Appendix H
Design Capacity and Material Balance Calculations

Table of Contents

- Design Capacity Calculations
  - Purpose/Methodology/Calculations/Results
  - Horizontal Expansion Design Capacity
- Construction Material Calculations for the Proposed Landfill Expansion
  - Summary of Material Volumes Required
  - Clay Volumes Calculations
  - General Fill and Topsoil Calculations
- Clay Volume Calculations for Phase 7 Construction
  - Purpose/Methodology/Calculations/Results
- Computer Volume Calculation Printout Sheet
  - Cut and Fill Volumes
  - Final Cover Area
  - Horizontal and Overlay Limits of Waste Areas
  - Base Grade Phasing Areas
  - Design Capacity – Horizontal Expansion and Overlay of Existing Landfill Area

Design Capacity Calculations

Purpose/Methodology/Calculations/Results

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/17/08	By: LLS	Date: 12/17/08	20655.22

SOUTHWESTERN HORIZONTAL EXPANSION VOLUME

Purpose:

The purpose of the design site capacity calculations is to determine the combined volume of waste, daily and intermediate cover which could be placed in the landfill expansion.

Methodology:

After the base grades and final grades are developed, Bentley's design software "InRoads Site" was utilized to generate and compare a digital terrain models (3-dimensional surface model) of each. The base grades were increased by 1-foot in elevation to allow for a granular drainage blanket (leachate collection layer). The final grades were lowered by 8 feet for Phases 7, 8 and 9, and by 5 feet for Phase 10 in elevation to allow for the proposed final cover thickness. The two surfaces, the top of the select granular fill drainage layer, and top of the waste/grading layer, were compared on a 0.5-foot grid utilizing "InRoads Site" to determine the site capacity (volume) of the entire horizontal landfill expansion.

Design File Information:

- **Plotting file:** j:\20655\24\TOPWASTE_120508.PLT
- **Original surface:** Southwestern Horizontal Expansion Feasibility Report basegrades
- **Original surface design file:** j:\20655\24\RMT 2007 FR baseg-topwaste_120508.dgn
- **Original surface DTM file:** j:\20655\24\RMT 2007 FR baseg-tow_120508.dtm
- **Design surface:** Southwestern Horizontal Expansion Feasibility Report Top of Waste Grades
- **Original surface design file:** j:\20655\24\RMT 2007 FR surface_120508.dgn
- **Original surface DTM file:** j:\20655\24\RMT 2007 FR topwaste 120508.dtm

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PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/17/08	By: LLS	Date: 12/17/08	20655.22

Calculations:

☒ 0.5′ Grid Volume

☒ Fence: Entire Surface

	CUT VOLUME	FILL VOLUME	NET VOLUME
	(cu yd)	(cu yd)	(cu yd)
	3.73	19,170,508.20	-19,170,504.47
Round to:	0	19,170,500	19,170,500

Subtract 128,000 cubic yards for the select granular fill over Horizontal Expansion Area and 2,726,200 cubic yards for the volume already approved for the Phase 6 of the existing landfill. The perimeter berm for Phase 6 was not constructed to the permitted elevation = a design capacity for the proposed expansion of **16,316,300 cubic yards**

Results:

The proposed Southwestern Horizontal Landfill Expansion design capacity is 16,316,300 cubic yards.

Horizontal Expansion Design Capacity

RMT

COMPUTATION SHEET

SHEET 1 OF 1

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED By:	PREPARED Date:	CHECKED By:	CHECKED Date:	PROJECT/PROPOSAL NO.
Veolia ES Emerald Park Landfill	RBN	12/17/08	LLS	12/17/08	20655.24

Veolia ES EPL – 2007 FR waste volume (revised 12/5/08)

Grid Volume Report

Original Surface: RMT 2007 FR baseg-tow_120508.dtm - j:\20655\24\RMT 2007 FR baseg-topwaste_120508.dgn
Design Surface: RMT 2007 FR topwaste 120508.dtm - j:\20655\24\RMT 2007 FR surface_120508.dgn

Mode: Inside - j:\20655\24\RMT 2007 FR surface_120508.dgn LV: sur 42-(TOW) Open
Cut Factor: 1.00
Fill Factor: 1.00
Grid Interval: 0.50

Cut: 100.81 cu ft
Fill: 517603721.45 cu ft
Net: -517603620.65 cu ft

Cut: 3.73 cu yd
Fill: 19,170,508.20 cu yd
Net: -19,170,504.47 cu yd ------> **19,170,500 cu yd – 128,000 cu yd = 19,042,500 cu yd**

Triangle Volume Report - CHECK

Original Surface: RMT 2007 FR baseg-tow_120508.dtm - j:\20655\24\RMT 2007 FR baseg-topwaste_120508.dgn
Design Surface: RMT 2007 FR topwaste 120508.dtm - j:\20655\24\RMT 2007 FR surface_120508.dgn

Mode: Fence - j:\20655\24\RMT 2007 FR surface_120508.dgn LV: sur 42-(TOW) Open
Cut Factor: 1.000
Fill Factor: 1.000

Cut: 18.24 cu ft
Fill: 517604034.44 cu ft
Net: -517604016.19 cu ft

Cut: 0.68 cu yd
Fill: 19,170,519.79 cu yd
Net: -19,170,519.12 cu yd

19,042,500 cu yd
- 2,726,200 cu yd

TOTAL WASTE VOLUME: 16,316,300 cu yd

RMT

COMPUTATION SHEET

SHEET 1 OF 1

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
	By:	Date:	By:	Date:	
Veolia ES Emerald Park Landfill	RBN	9/11/07	LLS	12/12/08	20655.24

Veolia ES EPL – 2007 FR airspace lost to 1998 POO volume

Grid Volume Report

Original Surface: RMT 2006 Plan Mod baseg-topwaste.dtm - j:\20655\24\RMT 2006 Plan Mod baseg-topwaste.dgn
Design Surface: RMT 2005 Plan Mod Topwaste.dtm - j:\20655\24\RMT 2006 Plan Mod surface.dgn

Mode: Inside - j:\20655\24\RMT 2006 Plan Mod baseg-topwaste.dgn LV: sur 30-(BG)Open; CO: 20
Cut Factor: 1.00
Fill Factor: 1.00
Grid Interval: 0.50

Cut: 423.70 cu ft
Fill: 73994179.21 cu ft
Net: -73993755.51 cu ft

Cut: 15.69 cu yd
Fill: 2,740,525.16 cu yd
Net: -2,740,509.46 cu yd ------> **2,740,500 cu yd – 14,300 cu yd = 2,726,200 cu yd**

Triangle Volume Report - CHECK

Original Surface: RMT 2006 Plan Mod baseg-topwaste.dtm - j:\20655\24\RMT 2006 Plan Mod baseg-topwaste.dgn
Design Surface: RMT 2005 Plan Mod Topwaste.dtm - j:\20655\24\RMT 2006 Plan Mod surface.dgn

Mode: Inside - j:\20655\24\RMT 2006 Plan Mod baseg-topwaste.dgn LV: sur 30-(BG)Open; CO: 20
Cut Factor: 1.00
Fill Factor: 1.00

Cut: 425.94 cu ft
Fill: 73994235.86 cu ft
Net: -73993809.91 cu ft

Cut: 15.78 cu yd
Fill: 2,740,527.25 cu yd
Net: -2,740,511.48 cu yd

Granular Drainage Layer

Design Surface: j:\20655\24\RMT 2006 Plan Mod baseg-topwaste.dgn

Mode: Inside - j:\20655\24\RMT 2006 Plan Mod baseg-topwaste.dgn LV: sur 30-(BG)Open; CO: 2

387,085.8729 ft^2 x 1.0 ft / 27ft^3 = 14,336.5138 cu yd ------> **14,300 cu yd**

Construction Material Calculations for the Proposed Landfill Expansion

Summary of Material Volumes Required

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

SUMMARY OF MATERIAL VOLUMES REQUIRED

	SOUTHWESTERN HORIZONTAL EXPANSION VOLUME REQUIRED IN-PLACE (cu yd)			PHASE 7 VOLUME REQUIRED IN-PLACE (cu yd)		
	LINER	FINAL COVER	TOTAL	LINER	FINAL COVER	TOTAL
Gradient Control Layer	64,700	N/A	64,700	17,600	N/A	17,600
Select clay	515,200(1)	765,300(2)	1,280,500(3)	141,700(4)	333,100(5)	474,800(6)
Select granular drainage	128,000	N/A	128,000	35,900	N/A	35,900
Grading layer	N/A	74,525	74,525	N/A	28,300	28,300
Topsoil/General Fill	N/A	325,600	325,600	N/A	111,900	111,900
Rooting zone (general fill)	N/A	N/A	N/A	N/A	N/A	N/A
General fill/Topsoil for perimeter berms and subbase grades(7)	125,500	N/A	125,500	N/A	N/A	N/A

Notes;
Clay volumes in cu. yd. with a 20 percent shrink/swell factor.
(1) 618,240
(2) 918,360
(3) 1,536,600
(4) 170,040
(5) 399,720
(6) 569,760
(7) Volumes needed for berms, subgrades, ditches, general fill, and grading.

The estimated available clay from the proposed landfill area for Phase 7 are in excess of 1,569,200 cubic yards. An estimated 474,800 (569,760 with shrink/swell factor) cubic yards is required for the liner and final cover for Phase 7 of the Southwestern Horizontal Expansion, and the quantity of clay available in the proposed landfill area for Phase 7 is well in excess of that required to construct and close Phase 7.

Clay Volumes Calculations

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

CLAY VOLUME CALCULATIONS

Purpose:

The purpose of the clay quantity calculations is to determine the amount of clay material that will be needed for the Southwestern Horizontal Landfill Expansion base liner and final cover.

Methodology:

The landfill expansion liner will extend to the phase limits. This area was digitized to determine the area of the landfill expansion liner and final cover. The following criteria was then used to determine the volume of clay needed.

- The final cover includes 2-foot–thick (Phase 10) and 6-foot–thick (Phases 7, 8, and 9) layers of compacted clay.
- The liner consists of a 4-foot–thick layer of compacted clay.

Assumptions:

- All quantities are in-place measures; no shrink/swell factors have been accounted for.

Results:

The volume of clay required for construction of the liner and final cover in the Expansion area is approximately 515,200 cubic yards and 765,300 cubic yards, respectively. The total volume of clay required for the Expansion is approximately 1,280,500 cubic yards.

Calculations:

The clay placement area of the Expansion is approximately 3,456,584 square feet.

<u>Clay liner volume</u>	3,456,584 sq. ft.(1)	= (515,200 cu yds)(3)
<u>Final cover clay layer volume</u>		
(Phases 7, 8, and 9)	3,243,744 sq. ft.(2)	= (706,000 cu yds)(3)
(Phase 10)	780,591 sq. ft.(2)	= (59,300 cu yds)(3)

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PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

Final cover

(Phases 7, 8, and 9)

Area = 3,243,744 sq. ft (refer to Plan Sheet 30)[2]

6″ topsoil

18″ rooting zone (general fill)

6′ select clay

6″ grading layer

(Phase 10)

Area = 780,591 sq. ft (refer to Plan Sheet 30)[2]

6″ topsoil

30″ rooting zone (general fill/clay)

24″ select clay

6″ grading layer

Liner

Area = 3,446,203 sq. ft — 12″ select sand

Area = 3,446,203 sq. ft — 48″ select clay

Notes:

[1] Liner area for determining clay volume extends beyond limits of waste boundary (limits of waste boundary = 3,446,203 sq. ft.)

[2] Final cover areas differ from base grade areas for each phase (see Plan Sheets 29 and 30).

[3] After the subbase grades, base grades, top of waste and final grades are developed, Bentley's design software "InRoads Site" was utilized to generate and compare a digital terrain models (3-dimensional surface model) of each.

The two surfaces, the subbase grades, and the base grades, were compared on a 0.5-foot grid utilizing "InRoads Site" to determine the liner clay volume of the entire landfill expansion.

The two surfaces, the top of waste grades, and top of final cover, were compared on a 0.5-foot grid utilizing "InRoads Site" to determine the final cover clay volume of the entire landfill expansion.

General Fill and Topsoil Calculations

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

GENERAL FILL AND TOPSOIL CALCULATIONS

Purpose:

The purpose of the construction material calculations is to determine the amount of general fill and topsoil material required for the construction and operation of the Southwestern Horizontal Expansion.

Methodology:

Bentley's design software "InRoads Site" was utilized to generate and compare digital terrain models (dtms) to determine the following quantities:

- Excavation/Fill to reach subbase grades
- Fill to construct perimeter berms, drainage ditches, and sedimentation basin
- Fill needed to construct the final cover, gradient control, and base liner layer

Assumptions:

- All quantities are in-place measure, no shrink/swell factors have been applied

Results:

The total volume of general fill/topsoil needed to construct and operate the proposed Southwestern Horizontal Expansion is approximately 451,100 cubic yards. The entire general fill volume can be obtained from on-site sources during subgrade excavation, which results in a total of 6,059,700 cubic yards of useable material.

Calculations:

The results of the calculations by "InRoads Site" are as follows:

General Fill and Topsoil

Berms, Subgrades, Ditches, and General Excavating and Grading

Original surface: Top of the existing ground surface based on topographic map shown on Plan Sheet 3.

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

Design surface: Top of design grades outside the limits of waste boundary and the subbase grades within the inside the limits of waste boundary as shown on Plan Sheet 28 (bottom of the 4-foot–thick clay layer on sideslopes above Elevation 790 and bottom of gradient control layer over base, and up to Elevation 790 on sideslopes).

Cut: (6,059,731 cubic yards)
Fill: (125,542 cubic yards)

Final Cover General Fill/Topsoil Layer

Volume of 2-foot–thick general fill and topsoil layer in final cover

Phases 7, 8 and 9 cover

3,243,744 sq. ft.[1] 239,100 (cu yds)

Volume of 3-foot–thick general fill and topsoil layer in final cover

Phase 10 cover

780,591 sq. ft.[1] 86,500 (cu yds)

Note:
[1] Area of final cover over the proposed Southwestern Horizontal Landfill Expansion area, as determined by InRoads Site.

Grading Layer Under Final Cover

Volume of 6-inch–thick grading layer under final cover

$$\frac{4{,}024{,}335 \text{ sq. ft.}^{(1)}}{27} \times 0.5 \text{ ft} = 74{,}525 \text{ (cu yds)}$$

Note:
[1] Area of limits of waste boundary for the proposed Southwestern Horizontal Landfill Expansion area, as determined by InRoads Site. Final cover areas differ from base grade areas for each phase (see Plan Sheets 29 and 30).

Clay Volume Calculations for Phase 7 Construction

Purpose/Methodology/Calculations/Results

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

CLAY VOLUME FOR PHASE 7 OF THE HORIZONTAL EXPANSION

Purpose:

The purpose of the clay quantity calculations for the Phase 7 potion of the Southwestern Horizontal Expansion construction is to determine the amount of clay material that will be needed from on-site excavations to construct the base liner and the clay layer in the final cover for closure of Phase 7, as required by NR 512.

Methodology:

The landfill Expansion liner will extend to the Phase 7 limits. This area was digitized to determine the area of the Southwestern Horizontal Landfill Expansion liner and final cover. The following criteria was then used to determine the volume of clay needed:

- The final cover includes a 6-foot–thick layer of compacted clay.
- The liner consists of a 4-foot–thick layer of compacted clay.

Assumption:

- All quantities are in-place measures; no shrink/swell factors have been accounted for.

Calculations:

The area of the Phase 7 Expansion is approximately 968,211 square feet.

Clay liner volume	968,211 sq. ft.(1)	= 141,700 (cu yds)
Final cover clay layer volume	1,526,457 sq. ft.(2)	= 333,100 (cu yds)

Results:

The volume of clay required for construction of the Phase 7 liner and final cover in the Phase 7 Southwestern Horizontal Expansion area is approximately 141,700 cubic yards and 333,100 cubic yards, respectively.

Notes:

(1) Liner area for determining clay volume extends beyond limits of waste boundary (limits of waste boundary for Phase 7 = 948,326 sq. ft.

(2) The final cover areas for each phase differ from base grades (see Plan Sheets 29 and 30).

Computer Volume Calculation Printout Sheet

Cut and Fill Volumes

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

CUT AND FILL VOLUMES

Purpose:

To determine the cut and fill volumes, not including the clay base liner and final cover (includes landfill perimeter berm, roads, screening berms, ditches, etc.).

Design File Information:

- **Plotting file:** j:\20655\24\SUBBASE.PLT
- **Original surface:** KBM existing ground surface
- **Original surface design file:** j:\20655\24\bmc041408.dgn
- **Original surface DTM file:** j:\20655\24\bmc041408.dtm
- **Design surface:** Southwestern Horizontal Expansion Feasibility Report Top of Subbase/Gradient Control Layer
- **Design surface design file:** j:\20655\24\RMT 2007 FR gradient control layer_120508.dgn
- **Design surface DTM file:** j:\20655\24\RMT 2007 FR gradient control 120508.dtm

Calculations

☒ 0.5′ Grid Volume

☒ Fence: j:\20655\24\RMT 2007 FR gradient control layer_120508.dgn

LV: sur 50-(SB)Open; CO: 67

	CUT VOLUME	FILL VOLUME	NET VOLUME
	(cu yd)	(cu yd)	(cu yd)
	6,059,731.26	125,542.09	5,934,189.17
Round to:	6,059,700	125,500	5,934,200

Final Cover Area

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PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/30/08	By: LLS	Date: 1/6/09	20655.22

FINAL COVER AREA

Purpose:

To determine the area of the final cover for the Southwestern Horizontal Landfill Expansion.

Design File Information:

- **Plotting file:** j:\20655\24\RMT 2007 FR surface_120508.dgn

Calculations:

☒ Fence: Inside – sur 43-(TOW) Open; CO: 96

Results:

Area

Horizontal area final cover – DTM file: J:\20655\24\RMT 2007 FR finalg 120508.dtm

	(sq. ft.)
Phases 7, 8, and 9	3,243,744[1]
Phase 10	780,591[1]

Area

Vertical area final cover – DTM file: J:\20655\24\RMT 2007 FR finalg 120508.dtm

	(sq. ft.)
Phase 7	1,526,457[1]

Notes:

[1] Final cover areas differ from base grade areas for each phase (see Plan Sheets 29 and 30).

Horizontal and Overlay Limits of Waste Areas

744 Heartland Trail (53717-8923) P. O. Box 8923 (53708-8923) Madison, WI (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/30/08	By: LLS	Date: 12/30/08	20655.22

HORIZONTAL AND OVERLAY LIMITS OF WASTE AREAS
(Including cap over the existing landfill)

Purpose:

To determine the area of the limits of waste boundary for the Landfill Expansion.

Design File Information:

- **Plotting file:** J:\20655\24\RMT 2007 FR proposed_120508.dgn

Calculations:

☒ Fence: Entire Surface

Results:

Area

Horizontal area limits of waste – DGN file: J:\20655\24\RMT 2007 FR proposed_120508.dgn
LV: pro 57-Limits of Waste (P); CO: 32

(sq. ft.)
3,101,712

Area

Vertical area limits of waste – DGN file: J:\20655\24\RMT 2007 FR proposed_120508.dgn
LV: pro 57-Limits of Waste (P); CO: 2

(sq. ft.)
922,661

Base Grade Phasing Areas

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PROJECT/PROPOSAL NAME	PREPARED		CHECKED		PROJECT/PROPOSAL NO.
Veolia Emerald Park Landfill	By: RBN	Date: 12/29/08	By: LLS	Date: 12/29/08	20655.22

BASE GRADE PHASING AREAS
(Does not include cap over the existing landfill)

Purpose:

To determine the limits of waste areas for all landfill phases.

Design File Information:

- **Plotting file:** J:\20655\24\RMT 2007 FR proposed_120508.dgn

Calculations:

☒ Selected Shapes – LV: pro 63-Misc

Results:

Area

Phase 7 (sq. ft.)	Phase 8 (sq. ft.)	Phase 9 (sq. ft.)	Phase 10 (sq. ft.)
948,326(1)(2)	867,413(2)	1,186,445(2)	444,019(2)

Total (sq. ft.)
3,446,203(1)(2)

Notes:

(1) These areas include 344,124 sq. ft. in Phase 6 of the existing landfill that is approved as part of the existing landfill footprint.

(2) This is the base grade area for each phase (Final cover areas differ from base grades. See Plan Sheets 29 and 30)

Design Capacity – Horizontal Expansion and Overlay of Existing Landfill Area

EPL 20655.24 by: ZBN 12/17/08
by: WS 12/17/08

RMT 2007 FR waste volume 120508 - HORIZONTAL VOLUME.txt

Grid Volume Report
Report Created: 12/17/2008
Time: 6:47am

Original Surface: RMT 2007 FR baseg-tow_120508
Design Surface: RMT 2007 FR topwaste 120508

Inside J:\20655\24\RMT 2007 FR proposed_120508.dgn : LV: pro LO Open CO: 32
Cut Factor: 1.00
Fill Factor: 1.00
Grid Interval: 0.50

HORIZONTAL EXPANSION VOLUME

Cut: 6.81 cu ft
Fill: 390317181.14 cu ft
Net: -390317174.33 cu ft

Cut: 0.25 cu yd
Fill: 14456191.89 cu yd
Net: -14456191.64 cu yd

14,456,200 cu yd
- 128,000 cu yd
14,328,200 cu yd

Triangle Volume Report
Report Created: 12/17/2008
Time: 6:47am

Mode: Fence
Input Grid Factor: 1.000000

Original Surface: RMT 2007 FR baseg-tow_120508
Design Surface: RMT 2007 FR topwaste 120508
Cut Factor: 1.00
Fill Factor: 1.00

Cut: 0.00 cu ft
Fill: 390318151.21 cu ft
Net: -390318151.21 cu ft

Cut: 0.00 cu yd
Fill: 14456227.82 cu yd
Net: -14456227.82 cu yd

EPL 20655.24 by: PBN 12/17/08
by: LWS 12/17/08

RMT 2007 FR waste volume 120508 - VERTICAL VOLUME.txt

Grid Volume Report
Report Created: 12/17/2008
Time: 6:51am

Original Surface: RMT 2007 FR baseg-tow_120508
Design Surface: RMT 2007 FR topwaste 120508

Inside - J:\20655\24\RMT 2007 FR proposed_120508.dgn - LV: pro 60 Open CO: 2
Cut Factor: 1.00
Fill Factor: 1.00
Grid Interval: 0.50

VERTICAL EXPANSION VOLUME

Cut: 17.25 cu ft
Fill: 127281575.05 cu ft
Net: -127281557.80 cu ft

Cut: 0.64 cu yd
Fill: 4714132.41 cu yd
Net: -4714131.77 cu yd

4,714,100 cu yd
- 2,726,200 cu yd
1,987,900 cu yd

Triangle Volume Report
Report Created: 12/17/2008
Time: 6:51am

Mode: Fence
Input Grid Factor: 1.000000

Original Surface: RMT 2007 FR baseg-tow_120508
Design Surface: RMT 2007 FR topwaste 120508
Cut Factor: 1.00
Fill Factor: 1.00

Cut: 18.24 cu ft
Fill: 127280930.71 cu ft
Net: -127280912.47 cu ft

Cut: 0.68 cu yd
Fill: 4714108.54 cu yd
Net: -4714107.87 cu yd