

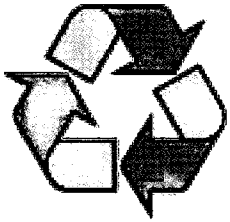
**ANGELO'S RECYCLED MATERIALS
PROPOSED CLASS I FACILITY
PERMIT APPLICATION MODIFICATIONS
RESPONSE TO FDEP REQUEST FOR
ADDITIONAL INFORMATION**

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

OCT 22 2009

SOUTHWEST DISTRICT
TAMPA

Prepared for:



**ANGELO'S AGGREGATE MATERIALS, LTD.
d/b/a ANGELO'S RECYCLED MATERIALS**

P.O. Box 1493
Largo, Florida 33779

Presented to:

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT**

13051 N. Telecom Parkway
Temple Terrace, Florida 33637

Prepared by:

JONES EDMUNDS & ASSOCIATES, INC.

**JONES
EDMUNDS**

730 NE Waldo Road
Gainesville, Florida 32641

P.E. Certificate of Authorization #1841

October 2009

LETTER OF TRANSMITTAL



TO:	Steven Morgan Environmental Engineer FDEP – Southwest District 13051 N. Telecom Parkway Temple Terrace, FL 33637-0926 (813) 632-7600	DATE	October 21, 2009
		JOB. NO.	01030-008-01-2000
		RE:	Angelo's Recycled Materials FDEP Pending Permit No's.: 22913-001-SC/01 and 32913-002-SO/01

WE ARE SENDING YOU VIA:

- | | | |
|--|--|--------------|
| <input type="checkbox"/> U.S. Mail | <input type="checkbox"/> UPS Next Day | (2 Packages) |
| <input type="checkbox"/> FedEx | <input checked="" type="checkbox"/> UPS Ground | |
| <input type="checkbox"/> Hand Delivery | <input type="checkbox"/> Courier | |

# Copies	Date	Description
1		Check # 019694 in the amount of \$250.00 (Attached to Transmittal) (Package 1)
4	October 2009	Signed and Sealed – Angelo's Recycled Materials Proposed Class I Facility Permit Application Modifications Response To FDEP Request For Additional Information (RAI) (Package 1)
4	October 2009	Full size Drawings – Signed and Sealed – Angelo's Recycled Materials Proposed Class I Facility Permit Application Modifications Response To FDEP Request For Additional Information (RAI) (Package 2)

THESE ARE TRANSMITTED AS CHECKED BELOW:

- | | |
|--|--|
| <input type="checkbox"/> For Approval | <input type="checkbox"/> For Your Information |
| <input type="checkbox"/> For Your Use | <input checked="" type="checkbox"/> For Review |
| <input type="checkbox"/> As Requested | <input type="checkbox"/> For Your File |
| <input type="checkbox"/> For Signature | <input type="checkbox"/> Other: |

Dept. Of Environmental Protection

OCT 22 2009

REMARKS:

Southwest District

Copies to: John Arnold, Angelo's

Signed L. Holler

Lesley Holler – Administrative Assistant for
Dennis Davis/Brent
Schneider

If enclosures are not as noted, kindly notify us at once.



October 21, 2009

Steven G. Morgan
Environmental Engineer
Florida Department of Environmental Protection
Solid Waste Section
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Re: Angelo's Recycled Materials Proposed Class I Facility
Permit Application Modifications
FDEP Pending Permit Nos.: 22913-001-SC/01 and 32913-002-SO/01
Response to FDEP Request for Additional Information
Jones Edmunds Project No. 95380-436-09

Dear Mr. Morgan:

This letter has been prepared in response to the request for additional information (RAI) prepared by the Florida Department of Environmental Protection (Southwest District Office), dated September 4, 2009. Each of the Department's comments is presented below in *italics*, followed by the response in **bold** type.

The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)]:

Comment 1: Rule 62-701.320(5), F.A.C. Appendix A -Revised Operations Permit Application Form:

- a. Part T.1.: A review of corporate information for the State of Florida indicates that Mr. Arnold is not listed as a general partner or registered agent of Angelo's Aggregate Materials, Ltd. Please provide a letter of authorization for Mr. Arnold to act on the behalf of Angelo's Aggregate Materials, Ltd. from a corporate officer or authorized agent of Angelo's Aggregate Materials, Ltd. or submit a revised application form page 40 of 40 signed by a corporate officer or registered agent of Angelo's Aggregate Materials, Ltd.*

730 NE Waldo Rd
Gainesville, FL 32641

352.377.5821 Phone
352.377.3166 Fax
www.jonesedmunds.com

Response 1.a: The requested letter of authorization for John Arnold to act on behalf of Angelo's Aggregate Materials, Ltd. from a corporate officer or authorized agent of Angelo's Aggregate Materials, Ltd. is provided as Attachment 1 to this letter.

Comment 2: Rule 62-701.320(4), F.A.C. The proposed operation fill sequence appears to also include a change in cell construction sequence for the facility. This will require a modification of Construction Permit No. 177982-008-SC/T3. Please provide a minor permit modification application to modify Construction Permit No. 177982-008-SC/T3, along with a \$250.00 application fee, and applicable information related to the change in construction sequence, if any, that was not included in the information provided with this operation permit modification application.

Response 2: Please note that the application form submitted with the proposed application was for Construction/Operation; therefore, a separate application form is not required. However, the \$250 application fee (check #019694) to modify Construction Permit No. 177982-008-SC/T3 is included with this letter. Please note that the information provided with the operation permit modification application sufficiently addressed the change in construction sequence and therefore no additional information is being submitted with the construction permit modification application.

Comment 3: Rule 62-701.510, F.A.C. Enterprise Class III Landfill Permit Renewal, Pasco County Hydrological Investigation and Groundwater Monitoring Plan, prepared by Jones Edmunds, dated November 2006: It appears that the sequence of monitoring well installation and the phased incorporation of monitor wells into the groundwater monitoring plan (GWMP) for the facility will need to be revised based on the revised sequence of cell construction and operation. Please revise the narrative in Section 5.3.1 of the above report and any applicable figures in the above report to be consistent with the revised sequence of construction and operation, accordingly, to depict the revised cell and sequence numbers. Please contact John Morris at (813) 632-7600 ext 3336 to discuss your proposed changes to the GWMP, prior to response to this comment.

Response 3: The sequence of monitoring well installation and the phased incorporation of monitoring wells into the GWMP for the facility have been revised based on the revised sequence of cell construction and operation. Figure 15A and the phasing schedule listed on page 5-18 of the November 2006 GWMP have been revised as requested and are included as Attachment 3. Mr. John Morris was contacted on October 2, 2009 to discuss the proposed changes to the GWMP.

Comment 4: Rule 62-701.510, F.A.C. Figure-01 "Proposed Site Monitoring Network September 2007", prepared by HDR Engineering, received September 27, 2007: Please revise this figure (in a black-and-white format, no larger than 11x17 inches for use as a permit attachment) to show the revised cell configurations and numbering, locations/identification numbers of existing and proposed monitor wells/piezometers, and revised locations/identification numbers of gas monitoring probes at the facility.

Response 4: The referenced HDR figure has been replaced with the Jones Edmunds Figure 15A, Well Location Map (See Response 3). The figure shows the revised cell configurations and numbering, locations/identification numbers of existing and proposed monitoring wells/piezometers, and revised locations/identification numbers of gas monitoring probes at the facility. Please see the revised figure submitted as Attachment 3.

Comment 5: Rule 62-701.530, F.A.C.

- a. Please revise Section 3.10 of the Engineering Report, where applicable, to include the proposed additional gas monitoring probe in the facility's gas monitoring plan and on applicable figures (e.g. Figures 3-13 and 3-15).*

Response 5.a: Figures 3-13 and 3-15 have been revised to include the recently installed gas monitoring probes GP-12R and GP-13R. Since these figures were originally generated by HAI, Jones Edmunds re-created these figures and made the appropriate updates. Please see the revised figures contained in Attachment 5.a.1. Please also note that the gas probes have been included in the new Figure 15A (Attachment 3).

Please note that additional edits to the Gas Contingency Plan sections of the Engineering Report and Operations Plan have been made to reflect recent gas system changes. These modifications are being included in the pending sequencing modification as Attachment 5.a.2.

- b. Please revise the narrative in Section 10.1.2 of the Operation Plan to be consistent with the proposed revised language in Section 3.10.1.4 of the Engineering Report.*

Response 5.b: The narrative in Section 10.1.2 of the Operation Plan has been revised to be consistent with the proposed revised language in Section 3.10.1.4 of the Engineering Report. Please see Attachment 5.a.2.

Comment 6: Rule 62-701.630, F.A.C. The currently approved financial assurance cost estimates provided for this facility appear to only include closure and long-term care costs for Cell 1-5 and Cell 15. Please provide closure and long-term care estimates for Cells 6 and 7.

Response 6: The currently approved financial assurance cost estimates have been revised to include Cells 6 and 7. Please find the revised cost estimate forms and backup documentation in Attachment 6.

Comment 7: Rule 62-701.320(7) (f), F.A.C. Appendix B Revised Drawings (full & reduced size set): The following comments regarding the plan set provided are related to Fill Sequence 8 (i.e. the construction and operation of Cells 10 and 11) which is not authorized under the current construction and operation permits. For consistency with the Operation Plan narrative, Comment 7.a. should be addressed in response to this letter. However, since the construction and operation of Cells 10 through 11 will be evaluated as part of future permit applications that include construction and operation of Cells 10 and 11, a response to Comment 7.b. as part of this application, is at the discretion of the applicant.

- a. *Sheet C-5: The revised sequence of fill narrative in Section 3.8 of the Operation Plan indicates that Cells 6 and 7 will also be filled during Fill Sequence 8. Please verify and revise the Excavation, Construction and Filling Sequence table on this sheet, as appropriate.*

Response 7.a: The Excavation, Construction and Filling Sequence table on Sheet C-5 has been revised to match the sequence of fill narrative in Section 3.8 of the Operation Plan. Please see the revised drawing included in Attachment 7.

- b. *Sheet C-13: The Excavation, Construction and Filling Sequence table on Sheet C-5 indicates that Cell 10 and 11 will be constructed during Fill Sequence 8. However the base grade for Cells 10 and 11 does not appear to be provided on this sheet or another sheet in the construction plan set. Please verify and provide a plan sheet that shows the constructed base grade for Cells 10 and 11.*

Response 7.b: Please note that although the individual base grades for Cells 10 and 11 are not depicted on the revised sequencing drawings, the overall bottom grade (including all cells) was previously depicted on Drawing C-4 of the *Enterprise Class III Landfill Permit Renewal, Pasco County Response to DEP Third Request for Additional Information*, prepared by Jones Edmunds in November 2006. These base grades remain unchanged. If additional information is required

Steven G. Morgan
October 21, 2009
Page 5

as part of future permit applications that include construction and operation of Cells 10 and 11, it will be provided at that time.

If you have any additional questions, please feel free to contact me at (352) 377-5821.

Sincerely,



10/21/09
Dennis A. Davis, P.E.
Florida P.E. No. 59299

W:\01030\005010001\Permit Mod\RAII\Modification_RAII.doc

Enclosures

ATTACHMENT 1

LETTER OF AUTHORIZATION

ANGELO'S RECYCLED MATERIALS

PO Box 1493
Largo, FL 33779



APOPKA
DADE CITY

407.290.8010
352.567.7676

407.290.8115 (FAX)
352.567.9448 (FAX)

TAMPA
LARGO

813.903.0588
727.581.1544

813.632.9157 (FAX)
727.586.5676 (FAX)

September 8, 2009

Mr. John Arnold, P.E.
Angelo's Recycled Materials
41111 Enterprise Road
Dade City, FL 33525

Mr. Arnold:

This letters serves as written notice that you have the authority to act on behalf of Angelo's Aggregate Materials, LTD and Angelo's Recycled Materials on matters before the Florida Department of Environmental Protection and all other regulatory agencies.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dominic Iafrate".

Dominic Iafrate
Vice President

ATTACHMENT 3

REVISED FIGURE 15A AND PHASING SCHEDULE

- The surficial aquifer is seasonally dry in the southeastern corner of the landfill, in the vicinity of MW-8, MW-9, and MW-10. Floridan wells have been installed in these locations.
- The surficial aquifer is likely to be seasonally dry in the location of MW-11. A Floridan well (MW-11B) is needed adjacent to MW-11.
- The surficial aquifer is likely to be seasonally dry in the location of MW-14. As fill progression nears cell 8, an additional well (MW-14B) will be needed in the Floridan aquifer.

It is proposed that these Floridan wells will be sampled contingent to the conditions of the adjacent surficial wells: if the surficial well is dry during any given sampling event, then the Floridan well at that location will be sampled instead.

The approved detection well phasing schedule follows:

- | | | |
|----|--|--|
| 1. | Initial: background wells | MW-1, MW-1B |
| 2. | Cells 1 and 2 detection wells | MW 5-A, MW 5-B, MW-6, MW-7A, MW-7BR, MW-8, MW-8B, MW-9, MW-9B, MW-10, MW-10B |
| 3. | Prior to Landfilling in Cell 3: | MW-11, MW-11B, MW-12A, MW-12B |
| 4. | Prior to Landfilling in Cell 5: | MW-3, MW-3B, MW-4B, MW-4 |
| 5. | Prior to Landfilling in Cell <u>86</u> : | MW-14, MW-14B, MW-1A |
| 6. | Prior to Landfilling in Cell 9: | MW-13 |
| 7. | Prior to Landfilling in Cell 11: | MW-2A, MW-2B |

Background monitor well MW-1 is proposed to be abandoned prior to landfilling Cell 86. MW-1A would replace MW-1 upgradient during wet periods as the landfill moves to the west. Well MW-14 would be used to replace MW-1, if needed during dry periods. Surficial monitor well MW-13 also would be installed as the landfill moves west and the aquifer enters a wet season.

Although our geotechnical investigation revealed a 15 to 30 ft thick clay confining layer that consistently separates the base of the landfill and surficial aquifer from the upper Floridan

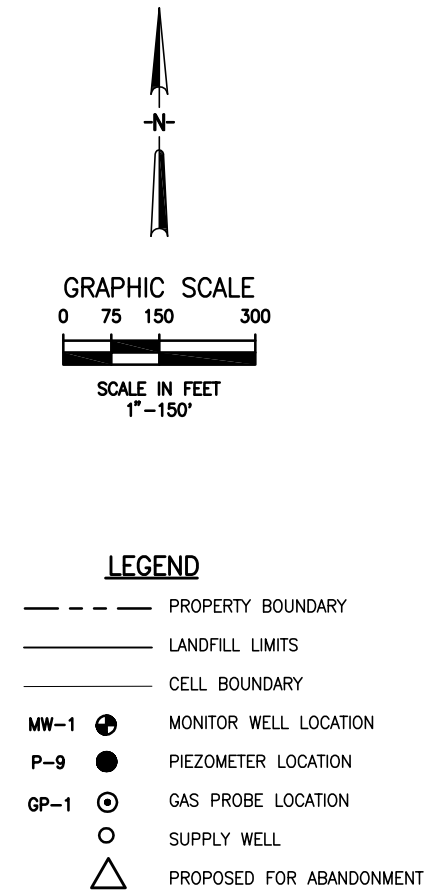
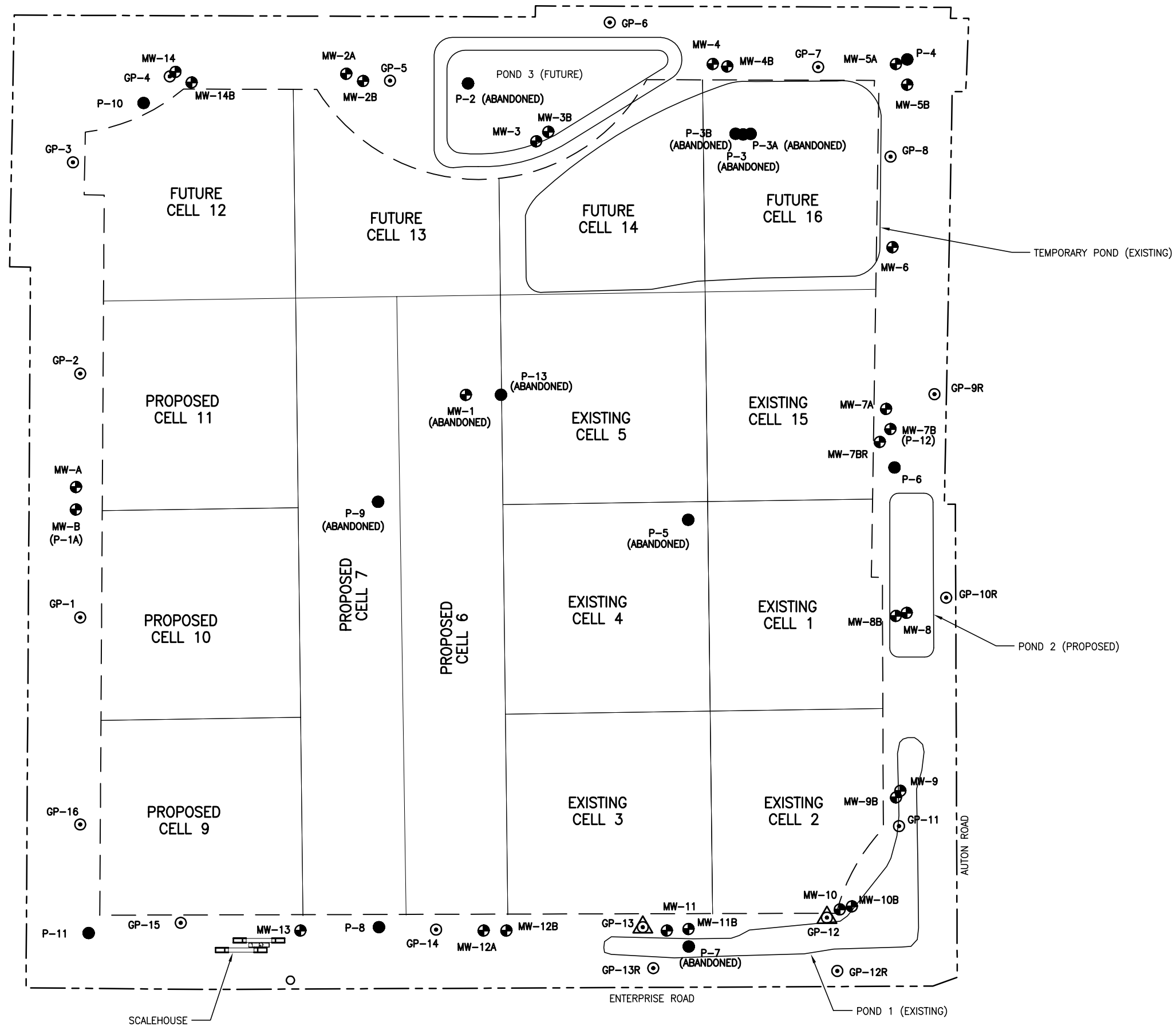


FIGURE 15A
WELL LOCATION MAP
ENTERPRISE RECYCLING
AND DISPOSAL FACILITY
PASCO COUNTY, FLORIDA

ATTACHMENT 5.a.1

REVISED FIGURES 3-13 AND 3-15

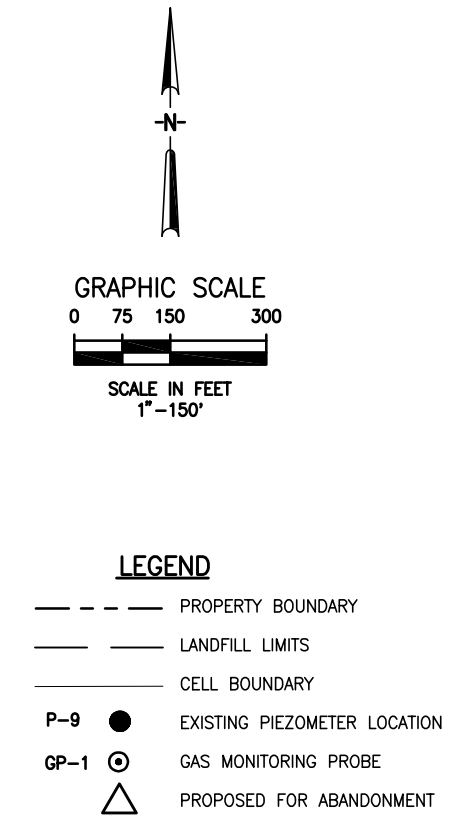


FIGURE 3-13
GAS MONITORING PROBE LOCATION MAP
ENTERPRISE RECYCLING
AND DISPOSAL FACILITY
PASCO COUNTY, FLORIDA

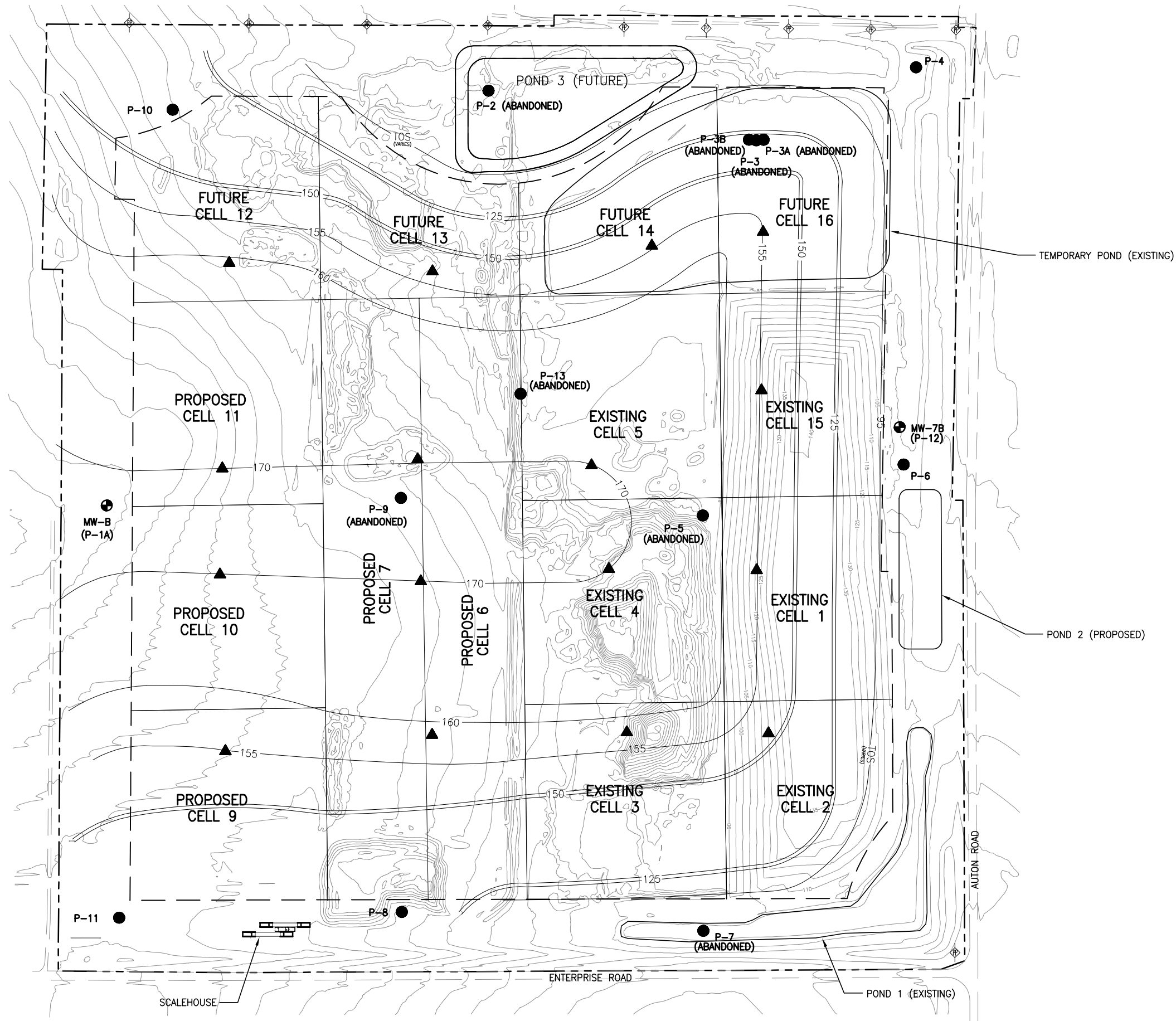


FIGURE 3-15
GAS VENT LOCATION MAP
ENTERPRISE RECYCLING
AND DISPOSAL FACILITY
PASCO COUNTY, FLORIDA

ATTACHMENT 5.a.2

**REVISED GAS CONTINGENCY PLAN PAGES FROM
ENGINEERING REPORT AND OPERATIONS PLAN**

weeks of each monitoring event. These events are planned to be coordinated with the semi-annual groundwater monitoring at the subject site.

3.10.1.4 Gas Contingency Plan

The following Contingency Plan will be implemented if any of the measured gas monitoring points methane levels are detected above the 100% LEL or greater than 5 percent methane in air, or if 25% of the LEL or higher is measured in a structure. If this level of methane or greater is detected in any of the probes, the Enterprise RDF operator will institute measurement of methane in nearby, at, or below grade structures, i.e., stormwater collection points, or any maintenance or office buildings nearby within 100 feet of the subject gas probe on a weekly basis until these levels go below the 100% LEL at the subject probe. If methane levels measured in any on-site building exceed 25% of the LEL, building windows and/or doors will be opened for ventilation and all personnel evacuated until methane readings are maintained below 25% of the LEL for methane. The monitoring report for any event that detects methane above the LEL will also report methane levels from any nearby structures, as indicated above, and may include monthly monitoring measurements at the high methane gas probe points until the levels go below the methane LEL level or until corrective actions are conducted to reduce methane levels. The FDEP will be notified within seven days of any gas monitoring levels that exceed the reporting action levels.

3.10.1.5 Passive Gas Vents

Within 90 days of closure of each landfill cell, a passive landfill gas vent will be installed at the highest point of the cell to prevent explosions, fires and damages to vegetation from methane gas buildup. Figure 3-15 shows the location of the 16 gas vents and Figure 3-16 presents the design of a typical vent. The facility's gas emissions are expected to be far below the threshold of a Title V or an NSPS permit.

3.10.2 Leachate Control

Liquid disposal is not permitted at the Class III Landfill site. However, to control any leachate production that may occur and result in infiltration or increased head on the clay layer, a leachate control system has been implemented. This system for the Enterprise RDF Class III landfill is based on the continuous 3-foot thick clay layer (10^{-8} cm/s) that will be placed on the bottom and the cell slopes of the landfill. The clay layer beneath each individual cell will form a continuous

10.1.2 Gas Contingency Plan

The following Contingency Plan will be implemented if any of the measured gas monitoring points methane levels are detected above the 100% LEL of greater than 5 percent methane in air, or if 25% of the LEL or higher is measured in a structure. If this level of methane or greater is detected in any of the probes, the Enterprise RDF landfill operator will institute measurement of methane in nearby , at, or below structures, i.e., stormwater collection points, or any maintenance or office buildings nearby within 100 feet of the subject gas probe, on a weekly basis, until these levels go below the 100% LEL at the subject probe. If methane levels measured in any on-site building exceed 25% of the LEL, building windows and/or doors will be opened for ventilation and all personnel evacuated until methane readings are maintained below 25% of the LEL for methane. The monitoring report for any event that detects methane above the LEL will also report methane levels from ~~any nearby structures, as indicated above, and may include monthly monitoring measurements at the high methane gas probe points~~ until the levels go below the methane LEL level or until corrective actions are conducted to reduce methane levels. The FDEP will be notified within seven days of any gas monitoring levels that exceed the reporting action levels.

10.2 Leachate Control

Liquid disposal is not permitted at the Class III Landfill site. However, to control any leachate production that may occur and result in infiltration or increased head on the clay layer, a leachate control system has been implemented. This system for the Enterprise RDF Class III landfill is based on the continuous 3-foot thick clay layer (10^{-8} cm/s) that will be placed on the bottom and the cell slopes of the landfill. The clay layer beneath each individual cell will form a continuous barrier layer that will be graded to direct leachate to the temporary stormwater pond. The controlled method of screening waste also supplements the leachate control. Because Angelo's Recycled Materials privately owns the Enterprise Class III Landfill facility, most of the haulers, waste generators, and sources of waste are known to Angelo's and the scale house attendants. For those haulers that are unfamiliar to Angelo's, the scale house attendants question the haulers more intensely to determine the contents of their loads. The spotters and operators add additional monitoring at the active disposal location. The addition of video surveillance to the monitoring process of incoming wastes helps to identify fires or smoking loads. Combined methods of screening waste is an effective method to reduce any possible threat to public health or the environment.

ATTACHMENT 6

REVISED COST ESTIMATE FORMS AND BACKUP DOCUMENTATION



Florida Department of Environmental Protection

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62-701.900(28)
Form Title <u>Financial Assurance Cost Estimate Form</u>
Effective Date <u>05-27-01</u>
DEP Application No. _____ (Filled by DEP)

FINANCIAL ASSURANCE COST ESTIMATE FORM

Date: _____ Date of DEP Approval: _____

I. GENERAL INFORMATION:

Facility Name: _____ WACS or GMSID #: _____

Permit / Application No.: _____ Expiration Date: _____

Facility Address: _____

Permittee: _____

Mailing Address: _____

Latitude: _____ Longitude: _____ or UTM: _____

Solid Waste Disposal Units Included in Estimate:

Phase / Cell	Acres	Date Unit Began Accepting Waste	Design Life of Unit From Date of Initial Receipt of Waste
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
7	10.52	2010 est.	2.17

Total Landfill Acreage included in this estimate. _____ Closure _____ Long-Term Care _____

Type of landfill: _____ Class I _____ Class III _____ C&D Debris _____

II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check Type)

_____ Letter of Credit*

_____ Insurance Certificate

_____ Surety Bond*

_____ Escrow Account

_____ Trust Fund Agreement

_____ Financial Test

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

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

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

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
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 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

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 Deflator by the Deflator for the previous year. The inflation factor may also be obtained from the Solid Waste Financial Coordinator at (850)-245-8732.

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

Latest Department Approved Closure Cost Estimate:		Current Year Inflation Factor		Inflation Adjusted Closure Cost Estimate:
_____	X	_____	=	<u>\$0.00</u>

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		Inflation Adjusted Annual Long-Term Care Cost Estimate:
_____	X	_____	=	<u>\$0.00</u>

Number of Years of Long Term Care Remaining: _____

X

Inflation Adjusted Long-Term Care Cost Estimate: _____

=

0.00

☒ (b) Recalculate Estimates (see section V)

IV. CERTIFICATION BY ENGINEER

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

Signature of Engineer

10/12/09

Dennis A. Davis, P.E., Dept. Manager

Name & Title (please type)

FL P.E. No.: 59299

Florida Registration Number (affix seal) & Date

730 NE Waldo Rd, Gainesville FL 32641

Mailing Address

(352) 377-5821

Telephone Number

Signature of Owner/Operator

John Arnold, Project Manager

Name & Title (please type)

(813) 477-1719

Telephone Number

V. RECALCULATE ESTIMATED CLOSING COST (Increasing Quantities from 25.22 ac to 39.60 ac)

For the time period in the landfill operation when the extent and manner of its operation makes closing **most expensive**.

**** Third Party Estimate / Quote must be provided for each item**

**** Costs must be for a third party providing all material and labor**

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
1. Proposed Monitoring Wells (Do not include wells already in existence.)				
	EA	_____	_____	_____
2. Slope and Fill (bedding layer between waste and barrier layer):				
Excavation	CY	_____	_____	_____
Placement and Spreading (Grading & Sloping Waste)	CY	_____	_____	_____
Compaction	CY	_____	_____	_____
Off-Site Material	CY	_____	_____	_____
Delivery	CY	_____	_____	_____
Subtotal Slope and Fill:				_____
3. Cover Material (Barrier Layer): (18" Clay on 60.64 ac plus allowance for compaction)				
Off-Site Clay	CY	_____	_____	_____
Synthetics - 40 mil	SY	_____	_____	_____
Synthetics - GCL	SY	_____	_____	_____
Synthetics - Geonet	SY	_____	_____	_____
Synthetics - Other	SY	_____	_____	_____
Subtotal Barrier Layer Cover:				_____
4. Top Soil Cover: (18" protective soil cover on 60.64 ac plus allowance for compaction)				
Off-Site Material	CY	_____	_____	_____
Delivery	CY	_____	_____	_____
Spread	CY	_____	_____	_____
Subtotal Top Soil Cover:				_____

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
5. Vegetative Layer (Applied to 60.64 ac plus 4 ac of sod as necessary)				
Sodding	SY	_____	_____	_____
Hydroseeding	AC	_____	_____	_____
Fertilizer	AC	_____	_____	_____
Mulch	AC	_____	_____	_____
Other	SY	_____	_____	_____
Subtotal Vegetative Layer:				_____
6. Stormwater Control System:				
Earthwork	CY	_____	_____	_____
Grading	SY	_____	_____	_____
Piping	LF	_____	_____	_____
Ditches	LF	_____	_____	_____
Berms	LF	_____	_____	_____
Control Structures	EA	_____	_____	_____
Other	LS	_____	_____	_____
Subtotal Stormwater Controls:				_____
7. Gas Controls: Passive				
Wells	EA	_____	_____	_____
Pipe and Fittings	LF	_____	_____	_____
Monitoring Probes	EA	_____	_____	_____
NSPS/Title V requirements	LS	_____	_____	_____
Subtotal Passive Gas Control:				_____

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
8. Gas Control: Active Extraction				
Traps	EA			
Sump	EA			
Flare Assembly	EA			
Flame Arrestor	EA			
Mist Eliminator	EA			
Flow Meter	EA			
Blowers	EA			
Collection System	LF			
Other (describe)				
Subtotal Active Gas Extraction:				
9. Security System:				
Fencing	LF			
Gate(s)	EA			
Sign(s)	EA			
Subtotal Security System:				
10. Engineering:				
Closure Plan report	LS			
Certified Engineer	LS			
NSPS/Title V Air Permit	LS			
Final Survey	LS			
Certification of Closure (Including Closure Permit)	LS			
Other (CQA Plan)				
Subtotal Engineering:				

11. Professional Services

	Contract Management		Quality Assurance		Total
	Hours	LS	Hours	LS	
P.E. Supervisor	_____	_____	_____	_____	_____
On-Site Engineer	_____	_____	_____	_____	_____
Office Engineer	_____	_____	_____	_____	_____
On-Site Technician	_____	_____	_____	_____	_____
Other (explain)	_____	_____	_____	_____	_____

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
-------------	------	----------	-----------	-------

Quality Assurance Testing	LS	_____	_____	_____
---------------------------	----	-------	-------	-------

Subtotal Professional Services: _____

Subtotal of 1-11 Above: _____

12. Contingency	% of Total (example. enter .1 for 10%)	_____
-----------------	--	-------

Closing Cost Subtotal: _____

13. Site Specific Costs (explain)

<u>Mobilization</u>	_____
<u>Waste Tire Facility</u>	_____
<u>Materials Recovery Facility</u>	_____
<u>Special Wastes</u>	_____
<u>Leachate Management System Modification</u>	_____
<u>Other (Construction Rework & CQA Test Cont.)</u>	_____
_____	_____

Subtotal Site Specific Costs: _____

TOTAL CLOSING COSTS _____

VI. ANNUAL COST FOR LONG-TERM CARE
(Increasing Quantities from 25.22 ac to 39.60 ac)

(Check Term Length)

_____ 5 Years _____ 20 Years _____ 30 Years _____ Other

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.

**** Third Party Estimate / Quote must be provided for each item**

**** Costs must be for a third party providing all material and labor**

All items must be addressed. Attach a detailed explanation for all items marked not applicable (N/A)

Description	Sampling Frequency (events/yr.)	Number of Wells	\$ / Well / Event	\$ / Year
1. Groundwater Monitoring (62-701.510(6), and (8)(a))				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annual	2	_____	_____	_____
Annual	1	_____	_____	_____
Subtotal Groundwater Monitoring:				_____
2. Surface Water Monitoring (62-701.510(4), and (8)(b))				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annual	2	_____	_____	_____
Annual	1	_____	_____	_____
Subtotal Surface Water Monitoring:				_____
3. Gas Monitoring				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annual	2	_____	_____	_____
Annual	1	_____	_____	_____
Subtotal Gas Monitoring:				_____

Description	Sampling Frequency (events/yr.)	Number of Locations	\$/Location/Event	\$ / Year
4. Leachate Monitoring (62-701.510(5), (6)(b) and 62-701.510(8)(c))				
Monthly	12			
Quarterly	4			
Semi-Annual	2			
Annual	1			
Other				
Subtotal Leachate Monitoring:				

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
5. Leachate Collection/Treatment Systems Maintenance				
Maintenance				
Collection Pipes	LF			
Sumps, Traps	EA			
Lift Stations	EA			
Cleaning	LS			
Tanks	EA			
Impoundments				
Liner Repair	SY			
Sludge Removal	CY			
Aeration Systems	CY			
Floating Aerators	EA			
Spray Aerators	EA			
Disposal				
Off-site (Include Transportation and Disposal)	1000 gallon			

6. Leachate Collection/Treatment Systems Operation

Operation		Hours	\$/Hour	Total
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Materials	LS			
Subtotal Leachate Collection/Treatment System Maintenance & Operation:				

7. Maintenance of Groundwater Monitoring Wells

Monitoring Wells	LF			
Replacement	EA			
Abandonment	EA			
Subtotal Groundwater Monitoring Well Maintenance:				

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
-------------	------	----------	-----------	-------------

8. Gas System Maintenance

Piping, Vents	LF			
Probes	EA			
Flaring Units	EA			
Meters, Valves	EA			
Compressors	EA			
Flame Arrestors	EA			
Operation	LS			
SubTotal Gas System:				

9. Landscape (Based on \$28.31/ac @ 4 times per year)

Mowing	AC			
Fertilizer	AC			
Subtotal Landscape Maintenance:				

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
10. Erosion Control & Cover Maintenance (Apprx. 1.25 ac revegetation, 2.0 ac repair, & 0.8 ac erosion repair)				
Sodding	SY	_____	_____	_____
Regrading	AC	_____	_____	_____
Liner Repair	SY	_____	_____	_____
Clay	CY	_____	_____	_____
Subtotal Erosion Control and Cover Maintenance:				_____
11. Storm Water Management System Maintenance				
Conveyance Maintenance	LS	_____	_____	_____
Subtotal Storm Water System Maintenance:				_____
12. Security System Maintenance				
Fences	LF	_____	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System:				_____
13. Utilities	LS			_____
14. Administrative		Hours	\$/Hour	Total
P.E. Supervisor	HR	_____	_____	_____
On-Site Engineer	HR	_____	_____	_____
Office Engineer	HR	_____	_____	_____
OnSite Technician	HR	_____	_____	_____
Other (explain)		_____	_____	_____
Subtotal Administrative:				_____
15. Contingency	% of Total	_____	_____	_____
Subtotal Contingency:				_____

16. Site Specific Costs (explain)

UNIT COST

LS

LS

LS

ANNUAL LONG-TERM CARE COST (\$/Year):

NUMBER OF YEARS OF LONG-TERM CARE

TOTAL LONG-TERM CARE COST (\$)

Angelo's Aggregate Materials, Enterprise Class III Landfill Closure and Long-Term Care Cost Estimates

General Information and Assumptions:

The previously approved estimates included Cells 1, 2, 15, 5, 4, and 3. As shown on the financial assurance cost estimate form, these estimates have been revised to include the closure and long-term care of Cells 6 and 7. Most of the assumptions that were previously used remain unchanged and have been re-applied for this estimate. Any quantities or cost items that remain unchanged have been marked "No Change".

Closure Area:

The source that has been used for the individual cell closure areas and design lives listed on the financial assurance cost estimate form is the lifespan analysis presented in the *Enterprise Class III Landfill Permit Renewal, Pasco County, Response to DEP Second Request for Additional Information*, prepared by Jones Edmunds in June 2006. This analysis titled, *Table 1, Proposed Enterprise Recycling and Disposal Facility, Life Expectancy Estimate, Pasco County, FL* has been used for Cells 6 and 7. A copy has been included as Reference 1. Since Cells 6, 7 and 8 have been combined into Cells 6 and 7 per the sequencing modification, the combined surface areas and volumes (column 1) for the 3 cells has been divided in half for Cells 6 and 7. Using the estimated annual waste volume (column 2) the cell life for Cells 6 and 7 were calculated. These are the areas and design lives presented on the financial assurance form.

Unit Cost Estimations and Calculations:

All unit costs are explained in the following parts for each item. The cost references are provided in the appendix with the cost estimates and consist mostly of third party quotes as well as MeansCostWorks.com (RSMeans) estimates.

Enterprise Class III Landfill Closure Cost Estimate Explanation of Quantities and Costs:

Item 1: Proposed Monitoring Wells

NA

Item 2: Slope and Fill

The previous estimate assumed Grading & Sloping Waste on a per SY basis. The areas of Cells 6 and 7 have been added to the total quantity. For unit cost see updated Goodwin Brothers estimate (Reference 2).

Item 3: Cover Material (Barrier Layer):

The previous estimate assumed 18" of clay over the closure area plus an allowance of 30% for compaction. This methodology was applied to the new closure area including Cells 6 and 7. For unit cost see updated Goodwin Brothers estimate (Reference 2).

Item 4: Top Soil Cover

The previous estimate assumed 18" of soil cover over the closure area plus an allowance of 30% for compaction. This methodology was applied to the new closure area including Cells 6 and 7. For unit cost see updated Goodwin Brothers estimate (Reference 2).

Item 5: Vegetative Layer

The previous estimate assumed a sod quantity of 2.6 acres (over 39.60 acres of closure). Applying the same percentage over the new acreage (60.64) resulted in a sod quantity of 4 acres. For unit cost see updated Goodwin Brothers estimate (Reference 2).

This estimate assumed hydroseeding over the closure area of 60.64 acres. For unit cost see updated Goodwin Brothers estimate (Reference 2).

Irrigation & Labor: No change

Item 6: Stormwater Control System

No change

Item 7: Gas Control: Passive

No change to quantities. The quantity of gas wells was increased to account for the wells that will be installed within the Cells 6 and 7 footprints. A quote for similar work is provided as Reference 3.

Item 8: Gas Control: Active Extraction

An active gas collection system is not proposed at this time.

Item 9: Security System

The security fencing, gates, and signs have been installed for the entire site. Additional security devices are not anticipated at the time of this cost estimate.

Item 10: Engineering

No change to unit costs. These costs would be typical for any 3rd Party engineering consulting firm to perform these tasks. The quantities (hours) have been increased by the percentage of acreage increase.

Item 11: Professional Services

No change to unit costs. These costs would be typical for any 3rd Party engineering consulting firm to perform these tasks. The quantities (hours) have been increased by the percentage of acreage increase.

Item 12: Contingency

A contingency amount of 10% of the total cost was used in the cost estimate. This value is consistent with actual contingency values used in bidding landfill construction projects.

Item 13: Site Specific Costs

Other:

Item 13: Site Specific Costs

Cost for mobilization was provided by Goodwin Brothers (See Reference 2).

Construction Rework & CQA Test Cont. was increased by the percentage of acreage increase.

Section 10 Landfill Long-Term Care Cost Estimate Explanation of Quantities and Costs:

Item 1: Groundwater Monitoring

A Jones Edmunds' estimate for annual compliance monitoring costs for a comparable site including fieldwork, laboratory analysis and reporting was used. The estimate is based on a semi-annual sampling of 14 monitoring wells (a total of 28 sampling events). See Reference 4.

Item 2: Surface Water Monitoring

NA

Item 3: Gas Monitoring

A Jones Edmunds' estimate for annual gas monitoring costs including fieldwork, laboratory analysis and reporting was used. The estimate is based on quarterly sampling of 10 monitoring wells (a total of 40 sampling events). See Reference 4.

Item 4: Leachate Monitoring

NA

Item 5: Leachate Collection/Treatment Systems Maintenance

NA

Item 6: Leachate Collection/Treatment System Operation

NA

Item 7: Maintenance of Groundwater Monitoring Wells

No Change

Item 8: Gas System Maintenance

No Change

Item 9: Landscape

Mowing:

Mowing was assumed for 60.64 acres of closure 4 times per year. RSMeans was used for the unit cost. See Reference 5.

Fertilizer:

Assuming fertilizer is applied once per year on 60.64 acres. No change to unit cost.

Item 10: Erosion Control and Cover Maintenance

Sodding:

Please see Item 5 of closure cost estimate for sod quote for unit cost. No change to the quantity.

Regrading:

No change to the quantity. The unit cost is based on the Goodwin Brothers quote (Reference 2).

Clay:

No Change to the quantity. The unit cost is based on the Goodwin Brothers quote.

Item 11: Stormwater Management System Maintenance

No Change

Item 12: Security System Maintenance

No Change

Item 13: Utilities

NA

Item 14: Administrative

No change to unit costs. These costs would be typical for any 3rd Party engineering consulting firm to perform these tasks. The quantities (hours) have been increased by the percentage of acreage increase.

Item 15: Contingency

Contingency costs of 10% were included with this cost estimate for long-term care.

COST REFERENCES

Table 1 (Source: Tetrattech, Inc.)
Proposed Enterprise Recycling and Disposal Facility
Life Expectancy Estimate
Pasco County, FL

Cell/Phase	Surface Area (Acres)	Estimated ⁽¹⁾ Cell Volume (CY)	Est. Annual ⁽²⁾ Waste Volume (CY)	Estimated ⁽³⁾ Cell Life (Mo)
1/4	6.08	542,778.6	394,5421,260,000	16.55.2
2/5	5.57	543,397.9	394,5421,260,000	16.55.2
3/6	7.04	548,613.6	394,5421,260,000	16.65.2
4/7	7.34	511,513.7	394,5421,260,000	15.54.9
5/8	7.34	509,914.8	394,5421,260,000	15.54.9
6/9	6.95	550,189.8	394,5421,260,000	16.75.2
7/10	6.75	648,886.6	394,5421,260,000	19.76.2
8/11	7.34	513,644.1	394,5421,260,000	15.64.9
9/12	7.34	507,703.2	394,5421,260,000	15.44.8
10/13	7.09	686,957.6	394,5421,260,000	20.96.5
11/14	6.95	694,173.7	394,5421,260,000	21.16.6
12/15	6.74	630,019.4	394,5421,260,000	19.26.0
13/16	5.19	523,015.5	394,5421,260,000	15.95.0
14/1	5.78	523,512.4	394,5421,260,000	15.95.0
15/3	6.00	527,715.2	394,5421,260,000	16.05.0
16/2	6.23	527,139.8	394,5421,260,000	16.05.0
TOTALS	105.73	8,989,275.9		22.757.13 years

COMBINED
INTO CELLS 6
+ 7

- (1) Based on 3/00 topographic survey, designed base excavation grades, 2H:1V side slopes.
- (2) In place waste volume (1:7:1 compaction ratio) based on similar Florida landfills, actual disposal rates will vary.
- (3) Based on cell volumes without airspace for 800,000 CY of cover material.

6	10.52	856,360.3	394,542	26.0
7	10.52	856,360.3	394,542	26.0

P.O. Box 1689
Brooksville, FL 34605
odwinbroconst@hughes.net



Construction Co., Inc.

Phone (352) 796-014
Fax (352) 544-108

October 15, 2009

Jones, Edmunds & Associates, Inc.
730 NE Waldo Road
Gainesville, FL 32641
ATTN: Brent Schneider

RE: Enterprise Landfill

Mr. Schneider:

Goodwin Bros. Construction, Inc. is providing quotes for Closure of the Enterprise Road Class III Landfill.

Mobilization \$1,800.00

Rough grading and sloping of waste \$0.75/SY
(Additional fill dirt, if needed, would be \$5.80/cy. However, we intend to use the graded, compacted waste as fill material.)

Barrier soil, in accordance with Rule 62-701, FAC \$5.00/CY
(Includes purchase of off-site material, delivery, placement and compaction to meet the applicable DEP requirements)

Top soil \$7.50/CY
(Includes purchase of off-site material, delivery, placement and compaction)

Sodding of side slopes \$1.44/SY

Hydroseeding relatively flat areas \$2,245.55/AC
(Includes fertilizing and mulching)

Regarding of any eroded areas \$1,550.00/AC

Estimated time to complete work approximately 14 weeks

We believe the costs above include all activities required for construction of the final cover required by Rule 62-701. We also have done work for the Sarasota Landfill in Sarasota County.
Please call me at 352-279-7053 if you have any questions.

Thank you,


Daniel Goodwin, Jr.



Client: JEA
 Attn: Donnie Wilkerson
 Date: 7/22/09
 Fax / Email: (352) 377-3166
 Quote Page 1 of 1
 Cost Estimate for drilling: Union County
 HDI #0857-09

	EST /UNIT	PRICE	TOTAL
MOBILIZATION/DEMObILIZATION	Union County		\$ 600.00
*Drilling Through Trash			
GAS VENTS WELLS (Includes: .02 Screen, Riser, Pea Gravel & Bentonite)			
Diameter 4" (1X20') 0 - 50'	20.0 /ft	40.00 /ft	\$ 800.00
50 - 100'	0.0 /ft	44.00 /ft	\$ -
STANDARD PENETRATION TESTING			
SPT 5' Interval 0 - 50'	0.0 /ft	10.00 /ft	\$ -
50 - 100'	0.0 /ft	14.00 /ft	\$ -
SPT Continuous 0 - 50'	0.0 /ft	16.00 /ft	\$ -
50 - 100'	0.0 /ft	20.00 /ft	\$ -
AUGER BORINGS (S. Stem 3") 0 - 50'	0.0 /ft	8.00 /ft	\$ -
SURFACE CASING (8" PVC)	0.0 /ft	45.00 /ft	\$ -
WELL COMPLETION OPTIONS-NONE			
12" Manhole Cover w/4" Concrete Square Pad	0.0 /ea	150.00 /ea	\$ -
8" Manhole Cover w/4" Concrete Square Pad	0.0 /ea	125.00 /ea	\$ -
8" Bolt-down Cover w/4" Concrete Square Pad	0.0 /ea	150.00 /ea	\$ -
6" Square Protective Casing w/Square Pad	0.0 /ea	250.00 /ea	\$ -
4" Sanitary Locking Seals	0.0 /ea	40.00 /ea	\$ -
ADDITIONAL ITEMS			
Drilling by the Hour (4 hour Minimum)	0.0 /hr.	200.00 /hr.	\$ -
Well Development Moyno-Rig pump or Sub.	0.0 /hr.	175.00 /hr.	\$ -
Steam Decontamination	0.25 /hr.	175.00 /hr.	\$ 43.75
Jack Hammer Rental	0.0 /dy	115.00 /dy	\$ -
Stand By Time	0.0 /hr.	175.00 /hr.	\$ -
Site Clean Up/Drumming Cuttings	0.0 /hr.	175.00 /hr.	\$ -
Concrete/Asphalt Cutting & Removal	0.0 /hr.	175.00 /hr.	\$ -
Drums (DOT 17H)	0.0 /ea	65.00 /ea.	\$ -
Hotel & Per Diem (3 man crew)	0.0 /dy	300.00 /dy	\$ -
Permits (S.W.F.W.M.D)	0.0 /ea	75.00 /ea	\$ -
Total Estimate			\$ 1,443.75

Additional Insured Requirements as per Written Contract

*This bid is an estimate only and the invoice will reflect the actual work performed.

File Name: Bid-Short4.xls

35920 STATE ROAD 52 • DADE CITY, FL 33525 • (352) 567-9500 • (352) 567-6646

**New River Regional Landfill
Cost Estimate for Monitoring Services
2009 Financial Assurance Cost Estimate - Backup Information**



From: Proposed Costs to New River from Jones Edmunds & Associates, Inc.
Work Order No. 17 for Fiscal Year 2009 / 2010

Items as listed on "Part VI. Annual Cost for Long-Term Care"

1. Groundwater Monitoring (62-701.510(6), and (8)(a))

	Sampling Frequency (events/yr.)	Number of Wells	\$/Well/Event	\$/Year
Monthly	12			
Quarterly	4			
Semi-Annual	2	17	\$ 1,199.41	\$ 40,780.00
Annual	1			
Subtotal Groundwater Monitoring:			\$	40,780.00

Assumptions for above calculations:	\$/Year
Annual Sampling and Reporting Cost for 17 Groundwater Monitoring Wells	\$ 19,380.00
Annual Laboratory Analytical Costs for 17 Groundwater Monitoring Wells	\$ 13,640.00
Annual Pro-rated Laboratory Analytical Costs for 5-Year Laboratory Analyses	\$ 1,710.00
Annual Pro-rated Cost for Biennial Technical Summary Report	\$ 2,250.00
Annual Contingency for Resampling/Reanalysis	\$ 3,800.00
Total Annual Costs Related to Groundwater Monitoring	\$ 40,780.00

2. Surface Water Monitoring (62-701.510(4), and (8)(b))

	Sampling Frequency (events/yr.)	Number of Wells	\$/Well/Event	\$/Year
Monthly	12			
Quarterly	4			
Semi-Annual	2	2	\$ 1,195.00	\$ 4,780.00
Annual	1			
Subtotal Surface Water Monitoring:			\$	4,780.00

Assumptions for above calculations:	\$/Year
Annual Sampling and Reporting Cost for 2 Surface Water Stations	\$ 1,920.00
Annual Laboratory Analytical Costs for 2 Surface Water Stations	\$ 2,860.00
Total Annual Costs Related to Surface Water Monitoring	\$ 4,780.00

3. Gas Monitoring

	Sampling Frequency (events/yr.)	Number of Wells	\$/Well/Event		\$/Year
Monthly	12	17	\$	79.41	\$ 5,400.00
Quarterly	4				
Semi-Annual	2				
Annual	1				
Subtotal Gas Monitoring:				\$	5,400.00

Assumptions for above calculations:			\$/Year	
Annual Monitoring and Reporting Cost for 17 Gas Monitoring Wells			\$	5,400.00
Total Annual Costs Related to Gas Monitoring			\$	5,400.00

4. Leachate Monitoring (62-701.510(5), (6)(b), and (8)(c))

	Sampling Frequency (events/yr.)	Number of Wells	\$/Well/Event		\$/Year
Monthly	12	6	\$	1,508.33	\$ 9,050.00
Quarterly	4				
Semi-Annual	2				
Annual	1				
Subtotal Leachate Monitoring:				\$	9,050.00

Assumptions for above calculations:			\$/Year	
Annual Sampling and Reporting Cost for 6 Leachate Stations			\$	3,000.00
Annual Laboratory Analytical Costs for 6 Leachate Stations			\$	6,050.00
Total Annual Costs Related to Leachate Monitoring			\$	9,050.00

Angelos

Unit Detail Report

Cost Estimate Report

CostWorks[®]
RSMeansDade City,
FL, 33525
Year 2009

Prepared By:

Javier DuQuesne

Date: 16-Oct-09

Enterprise Class III FACE

Jones Edmunds & Associates, Inc.

LineNumber		Description	Quantity	Unit	Total Incl. O&P	Ext. Total Incl. O&P
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Division 32 Exterior Improvements

320190194180	Mowing, lawn mowing, 3 gang reel, 7', with tractor & attachments	43.56	M.S.F.	\$0.65	\$28.31
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Division 32 Subtotal

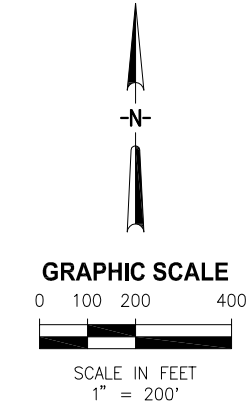
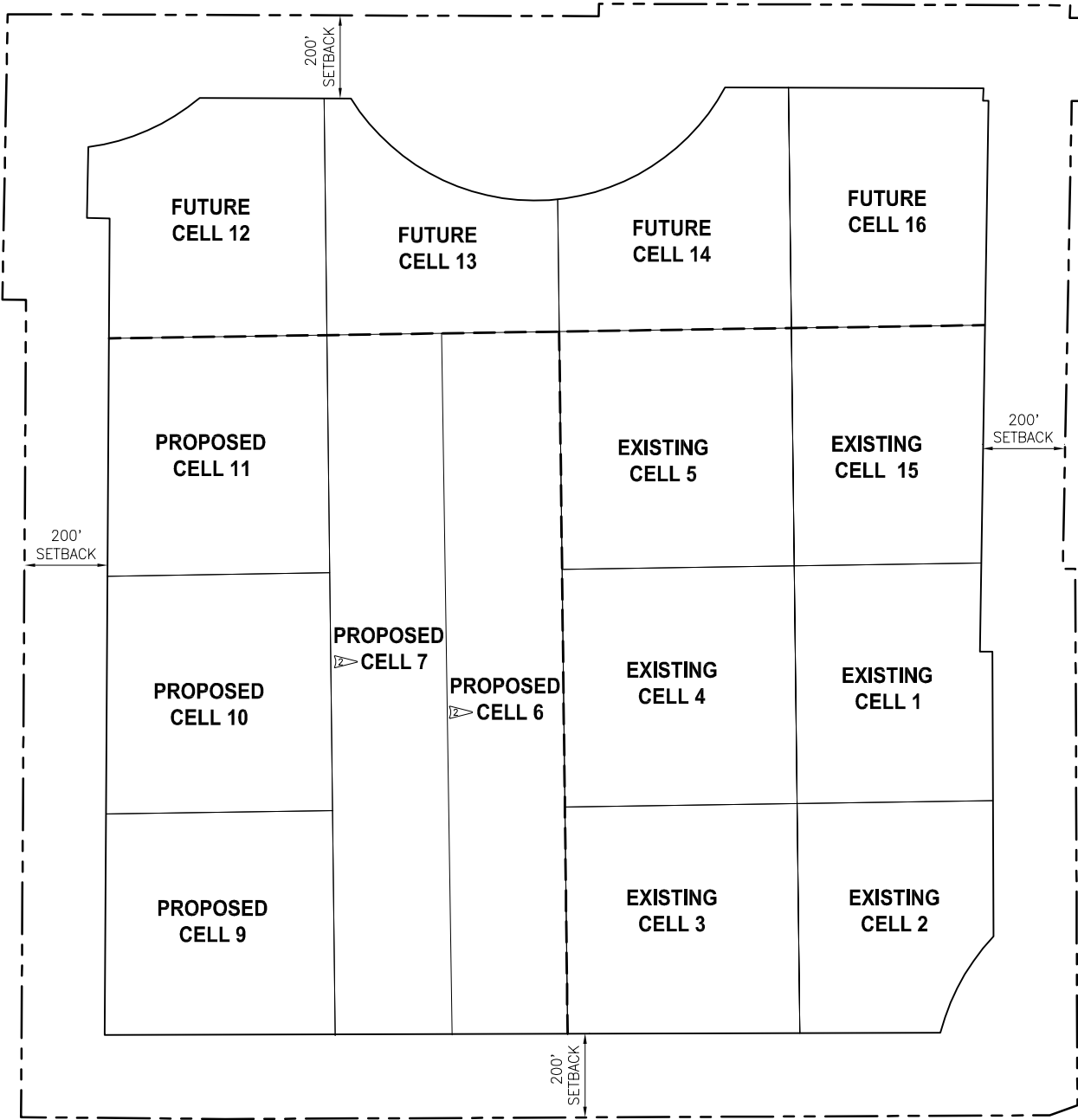
\$28.31

ATTACHMENT 7

REVISED DRAWING C-5

Plotted: 10/21/09 3:14pm BSchneider

LAST SAVED: 10/5/2009 3:31 PM PUPSTILL



LEGEND

- PROPERTY BOUNDARY
- LANDFILL LIMITS
- CELL BOUNDARY
- LANDFILL EXPANSIONS

GENERAL NOTES

- DRAWINGS C-5 THROUGH C-13 ARE PROVIDED TO SHOW THE MINING EXCAVATION, CELL FLOOR GRADING, INTERIOR CELL DRAINAGE, AND LANDFILL FILLING SEQUENCING.
- EACH DRAWING SHOWS THE COMPLETE SEQUENCE OF THESE ACTIVITIES. FOR EXAMPLE DRAWING C-6 REPRESENTS THE FINAL CONTOURS FOR THE LANDFILL IN CELL 15, THE FINAL CELL BOTTOM GRADES IN CELL 5 AND THE FINAL CELL MINING GRADES IN CELL 4, AND THE EXISTING CONTOURS (AS OF 10/27/05) FOR THE REST OF THE SITE. DRAWING C-7 WOULD THEN SHOW THE NEXT PROGRESSION AS REPRESENTED IN THE TABLE BELOW.
- DETAILED DEPICTION OF THE STORMWATER SYSTEM STARTS ON DRAWING C-7 SINCE THIS MOST CLOSELY REPRESENTS THE EXISTING SITE CONDITIONS AT THE TIME OF THIS SUBMITTAL (11/10/06).
- SITE DRAINAGE IS DIRECTED TO THE TEMPORARY POND LOCATED IN CELLS 14 AND 16 IN THE NORTHEAST SIDE OF THE SITE. THE CELL BOTTOM IS GENERALLY GRADED TO ALLOW OVERLAND FLOW FROM THE SOUTH TO THE NORTH/NORTHEAST. DRAINAGE THAT COLLECTS ALONG THE EXISTING CELL IS DIRECTED TO THE TEMPORARY POND DUE TO THE GRADE OF THE CELL BOTTOM DECREASING FROM SOUTH TO NORTH. ADDITIONAL SWALES WILL BE CONSTRUCTED AS NEEDED WHEN THE LANDFILL OPERATIONS IMPEDE THE FLOW OF STORMWATER. FOR EXAMPLE IN DRAWING C-7 STORMWATER FROM CELLS 1 AND 2 WILL FLOW OFF OF THE CELL AND FLOW TO THE NORTH TO A SWALE THAT WILL BE CONSTRUCTED. DUE TO THE SCALE OF THE DRAWINGS THE SWALE IS REPRESENTED ONLY WITH THE SWALE CENTERLINE AND SPOT ELEVATIONS AT KEY POINTS ALONG THE SWALE.
- DRAINAGE FROM THE UNEXCAVATED PORTION OF THE SITE IS KEPT FROM ENTERING THE WORKING AREA BY USE OF TEMPORARY BERMS OR SWALES. FOR INSTANCE ON DRAWING C-7 CELLS 6 AND 7 ARE AT A MUCH HIGHER ELEVATION THAN THE CELLS BELOW (3, 4, AND 5). DEPENDING ON THE STAGE OF MINING, A TEMPORARY BERM OR SWALE WILL BE CONSTRUCTED TO DIVERT THE CELL DRAINAGE TO EITHER POND 1 OR THE TEMPORARY POND.

EXCAVATION, CONSTRUCTION, AND FILLING SEQUENCE				
FILL SEQUENCE	MINING EXCAVATION	CELL CONSTRUCTION	LANDFILL FILLING	BEGIN ACCEPTING WASTE (ESTIMATED)
1	4	5	15	—
2	3	4	5	—
3A	6	3	4	—
3B	6	—	3	4/2009
4	7	6	1, 2, 3, 4, 5, 15	10/2009
5	—	7	6	4/2010
6	9	—	7	10/2010
7	10	9	3, 4, 5, 6	4/2011
8	11	10, 11	6, 7, 9, 10, 11	10/2011

NOTE:
CELL CLOSURE WILL NOT OCCUR UNTIL THE EXISTING AND PROPOSED LANDFILL CELLS ARE FILLED IN APPROXIMATELY 2011.

					DESIGNED	TSM
					DRAWN	H2B
					CHECKED	DAD
LTR.	DATE	REVISIONS			BY	APPRD.

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

ANGELO'S AGGREGATE MATERIALS, LTD.
ENTERPRISE RECYCLE AND DISPOSAL FACILITY

CELL PHASING SEQUENCE

CERTIFICATE OF AUTHORIZATION #1841		DATE	PROJECT NO.
APPROVED BY		NOV 2006	01030-005-01
DENNIS A. DAVIS		SCALE	DWG. NO.
P.E. # 59299		1"=200'	C-5