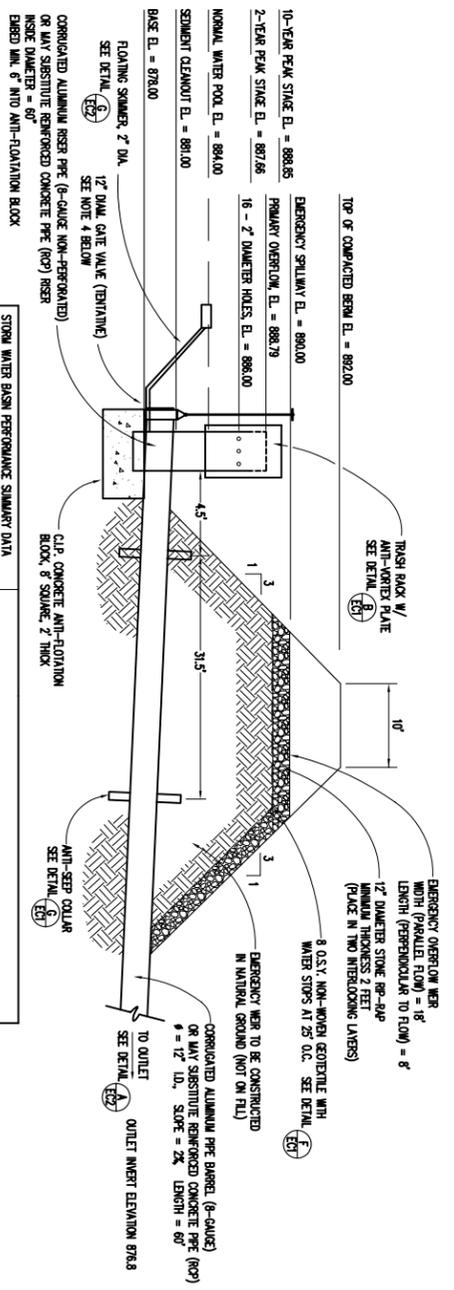
NOTE:
ALL EROSION CONTROL STONE TO CONSIST OF D50 = 12" RIP-RAP, PLACED IN TWO INTERLOCKING LAYERS UNDERLAIN BY GEOTEXTILE (SEE PIPE SCHEDULE FOR DIMENSIONS)

NOTE:
ALL CONVEYANCES DESIGNED FOR THE 25-YEAR STORM EVENT WITH A 5-MINUTE PEAK INTENSITY OF 7.55 IN/HR (NOAA ATLAS-14)

DESIGN RUNOFF COEFFICIENTS ARE AS FOLLOWS:
CLEARING STAGE (SED. TRAPS), C=0.35
PAVEMENT (CATCH BASINS, PIPES), C=0.99
COMPOSITE (SEDIMENT BASIN), C=0.80

* STRUCTURAL DETAILS FOR THE RETAINING WALL WILL BE SUBMITTED WITH THE BUILDING PERMIT

<p>DRAWING TITLE: SITE DEVELOPMENT GRADING AND S&EC PLAN STAGE 2</p> <p>DESIGNED BY: A.W.H. CHECKED BY: MRR-3 DATE: AUG 2006</p> <p>SCALE: AS SHOWN</p> <p>FILE NAME: MRR3-000158 SHEET NO.: 7B DRAWING NO.: S6B</p>	<p>PROJECT TITLE: BURNT POPLAR TRANSFER, LLC C&D TRANSFER STATION 6313 BURNT POPLAR ROAD GREENSBORO, NORTH CAROLINA</p>	<p>SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER DAVID GARRETT 6/4/2008</p>	<p>David Garrett, PG, PE. Engineering and Geology 5105 Harbour Towne Drive, Raleigh, North Carolina 27604 Email: david.garrett_pg@midspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)</p>
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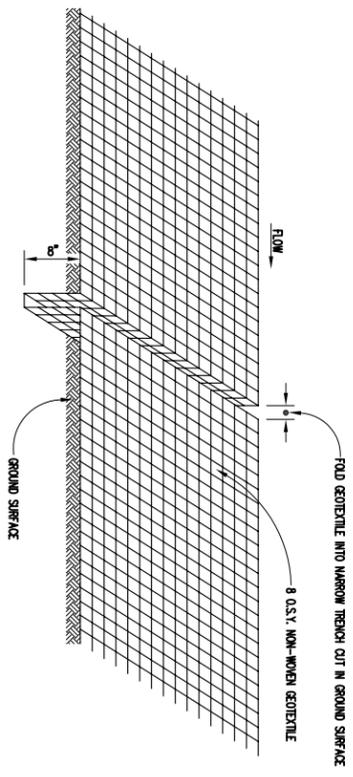


STORM WATER BASIN PERFORMANCE SUMMARY DATA

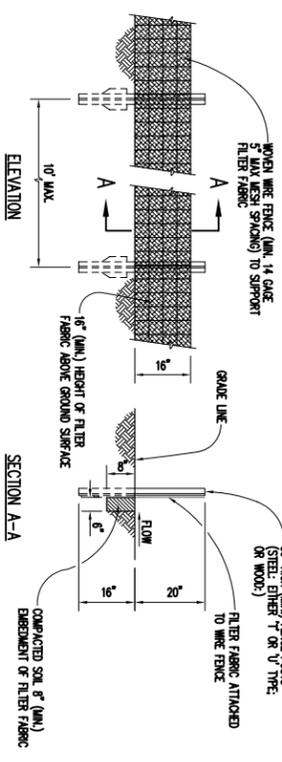
RETENTION PERIOD	PRE-DEVELOPMENT PEAK RAINF. (CFS)	POST-DEVELOPMENT PEAK RAINF. (CFS)	ROUTED OUTFLOW FOR DESIGN STORM (CFS)	PEAK STAGE ELEVATION	MIN. SETBACK FROM TO RAINP. BACK TO NORMAL POOL (DMS)
02	4	15	2.2	897.86	3.1
05	5	17	2.6	898.33	3.2
010	6	19	3.5	898.85	3.3
025	6	21	4.6	899.09	3.3
0100	7	23	12.3	899.39	3.3

- NOTES:
1. ALL CORRUGATED ALUMINUM PIPE CONSTRUCTION SHALL MEET THE STANDARDS OF AASHTO M107 AND/OR ASTM B744.
 2. THE BASIN BERM SHOULD BE APPROXIMATELY 3.6'-6'-FT AND THE PERMEABLE DIRT HAS A MAXIMUM HEIGHT OF 14 FEET (IS NOT WITHIN HIGH-HAZARD CATEGORY).
 3. ALL EARTHWORK SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
 4. OWNER/OPERATOR MAY PROVIDE A CHECK PUMP TO DRAIN THE BASIN FOR MAINTENANCE WHEN NECESSARY, IN LIEU OF A GATE VALVE (PUMP MUST BE CAPABLE OF DRAINING THE BASIN WITHIN 48 HOURS IN THE EVENT OF AN EMERGENCY).

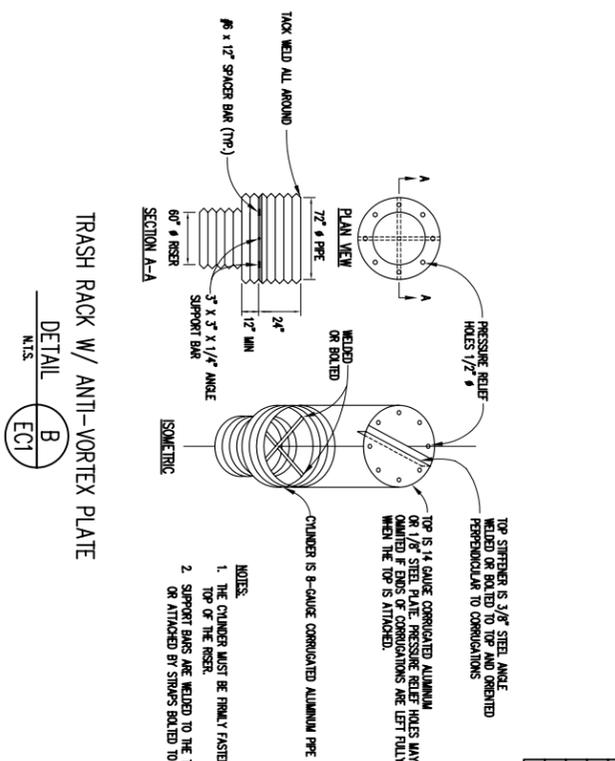
SEDIMENT/STORM WATER BASIN CROSS-SECTION DETAIL A N.T.S. ECI



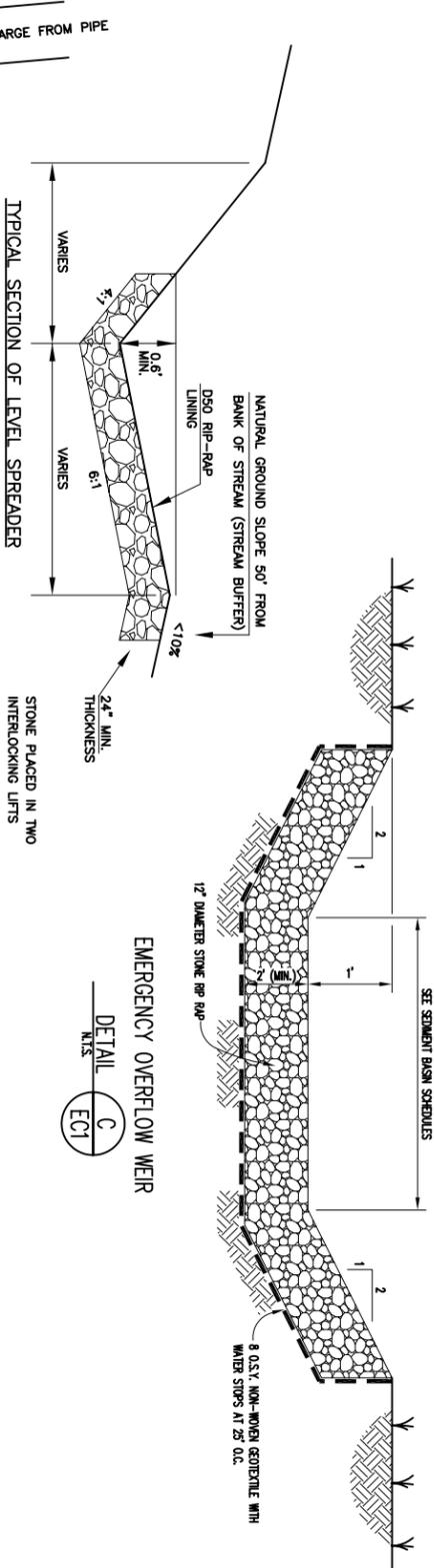
WATER STOP DETAIL DETAIL F N.T.S. ECI



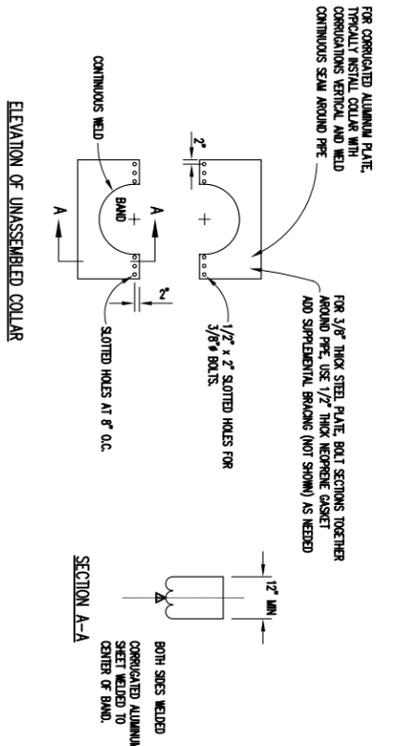
SILT FENCE DETAIL D N.T.S. ECI



TRASH RACK W/ ANTI-VORTEX PLATE DETAIL B N.T.S. ECI



PLAN VIEW OF LEVEL SPREADER DETAIL E N.T.S. ECI



EMERGENCY OVERFLOW WEIR DETAIL C N.T.S. ECI



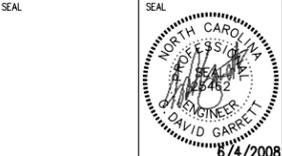
CORRUGATED ALUMINUM ANTI-SEEP COLLAR DETAIL G N.T.S. ECI

PRELIMINARY NOT FOR CONSTRUCTION

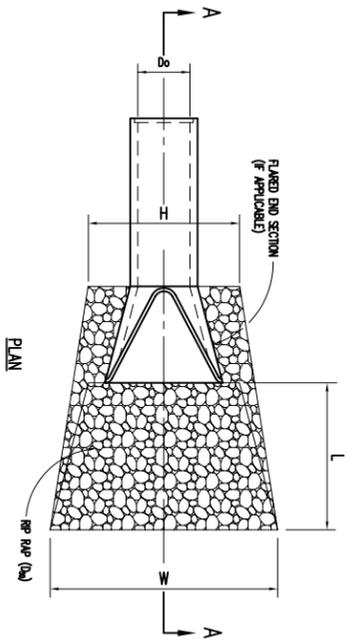
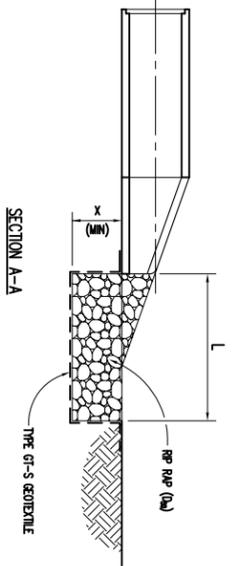
DATE	NO.	REVISION
12-26-07	3	REVISION OWNER/OPERATOR DUTY IDENTIFICATION
10-30-07	2	REPRINTED FOR FINAL PRE REVIEW
08-21-06	1	STORM WATER REVISIONS PER CITY OF GREENSBORO

DESIGNED BY: A.W.H.
 CHECKED BY: PROJECT NO. MRR-3
 DATE: JULY 2006
 SCALE: AS SHOWN
 FILE NAME: MRR3-00003
 SHEET NO. 8
 DRAWING NO. ECI

PROJECT TITLE:
 BURNT POPLAR TRANSFER, LLC
 C&D TRANSFER STATION
 6313 BURNT POPLAR ROAD
 GREENSBORO, NORTH CAROLINA



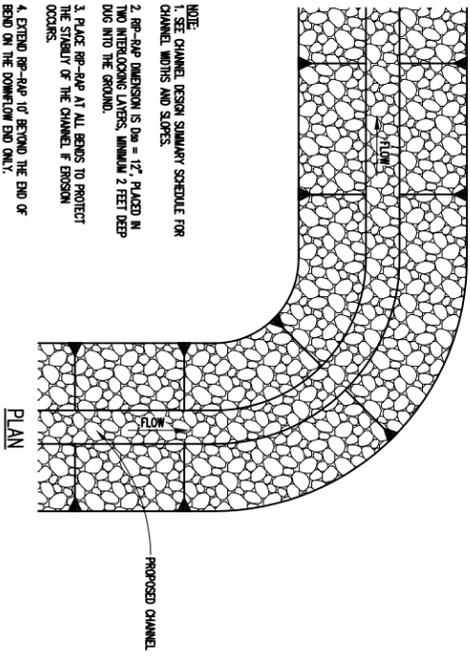
David Garrett, PG, PE.
 Engineering and Geology
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 Email: david_garrett_pg@midaspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)



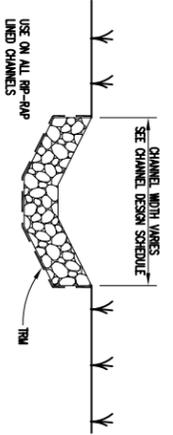
RIP RAP OUTLET PROTECTION

DETAIL A
N.T.S. EC2

- NOTE:
1. DIM REFERS TO THE MINIMUM REQUIRED AVERAGE STONE SIZE.
2. USE CLEAN COMPACTED FILL MATERIAL FOR EARTH BERMS.

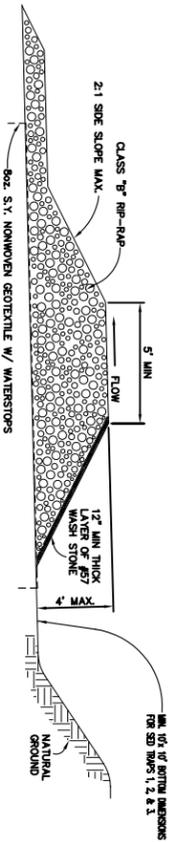


- NOTE:
1. SEE CHANNEL DESIGN SUMMARY SCHEDULE FOR CHANNEL WIDTHS AND SIZES.
2. RIP-RAP DIMENSION IS DIM = 12" PLACED IN TWO INTERLOCKING LAYERS, MINIMUM 2 FEET DEEP INTO THE GROUND.
3. PLACE RIP-RAP AT ALL BENDS TO PROTECT THE STABILITY OF THE CHANNEL IF EROSION OCCURS.
4. EXTEND RIP-RAP 10' BEYOND THE END OF BEND ON THE DOWNFLOW END ONLY.
5. PLACE A STONE CHECK DAM UPSTREAM OF SHARP BENDS.

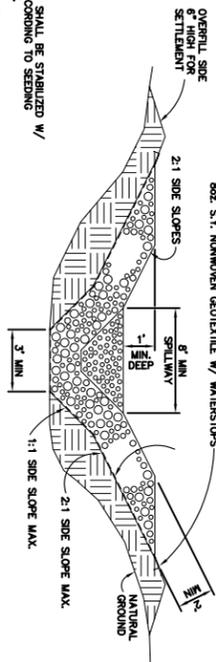


RIP-RAP LINED CHANNEL

DETAIL E
N.T.S. EC2

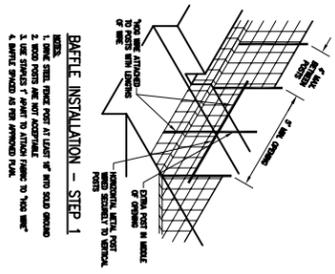


- NOTES:
1. EARTH BERMS SHALL BE STABILIZED W/ VEGETATION ACCORDING TO SEEDING SPECIFICATIONS.
2. USE CLEAN COMPACTED FILL MATERIAL FOR EARTH BERMS.

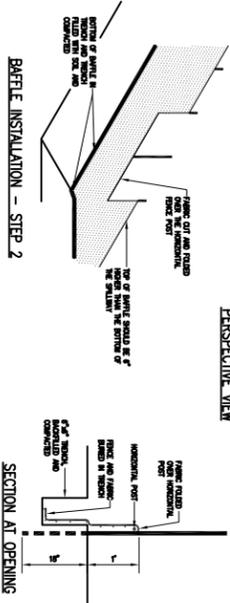


SEDIMENT TRAP

DETAIL B
N.T.S. EC2

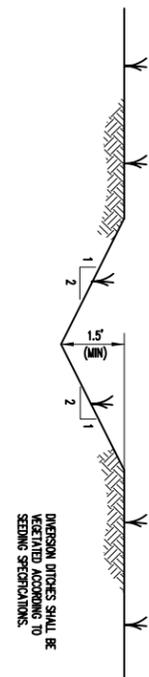
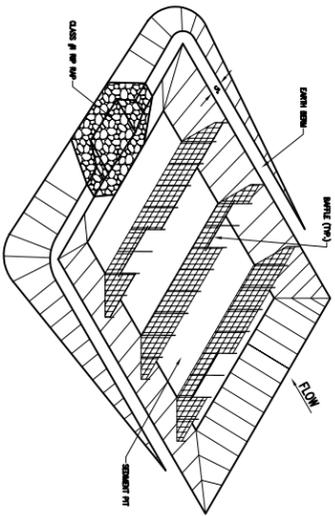


- NOTE:
1. SEE CHANNEL DESIGN SUMMARY SCHEDULE FOR CHANNEL WIDTHS AND SIZES.
2. USE CLEAN COMPACTED FILL MATERIAL FOR EARTH BERMS.
3. PLACE RIP-RAP AT ALL BENDS TO PROTECT THE STABILITY OF THE CHANNEL IF EROSION OCCURS.
4. EXTEND RIP-RAP 10' BEYOND THE END OF BEND ON THE DOWNFLOW END ONLY.



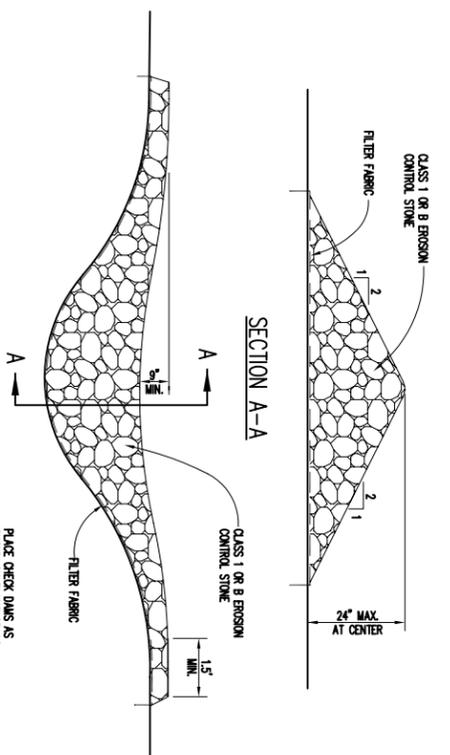
SEDIMENT BASIN BAFFLES

DETAIL F
N.T.S. EC2



DIVERSION DITCH

DETAIL C
N.T.S. EC2



CHECK DAM

DETAIL D
N.T.S. EC2

PRELIMINARY
NOT FOR CONSTRUCTION

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4-13-07	2	REPRINTED FOR FINAL TRC REVIEW
08-21-06	1	STORM WATER REVISIONS PER CITY OF GREENSBORO

David Garrett, PG, PE.

Engineering and Geology

5105 Harbour Towne Drive, Raleigh, North Carolina 27604

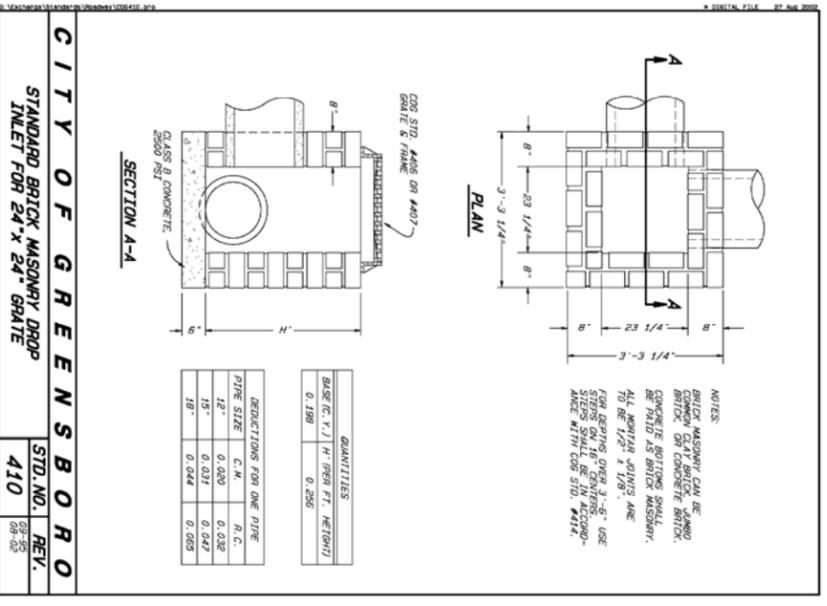
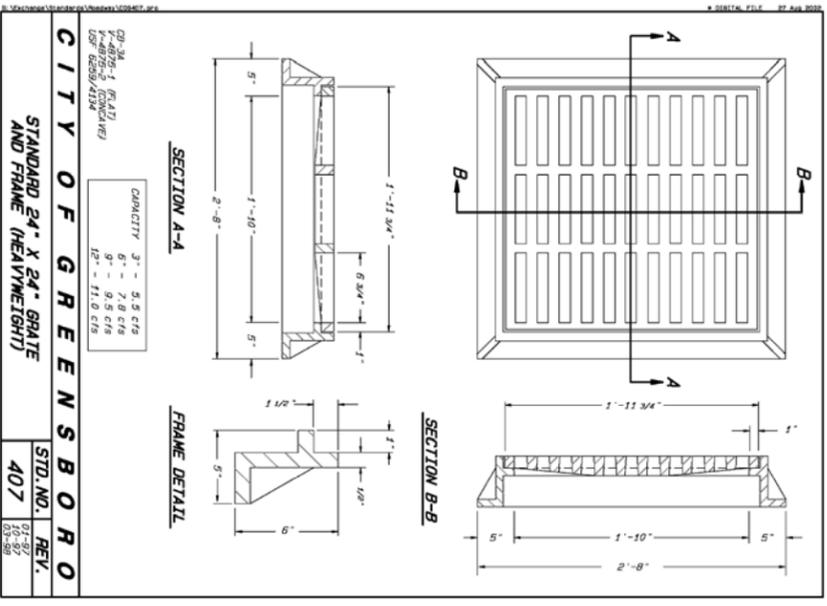
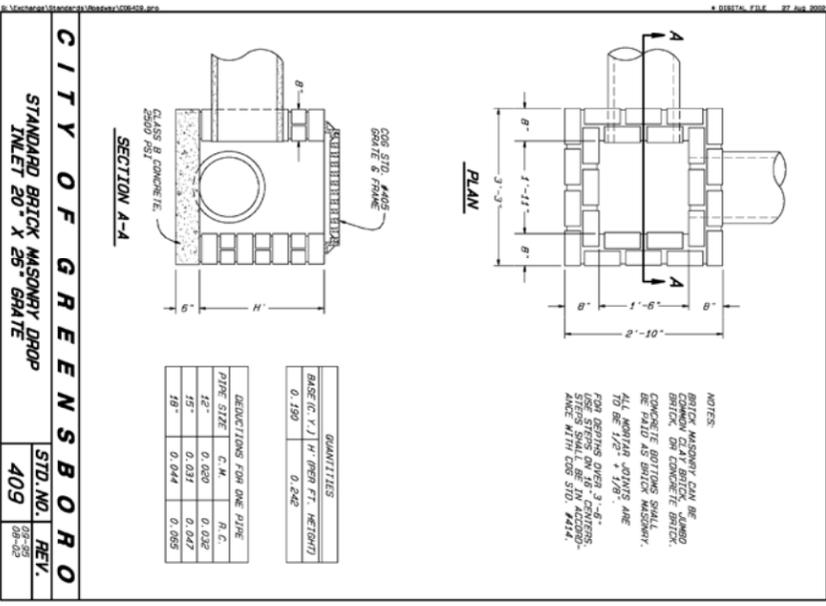
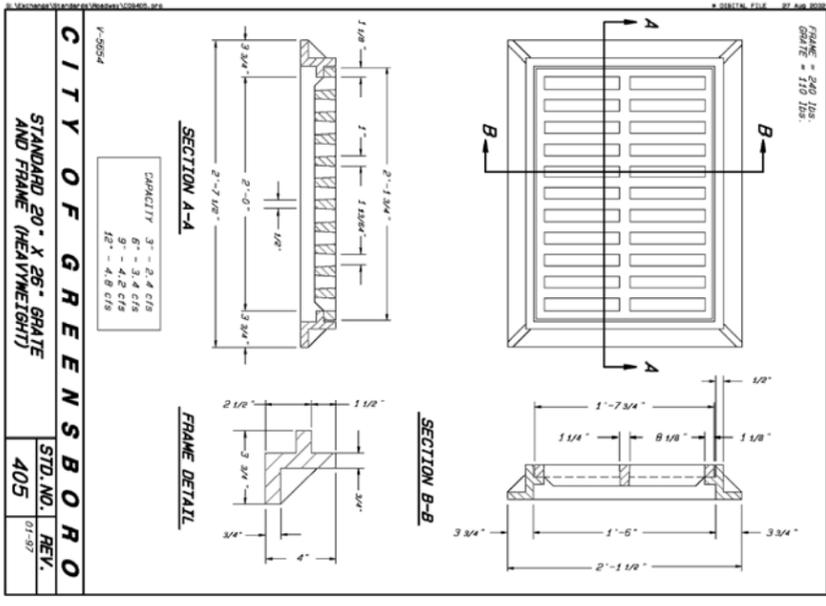
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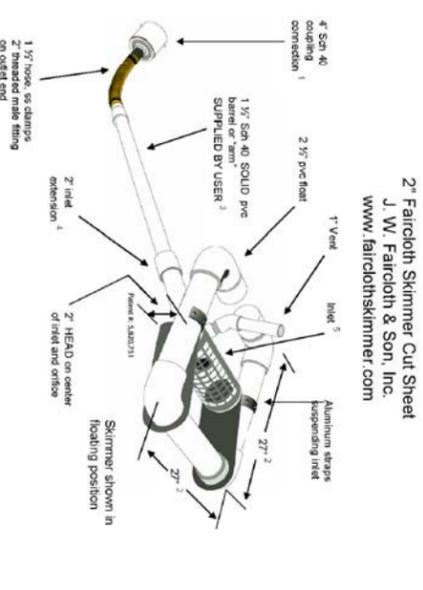
PROJECT TITLE:
BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION
6313 BURNT POPLAR ROAD
GREENSBORO, NORTH CAROLINA

DRAWING TITLE:
SEDIMENTATION AND EROSION
CONTROL DETAILS
(SHEET 2 OF 3)

DESIGNED BY:	DRAWN BY:
G.D.G.	A.W.H.
CHECKED BY:	PROJECT NO.:
G.D.G.	MRR-3
SCALE:	DATE:
AS SHOWN	JULY 2006
FILE NAME:	DRAWING NO.:
MRR3-0004	9
SHEET NO.:	EC2

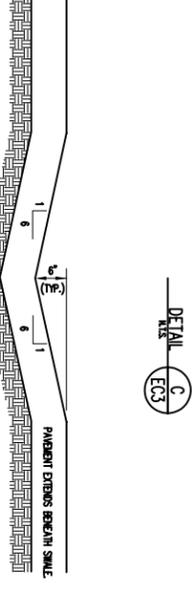
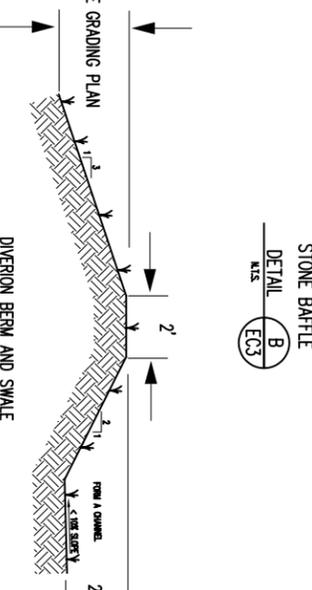
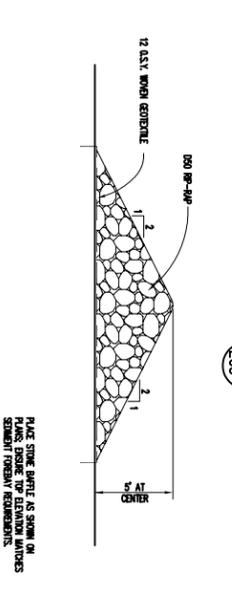


C.O.G. STANDARDS 405, 407, 409, AND 410 ARE PRESENTED AT RECOMMENDATIONS. OTHER CATCH BASIN DESIGNS, E.G., PRECAST CONCRETE AND HDPE, MAY BE CONSIDERED EQUIVALENT, SUBJECT TO APPROVAL BY THE ENGINEER AND THE C.O.G.



- Skimmer can be attached to a straight 4" sch 40 pipe through the dam, but the pipe may need to be anchored to the bottom at the connection so it is secure. Coupling can be removed and hose attached to outlet, using the threaded "Z" fitting. Typical methods used: on a metal structure a steel stubout welded on the side at the bottom side with a "Z" threaded coupling or reducers, on a concrete structure with a hole or orifice at the bottom, use a steel plate with a hole cut in it and coupling welded to it that will fit over the hole in the concrete and bolted to the structure with a sealant grout. A 4" pvc pipe in a hole in the concrete to connect the skimmer.
- Dimensions are approximate, not intended as plans for construction.
- Barrel (solid, not foam core pipe) should be 1.4 times the depth of water with a minimum length of 6' so the inlet can be pulled to the side for maintenance. If more than 6' long weight may have to be added to inlet to counter the increased buoyancy.
- Inlet taps down from 2" maximum inlet to a 1 1/2" barrel and hose. Barrel is smaller to reduce buoyancy and tendency to fit inlet cut is sufficient for flow through inlet because of slope. The inlet orifice can be reduced using the plug and cutter provided to control the outflow orifice inside.
- Inlet is 4" pipe between the straps with aluminum screen door for access to the inlet and orifice inside.
- Shipped assembled. User gives inlet extension and barrel, installs vent, cuts orifice in plug and attaches to outlet pipe or structure. Includes flexible hose, rope, orifice cutter, etc.

2inDCat May 30, 2008



SEDIMENT BASIN DESIGN SUMMARY:

REQ'D DA/SA=1.64% FOR BUA=38.6% DA=3.5 AC., REQ'D SA=.57 AC., ACTUAL SA = 0.57 AC. AT PRINCIPAL OVERFLOW.

WATER QUALITY POOL DRAWDOWN OF 3.3 DAYS IS PROVIDED (2-5 DAYS REQUIRED). A 10' WIDE BENCH IS PROVIDED AT THE NORMAL POOL ELEV. 884. SEE ROUTING CALCULATIONS.

PRINCIPAL OVERFLOW IS DESIGNED FOR 25-YEAR, 24-HOUR STORM (10-YEAR, 24-HOUR REQUIRED).

EMERGENCY OVERFLOW IS DESIGNED FOR 100-YEAR, 24-HOUR STORM AS REQUIRED AND CONSISTS OF A RIP-RAP LINED CHANNEL CUT INTO VIRGIN GROUND.

MINIMUM 1 FOOT DAM FREEBOARD AT MAX. FLOOD ELEVATION IS REQUIRED, 2.5 FEET IS PROVIDED.

POND INLETS ARE PERPENDICULAR TO NORMAL POOL SURFACE AND DISCHARGE AT/BELOW NORMAL POOL ELEV. RIP-RAP ENERGY DISSIPATORS SHALL BE EXTENDED TO POND BOTTOM.

SEDIMENT FOREBAY RIP-RAP BAFFLE IS SET AT ELEV. 883 AND IS SIZED FOR 75% SEDIMENT LOAD ALLOCATION. ACCESS RAMP OF 15% SLOPE IS PROVIDED. AVERAGE VELOCITY FOR PEAK FLOW FROM 2-YEAR STORM (15 CFS) ACROSS THE FOREBAY BAFFLE IS 0.5 FPS.

POND DAM IS 10' WIDE AT THE CREST. NC DAM SAFETY OFFICIALS WILL BE NOTIFIED PRIOR TO CONSTRUCTION. SOILS FOR DAM SHALL BE COMPACTED TO 95% MDD.

LOW-FLOW ORIFICE IS PROVIDED MIDWAY BETWEEN NORMAL POOL ELEV. 884 AND PRINCIPAL OVERFLOW ELEV. 888.79. A FLOATING SKIMMER IS ALSO PROVIDED. TRASH GUARD WITH ANTI-VORTEX PLATE FOR PRINCIPAL OVERFLOW EXTENDS 6 INCHES BELOW NORMAL POOL.

PRINCIPAL OVERFLOW RISER SHALL BE CONSTRUCTED OF HEAVY GAUGE ALUMINUM. AT EMERGENCY OVERFLOW ELEV. 890 THE BASIN HOLDS APPROX. 157,295 CF. THE 12" BARREL DISCHARGES AT 2.19 CFS. THE 12" DRAIN VALVE PROVIDED AT THE BASE OF THE RISER (TENTATIVE DESIGN) WILL DEWATER THE POND IN 44 HOURS.

PRELIMINARY
NOT FOR CONSTRUCTION

THE FOLLOWING NOTES FROM THE GUILFORD COUNTY STORMWATER MANAGEMENT MANUAL (2000), SECTION 2, ARE BINDING TO THESE PLANS.

- Note: The engineer's certification of completion will be required prior to the final plot or certificate of occupancy. The stormwater control is to be inspected to ensure it is functioning as designed and has full design volume prior to issuance of any certificate of occupancy.
- Note: The property owner (or homeowner's association) is responsible for maintaining the stormwater control(s) according to the approved maintenance plan and direction of the City of Greensboro.
- Note: The City of Greensboro and their assigns have right to access the stormwater control(s) for inspections or maintenance, as necessary.

2.4.4 Engineer's Certification: Note of Stormwater Quantity Control
For new development plans within the city limits of Greensboro, the following certification is applicable:

- The stormwater control structure(s) shown on this plan is (will be) designed to reduce the peak discharge from 2-year 24 hour storm event and the 10-year 24 hour storm event to pre-determination rates.

DATE	NO.	REVISION
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
4-13-07	2	REPRINTED FOR FINAL TRC REVIEW
08-21-06	1	STORM WATER REVISIONS PER CITY OF GREENSBORO



David Garrett, PG, PE.
Engineering and Geology
5105 Harbour Towne Drive, Raleigh, North Carolina 27604
Email: david_garrett_pg@mindspring.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)

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DRAWING TITLE:
SEDIMENTATION AND EROSION
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(SHEET 3 OF 3)

DESIGNED BY:	DRAWN BY:
G.D.G.	A.W.H.
CHECKED BY:	PROJECT NO.:
G.D.G.	MRR-3
SCALE:	DATE:
AS SHOWN	JULY 2006
FILE NAME:	SHEET NO.:
MRR3-0005	10
DRAWING NO.:	EC3

