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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

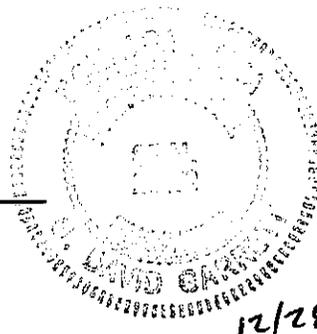
And

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



[Signature]

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



December 2007
*Revised 6-23-08, 7-21-08,
8-19-08, 9-1-08, 2-10-09*

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 2-20-09 BY D Wilson
PTC/PTO 41-22T, Att 1, Part II, Doc 1
Doc ID 6854

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

Engineering and Geology



No. 41-22	Date 2/17/09	Doc ID#
		DIN 5709

David Garrett & Associates
Engineering and Geology

February 10, 2009

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

Attn: Ms. Donna Wilson
Environmental Engineer

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



Dear Donna:

On behalf of WCA Waste Corporation (WCA), I am pleased to present the enclosed update to the permit documents for the referenced project. The update includes relevant pages from the final Operations Plan and facility drawings, including all previous review comments, along with minor revisions pertaining to the Owner/Operator information. As you are aware, WCA completed a real estate transaction earlier this year, which leaves them solely responsible for the facility under subsidiary Burnt Poplar Transfer, LLC. A copy of the deed was furnished to the NC DENR Division of Waste Management and is also enclosed herein (see Appendix 1 of the application).

The deed replaces the previously submitted affidavit 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 (that document is now null and void relative to this application). Per our mutual understanding, the application is now being finalized with references to MRR, Material Resource and Recovery, and/or Hilltop Properties removed from the application documents. Please find attached three copies of replacement pages for your application and an electronic submittal of the entire updated application (in pdf format). At the present time, a facility manager has not been identified – once the facility is under construction, I expect that I can furnish this information.

On behalf of WCA, I appreciate your attention on this matter. Please contact me if you have questions or if I can be of further service.

Sincerely yours,


G. David Garrett, P.G., P.E.
Project Consultant

cc: Vernon Smith, Regional Vice President, WCA Waste Corporation
Nick Marotta, Regional Engineer, WCA Waste Corporation

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



June 18, 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", written over a light blue horizontal line.

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

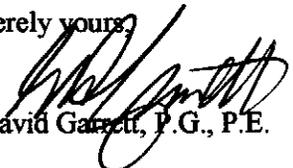
Dear Geof:

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,


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 Flood Insurance Rate Map Panel 7824J, Map #3710782400J <i>excerpt</i>
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 or 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 owned by Burnt Poplar Transfer, LLC, which purchased the in January 2009. A copy of the deed – previously furnished to the NC DENR Division of Waste Management – is enclosed herein (see **Appendix 1**).

2.0 DESCRIPTION OF THE WASTE STREAM

The transfer station will accept only construction and demolition (C&D) wastes, as defined by North Carolina Solid Waste Rules. Accepted materials include brick, block, rock, uncontaminated soil, treated and untreated wood, other construction and demolition debris – all accepted materials shall meet the definition of C&D wastes given in Rule 15A NCAC 13B .0532. No asbestos containing materials (ACM's) shall be accepted – all incoming demolition wastes (i.e., major demolition projects) shall be subject to verification of the North Carolina Health Hazards Unit (NCHHU) accreditation number to verify that the job was surveyed for ACM's. No industrial wastes or commercial wastes will be accepted. The recycling-only waste stream may include cardboard, metals, clean wood wastes (including wooden pallets) from non-C&D sources, subject to approval by NC DENR Division of Waste Management. These non-C&D recyclables shall be transferred directly to covered storage containers (e.g., trailers or roll-off boxes) bound for recycling facilities and NOT unloaded in the C&D tipping area. i.e., the non-C&D recyclables will be handled as source-separated materials and not mixed with, sorted, or co-mingled with the C&D waste stream. The anticipated waste stream is 250 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. A covered roll-off box will be placed near the tipping area for unacceptable wastes, including MSW, which cannot be disposed at the designated C&D landfill. Unacceptable wastes will be stored in the covered roll-off box – not mixed with the C&D waste stream – and transported to the nearby City of Greensboro MSW Transfer Station on at least a weekly basis.

Construction wastes may be pre-sorted at the transfer station for shipment to duly licensed recycling and/or disposal facilities. Demolition wastes will not be presorted at this facility (just transferred). Recyclable metals, cardboard, and clean wood wastes shall 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:

Local Contact to be Determined

Corporate Contact:

Vernon Smith, Regional Vice President
WCA Waste Corporation
40 Estes Plant Road
Piedmont, SC 29673

Tel. 864-845-8355

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 (i.e., stockpiles) 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 recyclables (e.g., scrap metal), which may be left in designated containers until a full load is made. 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 at the transfer station will be limited to metals, clean wood wastes and cardboard. Recyclables shall be segregated and placed in covered storage containers (i.e., roll-off boxes or trailers) located on the asphalt-paved pad and stored in until a full load is gathered – refer to **Section 3.9** for anticipated volumes and tonnages pertaining to the financial assurance requirements.

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.

In the event of precipitation, wastes piles that might be on the tipping area and all storage containers (both transport vehicles for sorted waste and roll-off boxes or trailers for recyclables) shall be covered with tarps and waste sorting activities will be suspended. The tarps shall be weighted or strapped down to prevent wind lift, or a fly prefabricated from several tarps and suspended on cables shall be deployed to cover the tipping area – a similar device is presently being used at the WCA of High Point recycling facility. The waste in the tipping area and storage containers shall be kept covered until the rain ceases. Incoming loads will not be unloaded until the tipping area is uncovered.

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.

Burnt Poplar Transfer, LLC

C&D Transfer Station

Updated Facility Operations Plan

(Rev. 0.6) 2/10/09

August 25, 2008

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3.8 Housekeeping/Vector Control Measures – C&D waste shall be stored at the site no longer than 24 hours during normal work days, 48 hours on weekends, or 72 hours for holiday weekends. 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 wastes shall be sorted and loaded onto transport vehicles or into storage containers and covered by the end of each operating day. All debris shall be removed from the tipping area and wind-blown debris shall be picked up and placed into suitable containers by the end of each operating day. All storage containers shall be covered at the end of each operating day and during rain events.

The tipping area shall be washed down as necessitated by operations to minimize dust. Any wet or muddy waste materials shall be placed in a suitable container by the end of each operating day and not left out overnight. 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.

3.9 Operating Records – A scale will be located at the facility entrance. All incoming loads shall be weighed and recorded by date and customer (less tare weights for vehicles). After sorting, the outgoing loads shall be weighed and recorded (less tare weights). Records for outgoing recyclables shall include the weight, destination and date of shipment – the Operator has an impetus to track these shipments in order to collect payment for sales. Records for outgoing wastes for disposal shall include weight, destination and date of shipment – these records should match those of the receiving facility. All recyclable materials and waste products will be processed and removed from the premises within one year of receipt. The Operating Records (Section 3.9) will be used to track the movement of the materials.

Other records pertaining to storm water facilities management and maintenance (required by the City of Greensboro), the NPDES permit, regulatory inspections, facility maintenance and contingency operations – including weather-related shut-downs – shall be recorded in an operating log. All records shall be kept on the premises and made available to the Solid Waste Section upon request.

3.10 Financial Assurance – Recent legislation enacted in 2007 requires all solid waste facilities to post a financial assurance instrument (surety bond, insurance policy, irrevocable

letter of credit, etc.), to be used by the Solid Waste Section for third-party debris removal and facility clean up, in the event that the facility is found to be in substantial non-compliance – i.e., storage of more materials on the premises than is allowed by the permit or is covered by the financial assurance instrument.

The Section requires a calculation of the maximum volume and tonnage anticipated to be stored on the premises at any given time, including the recyclables and 5 days of the incoming waste stream. For the following discussion, assume a 45-foot storage trailer for recyclables, but the container could be a smaller roll-off box. The volume/tonnage calculations follow, along with a calculated bond amount based on an estimated third-party cost of \$100 per ton to remove and dispose of the required amount of materials.

Incoming C&D Waste Stream – 250 tons per day

- Five days of unsorted waste stream = 1,250 tons

Recyclables Stored On-Site

- Three Recyclable Products – Metals, Clean Wood Waste, Cardboard
- One Storage Container per Product
- The volume of the 45-foot trailer is 100 cubic yards
- Maximum volume of three recyclable products is 300 cubic yards
- Tonnages vary by product:

Metals:	20 tons
Clean wood waste:	12 – 14 tons
Cardboard:	8 – 10 tons
- Maximum tonnage of the three recyclables = $20 + 14 + 10 = 44$ tons

Total Material Tonnage Subject to Financial Assurance is 1,294 tons

Submittal of the Financial Assurance instrument is contingent on issuance of a Draft Permit. It is in the Owner/Operator's interest to ship the recyclables to market as soon as possible, thus not allowing them to accumulate on the premises. An earnest desire to remain in compliance with State and local rules, along with the availability of the local landfill under the same ownership, ensures that all wastes will be shipped in a timely manner. All recyclable materials and waste products will be processed and removed from the premises within one year of receipt. The Operating Records (**Section 3.9**) will be used to track the movement of the materials.

Burnt Poplar Transfer, LLC

C&D Transfer Station

Updated Facility Operations Plan

(Rev. 0.6) 2/10/09

August 25, 2008

Page 7

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-year 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.

GENERAL NOTES

1. THIS CONCEPTUAL SITE PLAN IS FOR THE CITY OF GREENSBORO, NORTH CAROLINA.
2. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ZONING ORDINANCES AND REGULATIONS.
3. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ENGINEERING STANDARDS AND REGULATIONS.
4. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ENVIRONMENTAL REGULATIONS AND STANDARDS.
5. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, PUBLIC UTILITIES REGULATIONS AND STANDARDS.
6. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, TRANSPORTATION REGULATIONS AND STANDARDS.
7. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, LAND USE REGULATIONS AND STANDARDS.
8. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, HISTORIC PRESERVATION REGULATIONS AND STANDARDS.
9. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, CULTURAL RESOURCES REGULATIONS AND STANDARDS.
10. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ARCHITECTURAL REGULATIONS AND STANDARDS.

CONSTRUCTION NOTES

1. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ENGINEERING STANDARDS AND REGULATIONS.
2. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ENVIRONMENTAL REGULATIONS AND STANDARDS.
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10. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, PUBLIC UTILITIES REGULATIONS AND STANDARDS.

NO.	DESCRIPTION	DATE	BY
1	CONCEPTUAL SITE PLAN	11/24/23	DG
2	REVISIONS		
3	REVISIONS		
4	REVISIONS		
5	REVISIONS		
6	REVISIONS		
7	REVISIONS		
8	REVISIONS		
9	REVISIONS		
10	REVISIONS		

PROLEGINARY
NOT FOR CONSTRUCTION

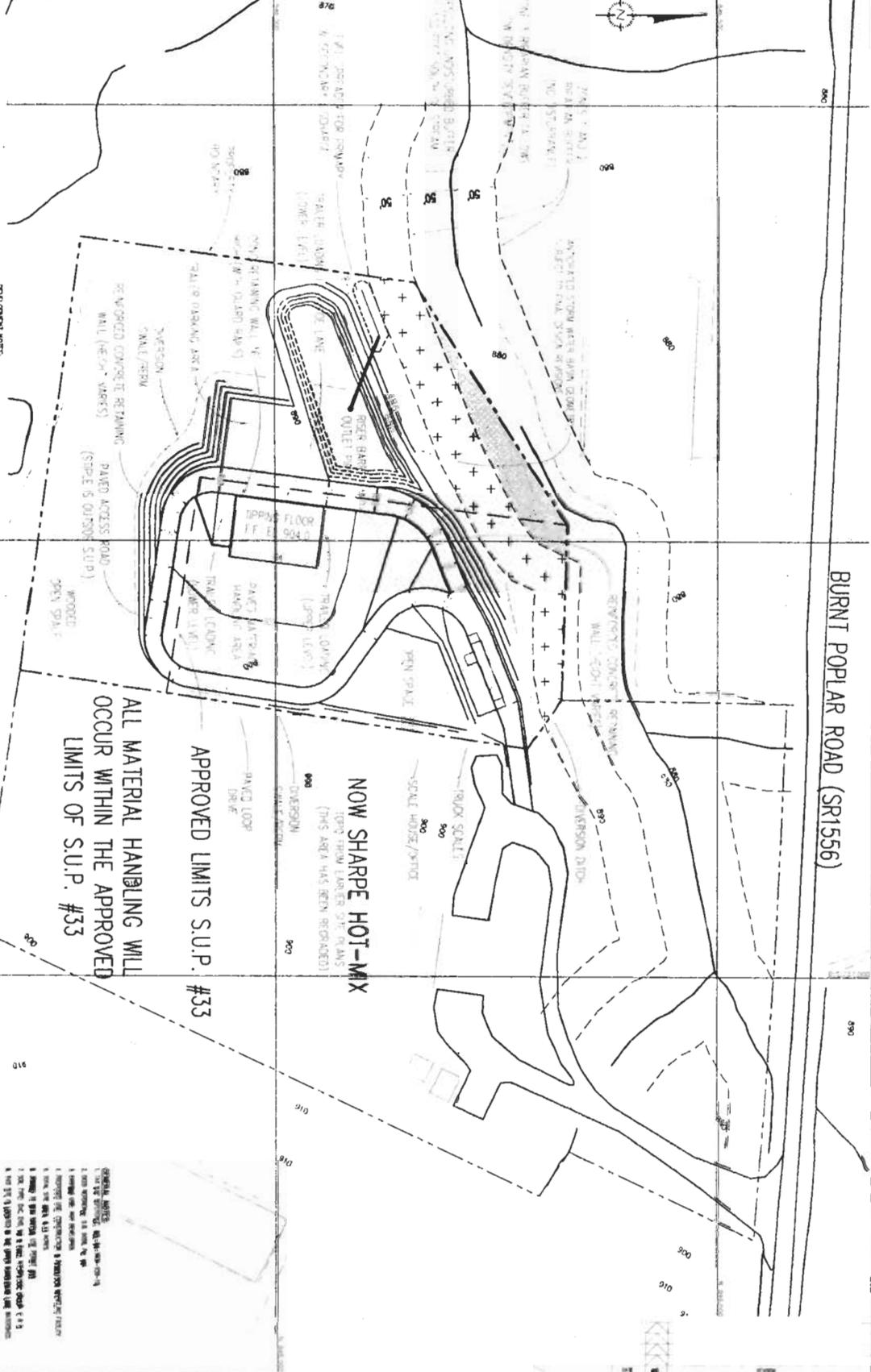
ALL MATERIAL HANDLING WILL OCCUR WITHIN THE APPROVED LIMITS OF S.U.P. #33

APPROVED LIMITS S.U.P. #33

NOW SHARPE HOT-MIX
(THIS AREA HAS BEEN REDESIGNED)

PAVED LOOP DRIVE

PAVED ACCESS ROAD (STREET IS 60' WIDE SLIP)



GENERAL NOTES

1. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ENGINEERING STANDARDS AND REGULATIONS.
2. THE PROPOSED CONSTRUCTION WORKS ARE SUBJECT TO THE CITY OF GREENSBORO, NORTH CAROLINA, ENVIRONMENTAL REGULATIONS AND STANDARDS.
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CONCEPTUAL SITE PLAN

BURNT POPLAR ROAD
TRANSFER STATION
MOREHEAD TOWNSHIP, GUILFORD CO.
GREENSBORO, NORTH CAROLINA



David Garrett, PG, PE.
Engineering and Geology
1000 Highway 100, Suite 1000, North Carolina 27405
Tel: 703-333-2222 Fax: 703-333-2222 Email: dg@dgpe.com





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,

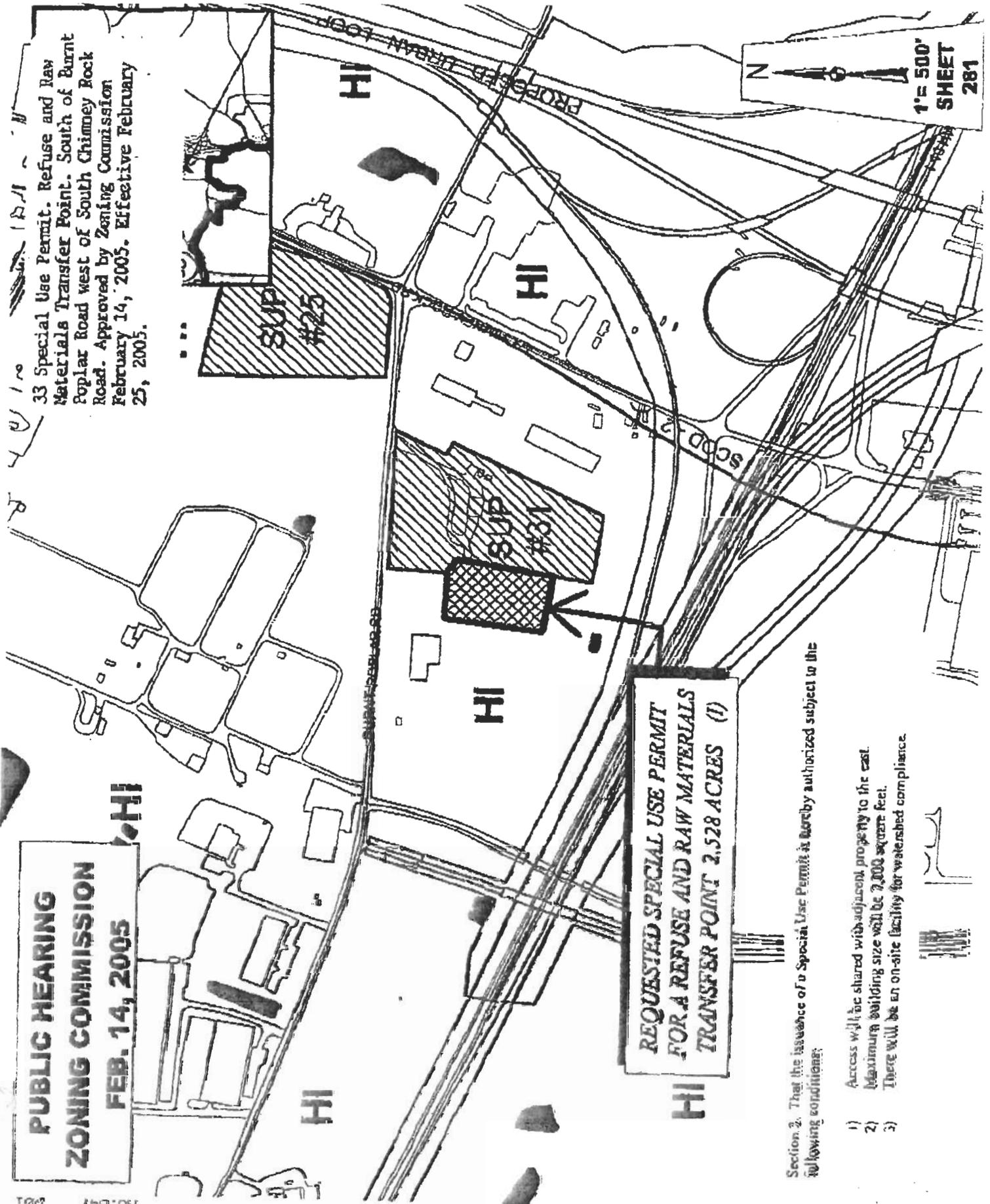
William F. Ruska, Jr.

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.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

DIVISION OF HIGHWAYS

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,

A handwritten signature in cursive script, appearing to read "J. M. Mills".

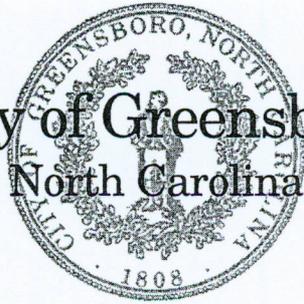
J. M. Mills, P.E.
Division Engineer

JMM/jm
Atta.

cc: Mr. Jim Westmoreland
Mr. Lane Hall



City of Greensboro
North Carolina



RECEIVED
Department of Transportation
OCT 23 2007

NC Dept. of Transportation
Division of Highways-7th Div.

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,

Jim Westmoreland, P.E.
Director of Transportation

Chris Roof

From: Mike Mills [mmills@dot.state.nc.us]
Sent: Friday, October 05, 2007 4:48 PM
To: Chris Roof
Subject: Re: Follow up to Burnt Poplar Rd. traffic

Chris:

Sorry for the delay in responding back to you; been in Raleigh for the last several days.

We are in the process of reviewing this information and I will get back with you by the first of the week.

Thanks, Mike.

Chris Roof wrote:

Mr. Mills,

Thank you, for your time last Thursday the 27th. I am sending you the information you requested per our telephone conversation. Sorry for the delay, I was traveling last week and needed to get back to the office in order to get my hands on the proper documents.

Just to re-cap, we have a permit application in with the Solid Waste Section at DENR for a construction & demolition (C&D) transfer station to be located at 6311 Burnt Poplar Rd. in Greensboro (Guilford Co.). Due to the recently enacted legislation (S1492 – Section 8a. of which I have attached) We are now being asked to consider any traffic issues at the site. I have attached a map of the proposed location along with a site plan, as well as, some traffic information that I feel is relevant to our project (truck trips and flow).

As you can see from the S1492 **Section 8**, we may satisfy the requirements of subsection (a) by obtaining a certification from the Division Engineer of the Dept. of Transportation that the facility will not have a '*substantial impact on highway traffic*'. Based on the information provided, we ask that you consider providing us with such a certification only if the Department feels it is warranted. Should you have any further questions or need additional information, please do not hesitate to contact me or David Griffin, Jr.

Thank you for your consideration,

Chris Roof

MRR Southern

431 Raleigh View Rd.

Raleigh, NC27610

P – (919) 719-8680 – direct

M – (919) 819-0251

8/18/2008

Greensboro Transfer Station Traffic Information

Location: Transfer station to be located at 6311 Burnt Poplar Road in Greensboro, NC. The site is situated in a commercial-industrial district, approx. 1.5 miles from the intersection of I-40 and Swing Road to the east and approx. 2 miles from the intersection of I-40 and Hwy 68 to the west.

Anticipated Tonnage: 250 tons per day

Incoming: 250 tpd

Incoming C&D tonnage will arrive in the form of Roll-Off trucks and various size dump trucks. An average load will be approximately 5 tons, therefore, there will be approximately 50 truck trips per day on Burnt Poplar Road.

Outgoing: 250 tpd

Outgoing C&D tonnage will be hauled in walking floor trailers with an average load of 22 tons. Therefore, the number of outgoing truck trips will be approximately 11.5 per day.

Total truck traffic: $61.5 \text{ truck trips} \times 2 = 123 \text{ truck trips per day} / 10 \text{ hours per day} = 12.3 \text{ trips per hour increase}$.

Flow: Although it is difficult to assess where all trucks will originate from, it is probable that most will likely use I-40 or Hwy 68 to access the proposed site.



2009002211

GUILFORD CO, NC FEE \$17.00
STATE OF NC REAL ESTATE EXTX

\$1024.00

PRESENTED & RECORDED:

01-15-2009 11:34:00 AM

JEFF L. THIGPEN

REGISTER OF DEEDS

BY: WILEY L. COUSIN
DEPUTY-GB

BK: R 6966

PG: 1734-1735

NORTH CAROLINA SPECIAL WARRANTY DEED

Excise Tax: **\$1,024.00**

Parcel Identifier No. _____ Verified by _____ County on the ____ day of _____, 20__

By: _____

Mail/Box to: Pick up Larry W. Pearman

This instrument was prepared by: L. James Blackwood, II

Brief description for the Index: Lot 2, Plat Book 168, Page 33, Guilford County Public Registry

THIS DEED made this 14 day of January, 2009, by and between

GRANTOR	GRANTEE
HILLTOP PROPERTIES, LLC A North Carolina Limited Liability Company	BURNT POPLAR TRANSFER, LLC One Riverway Suite 1400 Houston, Texas 77056

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

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

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land generally known as 6313 Burnt Poplar Road, Greensboro, North Carolina, Guilford County Tax Map #: 94-7031;959;38, lying and being situated in the City of Greensboro, Morehead Township, Guilford County, North Carolina more particularly described as follows:

ALL of Lot 2, of that property described in "Final Plat for Hilltop Properties, LLC" as per plat thereof recorded in Plat Book 168, Page 33, in the Office of the Register of Deeds of Guilford County, North Carolina.

TOGETHER with all rights and interests in and to those easements for access and utilities as set forth in that certain Deed of Easement recorded in Book 6674, Page 1746, in the Office of the Register of Deeds of Guilford County, North Carolina, the terms, provisions and description of said easement as set forth in said Deed of Easement

recorded in said Book 6674, Page 1746, Office of the Register of the Register of Deeds of Guilford County, North Carolina, being incorporated herein by reference as if herein fully repeated.

The property hereinabove described is a portion of the property acquired by Grantor by Deed recorded in Book 6058, Page 991, Guilford County Public Registry, North Carolina.

A map showing the above described property is recorded in Book 168, Page 33, Guilford County Public Registry.

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

And the Grantor covenants with the Grantee, that Grantor has done nothing to impair such title as Grantor received, and Grantor will warrant and defend the title against the lawful claims of all persons claiming by, under or through Grantor, other than the following exceptions:

2009 ad valorem taxes and any restrictions, rights-of-way and easements of record, if any, specifically including but not limited to those as set forth and more particularly described in Plat Book 168, Page 33, Guilford County Public Registry and obligations burdening the above described property as set forth in the above described Deed of Easement recorded in Book 6674, Page 1746, Guilford County Public Registry and those certain restrictions including limited right of entry reserved to Marathon Ashland Petroleum, LLC, its successor and assigns as set forth in the Deed recorded in Book 6058, Page 991, Guilford County Public Registry.

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

HILLTOP PROPERTIES, LLC

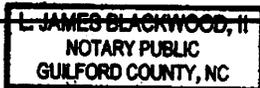
By: *D. H. Griffin, Sr.* (SEAL)
D. H. GRIFFIN, SR., Manager

State of North Carolina - County of Guilford

I, the undersigned Notary Public of the County and State aforesaid, certify that D. H. GRIFFIN, SR., personally came before me this day and acknowledged that he is the Manager of HILLTOP PROPERTIES, LLC, a North Carolina Limited Liability Company, and that by authority duly given and as the act of such entity he signed the foregoing Deed in its name and on its behalf as its act and deed. Witness my hand and Notarial stamp or seal, this 14 day of January, 2009.

My Commission Expires: 1/21/2013

L. James Blackwood, II
Notary Public



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

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



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.

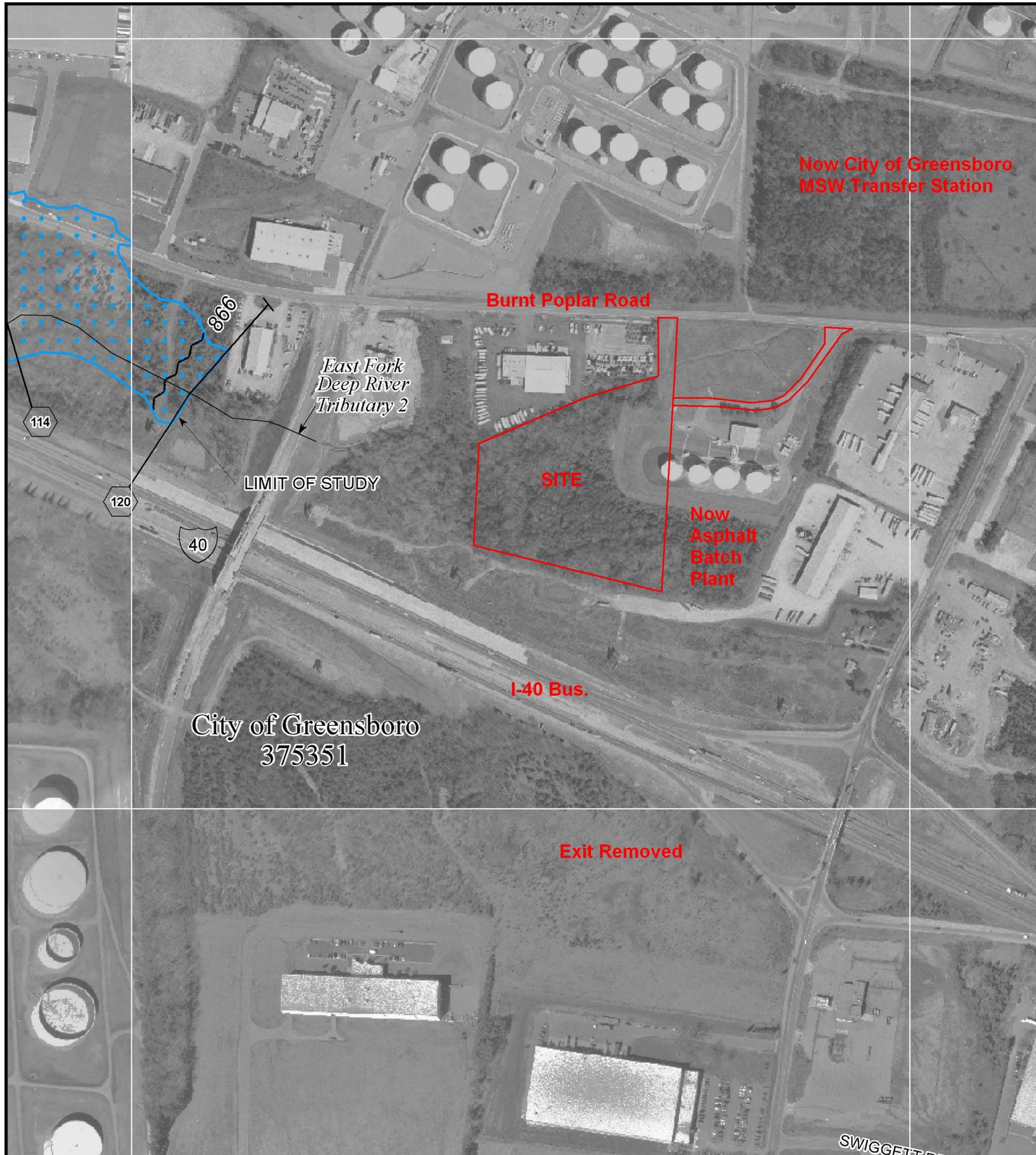
As we currently service your WCA High Point reclamation site, we look forward to working with you in Greensboro.

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

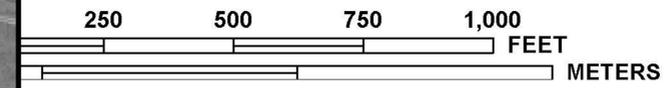
Regards,

DH Griffin, Sr.

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



GRID NORTH
SCALE 1" = 500' (1 : 6,000)



PANEL 7824J

FIRM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 7824

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>CID No.</u>	<u>PANEL</u>	<u>SUFFIX</u>
GREENSBORO, CITY OF	375351	7824	J
GUILFORD COUNTY	370111	7824	J
HIGH POINT, CITY OF	370113	7824	J

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE **MAP NUMBER**
JUNE 18, 2007 **3710782400J**



State of North Carolina
 Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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: _____
Truck Owner: _____
Truck Type: _____
Weight: _____

Time Weighed in: _____
Driver Name: _____
Vehicle ID/Tag No: _____
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 Roedreck 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

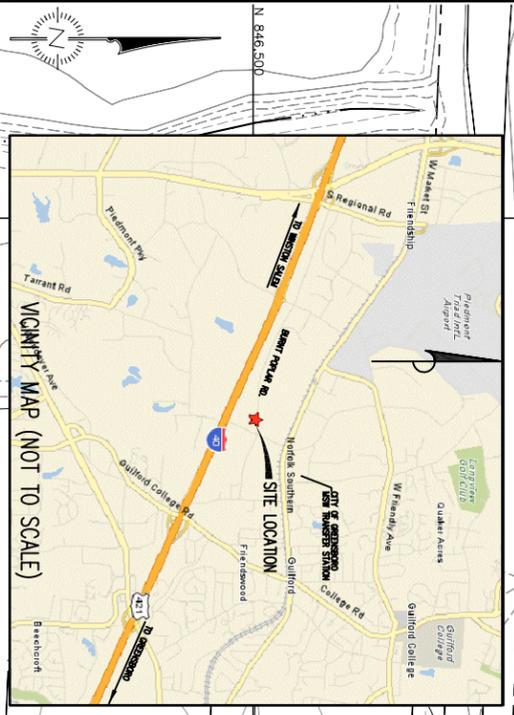
"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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



STORM WATER OUTLET 002
(SEDIMENT TRAP ST-3,
REMAINS IN PLACE)

EMERGENCY BALL VALVE SHUT OFF FOR STORM
WATER DISCHARGE PIPES (ONE FOR EACH PIPE)
SEE DETAIL
(XXX)

STORM WATER OUTLET 001
(LEVEL SPREADER DISCHARGE)

DRAINAGE MAINTENANCE AND UTILITY
EASEMENT - DIM'LE - EXTENDS 15 FEET
AROUND WET DETENTION POND

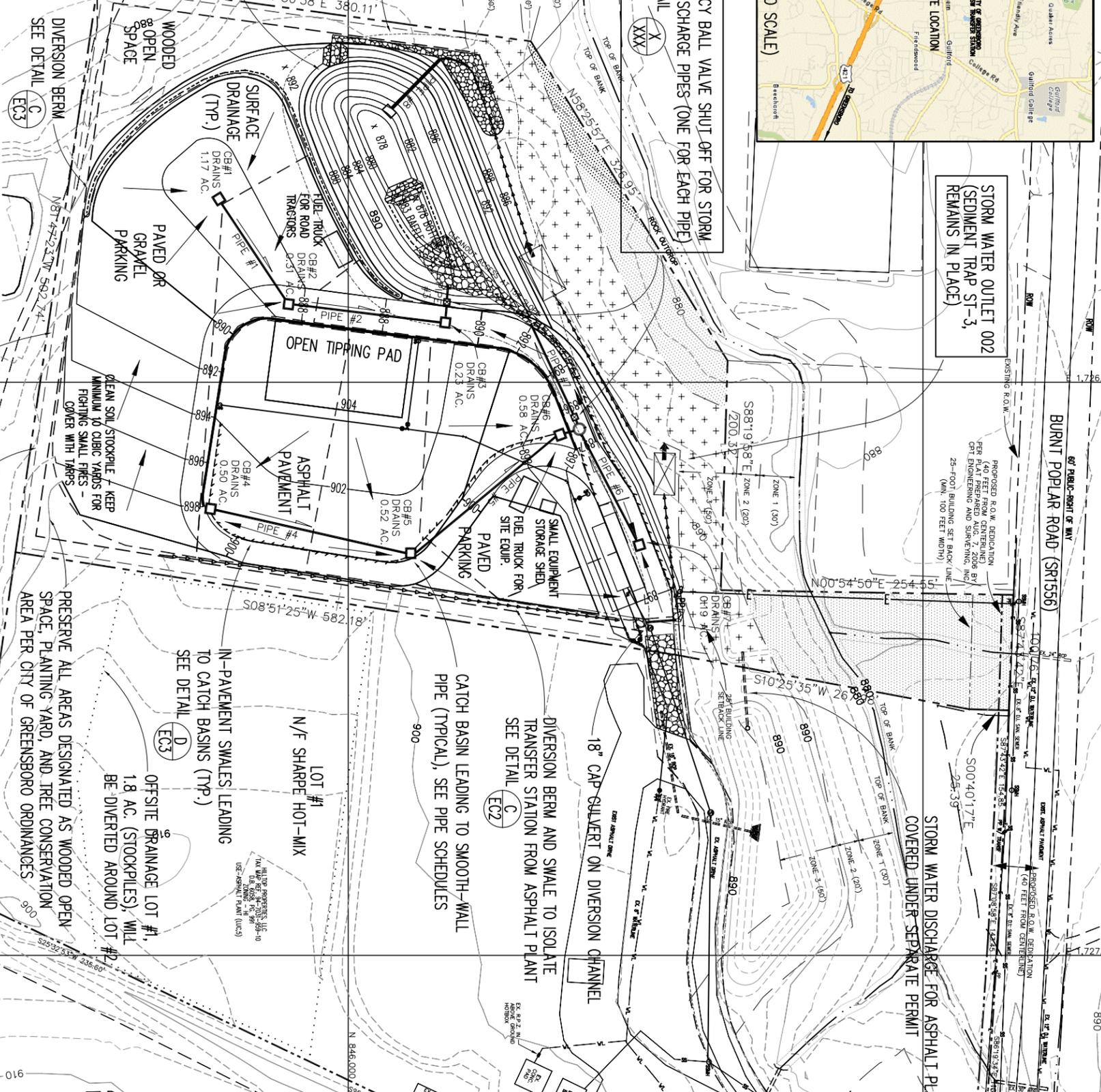
NC DENR RIPARIAN BUFFERS
AND CITY OF GREENSBORO
TREE CONSERVATION AREA
(SUBJECT PROPERTY ONLY)

WET DETENTION BASIN WITH 10-FOOT
WIDE BENCH SURROUNDING PERMANENT
POOL AT EL. 884, TOP-DISCHARGE
DESIGN WITH A FLOATING SKIMMER
SEDIMENT FOREBAY BEHIND STONE
BARRIER HAS 75% SEDIMENT LOAD
ALLOCATION - SEE DETAIL

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



STORM WATER DISCHARGE FOR ASPHALT PLANT
COVERED UNDER SEPARATE PERMIT

18" CAP CULVERT ON DIVERSION CHANNEL

DIVERSION BERM AND SWALE TO ISOLATE
TRANSFER STATION FROM ASPHALT PLANT
SEE DETAIL
(EC2)

CATCH BASIN LEADING TO SMOOTH-WALL
PIPE (TYPICAL), SEE PIPE SCHEDULES

N-PAVEMENT SWALES LEADING
TO CATCH BASINS (TYP.)
SEE DETAIL
(EC3)

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

PRESERVE ALL AREAS DESIGNATED AS WOODED OPEN
SPACE, PLANTING YARD, AND TREE CONSERVATION
AREA PER CITY OF GREENSBORO ORDINANCES

5' WIDE TYPE "D" PLANTING YARD
(EX. TREES TO BE PRESERVED)

15' WIDE CITY OF GREENSBORO
TREE CONSERVATION BUFFER

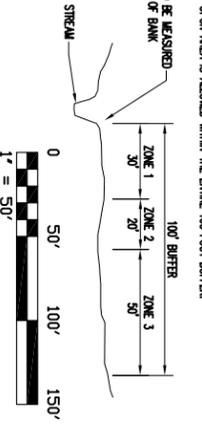
PRELIMINARY
NOT FOR CONSTRUCTION

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

- 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 RANDELMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:
(HIGH DENSITY OPTION-FRESHWATER 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 RANDELMAN LAKE 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 STRINGENT THAN ARE RANDELMAN ZONES 1 AND 2. RANDELMAN ZONE 3 COVERS THE OUTERMOST (50) FEET OF ONE HUNDRED (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 BALL-UPON AREA IS ALLOWED WITHIN THE ENTIRE 100 FOOT BUFFER.
-DISTANCES TO BE MEASURED FROM TOP OF BANK



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

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)



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

DRAWING TITLE:
STORM WATER DRAINAGE
SYSTEM LAYOUT FOR SPILL
PREVENTION AND RESPONSE

DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.:
SCALE: AS SHOWN	DATE: APRIL 2008
FILE NAME: MRR-3-00015	DRAWING NO.:
SHEET NO.:	66C



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Coleen H. Sullins, Director
Division of Water Quality

August 1, 2008

Mr. Vernon Smith
WCA Waste Systems, Inc.
421 Raleighview Road
Raleigh, NC 27610

Subject: General Permit No. NCG130000
WCA Waste Systems, Inc.
Burnt Poplar Transfer, LLC
COC NCG130049
Guilford County

Dear Mr. Smith:

In accordance with your application for a discharge permit received on July 08, 2008 we are forwarding herewith the subject certificate of coverage to discharge under the subject state – NPDES general permit. This permit is issued pursuant to the requirements of North Carolina General Statute 143-215.1 and the Memorandum of Agreement between North Carolina and the US Environmental Protection Agency dated October 15, 2007 (or as subsequently amended).

Please take notice that this certificate of coverage is not transferable except after notice to the Division of Water Quality. The Division of Water Quality may require modification or revocation and reissuance of the certificate of coverage.

This permit does not affect the legal requirements to obtain other permits which may be required by the Division of Water Quality or permits required by the Division of Land Resources, Coastal Area Management Act or any other federal or local governmental permit that may be required.

If you have any questions concerning this permit, please contact Jennifer Jones at telephone number (919) 807-6379.

Sincerely,

for Coleen H. Sullins

cc: Winston Salem Regional Office, Corey Basinger
Central Files
Stormwater Permitting Unit Files

Mailing Address Phone (919) 807-6300
1617 Mail Service Center Fax (919) 807-6492
Raleigh, NC 27699-1617

Location
512 N. Salisbury St.
Raleigh, NC 27604

One
North Carolina
Naturally

Internet: www.ncwaterquality.org

Customer Service 1-877-623-6748

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WATER QUALITY

GENERAL PERMIT NO. NCG130000
CERTIFICATE OF COVERAGE No. NCG130049

STORMWATER DISCHARGES

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

WCA Waste Systems, Inc.

is hereby authorized to discharge stormwater from a facility located at

Burnt Poplar Transfer, LLC
6313 Burt Poplar Road
Greensboro
Guilford County

to receiving waters designated as a UT to East Fork Deep River, a class WS-IV water in the Cape Fear River Basin, in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, IV, V, and VI of General Permit No. NCG13000 as attached.

This certificate of coverage shall become effective August 1, 2008.

This Certificate of Coverage shall remain in effect for the duration of the General Permit.

Signed this day August 1, 2008.



for Coleen H. Sullins., Director
Division of Water Quality
By the Authority of the Environmental Management Commission



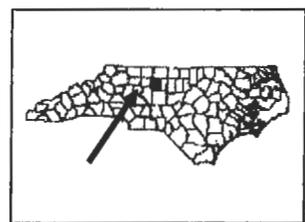
NCG130049



Map Scale 1:12,716

**WCA Waste Systems, Inc.
Burnt Poplar Transfer, LLC
Guilford County**

Latitude: 36° 04' 17" N
Longitude: 79° 55' 30" W
Receiving Stream: UT to East Fork Deep River
Stream Class: WS-IV
Sub-basin: 03-06-08 (Cape Fear River Basin)



Facility Location

STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL
RESOURCES
DIVISION OF WATER QUALITY

GENERAL PERMIT NO. NCG130000

TO DISCHARGE STORMWATER UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission and the Federal Water Pollution Control Act, as amended, this permit is hereby issued to all owners or operators, hereafter permittees, which are covered by this permit as evidenced by receipt of a Certificate of Coverage by the Environmental Management Commission to allow the discharge of stormwater to the surface waters of North Carolina or separate storm sewer systems conveying stormwater to surface waters in accordance with the terms and conditions set forth herein.

Coverage under this general permit is applicable to all owners or operators of stormwater point source discharges associated with activities classified as establishments primarily engaged in: the wholesale trade of non-metal waste and scrap (hereafter referred to as the non-metal waste recycling industry, a portion of standard industrial classification (SIC) 5093); and like activities deemed by DWQ to be similar in process and/or the exposure of raw materials, products, by-products, or waste materials.

The following activities are specifically excluded from coverage under this General Permit: the wholesale trade of metal waste and scrap, iron and steel scrap, and nonferrous metal scrap; waste oil recycling; and automobile wrecking for scrap.

The General Permit shall become effective on June 1, 2008.

The General Permit shall expire at midnight on May 31, 2013.

Signed this day May 9, 2008.

for/ 

Coleen H. Sullins, Director
Division of Water Quality

By the Authority of the Environmental Management Commission

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PART I INTRODUCTION

SECTION A: GENERAL PERMIT COVERAGE

All persons desiring to be covered by this General Permit must register with the Division of Water Quality by the filing of a Notice of Intent (NOI) and applicable fees. The NOI shall be submitted and a certificate of coverage issued prior to any discharge of stormwater associated with industrial activity that has a point source discharge to the surface waters of the state.

Any owner or operator not wishing to be covered or limited by this General Permit may make application for an individual NPDES permit in accordance with NPDES procedures in 15A NCAC 2H .0100, stating the reasons supporting the request. Any application for an individual permit should be made at least 180 days prior to commencement of discharge.

This General Permit does not cover activities or discharges covered by an individual NPDES permit until the individual permit has expired or has been revoked. Any person conducting an activity covered by an individual permit but which could be covered by this General Permit may request that the individual permit be revoked and coverage under this General Permit be provided.

If industrial materials and activities are not exposed to precipitation or runoff as described in 40 CFR §122.26(g), the facility may qualify for a No Exposure Exclusion from NPDES stormwater discharge permit requirements. Any owner or operator wishing to obtain a No Exposure Certification must submit a No Exposure Certification NOI form to the Division, must receive approval by the Division, must maintain no exposure conditions unless authorized to discharge under a valid NPDES stormwater permit, and must reapply for the No Exposure Exclusion once every five (5) years.

Facilities submitting NOIs for coverage under this permit, and facilities submitting renewal forms for continued coverage under this permit, prior to establishment or approval of a Total Maximum Daily Load (TMDL) for pollutant(s) for stormwater discharges (i.e. wet weather flows), may be covered under this permit during its term. For such facilities, continued coverage under the reissuance of this permit is subject to the facility demonstrating that it does not have a reasonable potential to violate applicable water quality standards for such pollutants due to the stormwater discharge(s). For facilities that do have a reasonable potential for violation of applicable water quality standards due to the stormwater discharge(s), the facility shall apply for an individual permit 180 days prior to the expiration of this general permit. Once the individual permit is issued and becomes effective the facility will no longer have coverage under the general permit. Impaired waters scheduled for TMDL development are on North Carolina's 303(d) List and can be found here: http://h2o.enr.state.nc.us/tmdl/General_303d.htm#Downloads. A list of approved TMDLs for the state of North Carolina can be found here: http://h2o.enr.state.nc.us/tmdl/General_TMDLs.htm.

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge stormwater associated with industrial activity. Such discharges shall be controlled, limited, and monitored as specified in this permit.

SECTION B: PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to discharge stormwater to the surface waters of North Carolina or separate storm sewer system which has been adequately treated and managed in accordance with the terms and conditions of this General Permit. All discharges shall be in accordance with the conditions of this permit.

Any other point source discharge to surface waters of the state is prohibited unless it is an allowable non-stormwater discharge or is covered by another permit, authorization or approval. The stormwater discharges allowed by this General Permit shall not cause or contribute to violations of Water Quality Standards.

This permit does not relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law, rule, standard, ordinance, order, judgment, or decree.

PART II MONITORING, CONTROLS, AND LIMITATIONS FOR PERMITTED DISCHARGES

SECTION A: STORMWATER POLLUTION PREVENTION PLAN

The Permittee shall develop a Stormwater Pollution Prevention Plan, herein after referred to as the Plan. This Plan shall be considered public information in accordance with Part III, Standard Conditions, Section E, Paragraph 3 of this general permit. The Plan shall include, at a minimum, the following items:

1. Site Plan. The site plan shall provide a description of the physical facility and the potential pollutant sources which may be expected to contribute to contamination of stormwater discharges. The site plan shall contain the following:
 - (a) A general location map (USGS quadrangle map or appropriately drafted equivalent map), showing the facility's location in relation to transportation routes and surface waters, the name of the receiving water(s) to which the stormwater outfall(s) discharges, or if the discharge is to a municipal separate storm sewer system, the name of the municipality and the ultimate receiving waters, and accurate latitude and longitude of the point(s) of discharge. The general location map (or alternatively the site map) should identify whether each receiving water is **impaired** (on the state's 303(d) list of impaired waters) or is located in a **watershed for which a TMDL has been established**, and what the parameter(s) of concern are.
North Carolina's 303(d) List can be found here:
http://h2o.enr.state.nc.us/tmdl/General_303d.htm#Downloads
North Carolina TMDL documents can be found here:
[http://h2o.enr.state.nc.us/tmdl/TMDL_list.htm#Final TMDLs](http://h2o.enr.state.nc.us/tmdl/TMDL_list.htm#Final_TMDLs).
 - (b) A narrative description of storage practices, loading and unloading activities, outdoor process areas, dust or particulate generating or control processes, and waste disposal practices. A narrative description of the potential pollutants which could be expected to be present in the stormwater discharge from each outfall.
 - (c) A site map drawn to scale (including a distance legend) showing: the site property boundary, the stormwater discharge points, all on-site and adjacent surface waters and wetlands, industrial activity areas (including storage of materials, disposal areas, process areas, loading and unloading areas, and haul roads), site topography, all drainage features and structures, direction of flow, drainage areas for each outfall, industrial activities occurring in each drainage area, buildings, existing and proposed BMPs, and impervious surfaces. The site map must indicate the percentage of each drainage area that is impervious.
 - (d) A list of significant spills or leaks of pollutants that have occurred at the facility during the three (3) previous years and any corrective actions taken to mitigate spill impacts.

- (e) Certification that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges. The certification statement will be signed in accordance with the requirements found in Part III, Standard Conditions, Section B, Paragraph 5. The permittee shall re-certify annually that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges.

2. Stormwater Management Plan. The stormwater management plan shall contain a narrative description of the materials management practices employed which control or minimize the exposure of significant materials to stormwater, including structural and nonstructural measures. The stormwater management plan, at a minimum, shall incorporate the following:

- (a) Feasibility Study. A review of the technical and economic feasibility of changing the methods of operations and/or storage practices to eliminate or reduce exposure of materials and processes to stormwater. Wherever practical, the permittee shall prevent exposure of all storage areas, material handling operations, and manufacturing or fueling operations by permanent or semi-permanent covers. In areas where elimination of exposure is not practical, the stormwater management plan shall document the feasibility of diverting the stormwater runoff away from areas of potential contamination.
- (b) Secondary Containment Requirements and Records. Secondary containment is required for: bulk storage of liquid materials; storage in any amount of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) water priority chemicals; and storage in any amount of hazardous substances, in order to prevent leaks and spills from contaminating stormwater runoff. A table or summary of all such tanks and stored materials and their associated secondary containment areas shall be maintained, and shall record the volume capacity of each tank and containment area. If the secondary containment devices are connected directly to stormwater conveyance systems, the connection shall be controlled by manually activated valves or other similar devices (which shall be secured closed with a locking mechanism), and any stormwater that accumulates in the containment area shall be at a minimum visually observed for color, foam, outfall staining, visible sheens and dry weather flow, prior to release of the accumulated stormwater. Accumulated stormwater shall be released if found to be uncontaminated by the material stored within the containment area. Records documenting the individual making the observation, the description of the accumulated stormwater, and the date and time of the release shall be kept for a period of five years.
- (c) BMP Summary. A narrative description shall be provided of Best Management Practices (BMPs) to be considered such as, but not limited to, diversion structures, secondary containment structures, oil and grease separation, debris control, vegetative filter strips, infiltration and stormwater detention or retention, where necessary. The need for structural BMPs shall be based on the assessment of potential of sources to contribute significant quantities of pollutants to stormwater discharges and data collected through monitoring of stormwater discharges.

3. **Spill Prevention and Response Plan.** The Spill Prevention and Response Plan (SPRP) shall incorporate an assessment of potential pollutant sources based on a materials inventory of the facility. Facility personnel (or team) responsible for implementing the SPRP shall be identified. A responsible person shall be on-site at all times during facility operations that have the potential to contaminate stormwater runoff through spills or exposure of materials associated with the facility operations. The SPRP must be site stormwater specific. Therefore, a SPCC plan may be a component of the SPRP, but may not be sufficient to completely address the stormwater aspects of the SPRP. The common elements of the SPCC with the SPRP may be incorporated by reference into the SPRP.
4. **Preventative Maintenance and Good Housekeeping Program.** A preventative maintenance program shall be developed. The program shall document schedules of inspections and maintenance activities of stormwater control systems, plant equipment and systems. Inspection of material handling areas and regular cleaning schedules of these areas shall be incorporated into the program. The program shall specifically identify industrial areas that have the potential for soil erosion, and must specifically note the preventative BMP or maintenance activity implemented in the areas, and must include regular inspections of the areas.
5. **Employee Training.** Training schedules shall be developed and training provided at a minimum on an annual basis on proper spill response and cleanup procedures and preventative maintenance activities for all personnel involved in any of the facility's operations that have the potential to contaminate stormwater runoff. Facility personnel (or team) responsible for implementing the training shall be identified.
6. **Responsible Party.** The Stormwater Pollution Prevention Plan shall identify a specific position(s) responsible for the overall coordination, development, implementation, and revision to the Plan. Responsibilities for all components of the Plan shall be documented and position assignments provided.
7. **Plan Amendment.** The permittee shall amend the Plan whenever there is a change in design, construction, operation, or maintenance which has a significant effect on the potential for the discharge of pollutants to surface waters. The Stormwater Pollution Prevention Plan shall be reviewed and updated on an annual basis. The annual update shall include an updated list of significant spills or leaks of pollutants for the previous three years, or the notation that no spills have occurred. The annual update shall include re-certification that the stormwater outfalls have been evaluated for the presence of non-stormwater discharges.

The Director may notify the permittee when the Plan does not meet one or more of the minimum requirements of the permit. Within 30 days of such notice, the permittee shall submit a time schedule to the Director for modifying the Plan to meet minimum requirements. The permittee shall provide certification in writing (in accordance with Part III, Standard Conditions, Section B, Paragraph 5) to the Director that the changes have been made.

8. **Facility Inspection Program.** Inspections of the facility and all stormwater systems shall occur at a minimum on a semi-annual schedule, once during the first half of the year

(January to June), and once during the second half (July to December), with at least 60 days separating inspection dates (unless performed more frequently). The inspection and any subsequent maintenance activities performed shall be documented, recording date and time of inspection, individual(s) making the inspection and a narrative description of the facility's stormwater control systems, plant equipment and systems. Records of these inspections shall be incorporated into the Stormwater Pollution Prevention Plan. These facility inspections are different from, and in addition to, the stormwater discharge characteristic monitoring required in Part II of this permit.

9. Implementation. The permittee shall implement the Plan. Implementation of the Plan shall include documentation of all monitoring, measurements, inspections, maintenance activities, and training provided to employees, including the log of the sampling data and of actions taken to implement BMPs associated with the industrial activities, including vehicle maintenance activities. Such documentation shall be kept on-site for a period of five years and made available to the Director or the Director's authorized representative immediately upon request.

SECTION B: QUALITATIVE MONITORING REQUIREMENTS

Qualitative monitoring requires a visual inspection of each stormwater outfall regardless of representative outfall status and shall be performed as specified below in **Table 1**. No analytical tests are required. Qualitative monitoring of stormwater outfalls must be performed during a representative storm event.

A representative storm event is a storm event that measures greater than 0.1 inches of rainfall and that is preceded by at least 72 hours in which no storm event measuring greater than 0.1 inches has occurred. A single storm event may contain up to 10 consecutive hours of no precipitation. For example, if it rains for 2 hours without producing any collectable discharge, and then stops, a sample may be collected if a rain producing a discharge begins again within the next 10 hours.

Table 1. Qualitative Monitoring Requirements

Discharge Characteristics	Frequency	Monitoring Location ¹
Color	Semi-Annual	SDO
Odor	Semi-Annual	SDO
Clarity	Semi-Annual	SDO
Floating Solids	Semi-Annual	SDO
Suspended Solids	Semi-Annual	SDO
Foam	Semi-Annual	SDO
Oil Sheen	Semi-Annual	SDO
Erosion or deposition at the outfall	Semi-Annual	SDO
Other obvious indicators of stormwater pollution	Semi-Annual	SDO

Footnotes:

¹ Monitoring Location: Qualitative monitoring shall be performed at each stormwater discharge outfall (SDO) regardless of representative outfall status.

If the permittee's qualitative monitoring indicates either that existing stormwater BMPs are ineffective, or that significant stormwater contamination is present, the permittee shall investigate potential causes, evaluate the feasibility of corrective actions, and implement those corrective actions appropriate. A written record of the permittee's investigation, evaluation, and response actions shall be kept in the Stormwater Pollution Prevention Plan.

Qualitative monitoring is for the purposes of evaluating the effectiveness of the Stormwater Pollution Prevention Plan (SPPP), assessing new sources of stormwater pollution, and prompting the permittee's response to pollution. If the permittee repeatedly fails to respond effectively to correct problems identified by qualitative monitoring, or if the discharge causes or contributes to a water quality standard violation, DWQ may:

- require that the permittee revise, increase, or decrease the monitoring frequency for the remainder of the permit;
- rescind coverage under the General Permit, and require that the permittee apply for an individual stormwater discharge permit;
- require the permittee to install structural stormwater controls;
- require the permittee to implement other stormwater control measures; or
- require that the permittee implement site modifications to qualify for the No Exposure Exclusion.

Qualitative monitoring will be performed twice per year, in accordance with the schedule in **Table 2. A minimum of 60 days must separate Period 1 and Period 2 monitoring dates**, unless monthly sampling has been instituted under a Tier Two response for vehicle maintenance activity areas.

Table 2. Monitoring Schedule

Monitoring period ^{1,2}	Event Number	Start	End
Year 1 – Period 1	1	July 1, 2008	December 31, 2008
Year 1 – Period 2	2	January 1, 2009	June 30, 2009
Year 2 – Period 1	3	July 1, 2009	December 31, 2009
Year 2 – Period 2	4	January 1, 2010	June 30, 2010
Year 3 – Period 1	5	July 1, 2010	December 31, 2010
Year 3 – Period 2	6	January 1, 2011	June 30, 2011
Year 4 – Period 1	7	July 1, 2011	December 31, 2011
Year 4 – Period 2	8	January 1, 2012	June 30, 2012
Year 5 – Period 1	9	July 1, 2012	December 31, 2012
Year 5 – Period 2	10	January 1, 2013	May 31, 2013

Footnotes:

¹ Maintain semi-annual monitoring during permit renewal process. If at the expiration of the general permit, the permittee has submitted an application for renewal of coverage before the submittal deadline, the

permittee will be considered for renewed coverage. The applicant must continue semi-annual monitoring until the renewed Certificate of Coverage is issued.

- 2 If analytical monitoring applies, but no discharge occurs during the monitoring period, the permittee must submit a monitoring report indicating "No Flow" within 30 days of the end of the six-month monitoring period.

SECTION C: ON-SITE VEHICLE MAINTENANCE MONITORING REQUIREMENTS

Facilities which have any vehicle maintenance activity occurring on-site which uses more than 55 gallons of new motor oil per month when averaged over the calendar year shall perform analytical monitoring as specified in **Table 3**. This monitoring shall be performed at all outfalls which discharge stormwater runoff from the vehicle maintenance areas, and in accordance with the schedule presented in **Table 2**. All analytical monitoring shall be performed during a representative storm event.

Table 3. Analytical Monitoring Requirements for On-Site Vehicle Maintenance

Discharge Characteristics	Units	Measurement Frequency ¹	Sample Type ²	Sample Location ³
pH	standard	semi-annual	Grab	SDO
Oil and Grease	mg/l	semi-annual	Grab	SDO
Total Suspended Solids	mg/l	semi-annual	Grab	SDO
Total Rainfall ⁴	inches	semi-annual	Rain gauge	-
New Motor Oil Usage	gallons/month	semi-annual	Estimate	-

Footnotes:

- 1 Measurement Frequency: Twice per year during a representative storm event.
- 2 If the stormwater runoff is controlled by a stormwater detention pond a grab sample of the discharge from the pond shall be collected within the first 30 minutes of discharge from the pond.
- 3 Sample Location: Samples shall be collected at each stormwater discharge outfall (SDO) that discharges stormwater runoff from area(s) where vehicle maintenance activities occur.
- 4 For each sampled representative storm event the total precipitation must be recorded. An on-site or local rain gauge reading must be recorded.

In all cases, the permittee shall report the analytical results from the first sample with valid results within the monitoring period. The permittee shall compare those results to the benchmark values in **Table 4**. Exceedences of benchmark values require the permittee to increase monitoring, increase management actions, increase record keeping, and/or install stormwater Best Management Practices (BMPs) in a tiered program. See below the descriptions of Tier One and Tier Two.

Table 4. Benchmark Values for On-Site Vehicle Maintenance Activities

Discharge Characteristics	Cut-off Concentration
pH	Within range 6.0 - 9.0
Oil and Grease	30 mg/l
Total Suspended Solids	100 mg/l

Tier One

If: The first valid sampling results are above a benchmark value, or outside of the benchmark range, for any parameter at any outfall;

Then: The permittee shall:

1. Conduct a stormwater management inspection of the facility **within two weeks of receiving sampling results.**
2. Identify and evaluate possible causes of the benchmark value exceedence.
3. Identify potential and select the specific: source controls, operational controls, or physical improvements to reduce concentrations of the parameters of concern, or to bring concentrations to within the benchmark range.
4. Implement the selected actions **within two months of the inspection.**
5. Record each instance of a Tier One response in the **Stormwater Pollution Prevention Plan.** Include the date and value of the benchmark exceedence, the inspection date, the personnel conducting the inspection, the selected actions, and the date the selected actions were implemented.

Tier Two

If: During the term of this permit, the first valid sampling results from two consecutive monitoring periods are above the benchmark values, or outside of the benchmark range, for any specific parameter at a specific discharge outfall;

Then: The permittee shall:

1. Repeat all the required actions outlined above in Tier One.
2. Immediately institute monthly monitoring for all parameters at every outfall where a sampling result exceeded the benchmark value for two consecutive valid samples. Monthly (analytical and qualitative) monitoring shall continue until three consecutive sample results are below the benchmark values, or within the benchmark range.
3. If no discharge occurs during the sampling period, the permittee is **required to submit a monthly monitoring report indicating "No Flow" to comply with reporting requirements.**
4. Maintain a record of the Tier Two response in the Stormwater Pollution Prevention **Plan.**

During the term of this permit, if the valid sampling results required for the permit monitoring periods exceed the benchmark value, or are outside the benchmark range, for any specific parameter at any specific outfall on **more than four occasions**, the permittee shall notify the DWQ Regional Office Supervisor in writing **within 30 days of receipt** of the fourth analytical results. DWQ may:

- require that the permittee revise, increase, or decrease the monitoring frequency for the remainder of the permit;
- rescind coverage under the General Permit, and require that the permittee apply for an individual stormwater discharge permit;
- require the permittee to install structural stormwater controls;
- require the permittee to implement other stormwater control measures; or
- require that the permittee implement site modifications to qualify for the No Exposure Exclusion.

PART III STANDARD CONDITIONS FOR NPDES STORMWATER GENERAL PERMITS

SECTION A: COMPLIANCE AND LIABILITY

1. Compliance Schedule

The permittee shall comply with Limitations and Controls specified for stormwater discharges in accordance with the following schedule:

Existing facilities already operating, but applying for coverage under this general permit for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented within 12 months of the effective date of the initial Certificate of Coverage issued pursuant to this general permit and updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, Paragraph 2(b) of this permit, shall be accomplished within 12 months of the effective date of the initial Certificate of Coverage.

New facilities applying for permit coverage for the first time and existing facilities previously permitted and applying for renewal under this general permit: All requirements, conditions, limitations, and controls contained in this permit become effective immediately upon issuance of the Certificate of Coverage. The Stormwater Pollution Prevention Plan shall be developed and implemented prior to the beginning of discharges from the operation of the industrial activity and be updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, Paragraph 2(b) of this permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

2. Duty to Comply.

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(a) The permittee shall comply with standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions , even if the permit has not yet been modified to incorporate the requirement.

b) The Clean Water Act provides that any person who violates a permit condition is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who negligently violates any permit condition is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment for not more than 1 year, or both. Any person who knowingly violates permit conditions is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. Also, any person who violates a permit condition may be assessed an

administrative penalty not to exceed \$10,000 per violation with the maximum amount not to exceed \$125,000. [Ref: Section 309 of the Federal Act 33 USC 1319 and 40 CFR 122.41(a).]

(c) Under state law, a daily civil penalty of not more than ten thousand dollars (\$10,000) per violation may be assessed against any person who violates or fails to act in accordance with the terms, conditions, or requirements of a permit. [Ref: NC General Statutes 143-215.6A].

(d) Any person may be assessed an administrative penalty by the Director for violating section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this general permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Civil and Criminal Liability

Except as provided in Section C of this permit regarding bypassing of stormwater control facilities, nothing in this general permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties for noncompliance pursuant to NCGS 143-215.3, 143-215.6A, 143-215.6B, 143-215.6C or Section 309 of the Federal Act, 33 USC 1319. Furthermore, the permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.

5. Oil and Hazardous Substance Liability

Nothing in this general permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under NCGS 143-215.75 et seq. or Section 311 of the Federal Act, 33 USC 1321.

6. Property Rights

The issuance of this general permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

7. Severability

The provisions of this general permit are severable, and if any provision of this general permit, or the application of any provision of this general permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this general permit, shall not be affected thereby.

8. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the certificate of coverage issued pursuant to this general permit or to determine compliance with this general permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this general permit.

9. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this general permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

10. Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this general permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both.

SECTION B: GENERAL CONDITIONS

1. General Permit Expiration

The permittee is not authorized to discharge after the expiration date. In order to receive automatic authorization to discharge beyond the expiration date, the permittee shall submit forms and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date. Any permittee that has not requested renewal at least 180 days prior to expiration, or any permittee that does not have a permit after the expiration and has not requested renewal at least 180 days prior to expiration, will be

subjected to enforcement procedures as provided in NCGS §143-2153.6 and 33 USC 1251 et. seq.

2. Transfers

The certificate of coverage issued pursuant to this general permit is not transferable to any person except after notice to and approval by the Director. The Director may require modification or revocation and reissuance of the certificate of coverage to change the name and incorporate such other requirements as may be necessary under the Clean Water Act. **Permittee is required to notify the Division in the event the permitted facility is sold or closed.**

3. When an Individual Permit May be Required

The Director may require any owner/operator authorized to discharge under a certificate of coverage issued pursuant to this general permit to apply for and obtain an individual permit or coverage under an alternative general permit. Any interested person may petition the Director to take action under this paragraph. Cases where an individual permit may be required include, but are not limited to, the following:

- a. The discharger is a significant contributor of pollutants;
- b. Conditions at the permitted site change, altering the constituents and/or characteristics of the discharge such that the discharge no longer qualifies for a general permit;
- c. The discharge violates the terms or conditions of this general permit;
- d. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;
- e. Effluent limitations are promulgated for the point sources covered by this general permit;
- f. A water quality management plan containing requirements applicable to such point sources is approved after the issuance of this general permit.
- g. The Director determines at his own discretion that an individual permit is required.

4. When an Individual Permit May be Requested

Any permittee operating under this general permit may request to be excluded from the coverage of this general permit by applying for an individual permit. When an individual permit is issued to an owner/operator the applicability of this general permit is automatically terminated on the effective date of the individual permit.

5. Signatory Requirements

All applications, reports, or information submitted to the Director shall be signed and certified.

- a. All notices of intent to be covered under this general permit shall be signed as follows:
 - (1) In the case of a corporation: by a principal executive officer of at least the level of vice-president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the permit application form originates;
 - (2) In the case of a partnership or limited partnership: by a general partner;
 - (3) In the case of a sole proprietorship: by the proprietor;
 - (4) In the case of a municipal, state, or other public entity: by a principal executive officer, ranking elected official, or other duly authorized employee.

- b. All reports required by the general permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by a person described above;
 - (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, a position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - (3) The written authorization is submitted to the Director.

- c. Any person signing a document under paragraphs a. or b. of this section shall make the following certification:

"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."

6. General Permit Modification, Revocation and Reissuance, or Termination

The issuance of this general permit does not prohibit the Director from reopening and modifying the general permit, revoking and reissuing the general permit, or terminating the general permit as allowed by the laws, rules, and regulations contained in Title 40, Code of Federal Regulations, Parts 122 and 123; Title 15A of the North Carolina Administrative Code, Subchapter 2H .0100; and North Carolina General Statute 143-215.1 et. al.

After public notice and opportunity for a hearing, the general permit may be terminated for cause. The filing of a request for a general permit modification, revocation and reissuance, or termination does not stay any general permit condition. The certificate of coverage shall expire when the general permit is terminated.

7. Certificate of Coverage Actions

The certificate of coverage issued in accordance with this general permit may be modified, revoked and reissued, or terminated for cause. The notification of planned changes or anticipated noncompliance does not stay any general permit condition.

SECTION C: OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this general permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the general permit.

2. Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the condition of this general permit.

3. Bypassing of Stormwater Control Facilities

Bypass is prohibited and the Director may take enforcement action against a permittee for bypass unless:

- a. Bypass was unavoidable to prevent loss of life, personal injury or severe property damage; and
- b. There were no feasible alternatives to the bypass, such as the use of auxiliary control facilities, retention of stormwater or maintenance during normal periods of equipment downtime or dry weather. This condition is not satisfied if adequate backup controls should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- c. The permittee submitted notices as required under Section E of this Part.

If the Director determines that it will meet the three conditions listed above, the Director may approve an anticipated bypass after considering its adverse effects.

SECTION D: MONITORING AND RECORDS

1. Representative Sampling

Samples collected and measurements taken, as required herein, shall be characteristic of the volume and nature of the permitted discharge. Analytical sampling shall be performed during a representative storm event. Samples shall be taken on a day and time that is characteristic of the discharge. All samples shall be taken before the discharge joins or is diluted by any other waste stream, body of water, or substance. Monitoring points as specified in this permit shall not be changed without notification to and approval of the Director.

2. Recording Results

For each measurement, sample, inspection or maintenance activity performed or collected pursuant to the requirements of this general permit, the permittee shall record the following information:

- a. The date, exact place, and time of sampling, measurements, inspection or maintenance activity;
- b. The individual(s) who performed the sampling, measurements, inspection or maintenance activity;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;

- e. The analytical techniques or methods used; and
- f. The results of such analyses.

3. Flow Measurements

Where required, appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to the EMC regulations published pursuant to NCGS 143-215.63 et. seq, the Water and Air Quality Reporting Acts, and to regulations published pursuant to Section 304(g), 33 USC 1314, of the Federal Water Pollution Control Act, as Amended, and Regulation 40 CFR 136.

To meet the intent of the monitoring required by this general permit, all test procedures must produce minimum detection and reporting levels and all data generated must be reported down to the minimum detection or lower reporting level of the procedure.

5. Representative Outfall

If a facility has multiple discharge locations with substantially identical stormwater discharges that are required to be sampled, the permittee may petition the Director for representative outfall status. If it is established that the stormwater discharges are substantially identical and the permittee is granted representative outfall status, then sampling requirements may be performed at a reduced number of outfalls.

6. Records Retention

Qualitative monitoring shall be documented and records maintained at the facility along with the Stormwater Pollution Prevention Plan. Copies of analytical monitoring results shall also be maintained on-site. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this general permit for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

7. Inspection and Entry

The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), or in the case of a facility which discharges through a municipal separate storm sewer system, an authorized representative of a municipal operator or the separate storm sewer system receiving the

discharge, upon the presentation of credentials and other documents as may be required by law, to;

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this general permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this general permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring general permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION E: REPORTING REQUIREMENTS

1. Discharge Monitoring Reports

Samples analyzed in accordance with the terms of this permit shall be submitted to the Division on Discharge Monitoring Report forms provided by the Director. Submittals shall be received by the Division no later than 30 days from the date the facility receives the sampling results from the laboratory.

When no discharge has occurred from the facility during the report period, the permittee is required to submit a discharge monitoring report, within 30 days of the end of the six-month sampling period, giving all required information and indicating "NO FLOW" as per NCAC T15A 02B .0506.

The permittee shall record the required qualitative monitoring observations on the SDO Qualitative Monitoring Report form provided by the Division, and shall retain the completed forms on site. Qualitative monitoring results should not be submitted to the Division, except upon DWQ's specific requirement to do so.

2. Submitting Reports

Duplicate signed copies of all reports required herein, shall be submitted to the following address:

Central Files
Division of Water Quality
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

3. Availability of Reports

Except for data determined to be confidential under NCGS 143-215.3(a)(2) or Section 308 of the Federal Act, 33 USC 1318, all reports prepared in accordance with the terms shall be available for public inspection at the offices of the Division of Water Quality. As required by the Act, analytical data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NCGS 143-215.6B or in Section 309 of the Federal Act.

4. Non-Stormwater Discharges

If the storm event monitored in accordance with this general permit coincides with a non-stormwater discharge, the permittee shall separately monitor all parameters as required under the non-stormwater discharge permit and provide this information with the stormwater discharge monitoring report.

5. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned changes at the permitted facility which could significantly alter the nature or quantity of pollutants discharged. This notification requirement includes pollutants which are not specifically listed in the general permit or subject to notification requirements under 40 CFR Part 122.42 (a).

6. Anticipated Noncompliance

The permittee shall give notice to the Director as soon as possible of any planned changes at the permitted facility which may result in noncompliance with the general permit requirements.

7. Bypass

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass; including an evaluation of the anticipated quality and affect of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice within 24 hours of becoming aware of an unanticipated bypass.

8. Twenty-four Hour Reporting

The permittee shall report to the central office or the appropriate regional office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee became aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances.

The written submission shall contain a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time compliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

9. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under 24 hour reporting at the time monitoring reports are submitted.

10. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a Notice of Intent to be covered under this general permit or in any report to the Director, it shall promptly submit such facts or information.

PART IV LIMITATIONS REOPENER

This general permit shall be modified or alternatively, revoked and reissued, to comply with any applicable effluent guideline or water quality standard issued or approved under Sections 302(b) (2) (c), and (d), 304(b) (2) and 307(a) of the Clean Water Act, if the effluent guideline or water quality standard so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the general permit; or
- b. Controls any pollutant not limited in the general permit.

The general permit as modified or reissued under this paragraph shall also contain any other requirements in the Act then applicable.

PART V ADMINISTERING AND COMPLIANCE MONITORING FEE REQUIREMENTS

The permittee must pay the administering and compliance monitoring fee within 30 (thirty) days after being billed by the Division. Failure to pay the fee in timely manner in accordance with 15A NCAC 2H .0105(b)(4) may cause **this** Division to initiate action to revoke the Certificate of Coverage.

PART VI DEFINITIONS

1. Act

See Clean Water Act.

2. Arithmetic Mean

The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.

3. Allowable Non-Stormwater Discharges

This permit regulates stormwater discharges. Non-stormwater discharges which shall be allowed in the stormwater conveyance system are:

- (a) All other discharges that are authorized by a non-stormwater NPDES permit.

(b) Uncontaminated groundwater, foundation drains, air-conditioner condensate without added chemicals, springs, discharges of uncontaminated potable water, waterline and fire hydrant flushings, water from footing drains, flows from riparian habitats and wetlands.

(c) Discharges resulting from fire-fighting or fire-fighting training.

4. Best Management Practices (BMPs)

Measures or practices used to reduce the amount of pollution entering surface waters. BMPs may take the form of a process, activity, or physical structure.

5. Bypass

A bypass is the known diversion of stormwater from any portion of a stormwater control facility including the collection system, which is not a designed or established operating mode for the facility.

6. Bulk Storage of Liquid Products

Liquid raw materials, manufactured products, waste materials or by-products with a single above ground storage container having a capacity of greater than 660 gallons or with multiple above ground storage containers located in close proximity to each other having a total combined storage capacity of greater than 1,320 gallons.

7. Certificate of Coverage

The Certificate of Coverage (COC) is the cover sheet which accompanies the general permit upon issuance and lists the facility name, location, receiving stream, river basin, effective date of coverage under the permit and is signed by the Director.

8. Clean Water Act

The Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), as amended, 33 USC 1251, et. seq.

9. Division or DWQ

The Division of Water Quality, Department of Environment and Natural Resources.

10. Director

The Director of the Division of Water Quality, the permit issuing authority.

11. EMC

The North Carolina Environmental Management Commission.

12. Grab Sample

An individual samples collected instantaneously. Grab samples that will be directly analyzed or qualitatively monitored must be taken within the first 30 minutes of discharge.

13. Hazardous Substance

Any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

14. Landfill

A disposal facility or part of a disposal facility where waste is placed in or on land and which is not a land treatment facility, a surface impoundment, an injection well, a hazardous waste long-term storage facility or a surface storage facility.

15. Municipal Separate Storm Sewer System

A stormwater collection system within an incorporated area of local self-government such as a city or town.

16. No Exposure

A condition of no exposure means that all industrial materials and activities are protected by a storm resistant shelter or acceptable storage containers to prevent exposure to rain, snow, snowmelt, or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. DWQ may grant a No Exposure Exclusion from NPDES Stormwater Permitting requirements only if a facility complies with the terms and conditions described in 40 CFR §122.26(g)

17. Notice of Intent

The state application form which, when submitted to the Division, officially indicates the facility's notice of intent to seek coverage under a general permit.

18. Overburden

Any material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally-occurring surface materials that are not disturbed by mining operations.

19. Permittee

The owner or operator issued a certificate of coverage pursuant to this general permit.

20. Point Source Discharge of Stormwater

Any discernible, confined and discrete conveyance including, but not specifically limited to, any pipe, ditch, channel, tunnel, conduit, well, or discrete fissure from which stormwater is or may be discharged to waters of the state.

21. Representative Storm Event

A storm event that measures greater than 0.1 inches of rainfall and that is preceded by at least 72 hours in which no storm event measuring greater than 0.1 inches has occurred. A single storm event may contain up to 10 consecutive hours of no precipitation. For example, if it rains for 2 hours without producing any collectable discharge, and then stops, a sample may be collected if a rain producing a discharge begins again within the next 10 hours.

22. Representative Outfall Status

When it is established that the discharge of stormwater runoff from a single outfall is representative of the discharges at multiple outfalls, the DWQ may grant representative outfall status. Representative outfall status allows the permittee to perform analytical monitoring at a reduced number of outfalls.

23. Rinse Water Discharge

The discharge of rinse water from equipment cleaning areas associated with industrial activity. Rinse waters from vehicle and equipment cleaning areas are process wastewaters and do not include washwaters utilizing any type of detergent or cleaning agent.

24. Secondary Containment

Spill containment for the contents of the single largest tank within the containment structure plus sufficient freeboard to allow for the 25-year, 24-hour storm event.

25. Section 313 Water Priority Chemical

A chemical or chemical category which:

- a. Is listed in 40 CFR 372.65 pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, also titled the Emergency Planning and Community Right-to-Know Act of 1986;
- b. Is present at or above threshold levels at a facility subject to SARA title III, Section 313 reporting requirements; and

c. That meet at least one of the following criteria:

- (1) Is listed in appendix D of 40 CFR part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols) or Table IV (certain toxic pollutants and hazardous substances);
- (2) Is listed as a hazardous substance pursuant to section 311(b)(2)(A) of the CWA at 40 CFR 116.4; or
- (3) Is a pollutant for which EPA has published acute or chronic water quality criteria.

26. Severe Property Damage

Means substantial physical damage to property, damage to the control facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

27. Significant Materials

Includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

28. Significant Spills

Includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (Ref: 40 CFR 110.10 and CFR 117.21) or section 102 of CERCLA (Ref: 40 CFR 302.4).

29. Stormwater Runoff

The flow of water which results from precipitation and which occurs immediately following rainfall or as a result of snowmelt.

30. Stormwater Associated with Industrial Activity

The discharge from any point source which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or raw material storage areas at an industrial site. Facilities considered to be engaged in "industrial activities" include those activities defined in 40 CFR 122.26(b)(14). The term does not include discharges from facilities or activities excluded from the NPDES program.

31. Stormwater Pollution Prevention Plan

A comprehensive site-specific plan which details measures and practices to reduce stormwater pollution and is based on an evaluation of the pollution potential of the site.

32. Ten Year Design Storm

The maximum 24-hour precipitation event expected to be equaled or exceeded on the average once in ten years. Design storm information can be found in the State of North Carolina Erosion and Sediment Control Planning and Design Manual.

33. Total Flow

The flow corresponding to the time period over which the entire storm event occurs. Total flow shall be either; (a) measured continuously, (b) calculated based on the amount of area draining to the outfall, the amount of built-upon (impervious) area, and the total amount of rainfall, or (c) estimated by the measurement of flow at 20-minute intervals during the rainfall event.

34. Total Maximum Daily Load (TMDL)

TMDLs are written plans for attaining and maintaining water quality standards, in all seasons, for a specific waterbody and pollutant. (A list of approved TMDLs for the state of North Carolina can be found at <http://h2o.enr.state.nc.us/tmdl/>)

35. Toxic Pollutant

Any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act.

36. Upset

Means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment or control facilities, inadequate treatment or control facilities, lack of preventive maintenance, or careless or improper operation.

37. Vehicle Maintenance Activity

Vehicle rehabilitation, mechanical repairs, painting, fueling, lubrication, vehicle cleaning operations, or airport deicing operations.

38. Visible Sedimentation

Solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin which can be seen with the unaided eye.

39. 25-year, 24 hour storm event

The maximum 24-hour precipitation event expected to be equaled or exceeded, on the average, once in 25 years.

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:

CITY OF GREENSBORO SIGN REQUIREMENTS: A FREE STANDING SIGN MOUNTED ON TWO WOODEN POSTS SHALL BE ERECTED NEAR THE ENTRANCE DRIVE, OFF THE PUBLIC RIGHT-OF-WAY. THE SIGN SHALL ANNOUNCE THE NAME AND NATURE OF THE FACILITY. THE SIGN SHALL BE PAINTED ON WOOD AND LOCATED TO BE LEGIBLE TO APPROACHING TRAFFIC IN BOTH DIRECTIONS ALONG BISHOP ROAD.

SIGN DIMENSIONS: 8 FEET HIGH BY 10 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, stating:

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

6-inch high block lettering, black on white background stating:

NC DENR Solid Waste Permit No. XX-XX

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.

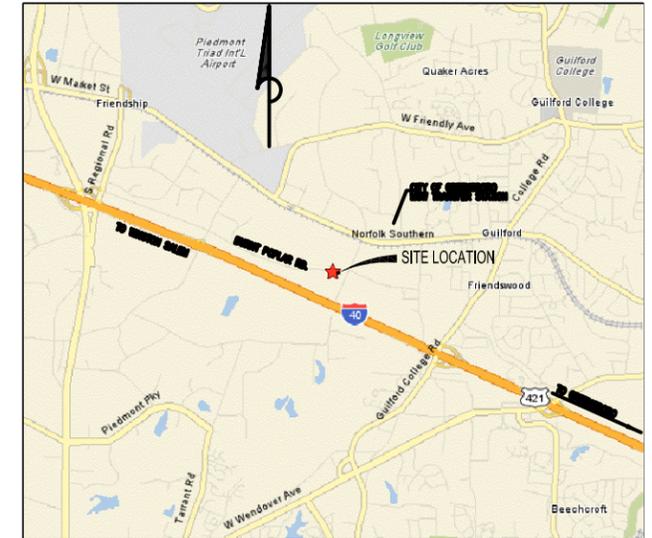
FOR AFTER HOURS EMERGENCIES CALL 911

BURNT POPLAR TRANSFER, LLC C&D TRANSFER STATION

6313 BURNT POPLAR ROAD GILMER TOWNSHIP/GUILFORD COUNTY GREENSBORO, NORTH CAROLINA

SITE PLAN APPLICATION

DATE	NO.	REVISION
2-10-09	5	UPDATED OWNERSHIP INFORMATION
4-1-08	4	REVISED HOURS OF OPERATION PER WCDENR SMS COMMENTS
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
4-13-07	2	REPRINTED FOR FINAL TRC REVIEW (ADDED GILMER TOWNSHIP LABEL)
08-21-06	1	SITE PLAN REVISIONS PER CITY OF GREENSBORO TECHNICAL REVIEW COMMITTEE



VICINITY MAP
N.T.S.

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 DEC. 2007, UPDATED FEB. 2009)

SUBJECT PROPERTY: 6313 BURNT POPLAR ROAD, GREENSBORO, NORTH CAROLINA

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 RANDLEMAN LAKE WATERSHED.

PROJECT OWNER: BURNT POPLAR TRANSFER, LLC
ONE RIVERWAY, SUITE 1400
HOUSTON, TX 77056

PROJECT OPERATOR: BURNT POPLAR TRANSFER, LLC

PROJECT CONTACT: VERNON SMITH, REGIONAL VICE PRESIDENT
WCA WASTE SYSTEMS, INC.
40 ESTES PLANT ROAD
PIEDMONT, SC 29673
TEL. 864-845-8355

INDEX OF DRAWINGS

SHEET NO.	DRAWING NO.	DRAWING TITLE
1	-	TITLE/COVER SHEET
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 30-7-1.12 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: *David Garrett*
DATE: 4-13-2007 (ORIG. SUBMITTAL TO TRC)

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)



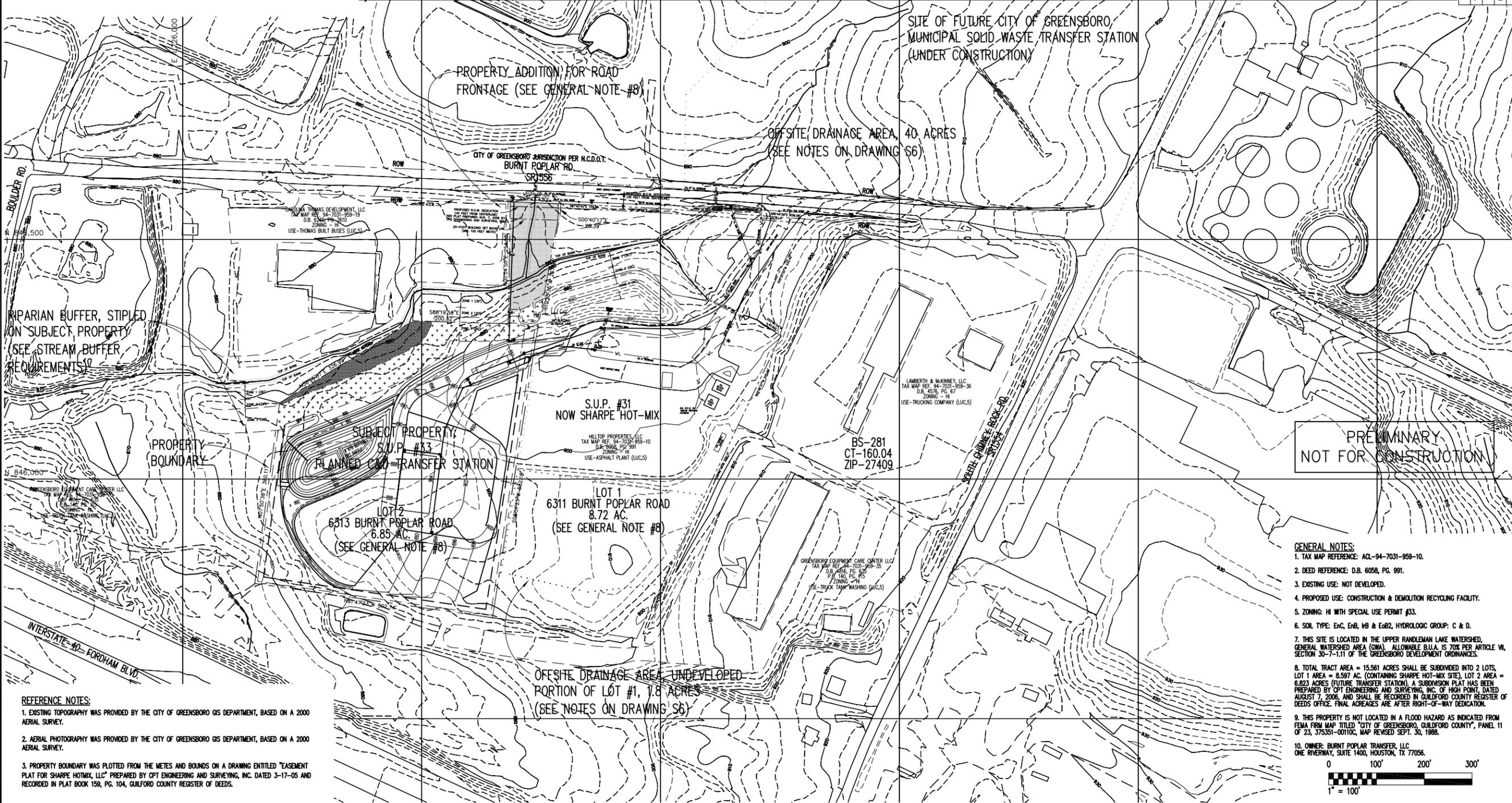
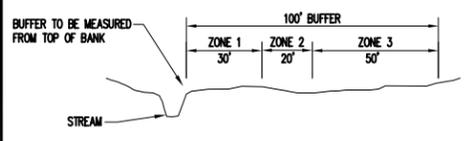
**PRELIMINARY
NOT FOR CONSTRUCTION**

2-10-2009

UPPER RANDEMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:
(HIGH DENSITY OPTION-PERENNIAL STREAM)

- ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS.
- RANDEMAN ZONE 1:** (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDEMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
- RANDEMAN 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 DIFFUSION AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
- RANDEMAN ZONE 3:** (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS EXTENSIVE THAN ARE RANDEMAN ZONES 1 AND 2. RANDEMAN ZONE 3 COVERS THE OUTERMOST FIFTY (50) FEET OF ONE HUNDRED (100) FOOT PERENNIAL STREAM BUFFERS UNDER THE HIGH DENSITY OPTION IN THE UPPER AND LOWER RANDEMAN 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.



NO.	DATE	REVISION
1	2-10-09	REVISED OWNERSHIP INFORMATION
2	12-28-07	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
3	4-13-07	REPRINTED FOR FINAL TRC REVIEW
4	09-21-06	PROPERTY LINE AND RIGHT-OF-WAY REVISIONS PER CITY OF GREENSBORO

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

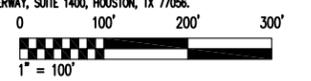


BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION
6313 BURNT POPLAR ROAD
GREENSBORO, NORTH CAROLINA

EXISTING CONDITIONS

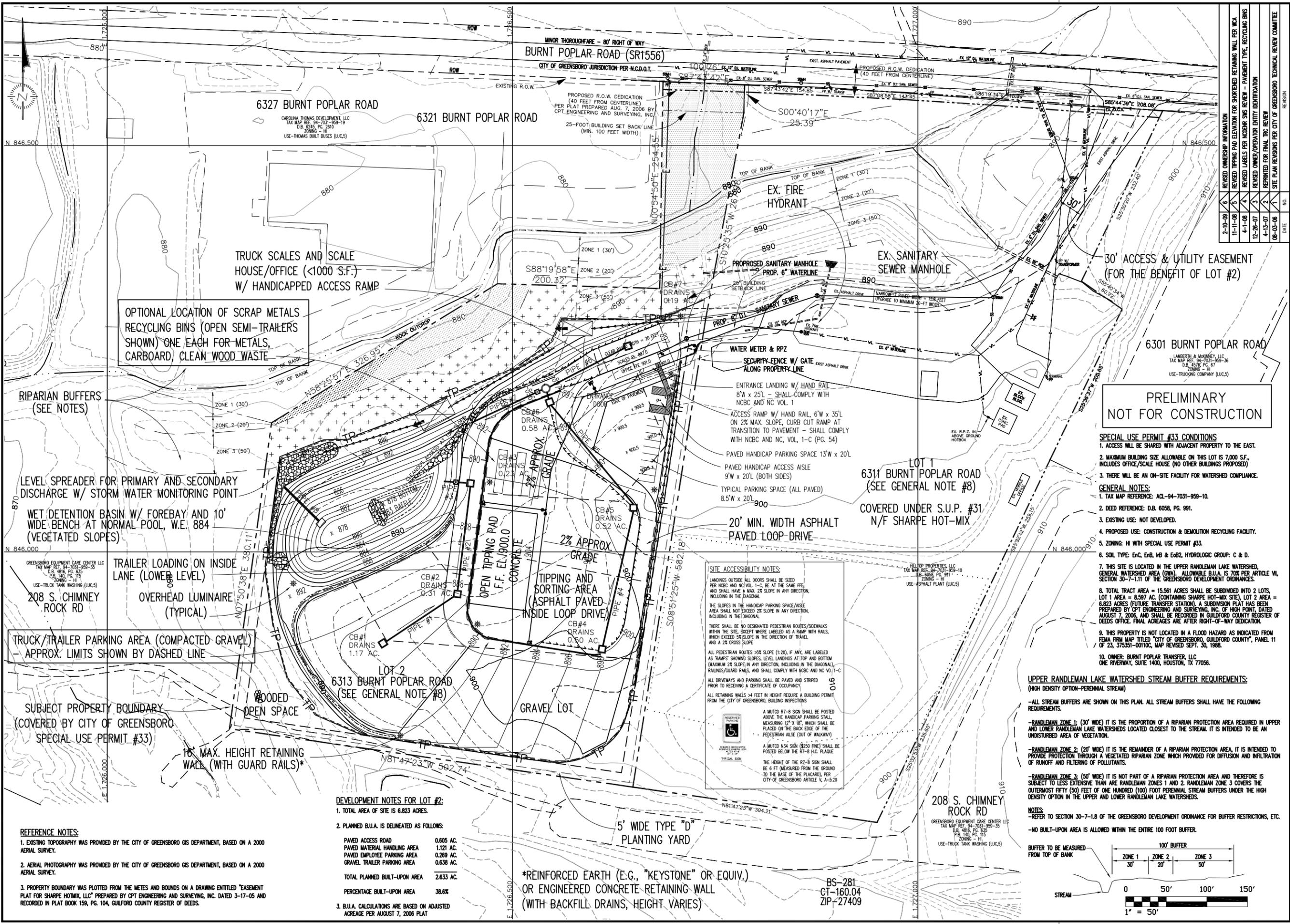
- REFERENCE NOTES:**
- EXISTING TOPOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 - AERIAL PHOTOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 - PROPERTY BOUNDARY WAS PLOTTED FROM THE METES AND BOUNDS ON A DRAWING ENTITLED "EASEMENT PLAT FOR SHARPE HOTMIX, LLC" PREPARED BY CPT ENGINEERING AND SURVEYING, INC. DATED 3-17-05 AND RECORDED IN PLAT BOOK 159, PG. 104, GUILFORD COUNTY REGISTER OF DEEDS.

- GENERAL NOTES:**
- TAX MAP REFERENCE: ACL-94-7031-959-10.
 - DEED REFERENCE: D.B. 6058, PG. 991.
 - EXISTING USE: NOT DEVELOPED.
 - PROPOSED USE: CONSTRUCTION & DEMOLITION RECYCLING FACILITY.
 - ZONING: HI WITH SPECIAL USE PERMIT #33.
 - SOIL TYPE: EnC, EnB, H8 & EnE2, HYDROLOGIC GROUP: C & D.
 - THIS SITE IS LOCATED IN THE UPPER RANDEMAN LAKE WATERSHED, GENERAL WATERSHED AREA (GWA). ALLOWABLE B.U.A. IS 70% PER ARTICLE VI, SECTION 30-7-1.11 OF THE GREENSBORO DEVELOPMENT ORDINANCES.
 - TOTAL TRACT AREA = 15.561 ACRES SHALL BE SUBDIVIDED INTO 2 LOTS, LOT 1 AREA = 8.587 AC. (CONTAINING SHARPE HOT-MIX SITE), LOT 2 AREA = 6.974 ACRES (FUTURE TRANSFER STATION). A SUBDIVISION PLAT HAS BEEN PREPARED BY CPT ENGINEERING AND SURVEYING, INC. OF HIGH POINT, DATED AUGUST 7, 2006, AND SHALL BE RECORDED IN GUILFORD COUNTY REGISTER OF DEEDS OFFICE. FINAL ACRES ARE AFTER RIGHT-OF-WAY DEDICATION.
 - THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AS INDICATED FROM FEMA FIRM MAP TITLED "CITY OF GREENSBORO, GUILFORD COUNTY", PANEL 11 OF 23, 375351-00110C, MAP REVISED SEPT. 30, 1988.
 - OWNER: BURNT POPLAR TRANSFER, LLC ONE RIVERWAY, SUITE 1400, HOUSTON, TX 77056.



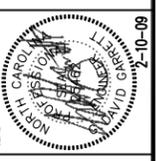
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DESIGNED BY:	G.D.G.	DRAWN BY:	A.W.H.
CHECKED BY:	G.D.G.	PROJECT NO.:	MRR-3
SCALE:	AS SHOWN	DATE:	JULY 2006
FILE NAME:	MRR3-0001	DRAWING NO.:	S1
SHEET NO.:	2		



NO.	DATE	REVISION
1	08-03-06	1
2	12-28-07	2
3	04-13-07	3
4	11-11-08	4
5	11-11-08	5
6	2-10-09	6

David Garrett, PG, PE.
 Engineering and Geology
 5105 Harbor Towne Drive, Raleigh, North Carolina 27604
 Email: david.garrett@jgmaping.com 919-418-4375 (mobile)



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

SITE DEVELOPMENT
 GENERAL FACILITY PLAN

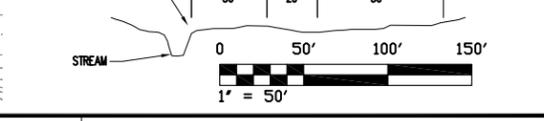
DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.: MRR-3
SCALE: AS SHOWN	DATE: JULY 2006
FILE NAME: MRR3-D0011	DRAWING NO.:
SHEET NO.: 3	DRAWING NO.: S2

**PRELIMINARY
NOT FOR CONSTRUCTION**

- SPECIAL USE PERMIT #33 CONDITIONS**
- ACCESS WILL BE SHARED WITH ADJACENT PROPERTY TO THE EAST.
 - MAXIMUM BUILDING SIZE ALLOWABLE ON THIS LOT IS 7,000 S.F., INCLUDES OFFICE/SCALE HOUSE (NO OTHER BUILDINGS PROPOSED)
 - THERE WILL BE AN ON-SITE FACILITY FOR WATERSHED COMPLIANCE.
- GENERAL NOTES:**
- TAX MAP REFERENCE: A01-94-7031-959-10.
 - DEED REFERENCE: D.B. 6058, PG. 991.
 - EXISTING USE: NOT DEVELOPED.
 - PROPOSED USE: CONSTRUCTION & DEMOLITION RECYCLING FACILITY.
 - ZONING: HI WITH SPECIAL USE PERMIT #33.
 - SOIL TYPE: EnC, EbB, Wb & EbB2, HYDROLOGIC GROUP: C & D.
 - THIS SITE IS LOCATED IN THE UPPER RANDLEMAN LAKE WATERSHED, GENERAL WATERSHED AREA (GWA). ALLOWABLE B.U.A. IS 70% PER ARTICLE VI, SECTION 30-7-1.11 OF THE GREENSBORO DEVELOPMENT ORDINANCES.
 - TOTAL TRACT AREA = 15.561 ACRES SHALL BE SUBDIVIDED INTO 2 LOTS, LOT 1 AREA = 8.597 AC. (CONTAINING SHARPE HOT-MIX SITE), LOT 2 AREA = 6.923 ACRES (C&D TRANSFER STATION). A SUBDIVISION PLAT HAS BEEN PREPARED BY OPT ENGINEERING AND SURVEYING, INC. OF HIGH POINT, DATED AUGUST 7, 2006, AND SHALL BE RECORDED IN GUILFORD COUNTY REGISTER OF DEEDS OFFICE. FINAL ACRESAGES ARE AFTER RIGHT-OF-WAY DEDICATION.
 - THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AS INDICATED FROM FEMA FIRM MAP TITLED "CITY OF GREENSBORO, GUILFORD COUNTY", PANEL 11 OF 23, 375351-00110C, MAP REVISED SEPT. 30, 1988.
 - OWNER: BURNT POPLAR TRANSFER, LLC ONE RIVERWAY, SUITE 1400, HOUSTON, TX 77056.

- UPPER RANDLEMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:**
 (HIGH DENSITY OPTION-PERENNIAL STREAM)
- ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS.
 - RANDLEMAN ZONE 1: (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDLEMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
 - RANDLEMAN 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 DIFFUSION AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
 - RANDLEMAN ZONE 3: (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS EXTENSIVE THAN ARE RANDLEMAN ZONES 1 AND 2. RANDLEMAN ZONE 3 COVERS THE OUTERMOST FIFTY (50) FEET OF ONE HUNDRED (100) FOOT PERENNIAL STREAM BUFFERS UNDER THE HIGH DENSITY OPTION IN THE UPPER AND LOWER RANDLEMAN 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.



SITE ACCESSIBILITY NOTES:

LANDINGS OUTSIDE ALL DOORS SHALL BE SIZED PER NCBC AND NC VOL. 1. BE AT THE SAME ELEVATION AND SHALL HAVE A MAX. 2% SLOPE IN ANY DIRECTION, INCLUDING IN THE DIAGONAL.

THE SLOPES IN THE HANDICAP PARKING SPACE/ASILE AREA SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION, INCLUDING IN THE DIAGONAL.

THERE SHALL BE NO DESIGNATED PEDESTRIAN ROUTES/SIDEWALKS WITHIN THE SITE, EXCEPT WHERE LABELED AS A RAMP WITH RAILS, WHICH EXCEED 5% SLOPE IN THE DIRECTION OF TRAVEL AND A 2% CROSS SLOPE.

ALL PEDESTRIAN ROUTES >5% SLOPE (1:20), IF ANY, ARE LABELED AS "RAMPS" SHOWING SLOPES, LEVEL LANDINGS AT TOP AND BOTTOM (MAXIMUM 2% SLOPE IN ANY DIRECTION, INCLUDING IN THE DIAGONAL), RAILINGS/GUARD RAILS, AND SHALL COMPLY WITH NCBC AND NC VOL. 1-C.

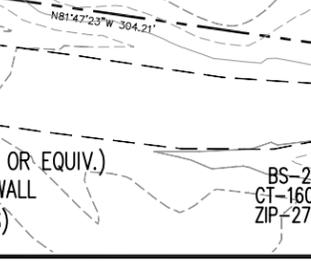
ALL DRIVEWAYS AND PARKING SHALL BE PAVED AND STRIPPED PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.

ALL RETAINING WALLS >4 FEET IN HEIGHT REQUIRE A BUILDING PERMIT FROM THE CITY OF GREENSBORO, BUILDING INSPECTORS.

A MUTED R7-8 SIGN SHALL BE POSTED ABOVE THE HANDICAP PARKING STALL, MEASURING 12" X 18", WHICH SHALL BE PLACED ON THE BACK EDGE OF THE PEDESTRIAN AISLE (OUT OF WALKWAY).

A MUTED M44 SIGN (\$250 FINE) SHALL BE POSTED BELOW THE R7-8 H.C. PLACQUE.

THE HEIGHT OF THE R7-8 SIGN SHALL BE 6 FT (MEASURED FROM THE GROUND TO THE BASE OF THE PLACARD), PER CITY OF GREENSBORO ARTICLE V, A-5-20.



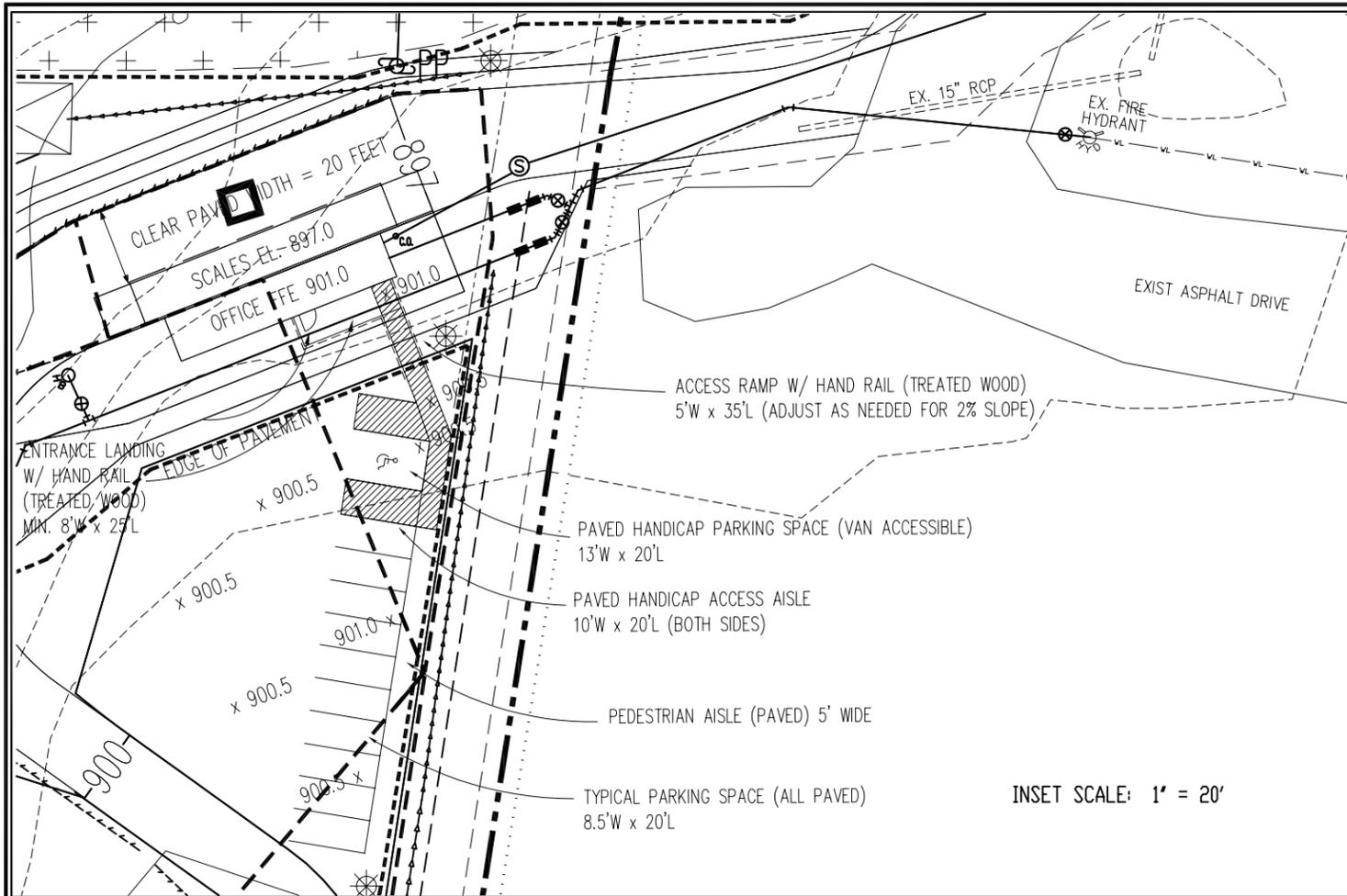
DEVELOPMENT NOTES FOR LOT #2:

- TOTAL AREA OF SITE IS 6.823 ACRES.
- PLANNED B.U.A. IS DELINEATED AS FOLLOWS:

PAVED ACCESS ROAD	0.605 AC.
PAVED MATERIAL HANDLING AREA	1.121 AC.
PAVED EMPLOYEE PARKING AREA	0.269 AC.
GRAVEL TRAILER PARKING AREA	0.638 AC.
TOTAL PLANNED BUILT-UPON AREA	2.633 AC.
PERCENTAGE BUILT-UPON AREA	38.6%
- B.U.A. CALCULATIONS ARE BASED ON ADJUSTED ACREAGE PER AUGUST 7, 2006 PLAT

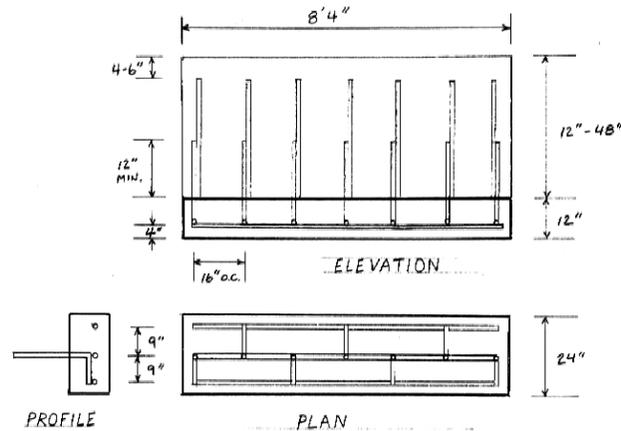
- REFERENCE NOTES:**
- EXISTING TOPOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 - AERIAL PHOTOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
 - PROPERTY BOUNDARY WAS PLOTTED FROM THE METES AND BOUNDS ON A DRAWING ENTITLED "EASEMENT PLAT FOR SHARPE HOTMIX, LLC" PREPARED BY OPT ENGINEERING AND SURVEYING, INC. DATED 3-17-05 AND RECORDED IN PLAT BOOK 159, PG. 104, GUILFORD COUNTY REGISTER OF DEEDS.

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INSET SCALE: 1" = 20'

NOTE: THE DETAILS OF THE BUILDING AND ACCESS/EGRESS LANDING WILL BE FINALIZED FOR A FUTURE BUILDING PERMIT - DETAILS SHOWN HERE ARE FOR EXAMPLE ONLY, PURSUANT TO SITE PLAN APPROVAL. CONSTRUCTION PLANS FOR THE MOBILE OFFICE WILL BE FURNISHED BY THE SUPPLIER, INCLUDING STRUCTURAL AND ELECTRICAL CERTIFICATIONS. A LICENSED MOBILE-BUILDING CONTRACTOR WILL BE USED TO SET UP THE STRUCTURE.



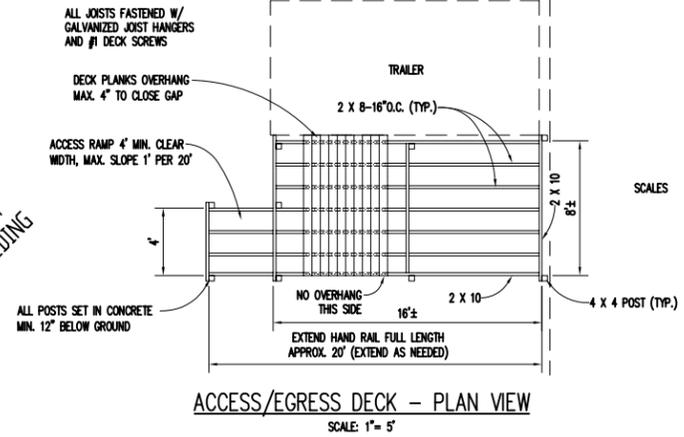
TYPICAL SPREAD FOOTING DESIGN FOR MOBILE OFFICE
N.T.S.

PRELIMINARY ONLY - ADJUST SIZE FOR ACTUAL BUILDING

- SPREAD FOOTING NOTES:**
1. ALL CONCRETE SHALL BE 3000 PSI PRE-MIX.
 2. ALL REBAR SHALL BE NO. 4 (MINIMUM).
 3. NO STEEL SHALL BE CLOSER THAN 2 INCHES TO AN EXTERIOR CONCRETE SURFACE.
 4. EMBED FOOTINGS A MINIMUM OF 18 INCHES, OR AS DIRECTED BY THE ENGINEER.
 5. FOUNDATION CAPACITY OF 2000 PSF SHALL BE VERIFIED BY ENGINEER PRIOR TO POURING FOOTING.
 6. ADJUST HEIGHT OF RISER TO REFLECT FIELD CONDITIONS.
 7. CAST FOOTING IN PLACE, LEAVING 12 INCHES STICK UP ON REBAR.
 8. CAST RISER IN PLACE USING INSULATED CONCRETE FORM (ICF).
 9. WAIT 2 DAYS MINIMUM AFTER POURING FOOTING TO POURING RISER.
 10. WAIT 7 DAYS MINIMUM AFTER POURING RISER TO PLACING STRUCTURAL LOAD.

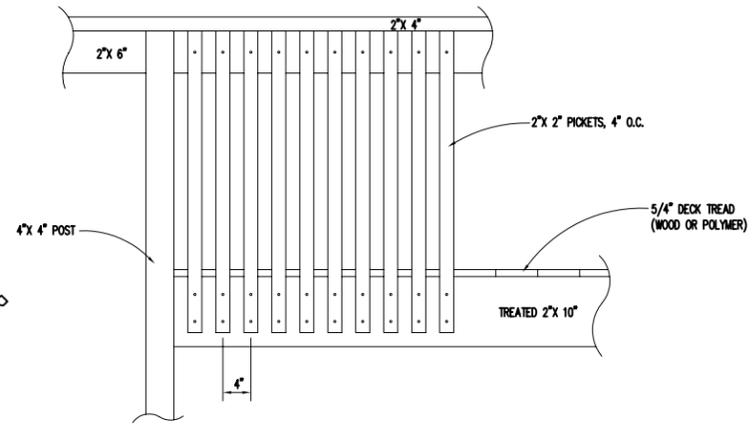
4-24-03
DAVID GARRETT, P.E.

EXAMPLE ONLY - ADJUST SIZE FOR ACTUAL BUILDING



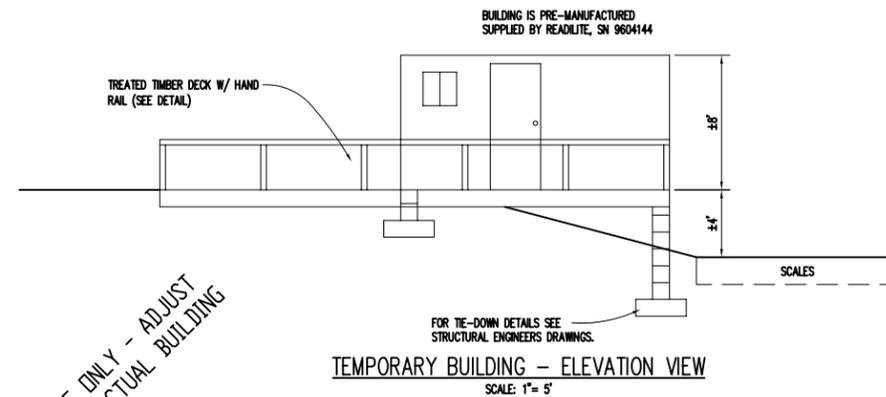
ACCESS/EGRESS DECK - PLAN VIEW
SCALE: 1" = 5'

EXAMPLE ONLY - ADJUST SIZE FOR ACTUAL BUILDING



DECK RAIL - ELEVATION VIEW
SCALE: 1" = 1'

EXAMPLE ONLY - ADJUST SIZE FOR ACTUAL BUILDING



TEMPORARY BUILDING - ELEVATION VIEW
SCALE: 1" = 5'

NOTE: THE SCALE HOUSE/OFFICE BUILDING WILL BE A MOBILE UNIT, MEASURING APPROXIMATELY 12' X 60', SIMILAR TO THAT EXISTING ON THE ADJACENT ASPHALT PLANT SITE. THE BUILDING WILL BE ERECTED ON A PERMANENT FOUNDATION AND MEET APPLICABLE BUILDING CODES FOR WIND LOADS AND ELECTRICAL - TENTATIVE DETAILS SHOWN HERE ARE FOR EXAMPLE ONLY, PURSUANT TO SITE PLAN APPROVAL

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	
NO.	DATE
1	08-06-06
2	08-06-06
3	08-06-06

David Garrett, P.G., P.E.
Engineering and Geology
5105 Harbour Towne Drive, Raleigh, North Carolina 27604
E-mail: david.garrett_py@haingroup.com 919-231-1818 (Office and Fax) 919-418-4375 (mobile)

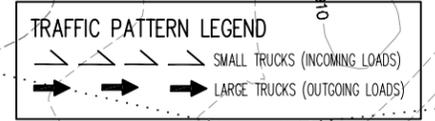
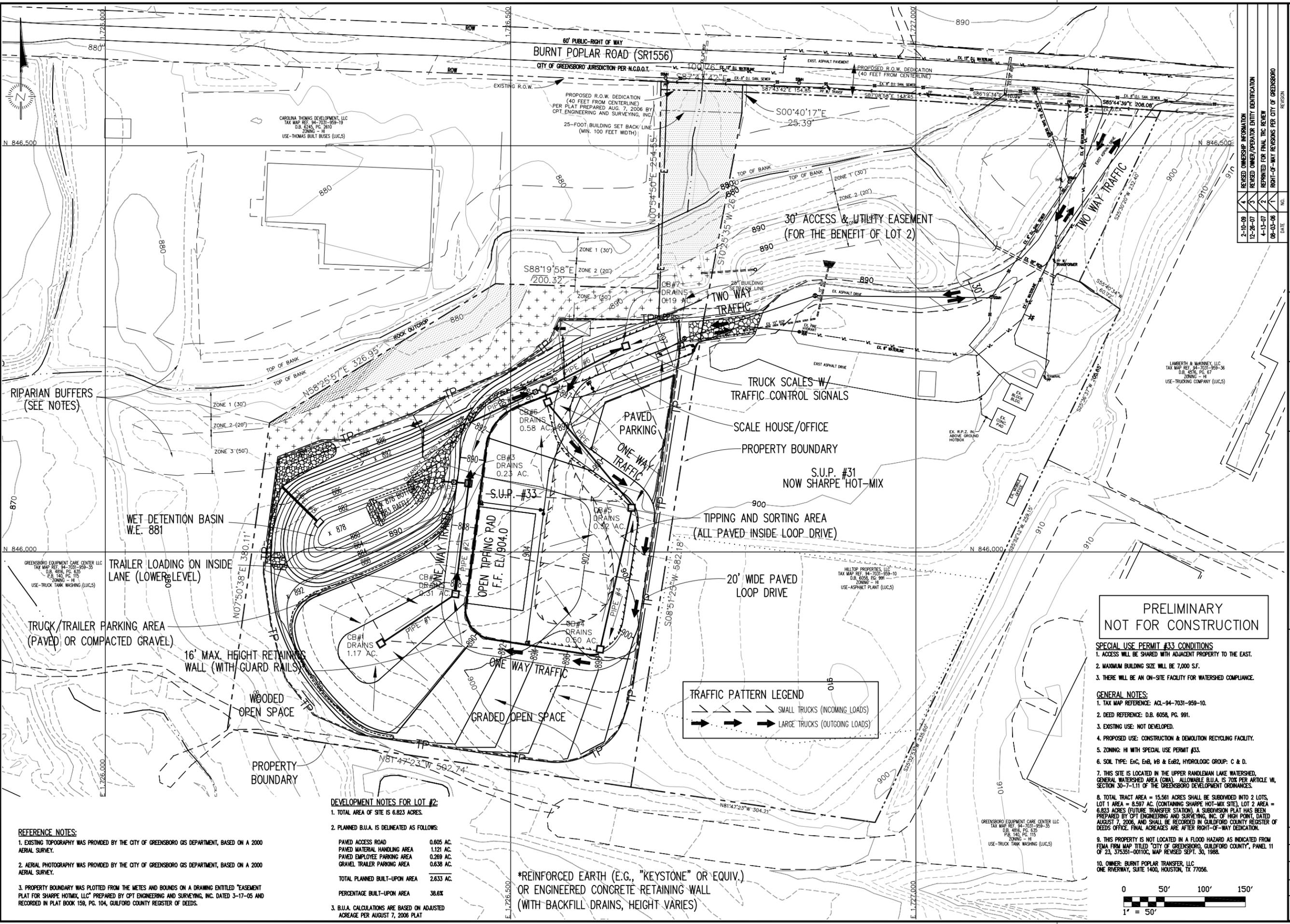


PROJECT TITLE:
BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION
6313 BURNT POPLAR ROAD
GREENSBORO, NORTH CAROLINA

DRAWING TITLE:
SITE DEVELOPMENT
PRELIMINARY BUILDING DETAILS

DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.: MRR-3
SCALE: AS SHOWN	DATE: AUG. 2006
SHEET NO. 3A	DRAWING NO. S2A

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**PRELIMINARY
NOT FOR CONSTRUCTION**

- SPECIAL USE PERMIT #33 CONDITIONS**
- ACCESS WILL BE SHARED WITH ADJACENT PROPERTY TO THE EAST.
 - MAXIMUM BUILDING SIZE WILL BE 7,000 S.F.
 - THERE WILL BE AN ON-SITE FACILITY FOR WATERSHED COMPLIANCE.
- GENERAL NOTES:**
- TAX MAP REFERENCE: ACL-94-7031-959-10.
 - DEED REFERENCE: D.B. 6058, PG. 991.
 - EXISTING USE: NOT DEVELOPED.
 - PROPOSED USE: CONSTRUCTION & DEMOLITION RECYCLING FACILITY.
 - ZONING: HI WITH SPECIAL USE PERMIT #33.
 - SOIL TYPE: EnC, EnB, Hb & Eb2, HYDROLOGIC GROUP: C & D.
 - THIS SITE IS LOCATED IN THE UPPER RANDELMAN LAKE WATERSHED, GENERAL WATERSHED AREA (GWA). ALLOWABLE B.U.A. IS 70% PER ARTICLE VI, SECTION 30-7-1.11 OF THE GREENSBORO DEVELOPMENT ORDINANCES.
 - TOTAL TRACT AREA = 15.561 ACRES SHALL BE SUBDIVIDED INTO 2 LOTS, LOT 1 AREA = 8.597 AC. (CONTAINING SHARPE HOT-MIX SITE), LOT 2 AREA = 6.923 ACRES (FUTURE TRANSFER STATION). A SUBDIVISION PLAT HAS BEEN PREPARED BY OPT ENGINEERING AND SURVEYING, INC. OF HIGH POINT, DATED AUGUST 7, 2006, AND SHALL BE RECORDED IN GUILDFORD COUNTY REGISTER OF DEEDS OFFICE. FINAL ACRES ARE AFTER RIGHT-OF-WAY DEDICATION.
 - THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AS INDICATED FROM FEMA FIRM MAP TITLED "CITY OF GREENSBORO, GUILDFORD COUNTY", PANEL 11 OF 23, 375351-0010C, MAP REVISED SEPT. 30, 1988.
 - OWNER: BURNT POPLAR TRANSFER, LLC, ONE RIVERWAY, SUITE 1400, HOUSTON, TX 77056.

DEVELOPMENT NOTES FOR LOT #2:

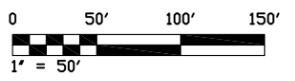
- TOTAL AREA OF SITE IS 6.823 ACRES.
- PLANNED B.U.A. IS DELINEATED AS FOLLOWS:

PAVED ACCESS ROAD	0.605 AC.
PAVED MATERIAL HANDLING AREA	1.121 AC.
PAVED EMPLOYEE PARKING AREA	0.269 AC.
GRAVEL TRAILER PARKING AREA	0.636 AC.
TOTAL PLANNED BUILT-UPON AREA	2.633 AC.
PERCENTAGE BUILT-UPON AREA	38.6%

- B.U.A. CALCULATIONS ARE BASED ON ADJUSTED ACREAGE PER AUGUST 7, 2006 PLAT

*REINFORCED EARTH (E.G., "KEYSTONE" OR EQUIV.) OR ENGINEERED CONCRETE RETAINING WALL (WITH BACKFILL DRAINS, HEIGHT VARIES)

- REFERENCE NOTES:**
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 - AERIAL PHOTOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
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REVISION INFORMATION

NO.	DATE	DESCRIPTION
1	2-10-09	REVISED OWNERSHIP INFORMATION
2	12-28-07	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
3	4-13-07	REPEATED FOR FINAL TRC REVIEW
4	09-03-06	RIGHT-OF-WAY REVISIONS PER CITY OF GREENSBORO

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

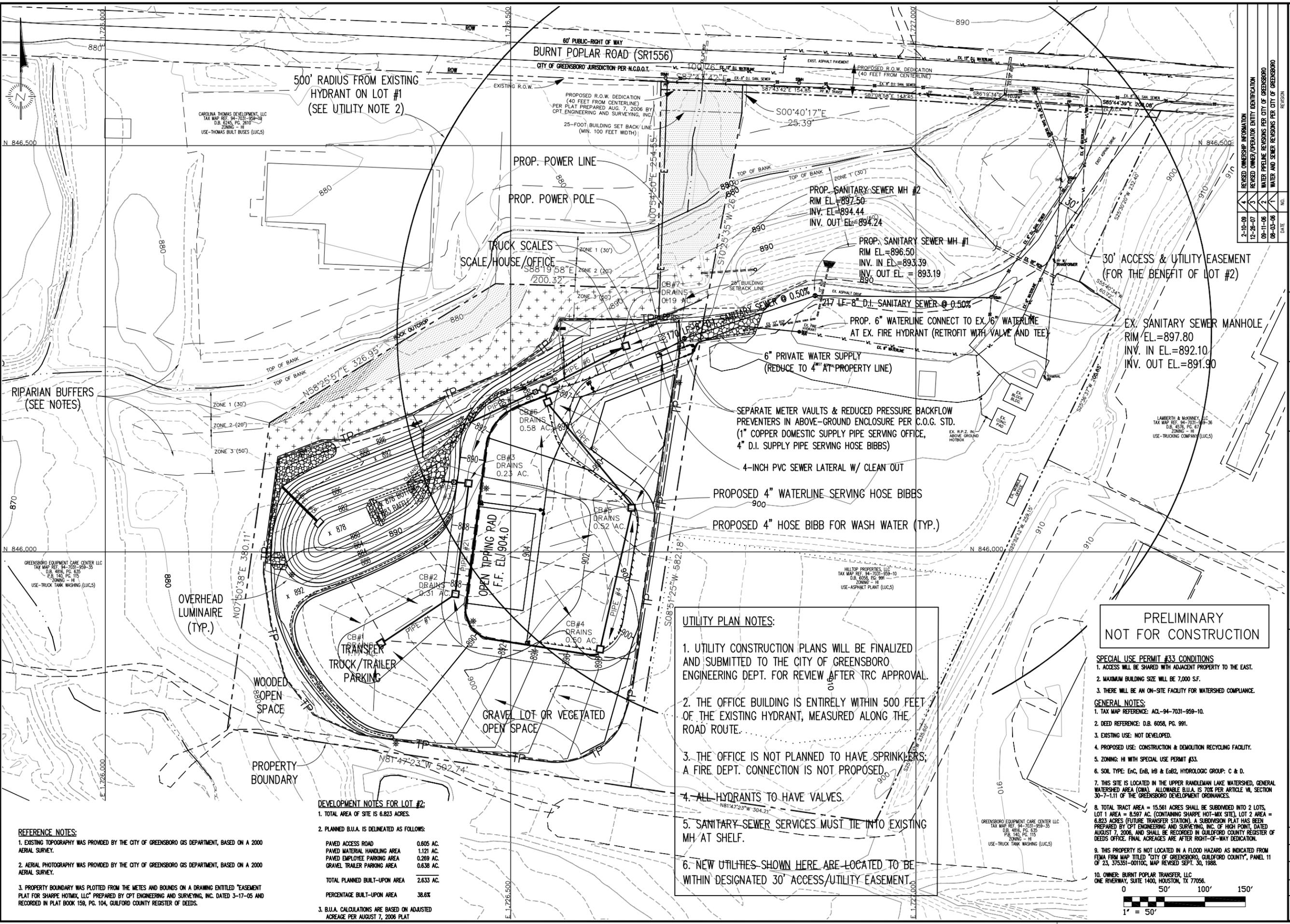
DRAWING TITLE:
SITE DEVELOPMENT
ON-SITE TRAFFIC PLAN

DESIGNED BY: G.D.G.
DRAWN BY: A.W.H.
CHECKED BY: G.D.G.
PROJECT NO.: MRR-3
SCALE: AS SHOWN
DATE: JULY 2006
FILE NAME: MRR3-00012
SHEET NO.: 4
DRAWING NO.: S3

SEAL:
DAVID GARRETT, P.E.
ENGINEERING AND GEOLOGY
5105 HARBOUR TOWNE DRIVE, FOLEGH, NORTH CAROLINA 27604
EMAIL: DAVID.GARRETT@OPTENGINEERING.COM 919-231-1818 (OFFICE AND FAX) 919-418-4375 (MOBILE)

DATE: 2-10-09

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REFERENCE NOTES:

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- AERIAL PHOTOGRAPHY WAS PROVIDED BY THE CITY OF GREENSBORO GIS DEPARTMENT, BASED ON A 2000 AERIAL SURVEY.
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DEVELOPMENT NOTES FOR LOT #2:

- TOTAL AREA OF SITE IS 6.823 ACRES.
- PLANNED B.U.A. IS DELINEATED AS FOLLOWS:

PAVED ACCESS ROAD	0.605 AC.
PAVED MATERIAL HANDLING AREA	1.121 AC.
PAVED EMPLOYEE PARKING AREA	0.269 AC.
GRAVEL TRAILER PARKING AREA	0.638 AC.
TOTAL PLANNED BUILT-UPON AREA	2.633 AC.
PERCENTAGE BUILT-UPON AREA	38.6%

- B.U.A. CALCULATIONS ARE BASED ON ADJUSTED ACREAGE PER AUGUST 7, 2006 PLAT

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 TIE INTO EXISTING MH AT SHELF.
- NEW UTILITIES SHOWN HERE ARE LOCATED TO BE WITHIN DESIGNATED 30' ACCESS/UTILITY EASEMENT

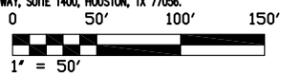
PRELIMINARY NOT FOR CONSTRUCTION

SPECIAL USE PERMIT #33 CONDITIONS

- ACCESS WILL BE SHARED WITH ADJACENT PROPERTY TO THE EAST.
- MAXIMUM BUILDING SIZE WILL BE 7,000 S.F.
- THERE WILL BE AN ON-SITE FACILITY FOR WATERSHED COMPLIANCE.

GENERAL NOTES:

- TAX MAP REFERENCE: ACL-94-7031-959-10.
- DEED REFERENCE: D.B. 6058, PG. 991.
- EXISTING USE: NOT DEVELOPED.
- PROPOSED USE: CONSTRUCTION & DEMOLITION RECYCLING FACILITY.
- ZONING: H1 WITH SPECIAL USE PERMIT #33.
- SOIL TYPE: E1c, E1b, H8 & E82, HYDROLOGIC GROUP: C & D.
- THIS SITE IS LOCATED IN THE UPPER RANDELMAN LAKE WATERSHED, GENERAL WATERSHED AREA (GWA). ALLOWABLE B.U.A. IS 70% PER ARTICLE VII, SECTION 30-7-1.11 OF THE GREENSBORO DEVELOPMENT ORDINANCES.
- TOTAL TRACT AREA = 15.561 ACRES SHALL BE SUBDIVIDED INTO 2 LOTS, LOT 1 AREA = 8.597 AC. (CONTAINING SHARPE HOT-MIX SITE), LOT 2 AREA = 6.823 ACRES (FUTURE TRANSFER STATION). A SUBDIVISION PLAT HAS BEEN PREPARED BY CPT ENGINEERING AND SURVEYING, INC. OF HIGH POINT, DATED AUGUST 7, 2006, AND SHALL BE RECORDED IN GUILFORD COUNTY REGISTER OF DEEDS OFFICE. FINAL ACRESAGES ARE AFTER RIGHT-OF-WAY DEDICATION.
- THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AS INDICATED FROM FEMA FIRM MAP TITLED "CITY OF GREENSBORO, GUILFORD COUNTY", PANEL 11 OF 23, 575351-001100, MAP REVISED SEPT. 30, 1988.
- OWNER: BURNT POPLAR TRANSFER, LLC ONE RIVERWAY, SUITE 1400, HOUSTON, TX 77066.



REVISIONS

NO.	DATE	DESCRIPTION
1	2-10-09	REVISED OWNERSHIP INFORMATION
2	12-26-07	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
3	09-11-06	WATER PIPELINE REVISIONS PER CITY OF GREENSBORO
4	09-03-06	WATER AND SEWER REVISIONS PER CITY OF GREENSBORO

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.

CHECKED BY: G.D.G. **PROJECT NO.:** MRR-3

SCALE: AS SHOWN **DATE:** JULY 2006

FILE NAME: MRR3-00013

SHEET NO.: 5 **DRAWING NO.:** S4

SEAL: CAROLINA PROFESSIONAL ENGINEER DAVID GARRETT 2-10-09

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

DATE	NO.	REVISION
12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
10-30-07	2	REPRINTED FOR FINAL TRC REVIEW
08-03-06	1	TCA LIMITS AND TREE PRESERVATION REVISIONS PER CITY OF GREENSBORO

PLANTING YARD AND PARKING LOT RATE CHART

Type	Average Width (ft)	Minimum Width (ft)	Maximum Width (ft)	Canopy Tree Rate	Understory Tree Rate	Shrubs Rate
Street Yard	4	3	25	3/150 #	NA	17/100 #
Type A Yard (a)	50	40	75	4/100 # (a)	10/100 # (a)	33/100 # (a)
Type B Yard	30	25	50	3/100 #	5/100 #	23/100 #
Type C Yard	20	15	40	2/100 #	3/100 #	17/100 #
Type D Yard	5	5	10	1/12 parking spaces	2/100 #	18/100 #
Parking Lot	NA	NA	NA	1/12 parking spaces	NA	NA

NOTE: CONTACT LINCOLN FORESTRY OR ENFORCEMENT OFFICER FOR APPROVAL TO:
 1) Substitute 2 understory trees for each required canopy tree.
 2) Substitute 8 shrubs for each required canopy tree.
 3) Substitute 3 shrubs for each required understory tree.
 4) Determine the credit for the existing vegetation towards the number of plants required in the perimeter buffer yards.
 5) Group of cluster required trees and shrubs.

CURRENT MINIMUM PLANT SIZE AS PER NEW WATER WISE/TREE PRESERVATION ORDINANCE:

CANOPY TREE SIZE: WATER WISE CANOPY TREES, USING REQUIRED PLANTING TECHNIQUES MUST BE A MINIMUM OF TWO (2) INCHES IN CALIPER, MEASURED SIX (6) INCHES ABOVE GRADE, WHEN PLANTED (SEE SECTION 30-5-4.4 (N)). WHEN MATURE, A CANOPY TREE SHOULD BE FORTY (40) FEET HIGH AND HAVE A MINIMUM CROWN WIDTH OF THIRTY (30) FEET. OTHER CANOPY TREES MUST BE A MINIMUM OF THREE (3) INCH CALIPER, MEASURED (6) INCHES ABOVE GRADE, WHEN PLANTED.

UNDERSTORY TREE SIZE: WATER WISE UNDERSTORY TREES MUST BE A MINIMUM OF ONE (1) INCH IN CALIPER, MEASURED SIX (6) INCHES ABOVE GRADE, WHEN PLANTED (SEE SECTION 30-5-4.4 (N)). WHEN MATURE, AN UNDERSTORY TREE SHOULD BE TWENTY-FIVE (25) TO FORTY (40) FEET HIGH. OTHER UNDERSTORY TREES MUST BE A MINIMUM OF TWO (2) INCHES IN CALIPER MEASURED SIX (6) INCHES ABOVE GRADE AT THE TIME OF INSTALLATION.

SHRUB SIZE AND TYPE: ALL APPROVED WATER WISE SHRUBS, USING REQUIRED PLANTING TECHNIQUES PLANTED PARALLEL TO THE EDGE OF PARKING LOTS, ACCESS DRIVES, LOADING AND UNLOADING AREAS AND OUTSIDE STORAGE SHALL BE EVERGREEN AND INSTALLED AT A MINIMUM SIZE OF EIGHTEEN (18) INCHES, SPREAD OR HEIGHT, AND REACH A MINIMUM HEIGHT OF THIRTY-SIX (36) INCHES AND A MINIMUM SPREAD OF THIRTY (30) INCHES. (SEE SECTION 30-5-4.4 (N)). REQUIRED WATER WISE SHRUBS IN OTHER LOCATIONS, OUTSIDE OF THE AREAS LISTED ABOVE MAY BE EVERGREEN OR DECIDUOUS, SHALL BE THREE (3) GALLON IN SIZE AS PER ANS STANDARDS AT THE TIME OF INSTALLATION.

THE SIX "WATER WISE PLANTING TECHNIQUES" NOTES:

WATER WISE PLANTING TECHNIQUES: THE FOLLOWING SOIL PREPARATION TECHNIQUES SHALL BE USED FOR ALL REQUIRED LANDSCAPE AREAS.

- SOIL PREPARATION FOR THE ENTIRE LANDSCAPE YARD INCLUDES THE ADDITION OF ORGANIC AMENDMENTS TILLED TO A DEPTH OF EIGHT (8) TO TWELVE (12) INCHES.
- ALL PLANTING IN THE LANDSCAPE YARDS SHALL BE MULCHED INCLUDING INTERIOR PARKING LOT ISLANDS UNDER FIVE HUNDRED (500) SQUARE FEET TO A DEPTH OF THREE (3) TO FOUR (4) INCHES AND MAINTAINED WEED FREE THEREAFTER.
- EARTHEN BASINS ARE CONSTRUCTED AROUND THE INSTALLED PLANTS.
- PLANTS, AS PERMITTED BY THIS ORDINANCE, ARE GROUPED TOGETHER WHERE POSSIBLE.
- FOR ESTABLISHMENT AND SURVIVAL, PLANTS SHALL BE WATERED IN THE FIRST YEAR OF PLANTING.
- IRRIGATION: IT IS SUGGESTED THAT DRIP IRRIGATION, WHICH INCLUDES DRIP MASTERS, BE USED FOR PARALLEL LANDSCAPE BEDS DURING THE REQUIRED ESTABLISHMENT PERIOD. AFTER ESTABLISHMENT, SUPPLEMENTAL WATERING CAN BE REDUCED AND USED ON AN AS NEEDED BASIS. TRADITIONAL SPRAY IRRIGATION IS PROHIBITED EXCEPT FOR TURF AREAS.

TREE PRESERVATION NOTES:

- CONTACT THE CITY URBAN FORESTER AT 373-2150 TO SET UP A PRE-CONSTRUCTION MEETING PRIOR TO ANY TREE DISTURBANCE.
- ALL TREE PROTECTION DEVICES MUST BE INSTALLED PRIOR TO INSPECTION BY THE CITY URBAN FORESTER OR ENFORCEMENT OFFICER AND PRIOR TO ANY LAND DISTURBANCE, INCLUDING THE CUTTING OF ANY TREES. A PENALTY OF \$500 PER DAY FOR FAILURE TO INSTALL APPROVED TREE PROTECTION MEASURES MAY APPLY.
- REMOVAL OR DAMAGE OF TREES IN THE TREE CONSERVATION AREA WILL BE SUBJECT TO THE PENALTIES ESTABLISHED IN 30-5-4.10 (PENALTIES) OF THE SECTION 30-5-4 LANDSCAPING AND TREE PRESERVATION REQUIREMENTS.

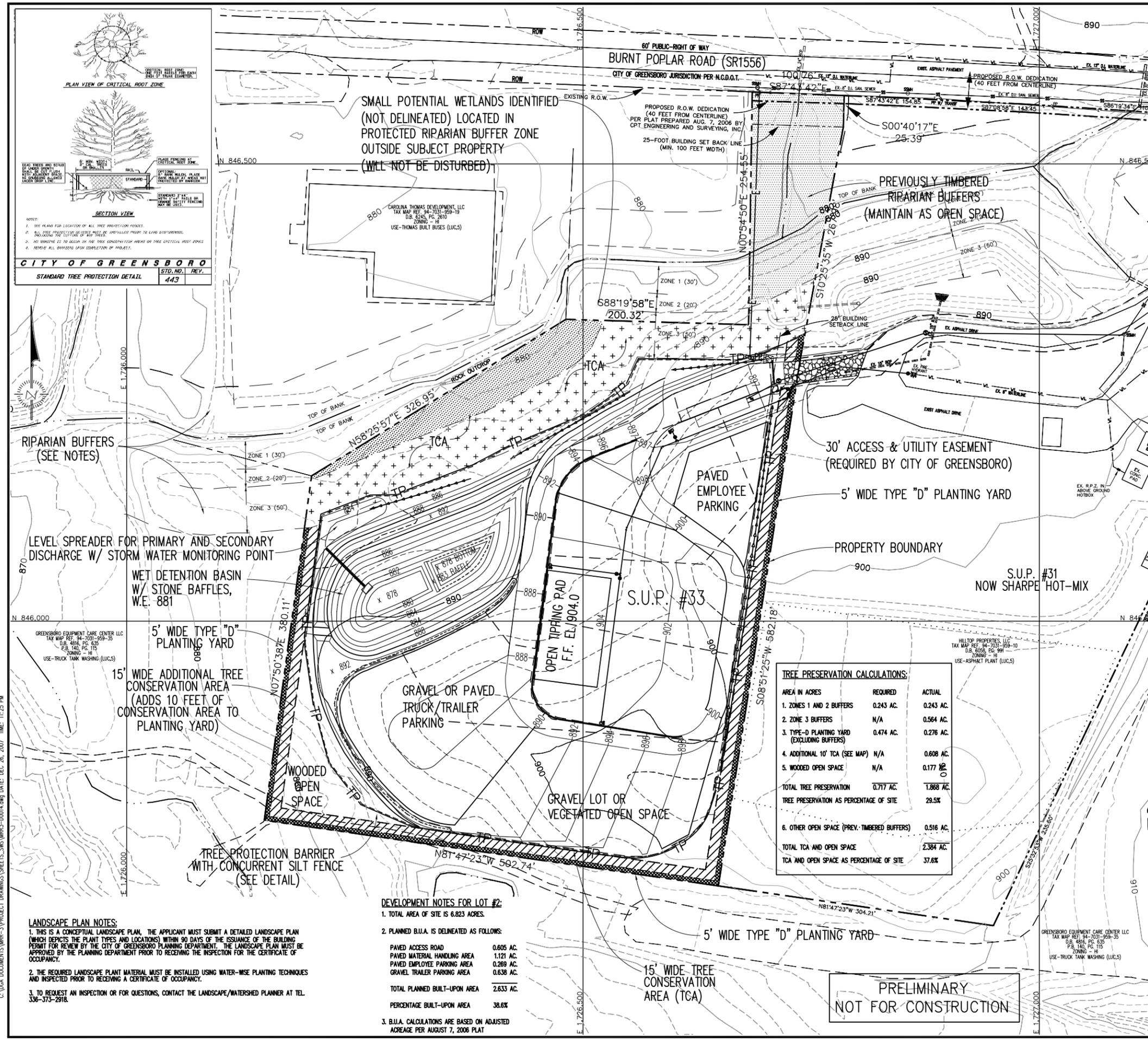
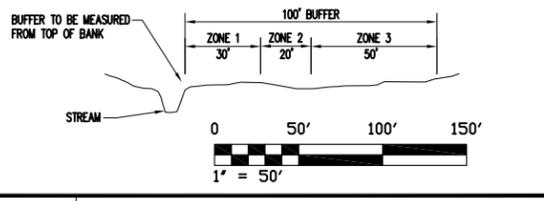
TREE CONSERVATION AREA TABLE	
SIZE OF PARCEL	TCA REQUIRED TO INCLUDE
5.01-10.0 ACRES	ALL TREES FOUR (4) INCHES OR GREATER DBH WHICH ARE LOCATED WITHIN THE REQUIRED PLANTING YARD OR WITHIN FIFTEEN (15) FEET OF THE SIDE AND REAR PROPERTY LINES, WHICHEVER IS GREATER.

UPPER RANDLEMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:
(HIGH DENSITY OPTION-PERENNIAL STREAM)

-ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS:

- RANDLEMAN ZONE 1: (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDLEMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
- RANDLEMAN 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 DIFFUSION AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
- RANDLEMAN ZONE 3: (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS EXTENSIVE THAN ARE RANDLEMAN ZONES 1 AND 2. RANDLEMAN ZONE 3 COVERS THE OUTERMOST FIFTY (50) FEET OF ONE HUNDRED (100) FOOT PERENNIAL STREAM BUFFERS UNDER THE HIGH DENSITY OPTION IN THE UPPER AND LOWER RANDLEMAN 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.



CITY OF GREENSBORO

STANDARD TREE PROTECTION DETAIL

STD. NO. 443

REV. 443

GREENSBORO EQUIPMENT CARE CENTER LLC
 TAX MAP REF. 94-7031-359-35
 D.B. 4816, P.C. 535
 P.B. 140, P.C. 115
 ZONING - H
 USE-TRUCK TANK WASHING (LUC,5)

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DEVELOPMENT NOTES FOR LOT #2:

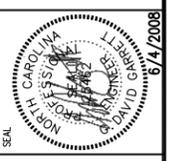
- TOTAL AREA OF SITE IS 6.823 ACRES.
- PLANNED B.U.A. IS DELINEATED AS FOLLOWS:

PAVED ACCESS ROAD	0.605 AC.
PAVED MATERIAL HANDLING AREA	1.121 AC.
PAVED EMPLOYEE PARKING AREA	0.289 AC.
GRAVEL TRAILER PARKING AREA	0.638 AC.
TOTAL PLANNED BUILT-UPON AREA	2.653 AC.
PERCENTAGE BUILT-UPON AREA	38.6%
- B.U.A. CALCULATIONS ARE BASED ON ADJUSTED ACREAGE PER AUGUST 7, 2006 PLAT

LANDSCAPE PLAN NOTES:

- THIS IS A CONCEPTUAL LANDSCAPE PLAN. THE APPLICANT MUST SUBMIT A DETAILED LANDSCAPE PLAN (WHICH DEPICTS THE PLANT TYPES AND LOCATIONS) WITHIN 90 DAYS OF THE ISSUANCE OF THE BUILDING PERMIT FOR REVIEW BY THE CITY OF GREENSBORO PLANNING DEPARTMENT. THE LANDSCAPE PLAN MUST BE APPROVED BY THE PLANNING DEPARTMENT PRIOR TO RECEIVING THE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY.
- THE REQUIRED LANDSCAPE PLANT MATERIAL MUST BE INSTALLED USING WATER-WISE PLANTING TECHNIQUES AND INSPECTED PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.
- TO REQUEST AN INSPECTION OR FOR QUESTIONS, CONTACT THE LANDSCAPE/WATERSHED PLANNER AT TEL. 336-373-2918.

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

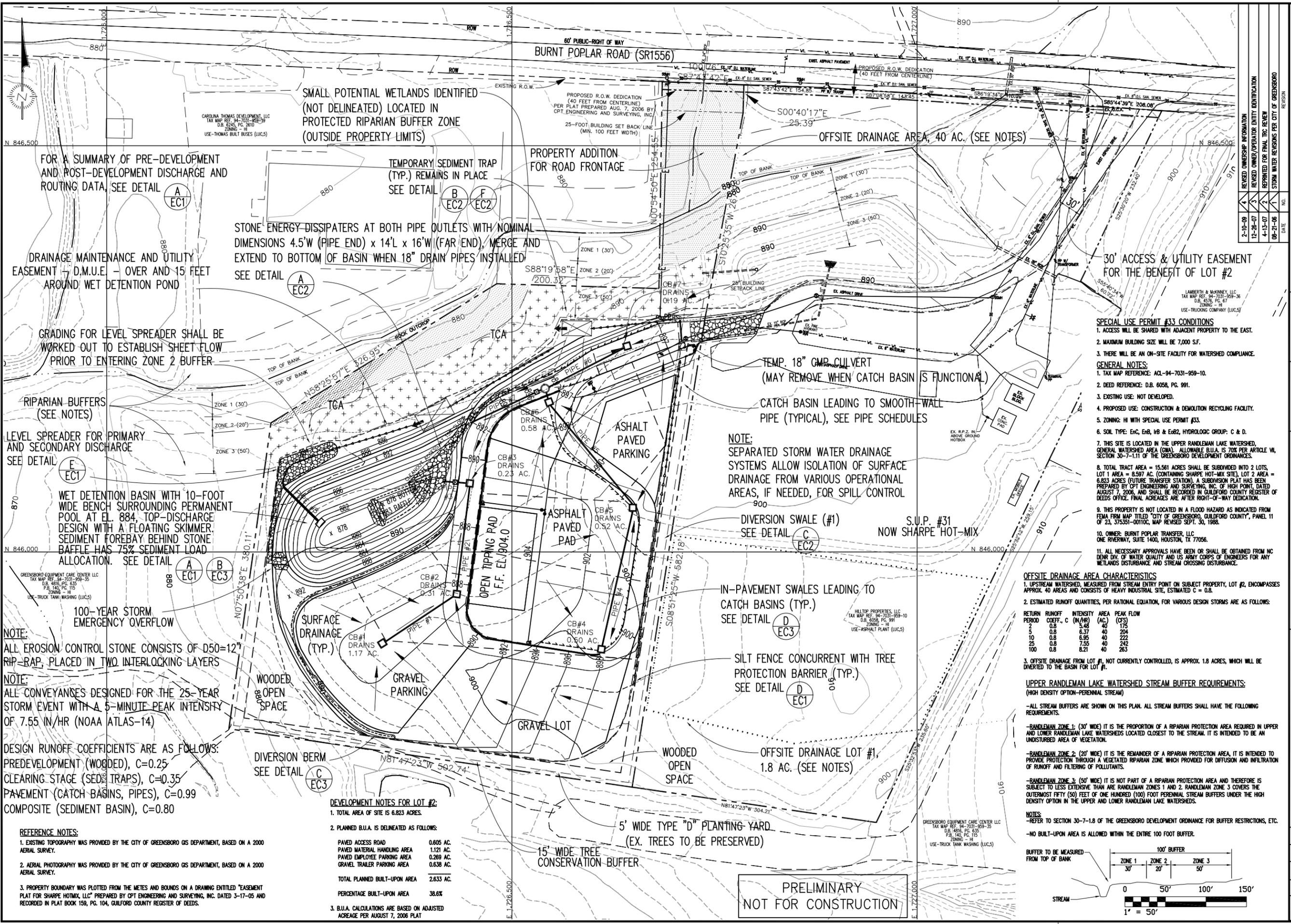


BURNT POPLAR TRANSFER, LLC
 C&D TRANSFER STATION
 6313 BURNT POPLAR ROAD
 GREENSBORO, NORTH CAROLINA

SITE DEVELOPMENT LANDSCAPE PLAN

DESIGNED BY: G.D.G. DRAWN BY: A.W.H.
 CHECKED BY: G.D.G. PROJECT NO.: MRR-3
 SCALE: AS SHOWN DATE: JULY 2006
 FILE NAME: MRR3-00014
 SHEET NO. 6 DRAWING NO. S5

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FOR A SUMMARY OF PRE-DEVELOPMENT AND POST-DEVELOPMENT DISCHARGE AND ROUTING DATA, SEE DETAIL (A) EC1

DRAINAGE MAINTENANCE AND UTILITY EASEMENT - D.M.U.E. - OVER AND 15 FEET AROUND WET DETENTION POND

GRADING FOR LEVEL SPREADER SHALL BE WORKED OUT TO ESTABLISH SHEET-FLOW PRIOR TO ENTERING ZONE 2 BUFFER

RIPARIAN BUFFERS (SEE NOTES)

LEVEL SPREADER FOR PRIMARY AND SECONDARY DISCHARGE SEE DETAIL (E) EC1

WET DETENTION BASIN WITH 10-FOOT WIDE BENCH SURROUNDING PERMANENT POOL AT EL. 884. TOP-DISCHARGE DESIGN WITH A FLOATING SKIMMER. SEDIMENT FOREBAY BEHIND STONE BAFFLE HAS 75% SEDIMENT LOAD ALLOCATION. SEE DETAIL (A) EC1 (B) EC3

100-YEAR STORM EMERGENCY OVERFLOW

NOTE: ALL EROSION CONTROL STONE CONSISTS OF D50=12" RIP-RAP, PLACED IN TWO INTERLOCKING LAYERS

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: PREDEVELOPMENT (WOODED), C=0.25 CLEARING STAGE (SED. TRAPS), C=0.35 PAVEMENT (CATCH BASINS, PIPES), C=0.99 COMPOSITE (SEDIMENT BASIN), C=0.80

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 PLOTTED FROM THE METES AND BOUNDS ON A DRAWING ENTITLED "EASEMENT PLAT FOR SHARPE HOTMIX, LLC" PREPARED BY OPT ENGINEERING AND SURVEYING, INC. DATED 3-17-05 AND RECORDED IN PLAT BOOK 159, PG. 104, GUILFORD COUNTY REGISTER OF DEEDS.

SMALL POTENTIAL WETLANDS IDENTIFIED (NOT DELINEATED) LOCATED IN PROTECTED RIPARIAN BUFFER ZONE (OUTSIDE PROPERTY LIMITS)

TEMPORARY SEDIMENT TRAP (TYP.) REMAINS IN PLACE SEE DETAIL (B) EC2 (F) EC2

STONE ENERGY-DISSIPATORS AT BOTH PIPE OUTLETS WITH NOMINAL DIMENSIONS 4.5"W (PIPE END) x 14'L x 16"W (FAR END), MERGE AND EXTEND TO BOTTOM OF BASIN WHEN 18" DRAIN PIPES INSTALLED SEE DETAIL (A) EC2

PROPERTY ADDITION FOR ROAD FRONTAGE

TEMP. 18" GMP CULVERT (MAY REMOVE WHEN CATCH BASIN IS FUNCTIONAL)

CATCH BASIN LEADING TO SMOOTH-WALL PIPE (TYPICAL), SEE PIPE SCHEDULES

NOTE: SEPARATED STORM WATER DRAINAGE SYSTEMS ALLOW ISOLATION OF SURFACE DRAINAGE FROM VARIOUS OPERATIONAL AREAS, IF NEEDED, FOR SPILL CONTROL

DIVERSION SWALE (#1) SEE DETAIL (C) EC2

IN-PAVEMENT SWALES LEADING TO CATCH BASINS (TYP.) SEE DETAIL (D) EC3

SILT FENCE CONCURRENT WITH TREE PROTECTION BARRIER (TYP.) SEE DETAIL (D) EC1

OFFSITE DRAINAGE LOT #1, 1.8 AC. (SEE NOTES)

5' WIDE TYPE "D" PLANTING YARD (EX. TREES TO BE PRESERVED)

15' WIDE TREE CONSERVATION BUFFER

PRELIMINARY NOT FOR CONSTRUCTION

DEVELOPMENT NOTES FOR LOT #2:

- 1. TOTAL AREA OF SITE IS 6.823 ACRES.
2. PLANNED B.U.A. IS DELINEATED AS FOLLOWS:
PAVED ACCESS ROAD 0.605 AC.
PAVED MATERIAL HANDLING AREA 1.121 AC.
PAVED EMPLOYEE PARKING AREA 0.269 AC.
GRAVEL TRAILER PARKING AREA 0.638 AC.
TOTAL PLANNED BUILT-UPON AREA 2.633 AC.
PERCENTAGE BUILT-UPON AREA 38.6%
3. B.U.A. CALCULATIONS ARE BASED ON ADJUSTED ACREAGE PER AUGUST 7, 2006 PLAT

SPECIAL USE PERMIT #33 CONDITIONS

- 1. ACCESS WILL BE SHARED WITH ADJACENT PROPERTY TO THE EAST.
2. MAXIMUM BUILDING SIZE WILL BE 7,000 S.F.
3. THERE WILL BE AN ON-SITE FACILITY FOR WATERSHED COMPLIANCE.
GENERAL NOTES:
1. TAX MAP REFERENCE: ACL-94-7031-959-10.
2. DEED REFERENCE: D.B. 6058, PG. 991.
3. EXISTING USE: NOT DEVELOPED.
4. PROPOSED USE: CONSTRUCTION & DEMOLITION RECYCLING FACILITY.
5. ZONING: HI WITH SPECIAL USE PERMIT #33.
6. SOIL TYPE: E1c, E1b, W8 & E6b2, HYDROLOGIC GROUP: C & D.
7. THIS SITE IS LOCATED IN THE UPPER RANDLEMAN LAKE WATERSHED, GENERAL WATERSHED AREA (GWA). ALLOWABLE B.U.A. IS 70% PER ARTICLE VII, SECTION 30-7-1.11 OF THE GREENSBORO DEVELOPMENT ORDINANCES.
8. TOTAL TRACT AREA = 15.561 ACRES SHALL BE SUBDIVIDED INTO 2 LOTS, LOT 1 AREA = 8.597 AC. (CONTAINING SHARPE HOT-MIX SITE), LOT 2 AREA = 6.823 ACRES (FUTURE TRANSFER STATION). A SUBDIVISION PLAT HAS BEEN PREPARED BY OPT ENGINEERING AND SURVEYING, INC. OF HIGH POINT, DATED AUGUST 1, 2006, AND SHALL BE RECORDED IN GUILFORD COUNTY REGISTER OF DEEDS OFFICE. FINAL ACRESAGES ARE 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, GUILFORD COUNTY, PANEL 11 OF 23, 375351-0010C, MAP REVISED SEPT. 30, 1988.
10. OWNER: BURNT POPLAR TRANSFER, LLC ONE RIVERWAY, SUITE 1400, HOUSTON, TX 77056.
11. ALL NECESSARY APPROVALS HAVE BEEN OR SHALL BE OBTAINED FROM NC DEPT. DIV. OF WATER QUALITY AND US ARMY CORPS OF ENGINEERS FOR ANY WETLANDS DISTURBANCE AND STREAM CROSSING DISTURBANCE.

OFFSITE DRAINAGE AREA CHARACTERISTICS

- 1. UPSTREAM WATERSHED, MEASURED FROM STREAM ENTRY POINT ON SUBJECT PROPERTY, LOT #2, ENCOMPASSES APPROX. 40 ACRES AND CONSISTS OF HEAVY INDUSTRIAL SITE, ESTIMATED C = 0.8.
2. ESTIMATED RUNOFF QUANTITIES, PER RATIONAL EQUATION, FOR VARIOUS DESIGN STORMS ARE AS FOLLOWS:
RETURN PERIOD COEFF. C (N/HR) INTENSITY (IN/HR) AREA (AC.) PEAK FLOW (CFS)
2 0.8 3.48 40 175
5 0.8 6.37 40 204
10 0.8 6.95 40 222
25 0.8 7.55 40 242
100 0.8 8.21 40 263
3. OFFSITE DRAINAGE FROM LOT #1, NOT CURRENTLY CONTROLLED, IS APPROX. 1.8 ACRES, WHICH WILL BE DIVERTED TO THE BASIN FOR LOT #1.

UPPER RANDLEMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:

- (HIGH DENSITY OPTION-PERENNIAL STREAM)
-ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS.
-RANDLEMAN ZONE 1: (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDLEMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
-RANDLEMAN 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 DIFFUSION AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
-RANDLEMAN ZONE 3: (50' WIDE) IT IS NOT PART OF A RIPARIAN PROTECTION AREA AND THEREFORE IS SUBJECT TO LESS EXTENSIVE THAN ARE RANDLEMAN ZONES 1 AND 2. RANDLEMAN ZONE 3 COVERS THE OUTERMOST FIFTY (50) FEET OF ONE HUNDRED (100) FOOT PERENNIAL STREAM BUFFERS UNDER THE HIGH DENSITY OPTION IN THE UPPER AND LOWER RANDLEMAN 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.

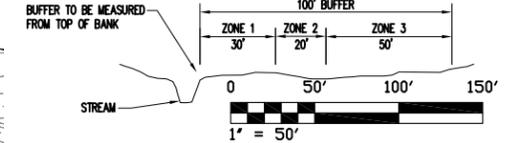


Table with 4 columns: REVISION, NO., DATE, DESCRIPTION. Contains revision history for the drawing.

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



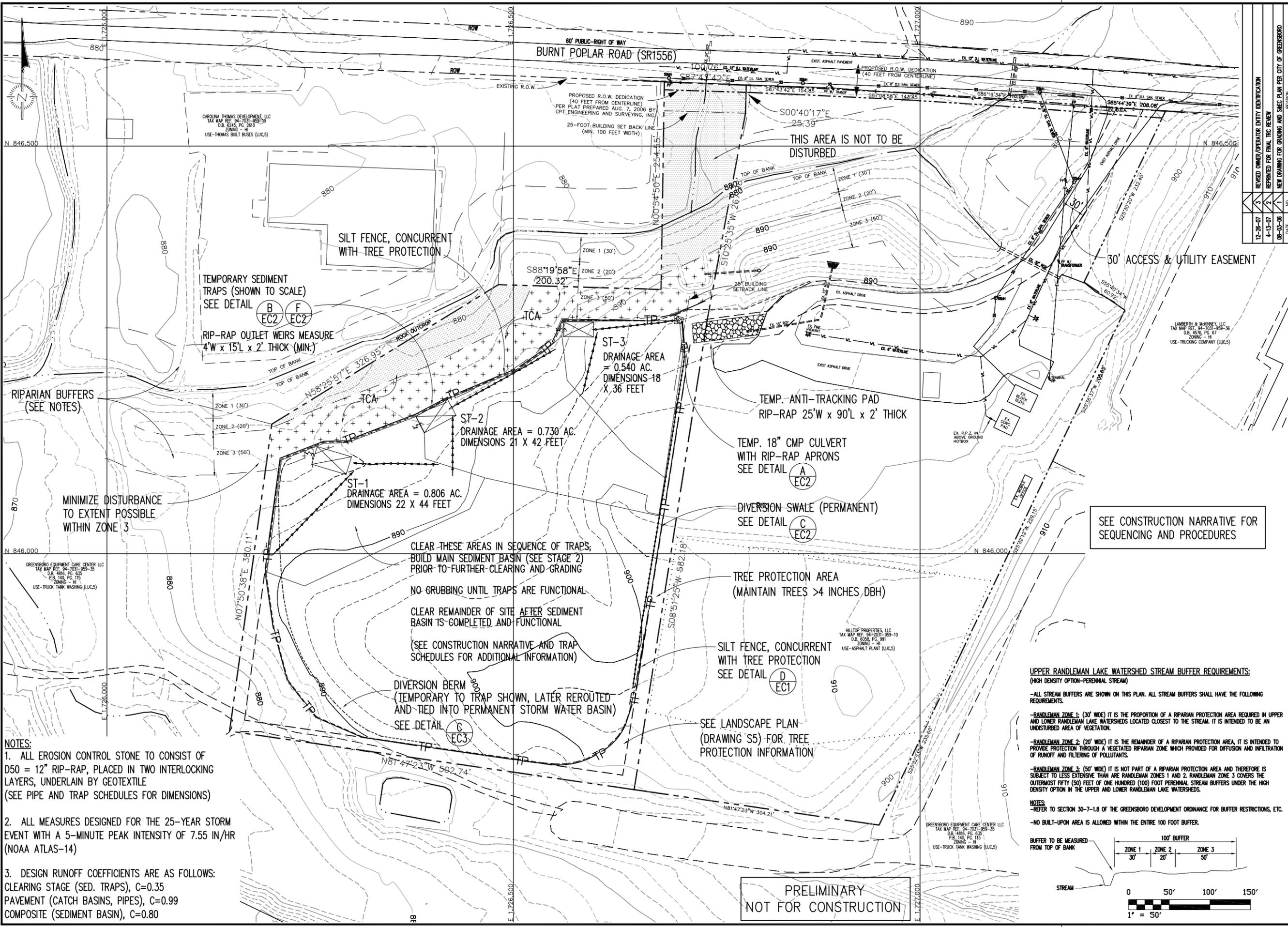
BURNT POPLAR TRANSFER, LLC C&D TRANSFER STATION 6313 BURNT POPLAR ROAD GREENSBORO, NORTH CAROLINA

SITE DEVELOPMENT STORM WATER PLAN

Table with 2 columns: DRAWING NO. (S6), SHEET NO. (7). Includes drawing and sheet identification.

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- 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



CAROLINA THOMAS DEVELOPMENT, LLC
 TAX MAP REF. 94-7031-552-39
 D.B. 6245, PG. 2610
 ZONING - H
 USE-THOMAS BUILT BUSES (LUC.5)

TEMPORARY SEDIMENT TRAPS (SHOWN TO SCALE) SEE DETAIL (B) (F) (EC2) (EC2)
 RIP-RAP OUTLET WEIRS MEASURE 4'W x 15'L x 2' THICK (MIN.)

60' PUBLIC-RIGHT OF WAY
 BURNT POPLAR ROAD (SR1556)

THIS AREA IS NOT TO BE DISTURBED

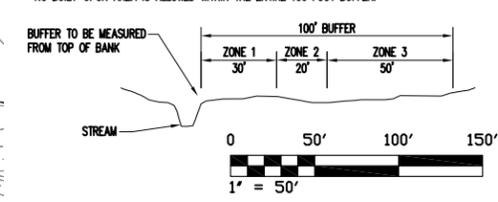
SEE CONSTRUCTION NARRATIVE FOR SEQUENCING AND PROCEDURES

PRELIMINARY NOT FOR CONSTRUCTION

UPPER RANDELEMAN LAKE WATERSHED STREAM BUFFER REQUIREMENTS:
 (HIGH DENSITY OPTION-PERENNIAL STREAM)

- ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS.
- RANDELEMAN ZONE 1: (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA REQUIRED IN UPPER AND LOWER RANDELEMAN LAKE WATERSHEDS LOCATED CLOSEST TO THE STREAM. IT IS INTENDED TO BE AN UNDISTURBED AREA OF VEGETATION.
- RANDELEMAN 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 DIFFUSION AND INFILTRATION OF RUNOFF AND FILTERING OF POLLUTANTS.
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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.



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

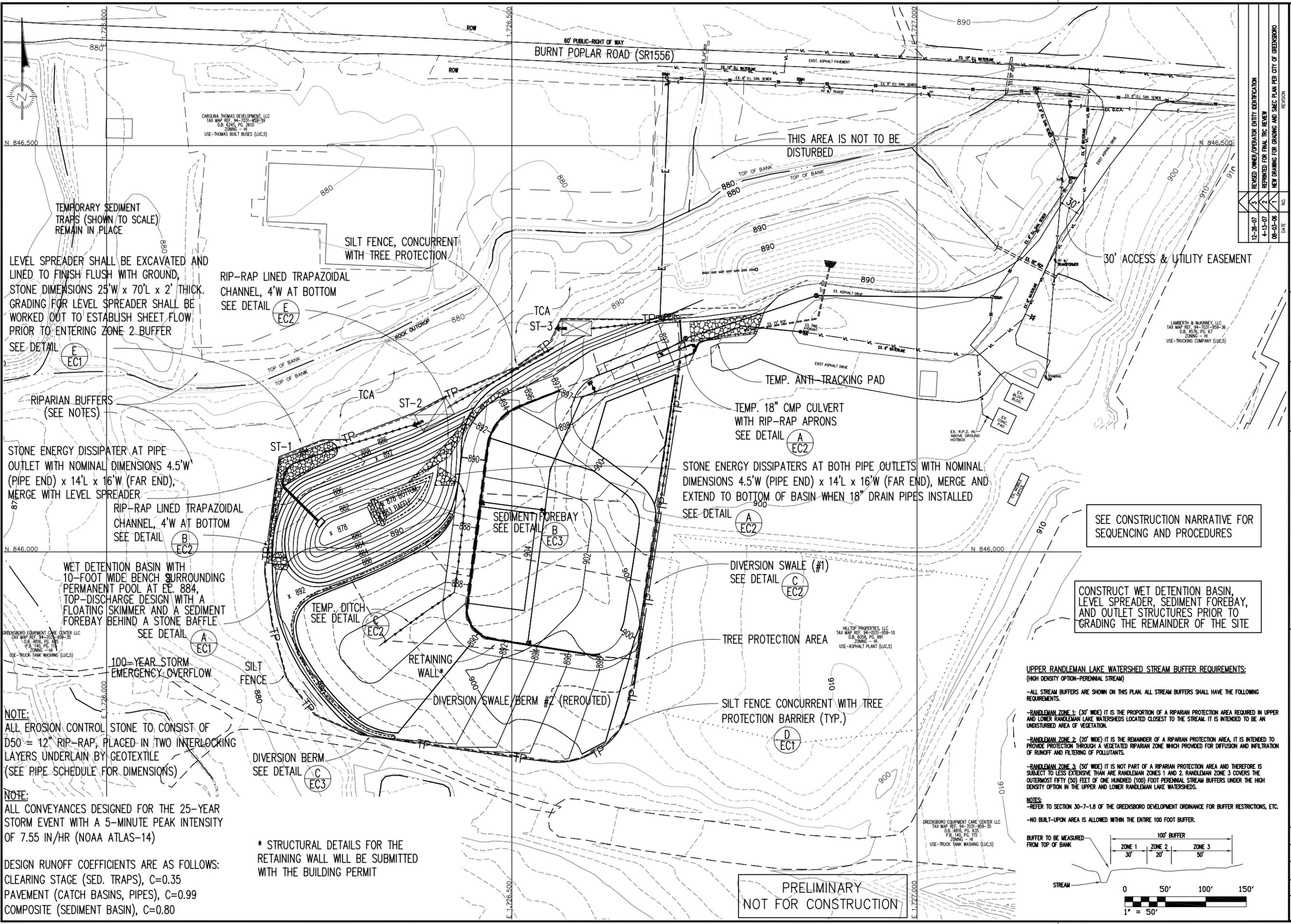


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BURNT POPLAR TRANSFER, LLC
 C&D TRANSFER STATION
 6313 BURNT POPLAR ROAD
 GREENSBORO, NORTH CAROLINA

SITE DEVELOPMENT GRADING AND S&EC PLAN
 STAGE 1

DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.: MRR-3
SCALE: AS SHOWN	DATE: AUG 2006
FILE NAME: MRR3-D0015A	DRAWING NO.:
SHEET NO.:	7A
	S6A



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

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

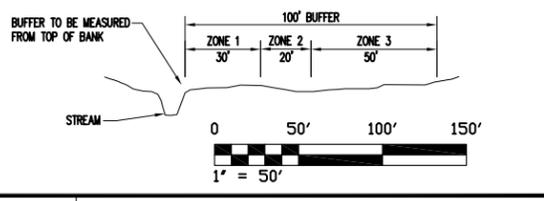
-ALL STREAM BUFFERS ARE SHOWN ON THIS PLAN. ALL STREAM BUFFERS SHALL HAVE THE FOLLOWING REQUIREMENTS.

-RANDELMAN ZONE 1: (30' WIDE) IT IS THE PROPORTION OF A RIPARIAN PROTECTION AREA 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 DIFFUSION 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 EXTENSIVE THAN ARE RANDELMAN ZONES 1 AND 2. RANDELMAN ZONE 3 COVERS THE OUTERMOST FIFTY (50) FEET OF ONE HUNDRED (100) FOOT PERENNIAL 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.



PRELIMINARY
NOT FOR CONSTRUCTION

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

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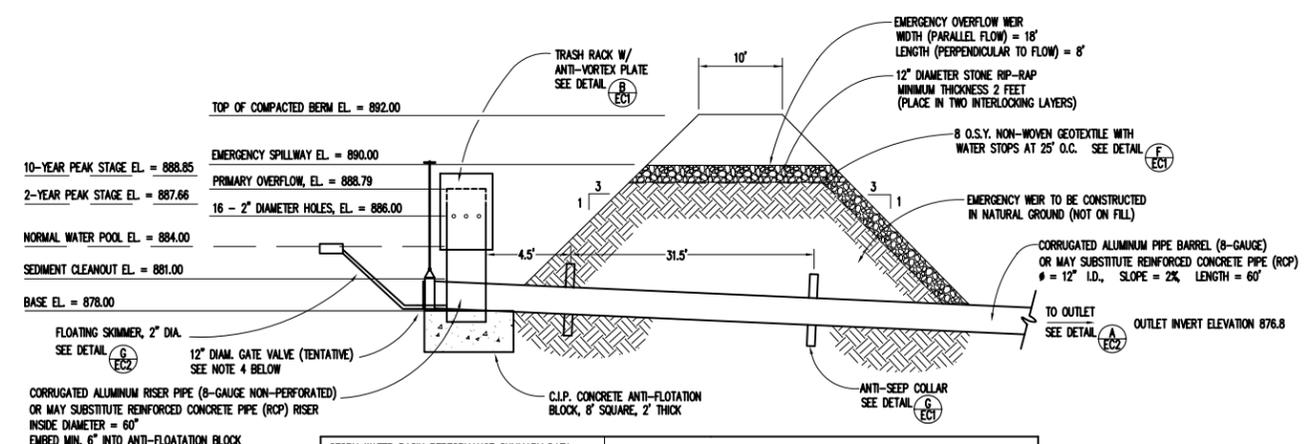
BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION
6313 BURNT POPLAR ROAD
GREENSBORO, NORTH CAROLINA

**SITE DEVELOPMENT
GRADING AND S&E PLAN
STAGE 2**

DESIGNED BY: G.D.G. DRAWN BY: A.W.H.
CHECKED BY: G.D.G. PROJECT NO.: MRR-3
SCALE: AS SHOWN DATE: AUG 2006
FILE NAME: MRR3-D0015B
SHEET NO. 7B DRAWING NO. S6B

C:\DATA\DOCUMENTS\MRR-3\PROJECT DRAWINGS\SHEETS_S&E\MRR3-D0015B.dwg DATE: DEC 26, 2007 TIME: 11:32 PM

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

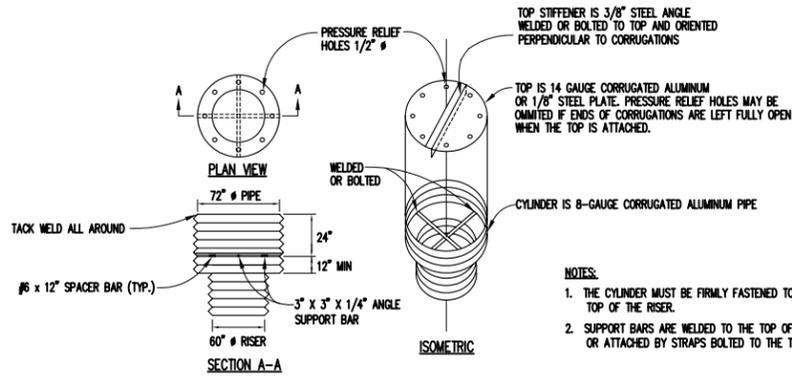


RETURN PERIOD	PRE-DEVELOPMENT PEAK RUNOFF, CFS	POST-DEVELOPMENT PEAK RUNOFF, CFS	ROUTED OUTFLOW FOR DESIGN STORM, CFS	PEAK STAGE ELEVATION	MIN. SETTLING EFFICIENCY	TIME TO DRAIN BACK TO NORMAL POOL (DAYS)
Q2	4	15	2.2	887.66	96%	3.1
Q5	5	17	2.6	888.33	95%	3.2
Q10	6	19	3.5	888.85	93%	3.3
Q25	6	21	11.6	889.09	70%	3.3
Q100	7	23	12.3	889.39	69%	3.3

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

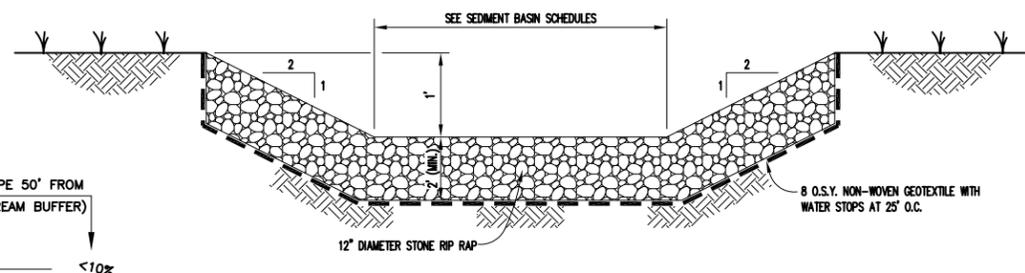
SEDIMENT/STORM WATER BASIN CROSS-SECTION

DETAIL A
N.T.S. EC1



TRASH RACK W/ ANTI-VORTEX PLATE

DETAIL B
N.T.S. EC1



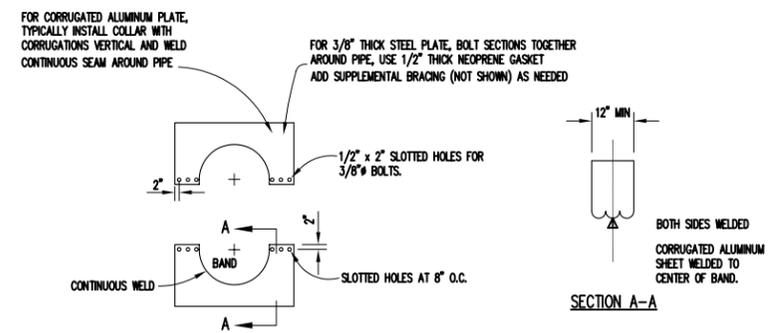
TYPICAL SECTION OF LEVEL SPREADER

PLAN VIEW OF LEVEL SPREADER
W/ SLOPES < 10%

LEVEL SPREADER
DETAIL E
N.T.S. EC1

EMERGENCY OVERFLOW WEIR

DETAIL C
N.T.S. EC1

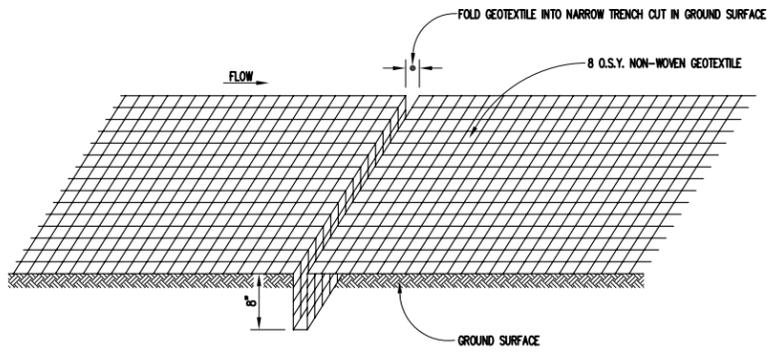


ELEVATION OF UNASSEMBLED COLLAR

- NOTES:
1. ALL MATERIAL TO BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
 2. PRE-FABRICATED SECTIONS FURNISHED BY SUPPLIER ARE PREFERRED.
 3. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
 4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
 5. EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2\"/>

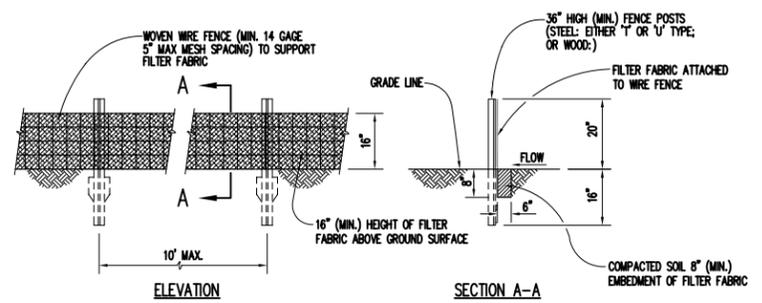
CORRUGATED ALUMINUM ANTI-SEEP COLLAR

DETAIL G
N.T.S. EC1



WATER STOP DETAIL

DETAIL F
N.T.S. EC1



SILT FENCE

DETAIL D
N.T.S. EC1

PRELIMINARY
NOT FOR CONSTRUCTION

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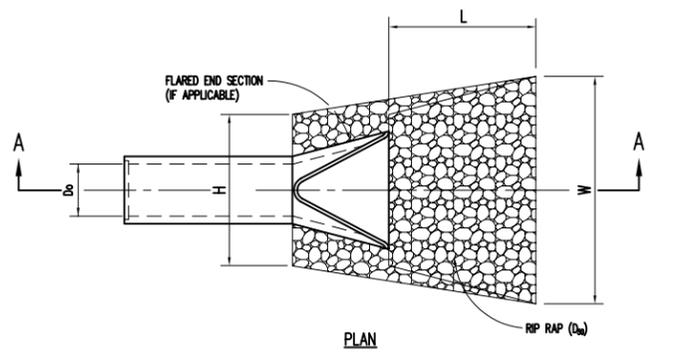
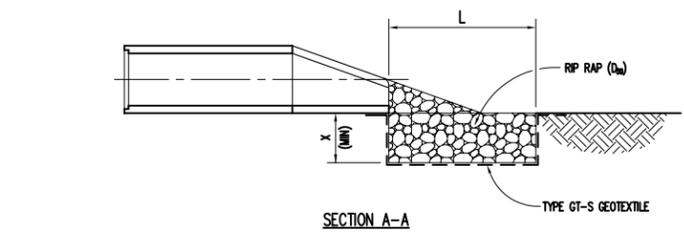


BURNT POPLAR TRANSFER, LLC
C&D TRANSFER STATION
6313 BURNT POPLAR ROAD
GREENSBORO, NORTH CAROLINA

SEDIMENTATION AND EROSION
CONTROL DETAILS
(SHEET 1 OF 3)

DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.: MRR-3
SCALE: AS SHOWN	DATE: JULY 2006
FILE NAME: MRR3-D0003	DRAWING NO.:
SHEET NO. 8	EC1

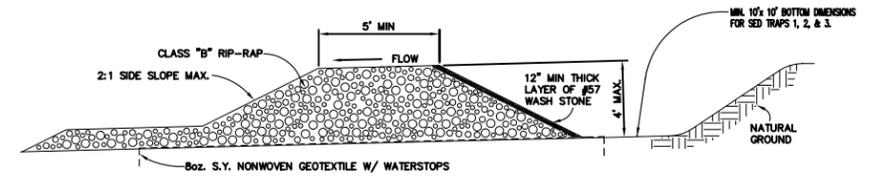
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RIP RAP OUTLET PROTECTION

DETAIL A
N.T.S. EC2

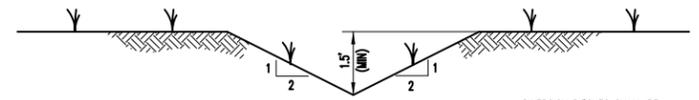
NOTE:
1. Dsub REFERS TO THE MINIMUM REQUIRED AVERAGE STONE SIZE
1. PLACE STONE IN TWO INTERLOCKING LIFTS.



SEDIMENT TRAP

DETAIL B
N.T.S. EC2

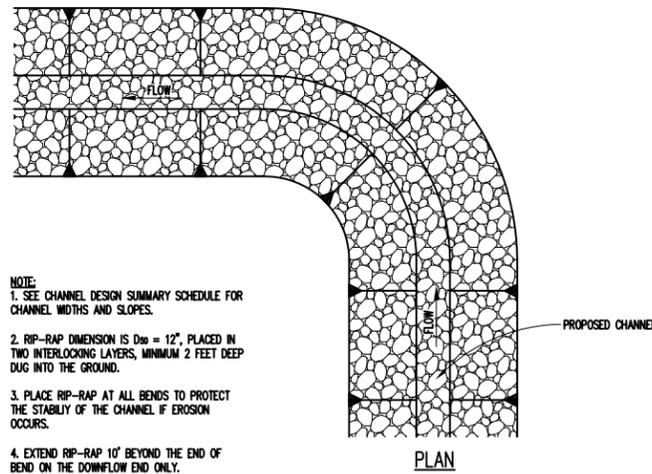
NOTES:
1. EARTH BERM SHALL BE STABILIZED W/ VEGETATION ACCORDING TO SEEDING SPECIFICATIONS.
2. USE CLEAN COMPACTED FILL MATERIAL FOR EARTH BERM.



DIVERSION DITCH

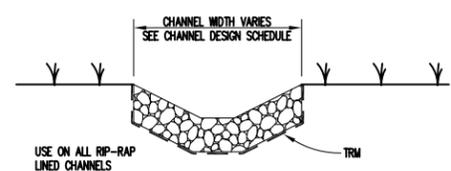
DETAIL C
N.T.S. EC2

DIVERSION DITCHES SHALL BE VEGETATED ACCORDING TO SEEDING SPECIFICATIONS.



PLAN

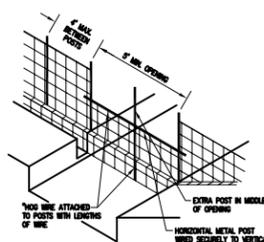
NOTE:
1. SEE CHANNEL DESIGN SUMMARY SCHEDULE FOR CHANNEL WIDTHS AND SLOPES.
2. RIP-RAP DIMENSION IS Dsub = 12", PLACED IN TWO INTERLOCKING LAYERS, MINIMUM 2 FEET DEEP DUG INTO THE GROUND.
3. PLACE RIP-RAP AT ALL BENDS TO PROTECT THE STABILITY OF THE CHANNEL IF EROSION OCCURS.
4. EXTEND RIP-RAP 10" BEYOND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



SECTION

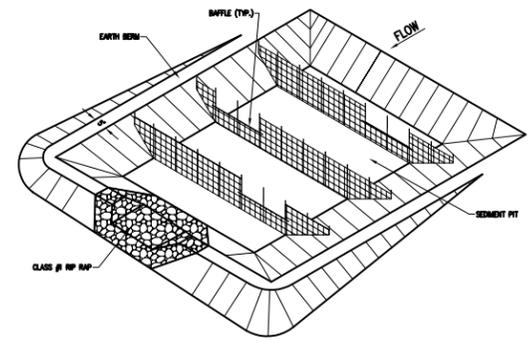
RIP-RAP LINED CHANNEL

DETAIL E
N.T.S. EC2

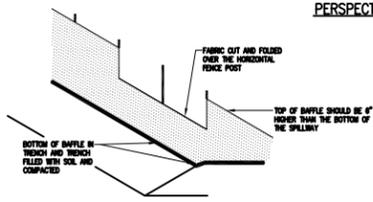


BAFFLE INSTALLATION - STEP 1

NOTES:
1. DRIVE STEEL FENCE POST AT LEAST 16" INTO SOLID GROUND
2. HOOK POSTS ARE NOT ACCEPTABLE
3. USE STAPLES TO ATTACH FABRIC TO "HOLD WIRE"
4. BAFFLE SPACED AS PER APPROVED PLAN.



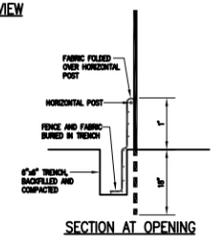
PERSPECTIVE VIEW



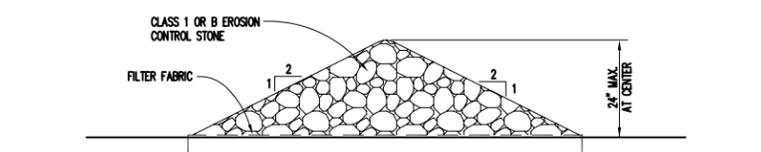
BAFFLE INSTALLATION - STEP 2

SEDIMENT BASIN BAFFLES

DETAIL F
N.T.S. EC2



SECTION AT OPENING



SECTION A-A

CHECK DAM

DETAIL D
N.T.S. EC2

PLACE CHECK DAMS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

PRELIMINARY
NOT FOR CONSTRUCTION

NO.	DATE	REVISION
3	12-26-07	REMOVED OWNER/OPERATOR ENTITY IDENTIFICATION
2	4-13-07	REPRINTED FOR FINAL TRC REVIEW
1	09-21-06	STORM WATER REVISIONS PER CITY OF GREENSBORO

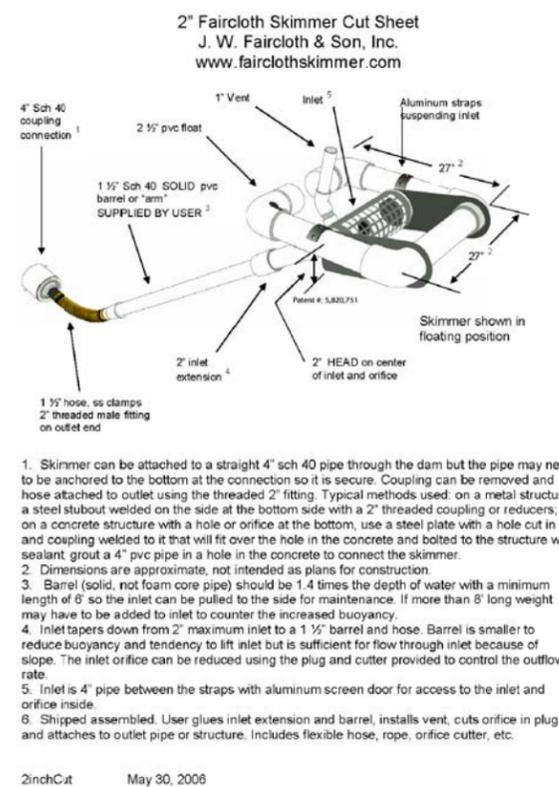
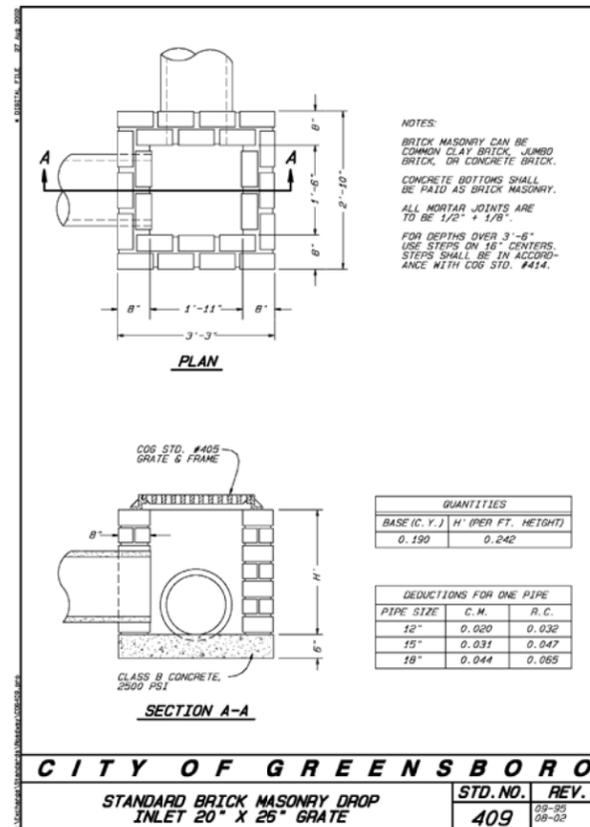
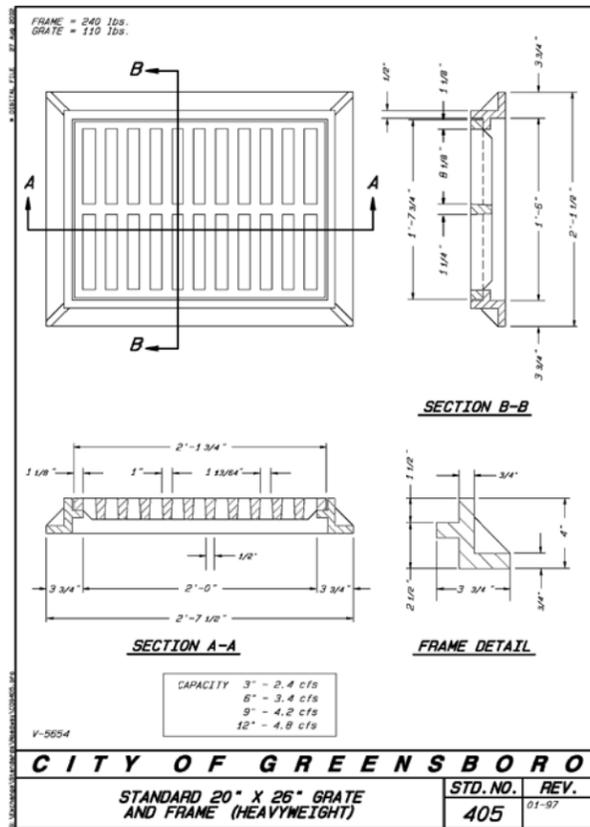
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GREENSBORO, NORTH CAROLINA

SEDIMENTATION AND EROSION CONTROL DETAILS
(SHEET 2 OF 3)

DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.: MRR-3
SCALE: AS SHOWN	DATE: JULY 2006
FILE NAME: MRR3-D0004	DRAWING NO.:
SHEET NO.: 9	DRAWING NO.: EC2



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.

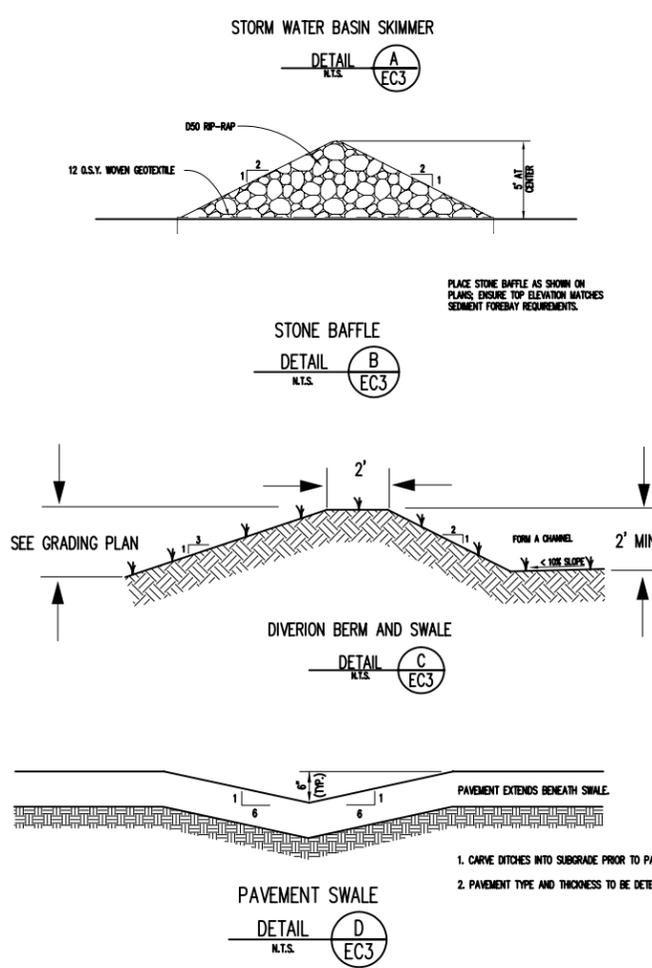
**PRELIMINARY
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THE FOLLOWING NOTES FROM THE GUILFORD COUNTY STORMWATER MANAGEMENT MANUAL (2000), SECTION 2, ARE BINDING TO THESE PLANS.

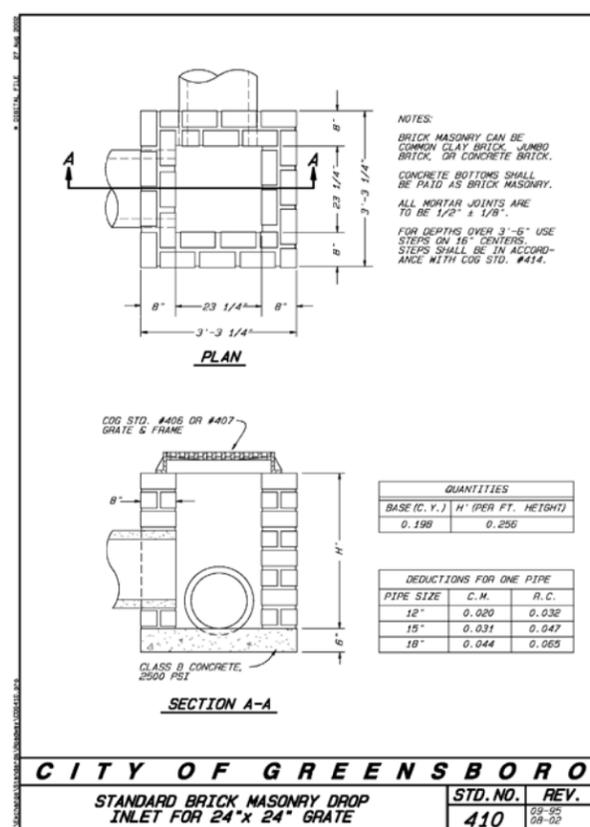
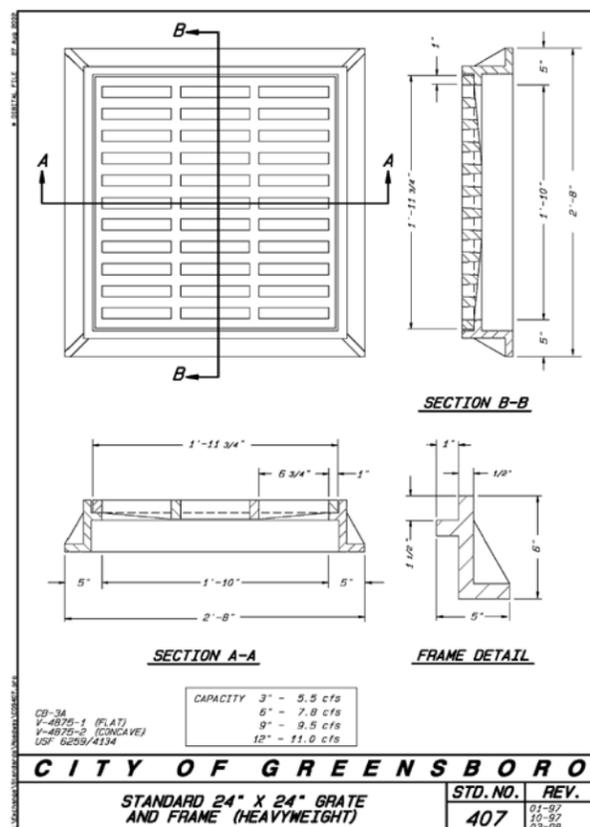
- 36. Note: The engineer's certification of completion will be required prior to the final plat or certificate of occupancy. The stormwater control is to be inspected to ensure it is functioning as designed and has full design volume prior to issuance of any certificate of occupancy.
- 37. Note: The 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.
- 38. 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 note is applicable:

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

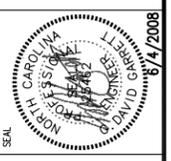


C.O.G. STANDARDS 405, 407, 409, AND 410 ARE PRESENTED AT RECOMMENDATIONS. OTHER CATCH BASIN DESIGNS, E.G., PRECAST CONCRETE AND HDPE, MAY BE CONSIDERED EQUIVALENT, SUBJECT TO APPROVAL BY THE ENGINEER AND THE C.O.G.



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

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GREENSBORO, NORTH CAROLINA

SEDIMENTATION AND EROSION CONTROL DETAILS
(SHEET 3 OF 3)

DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.: MRR-3
SCALE: AS SHOWN	DATE: JULY 2006
FILE NAME: MRR3-D0005	DRAWING NO.:
SHEET NO. 10	EC3

SEDIMENT TRAP DESIGN SCHEDULE

Design Storm Event	Q25	25-Year, 5-Minute Storm
Peak Runoff Intensity, I, in/hr	7.55	NOAA Atlas 14
Design Runoff Coefficient, C	0.35	Cleared, unimproved area (for traps only)

Sediment Trap No.	ST-1	ST-2	ST-3
Disturbed Area, acres	0.81	0.74	0.54
* Required Volume (1800 ft ³ / ac), cf	451	1,332	972
Peak Runoff Flow, Qp, cfs	2.1	2.0	1.4
* Required Area (0.01 *Qp), sq ft with 2:1 length to width ratio	928	852	822
Min. Basin Dimensions:			
Length, ft	44	42	36
Width, ft	22	21	18
** Effective Depth, ft	2	2	2
Required Filter Weir Length, ft	4	4	4
Required Filter Weir Crest Width, ft	5	5	5
Resulting Storage Volume, cf	1936	1764	1296
Resulting Surface Area, sf	968	882	648

The design is OK if the resulting volume and area are larger than the required quantities

* Design criteria per NC Sedimentation and Erosion Control Design Manual guidelines - the basins are purposefully shallow and have large surface areas

** Vertical distance from top or weir to bottom of excavation, considered here to be the minimum desired depth of the sediment trap

The maximum allowable sediment buildup depth is 3.5 feet, per North Carolina S&EC Design Manual guidelines, weir shall be set to provide 12 inches of freeboard

The perimeter berm should be level and the height should be at least one foot higher than the top of the filter weir

Use 2H:1V side slopes inside and outside basin for berm and weir, vegetate slopes as soon as practical - within 20 days per NC S&EC Rules and Guidelines

Compact all soil per Technical Specifications, if provided, or as directed by the Engineer

Construct filter weir of stone rip-rap (d50 = 12 inches), underlain by geotextile with water stops on 25-foot centers

Overlay upstream side of rip-rap filter weir with 12-inch thickness of No. 57 stone

Construct ditches toward basin, as required, and stabilize with rip-rap

SEEDING SCHEDULE

Shoulders, Side Ditches, Slopes (Max 3:1)

DATE	TYPE	PLANTING RATE
Aug 15 - Nov 1	Tall Fescue	300 lbs/acre
Nov 1 - Mar 1	Tall Fescue & Abruzzi Rye	300 lbs/acre 25 lbs/acre
Mar 1 - Apr 15	Tall Fescue	300 lbs/acre
Apr 15 - Jun 30	Hulled Common Bermudagrass	25 lbs/acre
Jul 1 - Aug 15	Tall Fescue and ***Browntop Millet ***or Sorghum-Sudan Hybrids	120 lbs/acre 35 lbs/acre 30 lbs/acre
Slopes (3:1 to 2:1)		
Mar 1 - Jun 1	Sericea Lespedeza (scarified) &	50 lbs/acre
(Mar 1 - Apr 15)	Add Tall Fescue	120 lbs/acre
(Mar 1 - Jun 30)	Or Add Weeping Lovegrass	10 lbs/acre
(Mar 1 - Jun 30)	Or Add Hulled Common Bermudagrass	25 lbs/acre
Jun 1 - Sep 1	***Tall Fescue and ***Browntop Millet ***or Sorghum-Sudan Hybrids	120 lbs/acre 35 lbs/acre 30 lbs/acre
Sep 1 - Mar 1	Sericea Lespedeza (unhulled-unscarified) and Tall Fescue	70 lbs/acre 120 lbs/acre
(Nov 1 - Mar 1)	Add Abruzzi Rye	25 lbs/acre

Consult Conservation Engineer or Soil Conservation Service for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those which do well under local conditions; other seeding rate combinations are possible.

***Temporary - Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow over 12" in height before mowing, otherwise fescue may be shaded out.

CATCH BASIN DESIGN SCHEDULE

Design Storm	Q25	25-year, 5-minute
Peak Runoff Intensity, in/hr	7.55	Ref: NOAA Atlas 14
Design Runoff Coefficient	0.99	Paved (for catch basins and pipes only)

Basin No.	Drainage Area, ac.	Q25 cfs	Invert Elevation'	Invert Depth, ft.*	Flush Grate Inlet, inches**	C.O.G. Standard**	Q allowable cfs
CB-1	1.17	9	884.90	2.5	24" X 24"	407, 410	11.0
CB-2	0.31	3	885.00	2.5	20" X 26"	405, 409	4.8
CB-3	0.23	2	884.33	4.7	20" X 26"	405, 409	4.8
CB-4	0.5	4	895.50	2.5	24" X 24"	407, 410	11.0
CB-5	0.52	4	893.70	7.3	24" X 24"	407, 410	11.0
CB-6	0.38	2	894.50	2.5	20" X 26"	405, 409	4.8
CB-7	0.19	5	890.40	7.1	24" X 24"	407, 410	11.0

Notes: *ESTIMATED VALUES, MUST FIELD VERIFY AND ADJUST AS NEEDED - DEPTH OF ALL CATCH BASINS SHALL BE AT LEAST EQUAL TO THE PIPE DIAMETER PLUS ONE FOOT BELOW PAVEMENT GRADE. INVERT OF EXIT PIPE SHALL BE ONE-TENTH OF A FOOT BELOW THE INVERT OF THE INLET PIPE AT ALL PASS-THROUGH CATCH BASINS

**USE CITY OF GREENSBORO STANDARD GRATE AND FRAME, I.E., C.O.G. STD. 405 (20" X 26") OR C.O.G. STD. 407 (24" X 24") AND CORRESPONDING MASONRY DROP INLET, EITHER (C.O.G. STD. 405 OR 410, RESPECTIVELY), MODIFIED AS NEEDED TO ACCOMMODATE 18-INCH DIAMETER R.C. PIPE

CATCH BASINS OVER 3- FEET, 6-INCHES IN DEPTH REQUIRE PLASTIC STEPS ON 16-INCH CENTERS PER C.O.G. STD. 414

CONTRACTOR MAY PROPOSE ALTERNATIVE PRECAST CONCRETE MANHOLES, E.G., NC DOT TYPE "F" CATCH BASIN, OR PRE-FABRICATED "DFE" MANHOLES (MAY REQUIRE DONUT RISER/GRADE RING)

ALL INLETS SHALL BE FLUSH-MOUNT IN PAVEMENT WITH STEEL GRATES

CONTRACTOR SELECTION AND/OR DESIGN ALTERNATIVES ARE SUBJECT TO CITY OF GREENSBORO STREET STANDARDS AND PROJECT ENGINEER APPROVAL

PIPE DESIGN SCHEDULE

Pipe No.	Diam. inches	Type	Length feet	Slope ft./ft.	Q25 cfs	Inlet Structure Invert Elev.*	Type	Outlet Structure Invert Elev.*	Type	Rip-Rap Apron: Length, ft.	Pipe End Width, ft.	Ditch End Width, ft.
1	16	PVC/PE	115	0.005	5	885.50	Catch Basin 1	884.93	Projecting end	10	4.5	12
2	16	PVC/PE	130	0.005	8	884.68	Catch Basin 2	884.03	Catch Basin 3			
3	16	PVC/PE	30	0.005	10	883.91	Catch Basin 3	883.76	Projecting end	10	4.5	12
4	18	PVC/PE	170	0.010	4	895.50	Catch Basin 4	893.80	Catch Basin 5			
5	16	PVC/PE	160	0.020	8	893.70	Catch Basin 5	890.50	Catch Basin 7			
6	16	PVC/PE	165	0.020	5	894.50	Catch Basin 6	891.20	Catch Basin 7			
7	16	PVC/PE	145	0.048	15	890.40	Catch Basin 7	883.44	Projecting end	14	4.5	16
8	18	RCP	60	0.020	19	878.00	Riser Structure	876.80	Projecting end	14"	4.5	16"

Notes: *Estimated values, must field verify and adjust as needed - depth of all catch basins shall be a minimum of one foot plus the pipe diameter below pavement grade, invert of exit pipe shall be one-tenth of a foot below the invert of the inlet at all pass-through catch basins

USE SMOOTH-WALL SCH. 40 PVC PIPE OR HIGHWAY GRADE POLYETHYLENE PIPE (E.G., HANCOCK SUR-LOK, OR EQUIV.) EXCEPT PIPE #8

USE PRECAST CONCRETE MANHOLES, MASONRY INLET BOXES, OR PRE-FABRICATED HDPE INLET BOXES (SEE CATCH BASIN SCHEDULE)

DOUBLE CHECK REQUIRED PIPE LENGTHS AND GRADES BASED ON FIELD INSPECTION PRIOR TO ORDERING MATERIALS!

INSTALL ALL PIPES AND OUTLET PROTECTION IN ACCORDANCE WITH THE STANDARDS AND GUIDELINES OF THE CITY OF GREENSBORO AND/OR THE NORTH CAROLINA SEDIMENTATION AND EROSION CONTROL DESIGN MANUAL

Form a shallow v-profile channel, graded into the subgrade and the pavements, leading to all catch basins (see plans for locations)

All inlets shall be protected from sediment intrusion during construction with wire-backed gravel filters (straw bales are not acceptable)

For outlet structure, use Class B rip-rap with a d50 = 12 inches; place rip-rap a minimum thickness of 2 feet in two interlocking layers provide geotextile erosion blanket (minimum 8 o.s.y., non-woven) underneath stone, with water stops placed at 25 feet centers (minimum of one); water stop shall be at least 12 inches wide and 12 inches deep; place rip-rap apron to specified length and full-width of ditch on downstream end

**Merge the pipe outlet apron for the stormwater basin with the emergency overflow weir apron

THE RISER STRUCTURE FOR THE STORM WATER POND IS SUBJECT TO SAME MATERIAL AND PROTECTION REQUIREMENTS AS THE CATCH BASINS (SEE ABOVE); IN ADDITION, A CONCRETE ANTI-FLOATATION BLOCK IS REQUIRED (SEE DETAILS)

PIPES #1 THROUGH #7 SHALL BE BEDDED IN A MINIMUM OF 6 INCHES OF #57 STONE. BACKFILL SHALL BE SELECT SOIL (FREE OF ROCKS, DEBRIS, OR VEGETATIVE MATTER) AND COMPACTED TO 95% OF STANDARD PROCTOR MDD

PIPE #8 SHALL BE PRECAST CONCRETE OR 8-GA ALUMINUM (NOT BEDDED) AND SHALL BE FITTED WITH ANTI-SEEPAGE COLLARS PER CONSTRUCTION DETAILS (SUBJECT TO SAME BACKFILL REQUIREMENTS)

ENGINEER'S STATEMENT OF POND AND DAM SAFETY

The stormwater pond and dam shown on this plan satisfies requirements of the North Carolina State Dam Safety Law of 1987 (As Amended Through 1995) and the Rules and Regulations as presented in the North Carolina Administrative Code Title 15A, Subchapter 2K - Dam Safety. Even in the case where the dam shown on this plan is determined by the State to be exempt from the above noted Dam Safety requirements, I, as the qualified design engineer, state that the pond and dam are designed to be safe and adequate for the protection of public health, safety, welfare, and downstream property. I understand that this statement as the design engineer shall not relieve the owner or operator of the pond and dam from the legal duties, obligations, and liabilities arising from such ownership or operation.

EROSION AND SEDIMENTATION CONTROL CONSTRUCTION NARRATIVE

NOTIFICATIONS

PRIOR TO COMMENCING EARTH WORK IN ANY CRITICAL AREAS, E.G., NEAR STREAM BUFFERS OR WETLANDS FEATURES, THE CONTRACTOR SHALL NOTIFY THE CITY OF GREENSBORO BUILDING INSPECTIONS DEPT. AND THE PROJECT ENGINEER FOR AN INSPECTION OF SEDIMENTATION AND EROSION CONTROL MEASURES. NO WORK SHALL TAKE PLACE WITHIN 100 FEET OF ANY JURISDICTIONAL BODY OF WATER WITHOUT PROPER MEASURES IN PLACE. THE PROJECT ENGINEER SHALL BE KEPT INFORMED OF ALL NEW WORK.

GENERAL

ALL WORK SHALL CONFORM TO THE RULES AND GUIDELINES OF THE NORTH CAROLINA SEDIMENTATION CONTROL LAW, AS ADMINISTERED BY NC DENR AND/OR THE CITY OF GREENSBORO.

CRITICAL SEDIMENTATION CONTROL FEATURES, E.G., CLEARING LIMITS, SEDIMENT TRAPS, GRADED CHANNELS, BASINS, OUTLET STRUCTURES, LEVEL SPREADERS, ETC., SHALL BE FIELD STAKED BY A LICENSED SURVEYOR OR OTHER PARTY APPROVED BY THE PROJECT ENGINEER AND CONSTRUCTED ACCORDING TO PLAN DIMENSIONS. ALL WORK SHALL PROCEED IN A METHODOICAL AND WORKMANLIKE MANNER. THE OWNER/OPERATOR IS RESPONSIBLE FOR SECURING ANY REQUIRED LAND DISTURBING PERMITS AND PAYING FEES.

THIS SAEC PLAN DESCRIBES TEMPORARY AS WELL AS PERMANENT SEDIMENTATION AND EROSION CONTROL MEASURES. THIS PLAN ASSUMES THAT ALL DESIGNED MEASURES WILL BE INSTALLED. FIELD ADJUSTMENTS ARE ALLOWABLE WITH THE ADVANCE PERMISSION OF THE PROJECT ENGINEER.

SEDIMENTATION AND EROSION CONTROL MEASURES ARE SUBJECT TO FIELD INSPECTION AND PERFORMANCE EVALUATION BY THE CITY OF GREENSBORO. IF ANY MEASURES ARE FOUND INADEQUATE, A REVIEW OF THE MEASURES AS CONSTRUCTED SHALL BE PERFORMED TO ENSURE ADHERENCE TO THE PLANS. THEN, IF NEEDED, ADDITIONAL DESIGNS SHALL BE SUBMITTED TO THE CITY OF GREENSBORO FOR REVIEW. SUBSTANTIAL DEVIATIONS FROM THIS PLAN SHALL BE REVIEWED IN ADVANCE BY THE ENGINEER AND MAY BE SUBJECT TO PRIOR APPROVAL BY THE CITY OF GREENSBORO.

SILT FENCING

ADEQUATE SILT FENCING SHALL BE INSTALLED AND PROPERLY MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. THE PLANS SHOW THE MINIMUM REQUIRED AREAS INTENDED FOR SILT FENCE CONSTRUCTION. THE SILT FENCE SHALL BE OF THE TYPE DESIGNATED IN THE PLANS, UNLESS THE ENGINEER APPROVES A SUBSTITUTE. PREFABRICATED SILT FENCING ATTACHED TO WOODEN STAKES WILL NOT BE APPROVED - ONLY METAL POSTS AND WIRE-BACKED SILT FENCING WILL BE ACCEPTABLE. THE BASE OF THE FABRIC SHALL BE EMBEDDED IN A TRENCH PER THE PLANS AND AN APPROVED BACKFILL USED TO SECURE THE FABRIC. OUTLETS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS, OR AS DESIGNATED IN THE FIELD BY THE ENGINEER.

DIVERSIONS, DITCHES AND SOIL BERMS

TEMPORARY AND PERMANENT DIVERSION DITCHES (SWALES) AND SOIL BERMS ARE REQUIRED THROUGHOUT THE PROJECT TO CONVEY SURFACE RUNOFF. ALL DITCHES SHALL BE BUILT TO THE DIMENSIONS AND GIVEN THE CHANNEL-LINING MATERIAL SPECIFIED IN THIS PLAN, UNLESS THE ENGINEER HAS APPROVED AN ALTERNATIVE. ALL SOIL BERMS SHALL BE BUILT TO THE MINIMUM DIMENSIONS SHOWN ON THE PLANS. SOIL SHALL BE COMPACTED AND STABILIZED WITH VEGETATION IMMEDIATELY UPON COMPLETION OF THE CONSTRUCTION. ADDITIONAL DITCHES AND SOIL BERMS MAY BE REQUIRED. ALL WATER-DIVERSION STRUCTURES, WHETHER SHOWN ON THE PLANS OR ADDED AS A FIELD ADJUSTMENT, SHALL BE MADE TO DRAIN TO AN APPROVED MEASURE.

TEMPORARY SEDIMENT TRAPS

SEDIMENT TRAPS SHALL BE CONSTRUCTED AT THE LOCATIONS AND DIMENSIONS SHOWN IN THE PLANS DURING THE EARLY STAGES OF CLEARING. ASSOCIATED DITCHES AND SILT FENCES SHALL BE INSTALLED. FIELD ADJUSTMENTS OF LOCATIONS MAY BE ALLOWABLE SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. ALL TEMPORARY SEDIMENT TRAPS SHALL BE CLEANED OUT AND MAINTAINED AS NEEDED FOR AS LONG AS NECESSARY TO PROTECT WATER QUALITY. ALL EARTHWORK ASSOCIATED WITH THE SEDIMENT TRAPS SHALL BE VEGETATED UPON COMPLETION. THE TRAPS MAY BE LEFT IN PLACE INDEFINITELY, OR, ONCE THE ENGINEER DEEMS A TRAP TO BE OBSOLETE, IT MAY BE REMOVED AND THE GROUND RESTORED TO PROMOTE POSITIVE DRAINAGE. VEGETATION OR OTHER PROTECTIVE MEASURES SPECIFIED BY THE ENGINEER SHALL BE ESTABLISHED IMMEDIATELY AT THE SITE OF ANY ABANDONED TRAPS.

SEDIMENT BASINS

THE PERMANENT SEDIMENT BASIN (SW-1) SHALL SERVE AS THE PRIMARY SEDIMENT BASIN THROUGHOUT THE CONSTRUCTION AND OPERATION OF THE FACILITY. THE SEDIMENT BASIN WILL BE CONVERTED TO A PERMANENT STORM WATER QUALITY BASIN AT THE END OF CONSTRUCTION. THE BASIN SHALL BE FUNCTIONAL AND STABILIZED WITH VEGETATION PRIOR TO INITIATING SITE-WIDE GRADING WORK. THE OUTLET STRUCTURES WILL REMAIN IN PLACE INDEFINITELY. AT SOME FUTURE TIME, IT MAY BE NECESSARY TO REFURBISH THE BASIN BY REPLACING THE FLASHBOARD RISER STRUCTURES. A PROCEDURE FOR OUTLET STRUCTURE REPAIR IS PROVIDED AT THE END OF THIS SECTION.

CONSTRUCTION SEQUENCE

STAGE 1 GRADING - INSTALL TREE PROTECTION BARRICADES (AS NEEDED), SILT FENCES, TEMPORARY DIVERSION BERM/CHANNELS (INCLUDING THOSE LEADING TO TRAPS AND DIVERSION BERM/SWALE #1), AND ANTI-TRACKING PAD, AS SHOWN IN THE CONSTRUCTION PLANS. INSTALL SEDIMENT TRAPS IN SEQUENCE AND PREPARE THE SEDIMENT BASIN SITE. COMPACT ALL SOIL ON TRAP BERMS TO A MINIMUM OF 95% MDD. DO NOT GRUB UP HILL OF THE TRAPS UNTIL THE TRAPS ARE FUNCTIONAL.

CONSTRUCT SEDIMENT BASIN TO PLAN DIMENSIONS (INCLUDING PRIMARY OUTLET WORKS) PRIOR TO FURTHER CLEARING AND GRADING. DERIVE SOIL FOR PERIMETER DIKE CONSTRUCTION FROM THE INTERIOR OF THE BASIN TO THE EXTENT POSSIBLE. BE SURE ONLY CLEAN FILL SOIL, COMPACTED TO A MINIMUM OF 95% MDD IS USED ON THE BASIN. PENDING WEATHER CONDITIONS AND A PERFORMANCE EVALUATION OF EXISTING MEASURES, FURTHER CLEARING AND GRADING MAY BE ALLOWED TO PROCEED ONCE THE BASIN IS EXCAVATED, SUBJECT TO APPROVAL BY THE PROJECT ENGINEER.

ALL GRADED SLOPES SHALL BE COVERED WITH AN APPROPRIATE THICKNESS OF TOPSOIL OR ORGANIC MULCH AND VEGETATED AS SOON AS PRACTICAL UPON ACHIEVING FINAL GRADES (WITHIN 20 DAYS PER NC SEDIMENT AND EROSION CONTROL RULES). IT MAY BE NECESSARY TO ESTABLISH A NURSE CROP OF RYE AND OTHER SHORT-TERM VEGETATION, DEPENDING ON THE TIMING OF THE CONSTRUCTION START UP, FOLLOWED BY OVER-SEEDING AT A MORE FAVORABLE TIME TO ESTABLISH PERMANENT VEGETATION. PLEASE REFER TO THE SEED BED PREPARATION NARRATIVE AND THE SEEDING SCHEDULE, PROVIDED IN THESE PLANS.

STAGE 2 GRADING - ONCE THE SEDIMENT BASIN IS FULLY FUNCTIONAL (OR WITH THE PROJECT ENGINEER'S APPROVAL) CONTINUE GRADING THE SITE TO DESIGN GRADES, ALLOWING FOR PAVEMENT THICKNESSES. INSTALL DIVERSION BERM/SWALE #2. STABILIZE DITCHES WITH RIP-RAP, AT A MINIMUM TO THE DIMENSIONS SHOWN ON THE PLANS. BUILD RETAINING WALL AND STORM WATER DRAINAGE FEATURES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS (BUILD STORM DRAINS PRIOR TO INSTALLING OTHER UTILITIES). COMPACT ALL UTILITY TRENCH BACKFILL TO 95% MDD.

MAINTAIN SEDIMENT TRAPS, SILT FENCES, DITCH LINES AND TREE PROTECTION BARRICADES THROUGHOUT THE CONSTRUCTION PERIOD. CLEAN OUT SEDIMENT TRAPS AS NEEDED, BUT AT A MINIMUM CLEAN THE TRAPS AND REVEGETATE AT THE END OF CONSTRUCTION. STABILIZE ALL DISTURBED AREAS WITH VEGETATION APPROPRIATE TO THE END USE OF EACH AREA, E.G., PLANTING YARD, OPEN SPACE, ROAD SHOULDERS, ETC. REMOVE TEMPORARY TRACKING PAD AND ENTRANCE ROAD CULVERT PRIOR TO PAVING.

CONVERTING SEDIMENT BASIN TO STORM WATER QUALITY POND

AFTER THE SITE IS STABILIZED WITH VEGETATION, INCLUDING THE DAM AND SIDE SLOPES WITHIN THE BASIN, THE BASIN SHALL BE INSPECTED AND ACCUMULATED SEDIMENT REMOVED. REPAIR ANY EROSION AND UPGRADE STONE ENERGY DISSIPATORS AND/OR VEGETATIVE COVER AS NEEDED. ENSURE THAT THE FLOATING SKIMMER AND POND DRAIN ARE FUNCTIONAL (MAKE SURE THE DRAIN IS SHUT). THE SKIMMER SHALL BE LEFT IN PLACE AS A LOW-FLOW ORIFICE. REMOVE ANY ACCUMULATED DEBRIS FROM THE TRASH RACK AND/OR RISER PIPE AND CHECK THE SECURITY OF THE RISER PIPE AND TRASH RACK. ENSURE ALL ENERGY DISSIPATORS, INCLUDING INLETS TO BASIN THAT EXTEND TO BOTTOM, ARE IN PLACE. ENSURE ALL PIPES, INLETS, GRATES, AND APPROPRIATE PROTECTIVE MEASURES ARE FUNCTIONAL.

PROCEDURE FOR REPLACING A PIPE OR RISER/BARREL STRUCTURE

PERMANENT STORM DRAIN PIPES AND RISER/BARREL STRUCTURES FOR THE SEDIMENT BASIN ARE DESIGNED FOR AN OPERATIONAL LIFE OF SEVERAL DECADES. IF A PIPE OR SEDIMENT BASIN RISER/BARREL STRUCTURE FAILS OR MUST BE REFURBISHED, THE STRUCTURE MAY BE TEMPORARILY BYPASSED DURING THE REPAIRS VIA PUMPING TO A TEMPORARY SEDIMENT TRAP. IDEALLY, THIS SHOULD BE PERFORMED DURING A TIME OF FAIR WEATHER. INLETS TO AFFECTED PIPES SHOULD BE BLOCKED AND RUNOFF DIVERTED TO AN APPROVED MEASURE.

REMOVAL - INITIAL BARREL/RISER REMOVAL ACTIVITIES SHALL CONSIST OF DEWATERING THE BASIN (IF NEEDED), INSTALLING TEMPORARY SEDIMENT CONTROL MEASURES (E.G., SILT FENCING, TEMPORARY SEDIMENT TRAPS, DIVERSION SWALES AND/OR BERMS, THEN REMOVING ALL SEDIMENT BUILD-UP. THE REMOVED SEDIMENT SHOULD BE STOCKPILED WITHIN THE BASIN (AWAY FROM THE MAIN FLOW CHANNEL) OR WITHIN A SEPARATE AREA THAT IS PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES. THE SEDIMENT SHALL BE ALLOWED TO DRAIN THEN DISPOSED OFF-SITE OR UTILIZED ON-SITE.

REPLACEMENT - THE DAMAGED PORTION OF THE STRUCTURE SHALL BE EXCAVATED AND REPLACED WITH EQUAL OR BETTER MATERIALS AS THE ORIGINAL. ALL BACKFILL SHALL BE COMPACTED AND VEGETATED IMMEDIATELY UPON COMPLETION. IF THE ENERGY DISSIPATORS ARE DISTURBED, E.G., RIP-RAP APRONS, THAT WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION. THE ENGINEER SHALL BE GIVEN AN OPPORTUNITY TO EVALUATE WHETHER THE ORIGINAL MATERIALS AND SIZES ARE ADEQUATE FOR REPLACEMENT FUNCTION. IT IS ANTICIPATED THESE STORM WATER CONTROL FEATURES WILL REMAIN INDEFINITELY.

PRELIMINARY
NOT FOR CONSTRUCTION

SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONVERSATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

* APPLY: AGRICULTURAL LIMESTONE - 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER - 1,000 LBS./ACRE - 10-10-10
SUPERPHOSPHATE - 500 LBS./ACRE - 20X ANALYSIS
MULCH - 2 TONS/ACRE - SMALL GRAIN STRAW
ANOTHER - ASPHALT EMULSION @ 300 GALS./ACRE

12-26-07	3	REVISED OWNER/OPERATOR ENTITY IDENTIFICATION
10-30-07	2	REPRINTED FOR FINAL TRC REVIEW
09-21-06	1	STORM WATER REVISIONS PER CITY OF GREENSBORO
		REVISION

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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 SCHEDULES

DESIGNED BY: G.D.G.	DRAWN BY: A.W.H.
CHECKED BY: G.D.G.	PROJECT NO.: MRR-3
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