



FILE

Atkins North America, Inc.  
482 South Keller Road  
Orlando, Florida 32810-6101

Telephone: +1.407.647.7275

[www.atkinsglobal.com/northamerica](http://www.atkinsglobal.com/northamerica)

August 10, 2011

Nancy Gaskin  
Solid Waste Section  
Southwest District  
Florida Department of Environmental Protection  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Re: Lena Road Class I Landfill Facility  
Pending Permit No.: 39884-020-SO/20, Manatee County  
Response to 1<sup>st</sup> Request for Additional Information  
WACS ID#: 44795

Dear Ms. Gaskin:

On behalf of Manatee County, Atkins is providing this response to your July 19, 2011 letter requesting additional information.

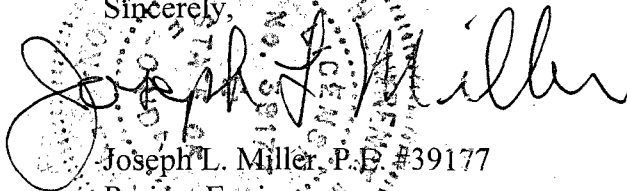
Enclosed are the following:

Four copies of the revised closure cost estimate for the additional fluorescent bulbs that may be stored on site. The long-term care cost estimate was not revised.

Four full size (24" x 36") copies of revised drawing C-2 General Site Plan. This drawing was revised to show the location of the additional 18 foot wide by 41 foot long shed for storage of electronic waste.

If you have any questions, please call me at 407-806-4153, or e-mail me at [joseph.miller@atkinsglobal.com](mailto:joseph.miller@atkinsglobal.com).

Sincerely,

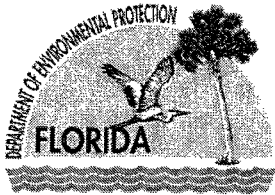


Joseph L. Miller, P.E. #39177  
Project Engineer

Cc: Bryan White, Manatee County Solid Waste w/2 copy

Enclosures as noted.

Dept. of Environmental  
Protection  
AUG 12 2011  
Southwest District



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

[Print Form](#)[Reset Form](#)

DEP Form # 62-701.900(28), F.A.C.  
Form Title: Closure Cost Estimating Form  
For Solid Waste Facilities  
Effective Date: January 6, 2010  
Incorporated in Rule 62-701.630(3), F.A.C.

## CLOSURE COST ESTIMATING FORM FOR SOLID WASTE FACILITIES

Date of DEP Approval: \_\_\_\_\_

### I. GENERAL INFORMATION:

Facility Name: Manatee County Lena Road Class I Landfill WACS ID: SWD - 41-44795  
Permit Application or Consent Order No.: 39884-018-SO/01 Expiration Date: \_\_\_\_\_  
Facility Address: 3333 Lena Road, Bradenton, FL 34211  
Permittee or Owner/Operator: Manatee County Government - Utilities Department  
Mailing Address: 3333 Lena Road, Bradenton, FL 34211

Latitude: 27° 28' 10" Longitude: 82° 26' 35"  
Coordinate Method: US State Plane Datum: NAD 1983 (90)  
Collected by: Patrick McCormack, PSM Company/Affiliation PBS&J

### Solid Waste Disposal Units Included in Estimate:

Phase / Cell	Acres	Date Unit Began Accepting Waste	Active Life of Unit From Date of Initial Receipt of Waste	If active: Remaining life of unit	If closed: Date last waste received	If closed: Official date of closing
Stage I (30 acres w/final cap)	132	1972	68	30		
Stage III	66	2004	10	4		
Stage II	118	2014	26	26		

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
AUG 12 2011  
SOUTHWEST DISTRICT  
TAMPA

Total disposal unit acreage included in this estimate: Closure: 286 Long-Term Care: 316

Facility type: ☒ Class I ☐ Class III ☐ C&D Debris Disposal  
(Check all that apply) ☐ Other: \_\_\_\_\_

### II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check type)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Letter of Credit* | <input type="checkbox"/> Insurance Certificate     | <input type="checkbox"/> Escrow Account        |
| <input type="checkbox"/> Performance Bond* | <input checked="" type="checkbox"/> Financial Test | <input type="checkbox"/> Form 29 (FA Deferral) |
| <input type="checkbox"/> Guarantee Bond*   | <input type="checkbox"/> Trust Fund Agreement      |  |

\* - Indicates mechanisms that require the use of a Standby Trust Fund Agreement

Northwest District  
160 Government Center  
Pensacola, FL 32502-5794  
850-595-8360

Northeast District  
7825 Baymeadows Way, Ste. B200  
Jacksonville, FL 32256-7590  
904-807-3300

Central District  
3319 Maguire Blvd., Ste. 232  
Orlando, FL 32803-3767  
407-894-7555

Southwest District  
13051 N. Telecom Pky.  
Temple Terrace, FL 33637  
813-632-7600

South District  
2295 Victoria Ave., Ste. 364  
Fort Myers, FL 33901-3881  
239-332-6975

Southeast District  
400 N. Congress Ave., Ste. 200  
West Palm Beach, FL 33401  
561-681-6600

### III. ESTIMATE ADJUSTMENT

40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, Florida Administrative Code, (F.A.C.) sets forth the method of annual cost estimate adjustment. Cost estimates may be adjusted by using an inflation factor or by recalculating the maximum costs of closure in current dollars. Select one of the methods of cost estimate adjustment below.

☐ (a) Inflation Factor Adjustment

☒ (b) Recalculated or New Cost Estimates

Inflation adjustment using an inflation factor may only be made when a Department approved closure cost estimate exists and no changes have occurred in the facility operation which would necessitate modification to the closure plan. The inflation factor is derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflatory by the Deflator for the previous year. The inflation factor may also be obtained from the Solid Waste website [www.dep.state.fl.us/waste/categories/swfr](http://www.dep.state.fl.us/waste/categories/swfr) or call the Financial Coordinator at (850) 245-8706.

This adjustment is based on the Department approved closing cost estimate dated:

Latest Department Approved Closing Cost Estimate:	Current Year Inflation Factor, <i>e.g. 1.02</i>		Inflation Adjusted Closing Cost Estimate:
_____	_____	=	_____

This adjustment is based on the Department approved long-term care cost estimate dated:

Latest Department Approved Annual Long-Term Care Cost Estimate:	Current Year Inflation Factor, <i>e.g. 1.02</i>		Inflation Adjusted Annual Long-Term Care Cost Estimate:
_____	_____	=	_____
Number of Years of Long Term Care Remaining:		×	_____
Inflation Adjusted Long-Term Care Cost Estimate:		=	_____

Signature by: ☐ Owner/Operator ☐ Engineer (check what applies)

Signature

Address

Name & Title

City, State, Zip Code

Date

E-Mail Address

Telephone Number

**IV. ESTIMATED CLOSING COST (check what applies)**☒ **Recalculated Cost Estimate**☐ **New Facility Cost Estimate**

- Notes: 1. Cost estimates for the time period when the extent and manner of landfill operation makes closing most exp  
2. Cost estimate must be certified by a professional engineer.  
3. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.  
4. In some cases, a price quote in support of individual item estimates may be required.

Description	Unit	Number of Units	Cost / Unit	Total Cost
<b>1. Proposed Monitoring Wells (Do not include wells already in existence.)</b>				
	EA			
			Subtotal Proposed Monitoring Wells:	
<b>2. Slope and Fill (bedding layer between waste and barrier layer):</b>				
Excavation	CY			
Placement and Spreading	CY	462,000	\$1.88	\$868,560.00
Compaction	CY	462,000	\$0.64	\$295,680.00
Off-Site Material	CY	462,000	\$2.00	\$924,000.00
Delivery	CY	462,000	\$2.00	\$924,000.00
			Subtotal Slope and Fill:	\$3,012,240.00
<b>3. Cover Material (Barrier Layer):</b>				
Off-Site Clay	CY			
Synthetics - 40 mil	SY	1,384,231	\$4.05	\$5,606,172.00
Synthetics - GCL	SY			
Synthetics - Geonet	SY	1,384,231	\$7.20	\$9,966,528.00
Synthetics - Other (explain)				
			Subtotal Cover Material:	\$15,572,700.00
<b>4. Top Soil Cover:</b>				
Off-Site Material	CY	923,000	\$2.00	\$1,846,000.00
Delivery	CY	923,000	\$2.00	\$1,846,000.00
Spread	CY	923,000	\$1.88	\$1,735,240.00
			Subtotal Top Soil Cover:	\$5,427,240.00
<b>5. Vegetative Layer</b>				
Sodding	SY	1,384,231	\$1.50	\$2,076,360.00
Hydroseeding	AC			
Fertilizer	AC			
Mulch	AC			
Other (explain)				
			Subtotal Vegetative Layer:	\$2,076,360.00
<b>6. Stormwater Control System:</b>				
Earthwork	CY			
Grading	SY			
Piping	LF			
Ditches	LF	18,900	\$65.00	\$1,228,500.00
Berms	LF			
Control Structures	EA	216	\$2,400.00	\$518,400.00
Other (explain)				
			Subtotal Stormwater Control System:	\$1,746,900.00

Description	Hours	Cost / Hour	Hours	Cost / Hour	Total Cost
<b>11. Professional Services</b>					
	<u>Contract Management</u>		<u>Quality Assurance</u>		
P.E. Supervisor	400	\$150	400	\$150	\$120,000.00
On-Site Engineer	2,000	\$120	2,000	\$120	\$480,000.00
Office Engineer	400	\$100	400	\$100	\$80,000.00
On-Site Technician			2,000	\$80	\$160,000.00
Other (explain)					

Description	Unit	Number of Units	Cost / Unit	Total Cost
Quality Assurance Testing	LS	1	\$115,469.00	\$115,469.00
Subtotal Professional Services:				\$955,469.00

Subtotal of 1-11 Above: \$32,964,049.00

12. Contingency 5 % of Subtotal of 1-11 Above \$1,648,202.45

Subtotal Contingency: \$1,648,202.45

Estimated Closing Cost Subtotal: \$34,612,251.45

Description	Total Cost
13. Site Specific Costs	
Mobilization	<u>\$500,000.00</u>
Waste Tire Facility	<u>\$33,030.00</u>
Materials Recovery Facility	
Special Wastes	<u>\$87,000.00</u>
Leachate Management System Modification	
Other (explain) <u>Year 2011 inflation factor</u>	<u>\$352,272.81</u>
<u>at 1% of previous estimate</u>	
Subtotal Site Specific Costs:	<u>\$972,302.81</u>

TOTAL ESTIMATED CLOSING COSTS (\$): \$35,584,554.26

## V. ANNUAL COST FOR LONG-TERM CARE

See 62-701.600(1)a.1., 62-701.620(1), 62-701.630(3)a. and 62-701.730(11)b. F.A.C. for required term length. For landfills certified closed and Department accepted, enter the remaining long-term care length as "Other" and provide years remaining.

(Check Term Length) ☐ 5 Years ☐ 20 Years ☒ 30 Years ☐ Other, \_\_\_ Years

Notes: 1. Cost estimates must be certified by a professional engineer.

2. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.

3. In some cases, a price quote in support of individual item estimates may be required.

**All items must be addressed. Attach a detailed explanation for all entries left blank.**

Description	Sampling Frequency (Events / Year)	Number of Wells	(Cost / Well) / Event	Annual Cost
<b>1. Groundwater Monitoring [62-701.510(6), and (8)(a)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Groundwater Monitoring:				_____
<b>2. Surface Water Monitoring [62-701.510(4), and (8)(b)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Surface Water Monitoring:				_____
<b>3. Gas Monitoring [62-701.400(10)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Gas Monitoring:				_____
<b>4. Leachate Monitoring [62-701.510(5), (6)(b) and 62-701.510(8)c]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
Subtotal Leachate Monitoring:				_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. Leachate Collection/Treatment Systems Maintenance</b>				
<u>Maintenance</u>				
Collection Pipes	LF	_____	_____	_____
Sumps, Traps	EA	_____	_____	_____
Lift Stations	EA	_____	_____	_____
Cleaning	LS	1	_____	_____
Tanks	EA	_____	_____	_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. (continued)</b>				
<u>Impoundments</u>				
Liner Repair	SY	_____	_____	_____
Sludge Removal	CY	_____	_____	_____
<u>Aeration Systems</u>				
Floating Aerators	EA	_____	_____	_____
Spray Aerators	EA	_____	_____	_____
<u>Disposal</u>				
Off-site (Includes transportation and disposal)	1000 gallon	_____	_____	_____
Subtotal Leachate Collection / Treatment Systems Maintenance:				_____
<b>6. Groundwater Monitoring Well Maintenance</b>				
Monitoring Wells	LF	_____	_____	_____
Replacement	EA	_____	_____	_____
Abandonment	EA	_____	_____	_____
Subtotal Groundwater Monitoring Well Maintenance:				_____
<b>7. Gas System Maintenance</b>				
Piping, Vents	LF	_____	_____	_____
Blowers	EA	_____	_____	_____
Flaring Units	EA	_____	_____	_____
Meters, Valves	EA	_____	_____	_____
Compressors	EA	_____	_____	_____
Flame Arrestors	EA	_____	_____	_____
Operation	LS	1	_____	_____
Subtotal Gas System Maintenance:				_____
<b>8. Landscape Maintenance</b>				
Mowing	AC	_____	_____	_____
Fertilizer	AC	_____	_____	_____
Subtotal Landscape Maintenance:				_____
<b>9. Erosion Control and Cover Maintenance</b>				
Sodding	SY	_____	_____	_____
Regrading	AC	_____	_____	_____
Liner Repair	SY	_____	_____	_____
Clay	CY	_____	_____	_____
Subtotal Erosion Control and Cover Maintenance:				_____
<b>10. Storm Water Management System Maintenance</b>				
Conveyance Maintenance	LS	1	_____	_____
Subtotal Storm Water Management System Maintenance:				_____
<b>11. Security System Maintenance</b>				
Fences	LS	1	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System Maintenance:				_____



Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
12. Utilities	LS	1		
			Subtotal Utilities:	
13. Leachate Collection/Treatment Systems Operation				
Operation				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Materials	LS	1		
			Subtotal Leachate Collection/Treatment Systems Operation:	
14. Administrative				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Other _____				
			Subtotal Administrative:	
			Subtotal of 1-14 Above:	
15. Contingency		% of Subtotal of 1-14 Above		
			Subtotal Contingency:	

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
16. Site Specific Costs				
Approved long-term care cost per year	1	1	\$447,322.68	\$447,322.68
See FDEP letter dated April 21, 2011				
			Subtotal Site Specific Costs:	\$447,322.68

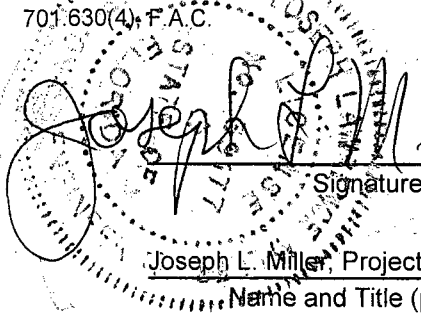
ANNUAL LONG-TERM CARE COST (\$ / YEAR): \$447,322.68

Number of Years of Long-Term Care: 30

TOTAL LONG-TERM CARE COST (\$): \$13,419,680.32

## VI. CERTIFICATION BY ENGINEER

This is to certify that the Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and/or long-term care of the facility and comply with the requirements of Rule 62-701.630 F.A.C. and all other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Cost Estimates shall be submitted to the Department annually, revised or adjusted as required by Rule 62-701.630(4), F.A.C.

  
Signature  
Joseph L. Miller, Project Manager  
Name and Title (please type)

August 10, 2011

Date

39177

Florida Registration Number  
(please affix seal)

ATKINS, 482 South Keller Road

Mailing Address

Orlando, Florida 32810

City, State, Zip Code

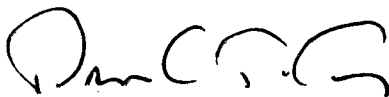
joseph.miller@atkinsglobal.com

E-Mail address (if available)

407-806-4153

Telephone Number

## VII. SIGNATURE BY OWNER/OPERATOR



Signature of Applicant

Daniel T. Gray, Director

Name and Title (please type)

dan.gray@mymanatee.org

E-Mail address (if available)

4410 66th Street West

Mailing Address

Bradenton, FL 34210

City, State, Zip Code

941-792-8811

Telephone Number



# Florida Department of Environmental Protection

Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926  
Telephone: 813-632-7600

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard Jr.  
Secretary

Transmitted electronically only:  
[dan.gray@mymanatee.org](mailto:dan.gray@mymanatee.org)

Mr. Daniel T. Gray, Director Utilities Department  
Manatee County Utilities  
4410 66th St. West  
Bradenton, FL 34210

April 21, 2011

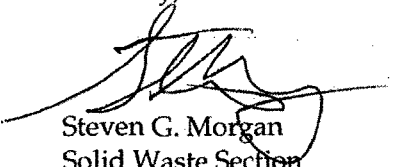
RE: Lena Road Landfill  
Financial Assurance Cost Estimates  
Pending Permit No.: 39884-018-SO/01  
Manatee County, WACS No. 44795

Dear Mr. Gray:

This letter is to acknowledge receipt of the inflation-adjusted cost estimates dated February 14, 2011 (received February 16, 2011), prepared by PBS&J, for closure and long-term care of the Lena Road Landfill. The cost estimates received on February 16, 2011 (total for closure \$35,579,554.26 and long-term care \$447,322.68/year x 30 years = \$13,419,680.32), are **APPROVED for 2011**. The next annual update (revised or inflation-adjusted estimates) is due no later than **March 1, 2012**.

A copy of these estimates will be forwarded to Mr. Fred Wick, Solid Waste Section, FDEP, 2600 Blair Stone Road, Tallahassee, Florida 32399-2407. Please work with him directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. If you have any questions, you may contact me at (813) 632-7600 ext. 385.

Sincerely,



Steven G. Morgan  
Solid Waste Section  
Southwest District

sgm  
cc:

Mike Gore, Manatee County Solid Waste Operations Manager, [mike.gore@mymanatee.org](mailto:mike.gore@mymanatee.org)  
Mr. Joseph Miller, P.E., PBS&J, [J.Miller@pbsj.com](mailto:J.Miller@pbsj.com)  
Fred Wick/Frank Hornbrook, FDEP, Tallahassee (via email)  
Susan Pelz, P.E., FDEP Tampa (via email)

- quantity of waste generated
- location of disposal site
- proximity to a permitted hazardous waste landfill or recycling facility
- state and local taxes

Negotiate with hazardous waste brokers, transporters, waste management companies, and disposal sites to obtain lowest fees.

### **(Recycling Costs)**

Recycling costs for fluorescent lamps are typically calculated by linear foot. HID lamp recycling costs are typically quoted on a per-lamp basis.

- fluorescent recycling costs range from \$0.06/ft to \$0.15/ft
- average cost is \$0.10/ft
- approximately \$0.40 per F40 lamp
- HID recycling costs range from \$1.25/lamp to \$4.50/lamp
- average cost is \$2.50/lamp

**Note: Estimated costs do not include packaging, transportation, or profile fees.**

### **Chemical or Hazardous Waste Landfill Costs**

(Disposal costs for fluorescent lamps at a hazardous waste landfill range from 25-50 cents per 4-foot tube, not including costs for packaging, transportation, or profile fees.)

**Packing Lamps for Disposal** To prevent used fluorescent and HID lamps from breaking, lamps should be properly packed for storage and transportation. When lamps are removed and replaced with new lamps (e.g., during group relamping), the used lamps should be packed in the cardboard boxes that contained the replacement lamps. The boxes containing the hazardous waste must be properly labeled. Pre-printed labels or rubber stamps that meet Department of Transportation regulations are recommended for high-volume disposal.

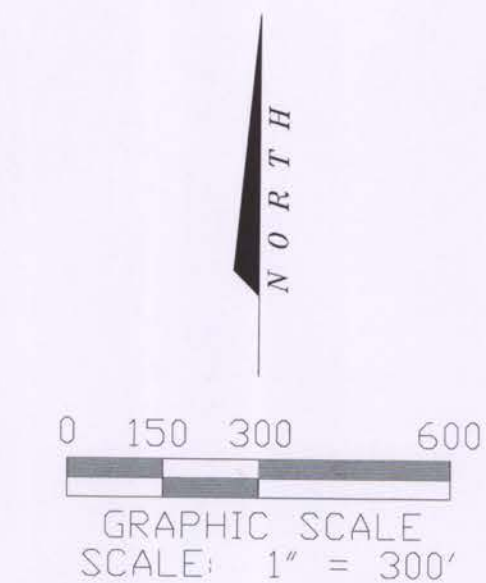
**Storing Lamps for Disposal** RCRA sets storage requirements for generators depending on how much hazardous waste they dispose each month.

- Small quantity generators dispose 100 to 1,000 kg of hazardous waste per month (which roughly corresponds to 350 to 3,600 four foot lamps), and can store hazardous waste up to 180 days.
- Large quantity generators dispose over 1,000 kg of hazardous waste per month (more than 3,600 four foot lamps), and can store hazardous waste up to 90 days.
- Conditionally exempt small quantity generators dispose 100 kg or less of hazardous waste per month and are exempt from RCRA storage requirements.

In addition to proper packing, care should be taken when stacking the boxes of used lamps for storage to avoid crushing the bottom boxes under the weight of the boxes on top. If you work with a contractor to maintain your lighting system, you may want to specify a safe storage arrangement in your contract. This approach ensures that your used lamps are not accidentally broken or crushed before they are sent to a disposal facility.

$$\begin{array}{r}
 3000 \text{ tube} \times \$0.50/\text{tube} = \$1,500 \\
 \text{Packaging and transportation} = \$3,500 \\
 \hline
 \$5,000
 \end{array}$$





AERIAL PHOTOGRAPH PROVIDED BY:  
I.F. ROOKS & ASSOCIATES, INC.  
106 N.W. DRANE ST.  
PLANT CITY, FL 33566  
(813) 752-2113

DATE FLOWN: JANUARY 25, 2010

Revised  
6-10-11

Dept. of Environmental  
Protection  
Aug 12 2011  
Southwest District

REPLACE 2009 AERIAL PHOTOGRAPHY  
WITH 2010 AERIAL PHOTOGRAPHY

C-2



482 South Keller Road  
ORLANDO, FL 32810-6101  
TEL (407) 647-7275  
FAX (407) 647-0624  
WWW.PBSJ.COM  
POST, BUCKLEY, SCHUH & JERNIGAN, Inc.  
c/o PBSJ  
5300 West Cypress Street Suite 200  
Tampa, FL 33607  
FBR Certificate of Authorization No. 24

CLIENT  
MANATEE COUNTY  
BOARD OF COUNTY COMMISSIONERS

PROJECT  
LENA ROAD LANDFILL  
FILL SEQUENCE PLAN

TASK  
GENERAL SITE PLAN

ORIGINAL NOV. 2009  
REVISIONS:  
1. APRIL 2010  
2.  
3.  
4.  
5.

6.  
7.  
8.  
9.  
10.  
11.  
12.

Name: JOSEPH L. MILLER  
Florida Professional Engineer  
No. 100008517  
Exp. 12/31/2011  
Signature: [Signature]  
Date: 7/20/11

JOB NO. 100008517  
DRAWN: RGC  
DESIGN: RGC/JLM  
CHECKED: JLM  
Q.C.: DED  
SHEET / #