

**WORK AUTHORIZATION # CM2096-WA07
NASSAU COUNTY
BOARD OF COUNTY COMMISSIONERS
RFQ/BID NO. NC13-033**

Consultant:	S2L, Incorporated
Contract Number:	CM2096
Contact Name:	Sam Levin, P.E.
Contact Number:	407-475-9163
Email:	Slevin@s2Li.com

CURRENT WORK AUTHORIZATION			
Project Short Title: Well No. 2i Investigation at the Bryceville Landfill			
		CONTRACT OVERVIEW	
		Total of Previous Authorizations	\$362,198.50
Date Submitted	12/11/2014	Adjustments/Change Orders	(\$327.66)
Amount	\$6,499.93	This Work Authorization	\$6,499.93
Scheduled Completion	21 days from NTP	Current Contract Total	\$368,370.77

This Work Authorization is to the AGREEMENT between Nassau County and the Consultant known as the Continuing Contract for Professional Engineering Services – Solid Waste Landfills and Other Related Ancillary Facilities for Nassau County, Florida, dated April 16, 2014. The services to be provided under this Work Authorization are as follows:

ARTICLE 1. Services Described as:

S2Li will provide engineering and hydrogeological consulting services in an attempt to determine the potential cause of lead concentrations reported in groundwater samples from the Bryceville Landfill Well No. 2i, in accordance with the scope of services, attached hereto as Attachment "A".

ARTICLE 2. Time Schedule

S2Li anticipates that the services described herein are expected to be completed within 21 days of written Notice to Proceed contingent upon the availability of equipment.

ARTICLE 3. Budget

The cost estimate to conduct the Work as described in the Scope of Services is \$6,499.93. A detailed breakdown for each tasks with the estimated labor hours and expense are included in the Exhibit 1 of Attachment "A". Costs incurred will be invoiced on a time and material basis.

Article 4. Other Provisions

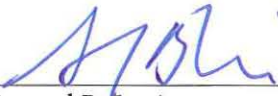
The Services covered by this Work Authorization will be performed in accordance with the provisions set forth in the AGREEMENT referenced above and any of its attachments or schedules. Additional terms or contract provisions whether submitted purposely or

inadvertently, shall have no force or effect. This Work Authorization will become a part of the referenced AGREEMENT when executed by both parties.

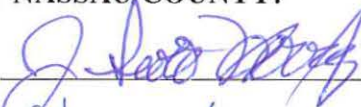
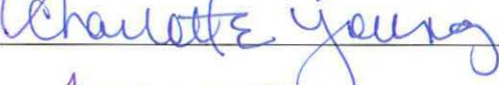


In presenting this Work Authorization, Consultant agrees that:

Unless detailed herein, all drawings, data, electronic files and other information required for this Work Authorization has been accepted by Consultant. Specifically, all electronic files have been reviewed and accepted for the purposes of this Work assignment. Any additional information, including detailed scope of services are attached.

AGREED TO BY: S2L, Incorporated

BY: 
Print Name: Samuel B. Levin
Title: President
Date: January 22, 2015

RECOMMENDED AND APPROVED BY NASSAU COUNTY:

Director of Public Works: 
Contract Management: 
Office of Management and Budget: 
County Manager: 

APPROVED by the BOARD OF COUNTY COMMISSIONERS (designee), the 5th day of February, 2015

ACCOUNT NO.: 70364534-531000

Scope of Services

Well No. 2i Investigation
at the
Bryceville Landfill

County Contract Number: CM2096-WA07
S2Li Project Number: 14-578

Monitoring Well MW-2i at Nassau County's closed Bryceville Landfill has, since 1999, produced groundwater samples with analytical results for lead exceeding the Primary Drinking Water Standards Maximum Contaminant Level of 15 ug/l. Reported lead concentrations at the well have ranged from 19 ug/l to 374 ug/l. The most recent result in June 2014 was 69 ug/l. Sample turbidity has, from time to time, ranged above the Florida Department of Environmental Protection (FDEP) recommend limit of 20 NTUs. Elevated turbidity does not appear to correlate directly to exceeding lead concentrations reported.

The total depth of MW-2i was reported prior to December 2000 at 62 feet below top of casing. Beginning in December 2000, total well depth was reported to be 55.52 feet. Either total depth was mis-measured at some point, or the well has filled in with sediment or other obstruction. The original well construction completion report from September 1990 specifies total well depth at 62.85 feet below top of casing.

Nassau County (County) has asked S2L, Incorporated (S2Li) and its team of subconsultants (collectively known as the S2Li Team) to complete an investigation of monitoring well MW-2i in an attempt to determine whether lead concentrations reported in groundwater samples from the well are the result of sediment infilling or the presence of a foreign object, such as a lead weight, in the bottom of the well. Use and loss of lead weights on water level measuring devices are not uncommon.

This Work Authorization will provide engineering and hydrogeological consulting services in an attempt to determine the potential cause of lead concentrations reported in groundwater samples from the Bryceville Landfill Well No. 2i.

Scope of Services

Under the scope of services for this Work Authorization, S2Li Team will perform the following:

1. Measure the apparent total depth of the well for comparison to the original as-built construction depth and determine whether the well appears to be in-filled with sediment by physically probing from the wellhead;
2. Clear and visually evaluate any sediments present in the lower portion of the well using air-lift equipment until the original total well depth is attained. Equipment used in the investigation will be decontaminated in accordance with the latest issue of the FDEP Standard Operating Procedures for Field Activities prior to introduction into the well;

4. Redevelop the well using conventional pumping equipment until produced groundwater is clear and free of suspended particles and fluid turbidity measurements less than 20 NTUs are consistently measured;
5. Complete a visual survey of the interior of the well using a down-hole video camera to look for foreign objects which might have fallen into the well; and
6. Prepare a written letter report documenting the results of the field investigation and presenting conclusions (if possible) regarding a possible link between sediments or objects found in the well and high lead concentrations reported in groundwater samples.

Schedule

Work Authorization under the Scope of Services provided above is expected to be completed within 21 days of a written Notice-to-Proceed contingent upon the availability of equipment.

Cost Estimate

The cost estimate to conduct the Work as described in the above listed Scope of Services is \$6,499.93. A detailed breakdown with the estimated labor hours, contract labor rates, and expenses are included in the attached Exhibit 1 for the S2Li Team. Costs incurred will be invoiced on a time and material basis. The County will be notified when the overall project budget is nearing its limit.

Total Project Costs
S2Li Fee Estimate

Well No. 2i Investigation
 Bryceville Landfill
 Nassau County, Florida

LABOR		LABOR CATEGORY AND RATE						TOTAL HOURS	SUBTOTAL LABOR	
		Project Dir./ Principal	Regional Manager/ QC Officer	Principal Engineer	Senior Engineer	Associate Engineer	CAD Technician			Office Manager
TASK	DESCRIPTION	\$225.00	\$208.88	\$171.38	\$122.51	\$47.47	\$47.47	\$68.46		
	Well No. 2i Investigation and Groundwater Contouring	1	8	0	0	0	0	4	13	\$2,169.88
	SUBTOTALS:	1	8	0	0	0	0	4	13	\$2,169.88

EXPENSES AND SUBCONSULTANTS		Field Vehicle (\$90/day)	Lab Testing (est.)	Equipment Rental (est.)	Parts (est.)	The Colinas Group (see attached)			SUBTOTAL EXPENSES	
TASK	DESCRIPTION									
	Well No. 2i Investigation and Groundwater Contouring	\$ -	\$ -	\$ -	\$ -	\$ -	\$4,330.05		\$ 4,330.05	
	SUBTOTALS:	\$ -	\$ -	\$ -	\$ -	\$ -	\$4,330.05	\$0	\$0	\$ 4,330.05

COST SUMMARY				
TASK	DESCRIPTION	SUBTOTAL S2Li LABOR	SUBTOTAL EXPENSES including Subconsultants	TASK TOTAL
	Well No. 2i Investigation and Groundwater Contouring	\$ 2,169.88	\$ 4,330.05	\$ 6,499.93
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
	TOTALS	\$ 2,169.88	\$ 4,330.05	\$ 6,499.93

December 11, 2014

Attachment - The Colinas Group Fee Estimate - Subconsultant

Well No. 2i Investigation
 West Nassau Class I Landfill
 Nassau County, Florida

S2Li No. 14-578

County No. CM2096-WA07

LABOR		LABOR CATEGORY AND RATE										TOTAL HOURS	SUBTOTAL LABOR	
		Principal Consultant \$145.60	Senior Hydrogeologist \$117.60	Staff Hydrologist \$86.20	Env. Field Technician \$84.15	Draftperson/ CAD \$60.00	Clerk/ Word Process. \$37.50							
TASK	DESCRIPTION													
	Well No. 2i Investigation and Groundwater Contouring	4	8	8	14	4	4					0	42	\$3,780.90
	SUBTOTALS:	4	8	8	14	4	4					0	42	\$3,780.90

EXPENSES		Field Vehicle (\$90/day)	Lab Testing (est.)	Equipment Rental (est.)	Parts (est.)	Landtec Web Data Base (\$500/m)	Subcontractors (est.)							SUBTOTAL EXPENSES
TASK	DESCRIPTION													
	Well No. 2i Investigation and Groundwater Contouring (Air-Lift/Camera Rental)	\$ 180	\$ -	\$ 369.15	\$ -	\$ -	\$ -	\$ -						\$ 549.15
	SUBTOTALS:	\$ 180	\$ -	\$ 369	\$ -	\$ -	\$ -	\$ -						\$ 549.15
												TOTAL	\$4,330.05	