AUG 07 2009

SOUTHWEST DISTRICT TAMPA

# ANGELO'S AGGREGATE MATERIALS ENTERPRISE RECYCLING AND DISPOSAL FACILITY CLASS III OPERATIONS PERMIT MINOR MODIFICATIONS—UPDATES

#### 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.



730 NE Waldo Road Gainesville, Florida 32641

P.E. Certificate of Authorization #1841

August 2009

Reuser 10/2/09

#### Morgan, Steve

From:

John Arnold [john.phillip.arnold@gmail.com]

Sent:

Monday, February 20, 2012 3:51 PM

To: Subject: Morgan, Steve

Attachments:

Re: Cell 6 Certification scan0224.pdf

Steve,

Thanks for taking the time to discuss these issues with me earlier today. I know that Lockleer was able to discuss the minor modification with Morris after we talked and he is working on the submittal in support of the proposed new groundwater well locations. That should be turned in by Thursday. I also wanted to confirm that the description of the 1' lifts applied to the flat, bottom portion of the cell and the south side slope was built per the drawings and I'll include the description in the report.

In looking at the berm on the north side of Cell 6, the Jones Edmunds drawings do not have the tie to grade of the berm outside of the cell. I propose to make it 3 (horizontal) to 1 (vertical) per the attached sketch (which is the cell 6 top of clay drawing). I also would like to request that the height of the berm be allowed to be constructed to the grades shown (in red), which would provide natural containment and a visual bufferer. As shown by Jones Edmunds, the proposed berm is close to 30' high without any tie to grade to the north. I talked to the Carol and Don at Jones Edmunds and they don't have an engineering reason for the berm being this high, which is why I would ask for the field deviation (which I think still provides a substantial berm). I confirm that the drawings will be revised for the pending permit renewal application to address these and any other "unclear" or "invalid" elements. Thank you for your consideration on this item.

John

On Mon, Feb 20, 2012 at 8:07 AM, Morgan, Steve < Steve. Morgan@dep.state.fl.us > wrote:

See comments below in BLUE.

Please feel free to e-mail or call me if you have any further questions.

Steven G. Morgan, Solid Waste Section

Florida Department of Environmental Protection

Southwest District Office

13051 North Telecom Parkway

Temple Terrace, FL 33637-0926

phone - (813) 632-7600 x385

e-mail - steve.morgan@dep.state.fl.us

Please take a few minutes to share your comments on the service you received from the department by clicking on this link. <u>DEP</u> Customer Survey.

**From:** John Arnold [mailto:john.phillip.arnold@gmail.com]

Sent: Thursday, February 16, 2012 11:05 AM

**To:** Morgan, Steve **Cc:** Locklear, John

Subject: Cell 6 Certification

#### Steve,

John Lockleer was working with me to get the groundwater wells associated with Cell 6 installed. Lockleer had some discussions with Morris and I would like to get your input on the best way to proceed. I can place the wells in the location specified in the existing permit (although per Lockleer/Morris we will propose new wells with the permit renewal), or I can field adjust them based on what Lockleer and Morris have discussed in terms of current data and groundwater flow (since we are working on the permit renewal). Either way will work for me and I'm trying to get the Cell 6 certified prior to submitting the permit renewal application. Please let me know what you think would work best.

It is my understanding that John Morris had discussed with John Locklear that based on recent groundwater elevation results, installation of the Cell 6 wells in the locations specified in the permit is no longer appropriate and would not result approval of the Cell 6 certification. The alternative plan for monitoring Cell 6, discussed by Mr. Morris & Mr. Locklear go beyond "field adjustment" of permitted wells and would require a permit modification at this time or could be addressed in the permit renewal, as we discussed during our November 30, 2011 pre-application meeting. Approval of the Cell 6 certification would be pending issuance or the permit modification or permit renewal and subsequent installation of the new Cell 6 wells.

I also had Jones Edmunds correct their cell sequence drawings to show the correct top of clay and excavation elevations and planned to submit them with the Cell 6 certification. Although your Cell 6 RAI addresses this, I wanted Jones Edmunds to fix their work and amend those drawings that were provided in the modification of the fill sequence. Alternatively, I can have Jones Edmunds provided the corrected drawings as a follow-up to their original modification, if that is more clear.

As we discussed during our November 30, 2011 meeting, you could either do a permit modification to change your permit drawings to correct the drawings to be consistent with what you built or correct the drawings as part of permit renewal. In either of these cases, approval of the Cell 6 certification is pending actions that make what was constructed consistent with the permit drawings.

With regard to the small berm along the north side of Cell 6, it was my desire to represent its absence as a minor field deviation. Since any liquid on the bottom of Cell 6 drains by gravity to the same location to the east, the absence of the small berm does not affect the design or function. However, if that is not acceptable, I can build the berm and provide you with an as-built.

The Department does not consider the absence of the berm as a minor field deviation, as discussed during the November 30, 2011 meeting and in the RAI for the Cell 6 certification. At the permittee's discretion, you may either install the permitted berm or revise the permit drawings (as part of the above described permit modification or permit renewal). Approval of Cell 6 certification is pending completion of one of these options.

Locklear mentioned that you may be out sick, so I understand that you may not get this week. I have the other information from the Cell 6 Certification RAI pulled together and planned, based on your response, to submit the additional information late next week if possible.

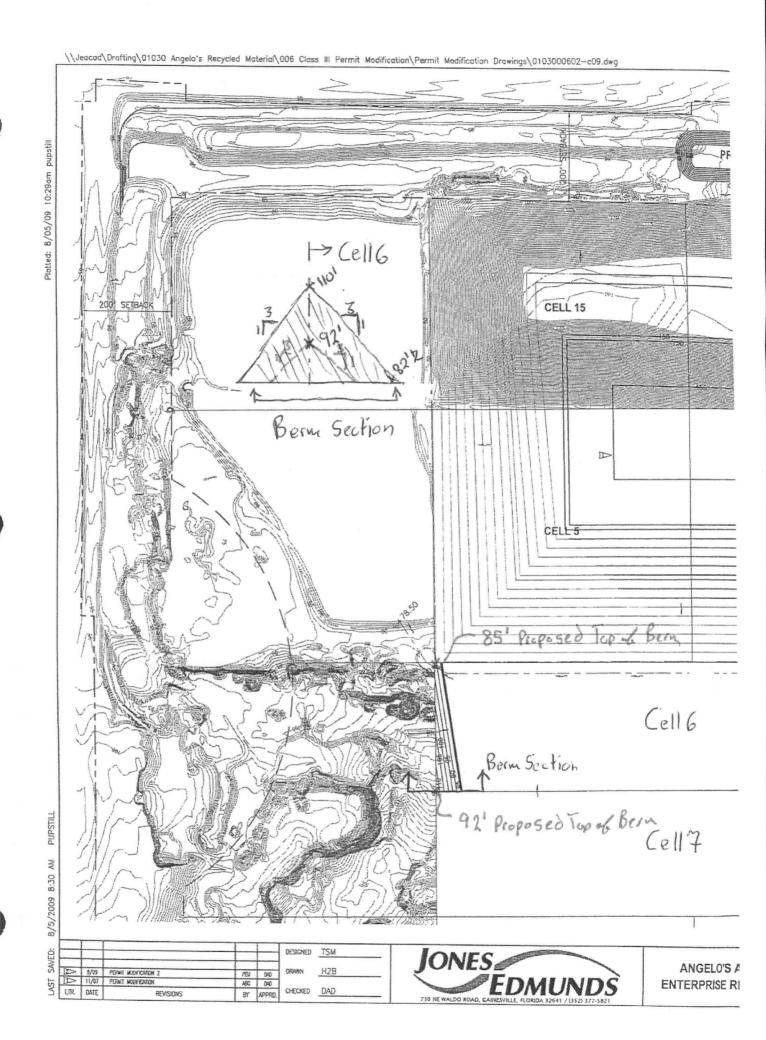
Although you may submit additional information to address the other Department's comments in the Cell 6 Certification RAI, the Department will not be able to approve the Cell 6 construction certification until the above described permit modification or renewal is submitted and approved and documentation that the Cell 6 monitor wells are installed is submitted to the Department.

Thanks for your help and please let me know if it would be convenient to discuss any of this when you have time.

John

John Arnold, P.E. Ph. (352) 339-1408

John Arnold, P.E. Ph. (352) 339-1408



#### Morgan, Steve

To: Cc: John Arnold Locklear, John

Subject:

RE: Cell 6 Certification

See comments below in BLUE.

Please feel free to e-mail or call me if you have any further questions.

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

phone - (813) 632-7600 x385

fax - (813) 632-7664

e-mail - steve.morgan@dep.state.fl.us

From: John Arnold [mailto:john.phillip.arnold@gmail.com]

Sent: Thursday, February 16, 2012 11:05 AM

**To:** Morgan, Steve **Cc:** Locklear, John

Subject: Cell 6 Certification

Steve,

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It is my understanding that John Morris had discussed with John Locklear that based on recent groundwater elevation results, installation of the Cell 6 wells in the locations specified in the permit is no longer appropriate and would not result approval of the Cell 6 certification. The alternative plan for monitoring Cell 6, discussed by Mssrs. Morris & Locklear go beyond "field adjustment" of permitted wells and would require a permit modification at this time or could be addressed in the permit renewal, as we discussed during our November 30, 2011 pre-application meeting. Approval of the Cell 6 certification would be pending issuance or the permit modification or permit renewal and subsequent installation of the new Cell 6 wells.

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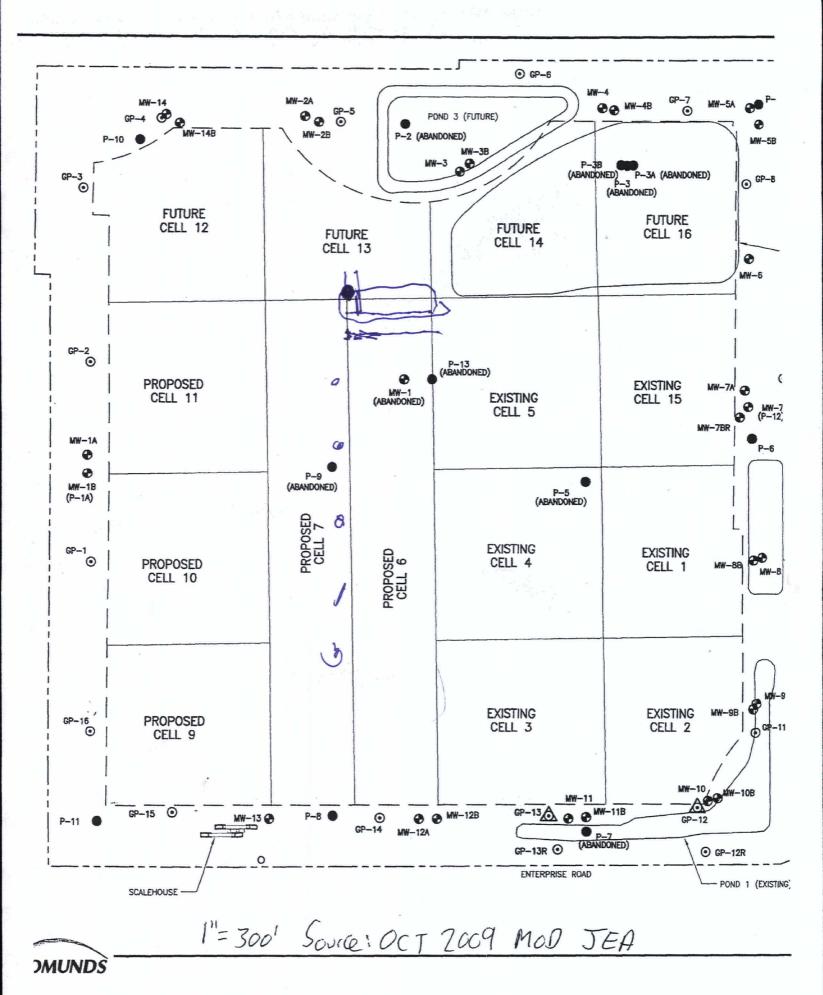
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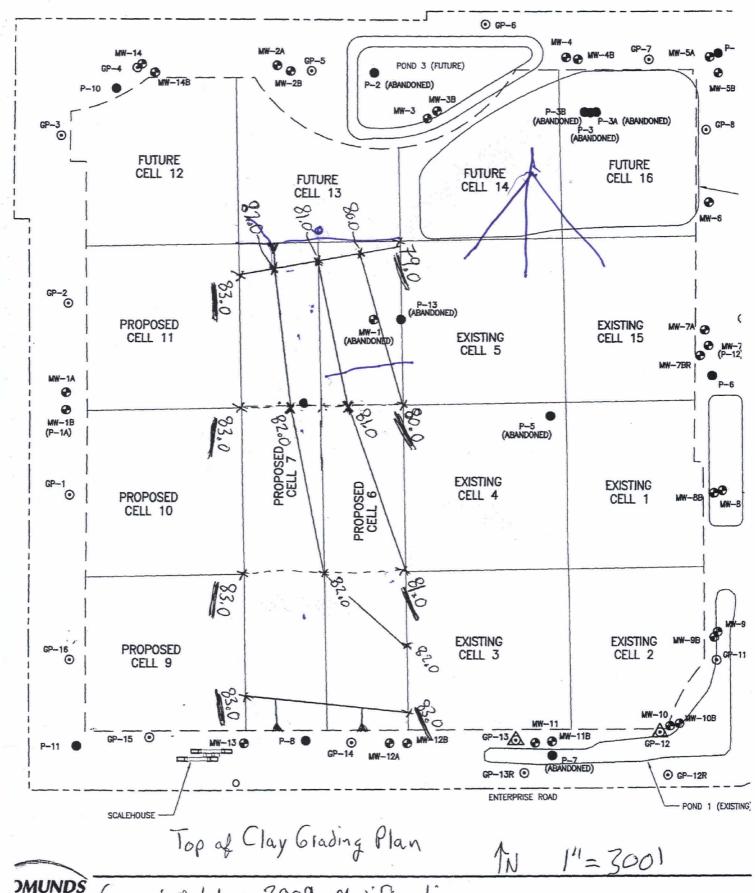
Based on the fact that the Department has received neither the above described permit modifications or permit renewal application, the submittal of additional information in anticipation of approval of the Cell 6 construction certification appears premature.

Thanks for your help and please let me know if it would be convenient to discuss any of this when you have time.

John

John Arnold, P.E. Ph. (352) 339-1408





Source: October 2009 Modification

SCALE IN FEET 1"=150"

#### **LEGEND**

PROPERTY BOUNDARY LANDFILL LIMITS CELL BOUNDARY FLOW ARROW APPROXIMATE FILLING SEQUENCE CONTOURS APPROXIMATE CENTER

NOTES: 1. THE CONTOURS IN CELL 8 REPRESENT THE TOP OF CLAY ELEVATION FOR CELL CONSTRUCTION.

2. THE CONTOURS IN CELL 9 REPRESENT THE MINING EXCAVATION GRADES.

Top of Clay 100 CELETT

Source: Nev 2006 JEA

730 HE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

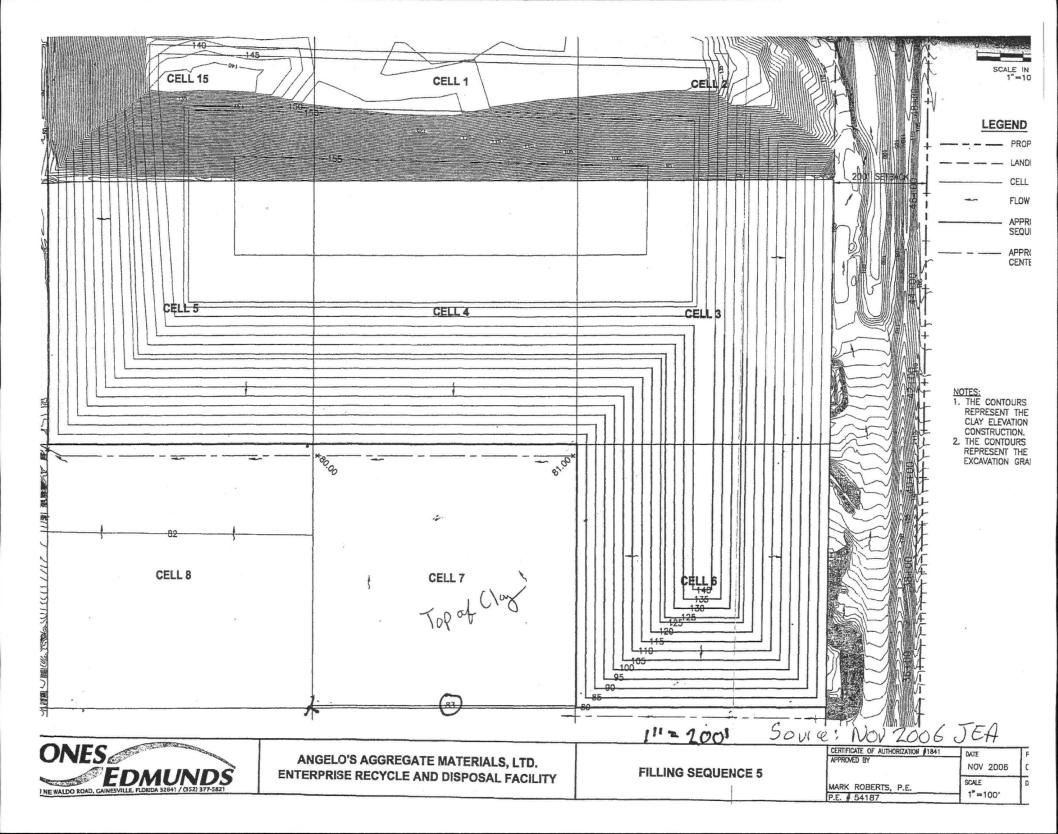
CELL 5

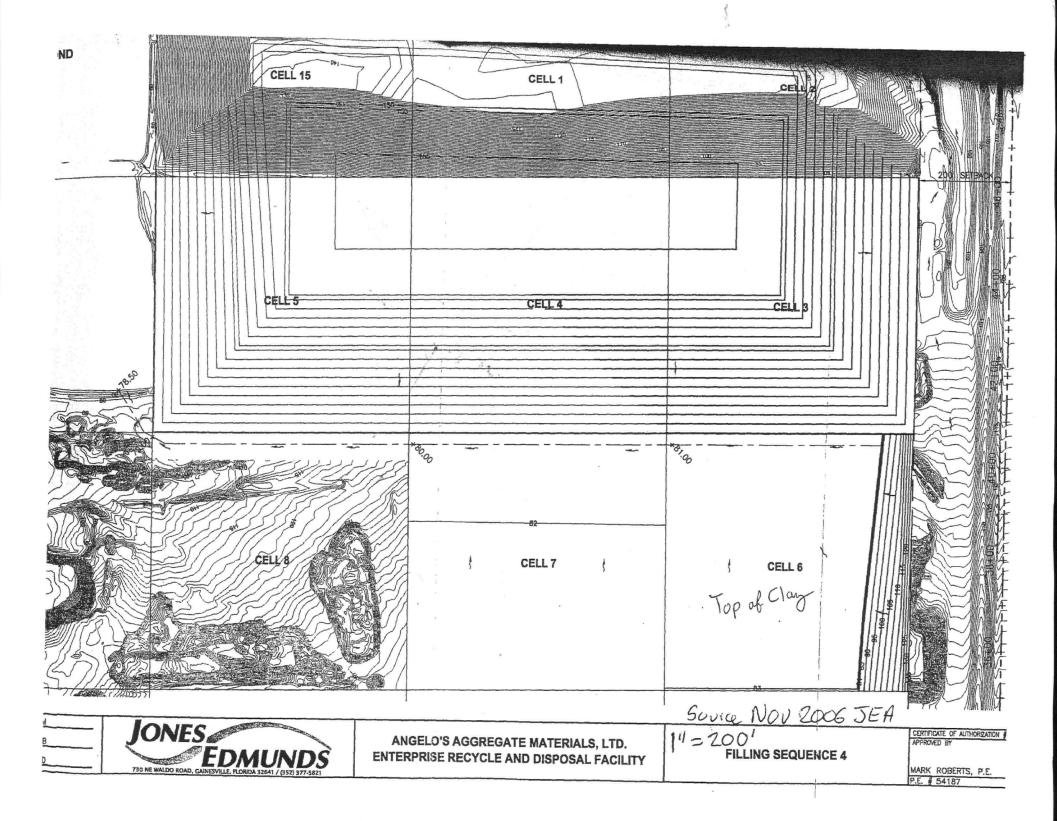
ANGELO'S AGGREGATE MATERIALS, LTD. **ENTERPRISE RECYCLE AND DISPOSAL FACILITY**  1"=3001 **FILLING SEQUENCE 6** 

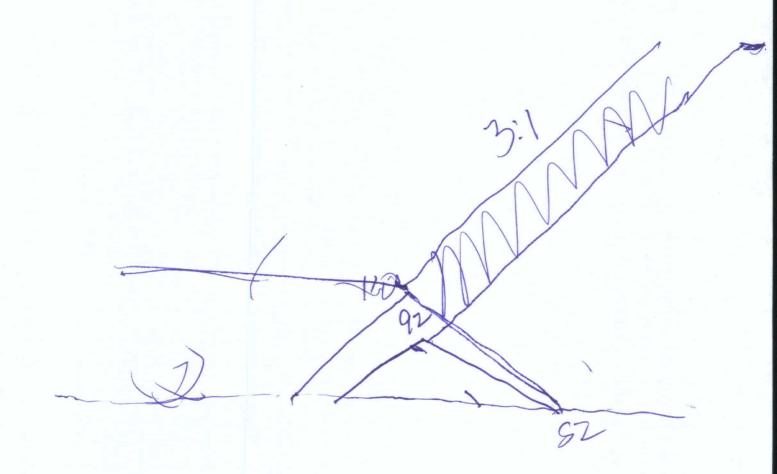
CELL 3

CERTIFICATE OF AUTHORIZATION #1841 APPROVED BY NOV 2006 SCALE MARK ROBERTS, P.E. 1"=150"

P.E. # 54187







#### Morgan, Steve

From:

Pelz, Susan

Sent:

Monday, December 05, 2011 11:50 AM

To:

Morgan, Steve

Subject:

FW: Cells 6 and 7 top of clay grading plan Enterprise Road Class III - Angelo's Recycled

Materials

Attachments:

scan0080.pdf

From: John Arnold [mailto:john.phillip.arnold@gmail.com]

Sent: Monday, December 27, 2010 1:26 PM

**To:** Pelz, Susan **Cc:** Morgan, Steve

Subject: Cells 6 and 7 top of clay grading plan Enterprise Road Class III - Angelo's Recycled Materials

Susan,

I was looking at the drawings for cells 6 and 7 (Enterprise Road Class III landfill) that were approved as part of the last modification (Jones Edmunds October 2009) and noticed that they did not have the top of clay grades, which were included in the November 2006 application. I've attached copies of the drawings (81/2" x 11"), all of which represent top of clay for the individual fill sequences.

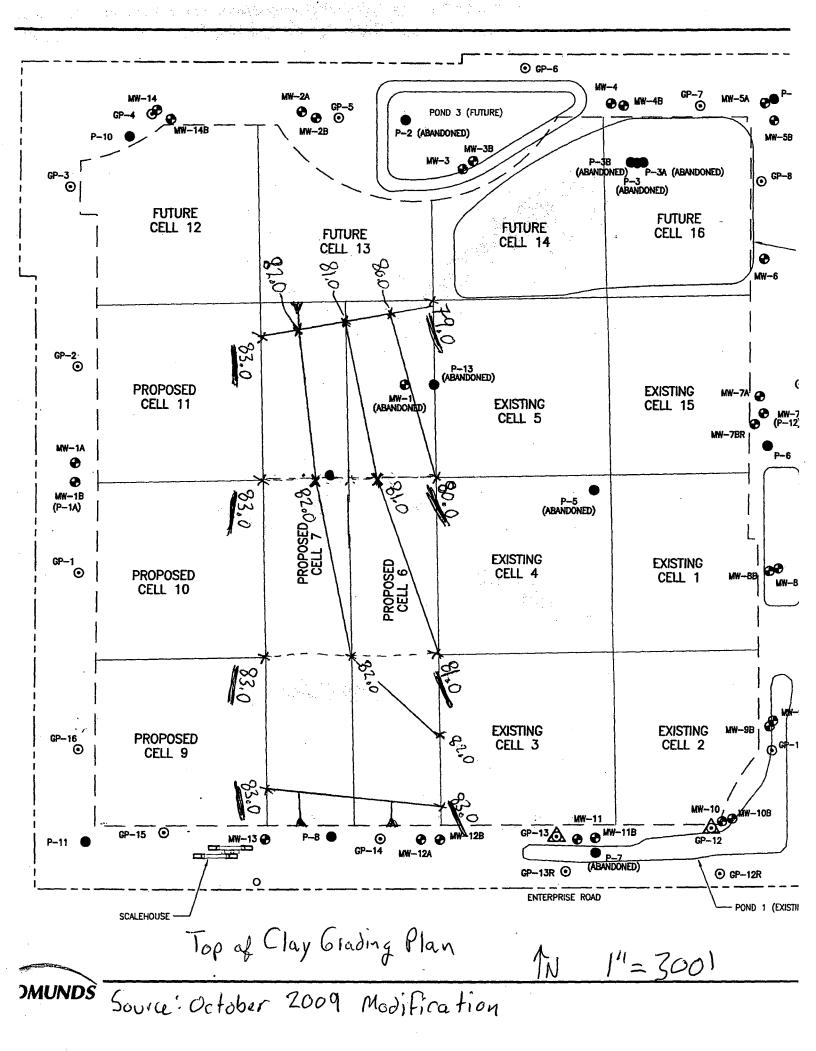
As you recall, cells 6 and 7 were reconfigured as part of a modified fill sequence, which is probably why they did not include the top of clay elevations. I've transcribed the top of clay elevations from the 2006 drawings onto the 2009 drawing and have created what I think is the top of clay grading plan. The corresponding bottom of excavation would be 3' or greater in depth from the top of clay. On the the consolidated "top of clay grading plan", I've underlined the spot elevations from the other individual drawings and linearly interpolated the other elevations and drew topographic lines.

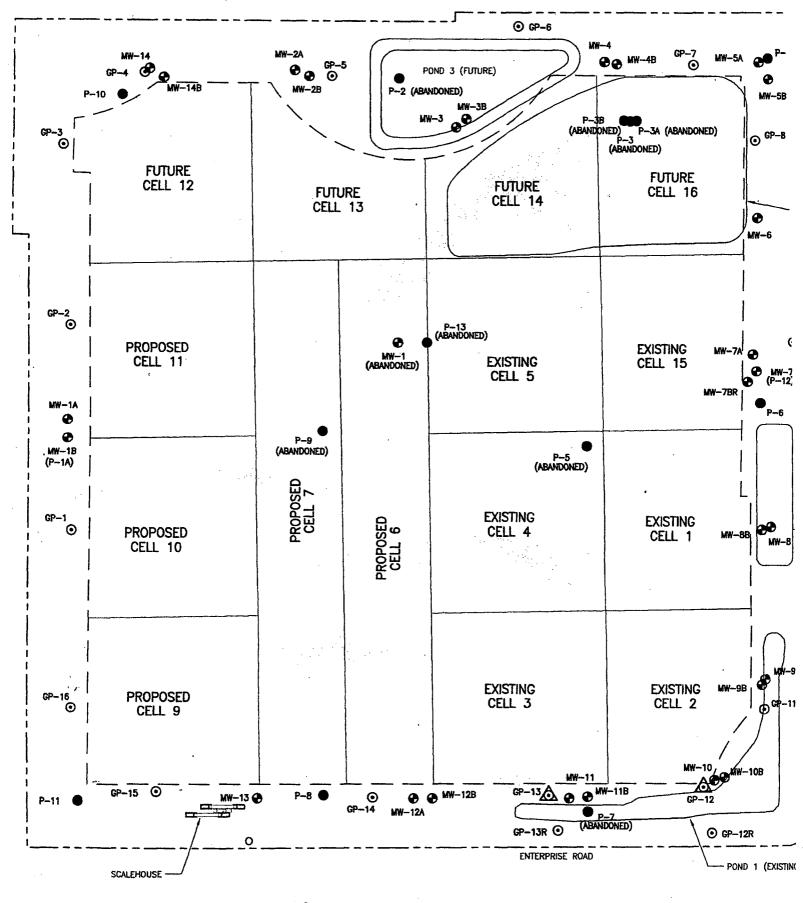
Please look at this "top of clay grading plan" and let me know if it is acceptable, or if you have any questions or ideas on what would be acceptable. We are still in the borrow pit phase for those cells (6 and 7), but the subgrades are getting close and I don't want to have to rework those areas.

Thanks and please call if I can help in any way.

John Arnold, P.E. Angelo's Recycled Materials Mob. 352.339.1408

Tel. 813.477.1719 Fax. 352.567.9448





1"= 300' Sovice: OCT 2009 MOD JEA

**MUNDS** 

#### **LEGEND**

PROPERTY BOUNDARY LANDFILL LIMITS CELL BOUNDARY FLOW ARROW APPROXIMATE FILLING SEQUENCE CONTOURS APPROXIMATE CENTER

NOTES:

1. THE CONTOURS IN CELL 8
REPRESENT THE TOP OF
CLAY ELEVATION FOR CELL
CONSTRUCTION.

2. THE CONTOURS IN CELL 9
REPRESENT THE MINING
EXCAVATION GRADES.

Source: Nev 2006 JEA

Top of Clay

CELET

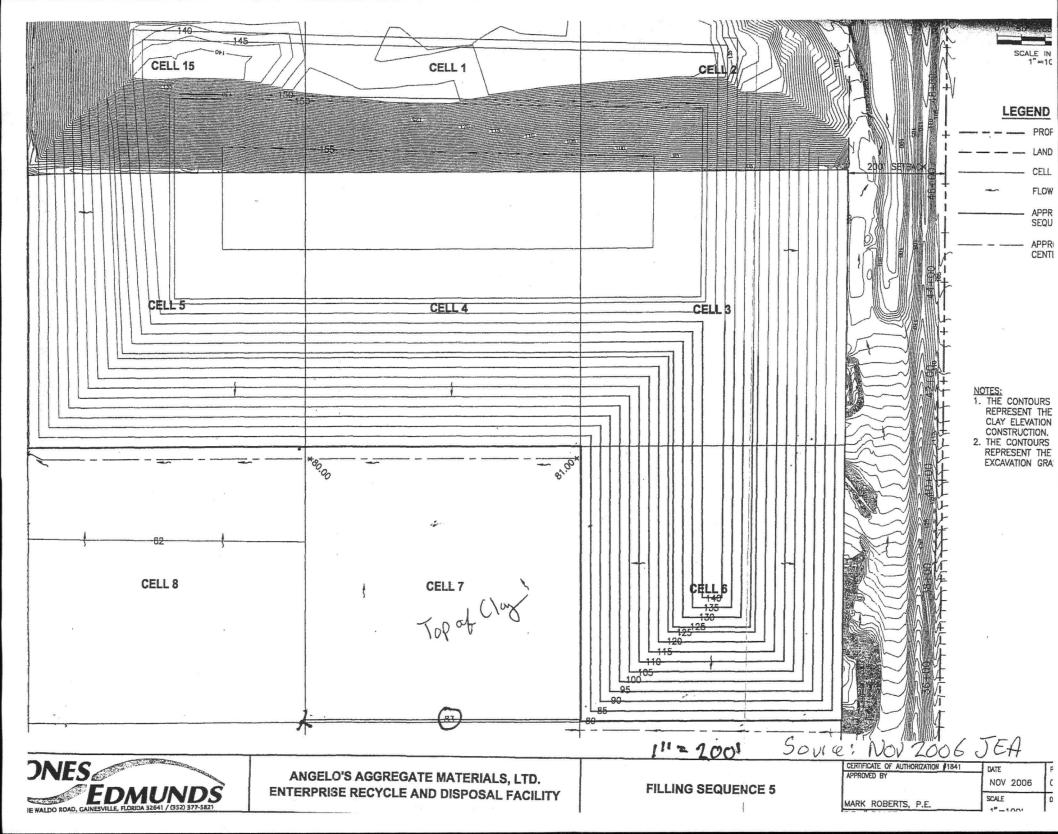
SETBACK

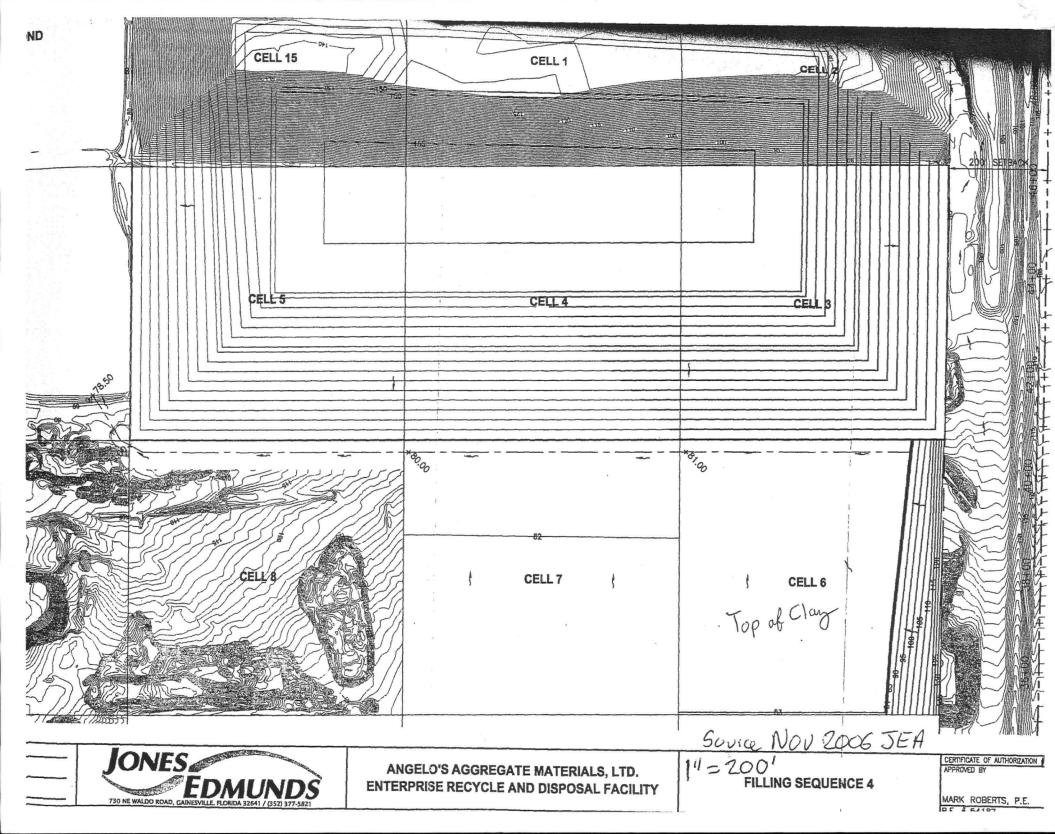
ANGELO'S AGGREGATE MATERIALS, LTD. ENTERPRISE RECYCLE AND DISPOSAL FACILITY 111=3001 **FILLING SEQUENCE 6**  CERTIFICATE OF AUTHORIZATION \$1841

MARK ROBERTS, P.E. P.E. # 54187

SCALE 1"=150"

NOV 2006





### JONES EDMUNDS

#### LETTER OF TRANSMITTAL

TO:		DATE	November 19, 2009
	Steven Morgan Environmental Engineer FDEP – Southwest District 13051 N. Telecom Parkway Temple Terrace, FL 33637-0926 (813) 632-7600	JOB. NO.	01030
		RE:	Angelo's Recycled Materials Class III Landfill and Recycling Facility  FDEP Permit No's.: 22913-001-SC/01 and 32913-002-SO/01

WE ARE SENDING YOU V	WF	ARF	SENDING	3 YOU	VIA:
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U.S. Mail	UPS Next Day
FedEx	UPS Ground
Hand Delivery	Courier

# Copies	Date	Description by The state of the
4	October 21, 2009	Replacement Page for Cover Letter
4	October 2009	Replacement Page for Binder Cover
4	October 2009	Replacement for Binder Spine
4		Replacement Drawing of Figure 15A

#### THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ As Requested	For Your Information For Review For Your File
For Signature	Other:

**REMARKS:** 

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.

730 NE Waldo Road, Gainesville, Florida 32641 - 352-377-5821 / FAX 352-377-3166
324 S. Hyde Park Avenue, Suite 250, Tampa, Florida 33606 - 813-258-0703 / FAX 813-254-6860
1100 Cesery Boulevard, Jacksonville, Florida 32211 - 904-744-5401 / FAX 904-744-6267
3910 S. Washington Avenue, Suite 210, Titusville, Florida 32796 - 321-269-2950 / FAX 321-269-2951



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 Class III Landfill and Recycling Facility
Permit Application Modification #177982-016-SO/MM to Existing
Operation Permit #177982-007-SO-T3 and #177982-017-SC/MM to Existing
Construction Permit #177982-008-SC/T3
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 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 recreated 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

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

Piero C

Dennis A. Davis, P.E. 1070

Florida P.E. No. 59299
W:\01030\005@1006\APermit Mod\RAT\\Modification\_RAII.doc

Enclosures

Oct 22 2009
Southwest District

## ATTACHMENT 1 LETTER OF AUTHORIZATION

#### ANGELO'S RECYTLED MATERIALS

PO Box 1493 Largo, FL 33779



APOPKA DADE CITY 407.290.8010 352.567.7676

407.290.8115 (FAX) 352.567.9448 (FAX) 813.903.0588 727.581.1544

LARGO

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,

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.

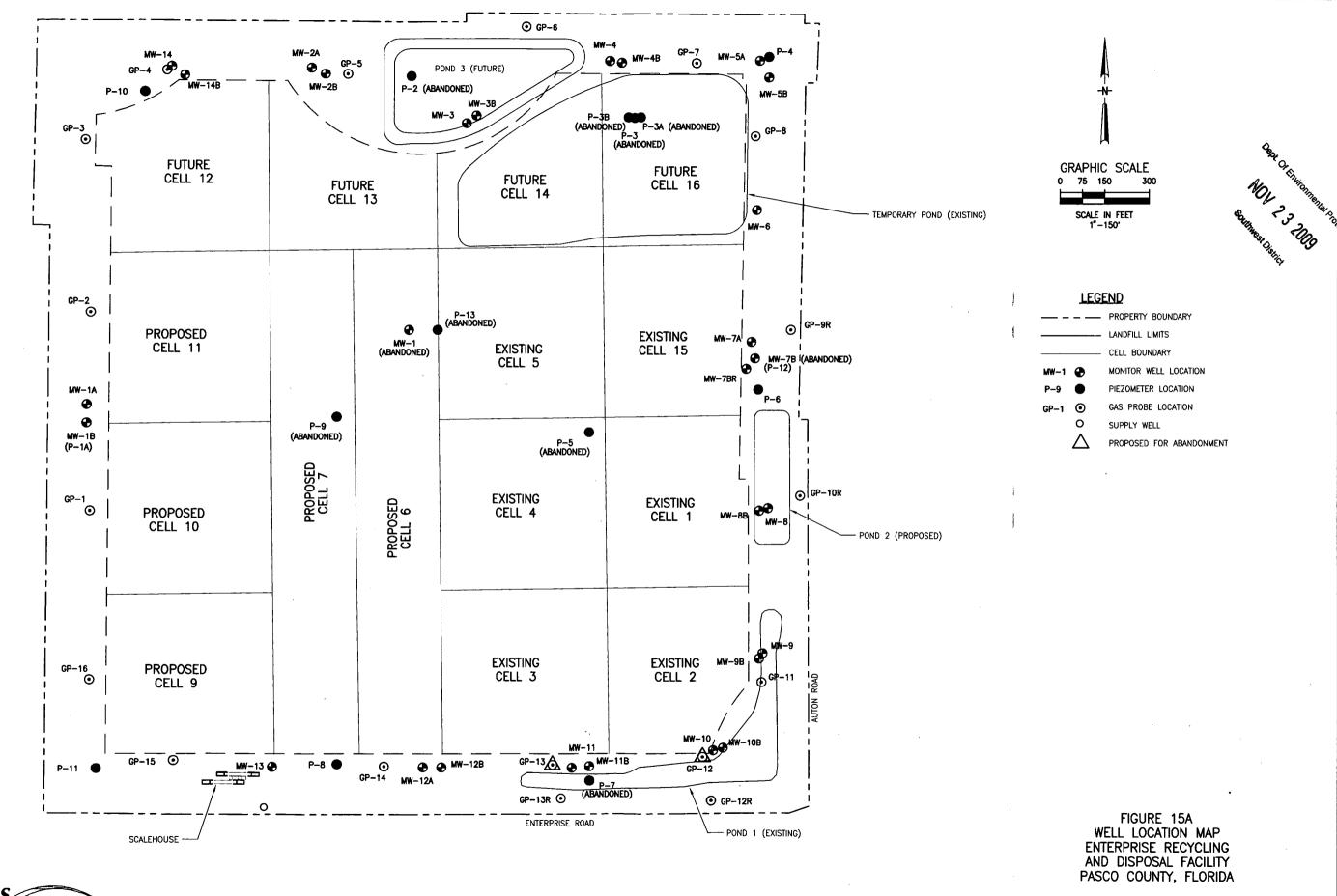
It is proposed that these Floridan wells will be sampled contingent to the conditions of the adjacent surficial wells: if the surficial well is dry during any given sampling event, then the Floridan well at that location will be sampled instead.

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 86:	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

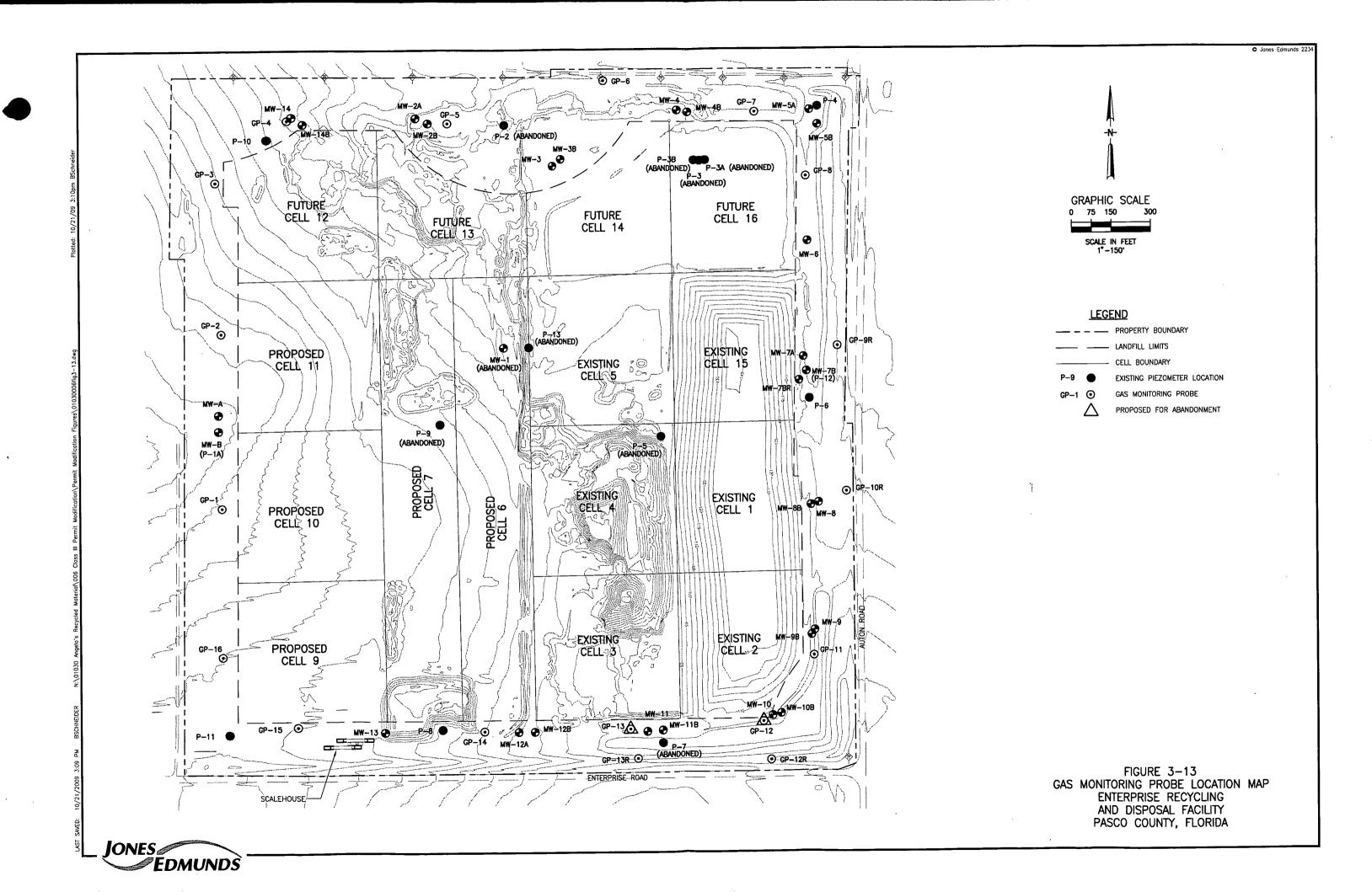
Background monitor well MW-1 is proposed to be abandoned prior to landfilling Cell &6. MW-1A would replace MW-1 upgradient during wet periods as the landfill moves to the west. Well MW-14 would be used to replace MW-1, if needed during dry periods. Surficial monitor well MW-13 also would be installed as the landfill moves west and the aquifer enters a wet season.

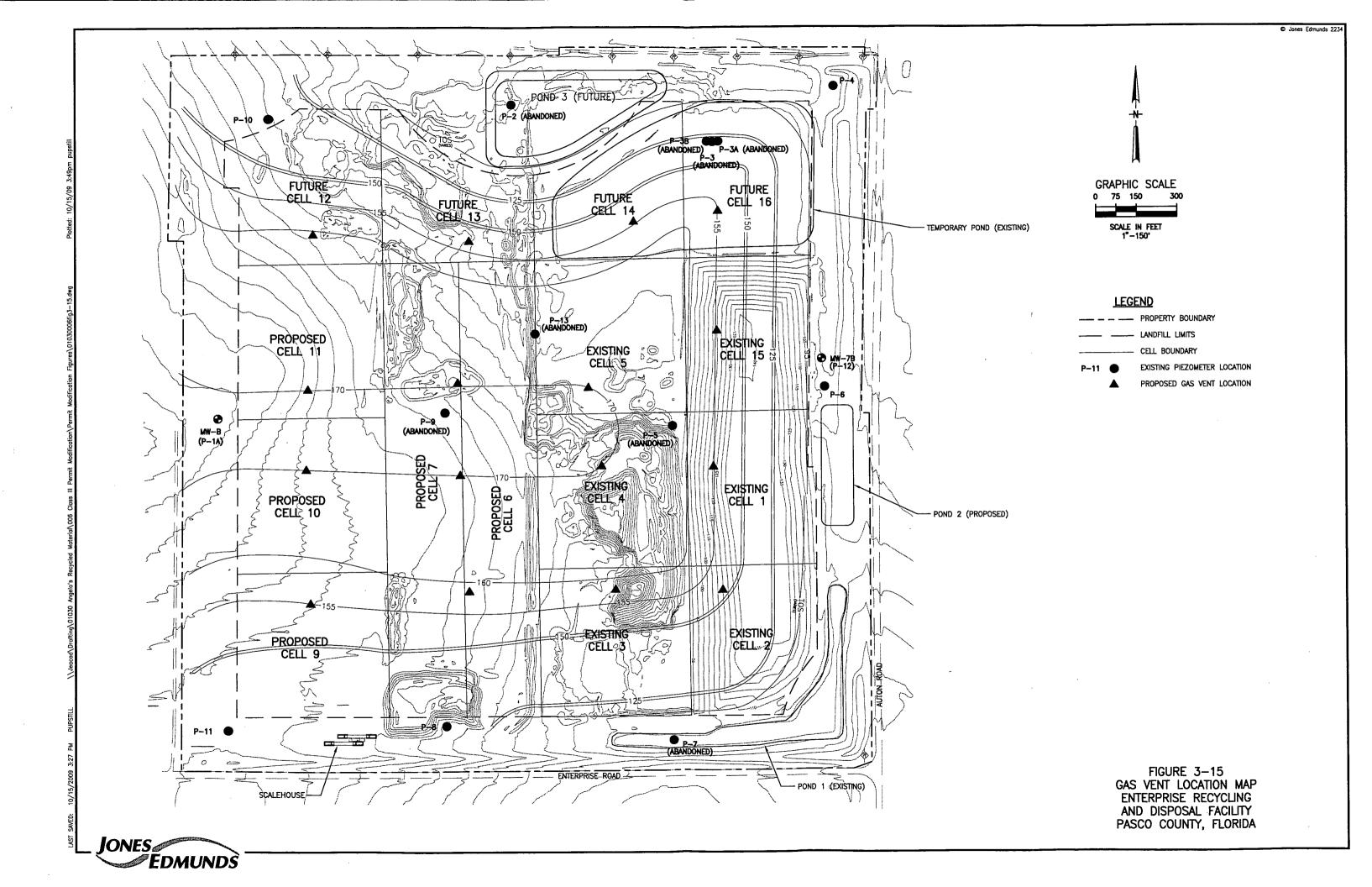
Although our geotechnical investigation revealed a 15 to 30 ft thick clay confining layer that consistently separates the base of the landfill and surficial aquifer from the upper Floridan



JONES EDMUNDS

# ATTACHMENT 5.a.1 REVISED FIGURES 3-13 AND 3-15





#### **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 semiannual 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 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 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<sup>-8</sup> 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<sup>-8</sup> 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 attendents. 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 # 62-701.90	0(28)
Form Title Financial As Effective Date 05-27	ssurance Cost Estimate Form
Effective Date03-27	-01
DEP Application No	
• •	(Filled by DEP)

# FINANCIAL ASSURANCE COST ESTIMATE FORM

Date:	10/26/09		Date of DEP A	pproval:		
I. GENERAL INF	ORMATION:					
Facility Name:	Enterprise CL II	I Landfi	ll & Recyl.	Fac.	WACS or GMSID #:	SWD-53-87895
Permit / Application	on No.: <u>177982-0</u>	01-SC, 1	77982-002-5	0	Expiration Date:	5/31/2012
Facility Address:	41111 ENTERPRISE	RD, DADI	E CITY, FL	33525		
Permittee:	ANGELO'S AGGREGA	TE MATER	IALS, LLC d	/b/a Ang	elo's Recycled Ma	aterials
Mailing Address:	P.O. BOX 1493 LA	RGO, FL	33779			
Latitude:	29 19 53	Longitude:	82 08 16	-	or UTM:	
0 11 1 Wasts Dis	haaal Hukka laabiidad	in Fatimat	•			
Phase / Cell	posal Units Included Acres	in Estimat	Date Unit Began Accepting Waste		Design Life of Unit From Date of Initial Receipt of Waste	
1	6.08	•	2004	-	1.38	-
2	5.57	-	2005	-	1.38	_
15	6.23	-	2005	_	1.33	_
5	7.34	-	2006	_	1.29	_
4	7.04	_	2007	-	1.29	_
3	7.34	_	2007	_	1.38	<u>.</u>
6	10.52	<u>.</u>	2010 est.	_	2.17	_
7	10.52		2010 est.		2.17	0
Total Landfill Acr	reage included in this e	stimate.	60.64	Closure	60.64	_Long-Term Care
Type of landfill:		Class I		_Class III		_C&D Debris
II. TYPE OF FIN	IANCIAL ASSURANC	E DOCUMI	ENT (Check Type)			
	_Letter of Credit*			_Insurance	e Certificate	*Indicates mechanisms that
	_Surety Bond*		Escrow Account		ccount	require use of a Standby Trust Fund
	_Trust Fund Agreemer	nt		_Financial	Test	Agreement

#### 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) Initiation Factor Adjustme	Inflation Factor Adjustme	en
--------------------------------	---------------------------	----

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 De	partment approved closure cost est	imate dated:	
Latest Department Approved Closure Cost Estimate:	Current Year Inflation Factor	=	Inflation Adjusted Closure Cost Estimate: \$0.00
This adjustment is based on the Depart  Latest Department Approved	ment approved long-term care cost	estimate dated:	Inflation Adjusted
Annual Long-Term Care Cost Estimate:	Current Year Inflation Factor		Annual Long-Term Care Cost Estimate:
	X	=	\$0.00
Number of Years of Long	·	X	
Inflation Adjusted Long-T	erm 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 Professional Assurance Cost Estimates shall be submitted to the Department annually, revised or adjusted as required by Fulle 62-701.630(4) F.A.C.\*

Signature of Englisher

Dentile A Daws Tyle (please type)

FL P'E No. 59290

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.

<sup>\*\*</sup> Costs must be for a third party providing all material and labor

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
Proposed Monitoring Wells	(Do not	include wells already in	existence.)	
	EA			\$0.00
2. Slope and Fill (bedding layer betwe	een waste and	barrier layer):		
Excavation	CY			\$0.00
Placement and Spreading (Grading & Sloping Wa	CY aste)	293,498	\$0.75	\$220,123.50
Compaction Compaction	CY		·	\$0.00
Off-Site Material	CY			\$0.00
Delivery	CY			\$0.00
		Subtotal S	lope and Fill:	\$220,123.50
3. Cover Material (Barrier Layer): (1	8" Clay on 60.	64 ac plus allowance fo	or compaction)	
Off-Site Clay	CY	190,773	\$5.00	\$953,865.00
Synthetics - 40 mil	SY			\$0.00
Synthetics - GCL	SY			\$0.00
Synthetics - Geonet	SY			\$0.00
Synthetics - Other	SY			\$0.00
		Subtotal Ba	rrier Layer Cover:	\$953,865.00
4. Top Soil Cover: (18" protective s	oil cover on 60	.64 ac plus allowance f	or compaction)	
Off-Site Material	CY	190,773	\$7.50	\$1,430,797.50
	CY			\$0.00
Delivery				
Delivery Spread	CY			\$0.00

<sup>\*\*</sup> Third Party Estimate / Quote must be provided for each item

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
5. Vegetative Layer (Applied to 60.64	ac plus 4 ac	of sod as necessary		
Sodding	SY	19,360	\$1.44	\$27,878.40
Hydroseeding	AC	61	\$2,245.55	\$136,170.15
Fertilizer	AC			\$0.00
Mulch	AC			\$0.00
Other	SY	4	\$4,620.00	\$18,480.00
		Subtotal \	/egetative Layer:	\$182,528.55
6. Stormwater Control System:				
Earthwork	CY	7,950	\$8.50	\$67,575.00
Grading	SY			\$0.00
Piping	LF	90	\$26.50	\$2,385.00
Ditches	LF	1,950	\$5.30	\$10,335.00
Berms	LF			\$0.00
Control Structures	EA			\$0.00
Other	LS			\$0.00
		Subtotal St	ormwater Controls:	\$80,295.00
7. Gas Controls: Passive				
Wells	EA	9	\$800.00	\$7,200.00
Pipe and Fittings	LF			\$0.00
Monitoring Probes	EA			\$0.00
NSPS/Title V requirements	LS			\$0.00
ite. of the vioquismone		Subtotal Pa	assive Gas Control:	\$7,200.00

DESCRI	PTION	UNIT	QUANTITY	UNIT COST	TOTAL
3. Gas	Control: Active Extraction				
	Traps	EA			\$0.00
	Sump	EA			\$0.00
	Flare Assembly	EA			\$0.00
	Flame Arrestor	EA			\$0.00
	Mist Eliminator	EA			\$0.00
	Flow Meter	EA			\$0.00
	Blowers	EA			\$0.00
	Collection System	LF			\$0.00
	Other (describe)				\$0.00
	,		Subtotal Acti	ve Gas Extraction:	\$0.00
9. Secu	urity System:				
	Fencing	LF			\$0.00
	Gate(s)	EA			\$0.00
	Sign(s)	EA			\$0.00
			Subtotal S	Security System:	\$0.00
10. Eng	gineering:				
	Closure Plan report	LS			\$11,475.00
	Certified Engineer	LS			\$30,600.00
	NSPS/Title V Air Permit	LS		· · · · · · · · · · · · · · · · · · ·	
	Final Survey	LS	· .		\$4,402.00
	Certification of Closure	LS			\$27,540.00
	(Including Closure Permit) Other (CQA Plan)				\$3,825.00
	, ,		Subtata	al Engineering:	\$77,842.00

# 11. Professional Services

	Contract Management		Quality	Assurance		
	Hours	LS	Hours	LS	_	Total
P.E. Supervisor	72	\$5,760.00	72	\$5,760.00	<u>:</u>	\$11,520.00
On-Site Engineer			145	\$8,075.00	_	\$8,075.00
Office Engineer	96	\$6,300.00	290	\$18,900.00	<u>;</u>	\$25,200.00
On-Site Technician		<del></del>	866	\$28,300.00	_	\$28,300.00
Other (explain)			8	\$66.00	_	\$66.00
DESCRIPTION		UNIT	QUANTITY	UNIT COST		TOTAL
Quality Assurance Te	sting	LS	1	\$48,048.00	-	\$48,048.00
			Subtotal	Professional Servi	ices:	121,209.00
			Subtotal of 1-	11 Above: _	\$3,073	,860.55
12. Contingency		% of Total (ex	ample. enter .1 for	10%)	_	10%
			Closing Cost	Subtotal: _	\$3,381	,246.61
13. Site Specific Cos	ts (explain)					
<u>Mobilizatio</u>	n			_	\$1,8	300.00
Waste Tire	Facility			_		
Materials F	Recovery Facil	ity		-		
Special Wa	astes			_		
Leachate I	Management S	System Modification		_		
Other (Cor	nstruction Rew	ork & CQA Test Cor	<u>nt.)</u>	_	\$48,	654.00
			 Subtotal Site Sp	ecific Costs:	\$50,	454.00
			TOTAL CLOSI		\$3,431	.,700.61

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., 6 landfills certified closed a years remaining.	32-701.620(1), 62-701. and Department accep	630(3)a. and 62-701 ted, enter the remain	.730(11 ing long	)b. F.A.C. for required g-term care length as	d term length. For "Other" and provide
		mate / Quote must be			
		r a third party providi			
All items must	be addressed. Attach	n a detailed explanati	on for a	all items marked not a	pplicable (N/A)
Description	Sampling Frequency (events/yr.)	Number of Wells		\$ / Well / Event	\$ / Year
	ing (62 701 510(6) on	d (8)(a))			
Groundwater Monitori		u (o)(a))			\$0.00
Monthly	12		<del></del>		<u> </u>
Quarterly	4		<del></del>		\$0.00
Semi-Annual	2	14	_	\$1,199.41	\$33,583.48
Annual	1		_		\$0.00
		Subtota	al Grou	ndwater Monitoring:	\$33,583.48
2. Surface Water Monit	oring (62-701.510(4), a	and (8)(b)			
Monthly	12				\$0.00
Quarterly	4				\$0.00
Semi-Annual	2				\$0.00
Annual	1				\$0.00
, timadi	·	Subtota	al Surfa	ce Water Monitoring:	\$0.00
3. Gas Monitoring					
Monthly	12				\$0.00
Quarterly	4	10		\$79.41	\$3,176.40
Semi-Annual	2				\$0.00
Annual	1				\$0.00

Subtotal Gas Monitoring:

\$3,176.40

Description	Sampling Frequency (events/yr.)	Number of Locations	\$/Location/Event	\$ / Year
Leachate Monitoring (62-7)				
		d 02-701.510(0)(c)		\$0.00
Monthly	12			\$0.00
Quarterly	4			\$0.00
Semi-Annual	2			\$0.00
Annual	1			<u></u>
Other				\$0.00
		Subtotal I	Leachate Monitoring:	\$0.00
DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COS
Collection Pipes	LF			\$0.00
<ol> <li>Leachate Collection/Treat</li> <li>Maintenance</li> </ol>				
Sumps, Traps	EA			\$0.00
Lift Stations	EA			\$0.00
Cleaning	LS			\$0.00
Tanks	EA			\$0.00
mpoundments				
Liner Repair	SY			\$0.00
Sludge Removal	CY			\$0.00
Aeration Systems	CY			\$0.00
Floating Aerators	EA			\$0.00
Spray Aerators	EA			\$0.00
Disposal _				
Off-site	1000 gallon			\$0.00
(Include Transportation a				\$0.00 Page 8 of 11
DEP FORM 62-701.900(28) Effective 05-27-01	)			age o or Fr

# 6. Leachate Collection/Treatment Systems Operation

Operation		Hours	\$/Hour	Total
P.E. Supervisor	HR			\$0.00
On-Site Engineer	HR			\$0.00
Office Engineer	HR			\$0.00
OnSite Technician	HR			\$0.00
Materials	LS			
Subtota	ıl Leachate Col	lection/Treatment System Ma	aintenance & Operation:	\$0.00
7. Maintenance of Groundwate	r Monitoring We	ells		
Monitoring Wells	LF	5	\$100.00	\$500.00
Replacement	EA			\$0.00
Abandonment	EA			\$0.00
		Subtotal Groundwater Mon	itoring Well Maintenance:	\$0.00
DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
8. Gas System Maintenance				
Piping, Vents	LF	4	\$200.00	\$800.00
Probes	EA	1	\$100.00	\$100.00
Flaring Units	EA			\$0.00
Meters, Valves	EA			\$0.00
Compressors	EA			\$0.00
Flame Arrestors	EA			\$0.00
Operation	LS			
		SubTot	al Gas System:	\$900.00
9. Landscape (Based on \$28.3	31/ac @ 4 time	es per year)		
Mowing	AC	61	\$113.24	\$6,907.64
Fertilizer	AC	61	\$45.00	\$2,745.00
		Subtotal Land	scape Maintenance:	\$9,652.64

DESCRIPTION	UNIT	QUANTITY	UNIT COST	ANNUAL COST
10. Erosion Control & Cover I	Maintenance (Appr	x. 1.25 ac revegetation,	2.0 ac repair, & 0.8 ac eros	ion repair)
Sodding	SY	9,579	\$1.44	\$13,793.76
Regrading	AC	4	\$1,550.00	\$6,200.00
Liner Repair	SY			\$0.00
Clay	CY	6,228	\$5.00	\$31,140.00
,	5	Subtottal Erosion Contro	ol and Cover Maintenance:	\$51,133.76
11. Storm Water Managemer	nt System Maintena	nce		
Conveyance Maintenance	e LS			\$4,000.00
		Subtotal Storm Wate	r System Maintenance:	\$4,000.00
12. Security System Mainter	nance			
Fences	LF	380	\$7.00	\$2,660.00
Gate(s)	EA	1	\$600.00	\$600.00
Sign(s)	EA	1	\$200.00	\$200.00
		Subtotal Se	curity System:	\$3,460.00
13. Utilities	LS			
14. Administrative		Hours	\$/Hour	Total
P.E. Supervisor	HR	18	\$106.00	\$1,908.00
On-Site Engineer	HR	30	\$69.00	\$2,070.00
Office Engineer	HR	122	\$69.00	\$8,418.00
OnSite Technician	HR	92	\$48.00	\$4,416.00
Other (explain)				,\$0.00
		Subtotal A	dministrative:	\$16,812.00
15. Contingency	% of Total			10%
	\$122,718.28	Subtotal	Contingency:	\$12,271.83

16. Site Specific Costs (explain)	<u>UNIT COST</u>	
	LS	\$2,000.00
	LS	
	LS	
ANNUAL LONG-T	ERM CARE COST (\$/Year):	\$136,990.11
NUMBER OF YEA	ARS OF LONG-TERM CARE _	30.00
TOTAL LONG	-TERM CARE COST (\$)	\$4,109,703.24

# 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 3<sup>rd</sup> 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 3<sup>rd</sup> 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).

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

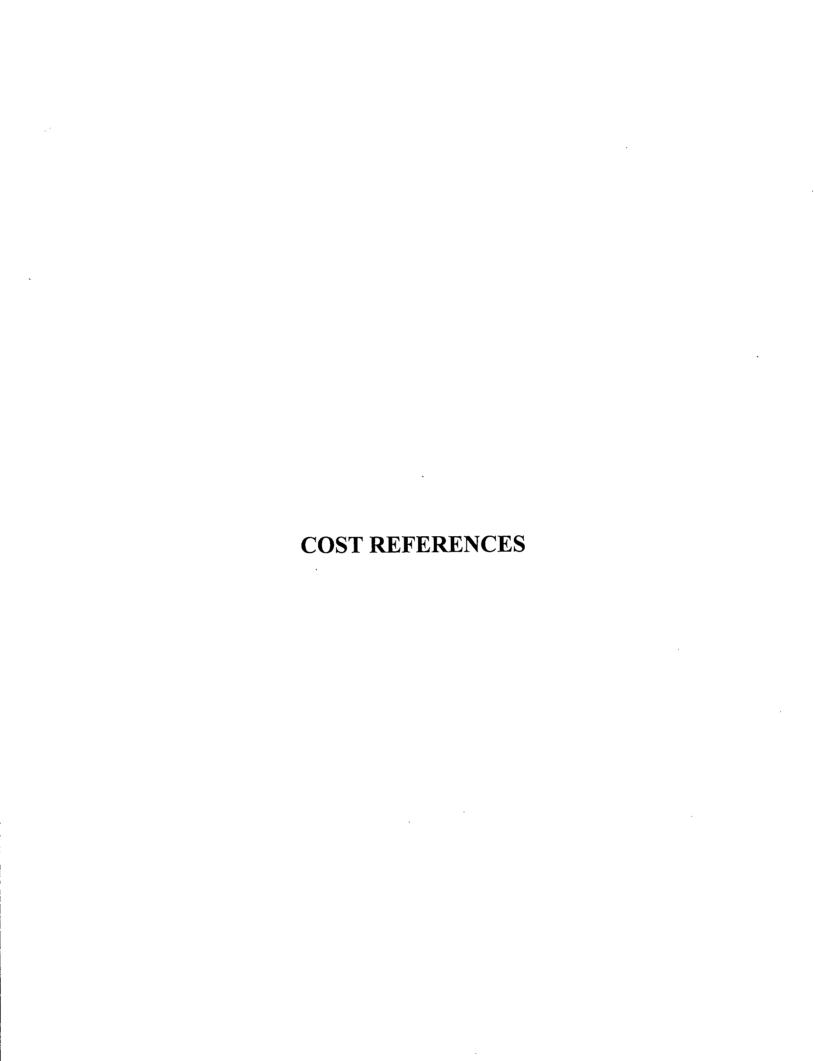
NA

#### Item 14: Administrative

No change to unit costs. These costs would be typical for any 3<sup>rd</sup> 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.



# Table 1 (Source: Tetratech, Ire) Proposed Enterprise Recycling and Disposal Facility Life Expectancy Estimate Pasco County, FL

Cell <del>/Phase</del>	Surface Area (Acres)	Estimated (1) Cell Volume (CY)	Est. Annual (2) Waste Volume (CY)	Estimated <sup>(3)</sup> Cell Life (Mo)
1/4	6.08	542,778.6	394,5421,260,000	<u>16.5</u> 5.2
2/5	5.57	543,397.9	394,5421,260,000	<u>16.5</u> 5.2
3/6	7.04	548,613.6	394,5421,260,000	<u>16.6</u> 5.2
4/7	7.34	511,513.7	394,5421,260,000	<u>15.5</u> 4.9
5/8	7.34	509,914.8	<u>394,542</u> <del>1,260,000</del>	<u>15.5</u> 4.9
-6/9	/6.95 17127	/550,189:8	394,5421,260,000	16.75.2
7/10 2	= 21.04 6.75	648,886.6	394,5421,260,000	<del>-19.76.2</del>
8/11	7.34	513,644.1	<u>394,542</u> <del>1,260,000</del>	15.64.9
9/12	7.34	507,703.2	<u>394,542</u> <del>1,260,000</del>	<u>15.44.8</u>
10/13	7.09	686,957.6	394,542 <del>1,260,000</del>	<u>20.9</u> 6.5
11/14	6.95	694,173.7	394,542 <del>1,260,000</del>	<u>21.1</u> 6.6
12/15	6.74	630,019.4	<u>394,542</u> <del>1,260,000</del>	<u>19.2</u> 6.0
13 <del>/16</del>	5.19	523,015.5	<u>394,542</u> <del>1,260,000</del>	<u>15.9</u> 5.0
14/1	5.78	523,512.4	<u>394,542</u> 1,260,000	<u>15.9</u> 5.0
15 <del>/3</del>	6.00	527,715.2	<u>394,542</u> 1,260,000	<u>16.0</u> 5.0
16/2	6.23	527,139.8	<u>394,542</u> <del>1,260,000</del>	<u>16.0</u> 5.0
TOTALS	105.73	8,989,275.9		<u>22.75</u> 7.13
				years

- (1) Based on 3/00 topographic survey, designed base excavation grades, 2H:1V side slopes.
- 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	856360.3	394,542	26.0



COMBINED INTO CELLS 6 P.O. Box 1689
Brooksville, FL 34605
dwinbrosconst@hughes.net



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

Construction Co., Inc.

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 ill Lancfill.

Mobilization

\$1,800.00

Rough grading and sloping of waste

\$0.75/SY

(Additional fill dirt, if needed, would be \$6.80/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/\$Y

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. Flease 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
MOBILIZA	ATION/DEMOBILIZATION	N	Union County		\$ 600.00
*Drilling	Through Trash				
GAS VEN	ITS WELLS (Include		Pea Gravel & Benton	ite )	000 00
	Diameter 4" (1X20	") 0 - 50'	20.0 /ft	40.00 /ft	\$ 800.00
		50 - 100'	0.0 /ft	44.00 /ft	\$ -
STANDA	RD PENETRATION TES	STING			
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 E	BORINGS (S. Stem 3")	0 - 50'	0.0 /ft	8.00 /ft	\$ -
	E CASING (8" PVC)		0.0 /ft	45.00 /ft	\$ -
	MPLETION OPTIONS-	NONE			
	hole Cover w/4" Concre		0.0 /ea	150.00 /ea	\$ -
	hole Cover w/4" Concre	- La CS	0.0 /ea	125.00 /ea	\$ -
	down Cover w/4" Concr		0.0 /ea	150.00 /ea	\$ -
	are Protective Casing w		0.0 /ea	250.00 /ea	\$ -
	itary Locking Seals		0.0 /ea	40.00 /ea	\$ -
	NAL ITEMS				
	by the Hour (4 hour Min	imum)	0.0 /hr.	200.00 /hr.	\$ -
Well D	evelopment Moyno-Rig	nump or Sub.	0.0 /hr.	175.00 /hr.	\$ -
	Decontamination		0.25 /hr.	175.00 /hr.	\$ 43.75
	ammer Rental		0.0 /dy	115.00 /dy	\$ -
	By Time		0.0 /hr.	175.00 /hr.	\$ -
	ean Up/Drumming Cutti	nas	0.0 /hr.	175.00 /hr.	\$ -
	ete/Asphalt Cutting & Re		0.0 /hr.	175.00 /hr.	\$ -
	(DOT 17H)	illovai	0.0 /ea	65.00 /ea.	\$ -
	Per Diem (3 man crew		0.0 /dy	300.00 /dy	\$ -
	s (S.W.F.W.M.D)		0.0 /ea	75.00 /ea	\$ _
Permit	(S.VV.F.VV.IVI.D)		0.0 / 34		
			Total Estimate		\$ 1,443.75

<sup>\*</sup>Additional Insured Requirements as per Written Contract\*

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

<sup>\*</sup>This bid is an estimate only and the invoice will reflect the actual work performed. File Name: Bid-Short4.xls

# 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))

N.	Sampling Frequency (events/yr.)	Number of Wells	\$/	Well/Event	\$/Year
Monthly Quarterly Semi-Annual Annual	12 4 2 1	17	\$	1,199.41	\$ 40,780.00
		Subtotal Groundwat	er Mon	itoring:	\$ 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 Quarterly Semi-Annual Annual	12 4 2 1	2	\$	1,195.00	\$ 4,780.00
		Subtotal Surface Wa	ater Mo	onitorina:	\$ 4.780.00

Assumptions for above calculations:	\$/Year
Annual Sampling and Reporting Cost for 2 Surface Water Stations Annual Laboratory Analytical Costs for 2 Surface Water Stations	\$ 1,920.00 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 Quarterly Semi-Annual Annual	12 4 2 1	17 3	\$	79.41	\$ 5,400.00
		Subtotal Gas Monitorio	ng:		\$ 5,400.00
Assumptions for above	calculations:				\$/Year
Annual Monitoring and F Total Annual Costs Rela			Vells		\$ 5,400.00 5,400.00

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

	, (	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	Sampling Frequency (events/yr.)	Number of Wells	\$	5/Well/Event	\$/Year
Monthly Quarterly Semi-Annual Annual	12 4 2 1	6	\$	1,508.33	\$ 9,050.00
		Subtotal Leachate M	onito	oring:	\$ 9,050.00
Assumptions for above of	calculations:				\$/Year
Annual Sampling and Re	eporting Cost fo	r 6 Leachate Stations	3		\$ 3,000.00
Annual Laboratory Analy					\$ 6,050.00
Total Annual Costs Rela					\$ 9,050.00

KELEKENCE >

**Angelos** 

# **Unit Detail Report**

**Cost Estimate Report** CostWorks'

Dade City, FL, 33525 Year 2009

Date: 16-Oct-09

Enterprise Class III FACE

Prepared By: Javier DuQuesne Jones Edmunds & Associates, Inc.

LineNumber		Description	Quantity	Unit	Total Incl.	Ext. Total Incl.
Lineituniber		Description	<b>C</b>		O&P	O&P
		1				

Division 32 Exterior Improvements

320190194180

Mowing, lawn mowing, 3 gang reel, 7',

43.56 M.S.F.

\$0.65

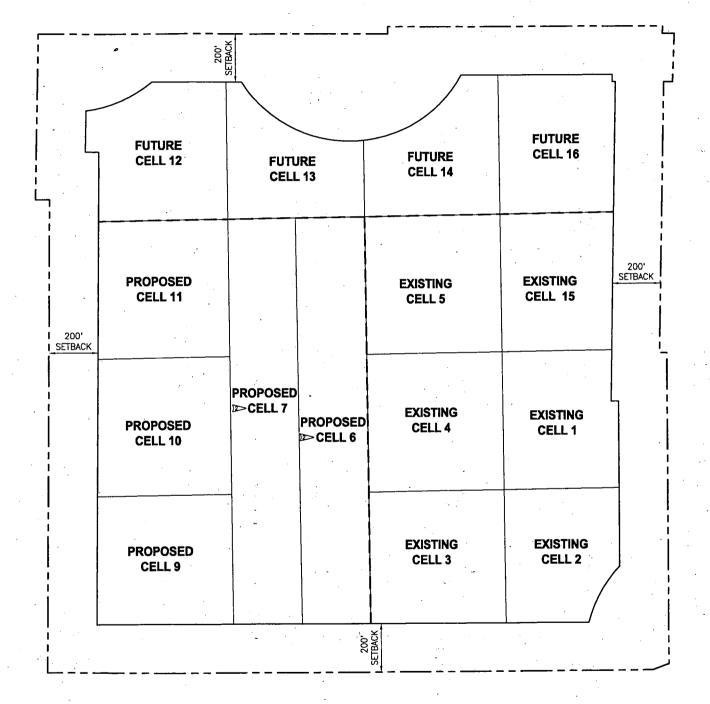
\$28.31

with tractor & attachments

\$28.31

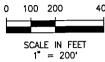
Division 32 Subtotal

# ATTACHMENT 7 REVISED DRAWING C-5



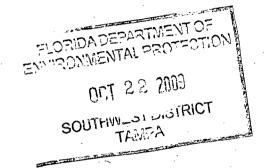


## **GRAPHIC SCALE**



### **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.
- 2. 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.
- 3. 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).
- 4. 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.
- DES. 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

·		NSTRUCTION, AND F	1	BEGIN ACCEPTING WASTE
FILL SEQUENCE	MINING EXCAVATION	CELL CONSTRUCTION	LANDFILL FILLING	(ESTIMATED)
1	4	5	15	-
2	3	, 4	5	<u> </u>
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	D> 6, 7, 9, 10, 11	10/2011

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

					DESIGNED	TSM
	•				DEDICHED	13.0
					DRAWN	н2В
$\Delta$	10/09	PERMIT MODIFICATION 2 RAI 1	PEU	DAD	DRAWN	nzb
$\gg$	8/09	PERMIT MODIFICATION 2	₽£U	DAD		0.0
1 TD	DATE	PEVISIONS	RY	APPRO	CHECKED	DAD .



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

**CELL PHASING SEQUENCE** 

CERTIFICATE OF AUTHORIZATION #1841	DATE	PROJECT NO.
APPROVED BY	NOV 2006	01030-005-0
DENNIS A. DAVIS P.E. # 59299	SCALE 1"=200'	DWG. NO. C-5



August 6, 2009

Susan Pelz, P.E.
Solid Waste Section
Florida Department of Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637

Dept. of Environmental Protection

AUG 0 7 2009

Southwest District

RE: Angelo's Aggregate Materials Enterprise Recycling and Disposal Facility

Class III Operations Permit Minor Modification

Jones Edmunds Project No.: 01030-008-01

Dear Susan,

This letter has been prepared to transmit to you the operations permit minor modification for the Enterprise Recycling and Disposal Facility. The proposed modification encompasses a minor deviation in the filling sequence of the disposal cells and is not expected to lead to substantially different environmental impacts. The pertinent sections of the operations plan, engineering report, and permit drawings have been revised to reflect this change. These documents are enclosed as following:

- APPENDIX A- Revised Operations Permit Application (Parts A, B, E, L and T) These components are provided either as required per the minor modification or to denote sections of the permit (Operations Plan-Part L, Engineering Report-Part E) that have been revised.
  - o ATTACHMENT 1- Revised pages of the Engineering Report- The cell filling sequence plan description was revised by tracking changes in the document. This revised page as well any other pages affected by pagination are provided (pages 3-7 thru 3-10).
  - o ATTACHMENT 2- Revised pages of the Operations Plan- The cell filling sequence plan description was revised by tracking changes in the document. In addition, Section 5.7 was revised to include incidentally received asphalt as part of the recycling operations. These revised pages as well any other pages affected by pagination are provided (pages 7 thru 12).
- APPENDIX B- Revised Permit Drawings (full-size, signed and sealed) The table below presents further explanation of applicable revisions to the drawing set.

730 NE Waldo Rd Gainesville, FL 32641

DRAWING NO.	STATUS	COMMENT	
V-1	Not submitted	No change	
V-2	Not submitted	No change	
C-1	Not submitted	No change	
C-2	Not submitted	No change	
C-3	Not submitted	No change	
C-4	Not submitted	No change	
C-5	Submitted	Revised phasing plan and table	
C-6	Not submitted	No change	
C-7	Not submitted	No change	
C-8	Not submitted	No change	
C-8A	Submitted	New Cells 6 and 7	
C-9	Submitted	New Cells 6 and 7	
C-10	Submitted	New Cells 6 and 7	
C-11	Submitted	New Cells 6 and 7	
C-12	Submitted	New Cells 6 and 7	
C-13	Submitted	New Cells 6 and 7	
C-14	Not submitted	No change	
C-15	Submitted	Revised cross-section reflecting new Cells 6 and 7	
C-16	Not submitted	No change	
C-17	Not submitted	No change	
C-18	Submitted	Revised cross-section reflecting new Cells 6 and 7	
C-19	Submitted	Revised cross-section reflecting new Cells 6 and 7	
C-20	Submitted	Revised cross-section reflecting new Cells 6 and 7	
C-21	Not submitted	No change	
C-22	Not submitted	No change	
C-23	Not submitted	No change	

Also attached with this letter is Check # 019144 in the amount of \$250.00 for the minor modification in accordance with 62-4.050(4)(s),F.A.C. Please contact me at 352-377-5821 if you have any questions regarding this information.

Sincerely,

Dennis A. Davis, P.E.

Project Manager

M:\01030-AngelosRecycled\008-01-Class III Op Permit Minor Mod\2009\_08\_06-LTR-SPelz-FDEP-ClassIIIMinorMod\_DDavis.doc

Attachment

xc: John Arnold, Angelo's Aggregate Materials

# TABLE OF CONTENTS

APPENDIX A REVISED OPERATIONS PERMIT APPLICATION FORM

ATTACHMENT 1 REVISED ENGINEERING REPORT PAGES

ATTACHMENT 2 REVISED OPERATIONS PLAN PAGES

APPENDIX B REVISED DRAWINGS

# **APPENDIX A**

# REVISED OPERATIONS PERMIT APPLICATION FORM



# Florida Department of Environmental Protection Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

ENVIRONIDA DEPARTMENT OF
AUG 07 2009
TAMPA DISTRICT

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPLICATION FOR A PERMIT TO CONSTRUCT,
OPERATE, MODIFY OR CLOSE
A SOLID WASTE MANAGEMENT FACILITY

APPLICATION INSTRUCTIONS AND FORMS

#### INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

#### I. General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes, (FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A minimum of four copies of the application shall be submitted to the Department's District Office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "not applicable" or "no substantial change". Information provided in support of the application shall be marked "submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

### II. Application Parts Required for Construction and Operation Permits

- A. Landfills and Ash Monofills Submit parts A,B, D through T
- B. Asbestos Monofills Submit parts A,B,D,E,F,G,J,L,N, P through S, and T
- C. Industrial Solid Waste Facilities Submit parts A, B, D through T
- D. Non-Disposal Facilities Submit parts A,C,D,E,J,N,S and T

NOTE: Portions of some parts may not be applicable.

NOTE: For facilities that have been satisfactorily constructed in accordance with their construction permit, the information required for A,B,C and D type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

## III. Application Parts Required for Closure Permits

- A. Landfills and Ash Monofills Submit parts A,B,M, O through T
- B. Asbestos Monofills Submit parts A,B,N, P through T
- C. Industrial Solid Waste Facilities Submit parts A,B, M through T
- D. Non-Disposal Facilities Submit parts A, C, N, S and T

NOTE: Portions of some parts may not be applicable.

#### IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

#### V. Application Codes

S - Submitted

LOCATION - Physical location of information in application

N/A - Not Applicable

N/C - No Substantial Change

#### VI. LISTING OF APPLICATION PARTS

PART A: GENERAL INFORMATION

PART B: DISPOSAL FACILITY GENERAL INFORMATION

PART C: NON-DISPOSAL FACILITY GENERAL INFORMATION

PART D: PROHIBITIONS

PART E: SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL

PART F: LANDFILL PERMIT REQUIREMENTS

PART G: GENERAL CRITERIA FOR LANDFILLS

PART H: LANDFILL CONSTRUCTION REQUIREMENTS

PART I: HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS

PART J: GEOTECHNICAL INVESTIGATION REQUIREMENTS

PART K: VERTICAL EXPANSION OF LANDFILLS

PART L: LANDFILL OPERATION REQUIREMENTS

PART M: WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS

PART N: SPECIAL WASTE HANDLING REQUIREMENTS

PART O: GAS MANAGEMENT SYSTEM REQUIREMENTS

PART P: LANDFILL CLOSURE REQUIREMENTS

PART Q: CLOSURE PROCEDURES

PART R: LONG TERM CARE REQUIREMENTS

PART S: FINANCIAL RESPONSIBILITY REQUIREMENTS

PART T: CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

## STATE OF FLORIDA

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

# APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

A.	GENERAL INFORMATION
1.	Type of facility (check all that apply):
	[✓] Disposal  [ ] Class I Landfill [ ] Ash Monofill  [ ] Class II Landfill [ ] Asbestos Monofill  [✓] Class III Landfill [ ] Industrial Solid Waste  [ ] Other Describe:
	[ ] Non-Disposal [ ] Incinerator For Non-biomedical Waste [ ] Waste to Energy Without Power Plant Certification [ ] Other Describe:
NOTE:	Waste Processing Facilities should apply on Form 62-701.900(4), FAC; Land Clearing Disposal Facilities should notify on Form 62-701.900(3), FAC; Compost Facilities should apply on Form 62-701.900(10), FAC; and C&D Disposal Facilities should apply on Form 62-701.900(6), FAC
2.	Type of application:  [ ] Construction  [ ] Operation  [ ✓] Construction/Operation  [ ] Closure
3.	Classification of application:  [ ] New
4.	Facility name: Enterprise Recycling and Disposal Facility
5.	DEP ID number: SWD-51-87895 County: Pasco
6.	Facility location (main entrance): 41111 Enterprise Road
	Dade City, Florida 33525
7.	Location coordinates:
	Section: 5,8 Township: 25S Range: 22E
	Latitude: 28 ° 19 ' 53 " Longitude: 82 ° 08 ' 06 "

8.	Applicant name (ope	rating authorit	y):Ang	elo's Aggrega	ate Mater	ials, Ltd.
		41111 Enterp				
		Street or	P.O. Box	City	Stat	e Zip
	Contact person:	Dominic Ia	frate	Telephone:	( <u>810</u> ) _	217-0726
	Title:		Presid	ent		
					te@iafrat	ce.com
				E-Mail addr	ess (if	available)
9.	Authorized agent/Consultant: Jones Edmunds & Associates, Inc.					
	Mailing address: _	730 NE Wa	ldo Road,	Gainesville,	Florida	32641
	_	Street or	P.O. Box	City	Stat	e Zip
	Contact person:	Dennis A. Dav	is, P.E.	Telephone:	(352)	377-5821
	Title:		Project M	lanager		
				ddavis@j	onesedmu	nds.com
				E-Mail addr	ess (if	available)
10.	Landowner(if differ	ent than applic	ant):		same	
	Mailing address: _					
	_	Street or	P.O. Box	City	Stat	e Zip
	Contact person:			Telephone:	() _	
			E-Mail address (if available)			
11.	Cities, towns and a	reas to be serv	red:	Pasco C	ounty and	<b>a</b>
		su	rrounding a	areas		
12.	Population to be se	erved:				
	Current: 1		Five-Yea Projecti	ar ion:	2,027,	776
13.	Date site will be r	eady to be insp	ected for	completion: _	Ongoing	construction
14.	Expected life of th	ne facility:		30		years
15.	Estimated costs:					
	Total Construction:	\$ <u>N/A</u>	Clos	sing Costs: \$		N/C
16.	Anticipated constru	ction starting	and comple	tion dates:		
	From:	Ongoing	To:		Ongoing	
17.	Expected volume or	weight of waste	to be rec	eived:		
		day			gallons	/dav

	d Class I mine and Class III landfill.
Facility site supervisor:	Jeff Rogers
Title: Operations Manag	ger Telephone: ( <u>352</u> ) <u>567-7676</u>
	E-Mail address (if available)
Disposal area: Total 111	_acres; Used39 _acres; Available72 acre
Security to prevent unauthor	
	9.50 \$/yds <sup>3</sup> \$/ton
Surrounding land use, zoning	
[√] Residential	[√] Industrial
[✓] Agricultural [ ] Commercial	[ ] None
	[ ] Other Describe:
Types of waste received:	
[ ] Residential [ ] Commercial	<pre>[/] C &amp; D debris [/] Shredded/cut tires</pre>
<pre>[ ] Incinerator/WTE ash</pre>	[ <b>√</b> ] Yard trash
<ul><li>[ ] Treated biomedical</li><li>[ ] Water treatment sludg</li></ul>	ge [] Industrial
<ul><li>[ ] Treated biomedical</li><li>[ ] Water treatment sludg</li></ul>	ge [ ] Industrial [ ] Industrial sludge [ ] Domestic sludge
[ ] Treated biomedical [ ] Water treatment sludg [ ] Air treatment sludge [ ] Agricultural	[ ] Industrial sludge [ ] Domestic sludge
[ ] Treated biomedical [ ] Water treatment sludg [ ] Air treatment sludge [ ] Agricultural	[ ] Industrial sludge [ ] Domestic sludge  Waste classified as Class III

13.	Property recorded as a Dispos				
4.	Days of operation: M				
15.	Hours of operation: 7	.m. to 6 p.m	1.; 7 a.m.	to 2 p.m	•
16.	Days Working Face covered:	`Or	ice per we	ek	
17.	Elevation of water table: 61	- <b>85</b> Ft. (NGVD	1929)		
18.	Number of monitoring wells: _	2 upgradi	ent, 14 do	owngradie	nt
19.	Number of surface monitoring				
20.					Passive
	Gas flaring: [ ] Yes [ ] N	Gas re	covery: []	Yes 🌠 No	I
21.	Landfill unit liner type:				
	[ ] Natural soils [✓] Single clay liner [ ] Single geomembrane [ ] Single composite [ ] Slurry wall [ ] Other Describe:	[] Double go [] Geomembra [] Double co [] None	eomembrane ane & composi omposite	te	
22.	Leachate collection method:				
	[ ] Collection pipes [ ] Geonets [ ] Well points [ ] Perimeter ditch [ ] Other Describe:	[] Sand layer [] Gravel layer [] Intercept [√] None	ayer		
23.	Leachate storage method:				
	[ ] Tanks [ ] Surface impoundments [ ] Other Describe:		N/A		
24.	Leachate treatment method:				
	[ ] Oxidation [ ] Secondary [ ] Advanced [ ] None	[ ] Chemical [ ] Settling			
	[ ] Other	N/A	<u>A</u>		

25.	Leachate disposal method:										
	[ ] Recirculated [ ] Transported to WWTP [ ] Injection well [ ] Evaporation	[ ]	Pumped to WWTP Discharged to surface water Percolation ponds								
	[] Other		N/A								
26.	For leachate discharged to surface	e wa	aters:								
	Name and Class of receiving water	:	N/A								
27.	Storm Water:										
	Collected: [✓] Yes [ ] No										
	Type of treatment: Stormwater facilities are designed to retain the 100-year, 24-hour storm volume										
	Name and Class of receiving water:	: _									
28.	Environmental Resources Permit (EF	RP)	number or status:								

#### D. **PROHIBITIONS** (62-701.300, FAC)

	LOCATION	N/A	<u>N/C</u>		
				1.	Provide documentation that each of the siting criteria will be satisfied for the facility; (62-701.300(2), FAC)
				2.	If the facility qualifies for any of the exemptions contained in Rules 62-701.300(12) through (16), FAC, then document this qualification(s).
				3.	Provide documentation that the facility will be in compliance with the burning restrictions; (62-701.300(3), FAC)
				4.	Provide documentation that the facility will be in compliance with the hazardous waste restrictions; (62-701.300(4), FAC)
		<del></del>		5.	Provide documentation that the facility will be in compliance with the PCB disposal restrictions; (62-701.300(5), FAC)
			,	6.	Provide documentation that the facility will be in compliance with the biomedical waste restrictions; (62-701.300(6), FAC)
				7.	Provide documentation that the facility will be in compliance with the Class I surface water restrictions; (62-701.300(7), FAC)
				8.	Provide documentation that the facility will be in compliance with the special waste for landfills restrictions; (62-701.300(8), FAC)
<del></del>				9.	Provide documentation that the facility will be in compliance with the special waste for waste-to-energy facilities restrictions; (62-701.300(9), FAC)
_				10.	Provide documentation that the facility will be in compliance with the liquid restrictions; (62-701.300(10), FAC)
_				11.	Provide documentation that the facility will be in compliance with the used oil restrictions; (62-701.300(11), FAC)

LOCATION	<u>N/A</u>	N/C		
			1.	Four copies, at minimum, of the completed application form, all supporting data and reports; (62-701.320(5)(a),FAC)
			2.	Engineering and/or professional certification (signature, date and seal) provided on the applications and all engineering plans, reports and supporting information for the application; (62-701.320(6),FAC)
			3.	A letter of transmittal to the Department; (62-701.320(7)(a),FAC)
Appendix A		<del></del>	4.	A completed application form dated and signed by the applicant; (62-701.320(7)(b),FAC)
Mith Cover Letter			5.	Permit fee specified in Rule 62-701.315, FAC in check or money order, payable to the Department; (62-701.320(7)(c),FAC)
Attachment 1			6.	An engineering report addressing the requirements of this rule and with the following format: a cover sheet, text printed on 8 1/2 inch by 11 inch consecutively numbered pages, a table of contents or index, the body of the report and all appendices including an operation plan, contingency plan, illustrative charts and graphs, records or logs of tests and investigations, engineering calculations; (62-701.320(7)(d),FAC)
Attachment 2			7.	Operation Plan and Closure Plan; (62-701,320(7)(e)1,FAC)
		<u>X</u>	8.	Contingency Plan; (62-701.320(7) (e)2,FAC)
			9.	Plans or drawings for the solid waste management facilities in appropriate format (including sheet size restrictions, cover sheet, legends, north arrow, horizontal and vertical scales, elevations referenced to NGVD 1929) showing; (62-702.320(7)(f),FAC)
		<u>x</u>		<ul> <li>a. A regional map or plan with the project location;</li> </ul>
		<u>x</u>		<ul><li>b. A vicinity map or aerial photograph no more than 1 year old;</li></ul>
		<u>X</u>		c. A site plan showing all property boundaries certified by a registered Florida land surveyor;

<u>s</u>	LOCATION	<u>N/A</u>	N/C		PART E CONTINUED
_			<u>X</u>	d	Other necessary details to support the engineering report.
. ——			<u>X</u>	I	Occumentation that the applicant either owns the property or has legal authority from the property owner to use the site; (62-701.320(7)(g),FAC)
		<u>X</u>		c t a	For facilities owned or operated by a county, provide a description of how, if any, the facilities covered in this application will contribute to the county's achievement of the waste reduction and recycling goals contained in Section 403.706,FS; (62-701.320(7)(h),FAC)
			<u>X</u>	a f F s	Provide a history and description of any enforcement actions taken by the Department against the applicant for violations of applicable statutes, rules, orders or cermit conditions relating to the operation of any solid waste management facility in this state; (62-701.320(7)(i),FAC)
		<u>X</u>		c	Proof of publication in a newspaper of general circulation of notice of application for a permit to construct or substantially modify a solid waste management facility; (62-702.320(8),FAC)
			<u>X</u>	ā	Provide a description of how the requirements for airport safety will be achieved including proof of required notices if applicable. If exempt, explain how the exemption applies; (62-701.320(13),FAC)
	<u> </u>		<u>X</u>		Explain how the operator training requirements will be satisfied for the facility; (62-701.320(15), FAC)

r.	TANDLITT LE	RMIT R	EQUIRE	SMENTS	(62-70.	1.330, FAC)
<u>s</u>	LOCATION	N/A	N/C			
				1.	old a zonin suffi water the v	city map or aerial photograph no more than 1 year and of appropriate scale showing land use and local ag within one mile of the landfill and of cient scale to show all homes or other structures, bodies, and roads other significant features of cicinity. All significant features shall be ed; (62-701.330(3)(a),FAC)
				2.	old s	nity map or aerial photograph no more than 1 year howing all airports that are located within five of the proposed landfill; (62-701.330(3)(b),FAC)
				3.		plan with a scale not greater than 200 feet to the showing; (62-701.330(3)(c),FAC)
-					a.	Dimensions;
	<u></u>	<del></del>			b.	Locations of proposed and existing water quality monitoring wells;
					c.	Locations of soil borings;
					đ.	Proposed plan of trenching or disposal areas;
***************************************		<del></del>			e.	Cross sections showing original elevations and proposed final contours which shall be included either on the plot plan or on separate sheets;
					f.	Any previously filled waste disposal areas;
					g.	Fencing or other measures to restrict access.
				4.	to th	raphic maps with a scale not greater than 200 feet e inch with 5-foot contour intervals showing; 01.330(3)(d),FAC):
					a.	Proposed fill areas;
					b.	Borrow areas;
					C.	Access roads;
					đ.	Grades required for proper drainage;
					e.	Cross sections of lifts;

#### K. VERTICAL EXPANSION OF LANDFILLS (62-701.430, FAC)

	LOCATION	N/A	N/C		
				1.	Describe how the vertical expansion shall not cause or contribute to leachate leakage from the existing landfill or adversely affect the closure design of the existing landfill;
				2.	Describe how the vertical expansion over unlined landfills will meet the requirements of Rule 62-701.400, FAC with the exceptions of Rule 62-701.430(1)(c),FAC;
			_	3.	Provide foundation and settlement analysis for the vertical expansion;
_				4.	Provide total settlement calculations demonstrating that the final elevations of the lining system, that gravity drainage, and that no other component of the design will be adversely affected;
				5.	Minimum stability safety factor of 1.5 for the lining system component interface stability and deep stability;
				6.	Provide documentation to show the surface water management system will not be adversely affected by the vertical expansion;
_				7.	Provide gas control designs to prevent accumulation of gas under the new liner for the vertical expansion.

L.	LANDFILL OPERATIO	N REQ	UIREMEN	NTS (62-701.500,FAC)
		<u>x</u>	1.	Provide documentation that landfill will have at least one trained operator during operation and at least one trained spotter at each working face; (62-701.500(1),FAC)
			2.	Provide a landfill operation plan including procedures for: (62-701.500(2), FAC)
		<u>X</u>		<ul> <li>Designating responsible operating and maintenance personnel;</li> </ul>
		<u>X</u>		b. Contingency operations for emergencies;
		<u>x</u>		c. Controlling types of waste received at the landfill;
N		<u>X</u>	·	d. Weighing incoming waste;
		<u>X</u>		e. Vehicle traffic control and unloading;
<u>X</u>	Attachments 1 and 2			f. Method and sequence of filling waste;
		_X		g. Waste compaction and application of cover;
		<u>X</u>		<ul> <li>h. Operations of gas, leachate, and stormwater controls;</li> </ul>
		X		i. Water quality monitoring.
_	<u> </u>			<ul> <li>j. Maintaining and cleaning the leachate collection system;</li> </ul>
		<u>x</u>	3.	Provide a description of the landfill operation record to be used at the landfill; details as to location of where various operational records will be kept (i.e. FDEP permit, engineering drawings, water quality records, etc.) (62-701.500(3),FAC)
		<u>X</u>	4.	Describe the waste records that will be compiled monthly and provided to the Department quarterly; (62-701.500(4),FAC)
		<u>X</u>	5.	Describe methods of access control; (62-701.500(5),FAC
		<u>X</u>	6.	Describe load checking program to be implemented at the landfill to discourage disposal of unauthorized wastes at the landfill; (62-701.500(6),FAC)
			7.	Describe procedures for spreading and compacting waste at the landfill that include: (62-701.500(7),FAC)
		<u>x</u>		<ul> <li>Waste layer thickness and compaction frequencies;</li> </ul>

<u>s</u> -	LOCATION	N/A	N/C			PART L CONTINUED
_	·	<u> </u>			b.	Special considerations for first layer of waste placed above liner and leachate collection system;
			<u>X</u>		c.	Slopes of cell working face and side grades above land surface, planned lift depths during operation;
			<u>X</u>		d.	Maximum width of working face;
					e.	Description of type of initial cover to be used at the facility that controls:
			X			(1) Disease vector breeding/animal attraction
			<u>X</u>			(2) Fires
		·-	<u>X</u>			(3) Odors
		<del>-</del>	<u>X</u>			(4) Blowing litter
			<u>X</u>			(5) Moisture infiltration
			<u>x</u>		f.	Procedures for applying initial cover including minimum cover frequencies;
			<u>X</u>		g.	Procedures for applying intermediate cover;
	-11-10		<u>X</u>		h.	Time frames for applying final cover;
		<del></del>	<u>X</u>		i.	Procedures for controlling scavenging and salvaging.
			<u>X</u>		j.	Description of litter policing methods;
		_	X		k.	Erosion control procedures.
				8.		ribe operational procedures for leachate management ding; (62-701.500(8),FAC)
		<u>X</u>			a.	Leachate level monitoring, sampling, analysis and data results submitted to the Department;
		<u> </u>			b.	Operation and maintenance of leachate collection and removal system, and treatment as required;
		<u> </u>			c.	Procedures for managing leachate if it becomes regulated as a hazardous waste;
		<u> </u>			d.	Agreements for off-site discharge and treatment of leachate;
	AVA. 47-400	<u> </u>			e.	Contingency plan for managing leachate during emergencies or equipment problems:

<u>s</u>	LOCATION	N/A	N/C			PART L CONTINUED
		<u>X</u>			f.	Procedures for recording quantities of leachate generated in gal/day and including this in the operating record;
<del></del> .	·	<u>X</u>			g.	Procedures for comparing precipitation experienced at the landfill with leachate generation rates and including this information in the operating record;
		<u>X</u>			h.	Procedures for water pressure cleaning or video inspecting leachate collection systems.
			<u>X</u>	9.	Describe how the landfill receiving degradable wastes shall implement a gas management system meeting the requirements of Rule 62-701.530, FAC; (62-701.500(9),FAC)	
			<u>X</u>	10.	landf:	ibe procedures for operating and maintaining the ill stormwater management system to comply with equirements of Rule 62-701.400(9); 01.500(10),FAC)
				11.		ment and operation feature requirements; 01.500(11),FAC)
			<u>X</u>		a.	Sufficient equipment for excavating, spreading, compacting and covering waste;
			<u>x</u>		b.	Reserve equipment or arrangements to obtain additional equipment within 24 hours of breakdown;
			<u>X</u>		c.	Communications equipment;
			<u>X</u>		d.	Dust control methods;
	WA		<u>X</u>		e.	Fire protection capabilities and procedures for notifying local fire department authorities in emergencies;
			X		f.	Litter control devices;
			<u>X</u>		g.	Signs indicating operating authority, traffic flow, hours of operation, disposal restrictions.
			<u>X</u>	12.	inside access	de a description of all-weather access road, e perimeter road and other roads necessary for which shall be provided at the landfill; 01.500(12),FAC)
				13.		ional record keeping and reporting requirements; 01.500(13),FAC)

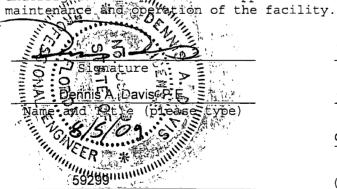
<u>s</u>	LOCATION	<u>N/A</u>	N/C	PART L CONTINUED
_			<u>X</u>	<ul> <li>Records used for developing permit applications and supplemental information maintained for the design period of the landfill;</li> </ul>
			<u>X</u>	<ul> <li>Monitoring information, calibration and maintenance records, copies of reports required by permit maintained for at least 10 years;</li> </ul>
<del></del>		<del></del>	<u>x</u>	c. Maintain annual estimates of the remaining life of constructed landfills and of other permitted areas not yet constructed and submit this estimate annually to the Department;
			<u>X</u>	d. Procedures for archiving and retrieving records which are more than five year old.

M.	WATER QU	ALITY AND	LEACHATE	MONITORIN	IG REC	QUIREMENTS (62-701.510, FAC)
<u>s</u>	LOCATION	N/A	N/C			
			1.	submi water	tted and	ity and leachate monitoring plan shall be describing the proposed ground water, surface leachate monitoring systems and shall meet at following requirements;
		<del></del>		а.	hydr and	d on the information obtained in the ogeological investigation and signed, dated sealed by the PG or PE who prepared it; 701.510(2)(a),FAC)
		<del></del>		b.	acco	sampling and analysis preformed in rdance with Chapter 62-160, FAC; 701.510(2)(b),FAC)
				c.		nd water monitoring requirements; 701.510(3),FAC)
	- VIII				(1)	Detection wells located downgradient from and within 50 feet of disposal units;
					(2)	Downgradient compliance wells as required;
					(3)	Background wells screened in all aquifers below the landfill that may be affected by the landfill;
	AND THE RESIDENCE OF THE PERSON OF THE PERSO				(4)	Location information for each monitoring well;
			<del></del>		(5)	Well spacing no greater than 500 feet apart for downgradient wells and no greater than 1500 feet apart for upgradient wells unless site specific conditions justify alternate well spacings;
	-	<del></del> .			(6)	Well screen locations properly selected;
			·		(7)	Procedures for properly abandoning monitoring wells;
		-	<del></del>		(8)	Detailed description of detection sensors if proposed.

#### CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER T. /1. Applicant: The undersigned applicant or authorized representative of Angelo's Aggregate Materials, Ltd. is aware that statements made in this form and attached Class III Landfill information are an application for a Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility. 41111 Enterprise Road Signafure of Applicant or Agent Mailing Address John P. Arnold, Civil Engineer Dade City, Florida 33525-1539 Name and Title (please type) City, State, Zip Code john.phillip.arnold@gmail.com (813) <u>477-1719</u> E-Mail address (if available) Telephone Number 7/17/09 Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will marrovide the applicant with a set of instructions of proper maintenance and operation of the facility.



Florida Registration Number (please affix seal)

730 NE Waldo Road
Mailing Address
Gainesville, Florida 32641
City, State, Zip Code
ddavis@jonesedmunds.com
E-Mail address (if available)
(352) 377-5821
Telephone Number
Date:

# ATTACHMENT 1 REVISED ENGINEERING REPORT PAGES

compliance testing have been approved. Acceptable test results means the results of the laboratory proctor and permeability tests indicate that the permeability of the material meets the requirements of the construction permit  $(1x10^{-8} \text{ cm/s})$ , and the optimum moisture content is not too high for the equipment to manage. Optimum moisute content for the on-site stockpiles has been approximately 13 to 20 percent. The dozer will compact the material in the bottom of the excavation and up the side slopes into the dozer track marks. After each lift is compacted with the dozer, a 12-ton, 84-inch vibratory sheeps-foot roller, or equivalent, will be used to roll the material. The daily activities will be recorded, including any the tie-in locations, thickness of each compacted lift, verification of the compaction and moisture content testing, verification of equipment used for compaction, and verification of dozer tracks at the tie-in surfaces (no smooth surfaces). Field logs and photographs documenting the field work will be provided to the Department. A topographic survey will confirm the finished floor grades.

Excavation will be such that 2H:1V slopes will only be encountered on the outer edge boundaries of the cells. A 3H:1V working face slope, beginning at the 2H:1V slope face, will be used for landfilling the waste.

#### 3.8 METHOD OF CELL SEQUENCE

The landfill operation will progress in a series of cells as shown on Drawing Sheet C-5. Cell No. 1 will begin at the east portion of the site with material placed against the east slope with the first lift consisting of 10 feet deep fill. Cell No. 1 will then continue to the south along the east bank and extend approximately 550 feet out from the west slope. Each lift will be compacted as the waste is placed in the cell. The access road will be relocated to provide access to the next cell. The cell landfilling will continue in similar fashion until the cell reaches a height of one-half of the vertical height of the slope. Some areas of the cells may have partial lifts, based on these elevations. The working face shall not exceed a slope of 3H:1V and a width of 100 feet along the side slopes, however, once the waste elevation reaches a height of 125 feet, NGVD, the working face slope shall not exceed 4H:1V. The stormwater retention pond (Pond 1) will be constructed at this time, see SWMP Section 6. The north and west sides of completed Cell No. 1 stormwater will drain to the temporary pond, in the northeast corner of the site.

Cell #2 is the next 560-foot cell to the south of Cell #1. Cell sequencing will continue to the south (through Cell #2) and then move to the north and west of the filled areas for Cells 15, 3, 4, and a portion of Cell 5. Completion of cells 14, 16, and a portion of Cell 5 will entail filling the northeast temporary retention pond once the floor of the pond has been built up with clean soil to

the landfill base elevation of 80 feet NGVD in this portion of the landfill. The ponds constructed for completed cells within the buffer areas will approximately replace the stormwater capacity of the northeast temporary pond.

The sequence of filling operations are as follows (see Drawing Sheet C-5 and Sequence Drawing Sheets C-6 through C-13):

- Sequence 1 Fill Cells 1, 2, & 15 four 10- to 12-foot lifts (130-foot EL—3H:1V up to 125; 4H:1V from 125-130)).

  Intermediate cover to be placed on slopesas constructed above grade
- Sequence 2 Fill portion of Cell 5 four 10- to 12-foot lifts (125-foot EL), against Cell 15.

  Fill Cells 5 and 15 two lifts (145-foot EL)

  Intermediate cover to be placed on above grade slopes
- Sequence 3A Fill Cell 4 four 10- to 12-foot lifts (110-foot EL) against Cell 5 and Cell 1 slopes Intermediate cover to be placed on above grade slopes.
- Sequence 3B Fill Cell 3 four 10- to 12- foot lifts (110-foot EL) against Cell 4 and Cell 2 slopes. Intermediate cover to be placed on slopes as constructed above grade.
- Fill Cells 3 and 4 four10- to 12-foot lifts (150155-foot EL).

  Fill Cells 1 and 2 two 10- to 12-foot lifts (150155-foot EL)

  Fill Cells 5 and 15 one lift (150155-foot EL).

  Intermediate cover to be placed on above grade slopes.
- Sequence 5 Fill Cell 6 in fivefour 10- to 12-foot lifts (140155-foot EL) against Cells 3, 4, and 5.

  Intermediate cover to be placed on above grade slopes
- Sequence 6 Fill Cell 7 seven<u>four</u> 10- to 12-foot lifts (<del>160</del>155-foot EL) against Cell 6-and Cell 4 slopes.

  Fill Cells 3, 4, and 6 one 10- to 12-foot lift (160-foot EL)

Intermediate cover to be placed on above grade slopes

Sequence 7 Fill Cell-86 sevenone 10- to 12-foot lifts (160-foot EL) against Cells 7 and

Cell3, 4, and 5 slopes.

Fill Cell 4 one lift (170-foot EL)

Fill Cell 5 one lift (160-foot EL)

Fill Cell 3 one lift (160-foot EL)

Intermediate cover to be placed on above grade slopes

Sequence 8 Fill Cells 9, 10, and 11 six or seven lifts (150 to 170-foot EL) against Cells 6, 7,

and 8 slopes

Fill Cells 6 and 7 one 10- to 12-foot lift (170-foot EL)

Final cover to be placed on finished grades to maximum permitted height

Lift height includes cover material. Due to the landfill bottom elevation, some lifts may not be a full 10 feet in height. It is anticipated that filling each cell will take approximately 6 months to one year.

As each sequence is active, the following procedures will be followed.

- The access road to the working face will be constructed and graded as necessary.
- Waste will be compacted as it is placed. General lift height will be 10 feet and will come within three (3) feet of the final elevation to provide for final cover.
- The working face will remain approximately 100 feet in length.
- Weekly cover of six (6) inches of soil will be placed on the working face.
- Intermediate cover of 12 inches of soil will be placed in areas that will not receive waste within 180 days. The cover may be removed immediately prior to placement of new waste.
- Stormwater runoff from the interior of the excavation and filling area will be diverted to the onsite temporary storage pond using a temporary interior swale and 6-foot berm. Perimeter berms will direct stormwater away from excavation and filling areas. The temporary stormwater pond will receive runoff until Pond 3 is developed.

# 3.8.1 <u>Vertical Expansion</u>

The landfill is permitted to be completed from 125 to 175 feet NGVD. The final grading plan is shown on Drawing C-13. The finished grade will extend the existing hill eastward. A series of swales and other stormwater conveyance will be used to prevent side slope erosion, see Section 6.

The top (30H:1V) and side slope (4H:1V) designs provide for proper drainage and minimize rainfall infiltration into the landfill surface.

#### 3.8.2 Erosion Control

The following engineering controls will be used to minimize erosion at the working face:

- Regrade a maximum of 100 linear feet of the outer edge slopes at a time to 2H:1V. The purpose of this recommendation is that a relatively small area will be subjected to surface erosion at any given time.
- Construct a berm along the top of the slope during the regrading to redirect any rainfall runoff away from the face of the slope. The area along the berm should be graded so as to allow rapid runoff along the top of the slope. Ponding of water near the top of the slope should not be allowed, since seepage through the slope may initiate slope erosion.
- As soon as possible following the construction of the clay liner, begin to fill against the 2H:1V slope with the landfill material.

#### 3.8.3 Life Expectancy

Research of the U.S Census Bureau website reveals that the following Florida counties located within the service area of the facility are included in the 100 fastest growing counties in the U.S.

# ATTACHMENT 2 REVISED OPERATIONS PLAN PAGES

All inspection shall be documented on the site's "Random Load Inspection Form," signed by the inspector, and kept in a current Log Book, see Appendix B. Log books will be maintained at the landfill for at least 3 years. Inspections shall be performed by trained site personnel.

# 5.6 <u>Asbestos Waste Disposal</u>

Asbestos-containing materials (ACM's) will be accepted for disposal in accordance with 40 CFR Part 61.154. Arrangements for disposal of ACM's between Enterprise RDF and the waste generator/hauler will be recorded in the operations record as to the quantity and date of shipment to the landfill. The loads are accepted at pre-arranged times during operational hours.

To ensure that all waste deposited at the Facility meets state and local requirements, all facility personnel shall receive training from their supervisor on the identification of unacceptable materials, which is any waste other than properly labeled and bagged ACM. Unregulated, non friable asbestos containing materials are not required to be bagged, but all other requirements are unchanged.

Each load of ACM arriving at the facility must be accompanied by a completed Waste Shipment Record (WSR) in accordance with 40 CFR 61.150. Each load will be inspected to insure that it is properly bagged, that bags are intact and properly sealed, and that the required warning labels and generator labels are affixed. Bags will not be opened prior to disposal.

ACM arriving at the Facility for disposal will be visually screened by facility personnel a minimum of two times. The first screening will be at the scales, controlling access to the Facility, where the truck drivers will be questioned as to the contents of the load and the shipping documents will be reviewed. The gate attendant will direct the drivers to the appropriate disposal area.

The second screening will be at the working face where a trained inspector/spotter will again question the driver and make a visual examination of the load prior to dumping and as it is dumped. This examination shall insure the ACM is properly bagged, the bags are intact and properly sealed, and that the warning labels and generator labels are affixed.

Enterprise RDF personnel will direct the waste hauler to the designated ACM disposal location in each cell, to be determined by the Operator or Site Manager. The ACM will be covered with 6-inches of soil at the end of any day that ACM is accepted. This designated ACM location will

be recorded and updated by the annual topographic survey in accordance with 40 CFR 61.154. ACM disposal records will be maintained for the life of the landfill and disposal locations documented in the Closure Report.

# 5.7 <u>Recycling Operations</u>

The Class III landfill does not intend to recycle. However, if recyclable wastes are incidentally received, such as metals, concrete rubble, asphalt, and wood wastes, the facility will separate them in stockpiles. Concrete and asphalt will be periodically transported off-site for crushing and returned, as needed, for on-site uses. Yard and wood wastes may be chipped for use onsite or be placed in roll-off containers for shipment to a wood recycler. If metals are collected, they will be temporarily stored in a 20-cubic-yard roll-off container in a designated area as shown on Drawing C-1. These materials will be removed from the site approximately every 6 months. However, if the capacity of the container is exceeded, the materials will be removed sooner.

Trucks identified at the entrance as carrying primarily recyclable products, (i.e., concrete, metal, wood, paper) will be refused entrance into the landfill. Incidental recyclable materials that are identified at the disposal area will be placed in containers located at the working face.

## 5.7.1 Reports

A Recovered Materials report will be submitted quarterly by type of waste recovered and tonnage to the FDEP and Pasco County Solid Waste Department. These reports will also be compiled into an annual report to the FDEP.

# 5.8 <u>Wood Acceptance Area</u>

Initial inspection will be performed at the scalehouse by the attendant. Wood wastes are stockpiled until processing takes place every 180 days. Personnel trained to identify and remove any unacceptable wastes will be present during processing. Unacceptable wastes, if found, will be removed prior to wood processing.

#### 6.0 WEIGHING OR MEASURING INCOMING WASTE

A scale system is used as shown on the Site Plan. The scale will be calibrated every six (6) months. Trucks will be weighed as entering the disposal site, and based upon the tare weight of the vehicle, the waste tonnage will be determined. Prior to unloading debris, the tonnage of waste material disposed will be determined and the appropriate fee assessed.

## 6.1 Fee Schedule

The fee schedule for disposal varies depending on the client, type of waste and volume received.

Waste Type	Unit	Fee per Unit
Class III	CY	Variable

This fee schedule will be periodically revised according to the prevailing market for waste disposal. Enterprise RDF will notify Pasco County immediately in writing of all fee schedule changes.

#### 7.0 VEHICLE TRAFFIC CONTROL AND UNLOADING

Generally, truck traffic will be controlled by first in - first out, as directed by the working face spotters when and where to dump. There will be adequate space for truck staging at the site's gate (7-8 trucks) to mitigate any backups toward and onto Enterprise Road. Enterprise RDF will discourage any truck staging prior to landfill opening. Signs will be posted at the entrance gate and on interior roads to guide mining truck traffic vs. landfill truck traffic to their appropriate areas of the site.

# 8.0 METHOD OF CELL SEQUENCE AND LIFE EXPECTANCY

# 8.1 <u>Cell Sequence</u>

The landfill operation will progress in a series of cells as shown on Drawing Sheet C-5. Cell No. 1 will begin at the east portion of the site with material placed against the east slope with the first lift consisting of 10 feet deep fill. Cell No. 1 will then continue to the south along the east bank and extend approximately 550 feet out from the west slope. Each lift will be compacted as the

waste is placed in the cell. The access road will be relocated to provide access to the next cell. The cell landfilling will continue in similar fashion until the cell reaches final grade less 3 feet. Some areas of the cells may have partial lifts, based on the final cell elevations. The working face shall not exceed a slope of 3H:1V and a width of 100 feet along the side slopes, however, once the waste elevation reaches a height of 125 feet, NGVD, the working face slope shall not exceed 4H:1V. The stormwater retention pond (Pond 1) will be constructed at this time. The north and west sides of completed Cell No. 1 stormwater will drain to the temporary pond, in the northeast corner of the site.

Cell #2 is the next 560-foot cell to the south of Cell #1. Cell sequencing will continue to the south (through Cell #2) and then move to the north and west of the filled areas for Cells 15, 5, 4, and Cell 3. Completion of cells 14, 16, and a portion of Cell 5 will entail filling the northeast temporary retention pond once the floor of the pond has been built up with clean soil to the landfill base elevation of 80 feet NGVD in this portion of the landfill. The ponds constructed for completed cells within the buffer areas will approximately replace the stormwater capacity of the northeast temporary pond.

The sequence of filling operations is as follows, (see Drawing Sheet C-5 and Sequence Drawing Sheets C-6 through C-13):

- Sequence 1 Fill Cells 1, 2, & 15 four 10 to 12-foot lifts (130-foot EL). (Filled)

  Intermediate cover to be placed on slopes as constructed above grade.
- Sequence 2 Fill portion of Cell 5 four 10 to 12-foot lifts (125-foot EL), against Cell 15. Fill Cells 5 and 15 two lifts (145-foot EL)
- Sequence 3A Fill Cell 4 four 10- to 12-foot lifts (110-foot EL) against Cell 5 and Cell 1 slopes. Intermediate cover to be placed on above grade slopes.
- Sequence 3B Fill Cell 3 four 10- to 12-foot lifts (110-foot EL) against Cell 4 and Cell 2 slopes. Intermediate cover to be placed on slopes as constructed above grade.
- Fill Cells 3 and 4 four 10- to 12-foot lifts (150155-foot EL).

  Fill Cells 1 and 2 two 10- to 12-foot lifts (150155-foot EL).

  Fill Cells 5 and 15 one lift (150155-foot EL).

  Intermediate cover to be placed on above grade slopes.

Sequence 5 Fill Cell 6 in five four 10- to 12-foot lifts (140155-foot EL) against Cells 3, 4, and 5.

Intermediate cover to be placed on above grade slopes.

Sequence 6 Fill Cell 7 sevenfour 10-to 12-foot lifts (160155-foot EL), against Cell 6-and Cell 4-slopes.

Fill Cells 3, 4, and 6 one 10- to 12-foot lift (160-foot EL) Intermediate cover to be placed on above grade slopes.

Sequence 7 Fill Cell 6 8 seven one 10- to 12-foot lifts (160-foot EL) against Cell 7 and Cell 3.

4, and 5 slopes

Fill Cell 4 one lift (170-foot EL)

Fill Cell 5 one lift (160-foot EL)

Fill Cell 3 one lift (160-foot EL)

Intermediate cover to be placed on above grade slopes.

Sequence 8 Fill Cells 9, 10, and 11 six or seven lifts (150- to 170-foot EL) against Cells 6, 7, and 8 slopes

Fill Cells 6 and 7 one 10- to 12-foot lift (170-foot EL)

Final cover to be placed on finished grades to maximum permitted height.

Lift height includes cover material. Due to the landfill bottom elevation some lifts may not be a full 10 feet in height. It is anticipated that filling each cell will take approximately 6 months to 1 year.

As each sequence is active, the following procedures will be followed.

- The access road to the working face will be constructed and graded as necessary.
- Waste will be compacted as it is placed. General lift height will be 10 feet and will come within three (3) feet of the final elevation to provide for final cover.
- The working face will remain approximately 100 feet in length.
- Weekly cover of six (6) inches of soil will be placed on the working face.

• Intermediate cover of 12 inches of soil will be placed in areas that will not receive waste within 180 days. The cover may be removed immediately prior to placement of new waste.

Stormwater runoff on the interior of the excavation and filling area will be diverted to the onsite temporary storage pond using a temporary interior swale and 6-foot berm. Perimeter berms will direct stormwater away from excavation and filling areas. The temporary stormwater pond will receive runoff until Pond 3 is developed.

## 8.2 Erosion Control

The following engineering controls will be used to minimize erosion at the working face.

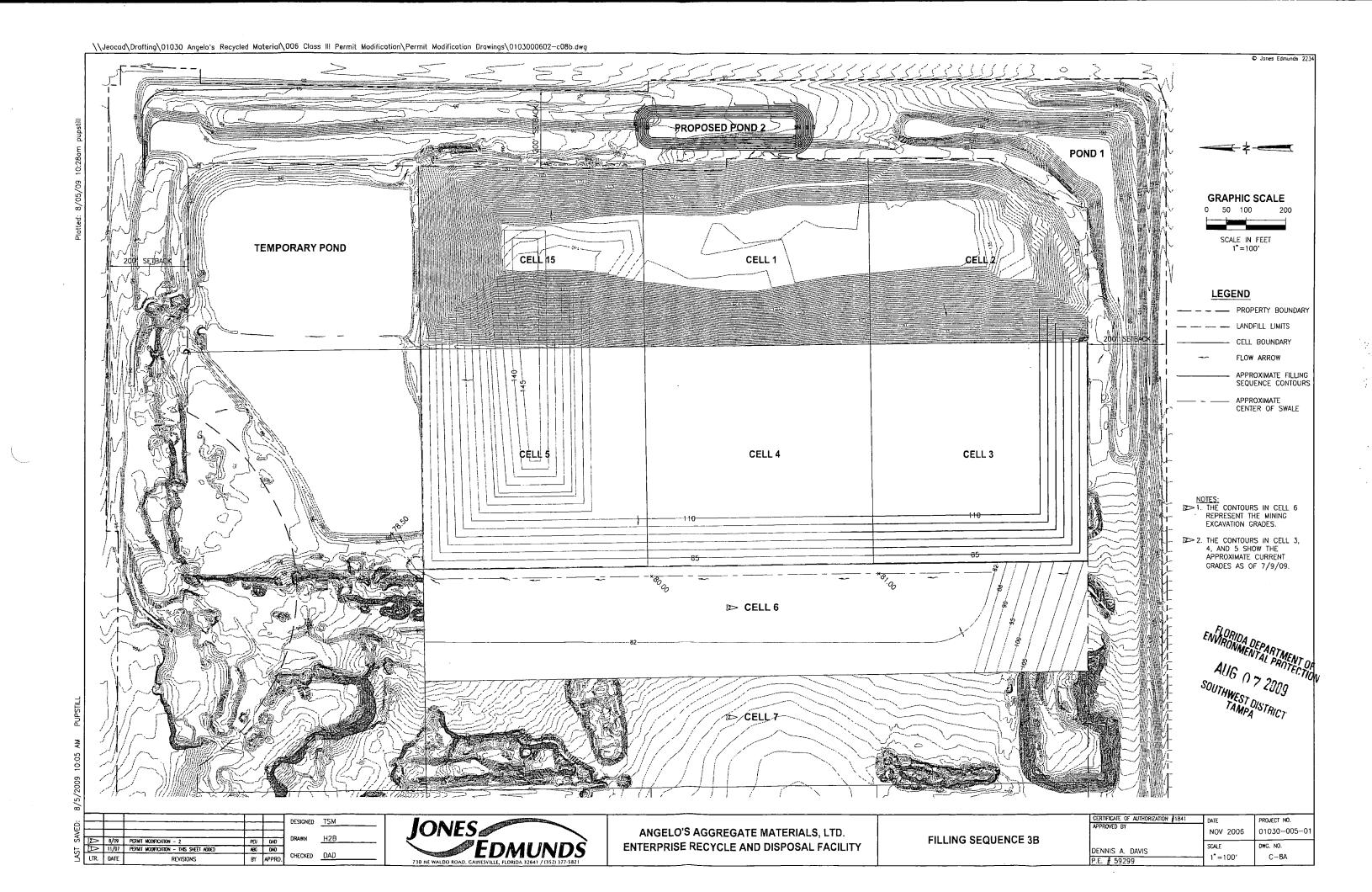
- Construct a berm along the top of the slope during the regrading to redirect any rainfall runoff away from the face of the slope. The area along the berm should be graded so as to allow rapid runoff along the top of the slope. Ponding of water near the top of the slope should not be allowed, since seepage through the slope may initiate slope erosion.
- As soon as possible following the construction of the clay liner, begin to fill against the 2H:1V slope with the landfill material.

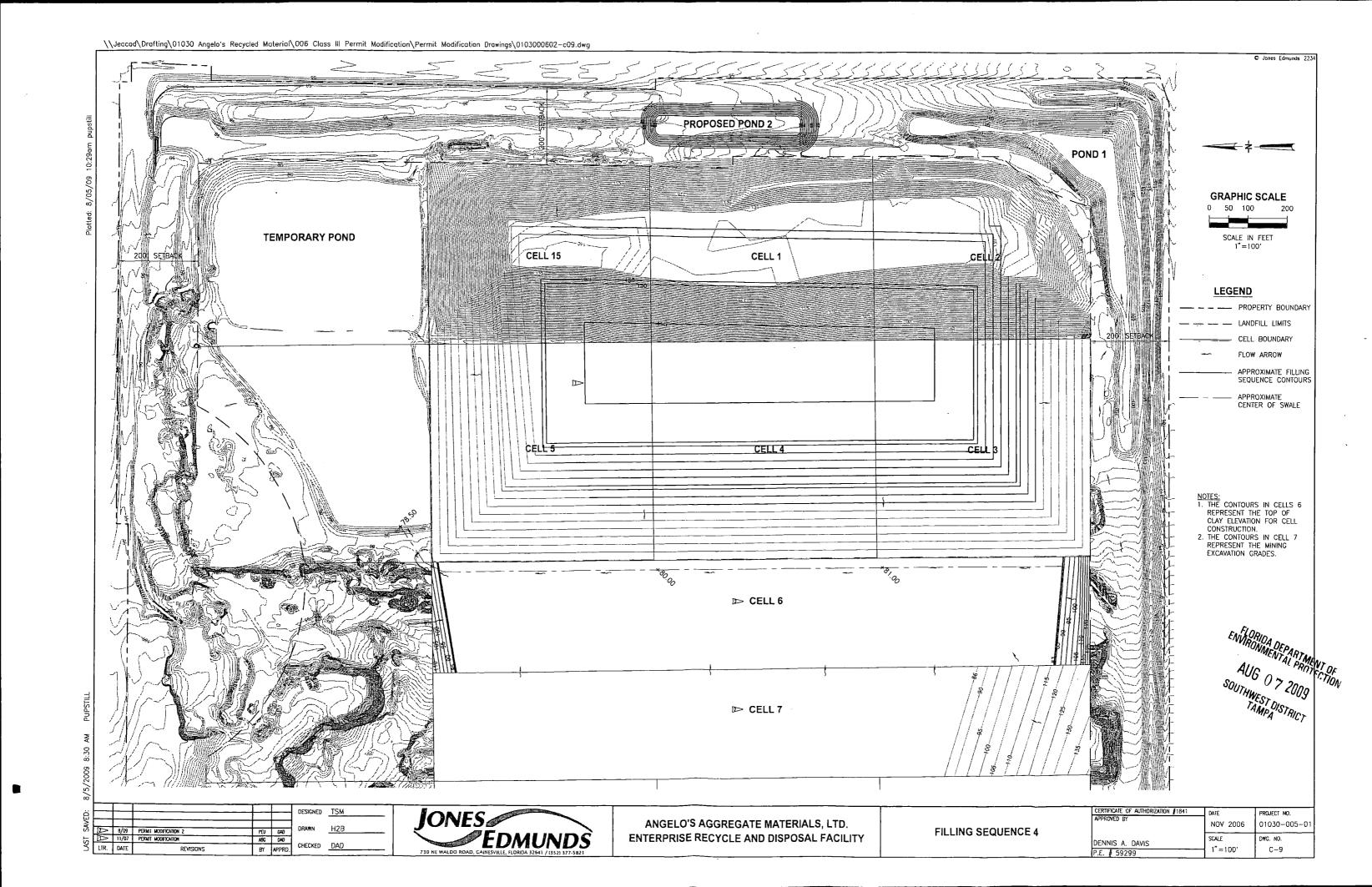
In order to assist with erosion control of the intermediate cover as well as initial cover, the landfill may apply processed mulch over such covered areas to minimize erosion.

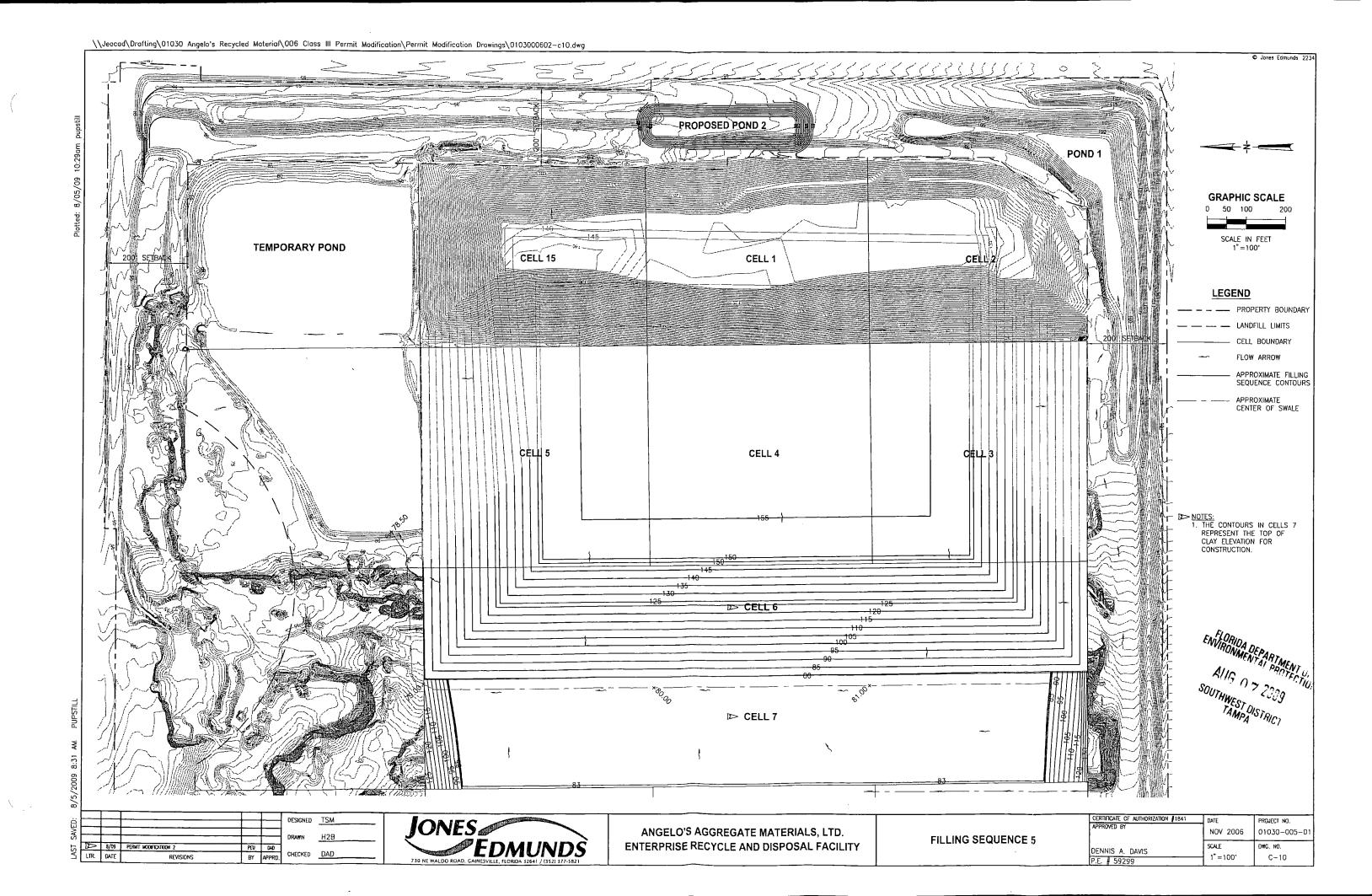
#### 8.3 Life Expectancy

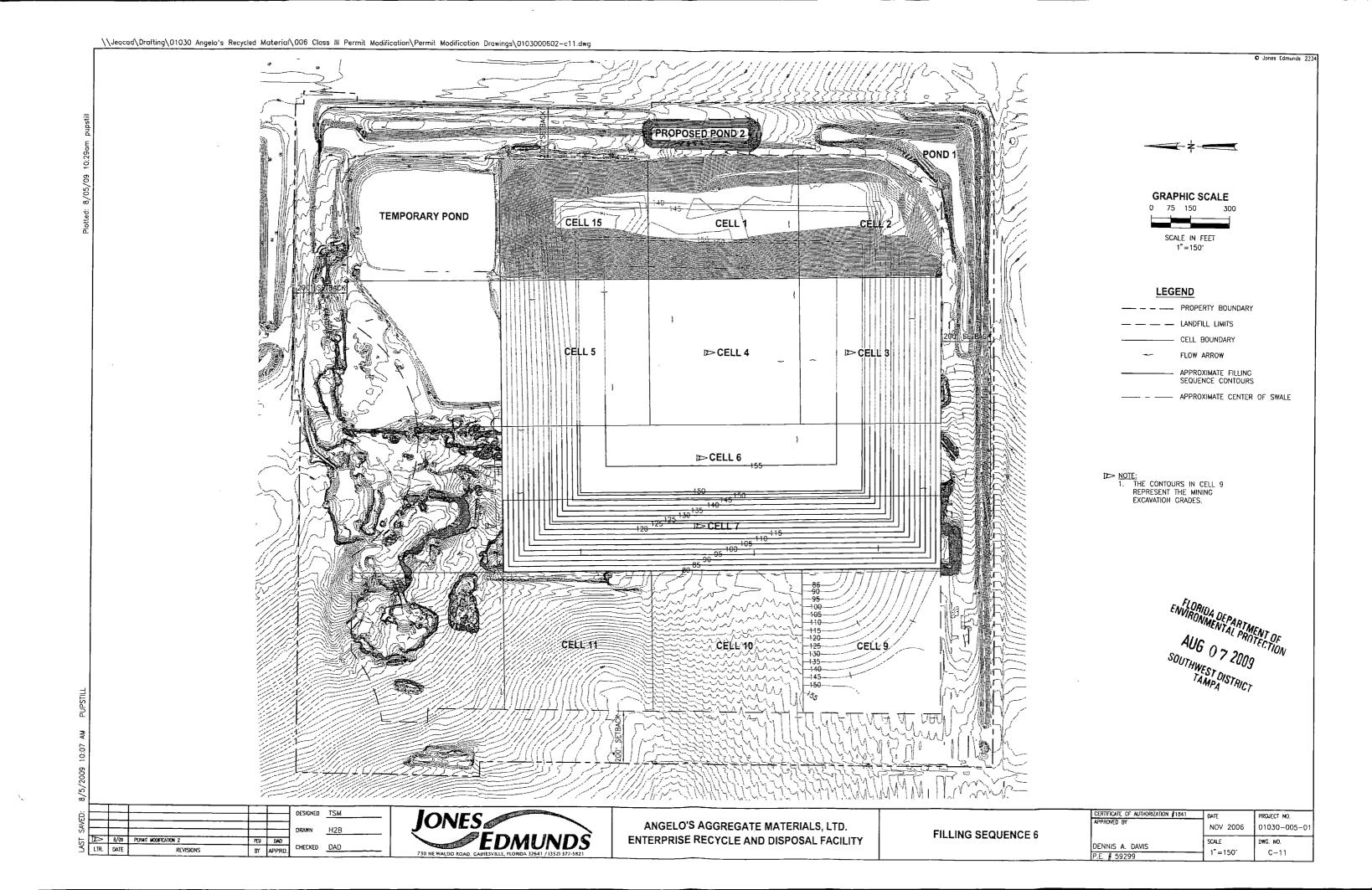
Research of the U.S Census Bureau website reveals that the following Florida counties located within the service area of the facility are included in the 100 fastest growing counties in the U.S. through 6/2005. In the last 5 years the counties and their respective growth rates are as follows: Pasco County (24.5%), Osceola County (34.3%), Lake County (31.6%), Hernando County (21.1%), and Sumter County (20.3%). In addition, the most recent estimates of growth rates in the last year show Citrus County, Hernando County, Hillsborough County, Lake County, Pasco County, Sumter County, Osceola County, and Polk County are growing between the rates of 3% through 6% per year. Demolition waste coming from current and proposed projects in Hillsborough and Pinellas County are increasing significantly as of late.

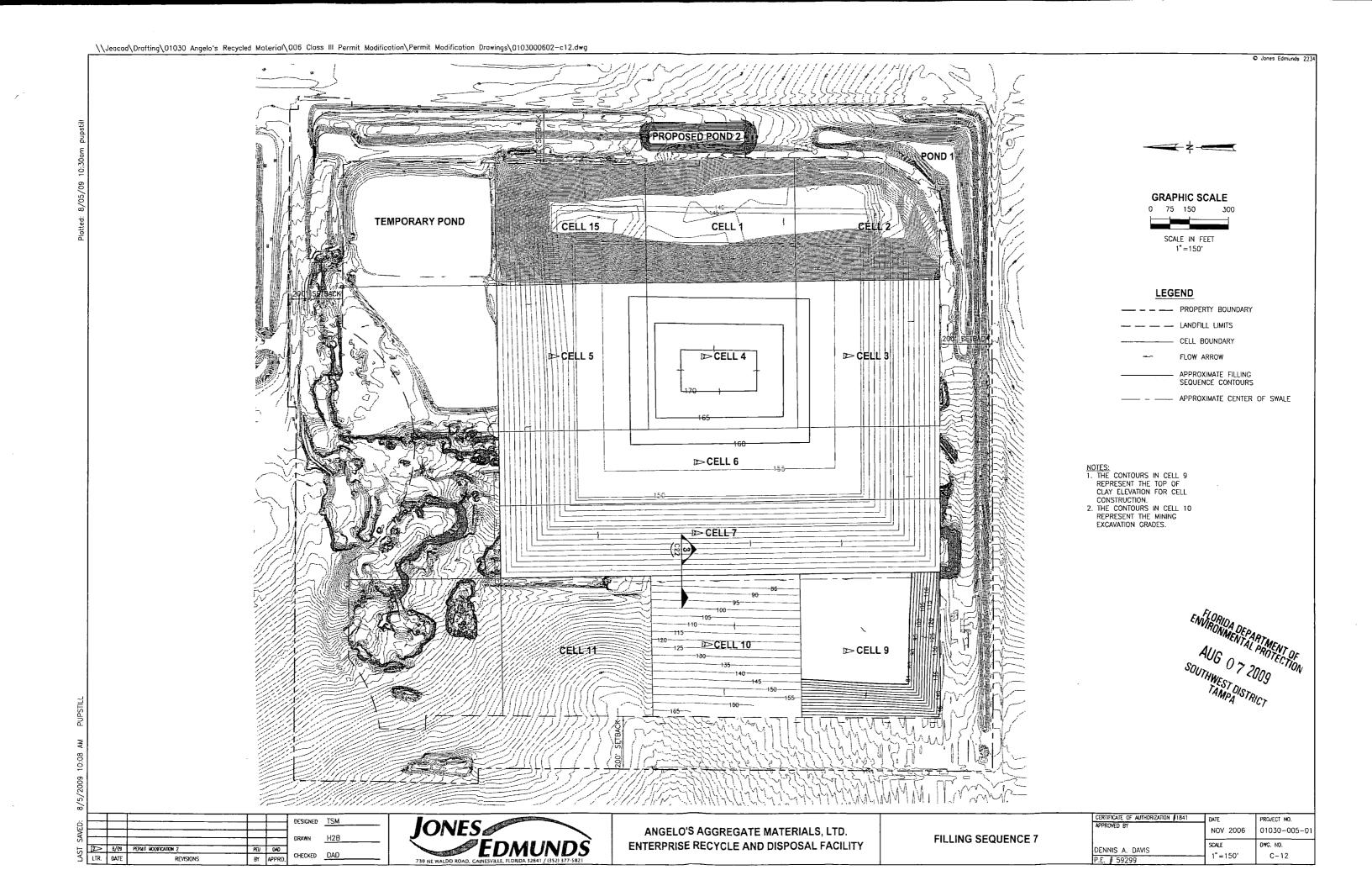
# APPENDIX B REVISED DRAWINGS

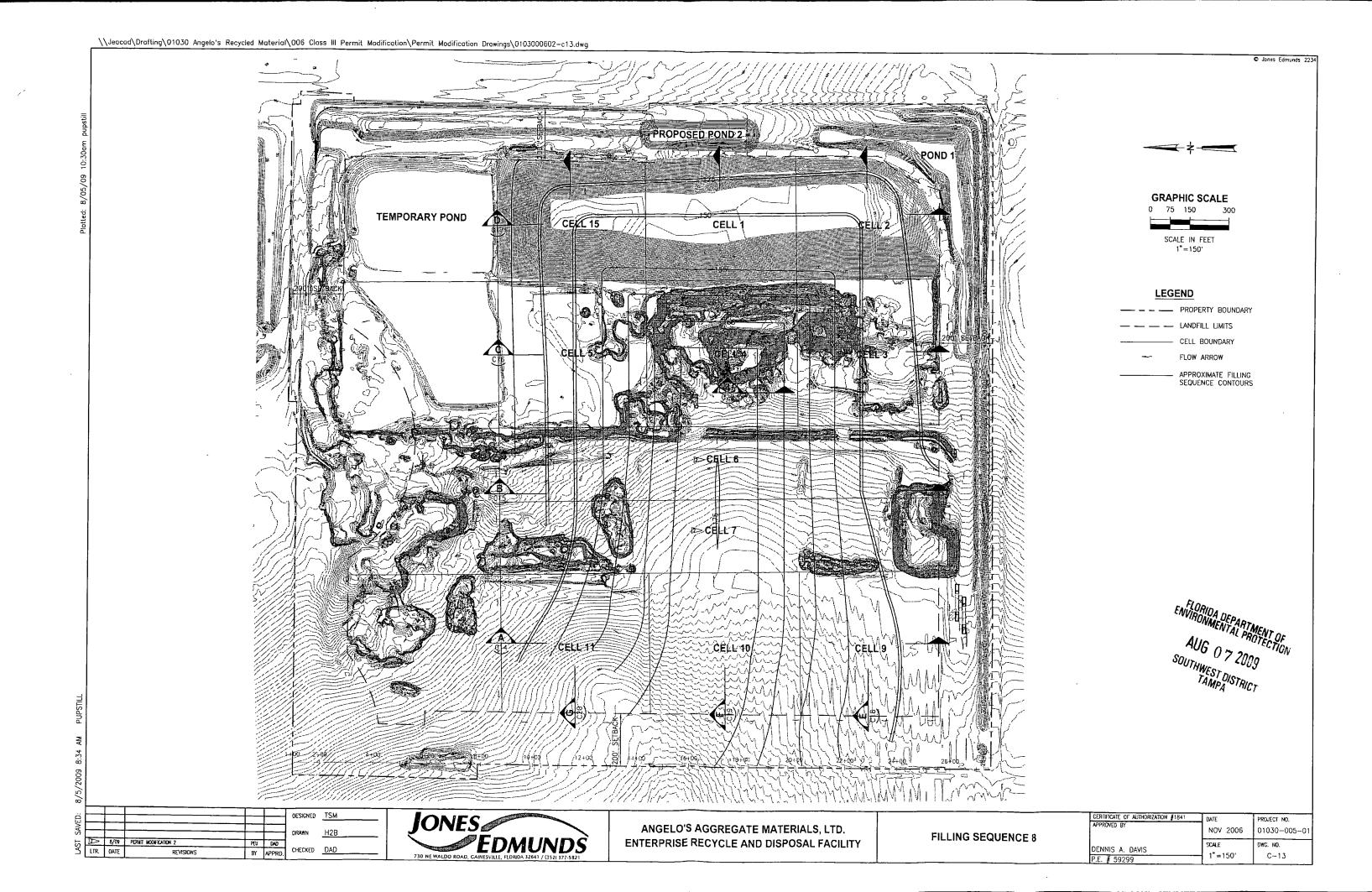


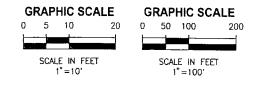










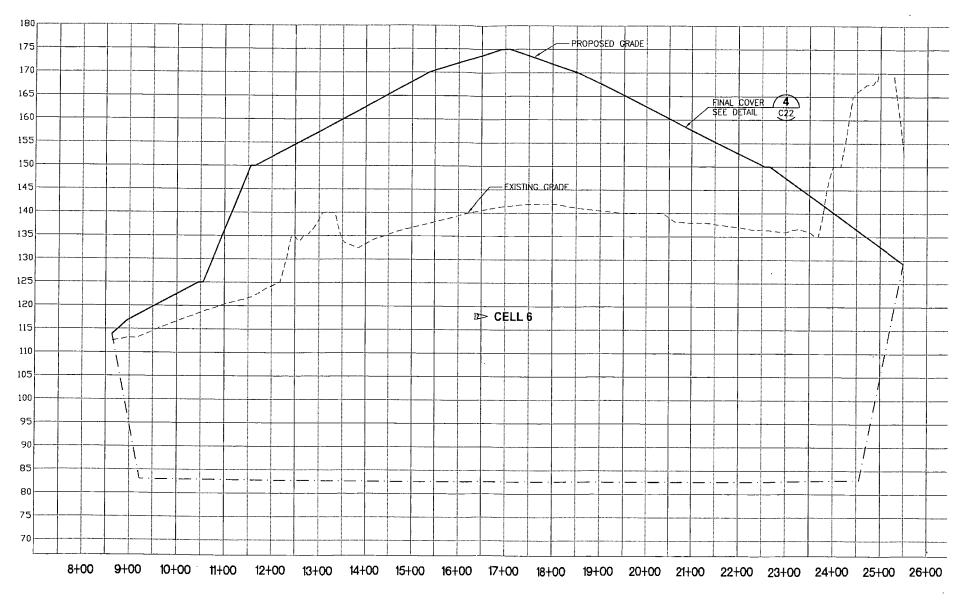


LEGEND

----- EXISTING GRADE

--- EXCAVATION GRADE

---- FINAL GRADE



ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

SECTION B

1"=10" V
1"=100" H

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SAVED:						DRAWN	H2B
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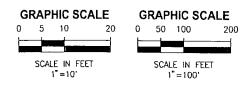


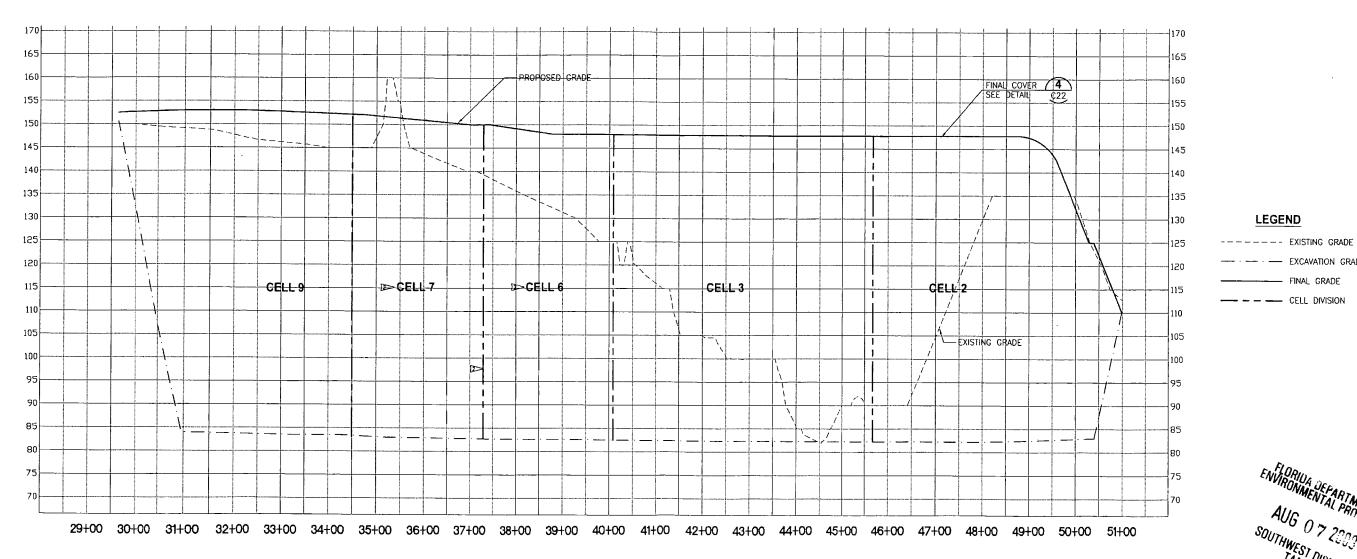


ANGELO'S AGGREGATE MATERIALS, LTD.
ENTERPRISE RECYCLE AND DISPOSAL FACILITY

LANDFILL	SECTIONS

CERTIFICATE OF AUTHORIZATION #1841	DATE	PROJECT NO.
APPROVED BY	NOV 2006	01030-005-0
DENNIS A. DAVIS	SCALE H: 1"=100"	DWG. NO.
P.E. # 59299	V: 1"=10'	C-15





LEGEND

--- EXCAVATION GRADE — FINAL GRADE

-- CELL DIVISION

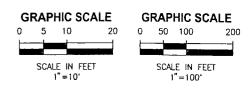
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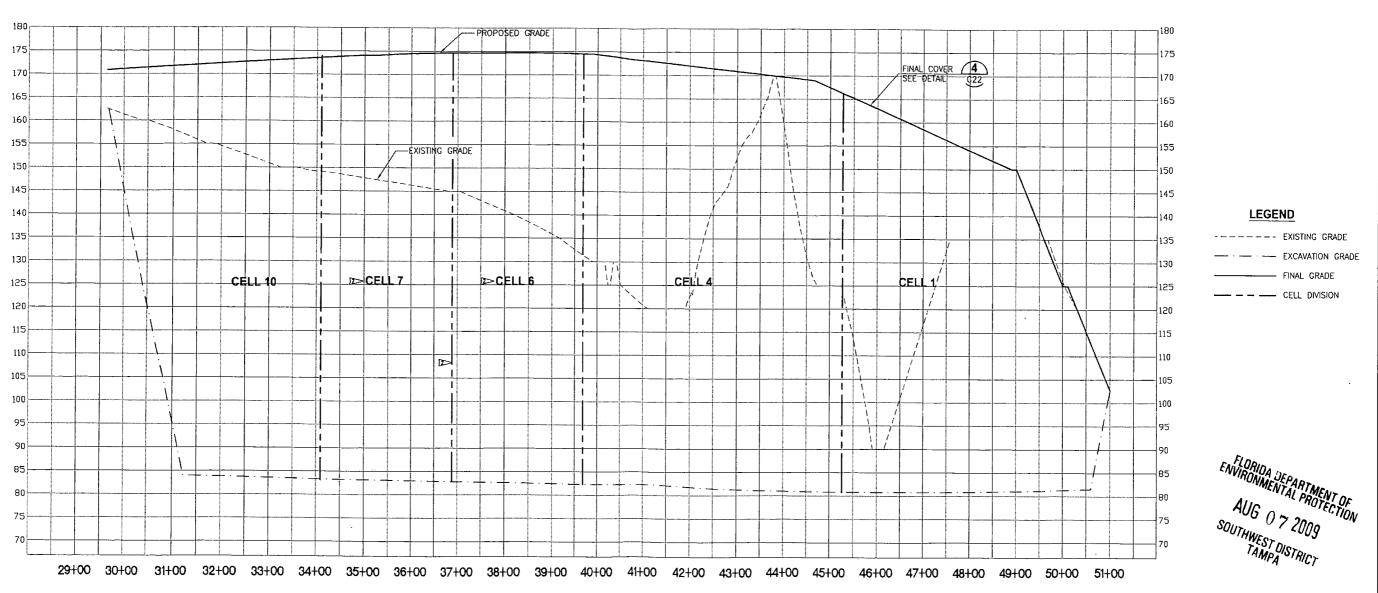


ANGELO'S AGGREGATE MATERIALS, LTD. ENTERPRISE RECYCLE AND DISPOSAL FACILITY

DATE	PROJECT NO.
NOV 2006	01030-005-0
SCALE H: 1"=100'	DWG. NO. C-18
	NOV 2006

8:36 8/5/2009





SECTION F

1"=10" V

1"=100" H

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

LANDFILL SECTIONS	CERTIFICATE OF AUTHORIZATION #1841 APPROVED BY	DATE NOV 2006	PROJECT NO. 01030-005-01
	DENNIS A. DAVIS P.E. # 59299	SCALE H: 1"=100' V: 1"=10'	DWG. NO. С-19

8/5/2009 SAVED:

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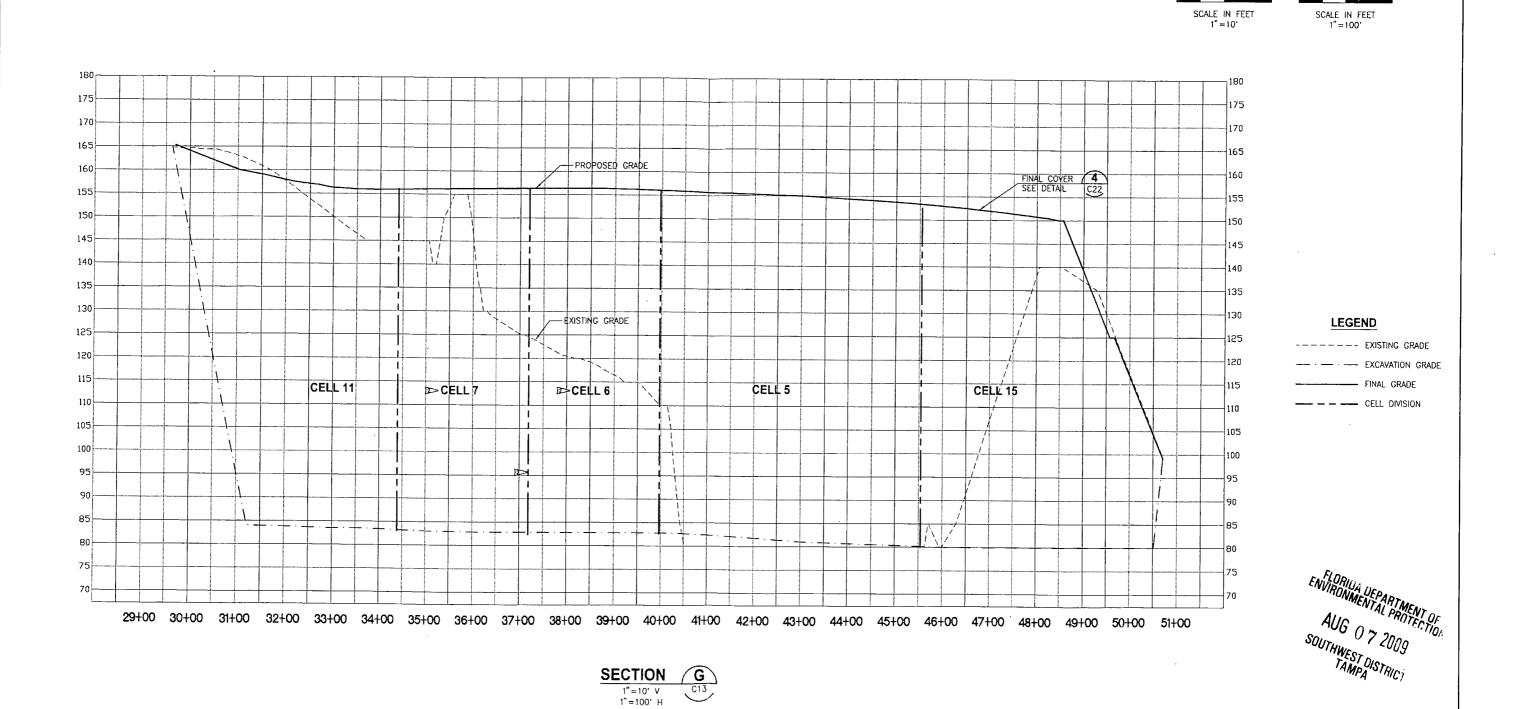
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0 50 100

GRAPHIC SCALE

20

0 5 10



DESIGNED TSM H2B 2 8/09 PERMIT MODIFICATION 2 PEV DAD CHECKED DAD REVISIONS



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

LANDFILL SECTIONS

CERTIFICATE CF AUTHORIZATION #1841
APPROVED BY PROJECT NO. NOV 2006 01030--005-01 SCALE H: 1"=100' V: 1"=10' DWC. NO. DENNIS A. DAVIS C-20 P.E. # 59299