Fac/Perm/Co ID # 41-01 | Date 08 15 08 | Doc ID# DIN 6801

ERM NC, PC

1130 Situs Court.
Suite 240
Raleigh, NC 27606
(919) 233-4501
(919) 233-4505 (fax)

August 15, 2008

Ms. Jackie Drummond
North Carolina DENR
Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
919-508-8400

Re: Submittal of NIS Drainage Design Documents
Seaboard Chemical Corp./Riverdale Drive Landfill Site
Jamestown, North Carolina

Via Courier

Dear Jackie:

On behalf of the Seaboard Group II and the City of High Point, ERM NC, PC (ERM) is submitting the following document for your review:

- *City of High Point - Riverdale Landfill - Storm Drainage Improvements- Sheets 1 through 5* (one copy)

The document, prepared by Jamestown Engineering Group, presents the design drawings of the drainage diversion for the Northern Intermittent Stream (NIS) to be implemented as part of the remedial action for the site. The document supplements the *Remedial Information and Recommendations* document submitted to the NCDWM in February 2005.

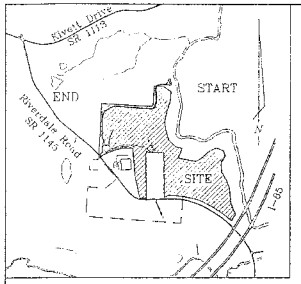
The Seaboard Group II and the City of High Point request written approval by the NCDWM of these documents. Please contact Jim LaRue at (281) 431-3571 if there are any questions or comments.

Sincerely,

Christopher R. Cuomo, P.E.
Senior Project Manager

Thomas M. Wilson, P.G.
Principal

Cc: Jim LaRue
Chris Thompson
Amos Dawson
Steve Earp
Gary Babb
Randy Smith
Rich Glover
Rich McMillan
Steve Pendry
Vance Jackson



RIVERDALE ROAD

ANTHONY & DENISE CASH

CITY OF HIGH POINT

ANTHONY & DENISE CASH

ROLAND BOWMAN

CHARLES BOWMAN

PTRWA

PTRWA

CITY OF HIGH POINT

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100' 50' 0 100' 200'
SCALE: 1" = 100'

GENERAL NOTES (APPLY TO ALL CONSTRUCTION PLAN SHEETS)

1. THE ENGINEER SHALL PROVIDE INITIAL STRUCTURE LOCATIONS OR BASELINES. DETAILED CONSTRUCTION STAKE-OUT, INCLUDING STRUCTURE LOCATIONS, OFF-SETS AND CUT SHEETS SHALL BE PROVIDED BY THE CONTRACTOR. FROM THIS BASELINE INFORMATION, THE CONTRACTOR SHALL ESTABLISH THE LIMITS OF CLEARING AND GRUBBING ACTIVITIES.

2. PRIOR TO ANY CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY, THE CONTRACTOR SHALL BE REQUIRED TO CONTACT THE PROPERTY OWNER TO INFORM THEM OF THE LIMITS OF CONSTRUCTION, TYPE OF CONSTRUCTION, AND METHOD OF CONSTRUCTION ACTIVITIES ANTICIPATED. A LOG SHALL BE MAINTAINED BY THE CONTRACTOR OF THE DATES AND TIMES OF THESE INDIVIDUAL MEETINGS. THE LOG SHALL BE REVIEWED/VERIFIED BY THE OWNER'S REPRESENTATIVE PRIOR TO ANY CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR CLAIMS OF DAMAGE RESULTING FROM HIS CONSTRUCTION ACTIVITIES.

3. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF SUCH UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF THE DITCHING OPERATION BY OBSERVATIONS, ELECTRONIC DEVICES, AND BY PERSONAL CONTACTS WITH THE UTILITY COMPANIES, AND LOCATE SUCH UTILITIES IN ADVANCE OF THE TRENCHING OR GRADING OPERATIONS, AND SHALL CONDUCT HIS WORK SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO THE EXISTING STRUCTURES OR UTILITIES. THE CONTRACTOR SHALL BURDEN ALL COSTS ASSOCIATED WITH UTILITY LOCATION AND POWER POLE RELOCATION OR BRACING IF NECESSARY.

4. THE CONTRACTOR SHALL INSTALL DIVERSION BERMS/SWALES WITH SEDIMENTATION PITS, EITHER INDICATED ON THE PLANS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR STATE PERSONNEL TO PREVENT SEDIMENTATION FROM OCCURRING OUTSIDE THE PROJECT LIMITS.

5. TRENCH COMPACTION REQUIREMENTS SHALL BE A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH STANDARD PROCTOR DENSITY TEST IN ALL ROADWAY AND ROADWAY SHOULDER AREAS. REMAINING AREAS SHALL ALSO BE 95%.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF ALL SAFETY PERSONNEL, EQUIPMENT, AND DEVICES NECESSARY TO COMPLY WITH CURRENT FEDERAL, STATE, LOCAL AND OSHA SAFETY REGULATIONS. AS INDICATED IN THE SAFETY COMPLIANCE STATEMENT INCLUDED WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHOULD CONSIDER ALL COSTS ASSOCIATED WITH SAFETY COMPLIANCE PERSONNEL, MATERIALS AND PLANS IN THE UNIT PRICE PER LINEAR FOOT ESTABLISHED FOR APPLICABLE PIPE INSTALLATIONS.

7. LOCATIONS OF EXISTING IMPROVEMENTS INDICATED ON THE PLANS ARE FOR GENERAL REFERENCE. EXACT LOCATIONS OF ALL EXISTING IMPROVEMENTS MAY NOT BE INCLUDED OR ACCURATELY REPRESENTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, PRIOR TO ESTABLISHING CONTRACT PRICES FOR THE WORK, TO INSPECT THE SITE OF ALL PROPOSED IMPROVEMENTS TO ASSESS SITE CONDITIONS. WHERE IT IS NECESSARY DURING EXCAVATION ACTIVITIES TO REMOVE EXISTING ABOVE OR BELOW GROUND STRUCTURES, INCLUDING BUT NOT LIMITED TO CATCH BASINS, STORM DRAINAGE PIPES, MAIL BOXES, RETAINING WALLS, ETC. REGARDLESS OF WHETHER THEY ARE DEPICTED ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL REMOVE SAID STRUCTURES AND REPLACE THEM IN THEIR ORIGINAL CONDITION, HEIGHT AND ELEVATION. NO DIRECT PAYMENT SHALL BE MADE FOR SHOW REMOVAL/REPLACEMENT. COSTS ASSOCIATED WITH THEIR REPLACEMENT SHALL BE INCLUDED IN THE ESTABLISHED CONTRACT UNIT PRICE FOR PIPE INSTALLATION.

8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY STAGING AREAS TO BE UTILIZED FOR TEMPORARY STORAGE OF EQUIPMENT OR MATERIALS. ALL TEMPORARY STORAGE MUST BE PLACE ON A STABILIZED SURFACE.

SHEET INDEX

1	COVER SHEET	
2	PLAN/PROFILE	STA 0 - 8+50
3	PLAN/PROFILE	STA 8+50 - 19+00
4	PLAN/PROFILE	19+00 - END
5	DETAIL SHEET	

JAMESTOWN ENGINEERING GROUP, INC.
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117 E. MAIN STREET
P.O. BOX 2282
JAMESTOWN, N.C. 27282
Telephone (336) 886-5523

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 27465 JAMES R. GRAY 6/11/08

JOB NUMBER	2005165
DATE	NOVEMBER, 2007
DESIGNED	T.R.G.
DRAWN	M.S.B.
CHECKED	D.W.P.
SCALE	HOR. 1" = 100'
	VER. 1" = N/A

REV	DATE	DESCRIPTION	BY

COVER SHEET
CITY OF HIGH POINT
RIVERDALE LANDFILL
STORM DRAINAGE IMPROVEMENTS
CITY OF HIGH POINT - NORTH CAROLINA
GUILFORD COUNTY

SHEET NO. 1

PLAN \ PROFILE

CITY OF HIGH POINT
RIVERDALE LANDFILL
STORM DRAINAGE IMPROVEMENTS

CITY OF HIGH POINT
GUILFORD COUNTY - NORTH CAROLINA

SHEET NO. 2

REV.	DATE	DESCRIPTION	BY

JOB NUMBER	200545
DATE	NOVEMBER, 2007
DESIGNED	T.R.G.
DRAWN	M.S.B.
CHECKED	D.W.P.
SCALE	HORZ. 1" = 50' VERT. 1" = 5'

JAMESTOWN ENGINEERING GROUP, INC.
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TELEPHONE (336) 886-5421

NOTE: DURING PIPE AND SWALE INSTALLATION, SHOULD ANY AREAS OUTSIDE LIMITS OF LANDFILL BE DISTURBED, THEY SHALL BE REPLACED TO CITY OF HIGH POINT STANDARDS

SEE SHEET No. 3

CHAIN LINK FENCE

20' ASPHALT DRIVE

STA 8+12.22
9.4' R. ℄ PLT. TOP
9.4' L. ℄ PLT. TOP
W/ 24' ACCESS
(NON-EXISTING)

CL 3-18" RCP
INLETS TO BE REMOVED

STA 9+30.14
8' DIA. PLAT-TOP
W/ 24' ACCESS

N/F PAULINE M. BOWMAN
D.B. 1172 PG. 82

EX. INV=722.63

EX. INV=724.45

EXTEND EX. 30" RCP
121.79 LF @ 4.1%

LINE DITCH WITH NAG-150 MATTING

CITY OF HIGH POINT
D.B. 626 PG. 532

EX. 24" CMP TOWN PIPE SYSTEM

EX. ABOVE GROUND PLASTIC CONDUITS

STA 7+53.70
8' DIA. PLAT-TOP
W/ 24' ACCESS
(NON-EXISTING)

ASPHALT PAVEMENT OR APPROVED EQUAL OVER 4" STONE BASE INSTALLATION

CITY OF HIGH POINT
D.B. 4246 PG. 377

APPROXIMATE LIMITS OF FILL

STA 4+73.19
8' DIA. PLAT-TOP
W/ 24' ACCESS

EX. 24" CMP

CL 3-18" RCP ARCH
W = 30" (AT END)
H = 19" (AT END)
MIN. DEPTH = 30"
MAX. DEPTH = 4.5'

EX. YARD INLET #2
(TOP 4' X 4' BOX)
(OUT 2' X 2' BOX)
(1 - 6" CMP W/ 4" ACCESS)

EX. YARD INLET #1
(TOP 4' X 4' BOX)
(1 - 6" CMP W/ 4" ACCESS)

STA 0+81.72
8' DIA. PLAT-TOP
W/ 24' ACCESS
(NON-EXISTING) #1

STA 0+81.72
8' DIA. PLAT-TOP
W/ 24' ACCESS
(NON-EXISTING) #2

EX. 24" RCP MAIN OUTFALL

EX. 30" RCP MAIN OUTFALL

EX. 24" RCP MAIN OUTFALL

EX. CITY OF HIGH POINT PUMP STATION

PIEDMONT TRIAD REGIONAL WATER AUTHORITY
D.B. 3819 PG. 688

PIEDMONT TRIAD REGIONAL WATER AUTHORITY
D.B. 4246 PG. 372

DEEP RIVER

BEFORE YOU DIG
CALL TOLL FREE 811
N.C. ONE-CALL CENTER
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MATCH LINE
STA 8+50.00
SEE SHEET No. 3

YARD INLET #8
(TOP 4' X 4' BOX)
(OUT 2' X 2' BOX)
INV IN=736.20
INV OUT=736.08

185.08 LF 42" RCP @ 1.50%

EXISTING GRADE

DMH #10
TOP=728.81
INV IN=728.31
INV OUT=728.17

PROPOSED GRADE
(3:1 MIN.)

DMH #9
TOP=727.81
INV IN=723.51
INV OUT=722.80

DMH #8
TOP=717.10
INV IN=714.21
INV OUT=709.23

YARD INLET #7
(TOP 4' X 4' BOX)
INV IN=709.43
INV OUT=709.23

EX. PLASTIC CONDUITS

30" RCP @ 1.50%

INV OUT= 683.36

190.36 LF

CL 27" CONC. ELLIPSE

INV. IN= 684.72
INV OUT= 684.24
(FULL BOTTOM 44"
WITH 3000 PSI
CONCRETE)

100 YR. FLOOD ELEV. = 688.2

NWL = 682.4

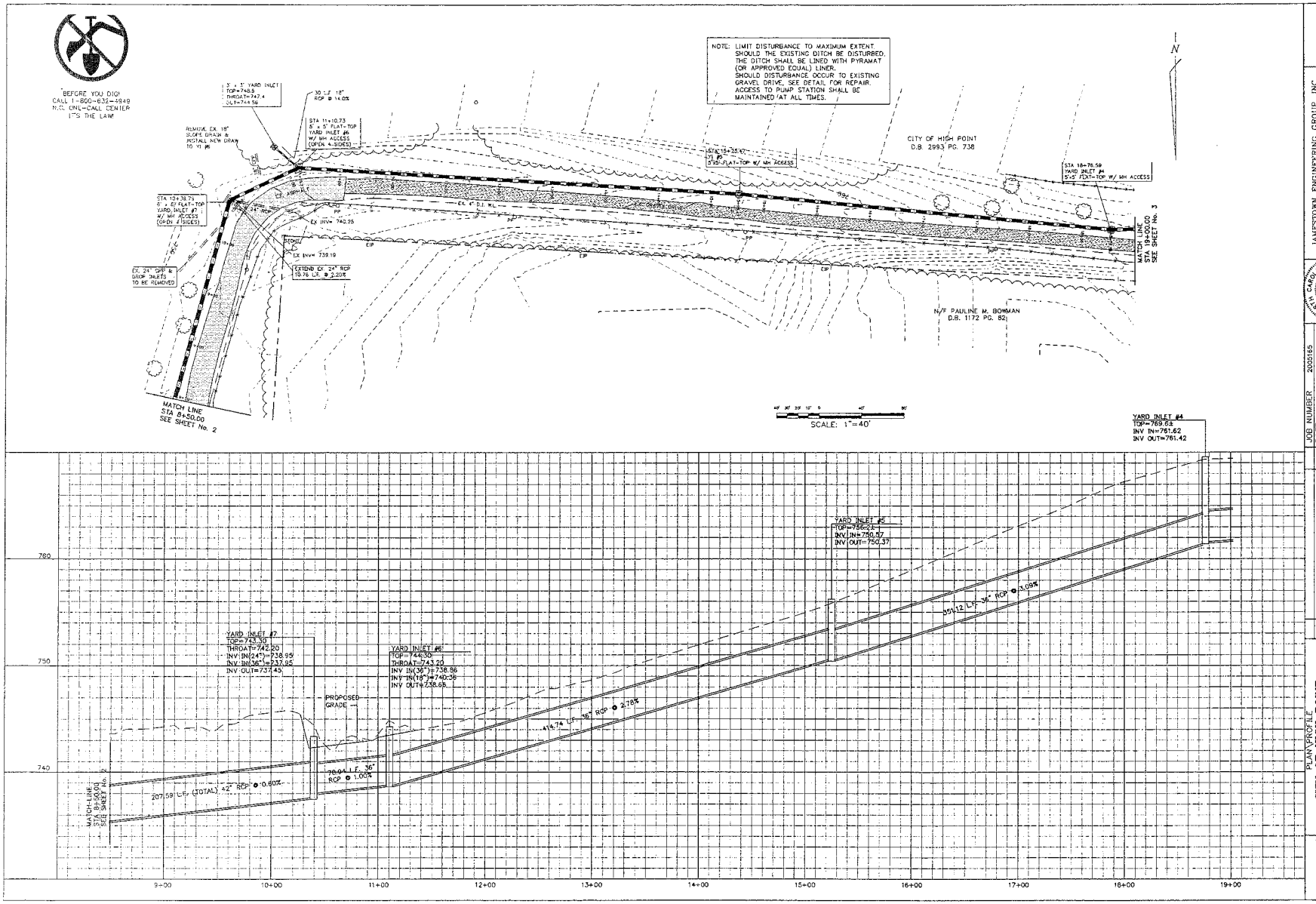
PIPE OUTLET
INVE 681.40

120.01 LF 48" CMP @ 4.00%

APPROX. LOCATION OF ABANDONED WATER LINE. CONTRACTOR TO VERIFY LOCATION PRIOR TO CONSTRUCTION ACTIVITIES

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00

700 690 680 750 740 730 720 710



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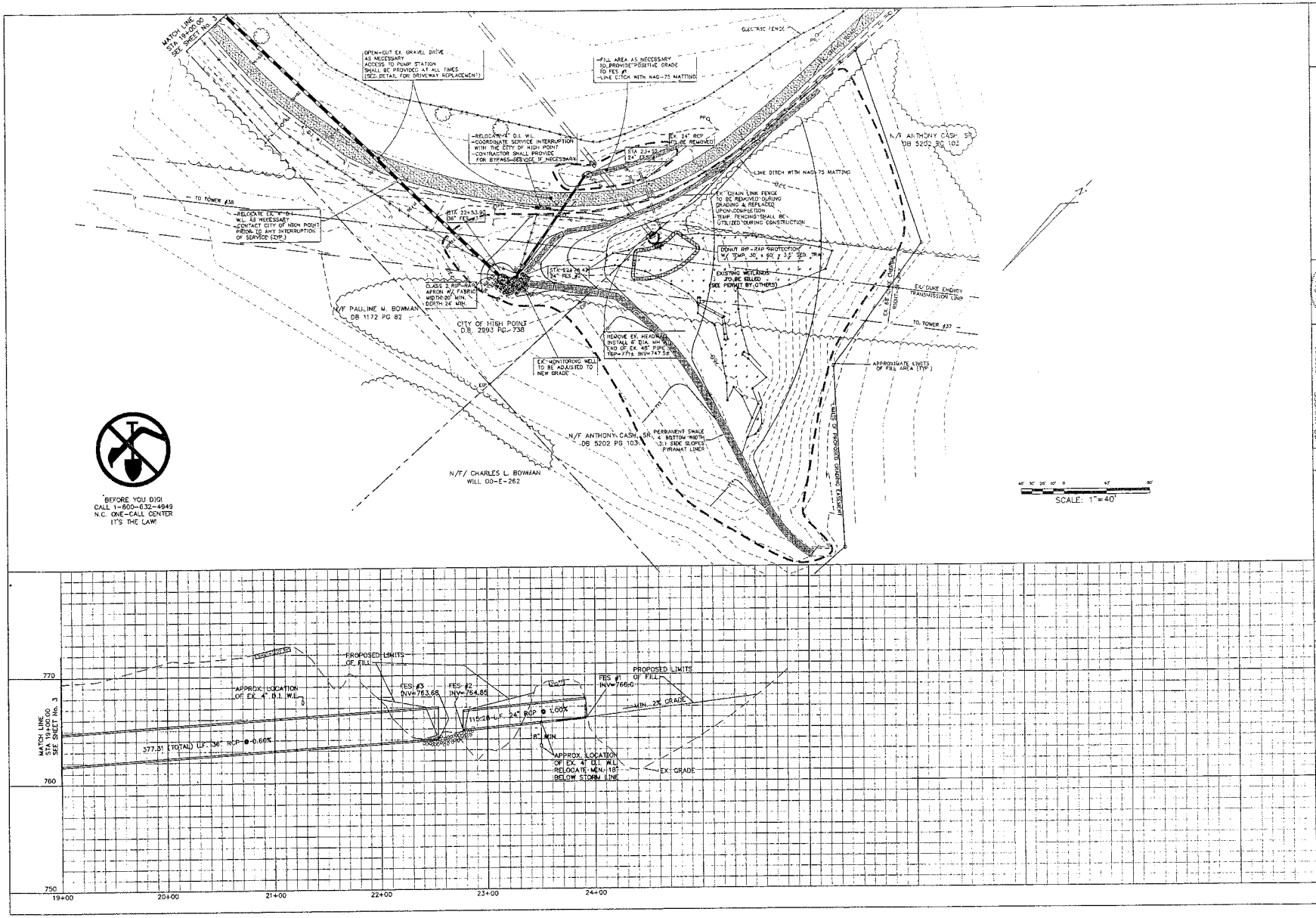
NORTH CAROLINA PROFESSIONAL SEAL 27465 ENGINEER MOHAMS R. GLOUGH, JR.

JOB NUMBER	2005165
DATE	NOVEMBER, 2007
DESIGNED	T.R.G.
DRAWN	M.S.B.
CHECKED	D.W.P.
SCALE	HORIZ. 1"=40' VERT. 1"=4'

REV.	DATE	DESCRIPTION	BY

PLAN\PROFILE
CITY OF HIGH POINT
RIVERDALE LANDFILL
STORM DRAINAGE IMPROVEMENTS
CITY OF HIGH POINT
GUILFORD COUNTY - NORTH CAROLINA

SHEET NO. 3



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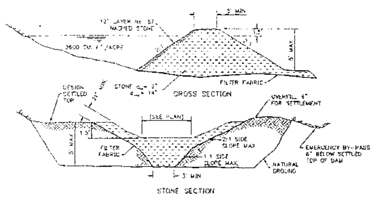
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032766 TIMOTHY R. DUNN
9/16/08

JOB NUMBER	2005155
DATE	DECEMBER, 2007
DESIGNED	TRR
DRAWN	MJB
CHECKED	TRD
SCALE	HOR. 1" = 40' VERT. 1" = 4'

NO.	DATE	DESCRIPTION

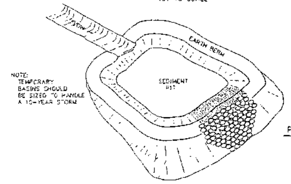
PLAN/PROFILE
CITY OF HIGH POINT
RIVERDALE LANDFILL
STORM DRAINAGE IMPROVEMENTS
CITY OF HIGH POINT
GUILFORD COUNTY - NORTH CAROLINA

SHEET NO. 4



TEMPORARY SEDIMENT TRAP

NOT TO SCALE



NOTE: TEMPORARY BASINS SHOULD BE SIZED TO HANDLE A 10-YEAR STORM

PERSPECTIVE VIEW

NOT TO SCALE

TEMPORARY SEDIMENT TRAP/BASIN

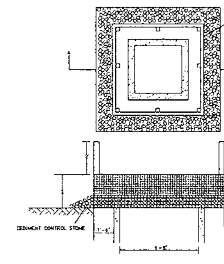
1. CLEAR, GRUB, AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA
2. ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER, AND OTHER OBJECTIONABLE MATERIAL. PLACE THE FILL IN LIFTS NOT TO EXCEED 9 INCHES AND MACHINE COMPACT IT. OVER FILL THE EMBANKMENT 6 INCHES TO ALLOW FOR SETTLEMENT.
3. CONSTRUCT THE OUTLET SECTION IN THE EMBANKMENT. PROTECT THE CONNECTION BETWEEN THE RIPRAP AND THE SOIL FROM PIPING BY USING FILTER FABRIC OR A KEYWAY CUTOFF TRENCH BETWEEN THE RIPRAP STRUCTURE AND THE SOIL
   - PLACE THE FILTER FABRIC BETWEEN THE RIPRAP AND SOIL. EXTEND THE FABRIC ACROSS THE SPILLWAY FOUNDATION AND SIDES TO THE TOP OF THE DAM; OR
   - EXCAVATE A KEYWAY TRENCH ALONG THE CENTERLINE OF THE SPILLWAY FOUNDATION EXTENDING UP THE SIDES TO THE HEIGHT OF THE DAM. THE TRENCH SHOULD BE AT LEAST 2 FEET DEEP AND 2 FEET WIDE WITH 1:1 SIDE SLOPES.
4. CLEAR THE POND AREA BELOW THE ELEVATION OF THE CREST OF THE SPILLWAY TO FACILITATE SEDIMENT CLEANOUT.
5. ALL CUT AND FILL SLOPES SHOULD BE 2:1 OR FLATTER
6. ENSURE THAT THE STONE(DRAINAGE) SECTION OF THE EMBANKMENT HAS A MINIMUM BOTTOM WIDTH OF 3 FEET AND MAXIMUM SIDE SLOPES OF 1:1 THAT EXTEND TO THE BOTTOM OF THE SPILLWAY SECTION.
7. CONSTRUCT THE MINIMUM FINISHED STONE SPILLWAY BOTTOM WIDTH, WITH 2:1 SIDE SLOPES EXTENDING TO THE TOP OF THE OVER FILLED EMBANKMENT. KEEP THE THICKNESS OF THE SIDES OF THE SPILLWAY OUTLET STRUCTURE AT A MINIMUM OF 21 INCHES. THE WEIR MUST BE LEVEL AND CONSTRUCTED TO GRADE TO ASSURE DESIGN CAPACITY
8. MATERIAL USED IN THE STONE SECTION SHOULD BE A WELL-GRADED MIXTURE OF STONE WITH A d50 SIZE OF 9 INCHES (CLASS B EROSION CONTROL STONE IS RECOMMENDED) AND A MAXIMUM STONE SIZE OF 14 INCHES. THE STONE MAY BE MACHINE PLACED AND THE SMALLER STONES WORKED INTO THE VOIDS OF THE LARGER STONES. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT.
9. ENSURE THAT THE STONE SPILLWAY OUTLET SECTION EXTENDS DOWNSTREAM PAST THE TOE OF THE EMBANKMENT UNTIL STABLE CONDITIONS ARE REACHED AND OUTLET VELOCITY IS ACCEPTABLE FOR THE RECEIVING STREAM. KEEP THE EDGES OF THE STONE OUTLET SECTION FLUSH WITH THE SURROUNDING GROUND AND SHAPE THE CENTER TO CONFINE THE OUTFLOW STREAM
10. DIRECT EMERGENCY BYPASS TO NATURAL, STABLE AREAS. LOCATE BYPASS OUTLETS SO THAT FLOW WILL NOT DAMAGE THE EMBANKMENT.
11. STABILIZE THE EMBANKMENT AND ALL DISTURBED AREAS ABOVE THE SEDIMENT POOL AND DOWNSTREAM FROM THE TRAP IMMEDIATELY AFTER
12. SHOW THE DISTANCE FROM THE TOP OF THE SPILLWAY TO THE SEDIMENT CLEANOUT LEVEL (ONE-HALF THE DESIGN DEPTH) ON THE PLANS AND MARK IT IN THE FIELD.

MAINTENANCE

INSPECT TEMPORARY SEDIMENT TRAPS AFTER EACH PERIOD OF SIGNIFICANT RAINFALL. REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.

CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING. PERIODICALLY CHECK THE DEPTH OF THE SPILLWAY TO ENSURE IT IS A MINIMUM OF 1.5 FT. BELOW THE LOW POINT OF THE EMBANKMENT. IMMEDIATELY FILL ANY SETTLEMENT OF THE EMBANKMENT TO SLIGHTLY ABOVE DESIGN GRADE. ANY RIPRAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY.

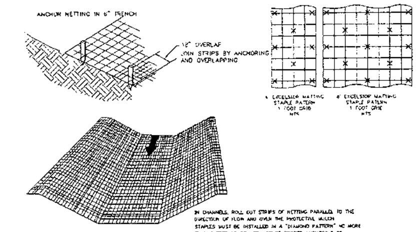
AFTER ALL SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND STABILIZE PROPERLY.



NOTE: SEDIMENT CONTROL STONE SHALL BE No. 5 OR 57. WIRE MESH SHALL BE HARDWARE CLOTH 23 GAGE MIN. AND SHALL HAVE 1/4 INCH MESH OPENINGS. TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.

YARD INLET PROTECTION

NOT TO SCALE



IN CHANNELS, ROLL OUT STRIPS OF NETTING PARALLEL TO THE DIRECTION OF FLOW AND OVER THE PROTECTIVE MULCH. STAPLES MUST BE INSTALLED IN A "DIAMOND PATTERN" NO MORE THAN 3 FEET APART, TO ASSURE PROPER ANCHORING OF EXCELSIOR MATTING.

TEMPORARY EROSION MATTING DETAIL

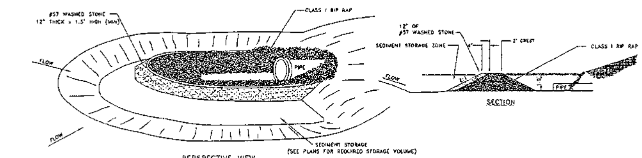
NOT TO SCALE

EXCELSIOR MATTING (STANDARD AND HIGH VELOCITY)

1. APPLY LIME, FERTILIZER AND SEED BEFORE LAYING THE NET OR MAT. IF OPEN-WEAVE NETTING IS USED, LIME MAY BE INCORPORATED BEFORE INSTALLING THE NET AND FERTILIZER AND SEED SPRAYED ON AFTERWARD.
2. START LAYING THE NET FROM THE TOP OF THE CHANNEL OR SLOPE AND UNROLL IT DOWN THE GRADE. ALLOW NETTING TO LAY LOOSELY ON THE SOIL BUT WITHOUT WRINKLES—DO NOT STRETCH.
3. TO SECURE THE NET, BURY THE UPSLOPE END IN A SLOT OR TRENCH NO LESS THAN 6 INCHES DEEP, COVER WITH SOIL AND TAMP FIRMLY. STAPLE THE NET EVERY 12 INCHES ACROSS THE TOP END AND EVERY 3 FEET AROUND THE EDGES AND BOTTOM. WHERE 2 STRIPS OF NET ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHOULD BE OVERLAPPED 3 INCHES AND STAPLED TOGETHER. EACH STRIP OF NETTING SHOULD ALSO BE STAPLED DOWN THE CENTER, EVERY 3 FEET. DO NOT STRETCH THE NET WHEN APPLYING STAPLES.
4. TO JOIN TWO STRIPS, CUT A TRENCH TO ANCHOR THE END OF THE NEW NET. OVERLAP END OF THE PREVIOUS ROLL 18 INCHES, AND STAPLE EVERY 12 INCHES JUST BELOW THE ANCHOR SLOT.

MAINTENANCE

INSPECT ALL MATTING PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR FILL, EROSION, DISLOCATION, OR FAILURE. WHERE EROSION IS OBSERVED, APPLY ADDITIONAL MATTING. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED AND REINSTALL MATTING. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.



PERSPECTIVE VIEW

DONUT INLET PROTECTION

NTS

PERMANENT SEEDING

DEFINITION

SEEDING DISTURBED AREAS WITH PERENNIAL GRASSES AND (OR) LEGUMES TO PROVIDE A PERMANENT VEGETATIVE COVER TO LESSEN RUNOFF AND SOIL EROSION.

PURPOSE

TO LESSEN SOIL EROSION AND PERMANENTLY STABILIZE DISTURBED AREAS CREATED BY GRADING OF CONSTRUCTION SITES

CONDITIONS WHERE PRACTICE APPLIES

ALL BARE SOIL AREAS ON CONSTRUCTION SITES WHICH ARE NOT COVERED BY STRUCTURES OR OTHER EROSION CONTROL DEVICES

PREPARATION

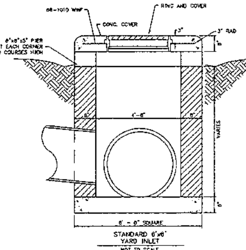
PREPARE SEEDBED BY SPREADING 2 - 6 INCHES OF TOPSOIL OVER AREA TO BE SEEDED. REMOVE ALL STONES, BOULDERS, STUMPS OR DEBRIS FROM THE SURFACE WHICH WOULD PROHIBIT GERMINATION OR PLANT GROWTH.
INCORPORATE INTO THE SOIL 800 TO 1,000 POUNDS OF 10-10-10 FERTILIZER PLUS 500 POUNDS OF TWENTY PERCENT (20%) SUPERPHOSPHATE PER ACRE AND TWO TONS OF DOLOMITIC LIME PER ACRE UNLESS SOIL TESTS INDICATE THAT A LOWER RATE OF LIME CAN BE USED.
MULCH AFTER SEEDING WITH 1.5 TONS OF GRAIN STRAW PER ACRE AND EITHER CRIMP STRAW INTO SOIL OR TACK WITH LIQUID ASPHALT AT 400 GALLONS PER ACRE OR EMULSIFIED ASPHALT AT 300 GALLONS PER ACRE.
SELECT SEEDING MIXTURE AND BEST PLANTING DATES FROM TABLE 13.

TABLE 13
PERMANENT SEEDINGS

PLANTS & MIXTURE	PLANTING RATE/ACRE	PLANTING DATES
TALL FESCUE (LOW MAINTENANCE)	100-150 LBS	AUG 15 - OCT. 15 FEB 15 - MAY 1
TALL FESCUE WATERWAYS AND LAWNS (HIGH MAINT.)	200-250 LBS	AUG. 15 - OCT. 15 FEB 15 - MAY 1
BLEND OF TWO TURF-TYPE TALL FESCUES (90%) AND TWO OR MORE IMPROVED KENTUCKY BLUEGRASS VARIETIES (10%) (HIGH MAINTENANCE)	200-250 LBS	AUG 15 - OCT 15 FEB 15 - MAY 1
TALL FESCUE AND KOBE OR KOREAN LESPEDEZA	100 LBS. AND 20-25 LBS	FEB 15 - MAY 1 AUG 15 - OCT 15
TALL FESCUE AND SERICEA LESPEDEZA[1]	50 LBS 60 LBS.	NOV 1 - FEB. 1 (UNSCARIFIED)
TALL FESCUE AND GERMAN MILLET OR SUDANGRASS[2]	60 LBS AND 30 LBS.	JULY AND AUGUST
TALL FESCUE AND WINTER RYE GRAIN[2]	70 LBS AND 40 LBS.	NOV. 1 - JAN. 30
COMMON BERMUDAGRASS	8 LBS (HULLED) 15-20 LBS (UNHULLED)	APRIL 15 - JUNE 30 FEB 1 - MARCH 30

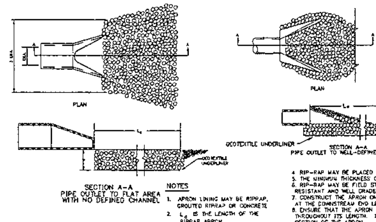
[1] FOR SPRING SEEDINGS, USE SCARIFIED LESPEDEZA SEED. FOR LATE FALL AND WINTER SEEDINGS, USE UNSCARIFIED SEED

[2] MILLET, SUDANGRASS, AND RYEGRAIN MUST BE KEPT AT 10-12" MAXIMUM HEIGHT



STANDARD 6'x6' YARD INLET

NOT TO SCALE



SECTION A-A
PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

SECTION A-A
PIPE OUTLET TO WELL-DEFINED CHANNEL

NOTES

1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP OR CONCRETE
2. L_a IS THE LENGTH OF THE RIPRAP APRON.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
4. DIMENSIONS AND SPECIFICATIONS MUST BE DETERMINED BY APPROPRIATE ENGINEERING DESIGN METHOD.

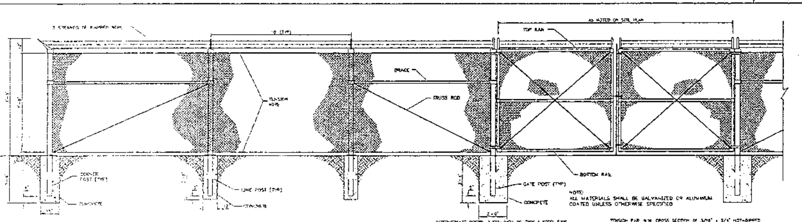
RIP-RAP APRON ENERGY DISSIPATOR FOR STORMWATER OUTLET PROTECTION

RIP-RAP OUTLET OR PLUNGE POOL

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIP-RAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIP-RAP THICKNESS.
2. THE RIP-RAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS ON THE PLANS.
3. FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGES BY REMOVING THE RIP-RAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. RIP-RAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIP-RAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. RIP-RAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HAR, ANGULAR, HIGHLY WEATHER RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIP-RAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RCEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION

MAINTENANCE

INSPECT RIP-RAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP-RAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



CHAIN LINK FENCE

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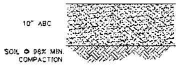

GRAVEL DRIVE DETAIL

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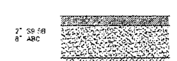

ASPALT DRIVE DETAIL

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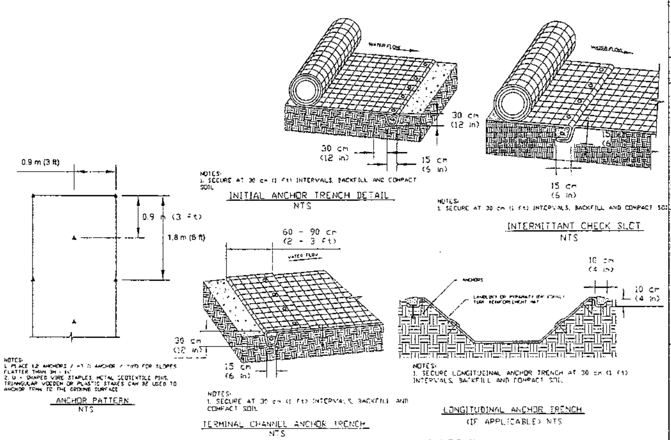

NOTES: 1. SECURE AT 30 cm (1 ft) INTERVALS. BACKFILL AND COMPACT SOIL

INITIAL ANCHOR TRENCH DETAIL

NTS

NOTES: 1. SECURE AT 30 cm (1 ft) INTERVALS. BACKFILL AND COMPACT SOIL

INTERMITTANT CHECK SLOT

NTS

ANCHOR PATTERN

NTS

TERMINAL CHANNEL ANCHOR TRENCH

NTS

NOTES: 1. SECURE LONGITUDINAL ANCHOR TRENCH AT 30 cm (1 ft) INTERVALS. BACKFILL AND COMPACT SOIL.

LONGITUDINAL ANCHOR TRENCH (IF APPLICABLE) NTS

PYRAMAT DETAIL

NOT TO SCALE

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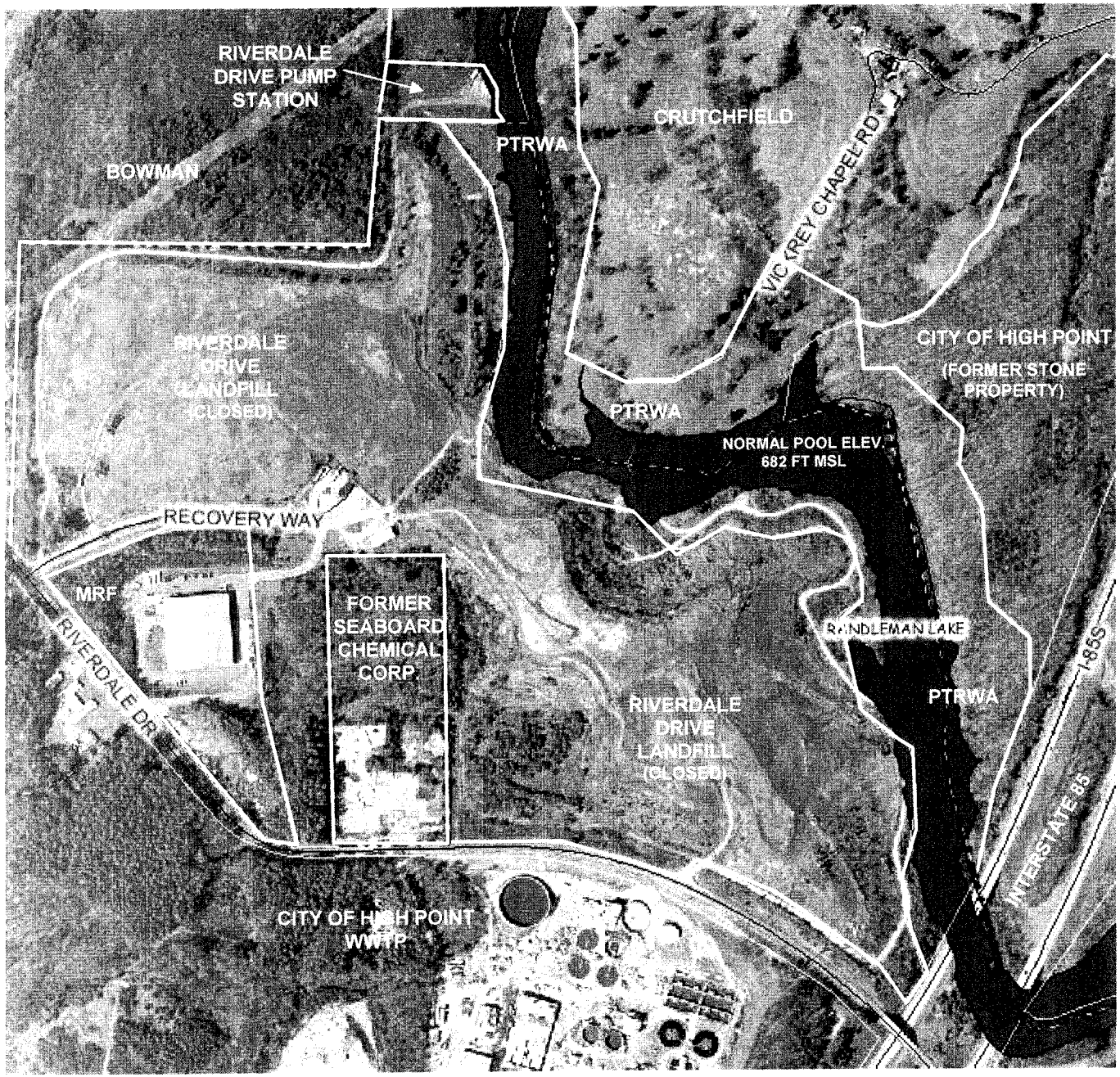
JOB NUMBER	2005165
DATE	NOVEMBER, 2007
DESIGNED	T.R.G.
DRAWN	M.S.B.
CHECKED	D.W.P.
SCALE	

REV.	DATE	DESCRIPTION	BY

DETAIL SHEET
CITY OF HIGH POINT
RIVERDALE LANDFILL
STORM DRAINAGE IMPROVEMENTS
CITY OF HIGH POINT
GUILFORD COUNTY — NORTH CAROLINA

SHEET NO. 5



SOURCE: GUILFORD COUNTY GIS

ERM NC, PC

ERM

SITE VICINITY MAP
FORMER SEABOARD CHEMICAL/RIVERDALE DRIVE LANDFILL SITE
JAMESTOWN, NORTH CAROLINA

FIGURE
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