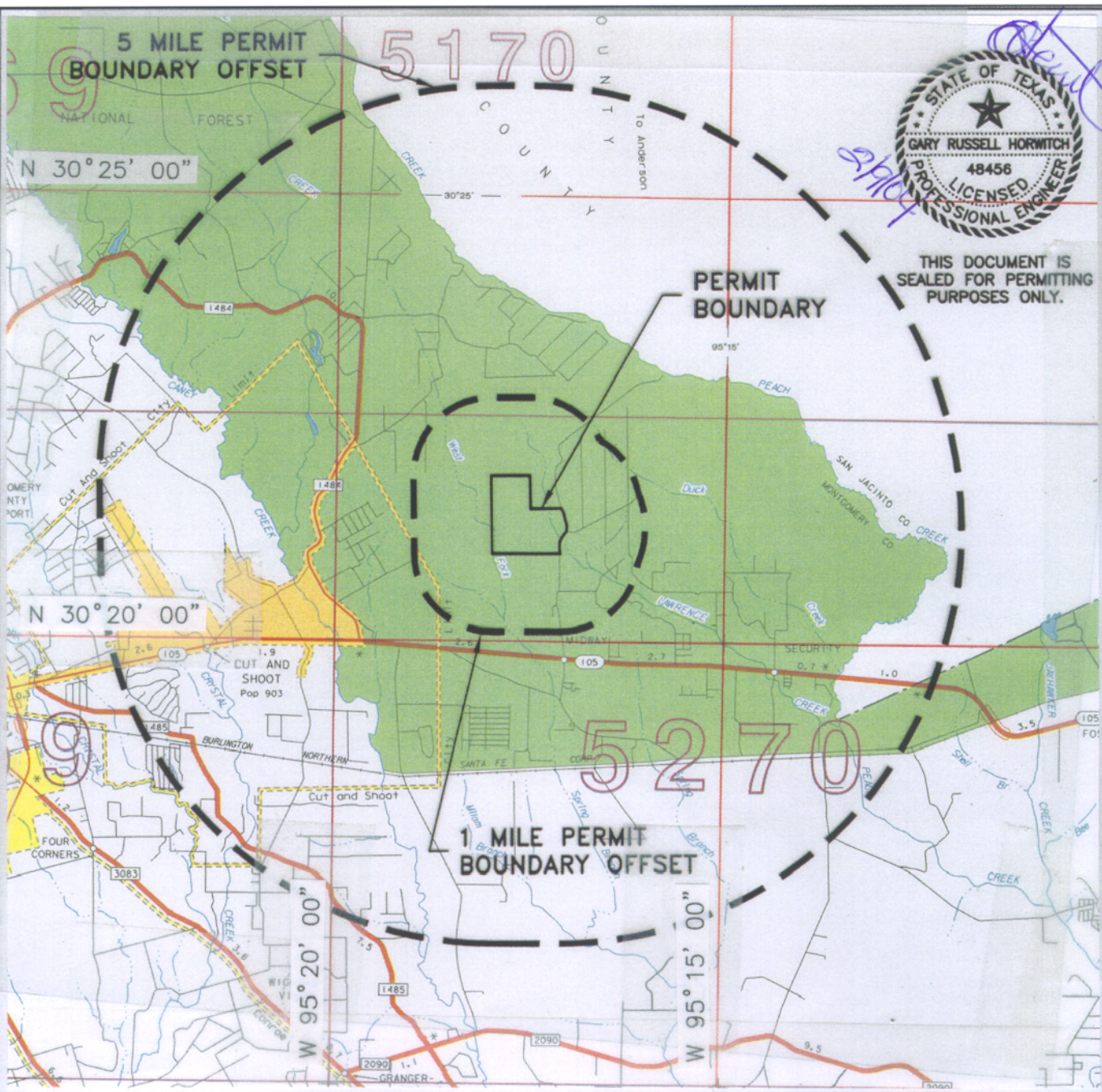

REF:
MONTGOMERY COUNTY MAPS OF TEXAS 1998.
1990 CENSUS FIGURES, HIGHWAYS REVISED TO APRIL 1, 1999.

LEGEND:

- 1 MILE PERMIT BOUNDARY OFFSET
- 5 MILE PERMIT BOUNDARY OFFSET
- PERMIT BOUNDARY
- (105) STATE HIGHWAY

2 1 0 2
SCALE MILES

SITE VICINITY MAP	Date	Revision/Description
	Drawn By: JCT	Checked By: GRH
	Project No.: 030405-3	Dwg. Date: 09/2003

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex INDUSTRIES INC.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

EXHIBIT 1

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 1 of 31

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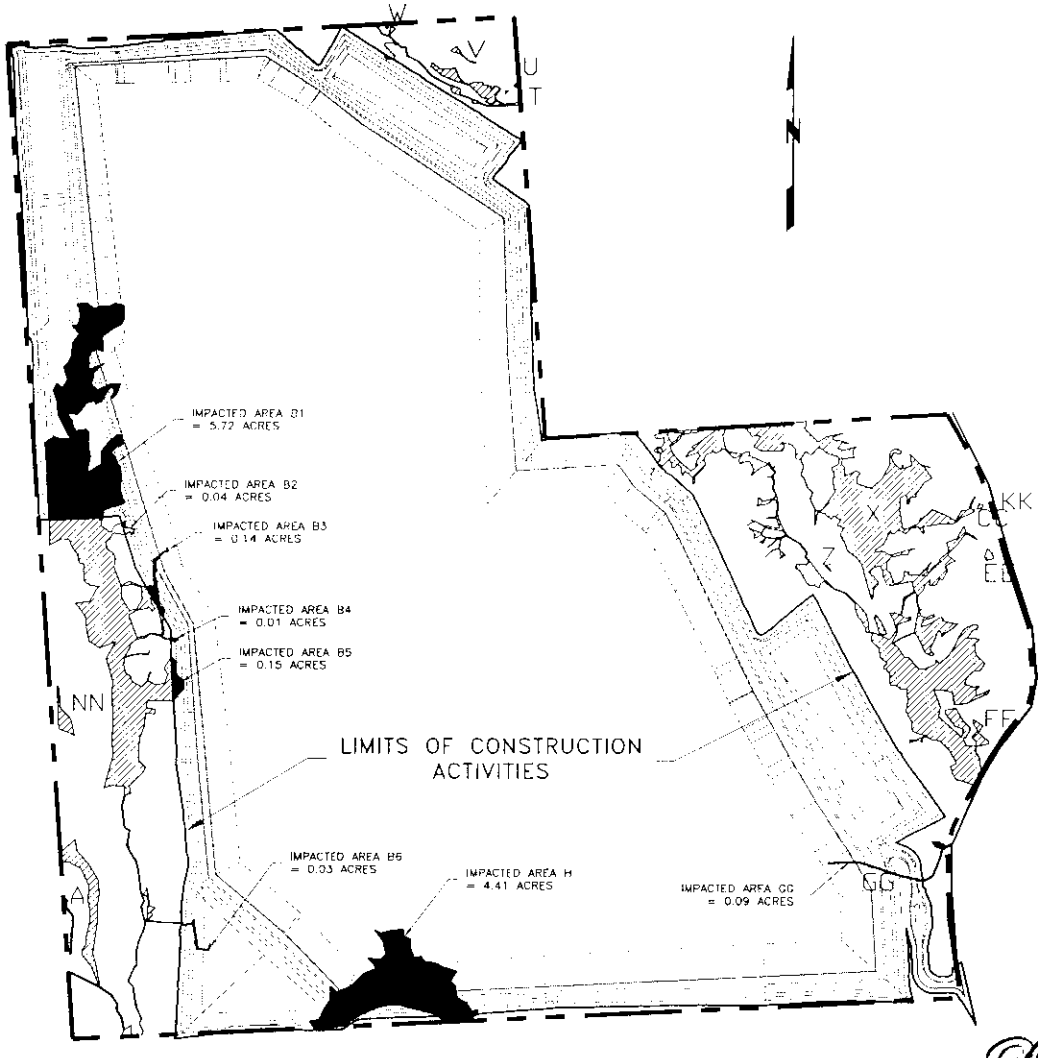

LEGEND

PROPERTY BOUNDARY

JURISDICTIONAL WETLANDS/WATERS OF THE UNITED STATES

IMPACTED WETLANDS/WATERS

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED
PROFESSIONAL ENGINEER

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1000 500 0 1000
SCALE FEET

IMPACTED WETLANDS MAP	Date	Revision/Description

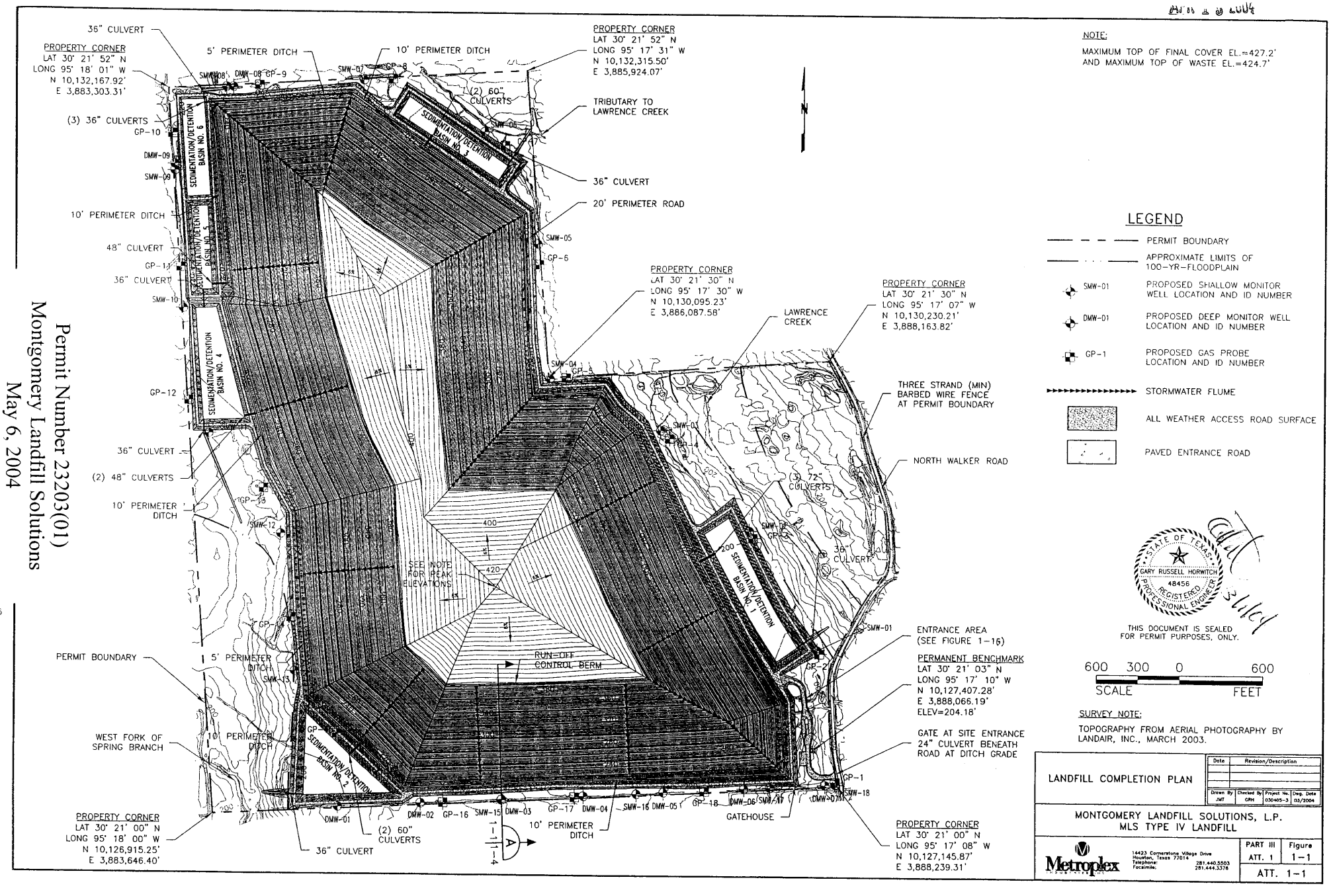
Drawn By	Checked By	Project No.	Dwg. Date
RGS	PRM	30405-3	10/2003

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex INDUSTRIES INC

14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

Exhibit
3



Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 3 of 31

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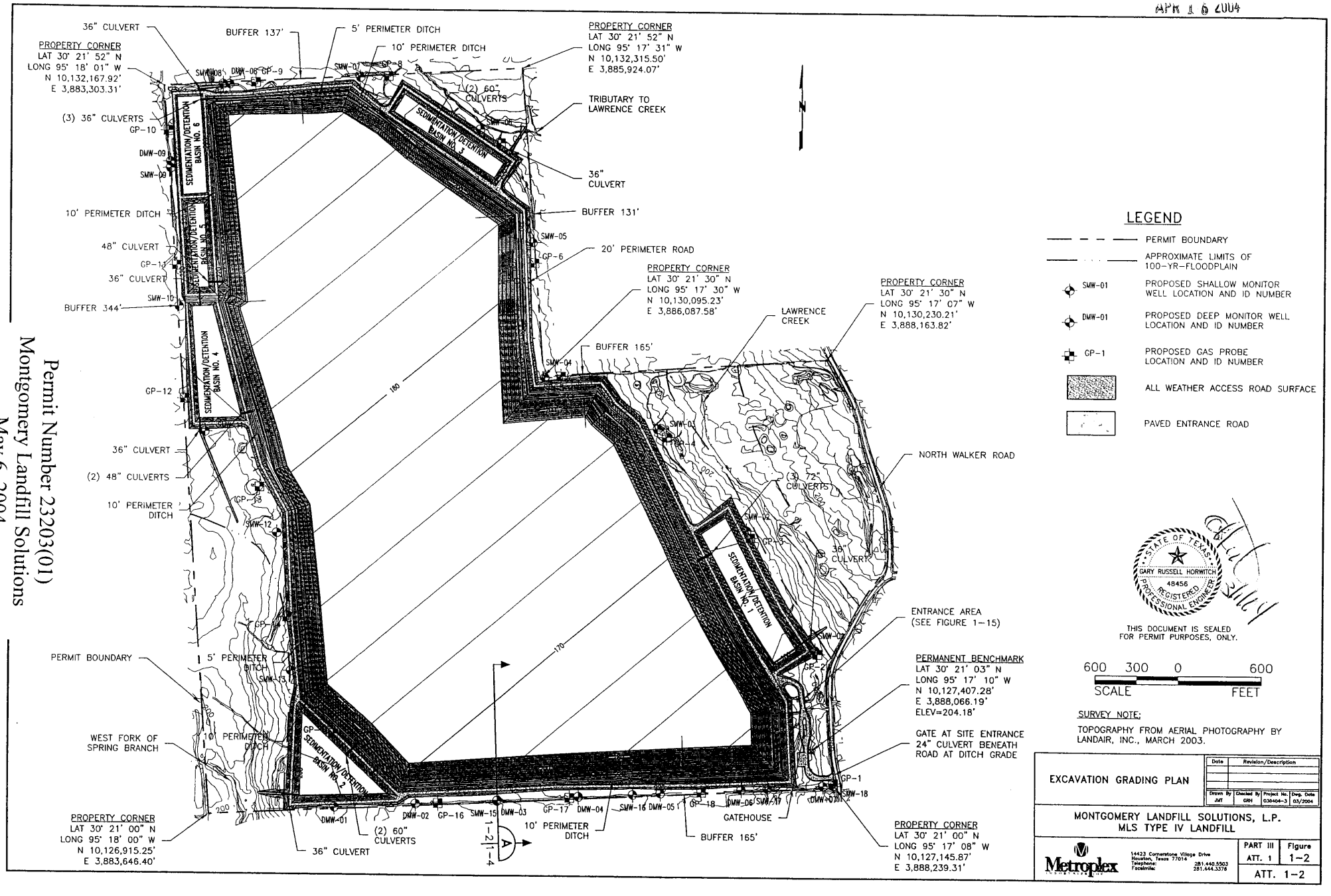
APR 1 6 2004



Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 4 of 31

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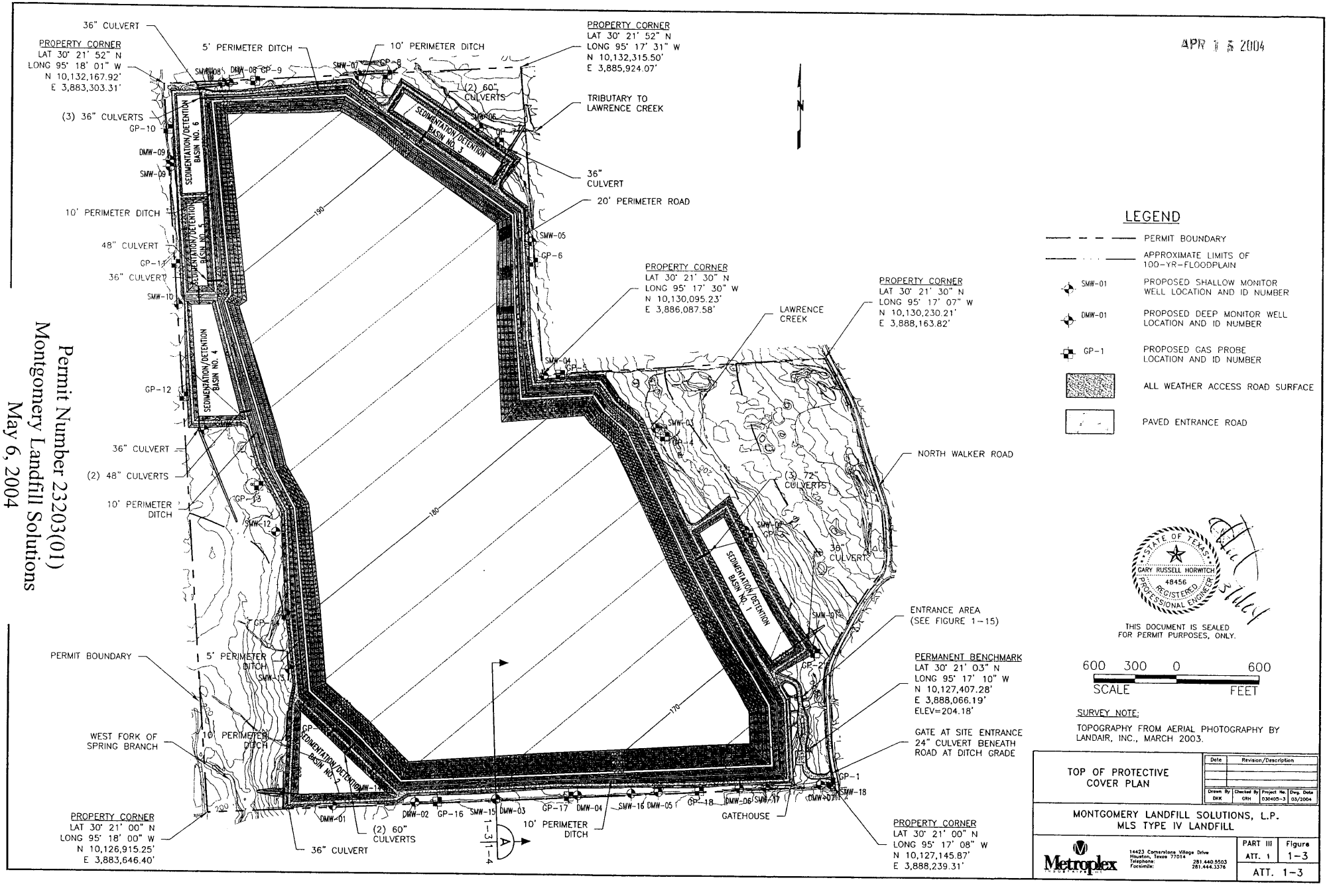
APR 1 5 2004



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APR 1 5 2004

DETAIL 1 (1-5 | 1-6)

12" (MIN) EROSION LAYER

6% SLOPE

DETAIL 2 (1-5 | 1-6)

90' MAX. (TYP)

DETAIL 4 (1-5 | 1-6)

TERRACE FLOW LINE @ 0.5% (MIN)

DETAIL 3 (1-5 | 1-6)

SIDE SLOPE TERRACE

20' ALL WEATHER PERIMETER ACCESS ROAD ELEV. VARIES

20'

WASTE

18" INFILTRATION BARRIER (CH, CL OR SC SOILS)

EXISTING GRADE (03/2003)

TOP OF WASTE FOR BALLAST

12" PROTECTIVE COVER LAYER

STRATUM I

STRATUM II

STRATUM III

PERIMETER DITCH

LIMITS OF EXCAVATION

3'X2' DEEP GRAVEL FILL TRENCH WITH 6" CORRUGATED HDPE DRAINAGE PIPE.

SOIL BALLAST (SEE ATT.10, APP.8 FOR DETAILS)

GEOCOMPOSITE UNDERDRAIN ANCHOR

36" COMPACTED CLAY LINER HYDRAULIC CONDUCTIVITY < THAN $1X10^{-7}$ cm/sec

GEOCOMPOSITE UNDERDRAIN

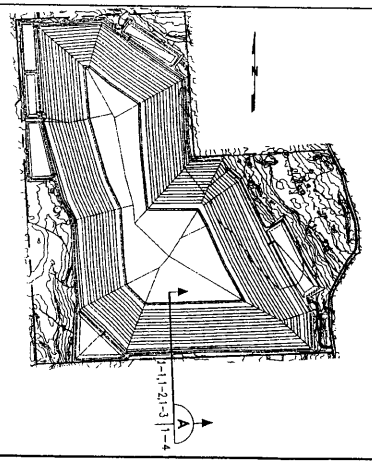
KEY SOIL BALLAST 2' INTO STRATUM III WITH 8' WIDE MINIMUM SECTION

ELEVATION, FEET (MSL)

410 400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

SECTION A (1-1,1-2,1-3,1-17 | 1-4)

KEY



STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

3/16/04

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60 30 0 60
SCALE FEET

TYPICAL LANDFILL CROSS-SECTION

Date	Revision/Description

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 1 | Figure 1-4

ATT. 1-4

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 6 of 31

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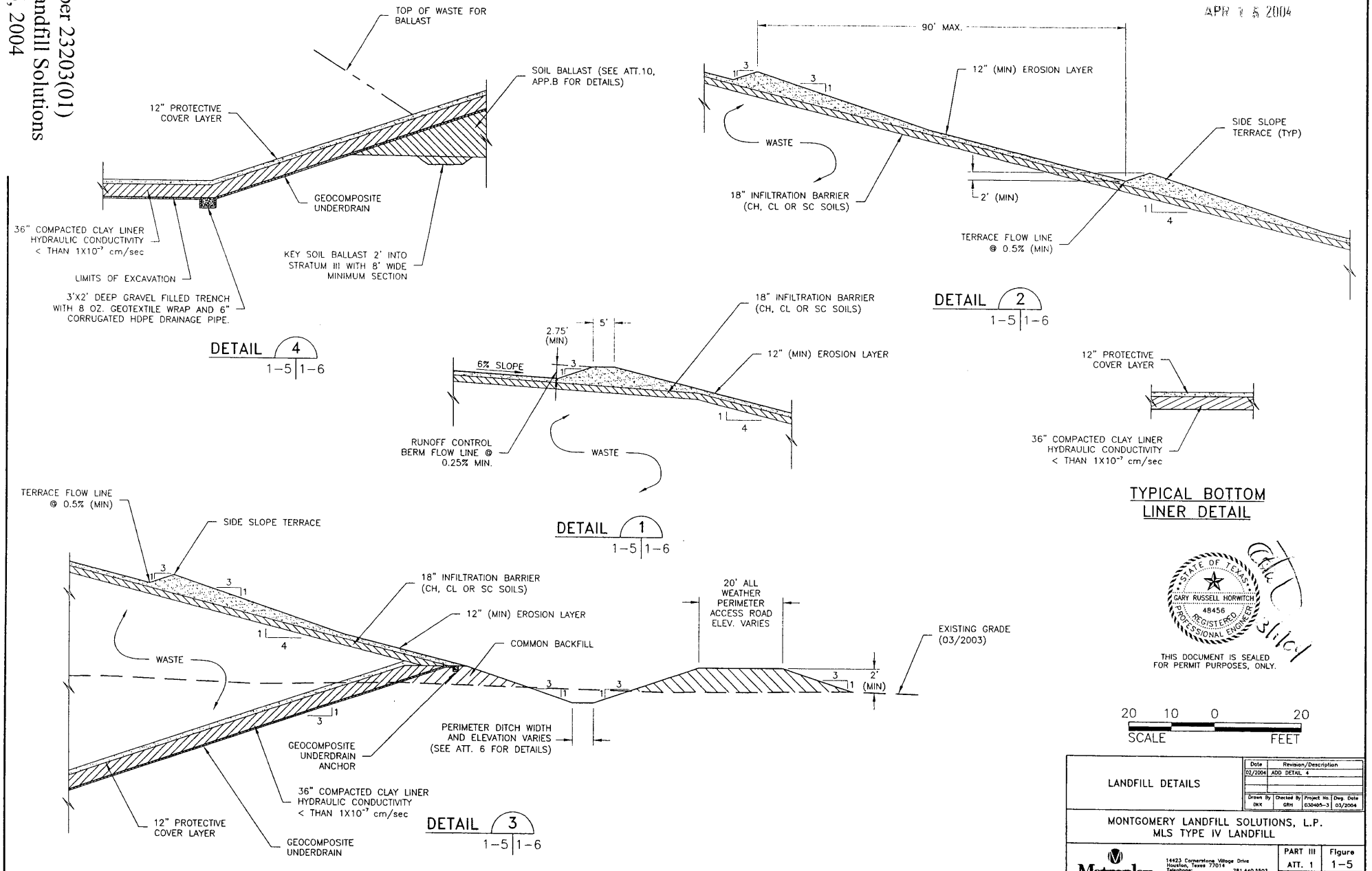
APR 1 5 2004


TOP OF WASTE FOR BALLAST
SOIL BALLAST (SEE ATT.10, APP.B FOR DETAILS)
12" PROTECTIVE COVER LAYER
GEOCOMPOSITE UNDERDRAIN
36" COMPACTED CLAY LINER HYDRAULIC CONDUCTIVITY < THAN 1X10⁻⁷ cm/sec
LIMITS OF EXCAVATION
KEY SOIL BALLAST 2' INTO STRATUM III WITH 8' WIDE MINIMUM SECTION
3'X2' DEEP GRAVEL FILLED TRENCH WITH 8 OZ. GEOTEXTILE WRAP AND 6" CORRUGATED HDPE DRAINAGE PIPE.
DETAIL 4
1-5 | 1-6
90' MAX.
12" (MIN) EROSION LAYER
SIDE SLOPE TERRACE (TYP)
WASTE
18" INFILTRATION BARRIER (CH, CL OR SC SOILS)
2' (MIN)
TERRACE FLOW LINE @ 0.5% (MIN)
DETAIL 2
1-5 | 1-6
18" INFILTRATION BARRIER (CH, CL OR SC SOILS)
2.75' (MIN)
5'
6% SLOPE
12" (MIN) EROSION LAYER
RUNOFF CONTROL BERM FLOW LINE @ 0.25% MIN.
WASTE
DETAIL 1
1-5 | 1-6
12" PROTECTIVE COVER LAYER
36" COMPACTED CLAY LINER HYDRAULIC CONDUCTIVITY < THAN 1X10⁻⁷ cm/sec
TYPICAL BOTTOM LINER DETAIL
TERRACE FLOW LINE @ 0.5% (MIN)
SIDE SLOPE TERRACE
18" INFILTRATION BARRIER (CH, CL OR SC SOILS)
12" (MIN) EROSION LAYER
20' ALL WEATHER PERIMETER ACCESS ROAD ELEV. VARIES
EXISTING GRADE (03/2003)
WASTE
COMMON BACKFILL
2' (MIN)
PERIMETER DITCH WIDTH AND ELEVATION VARIES (SEE ATT. 6 FOR DETAILS)
GEOCOMPOSITE UNDERDRAIN ANCHOR
36" COMPACTED CLAY LINER HYDRAULIC CONDUCTIVITY < THAN 1X10⁻⁷ cm/sec
12" PROTECTIVE COVER LAYER
GEOCOMPOSITE UNDERDRAIN
DETAIL 3
1-5 | 1-6
STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER
3/10/04
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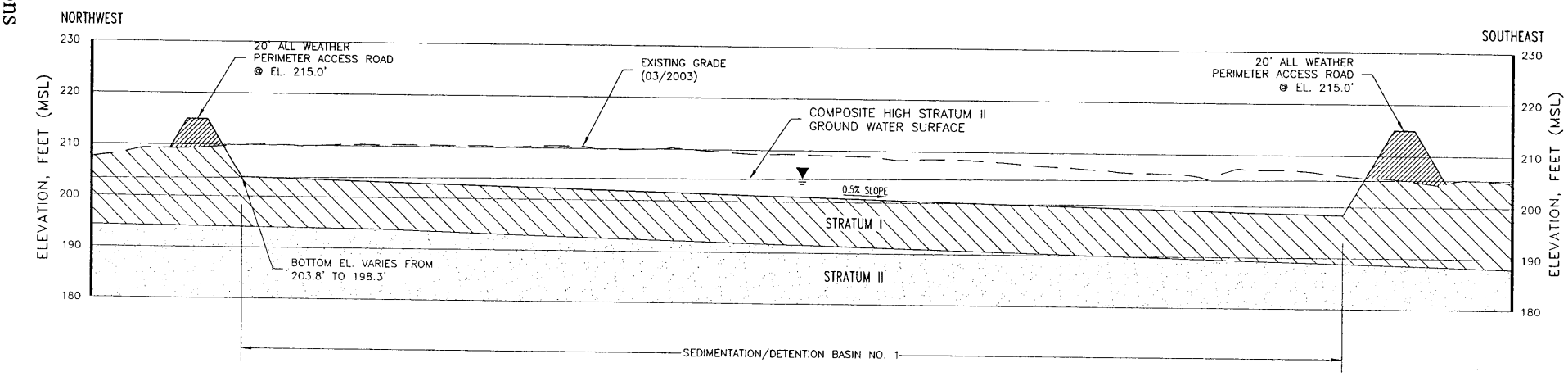
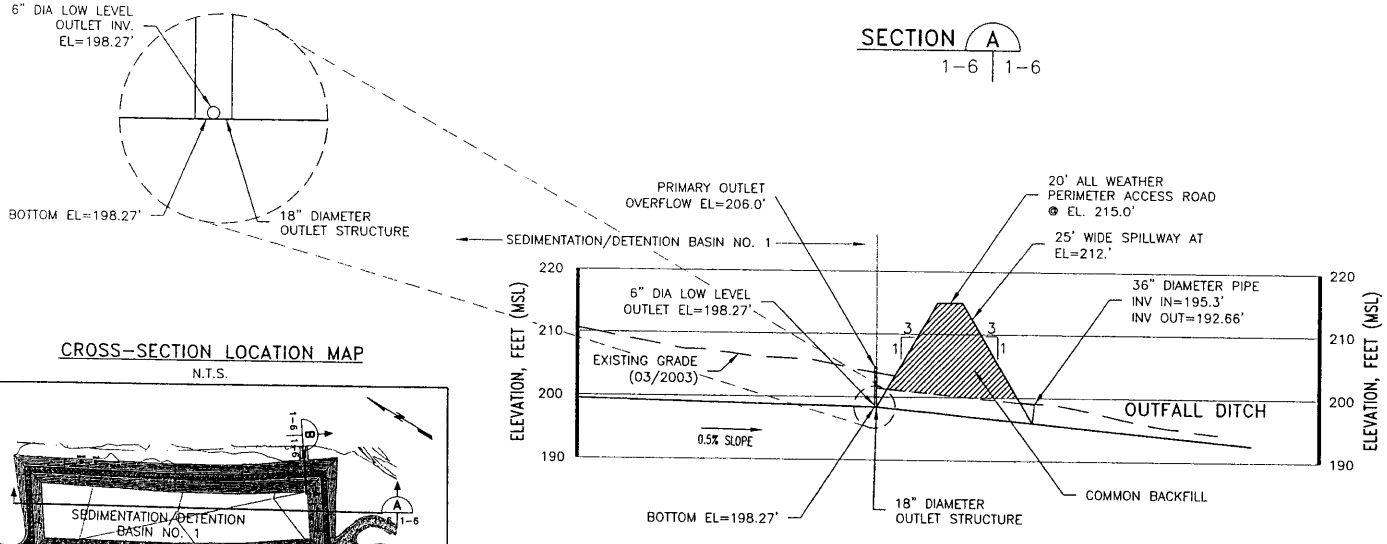
20 10 0 20
SCALE FEET
LANDFILL DETAILS
Date | Revision/Description
02/2004 | ADD DETAIL 4
Drawn By DKK | Checked By GRH | Project No. 030405-3 | Dwg. Date 03/2004
MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL
Metroplex
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378
PART III ATT. 1
Figure 1-5
ATT. 1-5

APR 1 5 2004

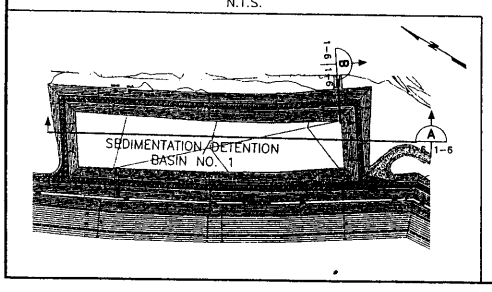


SECTION A
1-6 | 1-6



SECTION B
1-6 | 1-6

CROSS-SECTION LOCATION MAP
N.T.S.



STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER
3/11/04

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20 10 0 20
SCALE VERTICAL FEET

100 50 0 100
SCALE HORIZONTAL FEET

STORMWATER SEDIMENTATION/DETENTION BASIN NO. 1 CROSS-SECTIONS	Date	Revision/Description
Drawn By DKK	Checked By GRH	Project No. 030405-3	Dwg. Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 1 | Figure 1-6
ATT. 1-6

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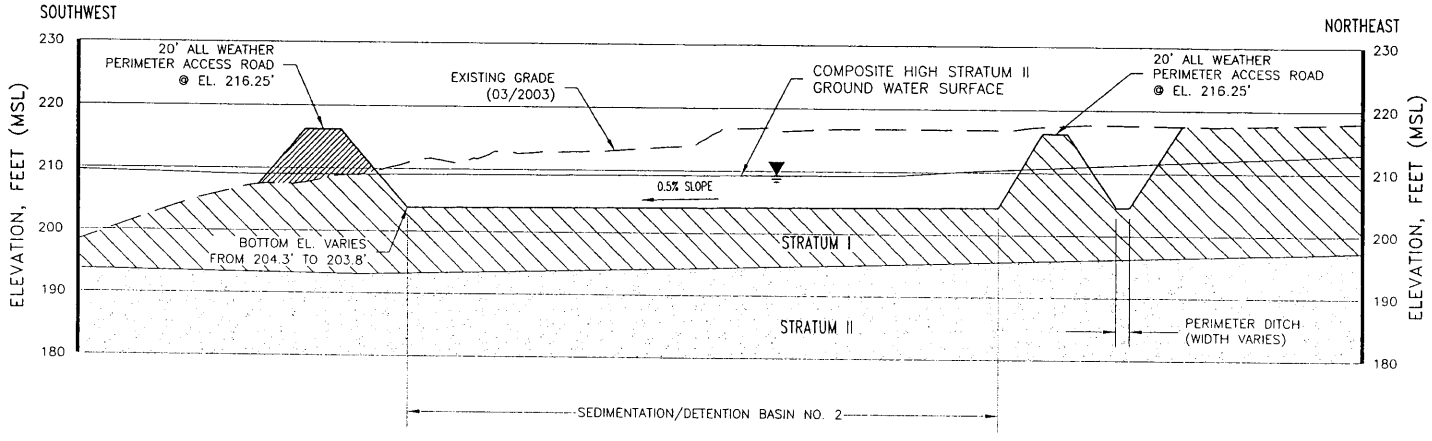
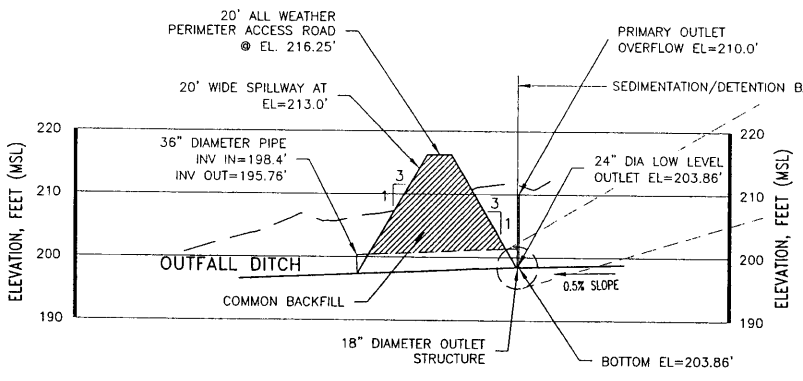
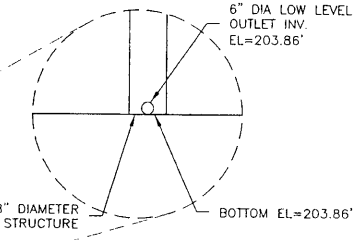
APR 1 5 2004



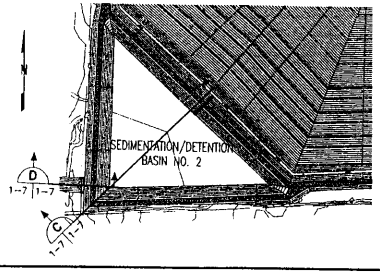
SECTION C
1-7 | 1-7



SECTION D
1-7 | 1-7



CROSS-SECTION LOCATION MAP
N.T.S.



20 10 0 20
SCALE VERTICAL FEET

100 50 0 100
SCALE HORIZONTAL FEET

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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STORMWATER SEDIMENTATION/DETENTION BASIN NO. 2 CROSS-SECTIONS	Date	Revision/Description
	Drawn By DKK	Checked By GRH	Project No. 030405-3	Dwg. Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex INDUSTRIES, INC.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 1 | Figure 1-7

ATT. 1-7

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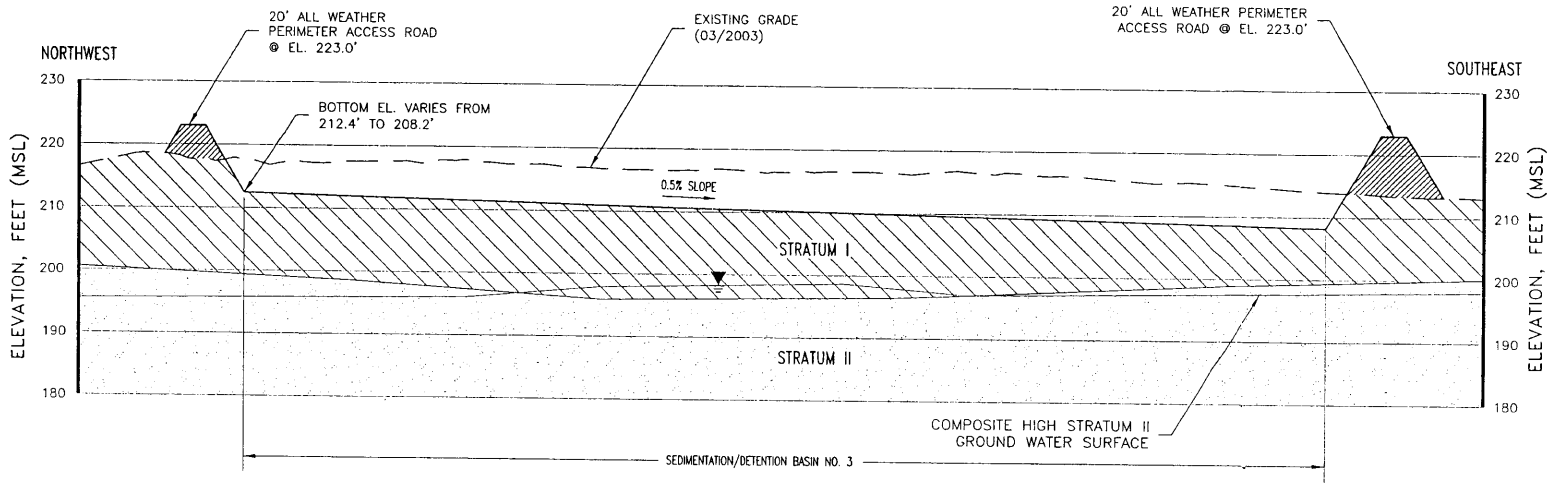
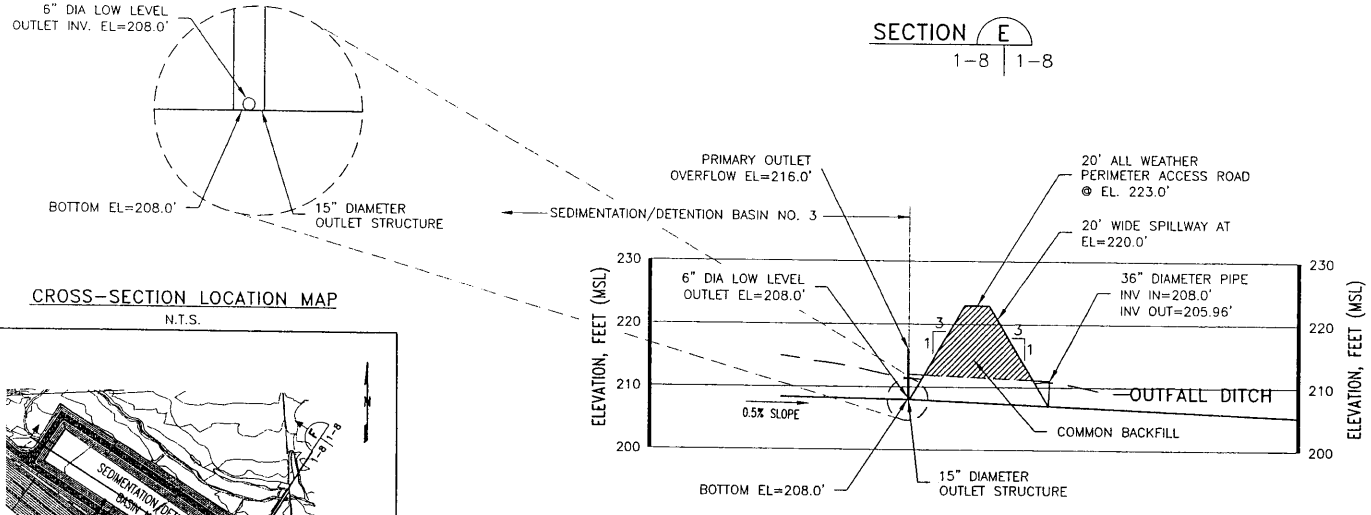


SECTION E
1-8 | 1-8



SECTION F
1-8 | 1-8

CROSS-SECTION LOCATION MAP
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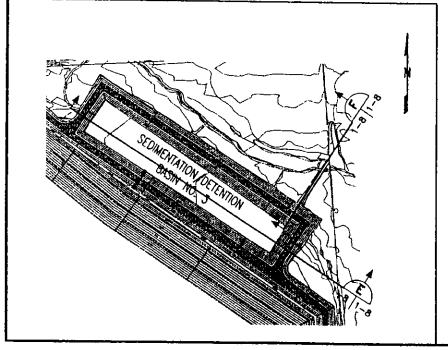

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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20 10 0 20
SCALE VERTICAL FEET

100 50 0 100
SCALE HORIZONTAL FEET

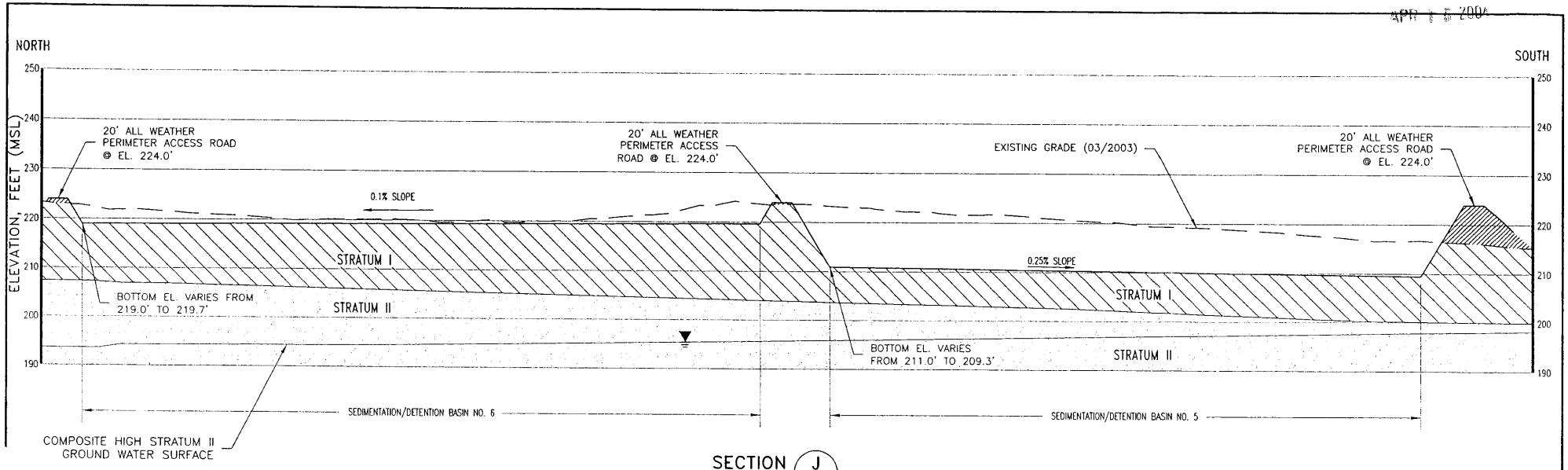
STORMWATER SEDIMENTATION/DETENTION BASIN NO. 3 CROSS-SECTIONS	Date	Revision/Description
Drawn By DKK	Checked By GRH	Project No. 030405-3 / Dwg. Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

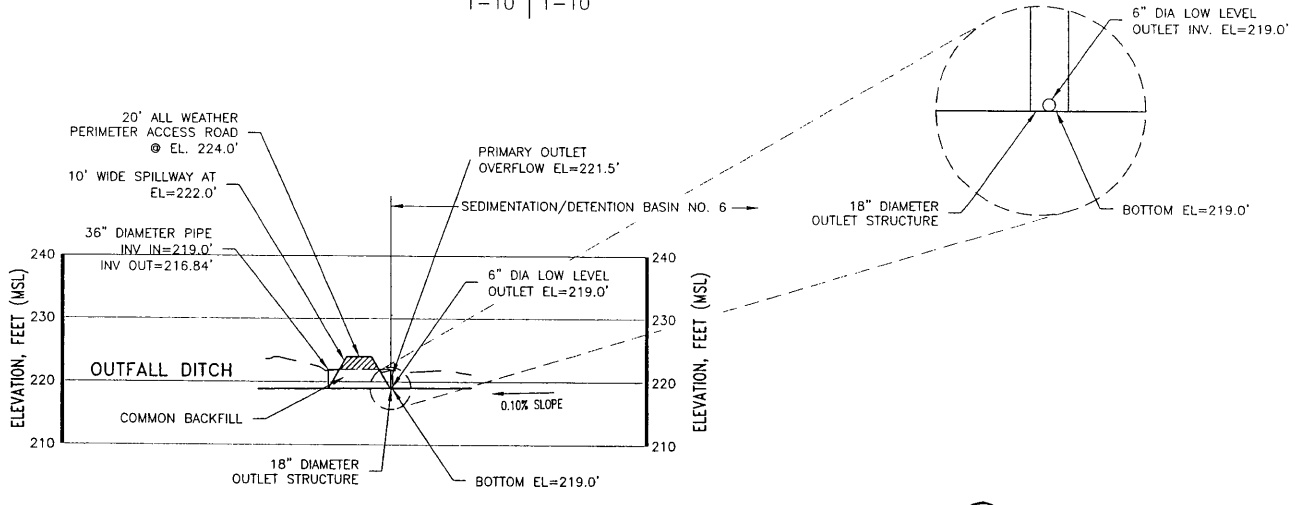
Metroplex Industries Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 1 | Figure 1-8

ATT. 1-8



SECTION J
1-10 | 1-10



SECTION K
1-10 | 1-10

CROSS-SECTION LOCATION MAP
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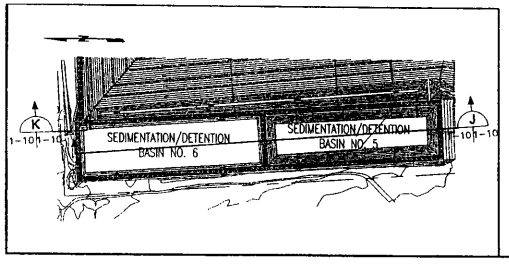

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SCALE HORIZONTAL FEET

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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STORMWATER SEDIMENTATION/DETENTION BASIN NO. 5 & 6 CROSS-SECTIONS	Date	Revision/Description
	Drawn By DRK	Checked By GRH / Project No. 030405-3 / Dwg. Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Engineering Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 1 | Figure 1-10

ATT. 1-10

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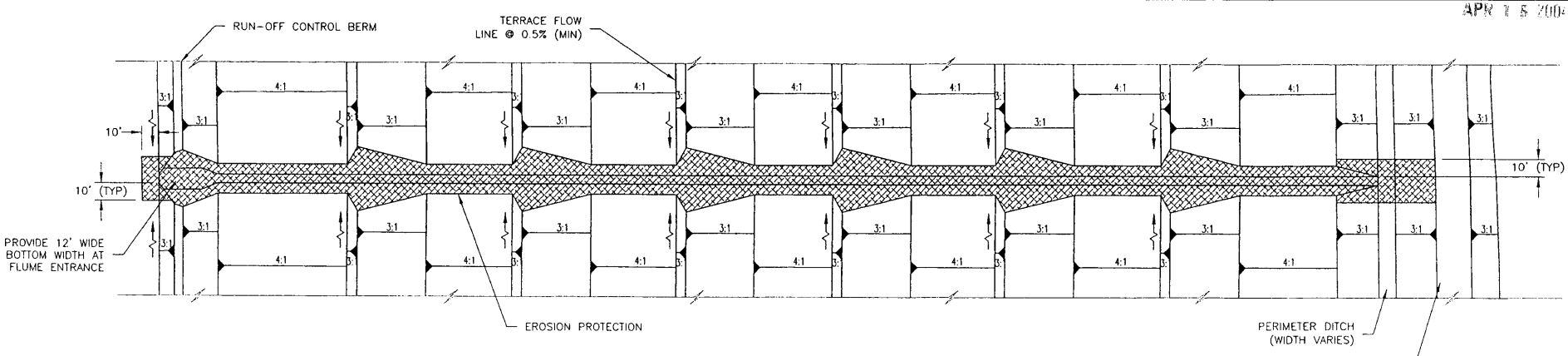
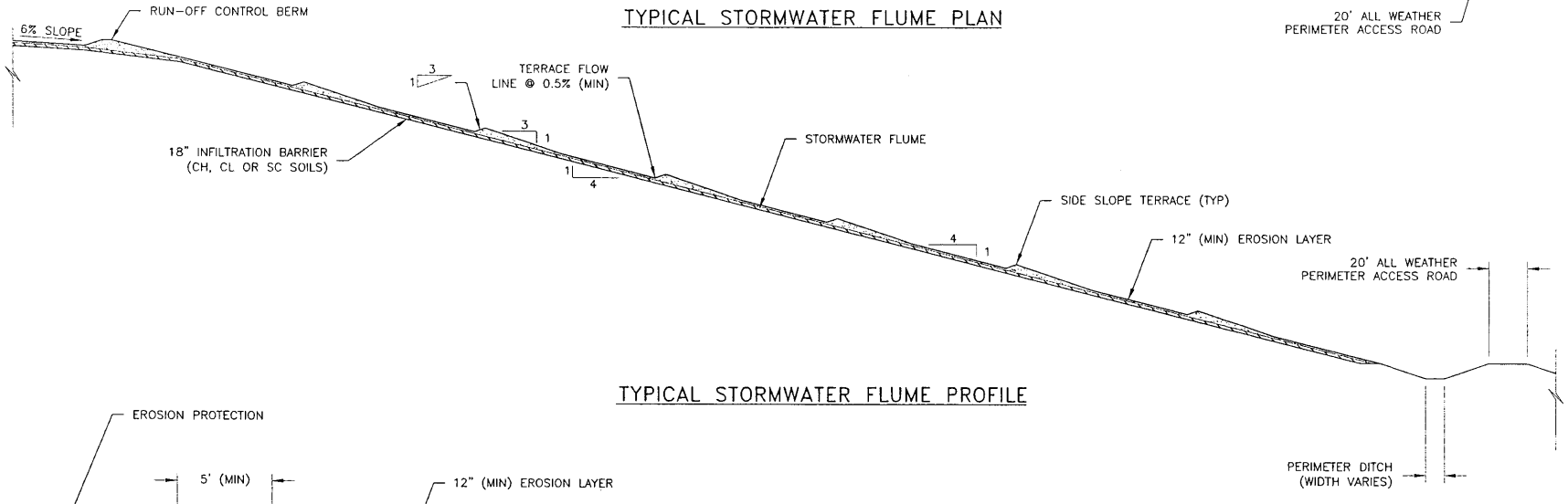
Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 11 of 31

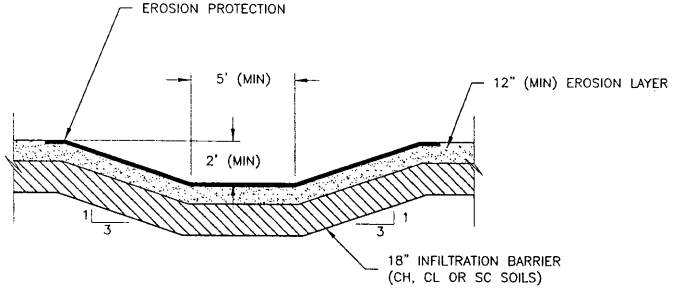
APR 1 5 2004



TYPICAL STORMWATER FLUME PLAN



TYPICAL STORMWATER FLUME PROFILE



TYPICAL STORMWATER FLUME CROSS -SECTION

60 30 0 60
SCALE FEET

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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TYPICAL STORMWATER FLUME PLAN AND CROSS-SECTIONS	Date	Revision/Description
	Drawn By DRK	Checked By GRH · Project No. 030405-3 · Dwg. Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Laboratories, Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 1 · Figure 1-11

ATT. 1-11

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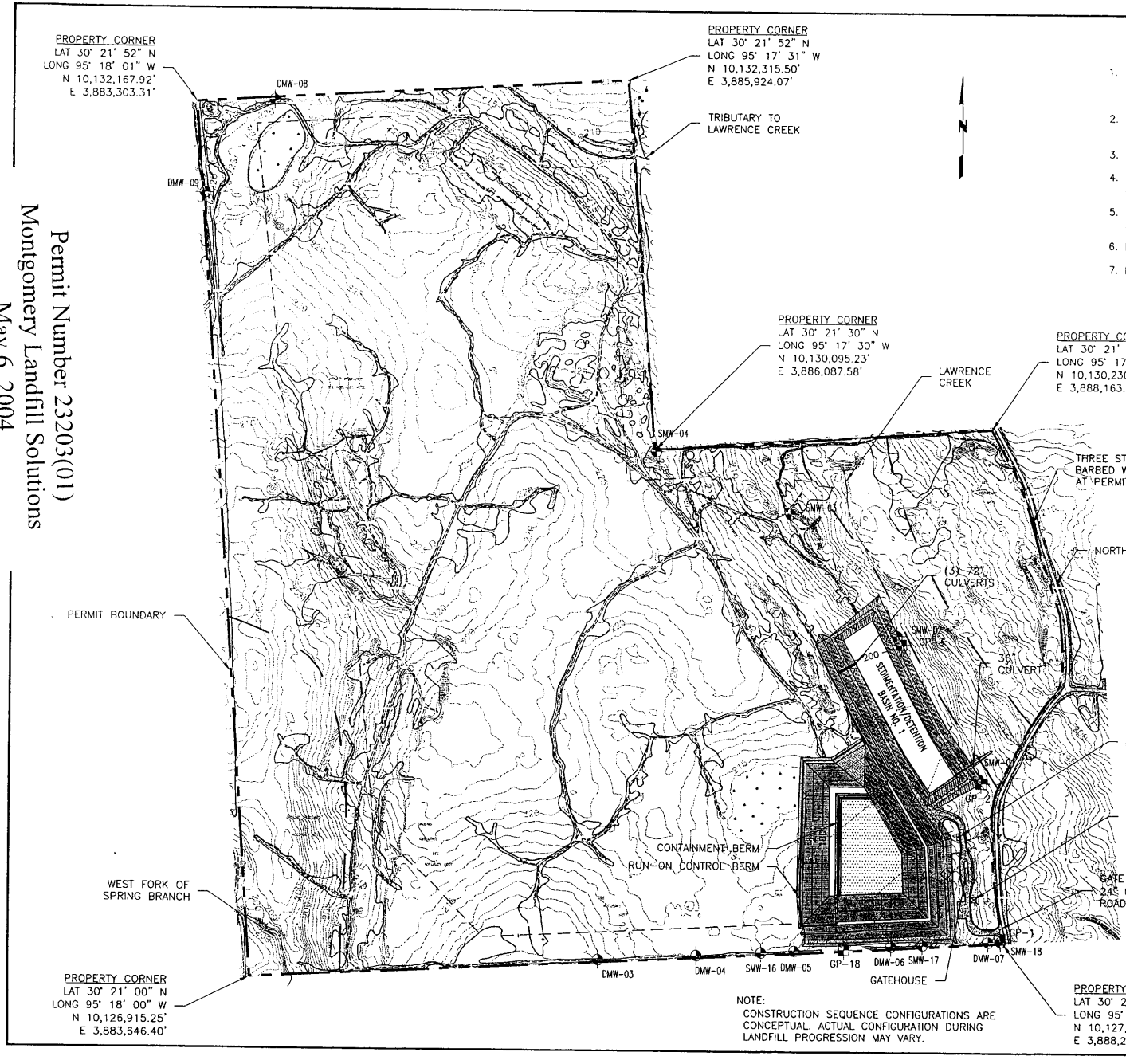
Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 12 of 31

APR 1 5 2004



NOTE:
CONSTRUCTION SEQUENCE CONFIGURATIONS ARE CONCEPTUAL. ACTUAL CONFIGURATION DURING LANDFILL PROGRESSION MAY VARY.

SEQUENCE OF OPERATIONS – STEP 1

1. INSTALL PHASE 1 OF THE GROUND WATER MONITORING AND METHANE GAS MONITORING SYSTEMS. PERFORM INITIAL BACKGROUND GROUNDWATER SAMPLING AND ANALYSIS.
2. BEGIN EXCAVATION OF THE INITIAL LANDFILL AREA AND EXCAVATION OF STORMWATER SEDIMENTATION/DETENTION BASIN NO.1
3. CONSTRUCT THE 36" CLAY LINER AND 12" PROTECTIVE COVER LAYER.
4. CONSTRUCT THE PERIMETER DITCH, PERIMETER ROAD, ENTRANCE ROAD AND ENTRANCE FACILITIES AS REQUIRED FOR INITIAL LANDFILLING ACTIVITIES.
5. CONSTRUCT CONTAINMENT BERMS AROUND WORKING FACE AREAS AND AREAS WITH WEEKLY COVER.
6. BEGIN PLACEMENT OF INCOMING WASTE IN COMPLETED LANDFILL AREAS.
7. PLACE WEEKLY COVER AND INTERMEDIATE COVER OVER WASTE AS REQUIRED.

LEGEND

- PERMIT BOUNDARY
- APPROXIMATE LIMITS OF 100-YR-FLOODPLAIN
- LIMITS OF WASTE PLACEMENT
- SMW-01 — PROPOSED SHALLOW MONITOR WELL LOCATION AND ID NUMBER
- DMW-01 — PROPOSED DEEP MONITOR WELL LOCATION AND ID NUMBER
- GP-1 — PROPOSED GAS PROBE LOCATION AND ID NUMBER
- ALL WEATHER ACCESS ROAD SURFACE
- PAVED ENTRANCE ROAD
- LINED LANDFILL AREA

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER
5/11/04

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600 300 0 600
SCALE FEET

SURVEY NOTE:
TOPOGRAPHY FROM AERIAL PHOTOGRAPHY BY LANDAIR, INC., MARCH 2003.

SEQUENCE OF OPERATIONS
SEQUENCE ONE

Date	Revision/Description

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 1 | Figure 1-12

ATT. 1-12

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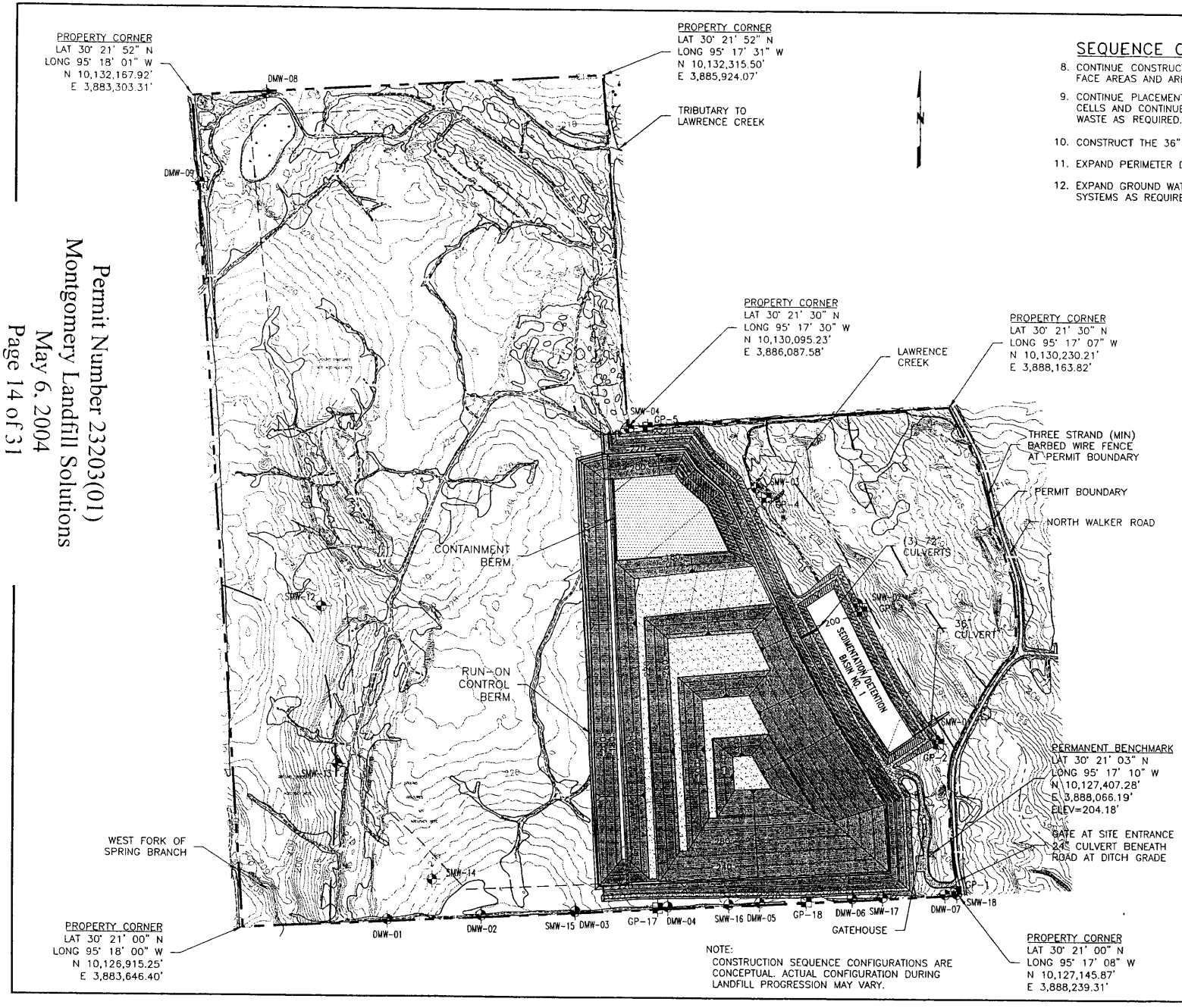
APR 1 5 2004



SEQUENCE OF OPERATIONS – STEP 2

8. CONTINUE CONSTRUCTION OF CONTAINMENT BERMS AROUND WORKING FACE AREAS AND AREAS OF WASTE WITH WEEKLY COVER.
9. CONTINUE PLACEMENT OF OF INCOMING WASTE IN COMPLETED LANDFILL CELLS AND CONTINUE WEEKLY COVER AND INTERMEDIATE COVER OVER WASTE AS REQUIRED.
10. CONSTRUCT THE 36" CLAY LINER AND 12" PROTECTIVE COVER LAYER.
11. EXPAND PERIMETER DITCH SYSTEM AS NEEDED.
12. EXPAND GROUND WATER MONITORING AND METHANE MONITORING SYSTEMS AS REQUIRED.

LEGEND

- PERMIT BOUNDARY
- APPROXIMATE LIMITS OF 100-YR-FLOODPLAIN
- LIMITS OF WASTE PLACEMENT
- SMW-01 PROPOSED SHALLOW MONITOR WELL LOCATION AND ID NUMBER
- DMW-01 PROPOSED DEEP MONITOR WELL LOCATION AND ID NUMBER
- GP-1 PROPOSED GAS PROBE LOCATION AND ID NUMBER
- ALL WEATHER ACCESS ROAD SURFACE
- PAVED ENTRANCE ROAD
- LINED LANDFILL AREA
- INTERMEDIATE COVER

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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SCALE FEET

SURVEY NOTE:

TOPOGRAPHY FROM AERIAL PHOTOGRAPHY BY LANDAIR, INC., MARCH 2003.

NOTE:
CONSTRUCTION SEQUENCE CONFIGURATIONS ARE CONCEPTUAL. ACTUAL CONFIGURATION DURING LANDFILL PROGRESSION MAY VARY.

SEQUENCE OF OPERATIONS SEQUENCE TWO	Date	Revision/Description
	Drawn By DKK	Checked By GRH	Project No. 030405-3	Dwg. Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Environmental Services
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III	Figure
ATT. 1	1-13

ATT. 1-13

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 14 of 31

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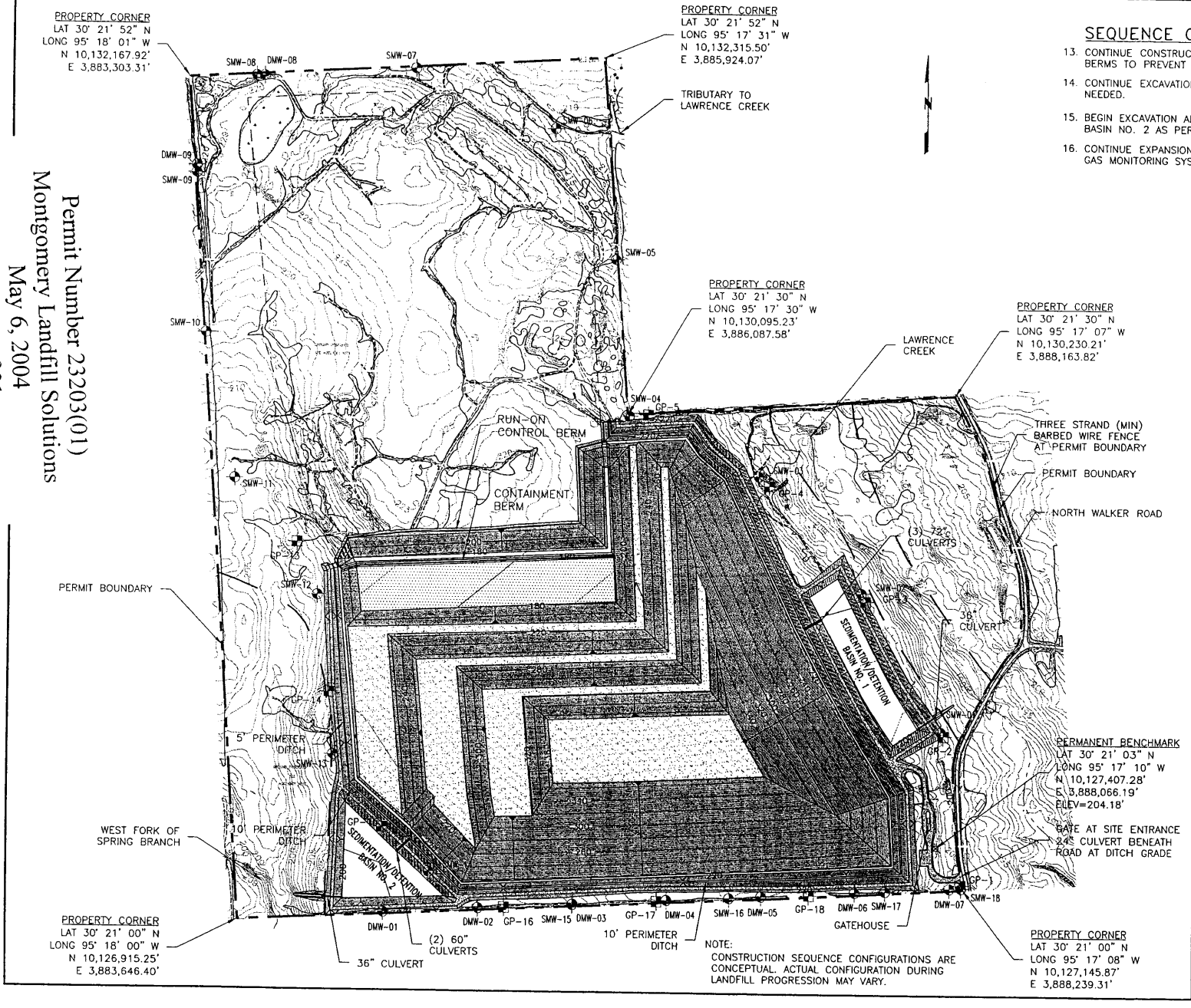
APR 1 5 2004



SEQUENCE OF OPERATIONS – STEP 3

13. CONTINUE CONSTRUCTION OF RUN-ON CONTROL BERMS AND CONTAINMENT BERMS TO PREVENT THE CONTAMINATION OF CLEAN RUN-OFF.
14. CONTINUE EXCAVATION AND CONSTRUCTION OF NEW LANDFILL AREAS AS NEEDED.
15. BEGIN EXCAVATION AND CONSTRUCTION OF STORMWATER SEDIMENTATION/DETENTION BASIN NO. 2 AS PERIMETER DITCH IS EXPANDED TO WEST.
16. CONTINUE EXPANSION OF THE GROUNDWATER MONITORING AND METHANE GAS MONITORING SYSTEMS.

LEGEND

- PERMIT BOUNDARY
- APPROXIMATE LIMITS OF 100-YR-FLOODPLAIN
- LIMITS OF WASTE PLACEMENT
- SMW-01 PROPOSED SHALLOW MONITOR WELL LOCATION AND ID NUMBER
- DMW-01 PROPOSED DEEP MONITOR WELL LOCATION AND ID NUMBER
- GP-1 PROPOSED GAS PROBE LOCATION AND ID NUMBER
- ALL WEATHER ACCESS ROAD SURFACE
- PAVED ENTRANCE ROAD
- LINED LANDFILL AREA
- INTERMEDIATE COVER

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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SURVEY NOTE:

TOPOGRAPHY FROM AERIAL PHOTOGRAPHY BY LANDAIR, INC., MARCH 2003.

NOTE:
CONSTRUCTION SEQUENCE CONFIGURATIONS ARE CONCEPTUAL. ACTUAL CONFIGURATION DURING LANDFILL PROGRESSION MAY VARY.

SEQUENCE OF OPERATIONS SEQUENCE THREE	Date	Revision/Description
	Drawn By JCT	Checked By GRH
	Project No. 030405-3	Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Industrial Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 1 | Figure 1-14

ATT. 1-14

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 15 of 31

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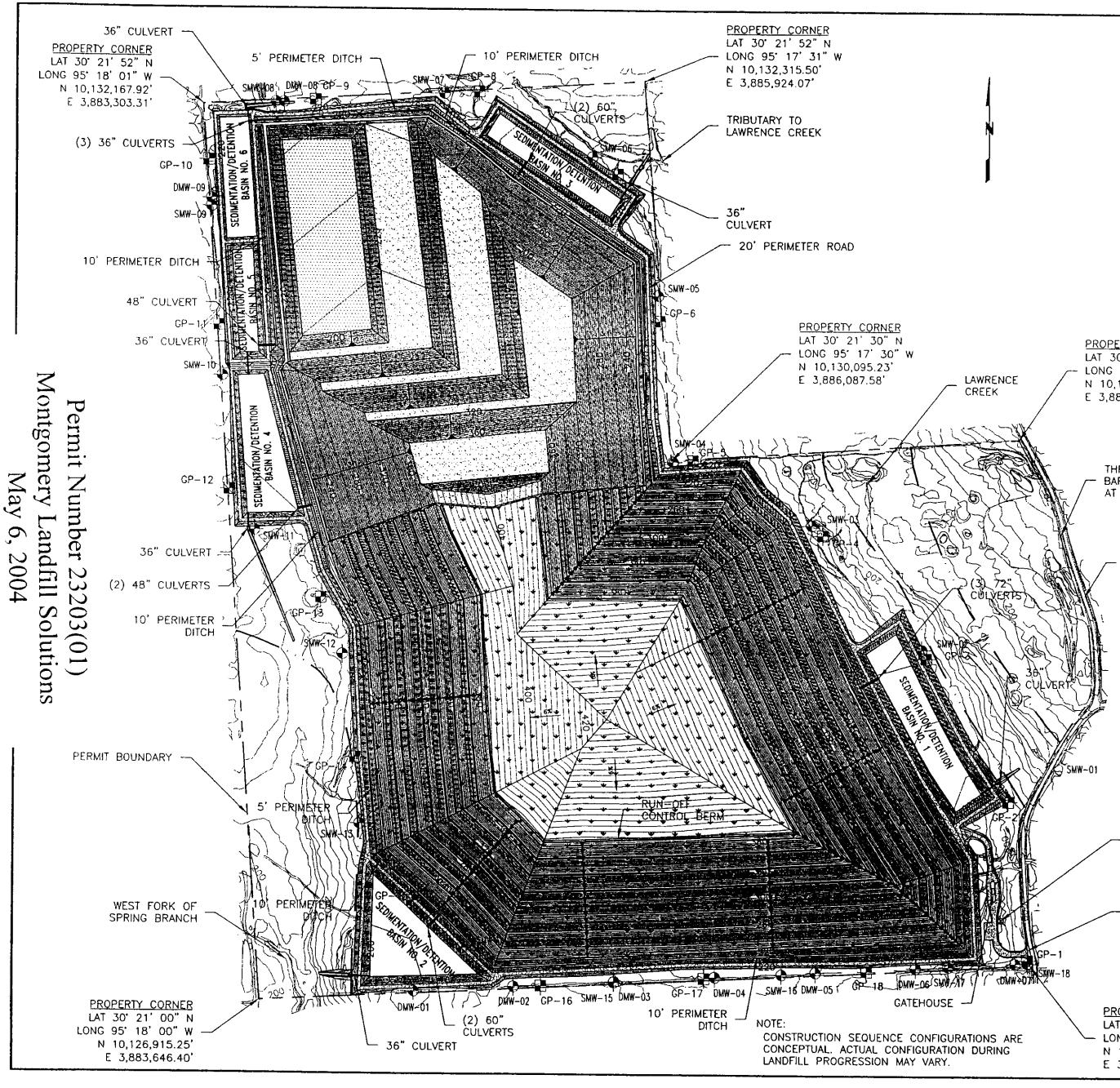

SEQUENCE OF OPERATIONS – STEP 4

17. CONTINUE CONSTRUCTION OF RUN-ON CONTROL BERMS AND CONTAINMENT BERMS TO PREVENT THE CONTAMINATION OF CLEAN RUN-OFF.
18. CONTINUE EXCAVATION AND CONSTRUCTION OF NEW LANDFILL AREAS AS NEEDED.
19. BEGIN EXCAVATION AND CONSTRUCTION OF STORMWATER SEDIMENTATION/DETENTION BASINS NO. 3, 4, 5, AND 6 AS PERIMETER DITCH IS EXPANDED TO NORTH.
20. CONTINUE EXPANSION OF THE GROUNDWATER MONITORING AND METHANE GAS MONITORING SYSTEMS.
21. BEGIN CLOSURE OF LANDFILL AREAS AS FILL REACHES FINISHED GRADE IN INCREMENTS OF 20–40 ACRES.

LEGEND

- PERMIT BOUNDARY
- APPROXIMATE LIMITS OF 100-YR-FLOODPLAIN
- STORMWATER FLUME
- LIMITS OF WASTE PLACEMENT
- SMW-01 — PROPOSED SHALLOW MONITOR WELL LOCATION AND ID NUMBER
- DMW-01 — PROPOSED DEEP MONITOR WELL LOCATION AND ID NUMBER
- GP-1 — PROPOSED GAS PROBE LOCATION AND ID NUMBER
- ALL WEATHER ACCESS ROAD SURFACE
- PAVED ENTRANCE ROAD
- LINED LANDFILL AREA
- INTERMEDIATE COVER
- MULTI LAYER FINAL COVER SYSTEM

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SEQUENCE OF OPERATIONS
SEQUENCE FOUR

Date	Revision/Description

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Engineering Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III	Figure
ATT. 1	1–15

ATT. 1–15

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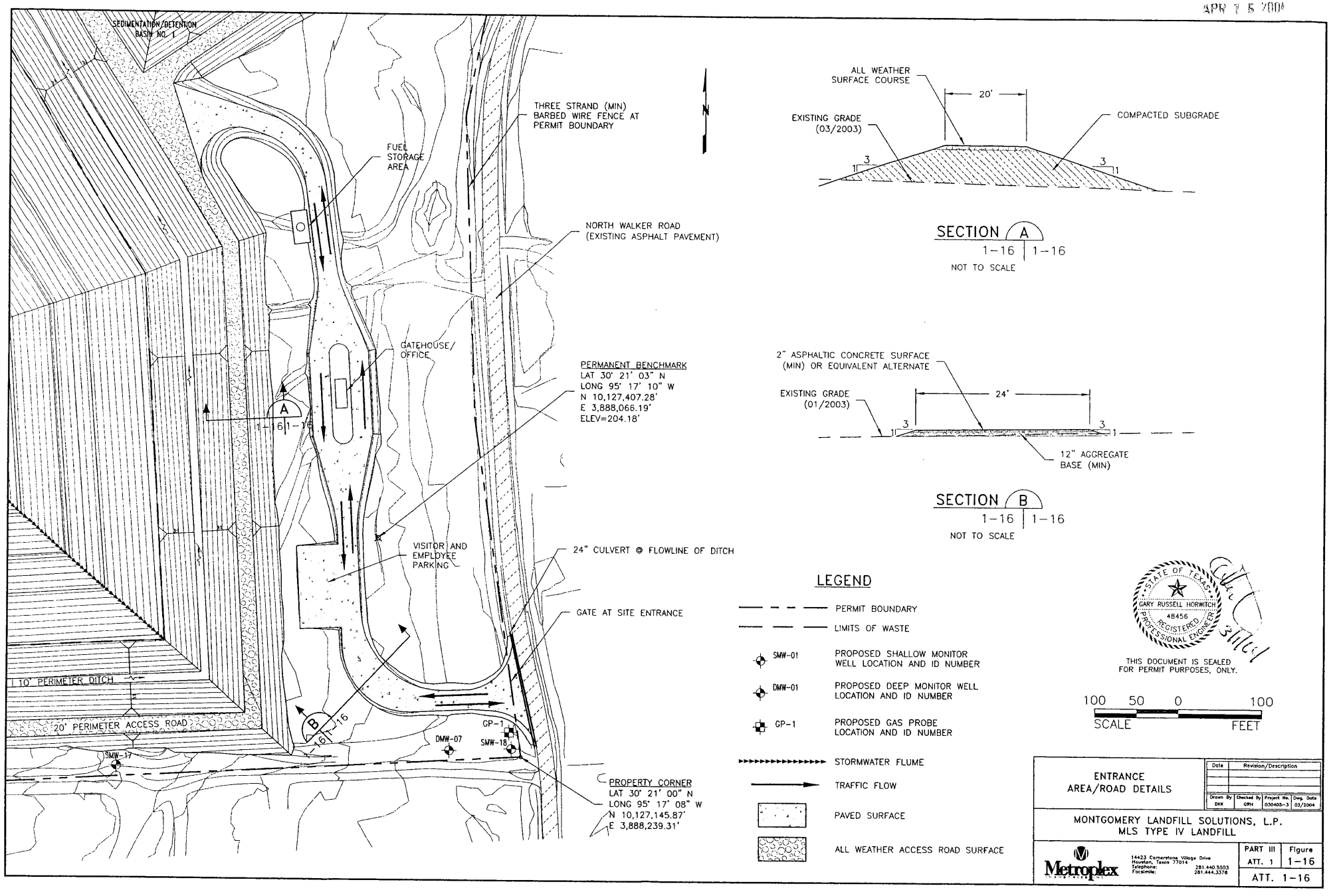
APR 1 5 2004



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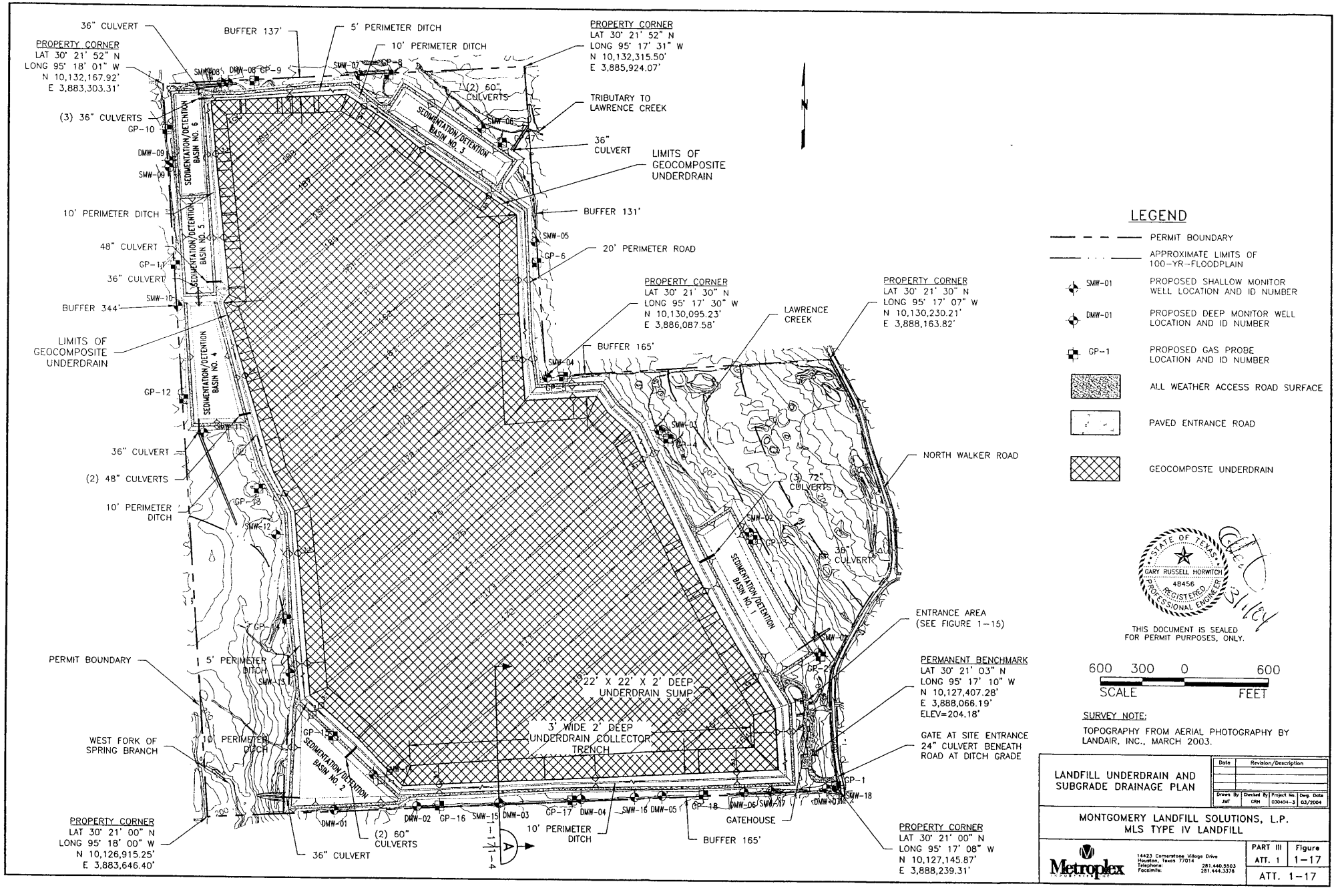

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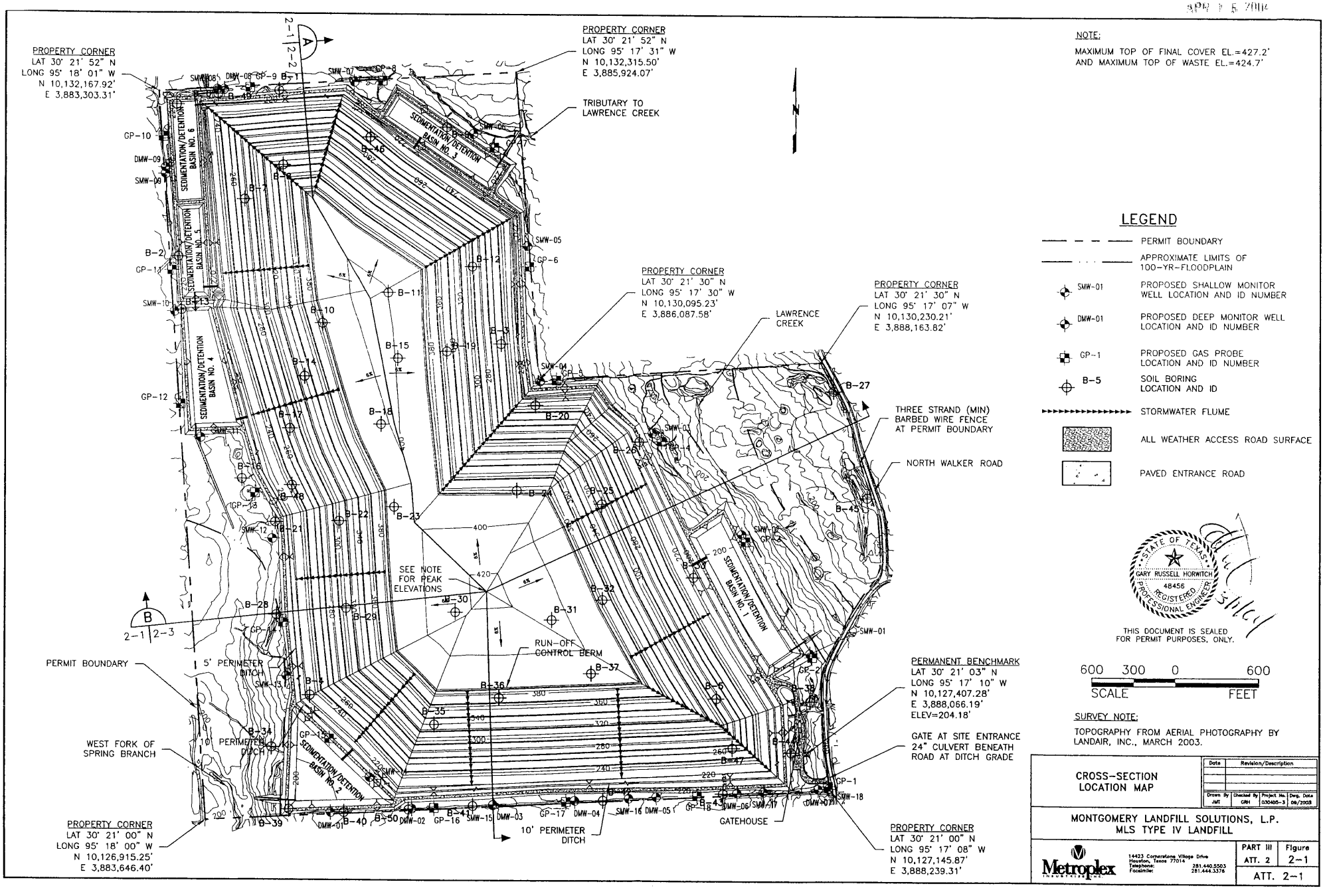

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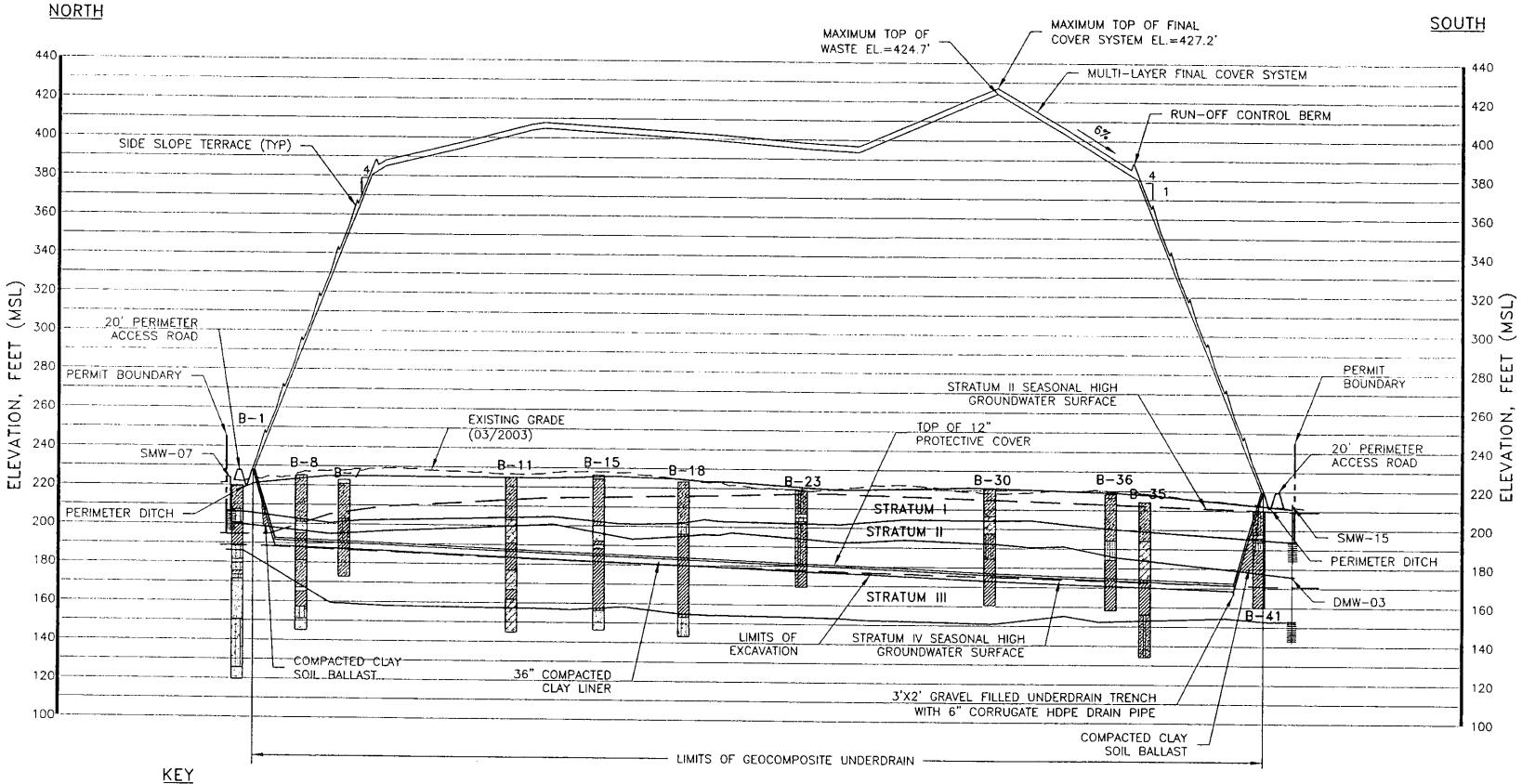
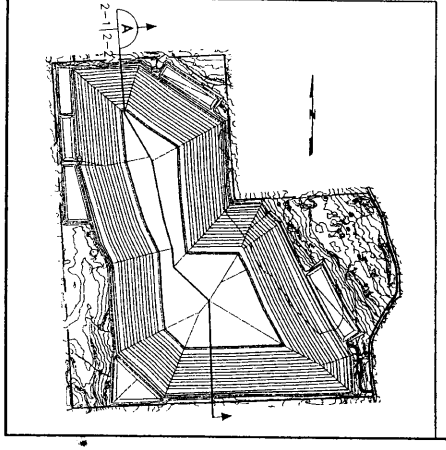


SECTION A
2-1 | 2-2

NOTES:

1. EXISTING GRADE FROM AERIAL SURVEY PERFORMED BY LANDAIR, MARCH, 2003
2. PERIMETER BERM/ROAD CONSTRUCTED FROM ONSITE SOILS COMPACTED TO 95% STANDARD PROCTER AT -2 TO +4 OMC.
3. MONITOR WELL AND GAS PROBE HORIZONTAL LOCATIONS PROJECTED TO PROFILE LOCATION.
4. ALL ELEVATIONS ARE IN FEET, MSL.
5. THREE STRAND (MIN) BARBED WIRE FENCE AT PERMIT BOUNDARY
6. STRATUM INTERFACE LINES SHOWN PROJECTED TO PROFILE ALIGNMENT.

KEY



LEGEND

- FAT CLAY (CH)
- LEAN CLAY (CL)
- SILT (ML)
- SILTY SAND (SM)
- SILTY CLAY OR SANDY SILTY CLAY (CL-ML)
- FAT CLAY WITH SAND (CH)
- LEAN CLAY WITH SAND (CL)
- SILT SAND WITH CLAY (ML)
- CLAYEY SAND (SC)
- FILL
- POORLY GRADED (SP)

60 30 0 60
SCALE VERTICAL FEET

600 300 0 600
SCALE HORIZONTAL FEET

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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Date	Revision/Description
02/2004	ADD BALLAST

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	09/2003

CROSS-SECTION A

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex ENGINEERING, INC.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 2 | Figure 2-2

ATT. 2-2

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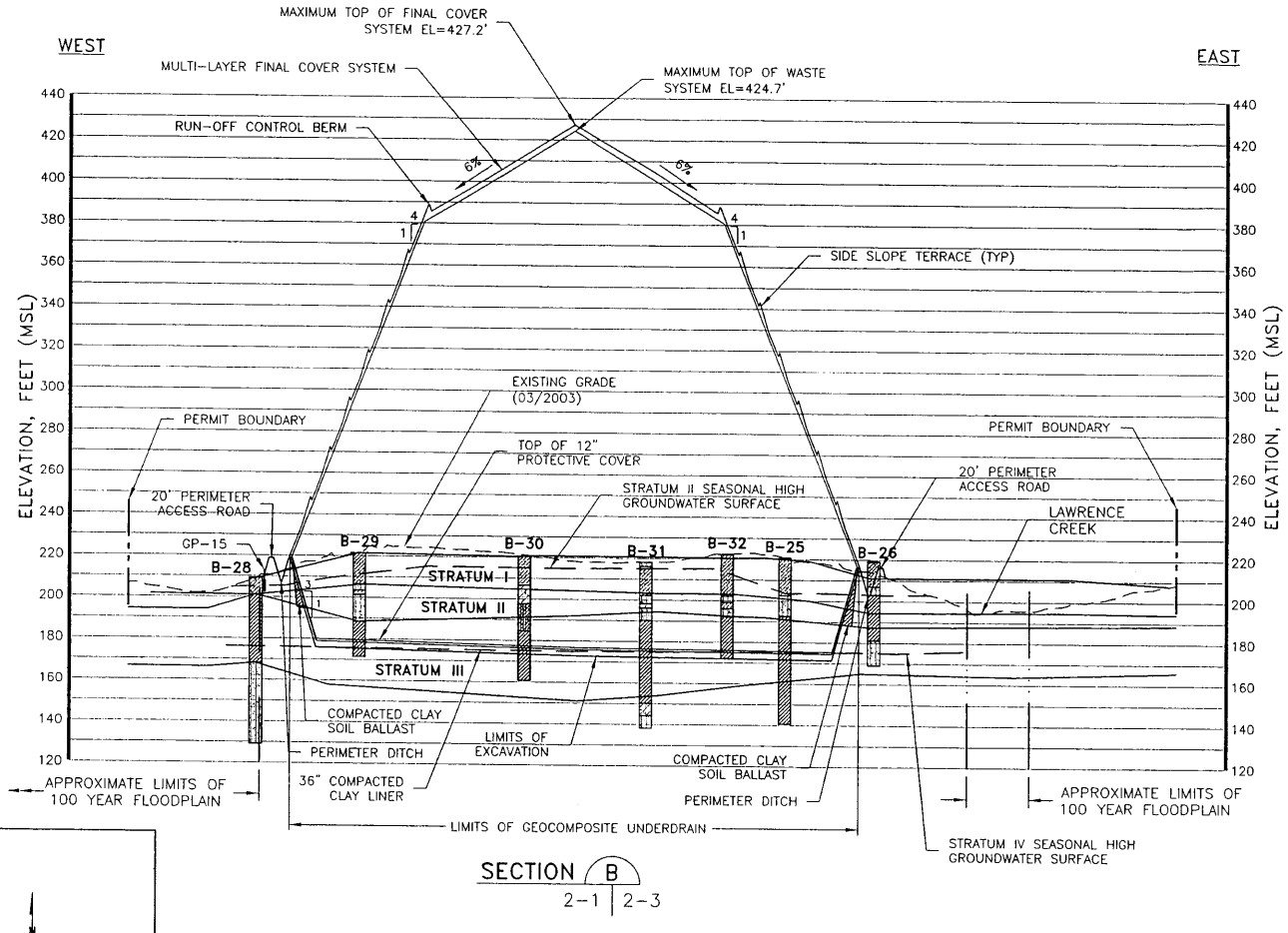
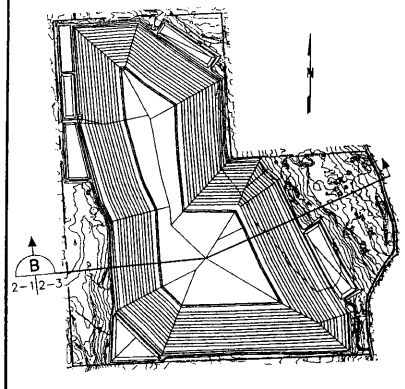


SECTION B
2-1 | 2-3

NOTES:

1. EXISTING GRADE FROM AERIAL SURVEY PERFORMED BY LANDAIR, MARCH, 2003
2. PERIMETER BERM/ROAD CONSTRUCTED FROM ONSITE SOILS COMPACTED TO 95% STANDARD PROCTER AT -2 TO +4 OMC.
3. MONITOR WELL AND GAS PROBE HORIZONTAL LOCATIONS PROJECTED TO PROFILE LOCATION.
4. ALL ELEVATIONS ARE IN FEET, MSL.
5. THREE STRAND (MIN) BARBED WIRE FENCE AT PERMIT BOUNDARY
6. STRATUM INTERFACE LINES SHOWN PROJECTED TO PROFILE ALIGNMENT.

KEY



LEGEND

FAT CLAY (CH) | LEAN CLAY (CL) | SILT (ML) | SILTY SAND (SM) | SILTY CLAY OR SANDY SILTY CLAY (CL-ML)

FAT CLAY WITH SAND (CH) | LEAN CLAY WITH SAND (CL) | SILT SAND WITH CLAY (ML) | CLAYEY SAND (SC) | FILL | POORLY GRADED (SP)

60 30 0 60
SCALE VERTICAL FEET

600 300 0 600
SCALE HORIZONTAL FEET

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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Date	Revision/Description
02/2004	ADD BALLAST

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	09/2003

CROSS-SECTION B

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Industrial Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 2 | Figure 2-3

ATT. 2-3

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 21 of 31

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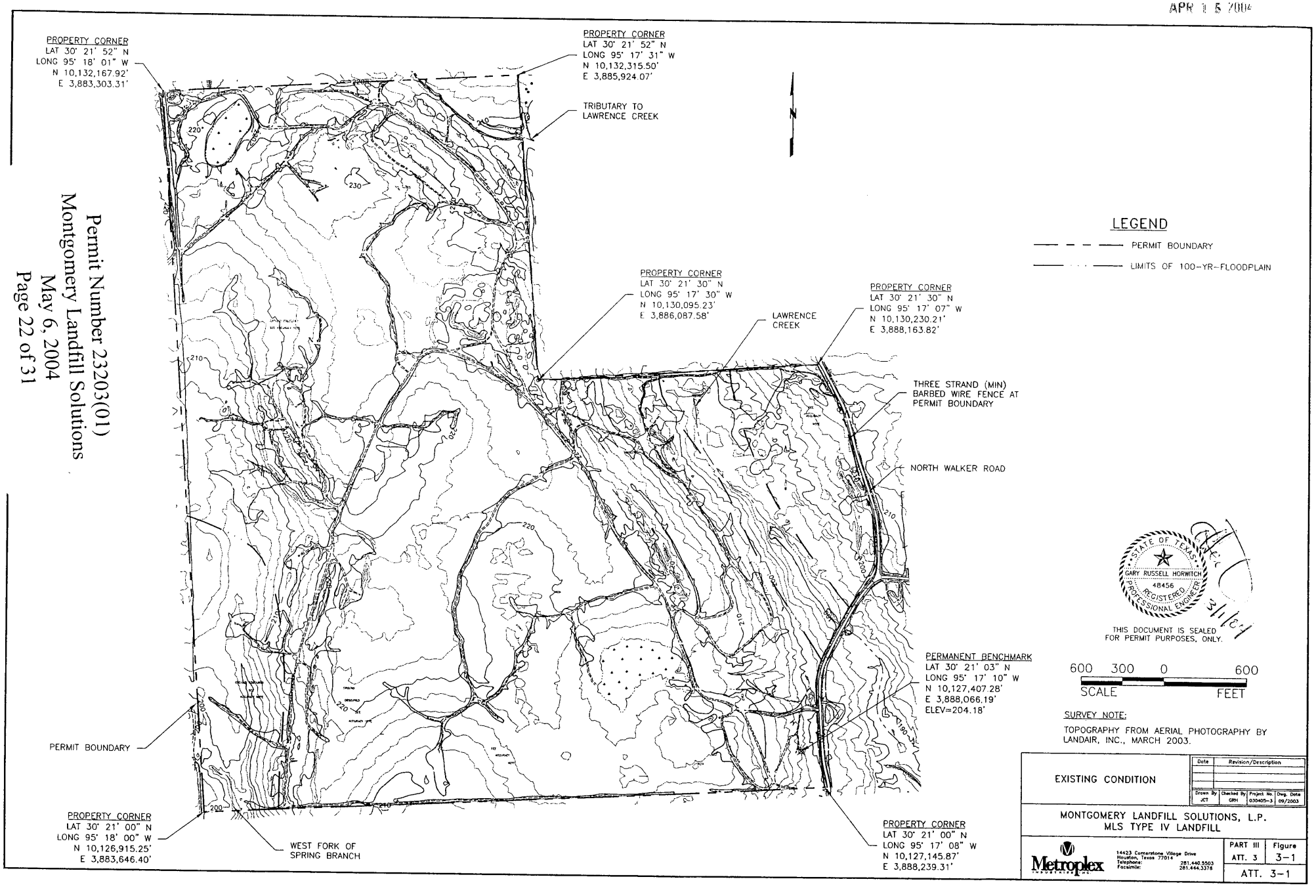

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 22 of 31

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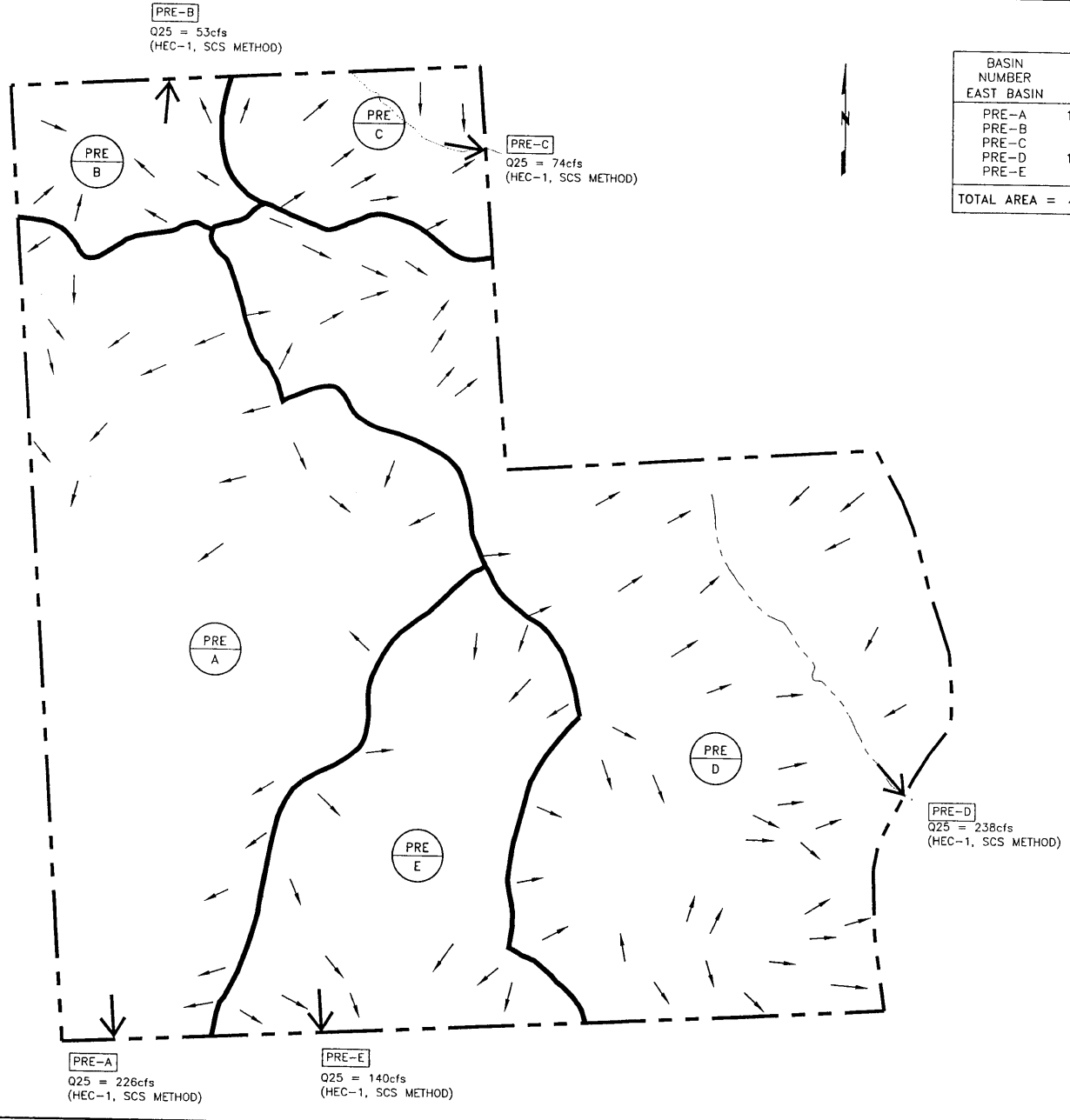

PREDEVELOPMENT DRAINAGE BASIN SUMMARY

BASIN NUMBER EAST BASIN	BASIN AREA (AC)	BASIN AREA (SQ. MI.)	TIME OF CONCENTRATION (min.)	LAG TIME (hr.)	SCS Runoff CURVE NUMBER
PRE-A	162.7	0.2543	177	1.77	71
PRE-B	23.0	0.0360	63	.63	65
PRE-C	27.8	0.0434	52	.52	67
PRE-D	187.4	0.2928	194	1.94	70
PRE-E	72.0	0.1125	116	1.16	74
TOTAL AREA =	473.0	0.7391			

LEGEND

PERMIT BOUNDARY

DRAINAGE AREA LIMITS

PRE A — PRE-DEVELOPED AREA BASIN

PRE-D — PRE-DEVELOPMENT DISCHARGE LOCATION AND ID

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REGISTERED PROFESSIONAL ENGINEER

3/11/04

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PRE-DEVELOPMENT DRAINAGE

Date	Revision/Description

Drawn By	Checked By	Project No.	Dwg. Date
JWT	GRH	030405-3	09/2003

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Industries, Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 3 | Figure 3-2

ATT. 3-2

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 23 of 31

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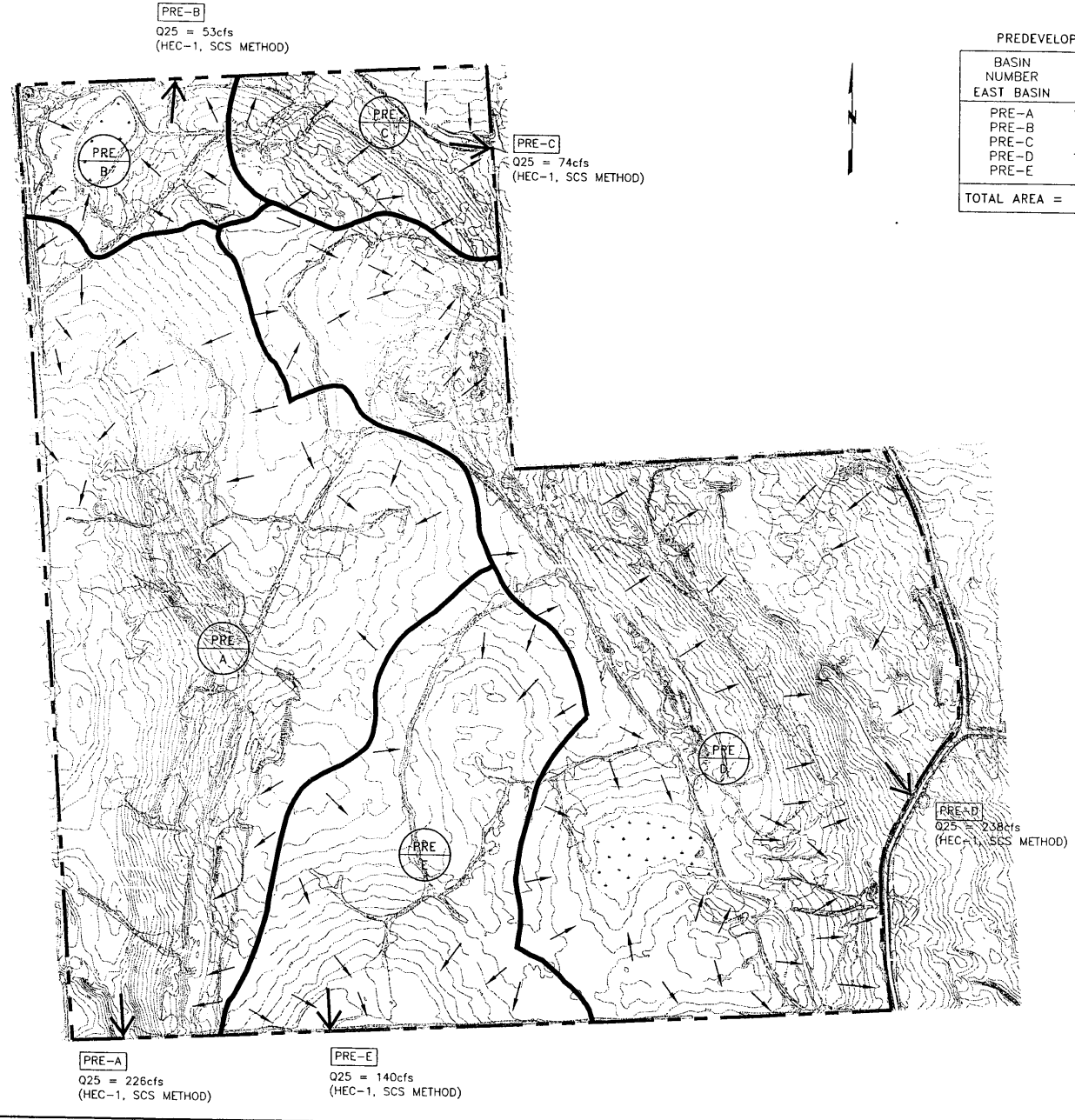

PREDEVELOPMENT DRAINAGE BASIN SUMMARY – 25-YEAR PEAK EVENT

BASIN NUMBER EAST BASIN	BASIN AREA (AC)	BASIN AREA (SQ. MI.)	TIME OF CONCENTRATION (min.)	LAG TIME (hr.)	SCS Runoff CURVE NUMBER
PRE-A	162.7	0.2543	177	1.77	71
PRE-B	23.0	0.0360	63	.63	65
PRE-C	27.8	0.0434	52	.52	67
PRE-D	187.4	0.2928	194	1.94	70
PRE-E	72.0	0.1125	116	1.16	74
TOTAL AREA =	473.0	0.7391			

LEGEND

PERMIT BOUNDARY

DRAINAGE AREA LIMITS

PRE / A — PRE-DEVELOPED AREA BASIN

PRE-D — PRE-DEVELOPMENT DISCHARGE LOCATION AND ID

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REGISTERED PROFESSIONAL ENGINEER

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SURVEY NOTE:

TOPOGRAPHY FROM AERIAL PHOTOGRAPHY BY LANDAIR, INC., MARCH 2003.

EXISTING DRAINAGE PATTERNS

Date	Revision/Description

Drawn By	Checked By	Project no.	Dwg. Date
JMT	GRH	030405-3	09/2003

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Engineering Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 3 | Figure 3-3

ATT. 3-3

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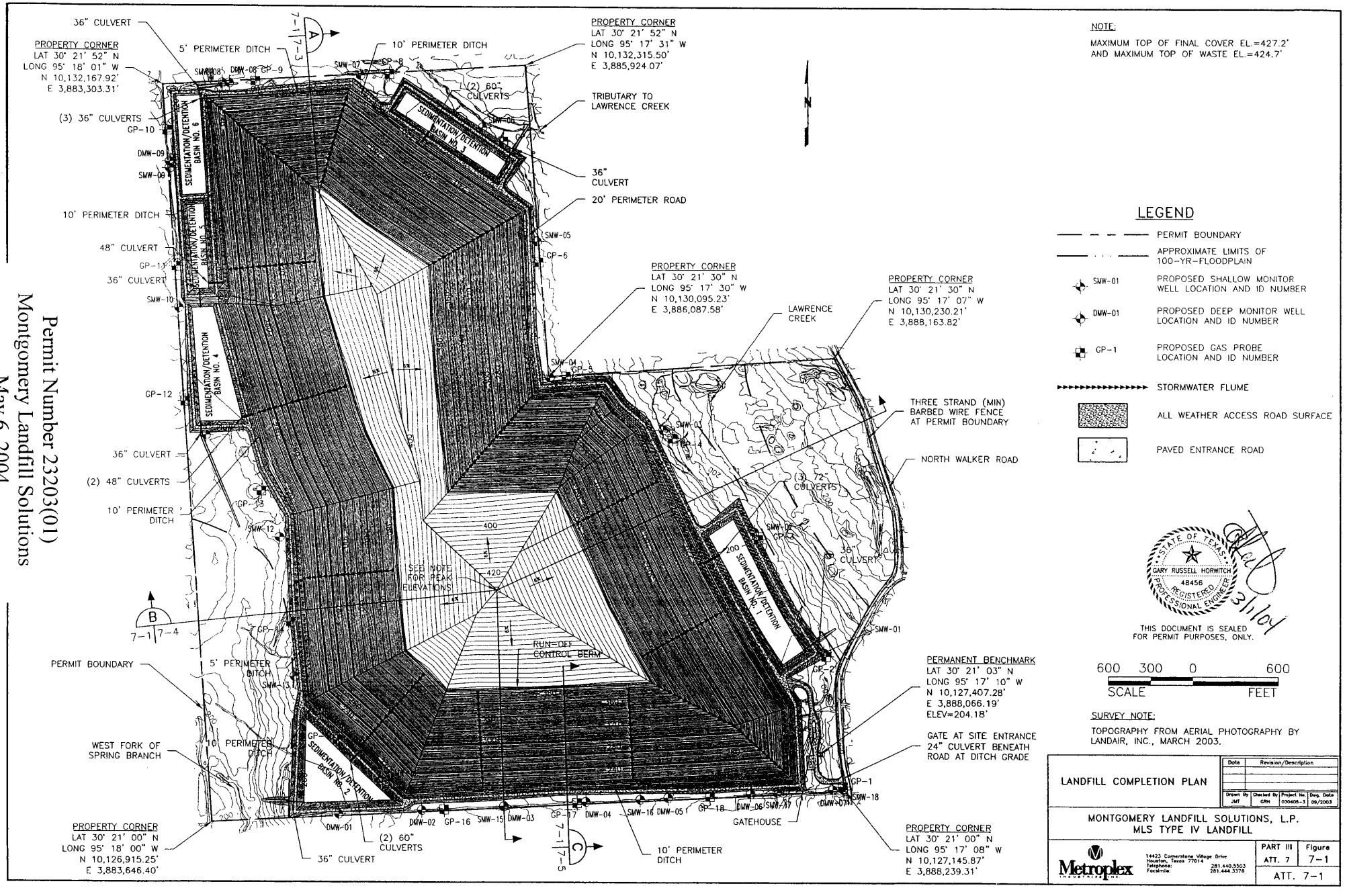
36" CULVERT
PROPERTY CORNER
LAT 30° 21' 52" N
LONG 95° 18' 01" W
N 10,132,167.92'
E 3,883,303.31'
5' PERIMETER DITCH
10' PERIMETER DITCH
PROPERTY CORNER
LAT 30° 21' 52" N
LONG 95° 17' 31" W
N 10,132,315.50'
E 3,885,924.07'
(2) 60" CULVERTS
TRIBUTARY TO LAWRENCE CREEK
(3) 36" CULVERTS
36" CULVERT
20' PERIMETER ROAD
10' PERIMETER DITCH
48" CULVERT
36" CULVERT
PROPERTY CORNER
LAT 30° 21' 30" N
LONG 95° 17' 30" W
N 10,130,095.23'
E 3,886,087.58'
LAWRENCE CREEK
PROPERTY CORNER
LAT 30° 21' 30" N
LONG 95° 17' 07" W
N 10,130,230.21'
E 3,888,163.82'
THREE STRAND (MIN) BARBED WIRE FENCE AT PERMIT BOUNDARY
NORTH WALKER ROAD
36" CULVERT
(2) 48" CULVERTS
10' PERIMETER DITCH
(3) 72" CULVERTS
36" CULVERT
SEE NOTE FOR PEAK ELEVATIONS
RUN-OFF CONTROL BERM
PERMIT BOUNDARY
5' PERIMETER DITCH
PERMANENT BENCHMARK
LAT 30° 21' 03" N
LONG 95° 17' 10" W
N 10,127,407.28'
E 3,888,066.19'
ELEV=204.18'
WEST FORK OF SPRING BRANCH
10' PERIMETER DITCH
GATE AT SITE ENTRANCE 24" CULVERT BENEATH ROAD AT DITCH GRADE
GATEHOUSE
PROPERTY CORNER
LAT 30° 21' 00" N
LONG 95° 18' 00" W
N 10,126,915.25'
E 3,883,646.40'
(2) 60" CULVERTS
36" CULVERT
10' PERIMETER DITCH
PROPERTY CORNER
LAT 30° 21' 00" N
LONG 95° 17' 08" W
N 10,127,145.87'
E 3,888,239.31'
SEDIMENTATION/DETENTION BASIN NO. 1
SEDIMENTATION/DETENTION BASIN NO. 2
SEDIMENTATION/DETENTION BASIN NO. 3
SEDIMENTATION/DETENTION BASIN NO. 4
SEDIMENTATION/DETENTION BASIN NO. 5
SEDIMENTATION/DETENTION BASIN NO. 6
NOTE:
MAXIMUM TOP OF FINAL COVER EL.=427.2'
AND MAXIMUM TOP OF WASTE EL.=424.7'
LEGEND
PERMIT BOUNDARY
APPROXIMATE LIMITS OF 100-YR-FLOODPLAIN
SMW-01 PROPOSED SHALLOW MONITOR WELL LOCATION AND ID NUMBER
DMW-01 PROPOSED DEEP MONITOR WELL LOCATION AND ID NUMBER
GP-1 PROPOSED GAS PROBE LOCATION AND ID NUMBER
STORMWATER FLUME
ALL WEATHER ACCESS ROAD SURFACE
PAVED ENTRANCE ROAD
STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER
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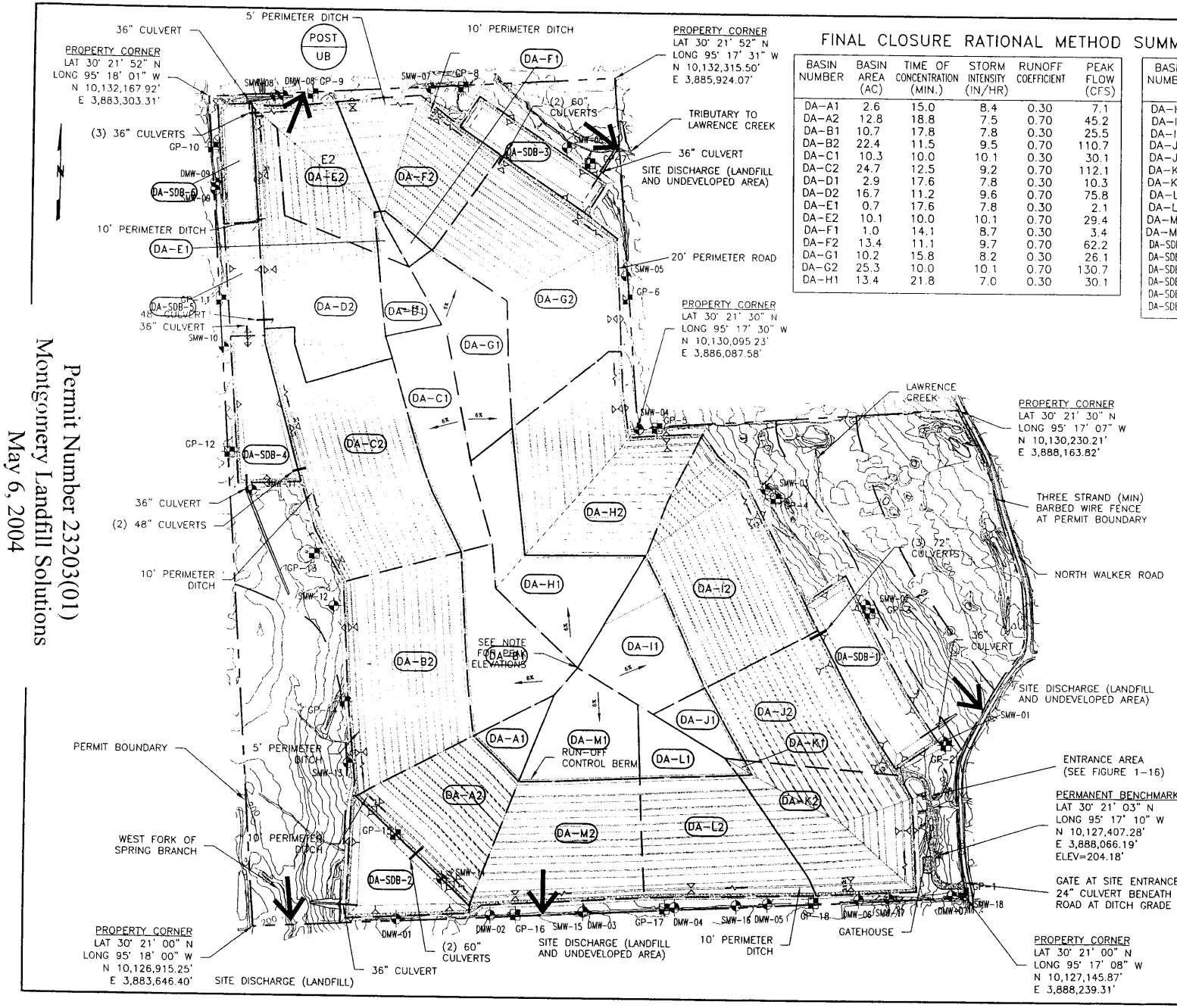
SURVEY NOTE:
TOPOGRAPHY FROM AERIAL PHOTOGRAPHY BY LANDAIR, INC., MARCH 2003.
LANDFILL COMPLETION PLAN
Date
Revision/Description
Drawn By JWT
Checked By GRH
Project No. 030405-3
Dwg. Date 09/2003
MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL
Metroplex
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376
PART III
ATT. 7
Figure
7-1
ATT. 7-1

APR 1 5 2004



FINAL CLOSURE RATIONAL METHOD SUMMARY – 25-YEAR PEAK EVENT

BASIN NUMBER	BASIN AREA (AC)	TIME OF CONCENTRATION (MIN.)	STORM INTENSITY (IN/HR)	RUNOFF COEFFICIENT	PEAK FLOW (CFS)
DA-A1	2.6	15.0	8.4	0.30	7.1
DA-A2	12.8	18.8	7.5	0.70	45.2
DA-B1	10.7	17.8	7.8	0.30	25.5
DA-B2	22.4	11.5	9.5	0.70	110.7
DA-C1	10.3	10.0	10.1	0.30	30.1
DA-C2	24.7	12.5	9.2	0.70	112.1
DA-D1	2.9	17.6	7.8	0.30	10.3
DA-D2	16.7	11.2	9.6	0.70	75.8
DA-E1	0.7	17.6	7.8	0.30	2.1
DA-E2	10.1	10.0	10.1	0.70	29.4
DA-F1	1.0	14.1	8.7	0.30	3.4
DA-F2	13.4	11.1	9.7	0.70	62.2
DA-G1	10.2	15.8	8.2	0.30	26.1
DA-G2	25.3	10.0	10.1	0.70	130.7
DA-H1	13.4	21.8	7.0	0.30	30.1

BASIN NUMBER	BASIN AREA (AC)	TIME OF CONCENTRATION (MIN.)	STORM INTENSITY (IN/HR)	RUNOFF COEFFICIENT	PEAK FLOW (CFS)
DA-H2	23.0	12.1	9.3	0.70	113.1
DA-I1	9.7	32.3	5.6	0.30	17.1
DA-I2	22.0	10.7	9.9	0.70	104.4
DA-J1	2.6	24.2	6.6	0.30	6.0
DA-J2	14.8	10.0	10.1	0.70	68.7
DA-K1	0.2	15.8	8.2	0.30	0.9
DA-K2	16.0	11.2	9.6	0.70	66.7
DA-L1	3.8	32.5	5.6	0.30	6.7
DA-L2	15.6	10.3	10.0	0.70	75.1
DA-M1	9.0	22.0	6.9	0.30	19.2
DA-M2	16.7	10.1	10.1	0.70	84.7
DA-SDB1	8.9	10.0	10.1	0.95	86.4
DA-SDB2	7.6	10.0	10.1	0.95	73.0
DA-SDB3	5.3	10.0	10.1	0.95	51.2
DA-SDB4	6.5	10.0	10.1	0.95	63.1
DA-SDB5	3.6	10.0	10.1	0.95	29.7
DA-SDB6	3.8	10.0	10.1	0.95	41.4

NOTE:

MAXIMUM TOP OF FINAL COVER EL.=427.2' AND MAXIMUM TOP OF WASTE EL.=424.7'

LEGEND

PERMIT BOUNDARY

DRAINAGE BASIN BOUNDARY

DA-J2 DRAINAGE BASIN ID

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48456
REGISTERED PROFESSIONAL ENGINEER

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600 300 0 600
SCALE FEET

SURVEY NOTE:

TOPOGRAPHY FROM AERIAL PHOTOGRAPHY BY LANDAIR, INC., MARCH 2003.

FINAL CLOSURE ON-SITE DRAINAGE AREAS

Date	Revision/Description

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	09/2003

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 7 | Figure 7-2

ATT. 7-2

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
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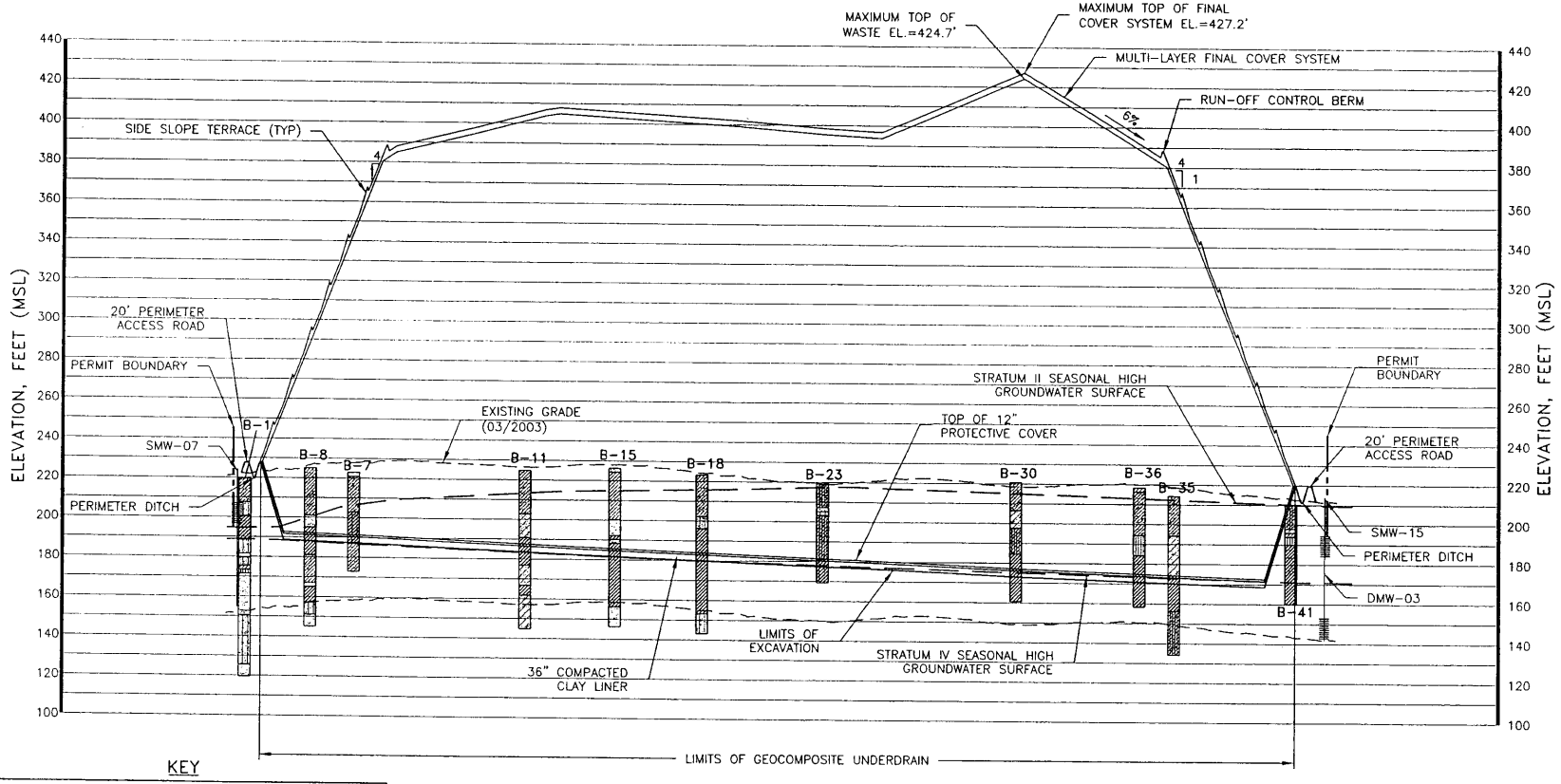
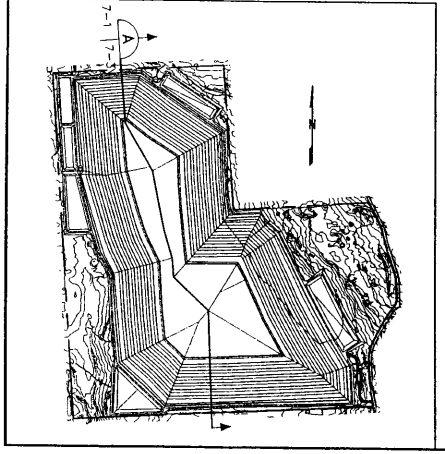


NOTES:

1. EXISTING GRADE FROM AERIAL SURVEY PERFORMED BY LANDAIR, MARCH, 2003
2. PERIMETER BERM/ROAD CONSTRUCTED FROM ONSITE SOILS COMPACTED TO 95% STANDARD PROCTER AT −2 TO +4 OMC.
3. MONITOR WELL AND GAS PROBE HORIZONTAL LOCATIONS PROJECTED TO PROFILE LOCATION TO FIT DRAWING.
4. ALL ELEVATIONS ARE IN FEET, MSL.
5. THREE STRAND (MIN) BARBED WIRE FENCE AT PERMIT BOUNDARY

SECTION A
7-1 | 7-3

KEY



LEGEND

FAT CLAY (CH) | LEAN CLAY (CL) | SILT (ML) | SILTY SAND (SM) | SILTY CLAY OR SANDY SILTY CLAY (CL-ML)

FAT CLAY WITH SAND (CH) | LEAN CLAY WITH SAND (CL) | SILT SAND WITH CLAY (ML) | CLAYEY SAND (SC) | FILL | POORLY GRADED (SP)

60 30 0 60
SCALE VERTICAL FEET

600 300 0 600
SCALE HORIZONTAL FEET

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REGISTERED PROFESSIONAL ENGINEER

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Date	Revision/Description

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	05/2003

CROSS-SECTION A

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex Industries, Inc.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 7 | Figure 7-3

ATT. 7-3

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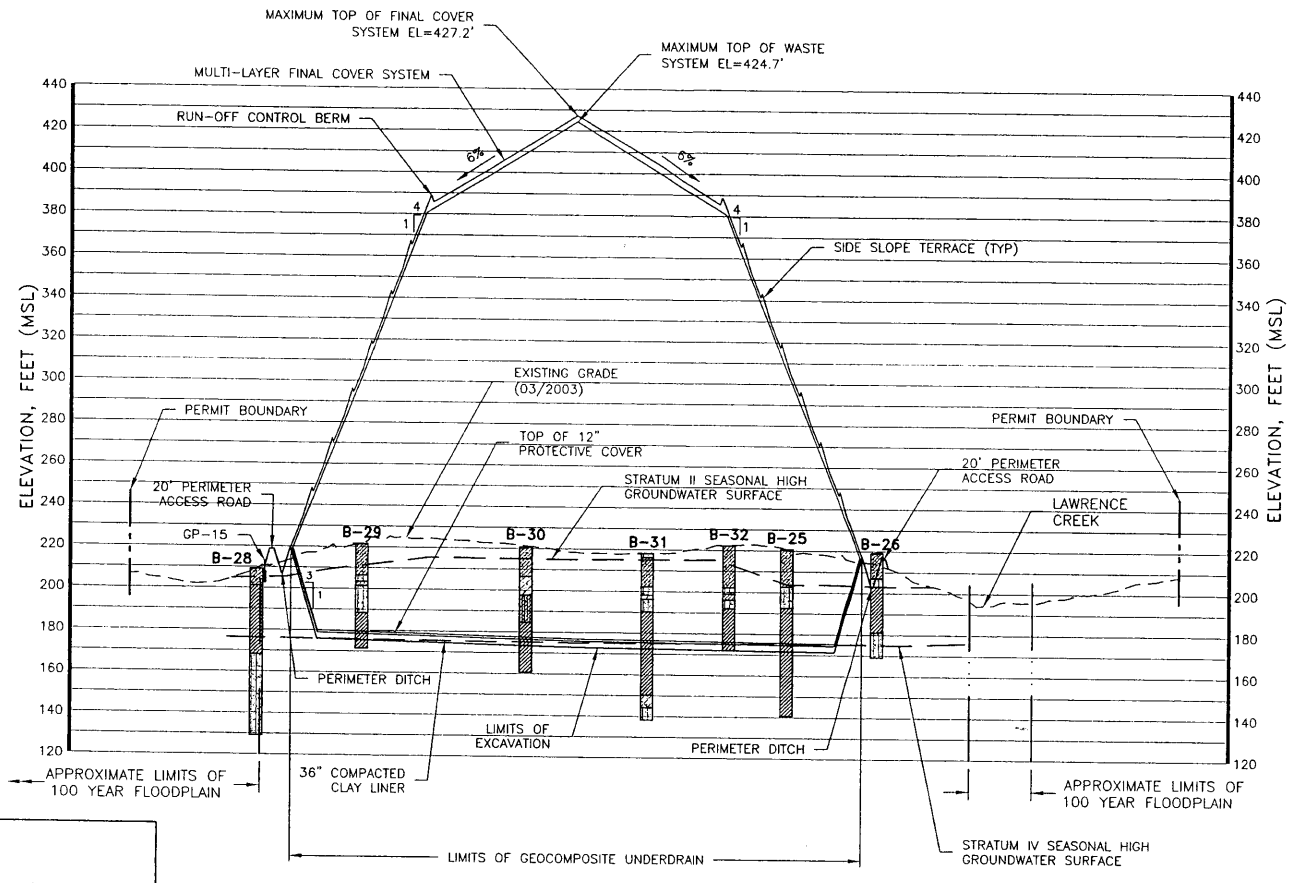
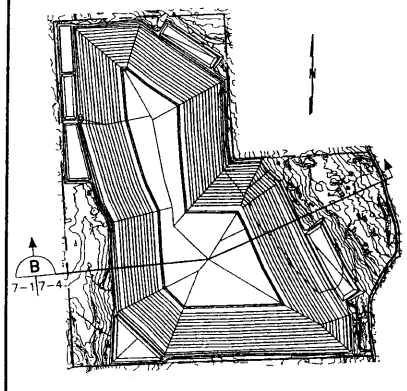


SECTION B 7-1 | 7-4

NOTES:

1. EXISTING GRADE FROM AERIAL SURVEY PERFORMED BY LANDAIR, MARCH, 2003
2. PERIMETER BERM/ROAD CONSTRUCTED FROM ONSITE SOILS COMPACTED TO 95% STANDARD PROCTER AT -2 TO +4 OMC.
3. MONITOR WELL AND GAS PROBE HORIZONTAL LOCATIONS PROJECTED TO PROFILE LOCATION TO FIT DRAWING.
4. ALL ELEVATIONS ARE IN FEET, MSL.
5. THREE STRAND (MIN) BARBED WIRE FENCE AT PERMIT BOUNDARY

KEY



LEGEND

FAT CLAY (CH) | LEAN CLAY (CL) | SILT (ML) | SILTY SAND (SM) | SILTY CLAY OR SANDY SILTY CLAY (CL-ML)

FAT CLAY WITH SAND (CH) | LEAN CLAY WITH SAND (CL) | SILT SAND WITH CLAY (ML) | CLAYEY SAND (SC) | FILL | POORLY GRADED (SP)

60 30 0 60
SCALE VERTICAL FEET

600 300 0 600
SCALE HORIZONTAL FEET

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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Date	Revision/Description

Drawn By	Checked By	Project No.	Dwg. Date
DKK	GRH	030405-3	09/2003

CROSS-SECTION B

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex ENGINEERING INC.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 7 | Figure 7-4

ATT. 7-4

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
Page 28 of 31

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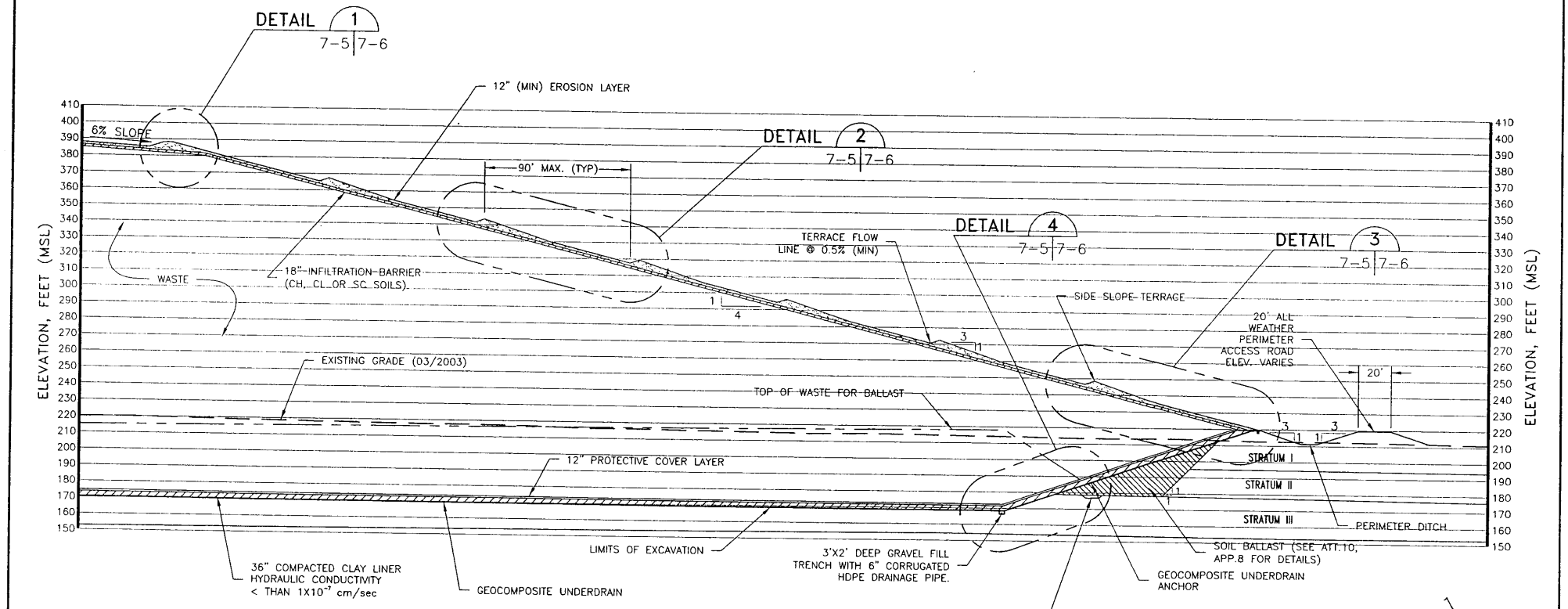

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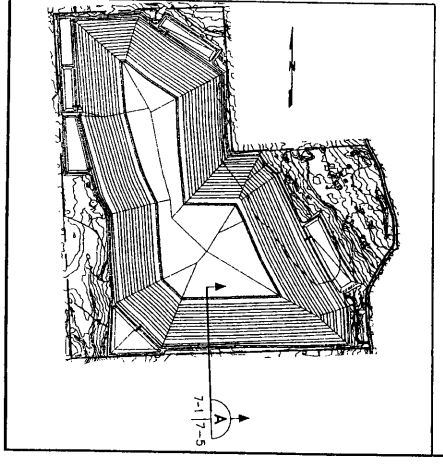

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GARY RUSSELL HORWITCH
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REGISTERED PROFESSIONAL ENGINEER

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60 30 0 60
SCALE FEET

TYPICAL LANDFILL CROSS-SECTION	Date	Revision/Description
	Drawn By DKK	Checked By GRH	Project No. 030405-3	Dwg. Date 09/2003

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex INFORMATION, INC.
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3378

PART III ATT. 7 | Figure 7-5

ATT. 7-5

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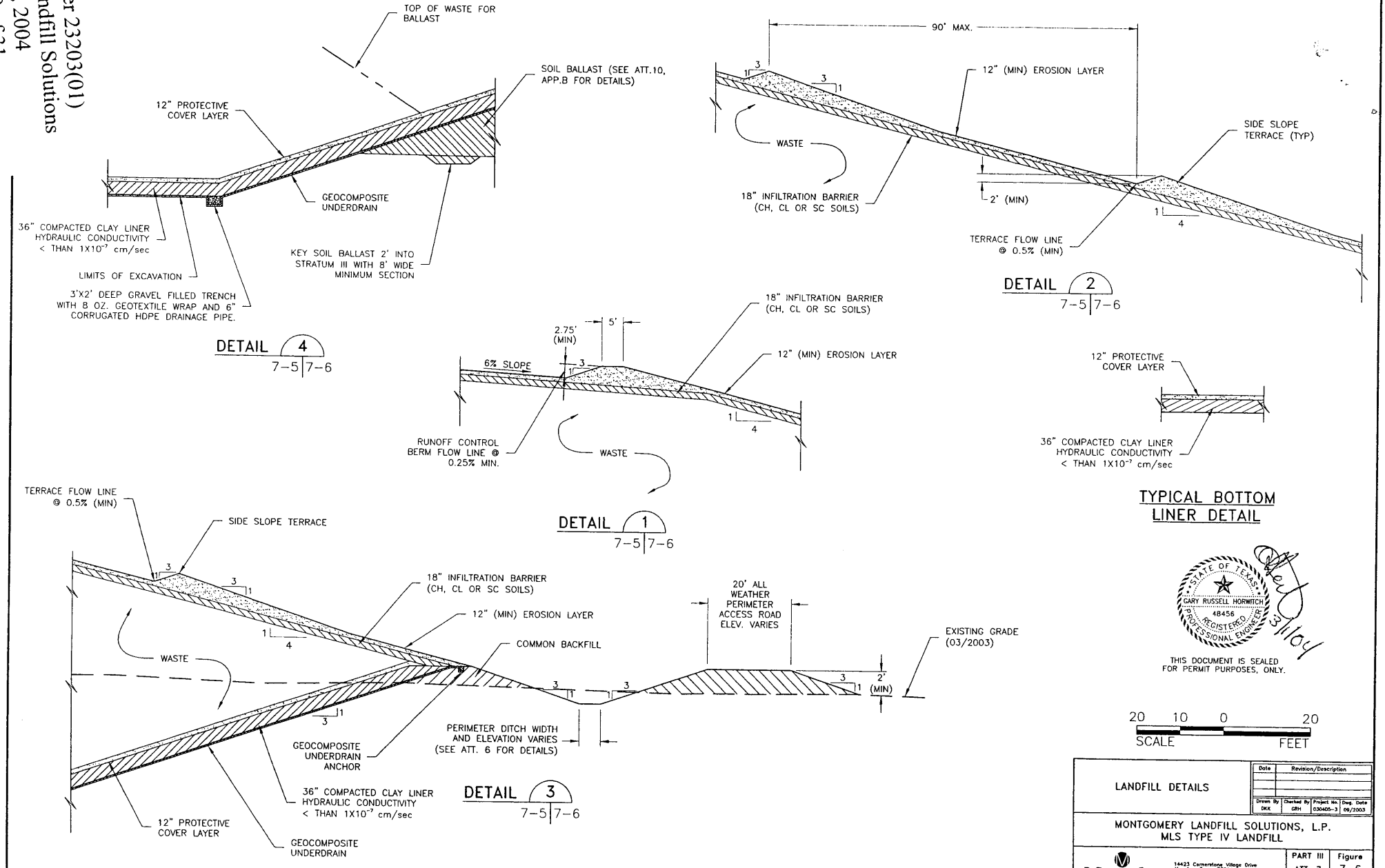
APR 1 5 2004



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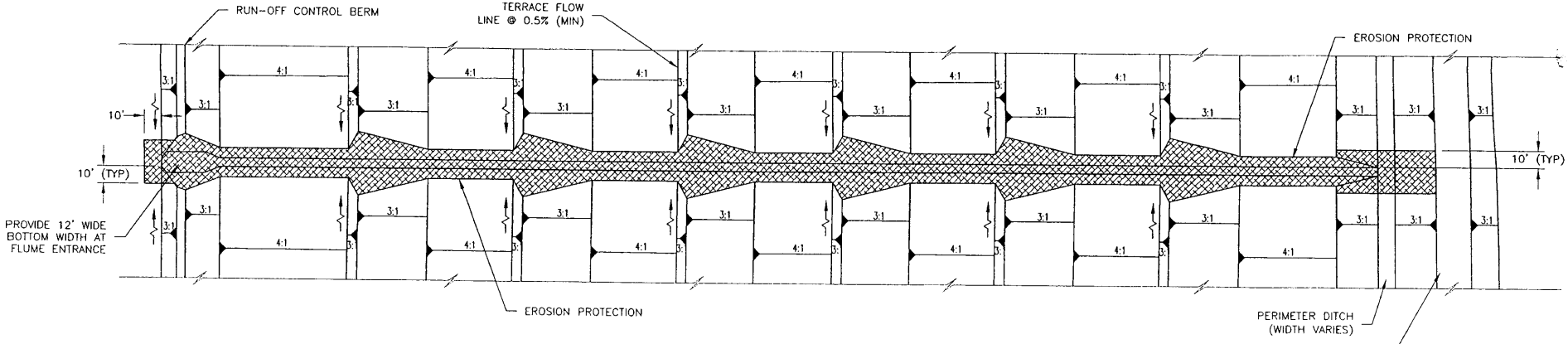
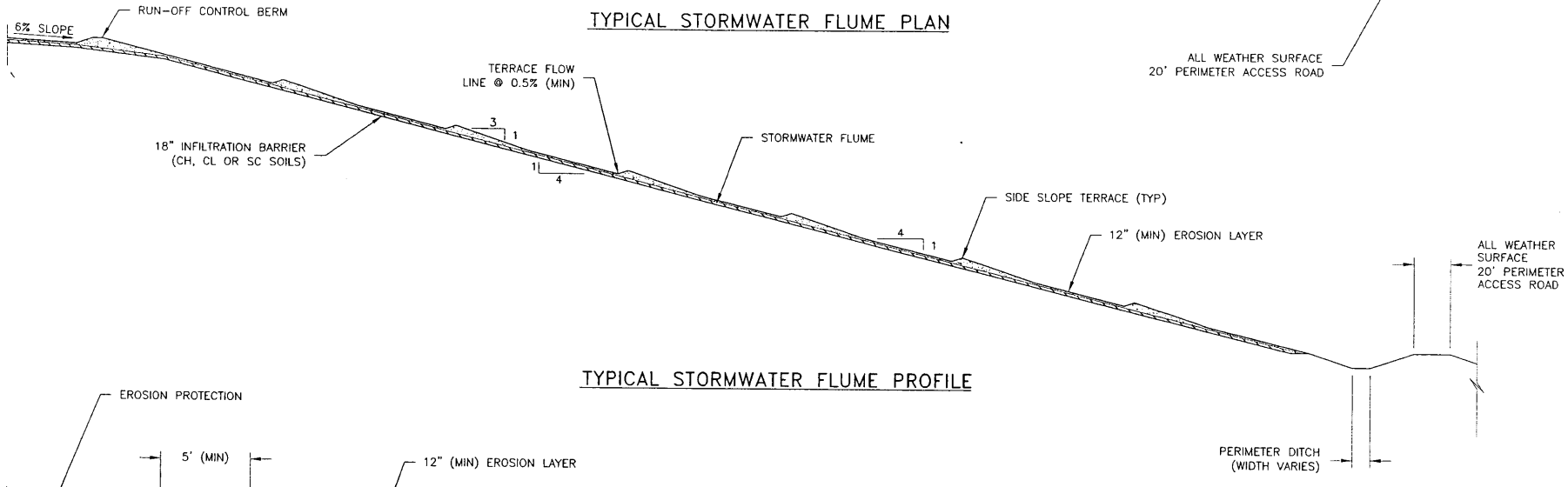
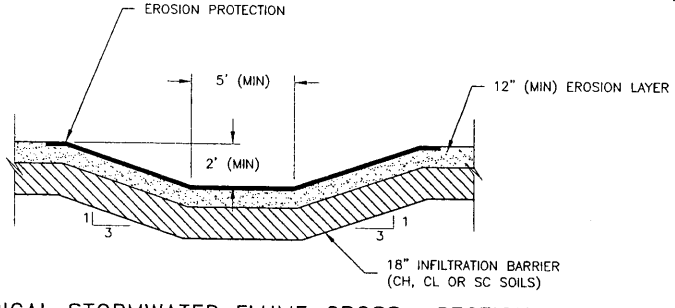
APR 1 5 2004



TYPICAL STORMWATER FLUME PLAN



TYPICAL STORMWATER FLUME PROFILE



TYPICAL STORMWATER FLUME CROSS -SECTION

60 30 0 60
SCALE FEET

NOTE:

EROSION PROTECTION SHALL CONSIST OF INTERCONNECTED REVETMENT MATTRESSES, RIP RAP, GABIONS, ARTICULATED CONCRETE BLOCKS OR APPROVED EQUAL.

STATE OF TEXAS
GARY RUSSELL HORWITCH
48456
REGISTERED PROFESSIONAL ENGINEER

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TYPICAL STORMWATER FLUME PLAN AND CROSS-SECTIONS	Date	Revision/Description
	Drawn By DKK	Checked By GRH · Project No. 030405-3 · Dwg. Date 03/2004

MONTGOMERY LANDFILL SOLUTIONS, L.P.
MLS TYPE IV LANDFILL

Metroplex INDUSTRIES INC
14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

PART III ATT. 7 · Figure 7-7

ATT. 7-7

Permit Number 23203(01)
Montgomery Landfill Solutions
May 6, 2004
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