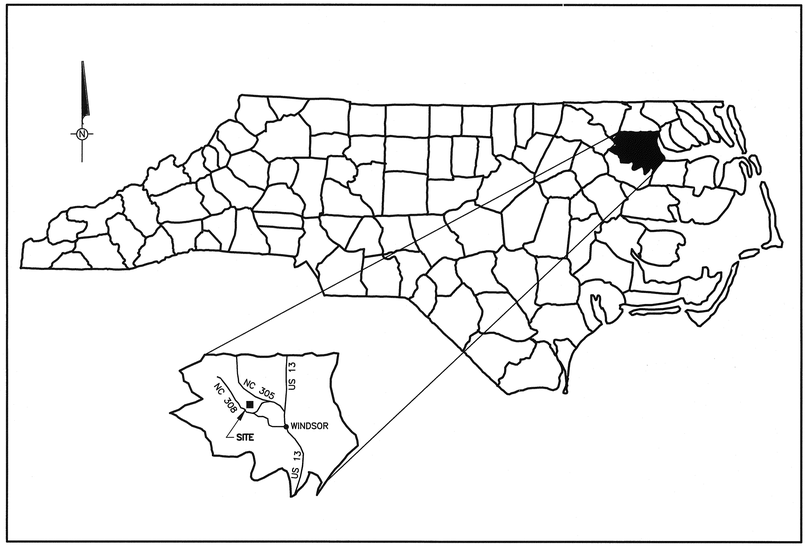
CONCEPTUAL DESIGN
(FACILITY PLAN)
EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL

FOR

EAST CAROLINA ENVIRONMENTAL
REPUBLIC SERVICES OF NORTH CAROLINA, LLC
BERTIE COUNTY, NORTH CAROLINA

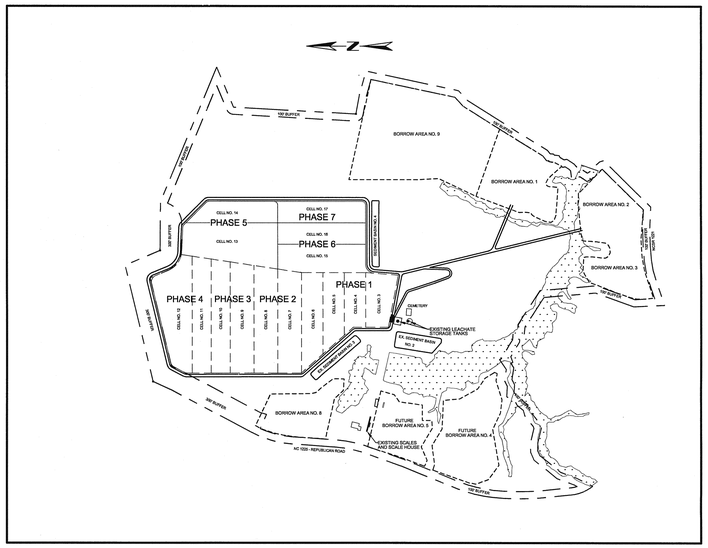
JANUARY, 2004
REVISED: JANUARY, 2009



BERTIE COUNTY, NORTH CAROLINA

OWNER AND OPERATOR

EAST CAROLINA ENVIRONMENTAL
REPUBLIC SERVICES OF NORTH CAROLINA, LLC
1922 REPUBLICAN ROAD
AULANDER, NORTH CAROLINA 27805
252-348-3322



PROJECT SITE LOCATION
NOT TO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 32269 ENGINEER W. MATTHEW CHEEK 01-15-09

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
CONSULTING ENGINEERS
(478) 743-7175
(478) 743-1703(FAX)
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

NORTH CAROLINA PROFESSIONAL SEAL 16146 ENGINEER WILLIAM F. HODGES

ECFP4-TS-R
01-15-09

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
-	TITLE SHEET
1	INDEX TO DRAWINGS AND LEGEND
2	BOUNDARY SURVEY
3	EXISTING TOPOGRAPHICAL SURVEY
4	TOP OF SOIL LINER GRADING PLAN
5	LEACHATE COLLECTION PLAN
6	FINAL GRADING PLAN
7	FINAL DRAINAGE PLAN
8	PHASE 4 GRADING PLAN
9	PHASE 5 GRADING PLAN
10	PHASE 6 GRADING PLAN
11	PHASE 7 GRADING PLAN
12 - 13	MISCELLANEOUS DETAILS
14	CROSS SECTION A
15	CROSS SECTION B

LEGEND

EXISTING CONTOUR	50
EXISTING CONTOUR	
JURISDICTIONAL WETLANDS	
PROPERTY LINE	
BUFFER LINE	
CELL BOUNDARY	
EXISTING ROAD	
EXISTING STORM PIPE	301
EXISTING DROP INLET	
EXISTING HEADWALL	
EXISTING METHANE MONITORING WELL	MM-7R
EXISTING GROUNDWATER MONITORING WELL	GW-14
EXISTING SURFACE WATER MONITORING POINT	SW-6
EXISTING PERFORATED LEACHATE COLLECTION PIPE	
EXISTING LEACHATE FORCE MAIN AND MANHOLE	
PROPOSED 10' CONTOUR	60
PROPOSED 2' CONTOUR	
PROPOSED OVERFLOW STRUCTURE	
PROPOSED STORM PIPE	401
PROPOSED DROP INLET	
PROPOSED HEADWALL	
PROPOSED SOLID LEACHATE PIPE AND MANHOLE	
PROPOSED PERFORATED LEACHATE COLLECTION PIPE	
PROPOSED LEACHATE CLEANOUT	
PROPOSED SIDE SLOPE DOWNDRAIN PIPE AND RISER	
PROPOSED SIDE SLOPE DRAINAGE BERM	

NORTH CAROLINA PROFESSIONAL SEAL 32246 ENGINEER K. MATTHEW CHEEK 1-15-09

NORTH CAROLINA PROFESSIONAL SEAL 16046 ENGINEER WILLIAM F. HODGES

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

INDEX TO DRAWINGS AND LEGEND

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MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG.	Ecfp4-nt-R	EDIT	1-15-09
SCALE	NOT TO SCALE	SHEET 1 OF 15			
DATE	JANUARY, 2004				

Compiled Plat for :

REPUBLIC SERVICES of NORTH CAROLINA, L.L.C.

d.b.a. East Carolina Environmental

A portion of the Spruill Farms, Inc. property
along the east side of N.C. Secondary Road 1225
Snakebite Township, Bertie County, North Carolina
Deed Reference Book 704 Page 315, Book 706 Page 898,
Book 549 Page 346, Book 675 Page 227,
Book 716 Page 677, and Book 725 Page 655.
Plat Cabinet A Slides 1094, 1095, and 1121.
Plat Cabinet B Slides 28, 36, and 81.

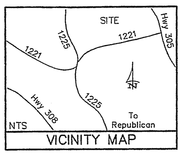
Surveyed by Thomas J. Fields, PLS-2906, on January 17, 1994
thru November 13, 1995.

REVISED & UPDATED on February 19, 2001.

TOTAL AREA = 662.59 Acres ±
by D.M.D.
(including area within Bunch Cemetery)

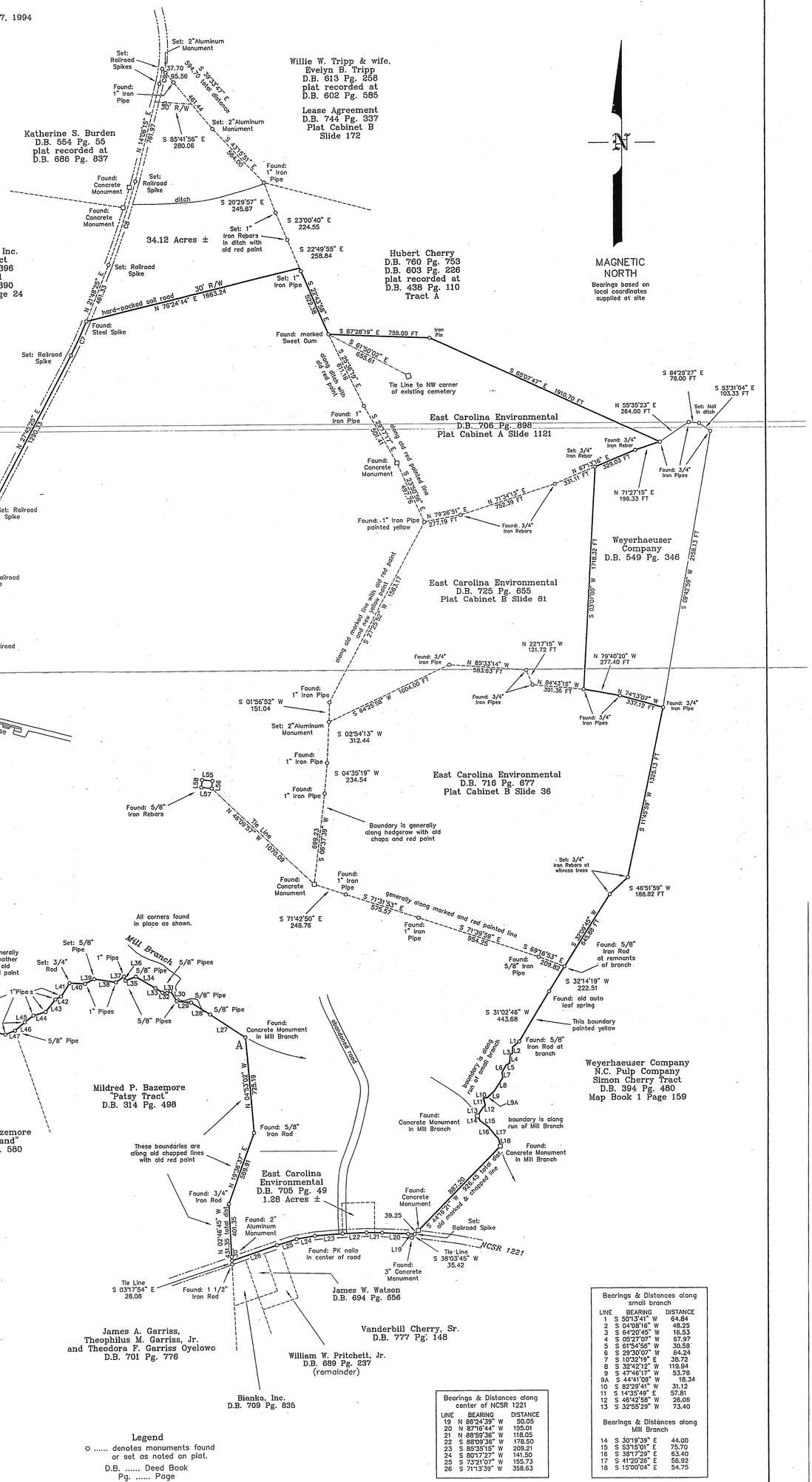
400 0 400
Scale is in Feet
1"= 400'

From the office of
WRIGHT & FIELDS LAND SURVEYING
303 WEST SPRING STREET
TROY, N.C. 27371



No horizontal control within 2000 feet.

MAGNETIC NORTH
Bearings based on local coordinates supplied at site



Curve Data along center of NCSR 1225						
CURVE	DELTA	RADIUS	ARC	CHORD	TANGENT	CHORD BRG
1	33°24'50"	587.81	342.80	337.96	176.43	S 21°29'17" E
2	9°42'28"	3842.00	650.96	650.19	326.28	S 00°42'12" W
3	14°18'27"	2000.57	499.57	498.27	251.09	S 13°27'20" W
4	2°46'38"	12174.49	597.21	597.15	298.67	N 19°22'28" E
5	11°26'08"	1833.79	366.00	365.39	183.61	N 10°19'01" E
6	23°34'38"	1396.59	574.70	570.65	291.47	S 16°04'03" W
7	5°34'33"	2922.38	284.39	284.28	142.31	N 24°20'38" E
8	5°18'12"	7201.84	666.61	666.38	333.54	N 18°09'46" E
9	5°50'10"	1123.35	114.42	114.37	57.26	N 11°00'03" E

Bearings & Distances along old marked and painted lines adjacent to Mill Branch and another small branch		
LINE	BEARING	DISTANCE
27	N 56°45'09" W	321.27
28	N 56°59'26" W	169.99
29	N 84°11'57" W	109.99
30	N 30°25'14" W	91.46
31	S 59°55'54" W	30.70
32	N 84°55'07" W	35.03
33	N 56°42'25" W	63.46
34	N 59°25'26" W	171.12
35	S 69°16'03" W	83.39
36	N 19°32'21" W	33.44
37	S 59°11'09" W	76.59
38	N 81°03'05" W	168.60
39	S 62°39'46" W	77.59
40	N 86°43'47" W	117.72
41	S 33°39'45" W	120.11
42	S 62°12'07" W	49.08
43	S 38°45'10" W	120.49
44	S 73°48'49" W	95.01
45	S 52°31'59" W	82.07
46	S 49°40'47" W	97.95
47	S 68°47'05" W	79.40
48	N 76°23'29" W	211.38
49	N 88°51'29" W	111.70
50	S 66°14'18" W	76.38
51	S 37°40'50" W	190.55
52	S 39°12'04" W	182.63
53	S 19°52'22" W	232.01
54	S 26°19'58" W	258.02

Bearings & Distances around the Bunch Cemetery		
LINE	BEARING	DISTANCE
55	S 84°10'06" E	78.04
56	S 05°50'51" W	56.69
57	N 84°08'54" W	78.04
58	N 05°50'55" E	56.66

containing 0.10 Acre ±

Bearings & Distances along small branch		
LINE	BEARING	DISTANCE
1	S 50°13'41" W	64.84
2	S 04°08'16" W	48.25
3	S 64°20'45" W	16.53
4	S 05°27'07" W	57.97
5	S 61°54'56" W	30.58
6	S 29°30'07" W	64.24
7	S 10°32'19" E	38.72
8	S 32°42'12" W	119.94
9	S 47°46'17" W	53.78
9A	S 44°41'09" W	18.34
10	S 82°29'41" W	31.12
11	S 14°35'49" E	57.81
12	S 46°42'58" W	26.06
13	S 32°55'29" W	73.40

Bearings & Distances along center of NCSR 1221		
LINE	BEARING	DISTANCE
19	N 86°24'39" W	50.05
20	N 87°16'44" W	105.01
21	N 88°59'36" W	118.05
22	S 88°09'36" W	178.50
23	S 85°35'15" W	209.21
24	S 80°17'27" W	141.50
25	S 73°21'07" W	155.73
26	S 71°13'39" W	358.63

Bearings & Distances along Mill Branch		
LINE	BEARING	DISTANCE
14	S 30°18'39" E	44.00
15	S 53°15'01" E	75.70
16	S 38°17'29" E	63.40
17	S 41°20'26" E	56.92
18	S 15°00'04" E	54.75

Job No. 2001-22

NORTH CAROLINA
BERTIE COUNTY

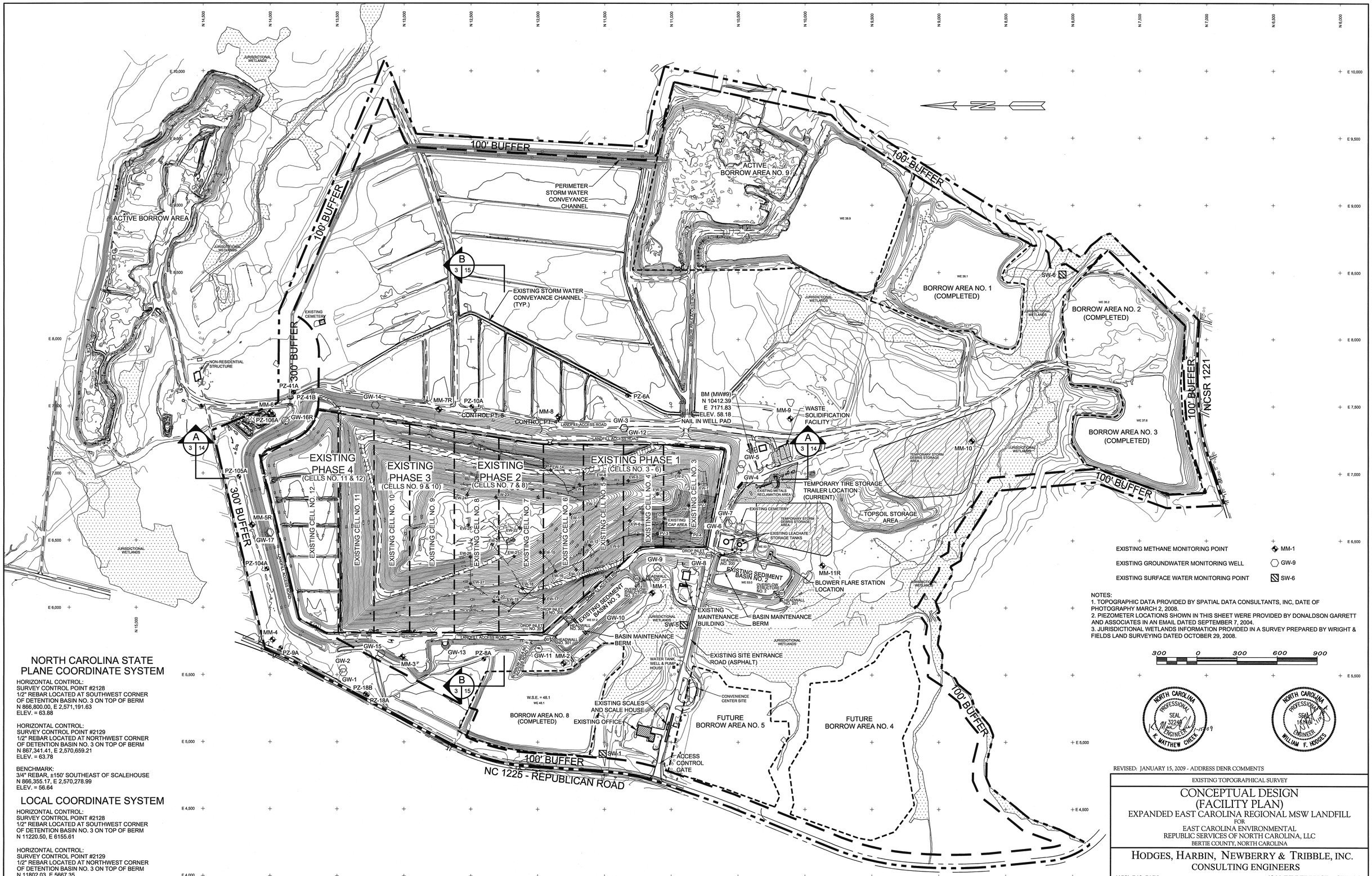
I, Thomas J. Fields, certify that this plat was prepared from an actual survey done by me in Jan 94-Nov 95 and is in all respects correct to the best of my knowledge and belief. The ratio of precision as calculated by latitudes and departures is 1:20,000+. This plat was prepared in accordance with Board Rule .1600 Witness my original signature and official stamp this the 19th day of February 2001.

Thomas J. Fields
SURVEYOR PLS-2906

NORTH CAROLINA PROFESSIONAL SEAL L-2906 LAND SURVEYOR THOMAS JEFFREY FIELDS

Legend
o ..... denotes monuments found or set as noted on plat.
D.B. ..... Deed Book
Pg. ..... Page

SHEET 2 OF 15



NOTES:
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2. PIEZOMETER LOCATIONS SHOWN IN THIS SHEET WERE PROVIDED BY DONALDSON GARRETT AND ASSOCIATES IN AN EMAIL DATED SEPTEMBER 7, 2004.
3. JURISDICTIONAL WETLANDS INFORMATION PROVIDED IN A SURVEY PREPARED BY WRIGHT & FIELDS LAND SURVEYING DATED OCTOBER 29, 2008.

NORTH CAROLINA STATE PLANE COORDINATE SYSTEM

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2128
1/2" REBAR LOCATED AT SOUTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 866,800.00, E 2,571,191.63
ELEV. = 63.88

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2129
1/2" REBAR LOCATED AT NORTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 867,341.41, E 2,570,659.21
ELEV. = 63.78

BENCHMARK:
3/4" REBAR, ±150' SOUTHEAST OF SCALEHOUSE
N 866,355.17, E 2,570,278.99
ELEV. = 56.64

LOCAL COORDINATE SYSTEM

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2128
1/2" REBAR LOCATED AT SOUTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 11220.50, E 6155.61

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2129
1/2" REBAR LOCATED AT NORTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 11802.03, E 5667.35

BENCHMARK:
3/4" REBAR, ±150' SOUTHEAST OF SCALEHOUSE
ELEV. = 56.64

NORTH CAROLINA PROFESSIONAL SEAL 32248 ENGINEER K. MATTHEW CHESK

NORTH CAROLINA PROFESSIONAL SEAL 16796 ENGINEER WILLIAM F. HODGES

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

EXISTING TOPOGRAPHICAL SURVEY

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
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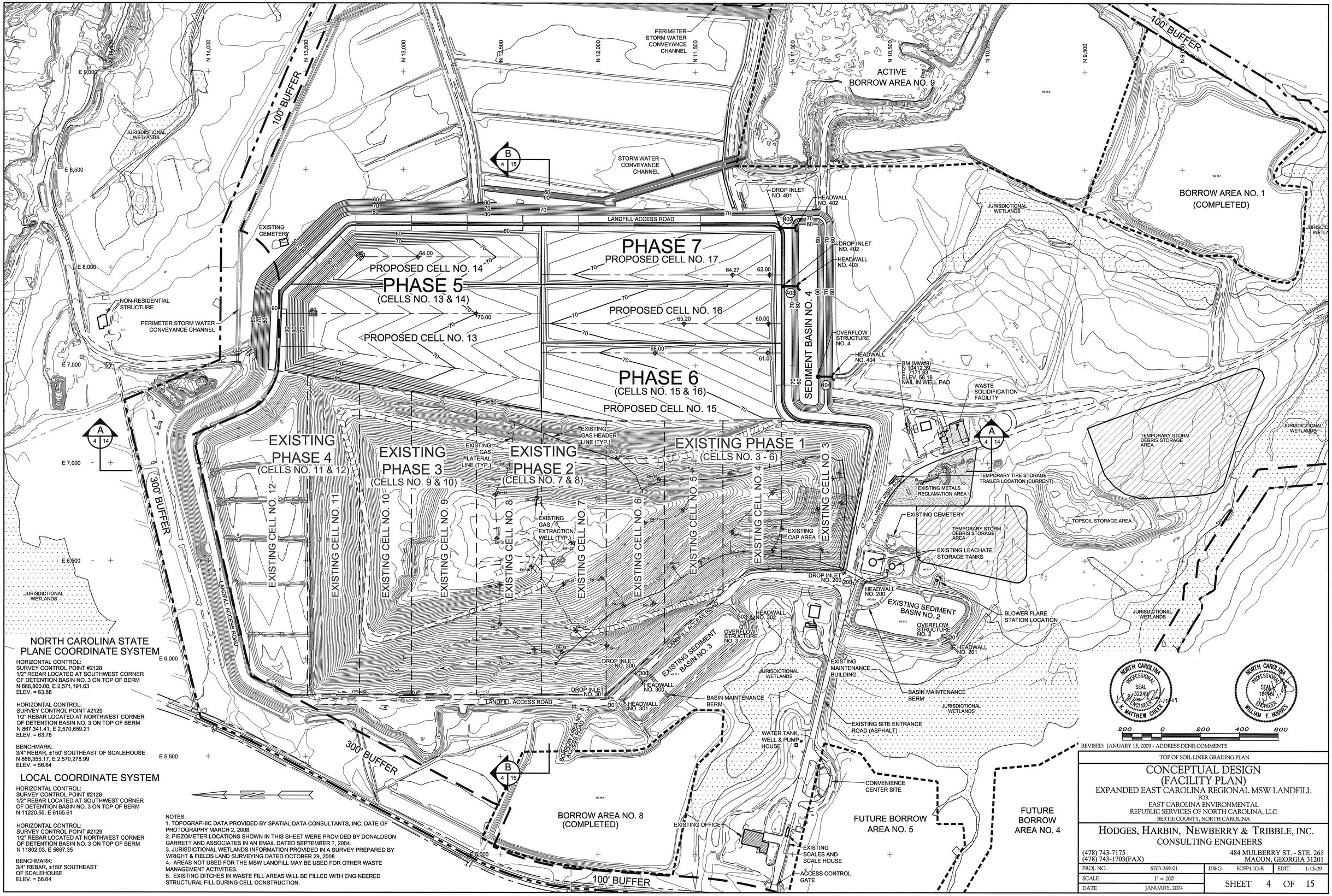
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG. ECFP4-TP-R	EDIT 1-15-09
SCALE	1" = 300'	SHEET 3 OF 15	
DATE	JANUARY, 2004		



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4. AREAS NOT USED FOR THE MSW LANDFILL MAY BE USED FOR OTHER WASTE MANAGEMENT ACTIVITIES.
5. EXISTING DITCHES IN WASTE FILL AREAS WILL BE FILLED WITH ENGINEERED STRUCTURAL FILL DURING CELL CONSTRUCTION.

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

TOP OF SOIL LINER GRADING PLAN

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
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BERTIE COUNTY, NORTH CAROLINA

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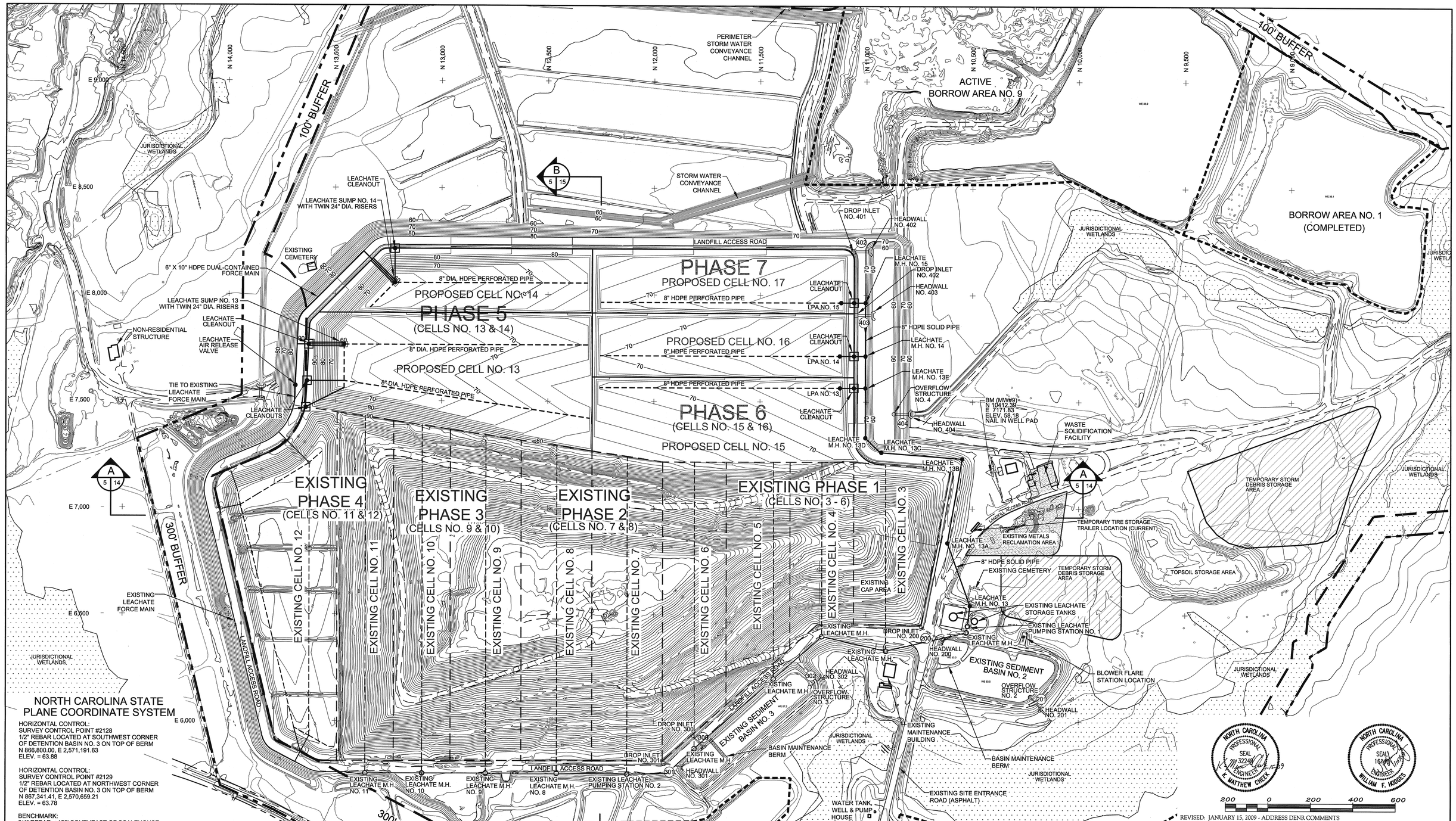
(478) 743-1703(FAX)
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG.	ECFP4-IG-R	EDIT	1-15-09
SCALE	1" = 200'	SHEET 4 OF 15			
DATE	JANUARY, 2004				



NORTH CAROLINA STATE PLANE COORDINATE SYSTEM

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REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

LEACHATE COLLECTION PLAN

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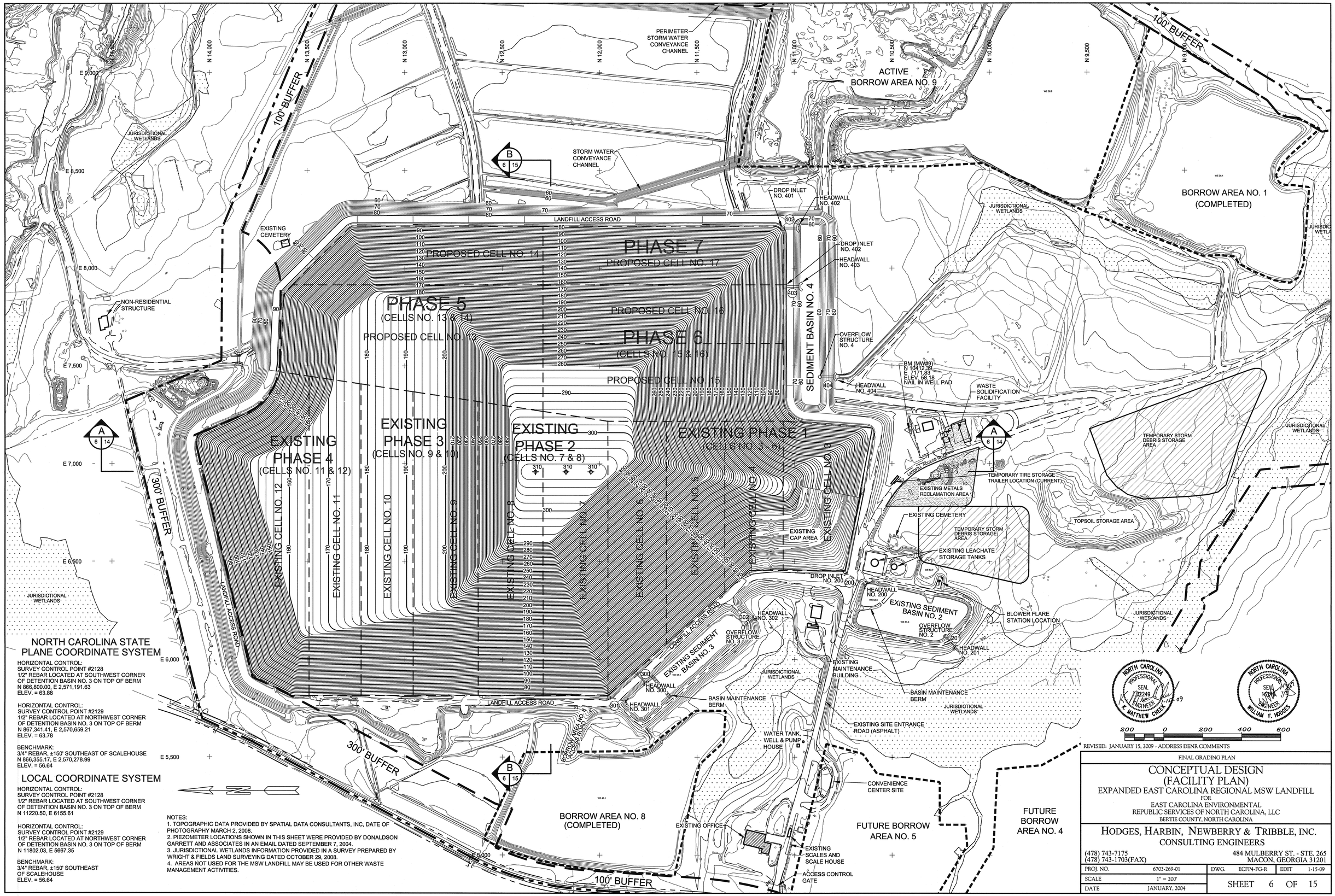

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REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

FINAL GRADING PLAN

CONCEPTUAL DESIGN (FACILITY PLAN)

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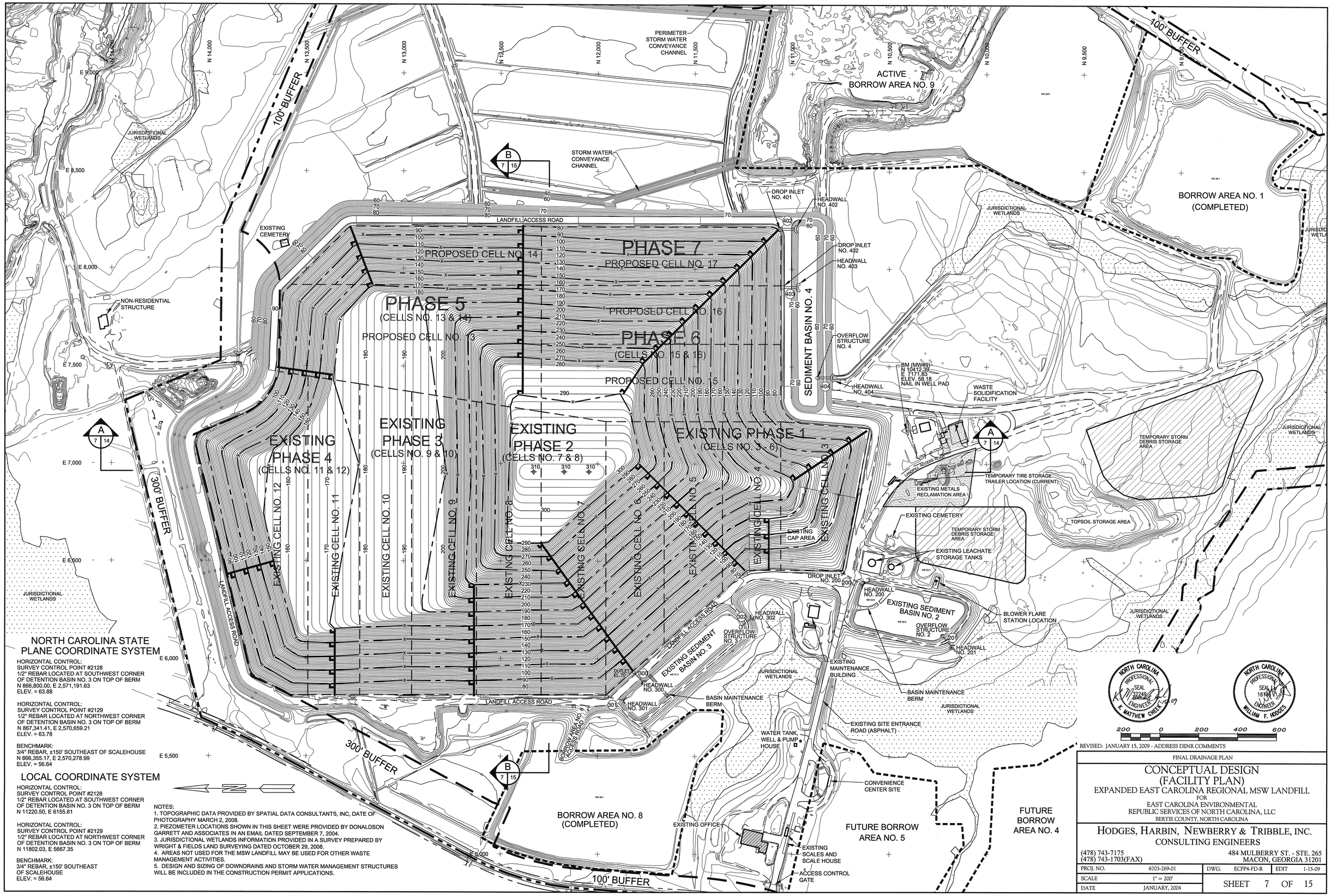

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2. PIEZOMETER LOCATIONS SHOWN IN THIS SHEET WERE PROVIDED BY DONALDSON GARRETT AND ASSOCIATES IN AN EMAIL DATED SEPTEMBER 7, 2004.
3. JURISDICTIONAL WETLANDS INFORMATION PROVIDED IN A SURVEY PREPARED BY WRIGHT & FIELDS LAND SURVEYING DATED OCTOBER 29, 2008.
4. AREAS NOT USED FOR THE MSW LANDFILL MAY BE USED FOR OTHER WASTE MANAGEMENT ACTIVITIES.
5. DESIGN AND SIZING OF DOWNDRAINS AND STORM WATER MANAGEMENT STRUCTURES WILL BE INCLUDED IN THE CONSTRUCTION PERMIT APPLICATIONS.

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

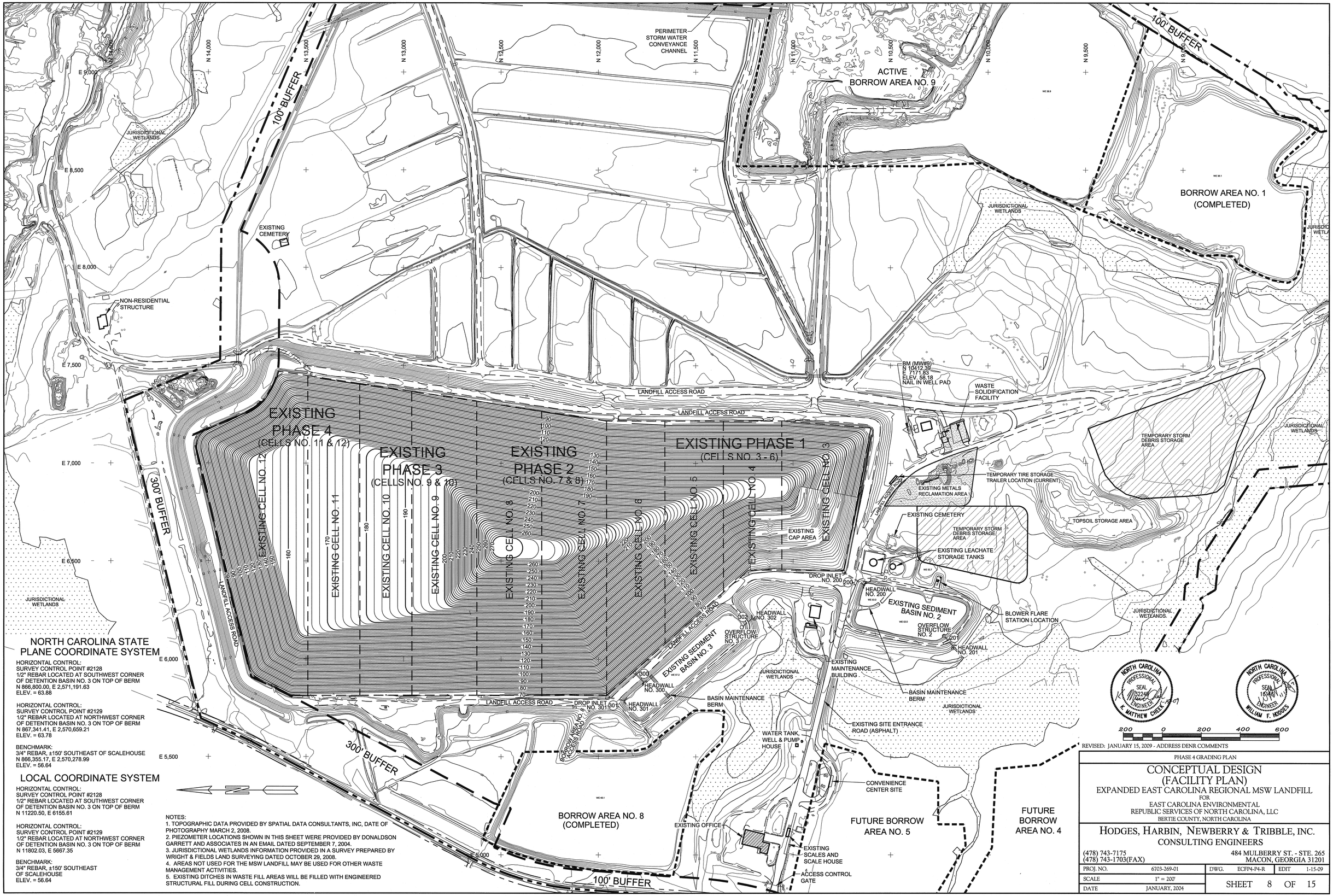
FINAL DRAINAGE PLAN

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
EAST CAROLINA ENVIRONMENTAL
REPUBLIC SERVICES OF NORTH CAROLINA, LLC
BERTIE COUNTY, NORTH CAROLINA

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
CONSULTING ENGINEERS
(478) 743-7175
(478) 743-1703(FAX)
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG. ECFP4-FD-R	EDIT 1-15-09
SCALE	1" = 200'	SHEET 7 OF 15	
DATE	JANUARY, 2004		



NORTH CAROLINA STATE PLANE COORDINATE SYSTEM

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2128
1/2" REBAR LOCATED AT SOUTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 866,800.00, E 2,571,191.63
ELEV. = 63.88

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2129
1/2" REBAR LOCATED AT NORTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 867,341.41, E 2,570,659.21
ELEV. = 63.78

BENCHMARK:
3/4" REBAR, ±150' SOUTHEAST OF SCALEHOUSE
N 866,355.17, E 2,570,278.99
ELEV. = 56.64

LOCAL COORDINATE SYSTEM

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2128
1/2" REBAR LOCATED AT SOUTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 11220.50, E 6155.61

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2129
1/2" REBAR LOCATED AT NORTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 11802.03, E 5667.35

BENCHMARK:
3/4" REBAR, ±150' SOUTHEAST OF SCALEHOUSE
ELEV. = 56.64

NOTES:
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5. EXISTING DITCHES IN WASTE FILL AREAS WILL BE FILLED WITH ENGINEERED STRUCTURAL FILL DURING CELL CONSTRUCTION.

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

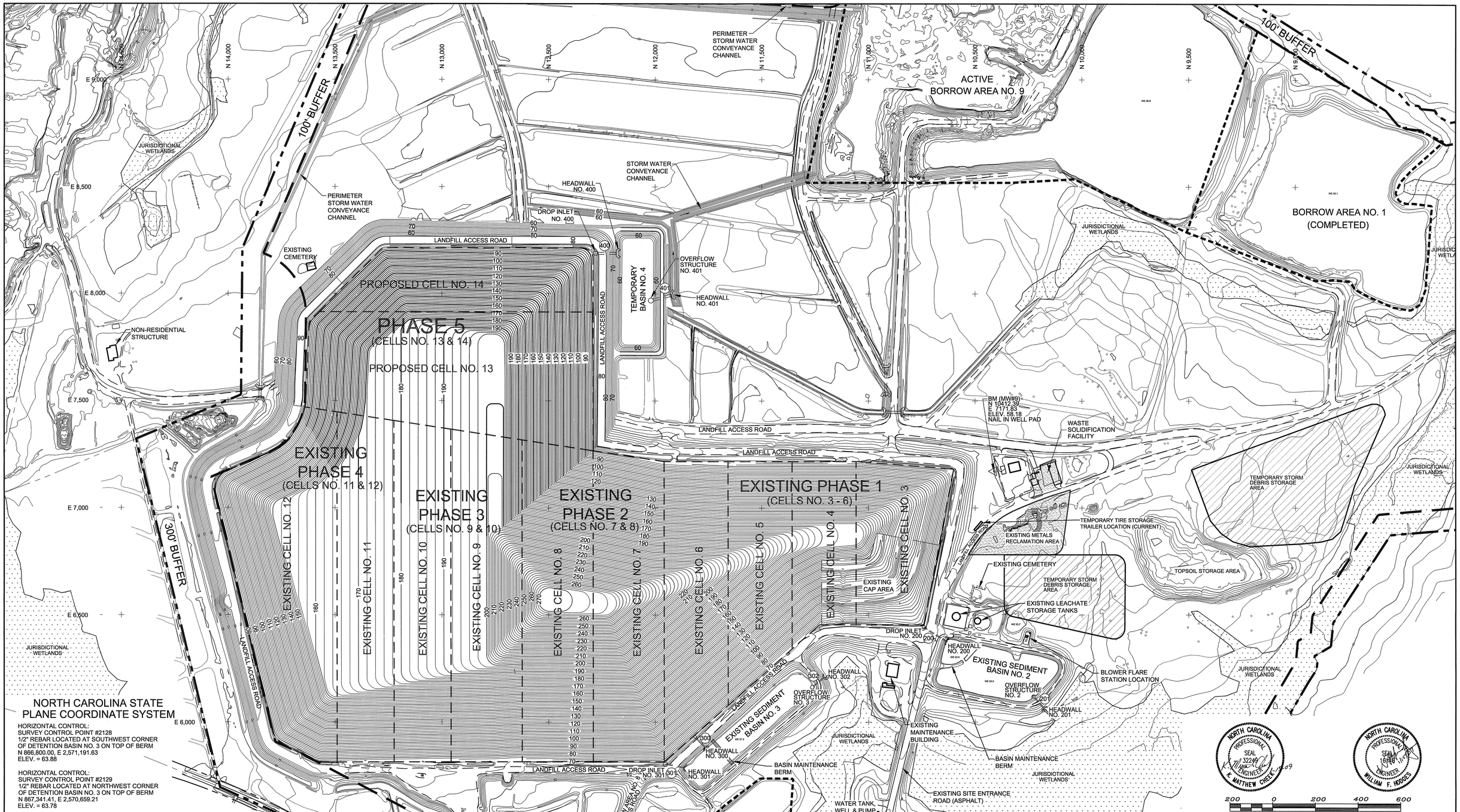
PHASE 4 GRADING PLAN

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
EAST CAROLINA ENVIRONMENTAL
REPUBLIC SERVICES OF NORTH CAROLINA, LLC
BERTIE COUNTY, NORTH CAROLINA

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
CONSULTING ENGINEERS
(478) 743-7175
(478) 743-1703(FAX)
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG. ECFP4-P4-R	EDIT 1-15-09
SCALE	1" = 200'	SHEET 8 OF 15	
DATE	JANUARY, 2004		



NORTH CAROLINA STATE PLANE COORDINATE SYSTEM

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ELEV. = 63.78

BENCHMARK:
3/4" REBAR, ±150' SOUTHEAST OF SCALEHOUSE
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ELEV. = 56.64

LOCAL COORDINATE SYSTEM

HORIZONTAL CONTROL:
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N 11220.50, E 6155.61

HORIZONTAL CONTROL:
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N 11802.03, E 5667.35

BENCHMARK:
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ELEV. = 56.64

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REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

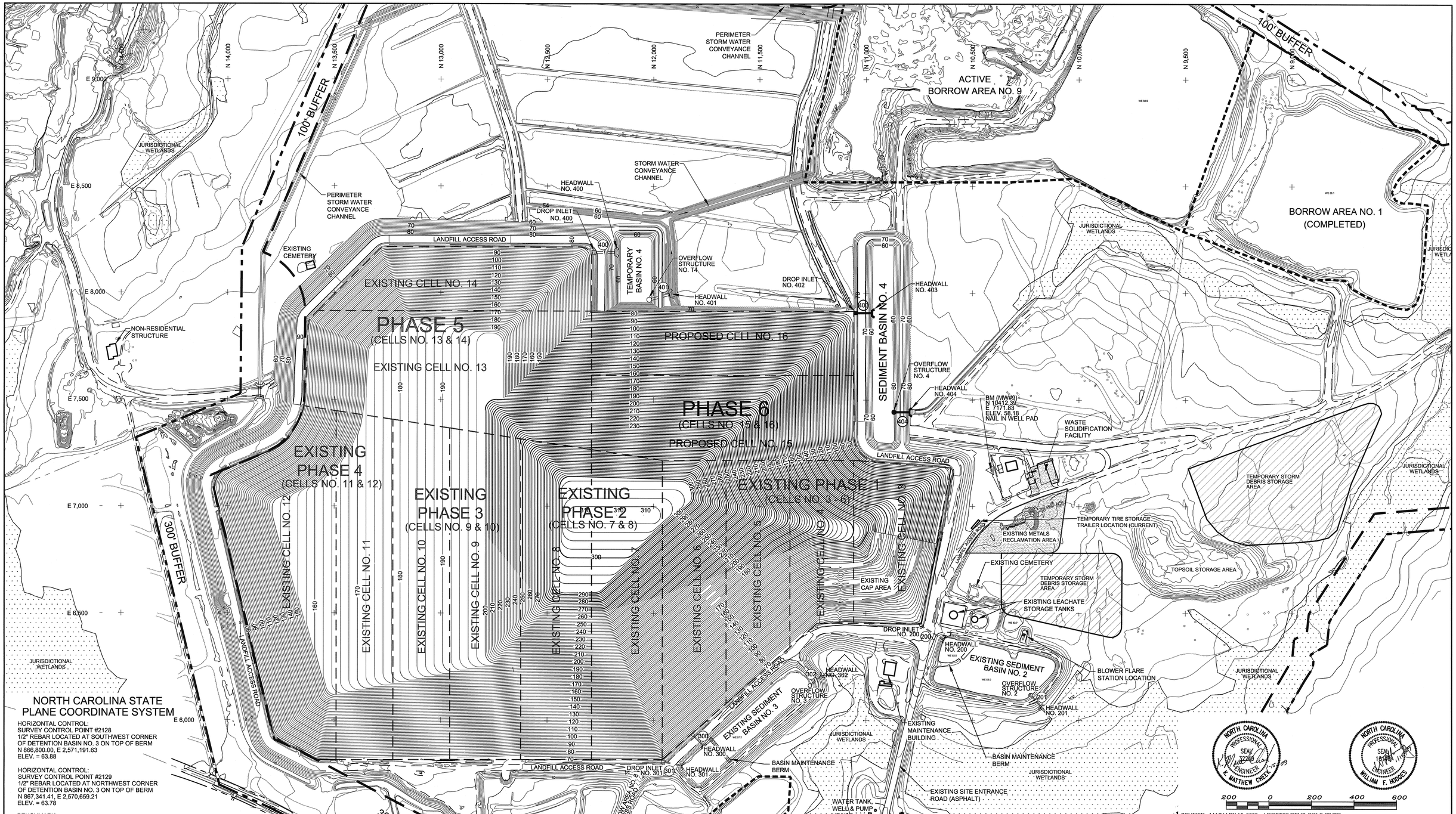
PHASE 5 GRADING PLAN

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
EAST CAROLINA ENVIRONMENTAL
REPUBLIC SERVICES OF NORTH CAROLINA, LLC
BERTIE COUNTY, NORTH CAROLINA

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
CONSULTING ENGINEERS
(478) 743-7175
(478) 743-1703(FAX)
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG.	ECFP4-P5-R	EDIT	1-15-09
SCALE	1" = 200'	SHEET 9 OF 15			
DATE	JANUARY, 2004				



NORTH CAROLINA STATE PLANE COORDINATE SYSTEM

HORIZONTAL CONTROL:
SURVEY CONTROL POINT #2128
1/2" REBAR LOCATED AT SOUTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
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BENCHMARK:
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ELEV. = 56.64

LOCAL COORDINATE SYSTEM

HORIZONTAL CONTROL:
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1/2" REBAR LOCATED AT SOUTHWEST CORNER OF DETENTION BASIN NO. 3 ON TOP OF BERM
N 11220.50, E 6155.61

HORIZONTAL CONTROL:
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N 11802.03, E 5667.35

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3/4" REBAR, ±150' SOUTHEAST OF SCALEHOUSE
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NORTH CAROLINA PROFESSIONAL SEAL 32246 ENGINEER K. MATTHEW CHEEK 1-15-09

NORTH CAROLINA PROFESSIONAL SEAL 17004 ENGINEER WILLIAM F. HODGES

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

PHASE 6 GRADING PLAN

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
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REPUBLIC SERVICES OF NORTH CAROLINA, LLC
BERTIE COUNTY, NORTH CAROLINA

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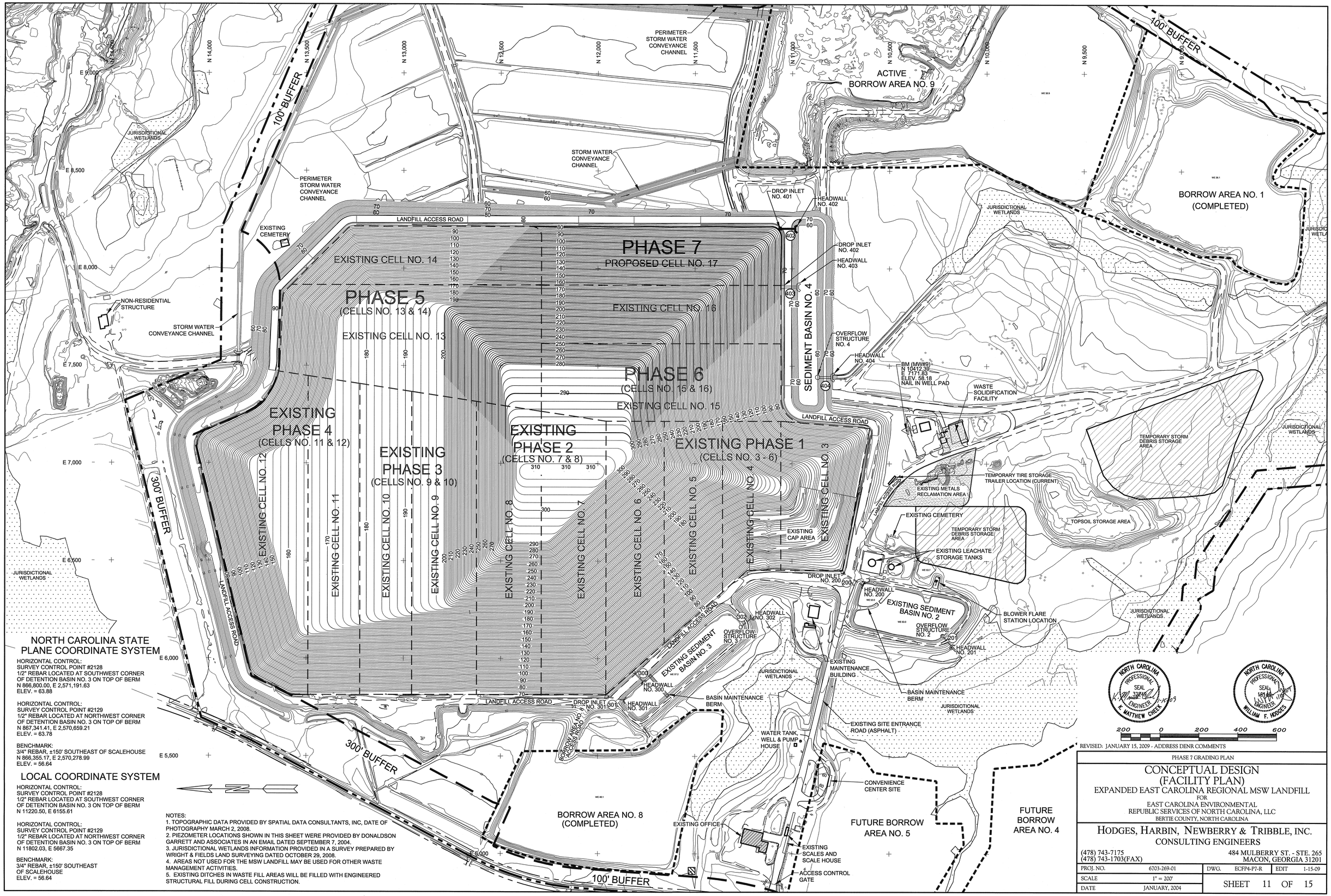
(478) 743-1703(FAX)
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG.	ECFP4-P6-R	EDIT 1-15-09
SCALE	1" = 200'	SHEET 10 OF 15		
DATE	JANUARY, 2004			



NORTH CAROLINA STATE PLANE COORDINATE SYSTEM

HORIZONTAL CONTROL:
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LOCAL COORDINATE SYSTEM

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REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

PHASE 7 GRADING PLAN

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL

FOR

EAST CAROLINA ENVIRONMENTAL
REPUBLIC SERVICES OF NORTH CAROLINA, LLC
BERTIE COUNTY, NORTH CAROLINA

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
CONSULTING ENGINEERS
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(478) 743-1703(FAX)
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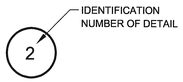
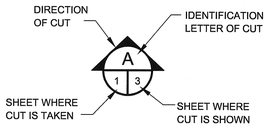
MACON, GEORGIA 31201

PROJ. NO.	6703-269-01	DWG. ECFP4-P7-R	EDIT 1-15-09
SCALE	1" = 200'	SHEET 11 OF 15	
DATE	JANUARY, 2004		

1

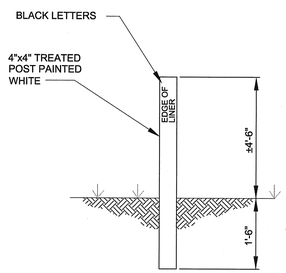


EXAMPLE - DETAIL SYMBOL



EXAMPLE - SECTION SYMBOL

2

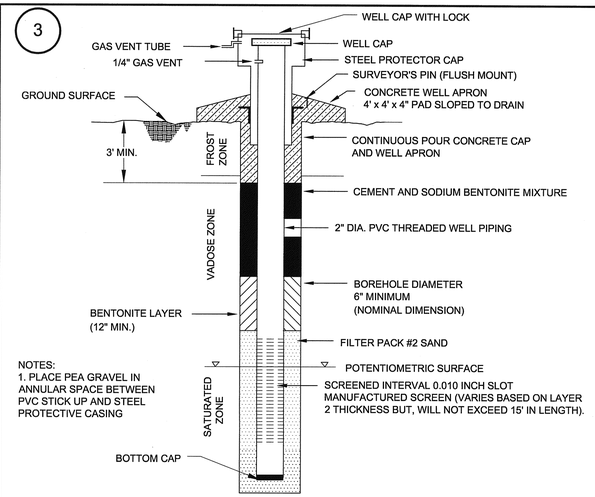


NARRATIVE
- EDGE OF LINER
- EDGE OF CELL
- LEACHATE CLEANOUT
- MM-1
- GW-1

NOTE: OTHER STYLE MARKERS MAY BE USED AT THE DISCRETION OF THE OPERATOR.

MARKER POSTS

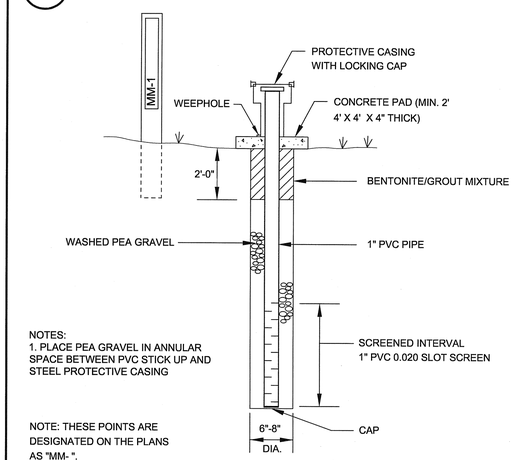
3



NOTES:
1. PLACE PEA GRAVEL IN ANNULAR SPACE BETWEEN PVC STICK UP AND STEEL PROTECTIVE CASING

GROUND WATER MONITORING WELL (TYP.)

4

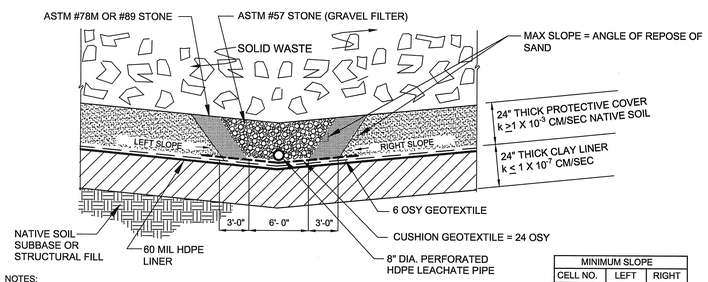


NOTES:
1. PLACE PEA GRAVEL IN ANNULAR SPACE BETWEEN PVC STICK UP AND STEEL PROTECTIVE CASING

NOTE: THESE POINTS ARE DESIGNATED ON THE PLANS AS "MM- ".

METHANE GAS MONITORING PROBE

5

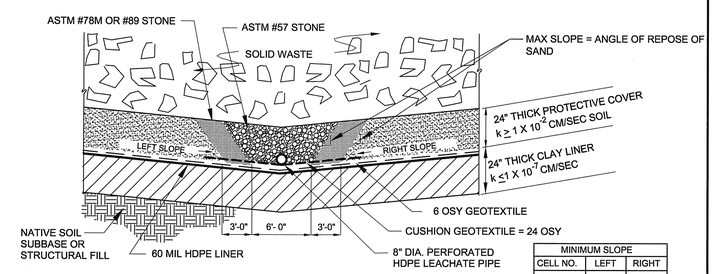


MINIMUM SLOPE		
CELL NO.	LEFT	RIGHT
13E	2.00%	2.60%
13W	2.60%	2.00%
14	2.00%	2.60%
15	2.60%	2.00%
16	2.60%	2.00%
17	2.60%	2.00%

NOTES:
1.) PERFORATED 4" DIA. SUPPLEMENTAL LEACHATE COLLECTION PIPES SHALL BE INSTALLED IN THE PLANE WITH THE GEOTEXTILE GEOCOMPOSITE ON 90' CENTERS PERPENDICULAR TO THE 8" PERFORATED LEACHATE COLLECTION PIPE IN THE CENTERLINE OF THE CELL.
2.) 60 MIL HDPE LINER COMPONENT SHALL BE COVERED WITH A MIN 6 OZ. PER SQ. YARD GEOTEXTILE FABRIC (EXCEPT ON SIDE SLOPES).

BOTTOM LINER SYSTEM "A"

6

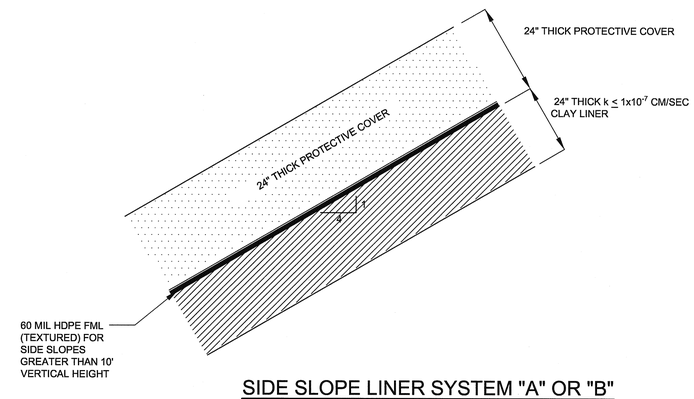


MINIMUM SLOPE		
CELL NO.	LEFT	RIGHT
13E	2.00%	2.60%
13W	2.60%	2.00%
14	2.00%	2.60%
15	2.60%	2.00%
16	2.60%	2.00%
17	2.60%	2.00%

NOTES:
1.) PERFORATED 4" DIA. SUPPLEMENTAL LEACHATE COLLECTION PIPES ARE NOT REQUIRED WITH k ≥ 1 X 10-2 CM/SEC PROTECTIVE COVER MATERIAL.
2.) 60 MIL HDPE LINER COMPONENT SHALL BE COVERED WITH A MIN 6 OZ. PER SQ. YARD GEOTEXTILE FABRIC, EXCEPT ON SIDE SLOPES.

BOTTOM LINER SYSTEM "B"

7

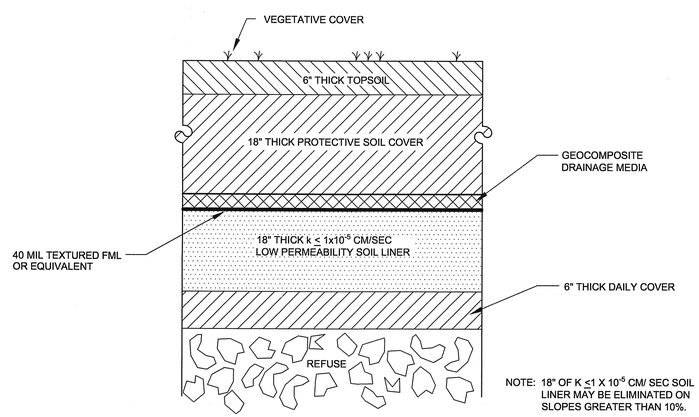


SIDE SLOPE LINER SYSTEM "A" OR "B"

8

NO DETAIL

9



NOTE: 18" OF K ≤1 X 10-5 CM/ SEC SOIL LINER MAY BE ELIMINATED ON SLOPES GREATER THAN 10%.

FINAL COVER SYSTEM

NORTH CAROLINA PROFESSIONAL SEAL 32249 ENGINEER K. MATTHEW CHEEK

NORTH CAROLINA PROFESSIONAL SEAL 18786 ENGINEER WILLIAM F. HODGES

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

MISCELLANEOUS DETAILS

CONCEPTUAL DESIGN
(FACILITY PLAN)
EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
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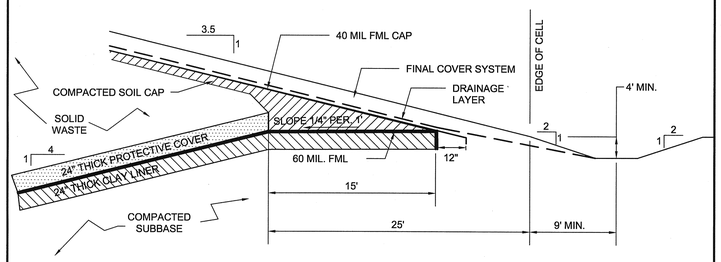
PROJ. NO.	6703-269-01	DWG.	ECFP4-D1-R	EDIT 1-15-09
SCALE	1" = 200'	SHEET 12 OF 15		
DATE	JANUARY, 2004			

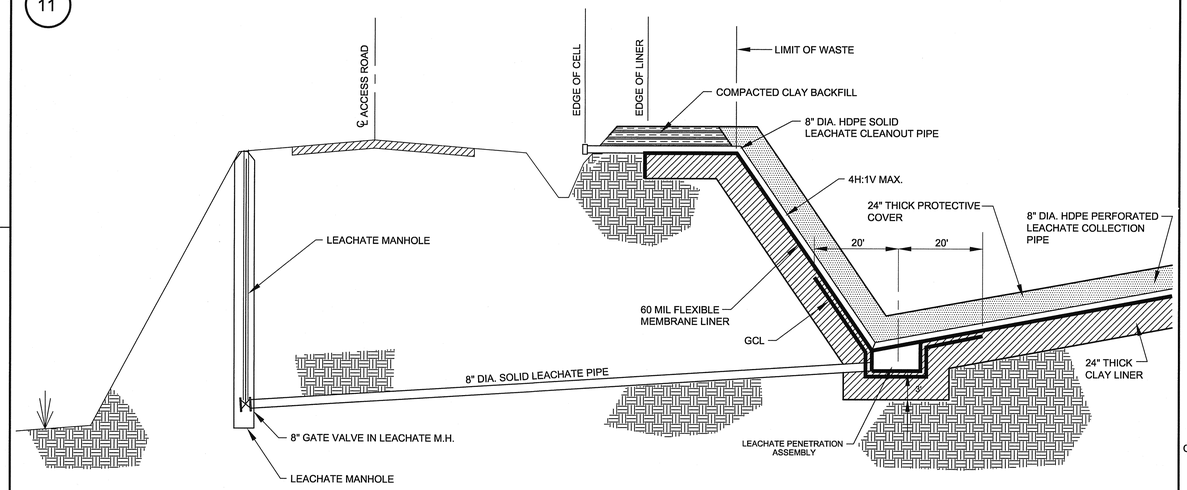
10



NOTE:
60 MIL HDPE LINER COMPONENT SHALL BE COVERED WITH A MIN 6 OZ. PER SQ. YARD GEOTEXTILE FABRIC, EXCEPT ON SIDE SLOPES.

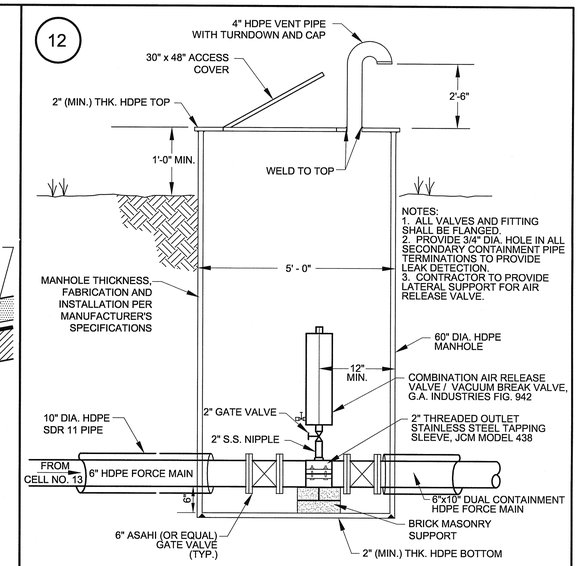
LINER / CAP INTERFACE

11



LEACHATE COLLECTION SYSTEM

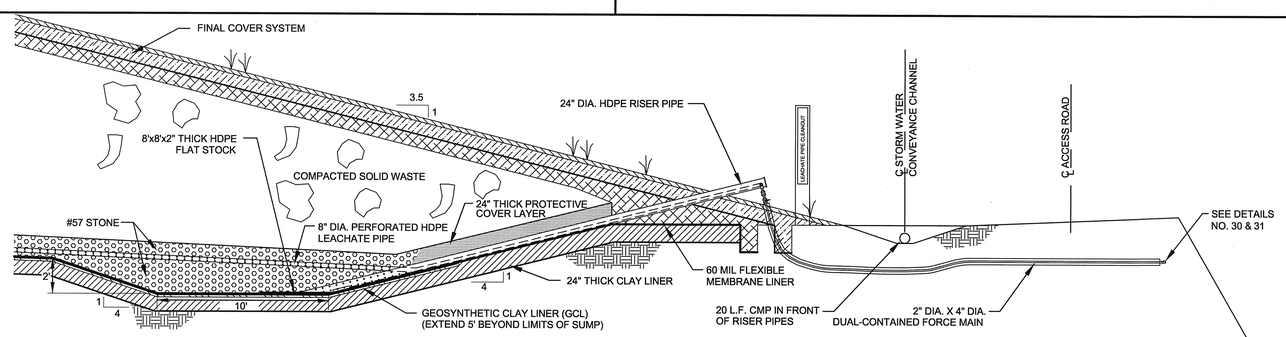
12



NOTES:
1. ALL VALVES AND FITTING SHALL BE FLANGED.
2. PROVIDE 3/4" DIA. HOLE IN ALL SECONDARY CONTAINMENT PIPE TERMINATIONS TO PROVIDE LEAK DETECTION.
3. CONTRACTOR TO PROVIDE LATERAL SUPPORT FOR AIR RELEASE VALVE.

LEACHATE AIR RELEASE VALVE

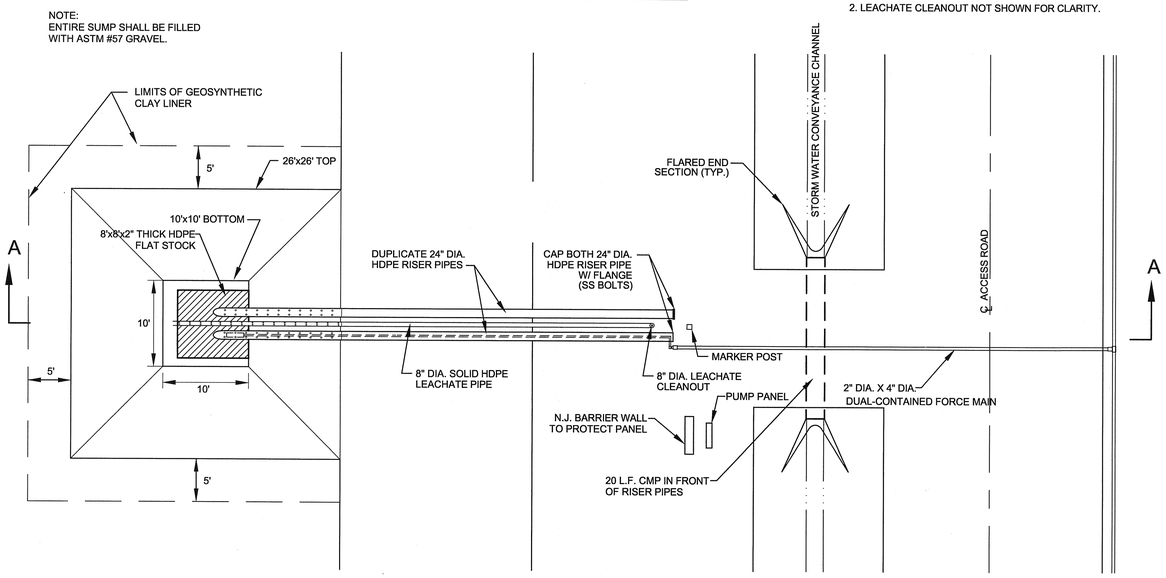
13



NOTE:
1. 2" DIA. DISCHARGE PIPE AND 4" DIA. FORCE MAIN SHALL HAVE A MINIMUM 42" COVER AND SHALL BE DUAL-CONTAINED.
2. LEACHATE CLEANOUT NOT SHOWN FOR CLARITY.

SECTION A

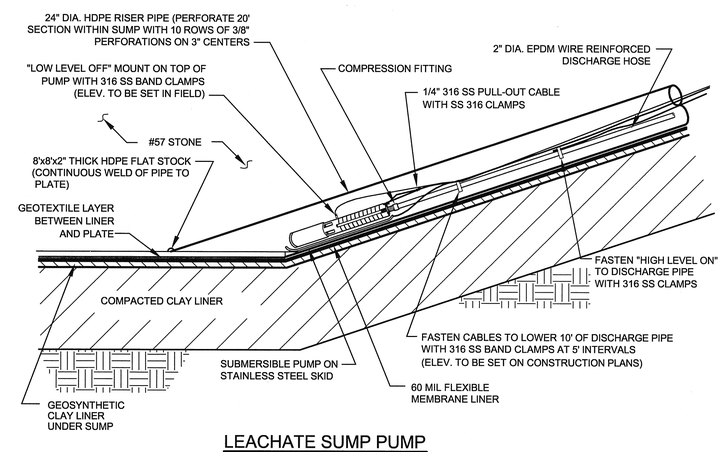
NOTE:
ENTIRE SUMP SHALL BE FILLED WITH ASTM #57 GRAVEL.



PLAN VIEW
LEACHATE SUMP ASSEMBLY

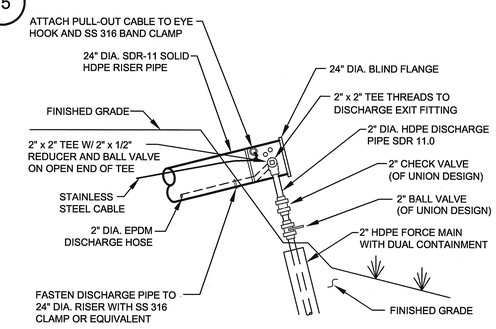
NOTE: ELECTRIC CONDUIT SHALL BE PLACED IN SAME TRENCH WITH FORCE MAIN.

14



LEACHATE SUMP PUMP

15



NOTE:
1. WRAP DISCHARGE PIPE AND FITTINGS WITH INSULATION AND HEAT TAPE.
2. THE ENDS OF ALL PIPES SHALL BE SEALED.

FORCE MAIN FITTINGS W/ FREEZE PROTECTION

NORTH CAROLINA PROFESSIONAL SEAL 32246 ENGINEER K. MATTHEW CHECK 1/15/09

NORTH CAROLINA PROFESSIONAL SEAL 16180 ENGINEER WILLIAM F. HODGES

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

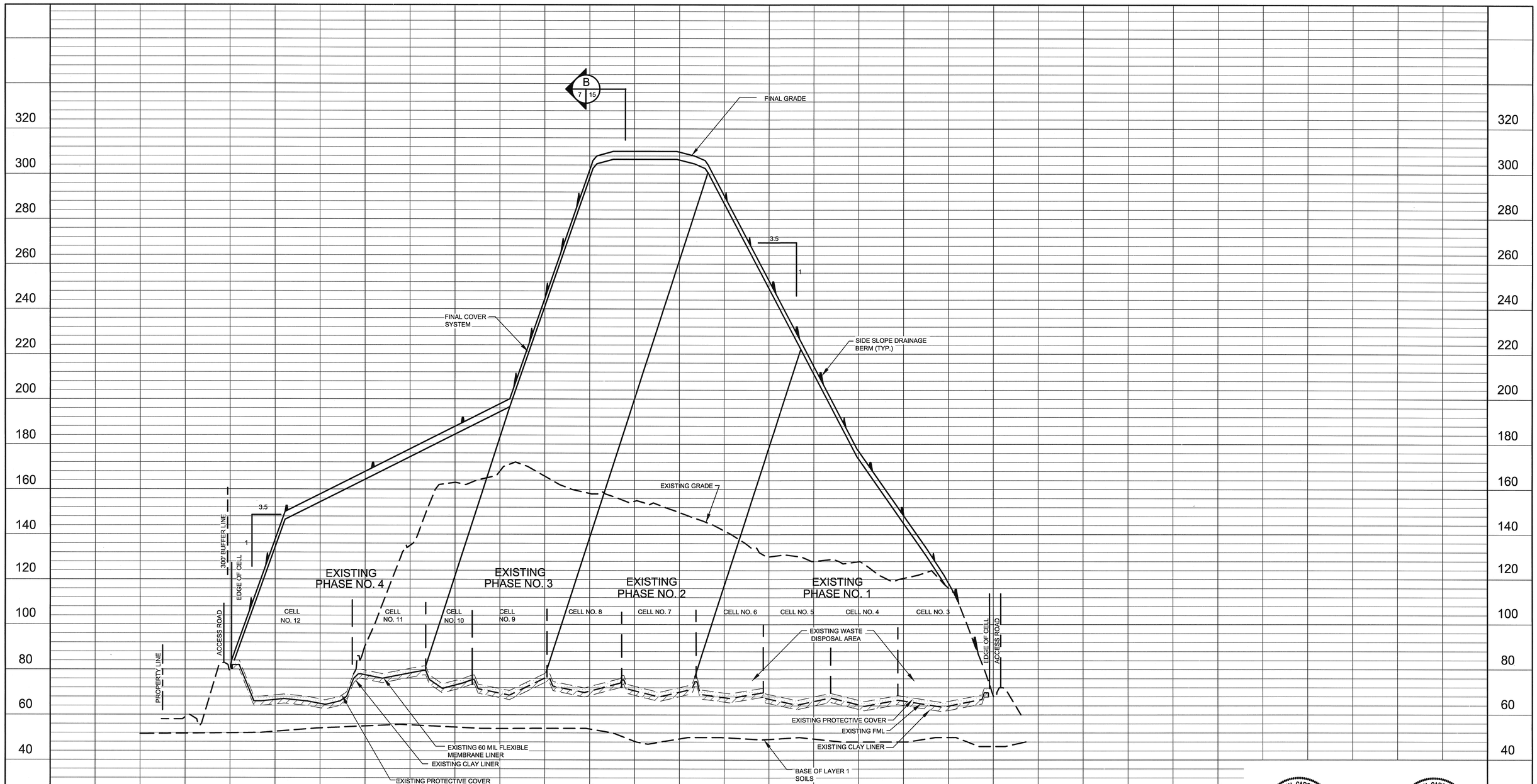
MISCELLANEOUS DETAILS

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
FOR
EAST CAROLINA ENVIRONMENTAL
REPUBLIC SERVICES OF NORTH CAROLINA, LLC
BERTIE COUNTY, NORTH CAROLINA

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
CONSULTING ENGINEERS
(478) 743-7175
(478) 743-1703(FAX)
484 MULBERRY ST. - STE. 265
MACON, GEORGIA 31201

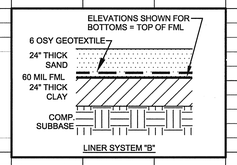
PROJ. NO.	6703-269-01	DWG. ECFP4-D2-R	EDIT 1-15-09
SCALE	1" = 200'	SHEET 13 OF 15	
DATE	JANUARY, 2004		



CROSS SECTION A

NOTE: 8" DIA. HDPE LEACHATE COLLECTION NOT SHOWN FOR CLARITY.

NOTE : MINIMUM OF 4' SEPARATION BETWEEN BASE OF LAYER 1 SOILS AND BOTTOM OF CLAY LINER.



NORTH CAROLINA PROFESSIONAL SEAL 32249 ENGINEER K. MATTHEW CHEEK 1-15-09

NORTH CAROLINA PROFESSIONAL SEAL 18611 ENGINEER WILLIAM F. HODGES

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

CROSS SECTION A

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
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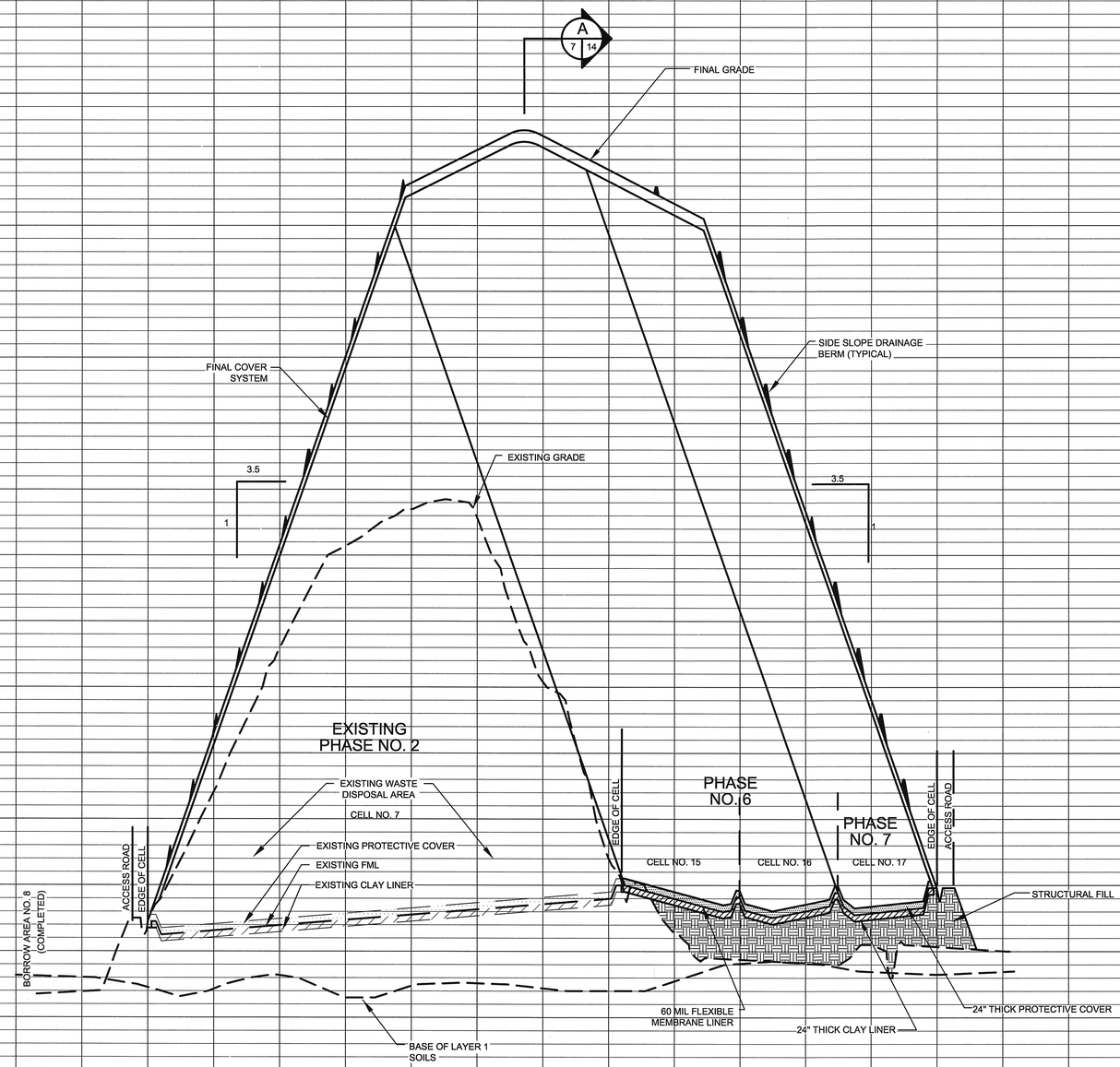
MACON, GEORGIA 31201

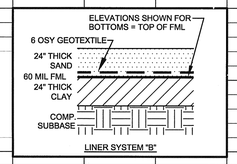
PROJ. NO.	6703-269-01	DWG.	ECFP4-XSA-R	EDIT	1-15-09
SCALE	1"=200' HOR. 1"=20' VERT.	SHEET 14 OF 15			
DATE	JANUARY, 2004				



CROSS SECTION B

NOTE: 8" DIA. HDPE LEACHATE COLLECTION NOT SHOWN FOR CLARITY.

NOTE : MINIMUM OF 4' SEPARATION BETWEEN BASE OF LAYER 1 SOILS AND BOTTOM OF CLAY LINER.



NORTH CAROLINA PROFESSIONAL SEAL 32249 ENGINEER K. MATTHEW CHEEK

NORTH CAROLINA PROFESSIONAL SEAL 15176 ENGINEER WILLIAM F. HODGES

REVISED: JANUARY 15, 2009 - ADDRESS DENR COMMENTS

CROSS SECTION B

CONCEPTUAL DESIGN (FACILITY PLAN)

EXPANDED EAST CAROLINA REGIONAL MSW LANDFILL
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PROJ. NO.	6703-269-01	DWG.	ECFP4-XSB-R	EDIT	1-15-09
SCALE	1"=200' HOR., 1"=20' VERT.	SHEET 15 OF 15			
DATE	JANUARY, 2004				