

**BOCC Agenda Item
Engineering Services Construction Management, Oversight, and Design Support
Final Closure Construction West Nassau Landfill**

Agenda Request For: May 9, 2011

Department: Solid Waste

Background:

Staff received the attached cost proposal for "Engineering Services Construction Management, Oversight, and Design Support Final Closure Construction West Nassau Landfill." This cost proposal is being prepared based on the schedule provided by the lowest cost bidder (COMANCO) in its bid for the construction project. The Bids for the West Nassau Closure Project were opened on March 24, 2011. Golder's cost estimate to complete the work as described in the attached scope of services is \$663,790. In the event of project delays or an extended schedule, Golder will notify the Board prior to committing additional resources

11 MAY - 2
MAY 11: 32
COMANCO

The attached Proposal consists of the following:

Task 1000 CQA Services	\$399,325
Task 2000 Construction Management	\$123,830
Task 3000 Design Support	\$ 47,790
Task 4000 Project Management	\$ 55,325
Task 5000 Construction Record Documentation Rpt	<u>\$ 37,520</u>
TOTAL	\$663,790

Golder's cost estimate to complete the work as described in the scope of services is \$663,790. This work will be performed under the Agreement for Consulting Services between Golder and the County, dated February 22, 1999.

Financial/Economic Impact to Future Years Budgeting Process or Effect on Citizens:

Final Closure of West Nassau Landfill. Thirty (30)yr monitoring and maintaining per FDEP requirements.

Action requested and recommendation:

Request the Board authorize the Chairman to approve Golder Associates Proposal to Provide Engineering Services Construction Management, Oversight, and Design Support Final Closure Construction West Nassau Landfill in the amount of \$663,790, and approve the budget as attached.

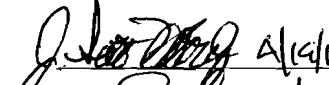
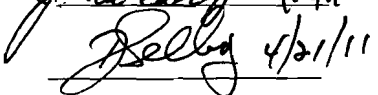
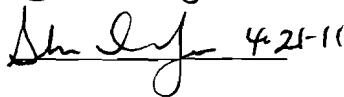
Is this action consistent with the Nassau County Comprehensive Land Use Plan?

Yes - Public Facility Element Section 4

Funding Source: 70000000-239955 West Nassau Active Landfill Closure Escrow

APPROVED BOCC
DATE 5/9/11 *Bella*

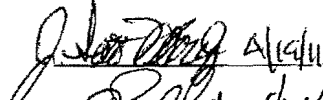
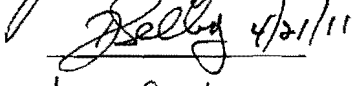


BOCC Agenda Item
Engineering Services Construction Management, Oversight, and Design Support
Final Closure Construction West Nassau Landfill

<u>Reviewed by:</u>	<u>Print Name:</u>	<u>Signature & Date:</u>
Department Head	<u>J.Scott Herring</u>	<u> 4/21/11</u>
County Manager	<u>Ted Selby</u>	<u> 4/21/11</u>
Office of Management and Budget 5/4/20/11	<u>Shanea Jones</u>	<u> 4-21-11</u>
Legal	<u>David Hallman</u>	_____
Clerk/Comptroller	<u>John A. Crawford</u>	_____

Revised 9/7/10

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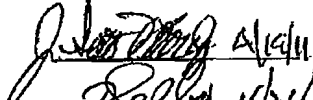

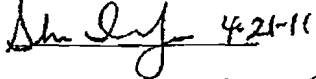
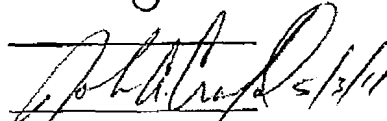
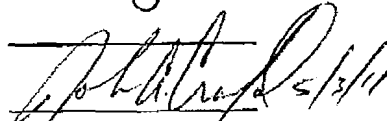
BOCC Agenda Item
Engineering Services Construction Management, Oversight, and Design Support
Final Closure Construction West Nassau Landfill

Reviewed by:	<u>Print Name:</u>	<u>Signature & Date:</u>
Department Head	<u>J.Scott Herring</u>	 4/21/11
County Manager	<u>Ted Selby</u>	 4/21/11
Office of Management and Budget 4/20/11	<u>Shanea Jones</u>	 4-21-11
Legal	<u>David Hallman</u>	 4-26-11
Clerk/Comptroller	<u>John A. Crawford</u>	_____

Revised 07/10

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COUNTY CLERK
S. F. JOE

**BOCC Agenda Item
Engineering Services Construction Management, Oversight, and Design Support
Final Closure Construction West Nassau Landfill**

<u>Reviewed by:</u>	<u>Print Name:</u>	<u>Signature & Date:</u>
Department Head	<u>J. Scott Herring</u>	 4/14/11
County Manager	<u>Ted Selby</u>	 4/21/11
Office of Management and Budget 5/4/20/11	<u>Shanea Jones</u>	 4-21-11
Legal	<u>David Hallman</u>	
Clerk/Comptroller	<u>John A. Crawford</u>	

Revised 07/10

Handwritten initials and date: JH 5/3/11

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CONTINGENT ON SIGNATURE OF
LEGAL OPINION ATTACHED

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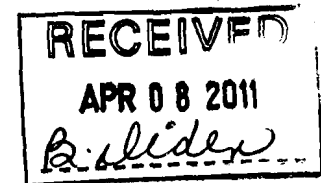
COUNTY ENGINEERING
OFFICE

Project Budget
West Nassau Landfill Closure
Construction Bid Award

Landfill Current Closure Budget

Funds Available in Closure Account	\$9,976,433
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Closure Bid	4,924,873
Contingency (15%)	738,731
Construction Management	<u>663,790</u>
Total Estimate Construction Cost	\$6,327,394



April 8, 2011

993-3928.103

Mr. J. Scott Herring, PE
West Nassau Landfill
46026 Landfill Road
Callahan, FL 32011

**RE: COST PROPOSAL FOR ENGINEERING SERVICES
CONSTRUCTION MANAGEMENT, OVERSIGHT, AND DESIGN SUPPORT
FINAL CLOSURE CONSTRUCTION
WEST NASSAU LANDFILL
NASSAU COUNTY, FLORIDA**

Dear Scott:

Golder Associates Inc. (Golder) is pleased to provide the Solid Waste Department and the Nassau County Board of County Commissioners (Board) this cost proposal to perform construction management, oversight services, and design support services during the Final Closure Construction at the West Nassau Landfill in Nassau County, Florida. This proposal outlines our understanding of the scope of services based on the designs and construction bid packages, the Closure Construction Permit, and received bids associated with the Final Closure Construction. This proposal also presents the detailed estimate for the proposed costs, the basis of the estimate, Golder's proposed staffing and management team, schedule assumptions, and terms and conditions.

CONSTRUCTION OVERVIEW

The following provides a review of the construction activities that will be conducted by a contractor retained by the County at the West Nassau Landfill. This review provides a background for determining the scope of services that Golder will provide under this task order. The contractor will be responsible for the installation/construction of the following components of the closure cover system in accordance with the project specifications and drawings:

- Landfill Gas Collection and Control System (GCCS) improvements;
- Grading (including cutting and filling) of the existing surface to meet the design grades as presented in the Bid Package;
- Leveling course layer;
- Geomembrane (linear low density polyethylene (LLDPE) liner);
- Geotextile above the geomembrane;
- Protective soil layer, topsoil, and sod;
- Stormwater conveyance system (including terraces, inlets, downcomers, etc.); and
- Fencing.

Work associated with the GCCS will include the replacement of the existing landfill gas system header and condensate system above the liner within the closure area, including the construction/installation of the following components:

- Installation of replacement gas extraction wells;
- Landfill gas collection header and lateral piping;

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Jacksonville, FL 32256 USA
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- Gas control valves;
- Connections to the leachate collection system cleanouts; and
- Modifications to the existing condensate sumps.

As per the project specifications, the contractor is responsible for submittals prior to the start of construction regarding the materials to be used in the construction of the above components. The purpose of the submittals is to confirm that the materials to be used are in compliance with the project specifications and drawings. Additionally, the contractor is responsible for surveying for the project, including layout and as-built documentation.

SCOPE OF SERVICES

Golder has developed the following task structure for this project:

Task 1: CQA Monitoring Services

Task 2: Construction Management

Task 3: Design Support

Task 4: Project Management

Task 5: Construction Record Documentation Report

The following sections provide a description of the scope of services anticipated under each of the above tasks.

Task 1 – CQA Monitoring Services

Golder will provide construction quality assurance (CQA) monitoring services on a full-time basis during the construction activities as described above. Golder will provide one CQA monitor for the duration of the project. During certain activities, i.e., during geosynthetics installation, and during GCCS well replacement activities, two CQA personnel are anticipated to be on site at the same time based on the anticipated concurrent activities. The specific services to be provided under the CQA monitoring services task are as follows:

- Attend all construction meetings (one CQA monitor only);
- Report deficiencies noted during construction to the Construction Manager;
- Obtain samples of leveling layer, protective cover soil, and topsoil materials for laboratory and field testing as determined necessary for the project. Limited soil testing will be conducted by Golder's soils laboratory;
- Obtain samples of the geosynthetic materials for testing as required for the project. All required geosynthetic materials laboratory testing (including conformance and installation) will be conducted by Golder's geosynthetics laboratory;
- Observe placement of leveling layer and cover soil layer;
- Visual examination of the subgrade for the liner system for unacceptable areas;
- Observe and document the phases of the LLDPE liner installation, including panel placement, trial seams, welding, non-destructive testing, and all necessary repairs;
- Obtain, ship, and document geomembrane destructive samples for laboratory testing (by Golder's laboratory);
- Observe and document installation of the geotextile;

- Observe installation of the terrace drainage system, drainage ditch construction, and the stormwater piping and associated inlet and outlet structure construction (including installation of grout filled fabric reinforcement (GFFR)); and
- Observe and document the installation of gas extraction wells, piping and condensate components associated with the landfill gas system improvements.

The CQA monitor(s) will report to the Certifying Engineer and will communicate regularly with both the Construction Manager and the Certifying Engineer regarding construction progress, construction activities, and any variations from the project specifications and/or drawings. The Certifying Engineer will be responsible for assuring that the proper documentation is being collected and that the CQA Monitors are performing their duties in accordance with the above scope. The Certifying Engineer will be responsible for the preparation of the Construction Certification Report that will certify that the construction was completed in substantial compliance with the project specifications and drawings (see Task 5). To accomplish this, the Certifying Engineer will make occasional site visits to review the documentation and construction progress; which is included under this Task 1.

Task 2 – Construction Management

This task includes construction management of the construction project on behalf of the County; we have assumed that the County will not have staff on site that is responsible for construction management. The Construction Manager (CM) will be the County's on-site representative and will be responsible for the day-to-day construction oversight at the West Nassau Landfill. However, for cost considerations and as detailed later in this cost proposal, the CM is not anticipated to be on site on a full-time basis. It is important to note that the scope of work for the CM and/or Golder does not include management of the contractor, its subcontractors, or its employees. Included in the duties of the CM are:

- Tracking and reviewing the contractor's schedule and alerting the County and Project Manager if the schedule is slipping;
- Attendance and documentation at all construction meetings, including weekly status meetings and issues meetings. CM will compile and distribute meeting minutes;
- Track submittals from the contractor, including schedule of submission, checking the appropriate content, distribution of submittals to design engineer, and the acceptance/rejection/modifications made to the submittals;
- Review and provide recommendation and documentation, as necessary, to the County of the contractor's applications for payment;
- Track material deliveries and coordinate appropriate sampling and testing;
- Track and review laboratory testing of soils and geosynthetics by Golder (3rd party) laboratory;
- Track and review laboratory and field testing results conducted by contractor's testing subcontractor;
- Coordinate field activities;
- Maintain communication flow throughout the project; and
- Provide monthly summary reports to the County that will provide an update as to the performance of the contractor regarding schedule, invoicing, and any issues or problems that have been encountered and how they were resolved.

The CM will be responsible for keeping the Certifying Engineer and the Project Manager informed of the progress of the project and any issues or variations from the design that may occur.

Task 3 – Design Support

This task includes the required input from the design engineer for the Final Closure Construction. The design engineer is the engineer of record for the Final Closure System design, Kevin Brown, PE, of Golder. Mr. Brown will also be the Certifying Engineer for the project. The role of the design engineer includes review of the contractor submittals to confirm that the materials are in accordance with the project specifications, make occasional site visits to address any design-related issues, and participate in construction meetings (primarily by telephone). The CM will provide submittals to the design engineer who will provide a response of either no exception taken, exceptions as noted, submit specified item, revise and resubmit, or rejected to the CM. Any additional information or clarification that is provided or any re-submittal will be reviewed by the design engineer and returned as appropriate until there are no exceptions taken. In addition, the design engineer will be responsible for reviewing and approving (or denying) substitutions or alternates proposed by the contractor, as well as providing clarifications to the design, as necessary or as requested by the contractor. The work under this task will include efforts by a design team working under the design engineer, although the design engineer will have final approval of the work conducted.

Task 4 – Project Management

This task includes Project Management associated with coordination of Golder's office and field personnel and managing Golder's costs during the Final Closure Construction through the completion of the Construction Record Documentation Report. The Project Manager, Wendy Karably, will also be the primary point of contact with the County. The Project Manager is responsible for assuring that the project is staffed appropriately with qualified personnel that are capable of performing the required tasks. Additionally, the Project Manager is responsible for tracking Golder's costs and notifying the County of changes in scope, if any, as they arise and to work with the County and the contractor to control oversight and construction management costs as much as possible. The Project Manager will provide invoices on a monthly basis for the work performed by Golder and will include with the invoice a summary of the work performed and the work anticipated for the next billing period. This progress report will also include a cost control summary that will show the status of the invoicing and the budget status. The summary will also provide a general status of the construction progress with respect to the contractor's schedule and the contractor's invoicing.

Additionally, the Project Manager will provide assistance to the CM in tracking the construction schedule and reviews of the contractor's applications for payment. The Project Manager will attend the pre-construction meeting and will occasionally attend construction status meetings to track the project progression. The Project Manager will also track the review and documentation of the submittals and design changes so that the necessary effort for the Construction Record Documentation Report can be managed. As stated above, the Project Manager will be the primary point of contact throughout the project and will be responsible for the overall effort on the project by Golder personnel.

Task 5 – Construction Record Documentation Report

This task includes the preparation of a Construction Record Documentation Report that details construction and CQA activities during the Final Closure Construction. This document will be prepared at the completion of the construction and submitted as soon as possible to obtain FDEP approval of the construction. Specific activities associated with the Final Closure Construction Record Documentation Report include the following:

- Coordinate and review record drawings prepared by the Surveyor-of-Record. Revisions to the record drawings would be the responsibility of the surveyor. Record drawings for the certification report will include, but not necessarily be limited to: the certification drawings for the subgrade; for the geomembrane base layer; for the geomembrane including the seams, reconstructed seams, destructive seam test locations, anchor trenches, and patches; for the protective cover soil and topsoil/sod layer; and for the GCCS improvements (gas extraction wells, header and lateral lines, and modifications to appurtenances associated with the GCCS). The drawings provided for the

geomembrane base layer, protective cover soil layer, and the topsoil/sod layer shall state the thickness of the layer at each certification point.

- Prepare Construction Record Documentation Report describing the scope of CQA work and field activities. This report will state that the project was completed in substantial conformance with the Closure Construction Permit, Project Specifications, Construction Drawings, CQA Program, and approved changes or exceptions noted. The report will include conformance and CQA test data along with field reports and other relevant correspondence.
- A draft of the Construction Documentation Report will be submitted to the County for review within four weeks of completion of CQA activities and receipt of the project record drawings. The final report will then be submitted to the FDEP within 14 calendar days from the receipt of County comments. Two copies of the final CQA Report will be provided to the County, two copies of the report will be provided to FDEP, and Golder will retain two copies of the report.

SCHEDULE ASSUMPTIONS

This cost proposal is being prepared based on the schedule provided by the lowest cost bidder (COMANCO) in its bid for the construction project. Because the contractor has not been officially selected as of the date of this cost proposal, the exact start date has not been included, but Golder is standing by and ready to commence work as required by the approval process. We anticipate that the contract will be awarded in mid-May and that mobilization will be in late May or early June 2011. The following are some of the schedule assumptions on which the cost estimate (next section) was developed. Again, these are based on the schedule provided by COMANCO, a copy of which is included in Attachment 1 to this proposal:

- The Final Closure construction (including the GCCS improvements), as provided in the lowest bidder's (COMANCO's) bid, will be conducted for 308 days – from mobilization through demobilization, (which are the working days shown with the contractor working 5, 10-hour days per week). For non-site work cost estimation, the construction schedule as shown was 14.5 months, which at 4 weeks/month is 58 weeks. Additionally, there are approximately 4 weeks shown on the schedule prior to mobilization, to include the beginning of the submittal review process, surveying, and the pre-construction meeting.
- The CM is estimated to work on average 12 hours per week during the 58-week construction period, and about 24 additional hours during multiple contractor activities. Further, Golder assumes that an additional 20 hours per week will be required for the CM during the first four weeks of the schedule (prior to mobilization) because of the anticipated submittal coordination, material tracking, and project start-up;
- A second CQA Monitor will be required to be on site during the geosynthetics installation and gas extraction well drilling/installation. The time required based on the schedule is 90 days for the geosynthetics and 15 days for the gas extraction well installation; and
- The Project Manager will work on average 3 hours per week for the duration of the construction project (60 weeks), and 2 hours per week for the 6-week estimated reporting schedule (Golder's). An additional 38 hours are estimated to be necessary for project kick-off and completion.

In the event of project delays or an extended schedule, Golder will notify the Board prior to committing additional resources.

COST ESTIMATE

Golder appreciates this opportunity to provide CQA and CM services to Nassau County during the Final Closure Construction. Because of the lengthy schedule for this project and in an effort to simplify billing, Golder has provided alternate rates that allow us to reduce our typical hourly costs for the full- and part-time field efforts (the bulk of the labor costs) and hopefully minimize costs to Nassau County where

possible. These field efforts are included as daily rates and they include labor (for an average 10-hour day), field vehicle and fuel, H&S equipment, field testing equipment, shipping charges, and general field supplies. Additionally, some of our hourly rates (still at the 2009 rate level) have been adjusted so that most of the direct costs associated with travel and other expenses are included. Consequently, Golder's invoice will include daily rates for field work, effort (hours) expended by non-field personnel, laboratory charges, miscellaneous direct costs for reporting (certification report), and an office services fee. Please note that the office services fee is only applied to the non-field work labor and covers usual and customary office charges such as telephone, facsimile, photocopies, AutoCAD and office computer charges. Also, the office services fee is reduced for this project to 5 percent of the labor charges (down from 7 percent from our current cost structure for most projects).

Golder's cost estimate to complete the work as described in the above scope of services is \$663,790. A detailed breakdown of the costs for each task and the labor and expenses estimated are included in the attached Table 1. As shown on the attached table, the daily rates that include labor and direct costs are included in the "expenses" portion of the table, even though it includes labor. Consequently, the columns that reflect subtotals for labor and expenses are not entirely accurate. As discussed under the schedule assumptions, the estimated hours and days included in this cost estimate are based solely on the contractor's (COMANCO's) schedule, so if the schedule is revised, our costs may be affected. The following provides some additional assumptions used to develop this cost estimate, along with the schedule assumptions above:

- The Certifying Engineer/Design Support personnel will conduct approximately 8 individual site visits during the course of the project, in addition to review of CQA data and design review of submittals;
- Golder will be provided field office space by the contractor. This includes access to a photocopier and sanitary facilities, as well as space for a laptop computer set-up, a filing cabinet, and field supplies;
- The contractor's subcontract soils testing firm will conduct all conformance and installation testing on the soil components, as required by the specifications and CQA Plan. Golder has included limited soils testing as confirmation of the subcontractor's results;
- As discussed above, Golder will conduct laboratory testing of geosynthetics, both conformance testing and installation testing as required by the project specifications, CQA Plan, and the closure permit. Golder proposes to use our laboratory located in Atlanta, Georgia for laboratory testing. Golder's Atlanta laboratory is accredited by the Geosynthetic Institute (GSI) and can provide the quality results in a timely manner. Limited soil testing will include three proctor tests, five sieve analyses, and two pH tests. Geosynthetics testing includes the following tests at a rate of 1 test per 100,000 square feet of material (15 samples): carbon black and carbon content and density tests, thickness and asperity height tests, and tear and puncture resistance testing on the LLDPE; mass per unit area, grab and puncture strength, and apparent opening size testing on the geotextile. In addition, one interface friction test will be conducted for each component of the layers of soil and LLDPE (i.e., soil and geomembrane, geomembrane and geotextile, and geotextile and soil). One transmissivity test will also be conducted on the geosynthetics as required by the permit ; and
- Destructive testing of the LLDPE seams will be conducted at Golder's laboratory and it is assumed that 150 destructive tests will be required (based on one test for every 500 linear feet of seam, plus a few tests of failed seams.

We propose to perform this work on a cost reimbursable not-to-exceed basis in accordance with labor, daily, and unit rates shown on the attached table. The office services fee does not include color photocopies or drawing reproduction (black and white or color) so an estimate of these costs are included on Table 1 for the Record Documentation Report. When the daily rates are used, the Board will be invoiced for the number of days worked during the invoice period. If work is not conducted for a portion of

a day due to weather or other factors not controlled by Golder, one-half days may be invoiced (for work less than 5 hours). When hourly rates (as shown on the attached table) are used, the Board will only be billed actual hours expended on the project for work within the agreed scope of services. The cost estimate will not be exceeded without prior authorization from the Board.

TERMS AND CONDITIONS

This work will be performed under the Agreement for Consulting Services between Golder and the County, dated February 22, 1999.

Golder appreciates this opportunity to provide our services to Nassau County. If you have any questions regarding this cost proposal, please do not hesitate to call.

Sincerely,

GOLDER ASSOCIATES INC.

Steven D. Grigg

for Don E. Grigg
Senior Project Engineer

Wendy D. Karably

Wendy D. Karably
Senior Consultant and Principal

cc: Becky Diden, Solid Waste Department
Kevin Brown, Certifying Engineer

WDK/veh

Attachments: Attachment 1 – COMANCO's Schedule
Attachment 2 – Table 1 - Cost Estimate

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ATTACHMENT 1
COMANCO'S SCHEDULE

ID	Task Name	Duration	Start	Finish	2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd		
					Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul		
1	West Nassau Landfill Closure	335 days	Mon 4/4/11	Fri 7/20/12																		
2	Mobilization	115 days	Mon 4/4/11	Mon 9/12/11																		
3	Submittal Review Process	45 days	Mon 4/4/11	Fri 6/3/11																		
4	Pre-Construction Meeting	1 day	Mon 4/25/11	Mon 4/25/11																		
5	Surveying	20 days	Mon 5/9/11	Mon 9/12/11																		
6	Mobilization	5 days	Mon 5/9/11	Fri 5/13/11																		
7	Install Erosion Control Measures	3 days	Mon 5/9/11	Wed 5/11/11																		
8	<u>Begin Construction</u>	0.01 days	Wed 5/11/11	Wed 5/11/11																		
9	Closure Construction	293 days	Wed 5/18/11	Fri 7/6/12																		
10	Site Grading/Cut of Landfill	60 days	Wed 5/18/11	Wed 8/10/11																		
11	Compaction of Waste On Landfill	60 days	Mon 6/20/11	Mon 9/12/11																		
12	Leveling Layer/Soil Fill	45 days	Tue 9/13/11	Mon 11/14/11																		
13	Gas Extraction Wells	15 days	Mon 7/11/11	Fri 7/29/11																		
14	Underdrain Installation	30 days	Mon 8/1/11	Fri 9/9/11																		
15	Liner System Installation	90 days	Mon 9/26/11	Mon 3/5/12																		
16	Final Cover Soil	90 days	Thu 11/17/11	Fri 7/6/12																		
17	Install Landfill Gas Piping	45 days	Mon 12/5/11	Thu 3/29/12																		
18	Install SW Terraces and Piping	45 days	Mon 1/30/12	Mon 4/30/12																		
19	GFFR	30 days	Mon 2/27/12	Mon 5/14/12																		
20	Fence Installation	5 days	Mon 6/4/12	Fri 6/8/12																		
21	Sod Installation	30 days	Tue 2/21/12	Fri 7/6/12																		
22	Project Closeout	10 days	Mon 7/9/12	Fri 7/20/12																		
23	<u>Substantial Completion of Project</u>	0.01 days	Fri 7/13/12	Fri 7/13/12																		
24	Final Cleanup	5 days	Mon 7/9/12	Fri 7/13/12																		
25	Demobilization	5 days	Mon 7/16/12	Fri 7/20/12																		

Project: West Nassau Landfill Closure Date: Wed 3/23/11	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	

ATTACHMENT 2
TABLE 1 - COST ESTIMATE

**TABLE 1
COST ESTIMATE**

**CQA/CM/Design Support for Final Closure Construction
West Nassau Landfill
Callahan, Nassau County, Florida**

LABOR		LABOR CATEGORY AND RATE										TOTAL HOURS	SUBTOTAL LABOR
		Principal/ Sr. Consult	Senior Consultant	Senior Engineer	Senior Proj. Eng.	Project Engineer	Staff Engineer II	Engineer I	Drafting	Senior Technician	Senior Admin		
TASK	DESCRIPTION	\$190	\$173	\$145	\$130	\$110	\$95	\$80	\$90	\$85	\$85		
1000	CQA Services	0	156	0	0	0	0	0	0	40	60	256	\$34,288
2000	Construction Management	0	58	0	800	0	0	0	0	0	60	918	\$117,934
3000	Design Support	0	126	0	60	0	100	0	40	0	36	362	\$45,038
4000	Project Management	0	230	0	40	0	40	0	0	0	60	370	\$52,690
5000	Construction Record Documentation Rpt	0	30	0	100	0	0	20	60	80	40	330	\$34,590
TOTALS:		0	600	0	1000	0	140	20	100	120	256	2236	\$284,540

EXPENSES		Daily CQA Coverage \$850	Daily CQA 2nd Rep. \$800	Field Equipment (est.)	Mileage (mle) \$0.51	Laboratory Costs (est.)	Shipping Costs (est.)	Travel Costs (est.)	Color Copies (pg.) \$2	Drawing Reproduction (est.)	Office Services Fee (5% of Labor)	Sub-contractors	SUBTOTAL EXPENSES
TASK	DESCRIPTION												
1000	CQA Services	308	105	\$0	0	\$16,000	\$0	0	0	\$0	\$3,237	\$0	\$365,037
2000	Construction Management	0	0	\$0	0	\$0	\$0	0	0	\$0	\$5,896	\$0	\$5,896
3000	Design Support	0	0	\$0	0	\$0	\$0	0	0	\$500	\$2,252	\$0	\$2,752
4000	Project Management	0	0	\$0	0	\$0	\$0	0	0	\$0	\$2,635	\$0	\$2,635
5000	Construction Record Documentation Rpt	0	0	\$0	0	\$0	\$0	100	\$1,000	\$1,730	\$0	\$0	\$2,930
TOTALS:		\$261,800	\$84,000	\$0	\$0	\$16,000	\$0	\$0	\$200	\$1,500	\$15,750	\$0	\$379,250

COST SUMMARY				
TASK	DESCRIPTION	SUBTOTAL LABOR	SUBTOTAL EXPENSES	TASK TOTAL
1000	CQA Services	\$34,288	\$365,037	\$399,325
2000	Construction Management	\$117,934	\$5,896	\$123,830
3000	Design Support	\$45,038	\$2,752	\$47,790
4000	Project Management	\$52,690	\$2,635	\$55,325
5000	Construction Record Documentation Rpt	\$34,590	\$2,930	\$37,520
TOTALS		\$284,540	\$379,250	\$663,790

- Notes: 1. The daily CQA rate includes labor at 10 hrs/day, field vehicle and fuel, H&S equipment, field equipment, shipping costs, general supplies.
2. Labor and expense totals are not accurate as most of the daily rate is labor, but the daily rates are included in the expenses subtotal.