BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY, FLORIDA
PROFESSIONAL SERVICES AGREEMENT
NO. 18-R00129/PH

THIS AGREEMENT made and entered into this 14th day of MAY, 2019, by and between HERNANDO COUNTY BOARD OF COUNTY COMMISSIONERS, 20 N. Main St., Brooksville, Florida, a political subdivision of the State of Florida, hereinafter called the COUNTY and HDR Engineering, Inc., 4830 W. Kennedy Blvd., Suite 400, Tampa, FL 33609, duly authorized to conduct business in the State of Florida, hereinafter called the PROFESSIONAL.

WITNESSETH:

SECTION 1. The COUNTY does hereby retain the PROFESSIONAL to furnish certain services in connection with:

Engineering Services for the Hernando County Solid Waste Department Cell 4 Expansion Project

SECTION 2. The PROFESSIONAL and the COUNTY mutually agree to furnish, each to the other, the respective services, information and terms as described in Exhibit "A", attached hereto and made a part hereof.

Before any additions or deletions to the work described in Exhibit "A", and before undertaking any changes or revisions to such work, the parties shall negotiate any necessary cost changes and shall enter into a supplemental written AGREEMENT covering such modifications and the compensation to be paid therefor.

Reference herein to this Agreement shall be considered to include any supplement thereto.
Reference herein to COUNTY Administrator shall mean the Hernando County Administrator or his designee.

SECTION 3. The services indicated in Exhibit "A" to be rendered by the PROFESSIONAL shall be commenced, subsequent to the execution of this AGREEMENT, upon written notice from the Hernando County Administrator, and shall be completed within forty-eight (48) months or through construction completion , whichever is greater.

SECTION 4. The PROFESSIONAL agrees to provide Project Schedule progress reports in a format acceptable to the COUNTY, either monthly or at intervals established by the COUNTY. The COUNTY will be entitled at all times to be advised, at its request, as to the status of work being done by the PROFESSIONAL and of the details thereof. Coordination shall be maintained by the PROFESSIONAL with representatives of the COUNTY. Either party to the Agreement may request and be granted a conference.

SECTION 5. In the event there are delays on the part of the COUNTY as to the approval of any of the materials submitted by the PROFESSIONAL, as if there are delays occasioned by circumstances beyond the control of the PROFESSIONAL which delay the project schedule completion date, the COUNTY shall grant to the PROFESSIONAL, by "Letter of Time Extension" an extension of the Contract time, equal to the aforementioned delays, provided there are no changes in compensation or scope of work, except those changes that may be agreed upon between the parties hereto.

It shall be the responsibility of the PROFESSIONAL to plan its work schedule at all times so that sufficient Contract time remains within which to complete all services on the project. In the event there have been delays that would affect the project completion date, the PROFESSIONAL shall submit a written request to the COUNTY that identifies the reason(s) for the delay and the amount of time related to each reason. The COUNTY shall timely review the request and make a determination as to granting all or part of the requested extension.

In the event Contract time expires and the PROFESSIONAL has not requested, or if the COUNTY has denied an extension of the completion date, partial progress payments will be stopped on the date time expires. No further payment for the project will be made until a time extension is granted or all work has been completed and accepted by the COUNTY.

SECTION 6. The PROFESSIONAL shall maintain an adequate and competent professional staff within the State of Florida and may associate with Specialists, Sub-Professionals and/or other Professionals, for the purpose of its services hereunder, without additional cost to the COUNTY. Should the PROFESSIONAL desire to utilize other Specialists, Sub-Professionals and/or Professionals in the performance of the work, the PROFESSIONAL shall be responsible for satisfactory completion of all such Specialists', Sub-Professionals' and/or other Professionals' work, and may not assign or transfer work under this Agreement to other Specialists, Sub-Professionals or Professionals unless approved in writing by the COUNTY. It is agreed that only Specialists, Sub-Professionals and/or other Professionals which have been approved by an authorized representative of the COUNTY will be used by the PROFESSIONAL. It is also agreed that the COUNTY will not, except for services so designated herein, or as may be approved by the COUNTY, if applicable, permit or authorize the PROFESSIONAL to perform less than the total Contract work with other than its own organization.

SECTION 7. All final plans, documents, reports, studies and other data prepared by the PROFESSIONAL will bear the endorsement of a person in the full employ of the PROFESSIONAL and duly registered in the appropriate professional category.

a) After the COUNTY'S acceptance of final plans and documents, a reproducible form of the PROFESSIONAL'S drawings, tracings, plans and maps will be provided to the COUNTY. Upon completion of construction by the Contractor, the PROFESSIONAL shall furnish acceptable field verified "record drawings" of full-size prints. The PROFESSIONAL shall signify, by affixing an appropriate endorsement, on every sheet of the record sets, that the work shown on the endorsed sheets was reviewed by the PROFESSIONAL. With the tracings and the record sets of prints, the PROFESSIONAL shall submit three (3) final sets of operation and maintenance manuals.

b) The PROFESSIONAL shall not be liable for use by the COUNTY of said plans, documents, studies or other data for any purpose other than stated in the Scope of Services, Exhibit "A" of this Agreement.

SECTION 8. All tracings, plans, specifications, maps, surveys, field survey notes, and/or reports prepared or obtained under this Agreement shall be considered works made for hire and shall become the property of the COUNTY restricted to the terms of Section (7) above; and reproducible copies shall be made available, upon request, at direct printing costs, to the COUNTY at any time during the period of this Agreement. The COUNTY will have the right to visit the site for inspection of the work and the drawings of the PROFESSIONAL at any time. Unless changed by written agreement of the parties, said site shall be the address of the firm. Records of cost incurred under the terms of this Agreement shall be maintained and made available upon request of the COUNTY at all times during the period of this Agreement and for five (5) years after final payment is made. Copies of these documents and records shall be furnished to the COUNTY upon request at direct printing cost.

Records of cost incurred includes the PROFESSIONAL project accounting records, together with supporting documents and records of the PROFESSIONAL and all Specialists, Sub-Professionals and/or other Professionals performing work on the project, and all other records of the PROFESSIONAL and Specialists, Sub-Professionals and/or other Professionals considered necessary by the COUNTY for a proper audit of project costs.

Whenever travel costs are included in Exhibit B, the provisions of Section 112.061 (Current Edition), Florida Statutes, shall govern as to reimbursable costs.

The PROFESSIONAL shall furnish to the COUNTY at direct printing cost all final work documents, papers and letters, or any other such materials which may be subject to the provisions of Chapter 119 (Current Edition), Florida Statutes, made or received by the PROFESSIONAL in conjunction with this project. Failure by the PROFESSIONAL to provide such records shall be grounds for immediate unilateral cancellation of the Agreement by the COUNTY.

SECTION 9. The PROFESSIONAL shall comply with all federal, state and local laws and ordinances applicable to the work or payment thereof, and shall not discriminate on the grounds of race, color, religion, sex or national origin in the performance of work under this Agreement.

SECTION 10. The COUNTY agrees to pay the PROFESSIONAL compensation as detailed in Exhibit B, attached hereto and made a part hereof. Unless otherwise agreed to, this is a lump sum Contract. No additional fees or expenses will be paid.

SECTION 11. The PROFESSIONAL is employed to render a professional service only and payments made to the PROFESSIONAL are compensation solely for such services rendered and recommendations made in carrying out the work. The PROFESSIONAL shall perform and complete all work in a professional manner and in accordance with sound engineering and professional consulting practices and principles for similar services provided on similar projects under similar circumstances at the same time and in the same locale.

In performing construction phase services, the PROFESSIONAL may be requested to act as agent of COUNTY. The PROFESSIONAL'S review or supervision of work prepared or performed by other individuals or firms employed by the COUNTY shall not relieve those individuals or firms of complete responsibility for the adequacy of their work.

SECTION 12. The COUNTY may terminate this Agreement in whole or in part at any time where the interests of the COUNTY require such termination.

a) If the COUNTY reasonably determines that the performance of the PROFESSIONAL is not satisfactory, the COUNTY shall:

   1) Notify the PROFESSIONAL of the deficiency, with a requirement that the deficiency be corrected within a reasonable specified time, otherwise the Agreement will be so terminated at the end of such time, and the PROFESSIONAL shall be paid for work satisfactorily completed to such specified date.

b) If the COUNTY requires termination of the Agreement for reasons other than unsatisfactory performance of the PROFESSIONAL, the COUNTY shall notify the PROFESSIONAL of such termination and specify the state of work at which time the Agreement is to be terminated, and the PROFESSIONAL shall be entitled to receive payment of all work reasonably satisfactorily performed hereunder through the date of termination. An allowance for satisfactory work in progress but not yet completed shall be made.

c) If the Agreement is terminated before performance is completed, the PROFESSIONAL shall be paid for work satisfactorily performed. Payment is to be on the basis of substantiated costs, not to exceed the percentage of the work performed.

SECTION 13. Adjustment of compensation and Contract time because of any major changes in the work that may become necessary or desirable as the work progresses shall be left to the discretion of the COUNTY and supplemental Agreement(s) of such a nature as required may be entered into by the parties in accordance herewith.

SECTION 14. All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

SECTION 15. MINIMUM INSURANCE REQUIREMENTS: Consultant/Firm shall procure, pay for and maintain at least the following insurance coverage and limits. Said insurance shall be evidenced by delivery to the County of a certificate(s) of insurance executed by agents of the insurers listing coverage and limits, expiration dates, terms of policies and any and all endorsements, applicable to this Contract, and listing all carriers issuing said policies. The insurance requirements shall remain in effect throughout the term of this Contract for each required policy herein except for Professional Liability.

WORKERS' COMPENSATION: As required by law:

STATE.....Statutory
APPLICABLE FEDERAL.....Statutory
EMPLOYER'S LIABILITY.....Minimum:$100,000
each accident
$100,000 by employee
$500,000 policy limit

Exemption per Florida Statute 440: If a Consultant/Firm has less than three (3) employees and states that they are exempt per Florida Statute 440, they must provide an exemption certificate from the State of Florida. Otherwise, they will be required to purchase Workers' Compensation Insurance and provide a copy of Workers Compensation Insurance.
http://www.myfloridacfo.com/we/exemption.html

GENERAL LIABILITY: Comprehensive General Liability including, but not limited to, Independent Contractor, Contractual Premises/Operations, and Personal Injury covering the liability assumed under the indemnification provisions of this Contract, with limits of liability for personal injury and/or bodily injury, including death.

COVERAGE AS FOLLOWS:

EACH
OCCURRENCE $1,000,000
GENERAL
AGGREGATE $2,000,000
PERSONAL/ADVERTISING
INJURY.....$1,000 ,000
PRODUCTS-COMPLETED OPERATIONS
AGGREGATE $2,000,000

Per Project Aggregate (if applicable)

ALSO, include in General Liability coverage for the following areas based on limits of policy, with minimum of:

FIRE DAMAGE (Any one (1) fire) $50,000
MEDICAL EXPENSE (Any one (1)
person).....$5,000

ADDITIONAL INSURED: Consultant/Firm agrees to endorse Hernando County as an additional insured on the Comprehensive General Liability. The Additional Insured shall read "Hernando County Board of County Commissioners ". Proof of Endorsement is required.

WAIVER OF SUBROGATION: Consultant/Firm agrees by entering into this Contract to a Waiver of Subrogation for each required policy herein. When required by the insurer, or should a policy condition not permit Consultant/Firm to enter into an pre-loss agreement to waive subrogation without an endorsement, then Consultant/Firm agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of

Recovery Against others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should Consultant/Firm enter into such an agreement on a pre-loss basis.

AUTOMOBILE LIABILITY: Comprehensive automobile and truck liability covering any auto, all owned autos, scheduled autos, hired autos, and non-owned autos. Coverage shall be on an "occurrence" basis. Such insurance to include coverage for loading and unloading hazards.

COVERAGE AS FOLLOWS:

COMBINED SINGLE LIMIT (CSL)	$1,000,000
BODILY INJURY (Per Person)	$1,000,000
BODILY INJURY (Per Accident)	$1,000,000
PROPERTY DAMAGE	$1,000,000

[ ] **Not-Required_____(initials)**

PLEASE NOTE: If box is not checked and initialed by Chief Procurement Officer, the specified insurance below is required.

PROFESSIONAL LIABILITY: including Errors and Omissions with minimum limits of $3,000,000.00 per claim and in the annual aggregate, if occurrence form is available; or claims made form with "tail coverage" extending three (3) years beyond completion and acceptance of the project with proof of "tail coverage" to be submitted with the invoice for final payment. In lieu of "tail coverage", Consultant/Firm may submit annually to the County a current Certificate of Insurance proving claims made insurance remains in force throughout the same three (3) year period.

Notwithstanding the requirements for Professional Liability Insurance listed above, Engineer and/or Architect must provide evidence of coverage, a minimum of $1,000,000.00.

[x] **Not-Required_____(initials)**

PLEASE NOTE: If box is not checked and initialed by Chief Procurement Officer, the specified insurance below is required.

BUILDERS RISK INSURANCE: Combined single limit must equal value of the construction, per project aggregate. The policy shall cover portions of the Work in transit, property scaffolding, false work and temporary buildings located at the site. The policy must cover the cost of removing debris, including demolition as may be made legally necessary by the operation of any law, Ordinance or regulation. The insurance required herein must be on an all risk form and must be written to cover all risks of physical loss or damage to the insured party and must insure at least against the perils of fire and extended coverage, theft, vandalism, malicious mischief, collapse, lightening, earthquake, flood, water damage and windstorm. If there are any deductibles applicable to the insurance required herein, Consultant/Firm must pay any part of any loss not covered because of the operation of such deductibles. The insurance as required herein must be maintained in effect until the earliest of the following date:

- Date which all persons and organization that are insured under the policy agree in writing that it must be terminated;

- Date on which final payment of this Contract has been made by County to Consultant/Firm; or
- Date on which the insurable interests in the property of all insured other the County have ceased.
- Wind coverage to be included with a minimum deductible to be determined based on the project. Deductible will be a percentage based upon the total insured value.

[x] Not Required JSW **(initials)**
PLEASE NOTE: If box is not checked and initialed by Chief Procurement Officer, the specified insurance below is required.

CRIME PREVENTION – BOND: Consultant/Firm shall procure a fiduciary bond in the amount of $100,000 covering loss or theft by Consultant/Firm, its Agents, or employees, and shall procure insurance in the amount of $10,000 covering loss or theft by non-employees such as by burglary or robbery for any funds or negotiable instruments under the custody or care of Consultant/Firm that would insure to the benefit of the County.

[x] Not-Required JSW **(initials)**
PLEASE NOTE: If box is not checked and initialed by Chief Procurement Officer, the specified insurance below is required.

EXCESS/UMBRELLA LIABILITY: Consultant/Firm shall provide proof of Excess/Umbrella Liability coverage with minimum limits of $1,000,000. Limits can be increased, based on Contract.

SUB-CONTRACTORS (if applicable): All Sub-Contractors hired by said Contractor are required to provide Hernando County Board of County Commissioners a Certificate of Insurance with the same limits required by the County as required by the Contract. All Sub-Contractors are required to name Hernando County Board of County Commissioners as additional insured and provide a Waiver of Subrogation in regards to General Liability.

SECTION 16. The PROFESSIONAL represents that he has not employed or retained any company or person, other than a bona fide employee working solely for the PROFESSIONAL, to solicit or secure this Agreement, and that he has not paid or agreed to pay any person, company, corporation, individual or firm any fee, commission, percentage, gift or any other consideration, contingent upon or resulting from the award or making of this Agreement. It is understood and agreed that the term "fee" shall also include brokerage fee, however denoted.

a) For the breach of violation of Paragraph (16) the COUNTY shall have the right to terminate this Agreement without liability and, at its discretion, to deduct from the Contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

SECTION 17. Unless otherwise required by law or judicial order, the PROFESSIONAL agrees that it shall make no statements, press releases or publicity releases concerning the Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying the COUNTY and securing its consent in writing. The PROFESSIONAL also agrees that it shall not publish, copyright or patent any of the site-specific data furnished in compliance with this Agreement; it being understood that, under Paragraph (8) hereof, such data or information is the property of the COUNTY. This does not include materials previously or concurrently developed by the PROFESSIONAL for "In House" use. Only data generated by PROFESSIONAL for work under this Agreement shall be the property of the COUNTY.

SECTION 18. Standards of Conduct - Conflict of Interest - The PROFESSIONAL covenants and agrees that it and its employees shall be bound by the standards of conduct provided in Florida Statutes 112.313 (Current Edition) as it relates to work performed under this Contract, which standards is hereby incorporated and made a part of this Contract as though set forth in full. The PROFESSIONAL agrees to incorporate the provisions of this paragraph in any Sub-Contract into which it might enter with reference to the work performed.

SECTION 19. The COUNTY reserves the right to suspend, cancel or terminate the Agreement in the event one or more of the PROFESSIONAL'S Corporate Officers is indicted or has a direct information issued against him for any crime arising out of or in conjunction with any work being performed by the PROFESSIONAL for or on behalf of the COUNTY under this Agreement without penalty. It is understood and agreed that in the event of such termination, that reproducible copies of all tracings, plans, specifications, maps, and data prepared or obtained under this Agreement shall immediately be turned over to the COUNTY in conformity with the provisions of Paragraph (8) hereof. The PROFESSIONAL shall be compensated for its services rendered up to the time of any such termination in accordance with Paragraph (12) hereof. The COUNTY also reserves the right to terminate or cancel this Agreement in the event the PROFESSIONAL shall be placed in either voluntary or involuntary bankruptcy or an assignment be made for the benefit of creditors. The COUNTY further reserves the right to suspend the qualifications of the PROFESSIONAL to do business with the COUNTY upon any such indictment or direct information. In the event that any such person against whom any such indictment or direct information is brought shall have indictment or direct information dismissed or be found not guilty, such suspension on account hereof shall be immediately lifted by the County Administrator.

SECTION 20. INDEMNITY. To the fullest extent permitted by Florida law, the Consultant/Firm covenants, and agrees that it will indemnify and hold harmless the County and all of the County's officers, agents, and employees from any claim, loss, damage, cost, charge, reasonable attorney's fees and costs, or any other expense to extent caused by the negligence, recklessness or intentionally wrongful conduct of Consultant/Firm during the performance of the Contract, whether direct or indirect, and whether to any person or property to which the County or said parties may be subject, except that neither the Consultant/Firm nor any of its Sub-Contractors, or assignees, will be liable under this section for damages arising out of injury or damage to persons or property directly caused or resulting from the sole negligence of the County or any of its officers, agents, or employees.

SECTION 21. All notices required to be served on the PROFESSIONAL shall be served by Registered or Certified mail, Return Receipt Requested, to PROFESSIONAL'S address and all notices required to be served upon the COUNTY shall be served by Registered or Certified mail, Return Receipt Requested, addressed to the County Administrator, Hernando County Board of County Commissioners, 20 N. Main St., Room 460, Brooksville, FL 34601.

SECTION 22. Hernando County reserves the privilege of auditing a vendor's records, by a representative of the County, as such records relate to equipment, goods or services and time based and reimbursable expenditures, therefor, with respect to any express or implied Agreement between Hernando County and said vendor. Such records include, but are not limited to: all books, records, and memoranda of every description, pertaining to work under Contract.

Hernando County further reserves the right to reproduce any of the aforementioned documents pertaining to the work under Contract.

SECTION 23. Unless otherwise required by law, this Agreement shall be governed by and construed in accordance with the laws of the State of Florida. Venue for any dispute arising from this Agreement shall be litigated in the appropriate court in Hernando County, Florida, or the US District Court, Middle District of Florida. In any litigation arising from this Agreement, the parties IN ANY LITIGATION ARISING FROM THIS AGREEMENT, THE PARTIES SHALL BEAR THEIR OWN COSTS AND ATTORNEYS' FEES.

SECTION 24. E-VERIFY.

CONTRACTOR/CONSULTANT is advised that the COUNTY has entered into an Agreement with U.S. Immigration and Customs Enforcement (ICE) wherein the COUNTY will, in part, seek to promote the

principles of ethical business conduct, prevent the knowing hiring of unauthorized workers through self-governance, and encourage voluntary reporting of the discovery of unauthorized workers to ICE (the IMAGE Agreement). Accordingly, by submitting your Bid/Proposal, CONTRACTOR/CONSULTANT represents and warrants (a) that the CONTRACTOR/CONSULTANT is in compliance with all applicable federal, state and local laws, including, but not limited to, the laws related to the requirement of an employer to verify an employee's eligibility to work in the United States, (b) that all of the CONTRACTOR/CONSULTANT employees are legally eligible to work in the United States, and (c) that the CONTRACTOR/CONSULTANT has actively and affirmatively verified such eligibility utilizing the Federal Government's Employment Verification Eligibility Form (1-9 Form).

A mere allegation of CONTRACTOR/CONSULTANT's intent to use and/or current use of unauthorized workers may not be a basis to delay the COUNTY'S award of a Contract to the CONTRACTOR/CONSULTANT unless such an allegation has been determined to be factual by ICE pursuant to an investigation conducted by ICE prior to the date the Contract is scheduled to be awarded by the COUNTY.

Legitimate claims of the CONTRACTOR/CONSULTANT's use of unauthorized workers must be reported to both of the following agencies:

(i) The COUNTY'S Purchasing Contracts Department at (352) 754-4020; and
(ii) ICE (Immigration and Customs Enforcement) at 1-866-DHS-2-ICE

In the event it is discovered that the CONTRACTOR/CONSULTANT's employees are not legally eligible to work in the United States, then the COUNTY may, in its sole discretion, demand that the CONTRACTOR/CONSULTANT cure this deficiency within a specified time frame, and/or immediately terminate the Contract without any cost or penalty to the COUNTY, and/or debar the CONTRACTOR/CONSULTANT from bidding on all COUNTY Contracts for a period up to twenty-four (24) months, and/or take any and all legal action deemed necessary and appropriate.

CONTRACTOR/CONSULTANT is encouraged (but not required) to incorporate the following IMAGE Best Practices into its business and, when practicable, incorporate verification requirements into its Agreements with Sub-Contractors:

1. Use the Department of Homeland Security employment eligibility verification program (E-Verify) to verify the employment eligibility of all new hires.
2. Use the Social Security Number Verification Service and make good faith effort to correct and verify the names and Social Security numbers of the current workforce.
3. Establish a written hiring and employment eligibility verification policy.
4. Establish an internal compliance and training program related to the hiring and employment verification process, to include, but not limited to, completion of Form 1-9, how to detect fraudulent use of documents in the verification process, and how to use E-Verify and the Social Security Number Verification Service.
5. Require the Form 1-9 and E-Verify process to be conducted only by individuals who received appropriate training and include secondary review as to each employee's verification to minimize the potential for a single individual to subvert the process.
6. Arrange for annual Form 1-9 audits by an external auditing firm or a trained employee not otherwise involved in the Form 1-9 process.
7. Establish a procedure to report to ICE credible information of suspected criminal misconduct in the employment eligibility verification process.
8. Establish a program to assess Sub-Contractors' compliance with employment eligibility verification requirements. Encourage Contractors to incorporate the IMAGE Best Practices contained in this Article and, when practicable, incorporate the verification requirements in Sub-Contractor Agreements.
9. Establish a protocol for responding to letters received from Federal and State government agencies indicating that there is a discrepancy between the agency's information and the information provided by the employer or employee; for example, "no match" letters received from the Social Security Administration.
10. Establish a tip line mechanism (inbox, e-mail, etc.) for employees to report activity relating to the employment of unauthorized workers, and a protocol for responding to employee tips.

11. Establish and maintain appropriate policies, practices, and safeguards against use of the verification process for unlawful discrimination, and to ensure that U.S. Citizens and authorized workers do not face discrimination with respect to hiring, firing, recruitment or referral for a fee because of citizenship status or national origin.
12. Maintain copies of any documents accepted as proof of identify and/or employment authorization for all new hires.

SECTION 25. INTERPRETATION

This Agreement shall not be construed for or against any party hereto, without regard to which party is wholly or partly responsible for its drafting.

SECTION 26. TRAVEL

Engineering firms requesting travel and subsistence reimbursement shall comply with Florida Statute 112.061 (Current Edition).

SECTION 27. Attachments:
Exhibit "A" Scope of Services
Exhibit "B" Compensation and Method of Payment
Exhibit "C" Certificate of Insurance

IN WITNESS WHEREOF, the parties hereto have caused these present to be executed, the day and year first above written.

(SEAL)

BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY, FLORIDA

Attest: Susan Burns, Deputy Clerk
Douglas A. Chorvat, Jr.
Clerk of Circuit Court and Comptroller

Jeff Holcomb, Chairman

HDR ENGINEERING, INC.

Witness Linda Chrapczynski

By Christine Stefanec
Signature of Professional

By Christine S. Ketcover, VP
Printed Name and Title of Professional

EXHIBIT "A"

SCOPE OF SERVICES

1.1 GENERAL: Hernando County is seeking the services of a qualified and licensed professional to provide engineering services, site plan, stormwater, and permitting services associated with the Hernando County Solid Waste Department Cell 4 Expansion Project. Engineering services include, but are not limited to, surveying, geotechnical services, engineering design and analysis, environmental permitting and development of construction plans, construction estimates and creating specifications for bid documents. Tasks to be performed include, but are not limited to, the following:

- **1.1.1** Federal Subtitle D and State (FDEP 62-701 FAC) regulatory compliance, oversight, permitting and reporting including Title V Air Operations compliance and reporting;
- **1.1.2** Stormwater permitting and design, including Environmental Resource Permitting (ERP);
- **1.1.3** Cell 4 landfill disposal cell expansion design and permitting;
- **1.1.4** Landfill Operations permit modification application, Quality Assurance/Quality Control services for activities associated with cell construction;
- **1.1.5** Landfill design, permitting, construction management and certification;
- **1.1.6** Closure/Post-Closure plans and financial assurance cost estimates;
- **1.1.7** Hydrogeologic and environmental work in support of permitting/design activities;
- **1.1.8** Land survey work in support of permitting/design activities.

EXHIBIT A

SCOPE OF SERVICES

HERNANDO COUNTY
CLASS I CELL 4 LANDFILL EXPANSION
NORTHWEST WASTE MANAGEMENT FACILITY

This Scope of Services is for professional engineering services to be provided by HDR Engineering, Inc. (HDR) in support of Class I Landfill expansion at Hernando County's Northwest Waste Management Facility (NWWMF). The expansion will include development of a new Class I waste disposal cell (Cell 4) on the west side of the existing NWWMF site and associated site improvements and infrastructure needed to support the new cell (Project). The Project will be implemented in three phases as follows:

- Phase 1 – Site Master Planning Update and Conceptual Design
- Phase 2 – Detailed Design and Permitting
- Phase 3 – Construction Phase Services

This Scope of Services is intended to include work on all three phases of the Project. However, because the specific improvements to be designed and constructed have not been fully defined, only Phase I work is being identified in detail at this time. More detailed Scopes of Services, budgets and schedules for Phase 2 and Phase 3 work will be developed after Phase 1 work has been completed.

PHASE 1 – SITE MASTER PLAN UPDATE AND CONCEPTUAL DESIGN

An initial Site Master Plan for the NWWMF site was prepared in 2004 by Brown and Caldwell. That plan recommended locations for future Class I waste disposal cells and led to the design and construction of the Class I Cell 3 Landfill on the southeast portion of the NWWMF site. In 2015, HDR updated the Site Master Plan to revise the build-out plan for the site, including location of the Class I Cell 4 Landfill in the area west of Cell 3. Since the 2015 update was prepared, Hernando County has expressed interest in siting facilities, other than new Class I Landfill cells, on currently undeveloped areas of the NWWMF site. These include an organic waste composting facility, material storage areas for compost feedstocks, and a possible leachate pre-treatment facility, all of which will require land area that could impact the location and size of Cell 4. Stormwater conveyance and retention facilities, access roads, and utility corridors supporting these additional site features will also require land that must be accounted for in the planning process. Accordingly, the Site Master Plan must be revisited to finalize the location of Cell 4 before any design and permitting work is begun. Phase 1 work on this Project will focus on updating the build-out plan for the NWWMF site to identify preferred locations for the Class I Cell 4 Landfill and other planned site improvements that will maximize their benefit to Hernando County. After the Site Master Plan Update is completed and a recommended location for Cell 4 has been established, conceptual design alternatives for Cell 4 will be evaluated to better define the detailed design and permitting work to be performed in Phase 2 of the Project.

Subsurface conditions will be an important factor in preparing the Site Master Plan Update, particularly with respect to locating the new Class I Cell 4 Landfill. Because of the karst geology that exists at the NWWMF site, the potential for sinkhole development will directly impact the amount of remedial work that is necessary prior to landfill cell construction. Locating Cell 4 in an area that is relatively free of subsurface anomalies that could be indicative of future sinkhole development will facilitate permit approval from the FDEP and reduce the initial cost of Cell 4 development to Hernando County. Subsurface conditions will also help to identify preferred locations for stormwater

retention areas since soil characteristics and depth to limestone are important design and permitting considerations at the NWWMF site.

The work to be performed in Phase 1 of the Project consists of six (6) primary work elements, or tasks, as described below.

TASK 1 – PROJECT MANAGEMENT

Project management includes contract administration, project review meetings with Hernando County staff, and coordination with the Florida Department of Environmental Protection (FDEP).

Subtask 1.1 – Contract Administration. Prepare a Project Management Plan and negotiate subconsultant agreements. Monitor the progress of work by all members of the HDR Team on a regular basis to assure compliance with established schedule and budget. Review and process subconsultants' invoices and documentation of services completed. Prepare monthly summaries of work completed to accompany HDR invoices to Hernando County for periodic payment.

Subtask 1.2 – Project Review Meetings. Prepare and attend periodic project status meetings with Hernando County staff to review the progress of work on the project. A project kick-off meeting will be held prior to the initiation of work. Subsequent meetings will be held at approximately monthly intervals thereafter. The meetings will be attended by the HDR project manager, as well as other members of the HDR Team as may be appropriate for the issues to be discussed. A total of eight project meetings have been assumed for budgeting purposes.

TASK 2 - SURVEY SUPPORT SERVICES

Aerial photography and topographic mapping of the undeveloped land on the west side of the NWWMF site was completed in the fall of 2018 and will be used as the basis for Phase 1 work on this Project. However, additional surveying support services will be required to document the results of Phase 1 field investigations for subsequent use in Phase 2 design and permitting activities. Survey support services to be provided as part of Phase 1 work include the following:

1. Preparation of a base map combining the 2018 topographic data with the current NWWMF property boundaries.

2. Horizontal and vertical control for geophysical surveys (GPR transects) and geotechnical investigations (borings, piezometers, etc.).

3. Additional physical and topographic surveying in areas not covered by previous surveys or where more detailed topographic or facility location data may be required.

4. Environmental surveys to identify the presence of wetlands and/or threatened and endangered species in areas of the NWWMF site proposed for future development in this Project.

Coastal Engineering Associates, Inc. will be responsible for providing the survey support services described above. Coastal's proposal for performing these services is attached and made part of this Scope of Services by reference.

TASK 3 – SUBSURFACE INVESTIGATIONS

Task 3 involves site investigations to assess subsurface conditions in the study area and the approximate rate and direction of groundwater movement. Field investigations will include the following activities:

- Geophysical surveys
- Geotechnical investigations
- Soil classification and laboratory testing
- Hydrogeologic investigation

Preliminary discussions with Hernando County staff have identified about 115 acres of undeveloped land on the west side of the NWWMF site that could realistically be used for the various improvements currently being planned for implementation. The field investigations identified above will be limited to that 115-acre study area.

The work to be performed is briefly summarized below. GeoView, Inc. will perform the geophysical surveys. Ardaman & Associates, Inc. will perform the geotechnical investigations, the hydrogeological investigations, and other site investigation work. Proposals from GeoView and Ardaman, providing greater detail on the scopes of work they will provide, are attached and made part of this Phase 1 Scope of Services by reference.

Subtask 3.1 – Geophysical Surveys. Ground penetrating radar (GPR) technology will be utilized to detect top of limestone and the presence of subsurface anomalies within the study area. As noted above, the area to be investigated totals about 115 acres. GPR transects on a 25-foot grid will be made over about 85 acres representing areas where the Class 1 Cell 4 Landfill and new stormwater retention basin(s) are most likely to be located. A 50-foot grid pattern will be applied over the remaining 30 acres where material storage, organic waste composting and leachate pre-treatment facilities are most likely to be located.

Following completion of the field work, the GPR data will be evaluated to identify subsurface anomalies that could potentially represent active sinkhole activity. Areas of concern will be recommended for follow-on geotechnical investigation. The findings of the GPR surveys and recommendations for follow-on geotechnical investigations will be documented in a final report document. Transect data will be formatted and saved electronically for possible submittal to the FDEP in support of permit applications in Phase 2 of the Project.

A more detailed description of the geophysical surveys to be performed as part of Phase 1 work on this Project is included in the attached proposal from GeoView, Inc. which is made part of the scope of this subtask by reference.

Subtask 3.2 – Geotechnical and Hydrogeologic Investigations. Geotechnical and hydrogeologic field investigations will be performed by Ardaman & Associates and will generally consist of the following:

1. Conduct a site visit by a geotechnical engineer to observe existing site conditions.

2. Review documentation from previous subsurface investigations at the NWWMF site.

3. Drill up to 25 standard penetration test (SPT) borings within the approximately 115-acre study area, the locations of which will be based, in part, on the findings of the GPR surveys and the identification of subsurface anomalies requiring follow-up geotechnical investigation. Each boring will be drilled to a depth of 25 feet below the top of limestone or where refusal is encountered. For budgeting purposes, it is assumed that no more than 2,000 vertical feet of

borings will be required. Detailed boring logs will be prepared for each boring. All boreholes will be grouted upon drilling completion.

4. Install a total of 8 piezometers, 5 of which will be within the area proposed for Cell 4 development and the remaining 3 within the area proposed for stormwater retention. The piezometers will be strategically located in close proximity to SPT borings. For budgeting purposes, it is assumed that the piezometers will have an average depth of 100 vertical feet for a total piezometer depth of 800 feet. It is assumed that, following their installation and initial water level readings, County staff will take monthly groundwater elevation measurements in the piezometers for use in calculating the rate and direction of groundwater movement beneath the site.

5. Perform soil sampling and laboratory analyses to index and classify existing on-site soil stockpiles and the various soils comprising the subsurface soil profile. Perform laboratory permeability, strength and consolidation testing on undisturbed samples of the clay layer in the area proposed for Cell 4 development. Perform laboratory permeability testing on samples of the surficial sands in the area proposed for stormwater retention.

Following completion of the field work and the associated laboratory analyses, engineering calculations and analyses will be performed to assist in the siting and layout of the new Cell 4 Landfill and in the sizing of new stormwater retention areas. This work will include the following:

1. Develop a generalized soil profile for use in the geotechnical analyses.

2. Perform preliminary geotechnical analyses for development of a conceptual design for Cell 4 and supporting facilities. .

3. Perform geotechnical calculations to evaluate how geosynthetic materials such as geogrids and woven geotextiles may be used to provide reinforcement for the bottom liner system due to sinkhole activity beneath Cell 4.

4. Compile and analyze groundwater elevation data from on-site piezometers and map groundwater contours to assist in determining the rate and direction of groundwater movement beneath the area proposed for Cell 4.

5. Perform hydraulic conductivity calculations to assist in sizing new stormwater retention areas.

The geotechnical and hydrogeologic calculations described above will be performed in conjunction with Site Master Planning in Task 4 and Conceptual Design in Task 5.

The results of the geotechnical and hydrogeologic investigations will be documented in a final report incorporating the requirements of 62-701.410 (3) F.A.C. The report will be used in support of a permit application to FDEP for Cell 4 construction in Phase 2 of the Project.

A more detailed description of the field work and engineering analyses to be performed by Ardaman & Associates as part of Phase 1 work on the Project is presented in Ardaman's proposal which is attached and made part of the scope of this subtask by reference.

TASK 4 – SITE MASTER PLAN UPDATE

The HDR Team, in cooperation with Hernando County staff, will update the existing Site Master Plan for build-out of the existing NWWMF site. The Site Master Plan Update will present recommendations for maximizing the use of available undeveloped land while recognizing existing and future operational requirements at the site and continued protection of the environment. The Site Master Plan Update will focus on optimizing the location and size of the new Class I Cell 4 Landfill with respect to waste disposal capacity, initial construction cost and long-term operating costs, while also providing adequate land area for other planned improvements such as an organic waste composting facility, a possible leachate pre-treatment facility, and the infrastructure to support them.

The Site Master Plan Update will also identify potential soil borrow areas and stormwater conveyance and treatment areas. The stormwater treatment areas, or drainage retention areas, will be sized for treatment, storage, and infiltration of surface runoff from the various planned project areas based upon preliminary layouts and estimates of impervious area. The drainage retention areas will be located where stormwater runoff from proposed project areas can be most effectively conveyed and where sufficient land area is available to achieve the necessary retention times.

Another key element of the Site Master Plan Update will be to address traffic control and establish a simple, efficient network of access roads that allows delivery vehicles to enter the NWWMF site, access the appropriate waste disposal area, processing facility or drop-off location, and exit the site in the least complicated manner possible.

Subtask 4.1 – Define Planning Objectives and Site Development Criteria. In cooperation with Hernando County staff, establish general planning objectives and criteria for future development of the NWWMF site. This includes land area requirements for planned project improvements and long-term strategies for Class I Landfill operations, C&D Landfill operations, and management of stormwater, leachate and landfill gas on the site.

Subtask 4.2 – Preliminary Site Master Plan Update. Based upon the results of the site investigations performed in Task 3 and the County's objectives for build-out of the NWWMF site, prepare a preliminary update to the Site Master Plan. The preliminary Site Master Plan Update will consist of a site plan, identifying the proposed locations for the new Class I Cell 4 Landfill and other project improvement areas, accompanied by a draft technical memorandum (TM) describing the updated Plan and the objectives, reasoning and assumptions that went into its development.

Subtask 4.3 – Review Workshop. The HDR Team will lead a workshop with County staff to review and discuss the preliminary Site Master Plan Update developed in Subtask 4.2. The review workshop is intended to provide a forum for Hernando County staff to ask questions, register concerns and provide input to the Site Master Plan Update. The review workshop is anticipated to be a half-day meeting and will be conducted in Brooksville at a location to be determined by Hernando County.

Subtask 4.4 – Final Site Master Plan Update. Using input from the review workshop in Subtask 4.3, the HDR Team will finalize the Site Master Plan Update documentation. The final Site Master Plan Update will form the basis for conceptual design of Cell 4 and related infrastructure in Task 5.

TASK 5 – CONCEPTUAL DESIGN

In Task 5, the HDR Team will prepare a conceptual design for development of Cell 4 and associated infrastructure based upon the recommended location and layout in the final Site Master Plan Update. Issues to be addressed in the development of the conceptual design of Cell 4 include the following:

- Bottom liner system;
- Phasing of Cell 4 construction;
- Sequencing of fill operations in Cell 4;
- Stormwater management;
- Leachate collection, transmission and storage;
- Collection and conveyance of landfill gas.

The evaluation of alternatives incorporating various approaches to the issues identified above will lead to a preferred design concept for Cell 4, which in turn, will form the basis for detailed design and permitting of Cell 4 improvements in Phase 2 of the Project. The following paragraphs briefly describe the work activities to be performed.

Subtask 5.1 – Establish Conceptual Design Criteria. In cooperation with Hernando County staff, establish conceptual design criteria for development of Cell 4. The criteria will include, but will not be limited to, maximum fill elevation, physical and visual buffers along property boundaries, phasing of construction, location and configuration of sub-cells, etc. These criteria, along with the recommendations of the Site Master Plan Update, will serve as the guidelines on which the conceptual design of Cell 4 will be based.

Subtask 5.2 – Bottom Liner System. Evaluate alternative bottom liner systems, including any structural support required to protect the bottom liner against failure due to sinkhole activity.

Subtask 5.3 – Construction Phasing. Evaluate two alternative approaches to phasing of Cell 4 construction. The first approach will involve initial construction of the entire Cell 4 area. The second approach will include construction of only a portion of Cell 4, but an area of sufficient size to provide a minimum of 5 years of Cell 4 operations. Phasing of related access road, stormwater management and utility improvements will also be considered. Concept level opinions of probable construction cost, based on the lined area of Cell 4 in each option, will be developed.

Subtask 5.4 – Operational Fill Sequencing, Leachate Collection and Transmission. Develop operational fill sequence scenarios for each of the construction phasing alternatives developed in Subtask 5.3 to allow projections of leachate generation to be made at various stages of fill operations in Cell 4. Develop plan to collect leachate from Cell 4 and transmit leachate to the possible leachate pre-treatment facility.

Subtask 5.5 – Landfill Gas Management. Identify a conceptual plan for active landfill gas collection and management from Cell 4. Prepare a concept-level opinion of probable construction cost for initial development of the active landfill gas management system.

Subtask 5.6 – Stormwater Management. Develop conceptual design plans and preliminary sizing of stormwater conveyance and treatment facilities for the Cell 4 construction phasing

Subtask 5.7 – Technical Review Meeting. Present the results of the evaluations performed in Subtasks 5.2 through 5.6 to Hernando County staff at a workshop-style technical review meeting. The purpose of the meeting will be to gain input from County staff on the advantages and disadvantages of the various options and to gain consensus on a preferred approach for the initial development of Cell 4. Output from the technical review meeting will be used by the HDR Team to formalize a conceptual design for the Cell 4 Project in Subtask 5.8 for review and approval by Hernando County.

Subtask 5.8 – Conceptual Design Report. Prepare a Conceptual Design Report summarizing the results of the alternatives evaluation and documenting the preferred approach for the design of Cell 4 as agreed upon at the technical review meeting. The conceptual design will include the proposed location, configuration and sequencing of future waste disposal operations in Cell 4, as well as facilities for managing stormwater, leachate, and landfill gas. The Conceptual Design Report will also contain an opinion of probable construction cost for the recommended improvements, as well as a projected schedule for design, permitting and construction.

The Conceptual Design Drawings will include:

- Cover Sheet
- Site Plan
- Existing Conditions
- Preliminary Storm Water Management Plan
- Proposed Site Grading Plan
- Sub-base Grading Plan
- Leachate Detection Grading Plan
- Leachate Collection and Protective Cover Grading Plan
- Proposed Sub-Cell Layout and Fill Sequence
- Proposed Final Cover Plan
- Miscellaneous Civil Details
- Sections

Five draft copies of the Conceptual Design Report and Drawings will be submitted to Hernando County for review. Following this review, revisions will be made, as needed, to address the County's comments. Five bound copies and one electronic copy of the final Conceptual Design Report will be submitted.

TASK 6 – COORDINATION WITH FDEP

To confirm that the selected approach for buildout of the NWWMF site and the design of Cell 4 are consistent with FDEP policies and regulations, periodic communication with FDEP will be maintained throughout the course of Phase 1 work. The purpose of the communication will be to keep FDEP staff informed of ongoing work and to seek input and guidance regarding regulatory constraints that could impact the feasibility of alternatives under consideration. For budgeting purposes, four (4) conference calls, one meeting at FDEP's Regional Office in Tampa, and one meeting at FDEP's Headquarters in Tallahassee have been assumed. Hernando County staff will be included in all project communications and meetings between the HDR Team and FDEP.

PHASE 2 – DESIGN AND PERMITTING

This initial scope of Phase 2 as described is subject to change upon completion of Phase 1. Following completion of the Phase 1 Conceptual Design, the HDR Team will prepare detailed design documents and FDEP permit applications for the construction of Cell 4 and associated on-site improvements at the NWWMF. A general listing of the work activities to be completed during Phase 2 of the Project is provided below. A more detailed scope of services, as well as a budget and schedule for Phase 2 work will be negotiated with Hernando County prior to completion of work on Phase 1 so that there will not be a delay in beginning detailed design once a conceptual design for Cell 4 has been agreed upon.

Detailed Design

1. Prepare construction plans and specifications for Cell 4 improvements identified in the Conceptual Design Report including, but not necessarily limited to, the following:

    - Excavation and grading plans;
    - Bottom liner and leachate collection and removal system;
    - On-site leachate pumping, storage and transmission system;
    - Landfill gas collection and management system;
    - New groundwater monitoring wells and landfill gas detection sites;
    - Stormwater management improvements, including stormwater conveyance swales and drainage retention area to serve Cell 4.
    - Extension of on-site access roads and utilities to include Cell 4;

    No off-site improvements or on-site improvements to the existing scalehouse, administration building, maintenance facilities, material recovery facility, household hazardous waste area, C&D disposal area or yard waste mulching area are currently anticipated, but may be included if determined to be necessary during Phase 1 work.

2. Submit design documents and preliminary opinions of probable construction cost for review by County staff at the 30, 60 and 90 percent design completion levels. Address and resolve all County review comments.

3. Prepare a construction schedule for submittal at the time of the 90 percent design review.

Permitting

A construction permit and a major modification to the County's existing FDEP solid waste permit for Class I disposal operations on the NWWMF site will be required. A new Environmental Resource Permit will be required for stormwater improvements and modification of the County's Title V Air Quality Permit will also be required. Work activities associated with permitting will include, but are not necessarily limited to, the following:

1. Conduct pre-application meetings with County and regulatory staff as applicable;

2. Prepare application forms, narrative discussions, design calculations, plans, maps, and other supporting documentation required to obtain approvals from regulatory agencies having jurisdiction over the project and secure all permits required for construction and operation of Cell 4;

3. Prepare an Operational Plan for Cell 4, including sequence of fill operations, volume calculations and estimated life expectancy;

4. Prepare updated financial assurance cost estimates for closure and long-term care of the Class I waste disposal areas at the NWWMF, including Cell 4;

5. Prepare an updated groundwater monitoring plan for the Class I waste disposal areas at the NWWMF that includes Cell 4; and

6. Respond to review comments from FDEP and other agencies reviewing design documents and/or permit applications for construction and operation of Cell 4 and related improvements.

HDR will be responsible for preparing all necessary copies of permit applications, design documents and other submittals to review agencies. Hernando County will be responsible for payment of all associated permit application fees.

Assistance during Bidding

1. Assist the County in the advertisement of the project and in the preparation of addenda, if necessary.

2. Attend the pre-bid meeting and respond to bidders' inquiries as necessary;

3. Evaluate and tabulate the bids received and make recommendations to the County regarding contract award.

PHASE 3 – CONSTRUCTION PHASE SERVICES

This initial scope of Phase 3 as described is subject to change upon completion of Phase 1 and Phase 2. Work activities that the HDR Team may perform during the construction of Cell 4 include, but are not necessarily limited to, the list provided below. Prior to the award of a construction contract, a detailed scope of services and budget for Phase 3 construction services will be negotiated with Hernando County.

1. Prepare for and attend a pre-construction meeting with County staff and the selected Contractor;

2. Review shop drawings, material samples and other Contractor submittals as required by the design documents;

3. Review Contractor payment and change order requests;

4. Provide construction quality assurance (CQA) monitoring and testing during bottom liner and leachate collection system installation and submit the required documentation to FDEP;

5. Perform periodic site visits to observe and document construction of other project elements in conformance with the design documents;

6. Prepare for and attend regularly scheduled on-site construction progress meetings;

7. Review and monitor the Contractor's construction schedule;

8. Conduct formal site inspections for documentation of Substantial Completion and resolution of punch list items for Final Completion;

9. Prepare record drawings documenting any change order revisions and field changes that occurred during construction.

Provide required project certifications to FDEP and other permitting and approval agencies.

EXHIBIT B

PROJECT BUDGET FOR PHASE 1 SERVICES

CLASS I CELL 4 LANDFILL EXPANSION
NORTHWEST WASTE MANAGEMENT FACILITY

HDR will perform the Scope of Services described in Exhibit A for the lump sum amount of Not-to-Exceed amount of **$920,711.77** This fee includes all charges for labor, subconsultant fees and direct expenses associated with completion of the work. A breakdown of the Project Budget, by task, is presented in the attached table. Subconsultant costs and associated breakdowns are also attached.

HERNANDO COUNTY
LANDFILL CELL 4 EXPANSION PROJECT - PHASE 1 FEE SCHEDULE
NO. 18-R00129/PH
1/31/2019 Revised 3/26/2019
Staff Hour Forecast

DESCRIPTION OF TASKS	Sr. Project Manager	Sr. Technical Advisor	Technical Advisor	Project Engineer	Sr. Project Geologist	Sr. CADD Tech	Sr. Clerical	Sr. Accounting	Total Hours	Labor ($)
TASK 1 - PROJECT MANAGEMENT										
Project Setup	12						8	2	22	3,210.00
Prepare Project Management Plan	10						8		18	2,620.00
Monitor the Progress of Work	60						8		68	13,120.00
Review and Process Sub-Consultants' Invoices and Document Services Completed	12						16	12	40	4,580.00
Prepare Monthly Summaries of Work Completed to Accompany HDR Invoices	16						16	6	38	4,910.00
Sub-Task 1.1 - Contract Administration	**110**						**56**	**20**	**186**	**28,440.00**
Project Kick-Off Meeting	8	8			8				24	4,360.00
Project Team Coordination Meetings	16	16		16	8	8	8		72	11,520.00
Project Update Meetings with Hernando County (8 Site Meetings)	64	24	8	16	8				120	23,720.00
Sub-Task 1.2 - Project Update and Team Meetings	**88**	**48**	**8**	**32**	**24**	**8**	**8**		**216**	**39,600.00**
TASK 1 - TOTAL	**198**	**48**	**8**	**32**	**24**	**8**	**64**	**20**	**402**	**$ 68,040.00**
TASK 2 - SURVEY SUPPPORT SERVICES										
Boundary Survey Updates	8	4		0		8	2	1	23	3,635.00
Field Services for Geophysical and Geotechnical Support	8	8		8			2	1	27	4,855.00
Sub-Task 2.1 - Topographic Survey Updates	**16**	**12**		**8**		**8**	**4**	**2**	**50**	**8,490.00**
Wetlands and Gopher Tortoise Investigations and Reports	8	4		4		8	4	1	29	4,345.00
Sub-Task 2.2 - Environmental Survey Services	**8**	**4**		**4**		**8**	**4**	**1**	**29**	**4,345.00**
TASK 2 - TOTAL	**24**	**16**		**12**		**16**	**8**	**3**	**79**	**$ 12,835.00**
TASK 3 - SUBSURFACE SERVICES										
Field Investigation	8			8	8		4		28	3,980.00
Preliminary Report	8	8			8		8		32	4,880.00
Final Report	12	12			12		8	1	45	7,145.00
Sub-Task 3.1 - Geophysical Investigations	**28**	**20**		**8**	**28**		**20**	**1**	**105**	**16,005.00**
Field Investigation	8				24		4		36	4,580.00
Preliminary Report	8	8			16		8		40	5,760.00
Final Report	16	16		8	16		8	1	65	10,485.00
Sub-Task 3.2 - Geotechnical and Hydrogeologic Investigations	**32**	**24**		**8**	**56**		**20**	**1**	**141**	**20,825.00**
TASK 3 - TOTAL	**60**	**44**		**16**	**84**		**40**	**2**	**246**	**$ 36,830.00**
TASK 4 - SITE MASTER PLAN UPDATE										
Establish General Planning Objectives and Criteria for Future Development	4	2		2			2		10	1,710.00
Determine Land Area Requirements and Utility Corridors	4	4	8	2			2	1	21	3,925.00
Sub-Task 4.1 - Define Planning Objectives and Site Development Criteria	**8**	**6**	**8**	**4**			**4**	**1**	**31**	**5,635.00**
Update Site Plan	6	2		2	4	32	2		48	5,930.00
Identify Proposed Locations for Cell 4	6	2		2	4	32	2		48	5,930.00
Identify Other Project Improvement Areas	6	2		2	4	32	2		48	5,930.00
Draft Technical Memorandum	6	2		8			2	1	19	3,085.00
Sub-Task 4.2 - Preliminary Site Master Plan Update	**24**	**8**		**14**	**12**	**96**	**8**	**1**	**163**	**20,875.00**
Prepare Workshop	4	0		0	4		4		12	1,540.00
Attend Workshop	8	0		0			2		10	1,810.00
Sub-Task 4.3 - Review Workshop	**12**	**0**		**0**	**4**		**6**		**22**	**3,350.00**
Incorporate Input from Review Workshop	2	0		0			2		4	550.00
Finalize Master Plan	4	4	4	4	4		2	1	23	3,815.00
Sub-Task 4.4 - Final Master Plan Update	**6**	**4**	**4**	**4**	**4**		**4**	**1**	**27**	**4,365.00**
TASK 4 - TOTAL	**50**	**18**	**12**	**22**	**20**	**96**	**22**	**3**	**243**	**$ 34,225.00**
TASK 5 - CONCEPTUAL DESIGN										
Establish Maximum Fill Elevation	4	6		8		8	2		28	4,320.00
Determine what Physical and Visual Buffers May be Necessary along Property Boundaries	4	4		4		8	2		22	3,290.00
Establish Concpetual Construction Phasing and Subcell Development	8	8		24		32	2		74	10,450.00
Perform Alternatives Analysis of Cell and Subcell Layouts	8	32		24		32	2		98	15,850.00
Determine Optimum Number, Location and Configuration of Subcells	8	8		24		48	2		90	12,130.00
Develop a Conceptual Design Criteria Report	8	24	4	24	4	8	2	8	82	13,490.00
Sub-Task 5.1 - Establish Conceptual Design Criteria	**40**	**82**	**4**	**108**	**4**	**136**	**12**	**8**	**394**	**59,530.00**
Concpetual Cell and Subcell Layout	8	16	2	16		30	2		74	11,300.00
Conceptual Bottom Liner System	8	16	2	16		30	2		74	11,300.00
Phasing of Cell 4 Construction	8	16	2	16		30	2		74	11,300.00
Conceptual Filling Plan	8	16	2	16		30	2		74	11,300.00
Conceptual Leachate Collection, Transmission and Storage Plan	8	16	2	16		30	2		74	11,300.00
Conceptual Landfill GCCS and Conyance Plan	8	16	2	16		30	2		74	11,300.00
Conceptual Storm Water Management Plan	8	16	2	16		30	2		74	11,300.00
SubTask 5.2 - Conceptual Design and Engineering Drawings	**56**	**112**	**14**	**112**		**210**	**14**		**518**	**79,100.00**
Present Results at a Workshop-Style Technical Review Meeting	8	8		8			4		28	4,900.00
Incorporate County Comments and Formalize Conceptual Design	4	6		16		16	8		50	6,710.00
SubTask 5.3 - Technical Review Meeting	**12**	**14**		**24**		**16**	**12**		**78**	**11,610.00**
Prepare Conceptual Design Report	4	16	6	40		8	16	16	106	14,740.00
Prepare Engineers Estimate of Probable Cost	4	16	4	24		8	4		60	9,860.00
Prepare Projected Schedule for Design, Permitting and Construction	4	8	2	16			6		36	5,770.00
SubTask 5.4- Conceptual Design Report	**12**	**40**	**12**	**80**		**16**	**26**	**16**	**202**	**30,370.00**
TASK 5 - TOTAL	**120**	**248**	**30**	**324**	**4**	**378**	**64**	**24**	**1192**	**$ 180,610.00**
TASK 6 - FDEP COORDINATION										
Conference Calls (4)	4	4	2	4	4		2		20	3,310.00
Pre-Application Meeting	8	8		8	8				32	5,520.00
TASK 6 - TOTAL	**12**	**12**	**2**	**12**	**12**		**2**		**52**	**$ 8,830.00**
TOTAL	**464**	**386**	**52**	**418**	**144**	**498**	**200**	**52**	**2,214**	**$ 341,370.00**

LABOR TOTAL	$ 341,370.00
HDR DIRECT COSTS	$ 36,509.77
SUBCONSULTANTS	
Brown and Caldwell	$ 254,184.00
Ardaman and Associates	$ 219,078.00
Geoview	$ 30,000.00
Coastal	$ 24,570.00
JHA	$ 15,000.00
TOTAL FEE	**$ 920,711.77**

1653 BLAISE DRIVE • BROOKSVILLE, FLORIDA 34601
P 352.754.4020 • F 352.754.4199 • W www.HernandoCounty.us

EXHIBIT "B"

SCHEDULE OF RATES

The standard Hourly Labor Rates are subject to adjustment annually based of the Consumer Price Index issued by the Bureau of Labor Statistics, Southeastern Regional Office for the South for the index for ***All Items/Wage earners & clerical workers***, for the percent of change through the month of May of each calendar year.

The following hourly rates include all direct and indirect costs except direct expenses. Indirect cost include such items as overhead, profit and such statutory and customary fringe benefits such as social security contributions, sick leave, unemployment, excise and payroll taxes, workmen's compensation, health and retirement benefits, bonuses, annual leave and holiday pay.

Position Classifications (classification titles subject to change)	**Employee or Sub-Consultant Name (if any)**	**Loaded Hourly Rates**
Principal	B. Rella, D. DeCesare	$230.00
Senior Project Manager	M. Roberts	$210.00
Senior Technical Advisor	K. Perera	$225.00
Technical Advisor	K. Howard, T. Yanoschak, B. Clark, J. Gonzales	$210.00
Senior Solid Waste Planner	S. Worster	$200.00
Senior Civil/Environmental Engineer	K. Singh	$150.00
Senior CADD Technician	J. Raymond	$105.00
Senior Electrical Engineer	J. Gonzales	$150.00
Project Engineer	M. Shafer, R. Norwillo, S. Meenakshisundaram,	$145.00
Staff Engineer	C. Williams, R. Turnage	$120.00
Senior Project Geologist	J. Catches	$110.00
Staff Environmental Scientist	H. Wang	$ 90.00
CADD Designer	M. Austin	$ 80.00
Field Technician	A. Meade	$ 70.00
Senior Accounting	MJ. Encarnacion	$85.00
Senior Clerical/Admin	L. Luhrs	$65.00
Clerical/Admin	A Grappie	$55.00
JHS Subconsultant Senior Eng.	Hala Sfeir, Kelsi Oswald	$150.00

EXHIBIT C

PROJECT SCHEDULE FOR PHASE 1 SERVICES

CLASS I CELL 4 LANDFILL EXPANSION
NORTHWEST WASTE MANAGEMENT FACILITY

Work on the subsurface site investigations, the initial field activity of Phase 1 will be scheduled immediately following the notice to proceed. We have a preliminary schedule start date of March 15th, 2019. Based on this estimated start date, the following schedule summarizes the key milestone completion dates throughout the course of this phase of the project:

Phase 1 Milestone	Completion Date
Notice to Proceed	May1st, 2019
Project Kick-Off Meeting	May 8th, 2019
Subsurface Investigation Kick-Off	May 15th, 2019
Project Master Plan Kick-Off	August 15th, 2019
Conceptual Design Kick-Off	September 15th, 2019
Master Plan Workshop Meeting	September 25th, 2019
Project Master Plan Completed	October 15th, 2019
Technical Review Meeting	November 15th, 2019
FDEP Pre-Application Meeting	November 15th, 2019
Conceptual Design Report Completed	December 15th, 2019

2301 Lucien Way, Suite 250
Maitland, Florida, 32751
T: 407-661-9500
F: 407-661-9599
www.brownandcaldwell.com

January 30, 2019

Mr. Mark Roberts, PE
HDR, Inc.
200 West Forsythe Street
Suite 800
Jacksonville, FL 32202

Subject: Proposal for Hernando County Cell 4 Landfill Expansion Project – Phase 1

Dear Mr. Roberts:

Enclosed for your review is Brown and Caldwell's (BC's) proposal for assisting HDR, Inc. and other members of the HDR consulting team with Phase 1 of the Cell 4 Landfill Expansion Project (Project) at Hernando County's Northwest Waste Management Facility (NWWMF). Phase 1 of the Project includes development of a Site Master Plan Update for buildout of the NWWMF site and conceptual design of Cell 4 and the associated stormwater management facilities and other infrastructure needed to support the new landfill cell. Phase 2 of the Project will include detailed design and permitting and Phase 3 will involve construction phase services. This proposal is for Phase 1 work only. Proposals for BC's participation in Phases 2 and 3 of the Project will be developed following completion of Phase 1 work.

Our Scope of Services for Phase 1 work is presented in Attachment A. Our estimated fee for completing that Scope of Services is presented in Attachment B. We have assumed that the work will be completed over a period of approximately eight months.

If you have questions concerning our proposal, or if additional information is needed, please do not hesitate to call me at (407) 661-9517 or (407) 810-1051 (cell). We look forward to working with HDR on this important project for Hernando County.

Sincerely,
BROWN AND CALDWELL

James A. Nissen, PE
Senior Associate

Attachments: Attachment A - Phase 1 Scope of Services
Attachment B - Phase 1 Fee Estimate

P:\GEN\Hernando County\Cell 4 Landfill Expansion – Phase 1\Proposal Letter

ATTACHMENT A

SCOPE OF SERVICES

CLASS I CELL 4 LANDFILL EXPANSION
NORTHWEST WASTE MANAGEMENT FACILITY

PHASE 1 - SITE MASTER PLAN UPDATE AND CONCEPTUAL DESIGN

This Scope of Services covers work to be performed by Brown and Caldwell (BC) as subconsultant to HDr, Inc. (HDR) pursuant to expansion of the Class I Landfill at Hernando County's Northwest Waste Management Facility (NWWMF). The work will be implemented in three phases as follows:

- Phase 1 – Site Master Plan Update and Conceptual Design
- Phase 2 – Detailed Design and Permitting
- Phase 3 – Construction Phase Services

This Scope of Services is for Phase 1 work only. Scopes of Services for Phases 2 and 3 of the Project will be developed following completion of Phase 1 work.

An initial Site Master Plan for the NWWMF site was prepared in 2004 by Brown and Caldwell. That plan recommended locations for future Class I waste disposal cells and led to the design and construction of the Class I Cell 3 Landfill on the southeast portion of the NWWMF site. In 2012, HDR updated the Site Master Plan to revise the build-out plan for the site, including location of the Class I Cell 4 Landfill in the area west of Cell 3.

Since the 2012 update was prepared, Hernando County has expressed interest in siting facilities, other than new Class I Landfill cells, on currently undeveloped areas of the NWWMF site. These include an organic waste composting facility, material storage areas for compost feedstocks, and a leachate pre-treatment facility, all of which will require land area that could impact the location and size of Cell 4. Stormwater conveyance and retention facilities, access roads, and utility corridors supporting these additional site features will also require land that must be accounted for in the planning process. Accordingly, the Site Master Plan must be revisited to finalize the location of Cell 4 before any design and permitting work is begun.

Phase 1 work on this Project will focus on updating the build-out plan for the NWWMF site to identify preferred locations for the Class I Cell 4 Landfill and other planned site improvements that will maximize their benefit to Hernando County. After the Site Master Plan Update is completed and a recommended location for Cell 4 has been established, conceptual design alternatives for Cell 4 will be evaluated to better define the detailed design and permitting work to be performed in Phase 2 of the Project.
Subsurface conditions will be an important factor in preparing the Site Master Plan Update, particularly with respect to locating the new Class I Cell 4 Landfill. Because of the karst

geology that exists at the NWWMF site, the potential for sinkhole development will directly impact the amount of remedial work that is necessary prior to landfill cell construction. Locating Cell 4 in an area that is relatively free of subsurface anomalies that could be indicative of future sinkhole development will facilitate permit approval from the FDEP and reduce the initial cost of Cell 4 development to Hernando County. Subsurface conditions will also help to identify preferred locations for stormwater retention areas since soil characteristics and depth to limestone are important design and permitting considerations at the NWWMF site.

The work to be performed in Phase 1 of the Project consists of six (6) primary work elements, or tasks, as described below.

Task 1 – Project Management

Project management includes contract administration and periodic project review meetings with Hernando County staff.

Subtask 1.1 – Contract Administration. Perform internal project administration functions associated with BC work on the Project, including preparation of a Project Management Plan, a Health and Safety Plan, and a QA/QC Plan. Monitor labor and budget utilization weekly. Prepare monthly invoices and summaries of work completed to accompany HDR invoices to Hernando County for periodic payment.

Subtask 1.2 – Project Review Meetings. Prepare and attend periodic project status meetings with HDR and Hernando County staff to review the progress of work on the project. A project kick-off meeting will be held prior to the initiation of work. Subsequent meetings will be held at approximately monthly intervals thereafter. The meetings will be attended by the BC project manager, as well as other BC staff as may be appropriate for the issues to be discussed. A total of eight project meetings have been assumed for budgeting purposes.

Task 2 - Survey Support Services

Coordinate with Coastal Engineering Services, Inc. (Coastal) to provide surveying support services during Phase 1 work on the Project. Surveying support services to be provided as part of Phase 1 work are expected to include the following:

1. Preparation of a base map combining the 2018 topographic data compiled previously by Hernando County with the current NWWMF property boundaries.

2. Horizontal and vertical control for geophysical surveys (GPR transects) and geotechnical investigations (borings, piezometers, etc.).

3. Additional physical and topographic surveying in areas not covered by previous surveys or where more detailed topographic or facility location data may be required.

4. Environmental surveys to identify the presence of wetlands and/or threatened and endangered species in areas of the NWWMF site proposed for future development in this Project.

BC will assist the HDR Team by reviewing the survey documentation prepared by Coastal and working with Coastal's staff to revise or refine any of the information presented.

Task 3 – Subsurface Investigations

Task 3 involves site investigations to assess subsurface conditions in the study area and the approximate rate and direction of groundwater movement. Field investigations will include the following activities:

- Geophysical surveys
- Geotechnical investigations
- Soil classification and laboratory testing
- Hydrogeologic investigation

Preliminary discussions with Hernando County staff have identified about 115 acres of undeveloped land on the west side of the NWWMF site that could realistically be used for the various improvements currently being planned for implementation. The field investigations identified above will be limited to that 115-acre study area. GeoView, Inc. will perform the geophysical surveys. Ardaman & Associates, Inc. will perform the geotechnical investigations, the hydrogeological investigations, and other site investigation work. BC's work related to the subsurface investigations will be limited to coordination with HDR, GeoView and Ardaman regarding performance of the work and review and evaluation of the data compiled from the field investigations.

Subtask 3.1 – Geophysical Surveys. Ground penetrating radar (GPR) technology will be utilized to detect top of limestone and the presence of subsurface anomalies within the 115-acre area to be investigated. BC will assist HDR and GeoView in laying out the limits of the GPR transects. Following completion of the field work, BC will review the GPR data and work with other members of the HDR Team to identify subsurface anomalies that could potentially represent active sinkhole activity. Areas of concern will be recommended for follow-on geotechnical investigation by Ardaman.

Subtask 3.2 – Geotechnical and Hydrogeologic Investigations. BC will work with HDR, GeoView and Ardaman to locate SPT borings, piezometers and soil sampling sites that will comprise the geotechnical and hydrogeologic investigation program. Following completion of field work, BC will review the data compiled and work with other members of the HDR Team to assess how subsurface conditions on the NWWMF site will impact the location of proposed future site improvements, most notably the location of Cell 4 and stormwater treatment areas within the 115-acre study area. Any areas recommended for further subsurface investigation or remedial work in Phase 2 of the Project will also be noted.

Task 4 – Site Master Plan Update

BC will work cooperatively with other members of the HDR Team and Hernando County staff to

update the existing Site Master Plan for build-out of the existing NWWMF site. The Site Master Plan Update will present recommendations for maximizing the use of available undeveloped land while recognizing existing and future operational requirements at the site and continued protection of the environment. The Site Master Plan Update will focus on optimizing the location and size of the new Class I Cell 4 Landfill with respect to waste disposal capacity, initial construction cost and long-term operating costs, while also providing adequate land area for other planned improvements such as an organic waste composting facility, a leachate pre-treatment facility, and the infrastructure to support them.

The Site Master Plan Update will also identify potential soil borrow areas and stormwater conveyance and treatment areas. The stormwater treatment areas, or drainage retention areas, will be sized for treatment, storage, and infiltration of surface runoff from the various planned project areas based upon preliminary layouts and estimates of impervious area. The drainage retention areas will be located where stormwater runoff from proposed project areas can be most effectively conveyed and where sufficient land area is available to achieve the necessary retention times.

Another key element of the Site Master Plan Update will be to address traffic control and establish a simple, efficient network of access roads that allows delivery vehicles to enter the NWWMF site, access the appropriate waste disposal area, processing facility or drop-off location, and exit the site in the least complicated manner possible.

Subtask 4.1 – Define Planning Objectives and Site Development Criteria. BC will assist the HDR Team and Hernando County staff in establishing general planning objectives and criteria for future development of the NWWMF site. This includes land area requirements for planned project improvements and long-term strategies for Class I Landfill operations, C&D Landfill operations, and management of stormwater, leachate and landfill gas on the site.

Subtask 4.2 – Preliminary Site Master Plan Update. Based upon the results of the site investigations performed in Task 3 and the County's objectives for build-out of the NWWMF site, BC will assist the HDR Team in preparing a preliminary Site Master Plan Update. BC's efforts in development of the Site Master Plan Update will include the following:

- Areas best suited for stormwater treatment and sizing of drainage retention areas needed to support planned improvements on the site;
- Sizing of the land area required for a planned leachate pre-treatment facility and location of areas best suited for siting of that facility;
- Assistance to HDR in identifying the area best suited for Cell 4 development;
- Assistance to HDR in developing the layout of utilities, access roads and other infrastructure to support Cell 4 operations and other planned improvements on the NWWMF site.

The preliminary Site Master Plan Update will consist of a site plan, identifying the proposed

locations for the new Class I Cell 4 Landfill and other project improvement areas, accompanied by a draft technical memorandum (TM) describing the updated Plan and the objectives, reasoning and assumptions that went into its development. BC will contribute to the preparation of the site plan to be developed by HDR and will prepare sections of the TM associated with stormwater management and leachate pre-treatment. BC will also participate in the review of the TM prior to its submittal to Hernando County.

Subtask 4.3 – Review Workshop. BC will attend a workshop with other members of the HDR Team and County staff to review and discuss the preliminary Site Master Plan Update developed in Subtask 4.2. The review workshop is intended to provide a forum for Hernando County staff to ask questions, register concerns and provide input to the Site Master Plan Update. The review workshop is anticipated to be a half-day meeting and will be conducted in Brooksville at a location to be determined by Hernando County.

Subtask 4.4 – Final Site Master Plan Update. Using input from the review workshop in Subtask 4.3, BC will assist the HDR Team in finalizing the Site Master Plan Update. The final Site Master Plan Update will form the basis for conceptual design of Cell 4 and related infrastructure in Task 5.

Task 5 – Conceptual Design

In Task 5, BC will assist the HDR Team in preparing a conceptual design for development of Cell 4 and associated infrastructure based upon the recommended location and layout in the final Site Master Plan Update. Issues to be addressed in the development of the conceptual design of Cell 4 include the following:

- Bottom liner system;
- Phasing of Cell 4 construction;
- Sequencing of fill operations in Cell 4;
- Stormwater management;
- Leachate collection, transmission and storage;
- Collection and conveyance of landfill gas.

The evaluation of alternatives incorporating various approaches to the issues identified above will lead to a preferred design concept for Cell 4, which in turn, will form the basis for detailed design and permitting of Cell 4 improvements in Phase 2 of the Project. The following paragraphs briefly describe the work activities to be performed by BC as part of this effort.

Subtask 5.1 – Establish Conceptual Design Criteria. In cooperation with other members of the HDR Team and Hernando County staff, establish conceptual design criteria for development of Cell 4. The criteria will include, but will not be limited to, maximum fill elevation, physical and visual buffers along property boundaries, phasing of construction, location and configuration of sub-cells, etc. These criteria, along with the recommendations of the Site Master Plan Update,

will serve as the guidelines on which the conceptual design of Cell 4 will be based.

Subtask 5.2 – Bottom Liner System. HDR will have the lead for evaluating alternative bottom liner systems, including any structural support required to protect the bottom liner against failure due to sinkhole activity. BC will provide input to HDR in this regard based upon the experience gained from the design and permitting of Cell 3 at the NWWMF site.

Subtask 5.3 – Construction Phasing. HDR will have the lead for evaluating alternative approaches to phasing of Cell 4 construction. BC will provide input to HDR in this regard based upon BC's experience gained from similar evaluations for construction of Cell 3 at the NWWMF site.

Subtask 5.4 – Operational Fill Sequencing. HDR will have the lead for developing alternative fill sequence scenarios for each of the construction phasing alternatives developed in Subtask 5.3. BC will provide input to HDR in this regard based upon experience with Cell 3 operations at the NWWMF site.

Subtask 5.5 – Landfill Gas Management. BC will have the lead in developing a conceptual plan for active landfill gas collection and management from Cell 4. BC will coordinate with HDR and County staff in this regard. The work to be performed by BC under Subtask 5.5 is expected to include the following:

- Compile and tabulate historical and projected future annual waste intake for the existing Class I Landfill, Cells 3 and 4.
- Compile and review Non-Methane Organic Compounds (NMOC) data from prior Tier 2 landfill gas reports. This information will be used in preparing estimates of landfill gas generation.
- Prepare landfill gas generation estimates using USEPA's LandGEM based on two different methane generation potentials and decay rates.
- Prepare a conceptual layout for a landfill gas collection system in Cells 3 and 4 including extraction wells and lateral and header piping.
- Prepare a planning level cost estimate for any landfill gas improvements that would be constructed initially as part of the Cell 4 Project.
- Prepare written documentation of the landfill gas system conceptual design to be included in the Conceptual Design Report in Subtask 5.8.

For the purposes of this project, it is assumed that the on-site landfill gas processing facility at the NWWMF will remain in its current location regardless of whether or not the County chooses to enter into a new agreement with the current contract operator when the existing agreement expires or chooses to enter into an agreement with a different firm for contract operations.

Subtask 5.6 – Stormwater Management. BC will have the lead for developing conceptual design plans for stormwater treatment facilities to serve Cell 4 and other planned on-site

improvements. BC will coordinate with HDR and County staff in this regard. The work to be performed by BC under Subtask 5.6 is expected to include the following:

- Evaluate existing (pre-development) drainage basin stormwater runoff, surface water flow path(s) and basin low point or outfall.

- Develop a stormwater management system schematic illustrating conveyance and treatment systems to serve proposed on-site improvements at build-out.

- Review FDEP design requirements for drainage retention areas (DRA) in karst geology.

- Perform preliminary stormwater runoff calculations and modeling for conceptual sizing of conveyance features and DRAs (post development).

- Prepare plan and sectional views of proposed conveyance and DRA features illustrating their conceptual design and any anticipated construction phasing that might be appropriate due to phasing of Cell 4 construction.
- Prepare written documentation of the stormwater management system conceptual design to be included in the Conceptual Design Report in Subtask 5.8.

It is intended that the conceptual stormwater system design developed in this subtask be consistent with the overall plan for build-out of the NWWMF site, but only include those stormwater features needed to serve Cell 4 and any other facilities that will already be in place or at the time of Cell 4 construction.

Subtask 5.7 – Technical Review Meeting. BC will assist other members of the HDR Team in presenting the results of the evaluations performed in Subtasks 5.2 through 5.6 to Hernando County staff at a workshop-style technical review meeting. The purpose of the meeting will be to gain input from County staff on the advantages and disadvantages of the various options and to gain consensus on a preferred approach for the initial development of Cell 4. Output from the technical review meeting will be used by the HDR Team to formalize a conceptual design for the Cell 4 Project in Subtask 5.8 for review and approval by Hernando County.

Subtask 5.8 – Conceptual Design Report. BC will assist other members of the HDR Team in preparing a Conceptual Design Report summarizing the results of the alternatives evaluation and documenting the preferred approach for the design of Cell 4 and related site improvements as agreed upon at the technical review meeting. The conceptual design will include the proposed location, configuration and sequencing of future waste disposal operations in Cell 4, as well as facilities for managing stormwater, leachate, and landfill gas. The Conceptual Design Report will also contain an opinion of probable construction cost for the recommended improvements, as well as a projected schedule for design, permitting and construction.

Task 6 – Coordination with FDEP

To confirm that the selected approach for build-out of the NWWMF site and the design of Cell 4 are consistent with FDEP policies and regulations, the HDR Team will maintain periodic

communication with FDEP throughout the course of Phase 1 work. BC will participate in up to four (4) conference calls with FDEP staff and in one meeting at FDEP's Headquarters in Tallahassee. Hernando County staff will be included in all project communications and meetings between the HDR Team and FDEP.

ASSUMPTIONS

The Scope of Services defined above and the corresponding fee estimate presented in Attachment B are based on a number of assumptions regarding the work that BC will perform. These include the following:

1. BC will assist HDR, as directed, in coordinating the efforts of local subconsultants in the field when necessary.

2. HDR will be responsible for development of the Site Master Plan Update graphic. BC will provide input to the graphic and prepare written documentation regarding the stormwater management, leachate pre-treatment and landfill gas management components Site Master Plan Update TM.

3. BC will develop a preliminary layout for a leachate pre-treatment facility as part of the Site Master Plan Update. Similar layouts for the organic waste composting facility and associated material storage areas will be prepared by others. The layouts will be accompanied by estimates of impervious area for use by BC in sizing stormwater management features.

4. BC will prepare graphics and written documentation related to stormwater and landfill gas management to be included in the Task 5 Conceptual Design Report.

5. HDR will be responsible for all formal cost estimating. BC will provide input (preliminary quantity take-offs, equipment and material quotes, etc.) to HDR estimators on conceptual design features developed by BC.

6. BC will assist HDR by reviewing all preliminary and final deliverables before they are submitted to Hernando County.

7. Reproduction of deliverables submitted to Hernando County will be the responsibility of HDR.

8. Work on Phase 1 of the Class I Cell 4 Expansion Project will be completed within eight (8) months of Notice to Proceed to HDR by Hernando County.

ATTACHMENT B

FEE ESTIMATE

CLASS I CELL 4 LANDFILL EXPANSION
NORTHWEST WASTE MANAGEMENT FACILITY

PHASE 1 - SITE MASTER PLAN UPDATE AND CONCEPTUAL DESIGN

Brown and Caldwell proposes to perform the Scope of Services described in Attachment A for the lump sum fee of $254,184. This includes all labor costs and direct expenses required to perform the work. A breakdown of our fee estimate by task and labor category is presented in the tables on the following pages.

COST ESTIMATE

HERNANDO COUNTY NORTHWEST WASTE MANAGEMENT FACILITY
CELL 4 MASTER PLAN UPDATE AND CONCEPTUAL DESIGN

BROWN AND CALDWELL - LABOR

TASKS	Principal	Technical Expert	Senior PM	QA/QC Manager	Task Manager	Senior Engineer	Civil Engineer	Project Engineer	CADD Designer	Staff Engineer	Project Analyst	Admin/ Support	Total Hours	Total Cost
Billing Rate ($/hr)	259.00	245.00	240.00	240.00	198.00	154.00	152.00	132.00	127.00	93.00	93.00	77.00		
Task 1 -- PROJECT MANAGEMENT														
Subtask 1.1 Contract Administration	8		24								64	16	112	$15,016
Subtask 1.2 Project Review Meetings			64	16									80	$19,200
Task 1 Subtotal	8	0	88	16	0	0	0	0	0	0	64	16	192	$34,216
Task 2 -- SURVEY SUPPORT SERVICES														
Subtask 2.1 Survey Support Services					16		16						32	$5,600
Task 2 Subtotal	0	0	0	0	16	0	16	0	0	0	0	0	32	$5,600
Task 3 -- SUBSURFACE INVESTIGATIONS														
Subtask 3.1 Geophysical Surveys				8	24								32	$6,672
Subtask 3.2 Geotechnical and Hydrogeologic Investigations				8	40								48	$9,840
Task 3 Subtotal	0	0	0	16	64	0	0	0	0	0	0	0	80	$16,512
Task 4 -- SITE MASTER PLAN UPDATE														
Subtask 4.1 Define Planning Objectives and Site Development Criteria		4	8	8	12	24			8	16			80	$13,396
Subtask 4.2 Preliminary Site Master Plan Update		8	8	16	64	92		68	24	64		24	368	$54,384
Subtask 4.3 Review Workshop			8	4	16	8						8	44	$7,896
Subtask 4.4 Final Site Master Plan Update			4	8	36	24		32	8	40		8	160	$23,280
Task 4 Subtotal	0	12	28	36	128	148	0	100	40	120	0	40	652	$98,956
Task 5 -- CONCEPTUAL DESIGN														
Subtask 5.1 Establish Conceptual Design Criteria				4	4								8	$1,752
Subtask 5.2 Bottom Liner System				8	8								16	$3,504
Subtask 5.3 Construction Phasing				4	8								12	$2,544
Subtask 5.4 Operational Fill Sequencing				4	8								12	$2,544
Subtask 5.5 Landfill Gas Management		8		8	12	8			40	120			196	$23,728
Subtask 5.6 Stormwater Management				4	16	8		112	48				188	$26,240
Subtask 5.7 Technical Review Meeting			8	8	8								24	$5,424
Subtask 5.8 Conceptual Design Report		4		12	24	24		16	40	8			128	$20,244
Task 5 Subtotal	0	12	8	52	88	40	0	128	128	128	0	0	584	$85,980
Task 6 -- COORDINATION WITH FDEP														
Subtask 6.1 Pre-Application Communication with FDEP			24										24	$5,760
Task 6 Subtotal	0	0	24	0	0	0	0	0	0	0	0	0	24	$5,760
Total Labor Hours	8	24	148	120	296	188	16	228	168	248	64	56	1,564	
Total Labor Dollars	$2,072	$5,880	$35,520	$28,800	$58,608	$28,952	$2,432	$30,096	$21,336	$23,064	$5,952	$4,312		$247,024

Total Hours for all Tasks	1,564
Total Dollars for all Tasks	$247,024

COST ESTIMATE

HERNANDO COUNTY NORTHWEST WASTE MANAGEMENT FACILITY
CELL 4 MASTER PLAN UPDATE AND CONCEPTUAL DESIGN

BROWN AND CALDWELL - OTHER DIRECT COSTS

		UNIT	NO. OF UNITS	UNIT COST	TOTAL COST
1.0	AIRFARE	TRIP	1	$500.00	$500
2.0	MILEAGE	MI.	3,000	$0.45	$1,335
3.0	LODGING	DAY	2	$175.00	$350
4.0	PER DIEM	DAY	20	$35.00	$700
5.0	CAR RENTAL	DAY	20	$100.00	$2,000
5.0	COPYING AND PRINTING				
	B/W COPYING	PAGE	5,000	$0.15	$750
	COLOR COPYING	PAGE	200	$1.00	$200
	DRAWINGS	SHEET	100	$1.50	$150
		COPYING SUBTOTAL			$1,100
6.0	COMMUNICATIONS				
	TELEPHONE	WEEK	52	$20.00	$1,040
	POSTAGE	WEEK	52	$5.00	$260
	FEDERAL EXPRESS	UNIT	5	$25.00	$125
	FAX	PAGES	50	$2.00	$100
		COMMUNICATIONS SUBTOTAL			$1,525
OTHER DIRECT COSTS SUBTOTAL					$7,160
MARKUP ON ODCs				0.0%	$0
TOTAL OTHER DIRECT COSTS					$7,160

PROJECT COST SUMMARY	
TOTAL BILLING LABOR COST	$247,024
TOTAL OTHER DIRECT COSTS	$7,160
TOTAL PROJECT COST	$254,184

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

February 11, 2019
File Number 18-13-0113

HDR, Inc.
76 South Laura Street
Suite 1600
Jacksonville, FL 32202

Attention: Mr. Mark Roberts, P.E.
Vice President, Senior Professional Associate

Subject: Proposal for Geotechnical and Hydrogeological Services to Support Update of Site Master Plan and Development of Conceptual Designs for Cell 4 and Supporting Facilities at Hernando County Northwest Waste Management Facility

Gentlemen/Ladies:

As requested by HDR, Inc. (HDR), Ardaman & Associates, Inc. (Ardaman) is pleased to submit this proposal for providing geotechnical and hydrogeological services to support Phase 1 of the project, which is to update the site master plan and develop a conceptual design for Cell 4 at the Northwest Waste Management Facility (NWWMF) in Hernando County, Florida. Cell 4 will be a Class I landfill cell located on the west side of the landfill property, west of the existing Class I landfill cells consisting of Cells 1 through 3 and southwest of the construction and demolition debris (C&D) disposal areas consisting of the existing Phases I and II and the proposed Phase III. Cells 1 and 2 have been closed, and Cell 3 is the currently active Class I landfill cell. Phase I of the C&D disposal area has been closed, and Phase II is currently active. Design and permitting of Phase III are ongoing.

We understand that Cell 4 will have an area of approximately 35 to 40 acres and will be constructed within an approximately 65-acre area on the west side of the landfill property. Construction of Cell 4 will also involve construction of a compost area, a leachate treatment area, and a drainage retention area to the north and northwest, with areas of approximately 18, 8, and 20 acres, respectively. For comparison, Cell 3 occupies an area of approximately 30 acres).

The following sections present a scope of work, provide the estimated fees, and proffer a schedule for our geotechnical and hydrogeological services to support update of the site master plan and development of a conceptual design for the proposed Cell 4 as well as the supporting facilities (i.e., the compost area, leachate treatment area, and drainage retention area). Our services are intended to complement those services that will be provided by HDR, Brown and Caldwell, GeoView, Inc., and Coastal Engineering, which together represent the consulting team to Hernando County on this project.

Field Services

Because the NWWMF lies in a karst environment, the subsurface condition is expected to be highly variable, possibly with presence of historical sinkhole features and occurrence of active

sinkhole activities. Previous subsurface explorations performed at the landfill facility generally revealed a surficial sand layer overlying clayey deposit on top of limestone. The clayey deposit was known to be discontinuous or contained fissures or cracks to a degree that a surficial aquifer was absent (i.e., no regional water table).

We understand that prior to our field exploration for the proposed Cell 4 and supporting facilities, GeoView will perform a geophysical survey on a grid pattern for the entire area to identify any anomalous subsurface features or conditions that require drilling of soil borings to determine whether protective measures (e.g., reinforcement of bottom liner system) need to be incorporated into the landfill design and/or corrective measures (e.g., compaction grouting of subsurface voids) need to be implemented prior to landfill construction.

The objectives of our field services will be to assess the soil and groundwater conditions beneath the proposed Cell 4 and supporting facilities, to evaluate any subsurface anomalies revealed by the geophysical survey, to establish a subsurface profile for preliminary landfill design and geotechnical analyses, and to determine whether additional subsurface explorations are warranted. Accordingly, the appropriate number of soil borings will depend on the number of subsurface anomalies revealed by the geophysical survey, the uniformity of the subsurface stratigraphy, and the presence of any objectionable deposits (e.g., peat or muck) that require delineation and subsequent removal. Tentatively, Ardaman proposes the performance of the following soil borings:

- Fifteen Standard Penetration Test (SPT) soil borings, designated TH-C4-1 through TH-C4-15 within the proposed 65-acre Cell 4 area (i.e., approximately one soil boring per four acres).

- Three SPT soil borings, designated TH-CA-1 through TH-CA-3, within the proposed 18-acre compost area (i.e., approximately one soil boring per six acres).

- Two SPT soil borings, designated TH-LT-1 and TH-LT-2, within the proposed 8-acre leachate treatment area (i.e., approximately one soil boring per four acres).

- Five SPT soil borings, designated TH-DR-1 through TH-DR-4, within the proposed 20-acre drainage retention area (i.e., approximately one soil boring per four acres).

Each of the 25 SPT soil borings will be drilled to a depth of 25 feet below the top of limestone or where refusal (i.e., with a standard penetration resistance of greater than 50 blows per foot) is encountered, whichever is shallower. We expect the total drilling footage at the 25 drilling locations to be on the order of 2,000 lineal feet (i.e., an average soil boring depth of 80 feet below land surface).

Our crew will perform the SPTs and associated soil sampling continuously in the upper 10 feet of the soil profile, and at 5-foot vertical intervals thereafter or whenever there is a noticeable change in soil characteristics or strata. In addition to the disturbed SPT soil samples to allow performance of laboratory index and classification testing, our drill crew will perform wash borings and collect 15 undisturbed samples from the clayey layer beneath the Cell 4 area (i.e., one undisturbed sample per soil boring) to allow performance of laboratory permeability, strength, and consolidation tests. Bucket samples of the surficial sandy soil will also be obtained from beneath the drainage retention area for laboratory compaction and permeability testing.

Our crew will document the depth to groundwater inside the boreholes, if encountered, and will grout all boreholes upon completion of drilling.

To allow measurement of groundwater levels and establishment of groundwater flow directions and gradients, Ardaman proposes to install five piezometers, designated PZ-C4-1 through MW-C4-5, within the proposed Cell 4 area and three piezometers, designated PZ-DR-1 and PZ-DR-3, within the proposed drainage retention area. These piezometers will be installed adjacent to selected SPT soil boring locations and will have a 10-foot long screen within the upper 25 feet of the limestone formations or below the seasonal low groundwater elevations, whichever is deeper, with an estimated depth of approximately 100 feet each (i.e., 800 lineal feet of piezometers total). Any required permits for well construction will be obtained by Ardaman. These piezometers may also be used later for groundwater sampling to establish background water quality near the top part of the limestone formations. Because these piezometers will be installed within the proposed construction limits and, therefore, will likely have to be abandoned prior to construction, Ardaman does not plan to construct concrete pads, protective casings, or bollards for these piezometers.

Ardaman will supply a drilling rig and a two-person drilling crew from our Tampa office to perform the soil borings and soil sampling and to install the piezometers.

Laboratory Services

Ardaman will perform laboratory testing on the recovered soil samples to characterize the index and engineering properties for each distinct soil layer. All laboratory tests, where applicable, will be performed in accordance with ASTM International standards.

Ardaman will perform index and classification tests on selected representative SPT soil samples from the surficial sandy soil and underlying clayey deposit, the 15 undisturbed soil samples of clayey soil, and the bucket soil samples obtained from beneath the drainage retention area. We will also perform laboratory permeability, strength, and consolidation tests on the undisturbed soil samples from the clayey layer. Tentatively, we plan to perform 75 moisture content determinations, 25 organic content determinations, 25 sieve analyses, 75 fines content determinations, 25 Atterberg limits determinations, 2 Standard Proctor compaction tests, 4 consolidation tests, 6 permeability tests, and 15 unconfined compression tests to characterize the subsurface soils and to document their engineering properties.

Engineering Services

Ardaman will provide the following engineering services for this project:

- Review results from previous field explorations performed at the NWWMF.
- Review geological and hydrogeological publications for the project area.
- Research and review published sinkhole information for the project area.
- Perform a site visit to observe the site condition and to attend a project kickoff meeting with representatives of Hernando County and the consulting team to review project objectives, work plan, and project schedule.

- Attend a permit pre-application meeting with representatives of Hernando County, the consulting team, and the Florida Department of Environmental Protection (FDEP) in Tallahassee.
- Coordinate with GeoView for performance of the geophysical survey.
- Review the findings from the geophysical survey and, if needed, modify our field exploration program.
- Review the findings from our soil borings and, if needed, modify our laboratory testing program.
- Develop a conceptual subsurface profile for preliminary landfill design and geotechnical analyses.
- Attend monthly conference calls with Hernando County and the consulting team to discuss work progress and any project issues.
- Prepare an engineering report to summarize the geological and hydrogeological conditions and reported sinkholes in the project area, to describe the field and laboratory works completed by Ardaman, to present the findings from our field exploration and laboratory testing programs, to provide the results from our preliminary geotechnical analyses, and to recommend whether additional subsurface explorations are warranted.

Estimated Fees

The above services will require a budget of $220,000, which consists of approximately $128,000 for field services, $20,000 for laboratory services, and $72,000 for engineering services. A breakdown of the estimated fees is shown in Table 1. Ardaman will invoice our efforts monthly on a time-and-material basis in accordance with the labor rates shown in Appendix 1, and the field and laboratory rates shown in our published fee schedule that is effective at the time our services are rendered. A copy of 2019 Fee Schedule for field and laboratory services is included in Appendix 2. We will not exceed the authorized budget without justification and your approval.

Project Schedule

Based on our current workload, we should be able to mobilize our drilling equipment within two to four weeks upon receipt of notification to proceed and completion of the geophysical survey by GeoView. The field services will require approximately six to eight weeks. Laboratory testing of the recovered soil samples can be completed within eight weeks upon completion of the field exploration program. Barring any unforeseen project issues or delays beyond our control, we should be able to complete the geotechnical analyses and issue the engineering report within eight weeks upon completion of the laboratory testing program. Accordingly, issuance of the engineering report could take up to seven months from the time the contract is executed. Because the outcomes from the geophysical survey and any regulatory issues from the permit pre-application meeting with the FDEP may impact our work and schedule, these activities should be arranged as soon as practical.

Proposal Conditions and Assumptions

This proposal is based on the following conditions and assumptions:

- The levels of effort (e.g., the number and depths of soil borings) described in this proposal are acceptable to the FDEP.
- The FDEP will stipulate any special requirements (e.g., the diameter of the depression that a geogrid or high-strength woven geotextile should bridge over) at the permit pre-application meeting or near the beginning of the project.
- There will only be one mobilization/demobilization of our drilling equipment and crew to the project site.
- The designated areas for construction of Cell 4 and the supporting facilities are undeveloped lands without any soil or groundwater contamination.
- All drilling sites are accessible or will be made accessible to our drilling equipment before our equipment and crew mobilize to the job site.
- There will be no standby time for our drilling equipment and drill crew at the site for reasons beyond our control.
- Installation of casings will not be required to advance the soil borings.
- Soil borings will be drilled at 25 locations with a total drilling footage of 2,000 lineal feet.
- Piezometers will be installed at 8 locations with a total length of 800 lineal feet.
- The piezometers will not be provided with concrete pads and protective bollards.
- Survey of locations and elevations for the soil borings is not covered in this proposal.
- Well development and groundwater sampling and analyses are not included in this proposal.
- Ardaman will measure depths to groundwater in all new piezometers and other nearby existing piezometers one time, with an effort not to exceed one crew-day.
- Abandonment of the installed piezometers is not included in this proposal.
- Our engineers will attend one meeting with Hernando County and the consulting team at the NWWMF, and one permit pre-application meeting with FDEP, Hernando County, and the consulting team in Tallahassee.
- A geotechnical report will be the only formal deliverable.
- Our contracted scope of work under this proposal can be completed within nine months from the date of receipt of notification to proceed.

Ardaman looks forward to working with the consulting team and providing services to Hernando County on this project. If you have any questions or need additional information, please contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.

Francis K. Cheung, P.E.
Principal Engineer/Vice President

Enclosures

Table 1

Breakdown of Estimated Fees

Services	Unit	Unit Rate	No of Units	Estimated Fee
• **Field Services**				
Mobilization/Demobilization	each	$1,000.00	1	$1,000.00
Truck Mileage	mile	$0.75	5,600	$4,200.00
Use of All-Terrain Rig	foot	$1.00	2,000	$2,000.00
Wash Boring for Undisturbed Sampling	foot	$8.60	750	$6,450.00
SPT Soil Borings: 0 to 25 feet	foot	$18.00	625	$11,250.00
SPT Soil Borings: 25 to 50 feet	foot	$20.10	625	$12,562.50
SPT Soil Borings: 50 to 100 feet	foot	$22.20	750	$16,650.00
Drilling in High Resistance Materials	foot	$3.60	200	$720.00
Undisturbed Sampling	each	$187.50	15	$2,812.50
Hole Location and Setup	crew-hour	$200.00	33	$6,600.00
Water Level Reading	crew-hour	$222.00	4	$888.00
Support Water Truck	day	$173.00	40	$6,920.00
Lodging and Subsistence	crewman-day	$132.00	80	$10,560.00
Piezometer Installation	foot	$40.00	800	$32,000.00
Borehole Grouting	foot	$3.50	2,825	$9,887.50
Allowance for Materials and Supplies	-	-	-	$3,000.00
Subtotal for Field Services				$127,500.50
• **Laboratory Services**				
Visual Classification	hour	$85.00	8	$680.00
Moisture Content Determination	each	$15.25	75	$1,143.75
Organic Content Determination	each	$35.25	25	$881.25
Classification of Undisturbed Sample	each	$69.50	15	$1,042.50
Sieve Analyses	each	$54.50	25	$1,362.50
Fines Content Determination	each	$36.75	75	$2,756.25
Atterberg Limits Determination PI < 150%	each	$119.00	10	$1,190.00
Atterberg Limits Determination PI > 150%	each	$192.00	15	$2,880.00
Standard Proctor Compaction Test	each	$120.00	2	$240.00
Consolidation Test	each	$670.00	4	$2,680.00
Permeability Test	each	$335.00	6	$2,010.00
Unconfined Compression Tests	each	$111.00	15	$1,665.00
Sample Preparation	each	$38.25	15	$573.75
Daily Charge for Permeability Tests	day	22.00	50	$1,100.00
Subtotal for Laboratory Services				$20,205.00

(continued)

Table 1 (continued)

Breakdown of Estimated Fees

Services	Unit	Unit Rate	No of Units	Estimated Fee
• **Engineering Services**				
Project Management				
- Principal	hour	$198.00	36.00	$7,128.00
Site Visit and Kickoff Meeting				
- Principal	hour	$198.00	8.00	$1,584.00
- Senior Engineer	hour	$167.00	8.00	$1,336.00
- Truck Mileage	mile	$0.75	200.00	$150.00
FDEP Meeting in Tallahassee				
- Principal	hour	$198.00	12.00	$2,376.00
- Truck Mileage	mile	$0.75	550.00	$412.50
Field and Laboratory Coordination				
- Principal	hour	$198.00	16.00	$3,168.00
- Senior Engineer	hour	$167.00	80.00	$13,360.00
- Geotechnical Engineer	hour	$119.00	24.00	$2,856.00
- Truck Mileage	mile	$0.75	400.00	$300.00
Boring Logs				
- Principal	hour	$198.00	4.00	$792.00
- Senior Engineer	hour	$167.00	8.00	$1,336.00
- Geotechnical Engineer	hour	$119.00	50.00	$5,950.00
- Clerical/Administrative	hour	$53.00	12.00	$636.00
Preliminary Analyses and Evaluation				
- Principal	hour	$198.00	16.00	$3,168.00
- Senior Engineer	hour	$167.00	40.00	$6,680.00
- Geotechnical Engineer	hour	$119.00	24.00	$2,856.00
Geotechnical Report				
- Principal	hour	$198.00	16.00	$3,168.00
- Senior Engineer	hour	$167.00	40.00	$6,680.00
- Geotechnical Engineer	hour	$119.00	24.00	$2,856.00
- Project Engineer	hour	$119.00	16.00	$1,904.00
- CADD Designer	hour	$85.50	24.00	$2,052.00
- Clerical/Administrative	hour	$53.00	8.00	$424.00
- Allowance for Outside Services	-	-	-	$200.00
Subtotal for Engineering Services				$71,372.50
TOTAL				$219,078.00

Appendix 1

Contract Labor Rates

1653 BLAISE DRIVE • BROOKSVILLE, FLORIDA 34601
P 352.754.4020 • F 352.754.4199 • W www.HernandoCounty.us

EXHIBIT "B"
SCHEDULE OF RATES
18-R00129/PH

The standard Hourly Labor Rates are subject to adjustment annually based of the Consumer Price Index issued by the Bureau of Labor Statistics, Southeastern Regional Office for the South for the index for ***All Items/Wage earners & clerical workers***, for the percent of change through the month of May of each calendar year.

The following hourly rates include all direct and indirect costs except direct expenses. Indirect cost include such items as overhead, profit and such statutory and customary fringe benefits such as social security contributions, sick leave, unemployment, excise and payroll taxes, workmen's compensation, health and retirement benefits, bonuses, annual leave and holiday pay.

Position Classifications (classification titles subject to change)	**Employee or Sub-Consultant Name (if any)**	**Loaded Hourly Rates**
Principal	Francis Cheung	$198.00
Senior Associate		
Project Manager	Patrick Kennedy	$167.00
Assistant Project Manager		
Quality Assurance/Quality Control		
Civil & Mechanical Designer		
Structural Engineer		
Environmental Scientist	David Scarboro	$105.00
Senior Engineer	Jeyisanker Mathiyaparanam	$167.00
Project Engineer		
Geotechnical Engineer	Anuran Paul	$119.00
Project Surveyor		
Civil Engineering Technician	Ron Stidham	$73.50
CADD Technician	Ron Ortiz	$76.50
CADD Designer	Paula Soto	$85.50
Clerical/Administrative	Evelyn Dodge	$53.00

Appendix 2

2019 Rates for Field and Laboratory Services

ARDAMAN & ASSOCIATES, INC.
2019 FEE SCHEDULE*
FIELD SERVICES (PAGE 1 OF 3)

MOBILIZATION/DEMOBILIZATION		
Mobilization and Demobilization		
• Men and Equipment (Minimum $100.00)	Per Rig-Hour	$202.00
• Mileage - Rig	Per Mile	$1.40
• Mileage - Truck	Per Mile	$0.75
• Portable Barge	Price depends on project requirements	
STANDARD DRILLING		
All Terrain Vehicle	Add'l Price Per LF	$1.00
Auger Borings (4-inch)	Per Lineal Foot	$12.00
Wash Borings - Cuttings Only (up to 3 inch)		
• Soil Drilling	Per Lineal Foot	$8.60
• Rock Drilling	Per Lineal Foot	$14.40
Standard Penetration Test (SPT) Borings		
(ASTM D-1586) in Soil (N-values <50):		
• from surface to 25 feet	Per Lineal Foot	$18.00
• from 25 feet to 50 feet	Per Lineal Foot	$20.10
• from 50 feet to 100 feet	Per Lineal Foot	$22.20
• from 100 feet to 125 feet	Per Lineal Foot	$28.40
• from 125 feet to 150 feet	Per Lineal Foot	$37.60
Standard Penetration Test (SPT) Borings in		
High Resistance Soil/Rock (N-values > 50)	Add'l Price Per LF	$3.60
Furnish, Install, and Remove Casing (up to 4-inch):		
• from surface to 50 feet	Per Lineal Foot	$10.70
• from 50 feet to 100 feet	Per Lineal Foot	$13.10
• from 100 feet to 150 feet	Per Lineal Foot	$16.90
Drilling (Time Basis)/2 man-crew	Per Crew-Hour	$223.50
Drilling (Time Basis)/3 man-crew	Per Crew-Hour	$276.00
Rock Coring (N or H size)		
• from surface to 50 feet	Per Lineal Foot	$42.00
• from 50 feet to 100 feet	Per Lineal Foot	$48.10
• from 100 feet to 150 feet	Per Lineal Foot	$54.35
SAMPLING		
Additional SPT and Samples		
• from 10 feet to 25 feet	Per Additional Sample	$34.50
• from 25 feet to 50 feet	Per Additional Sample	$37.80
• from 50 feet to 100 feet	Per Additional Sample	$43.00
• from 100 feet to 125 feet	Per Additional Sample	$48.40
• from 125 feet to 150 feet	Per Additional Sample	$60.50
Undisturbed Samples		
• Shelby Tube	Per Sample	$153.50
• Fixed-Piston Shelby, Osterberg, Pitcher	Per Sample	$187.50
SOUNDINGS		
Electric Dutch Cone Soundings	Per Lineal Foot	$14.70
Piezocone Soundings	Per Lineal Foot	$16.20
Muck Probing/Clay Sampling	Per Crew-Hour	$235.00
Electric Dutch Cone Soundings (Time Basis)	Per Crew-Hour	$226.50
Piezocone/Piezoprobe Soundings (Time Basis)	Per Crew-Hour	$246.00
Piezocone Dissipation Monitoring	Per Crew-Hour	$244.00
Piezoprobe Dissipation Monitoring	Per Crew-Hour	$195.00

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*These prices are in effect for work completed through December 27, 2019. This fee schedule will be superseded by the 2020 fee schedule on December 28, 2019.

ARDAMAN & ASSOCIATES, INC.
2019 FEE SCHEDULE*
FIELD SERVICES (PAGE 2 OF 3)

OTHER CHARGES

Clearing Difficult Access, Hole Location and Set-Up	Per Crew-Hour	$200.00
Standby Time	Per Crew-Hour	$200.00
Piezometer and Well Installation (plus materials)	Per Crew-Hour	$222.00
Bore Hole Grouting and Sealing (plus materials)	Per Crew-Hour	$222.00
Well Clearing/Sensitivity Test/Water Level Reading	Per Crew-Hour	$222.00
Double Ring Infiltration Test	Per Test	$650.00
Air Boat Use	Per Day	$425.00
Support Water Truck Use	Per Day	$173.00
Instrumentation Unit Use	Per Day	$309.00
Lodging and Subsistence (in Florida)	Per Crewman-Day	$132.00
Lodging and Subsistence (outside Florida)	Rate Determined Per Job	
Meal Expenses for Field Employees (in Florida)	Per Crewman-Day	$40.00
Meal Expenses for Field Employees (outside Florida)	Rate Determined Per Job	
Materials & Supplies	Per Job	At Cost + 12%

GENERAL FIELD EQUIPMENT

Data Logger	Per Day	$418.00
Organic Vapor Analyzer (OVA 128 or Gastech)	Per Day	$138.00
Photo Ionization Detector (Photovac Tip)	Per Day	$172.00
Methane Detector	Per Day	$142.00
Explosimeter	Per Day	$89.00
Generator	Per Day	$152.00
Air Compressor	Per Day	$82.00
Steam Cleaner	Per Day	$142.00
Surveying Equipment	Per Day	$86.00
Centrifugal Development Pump	Per Day	$67.00
Submersible Sampling Pump and Controller (Daily)	Per Day	$198.00
Submersible Sampling Pump and Controller (Weekly)	Per Week	$590.00
Submersible Development Pump (Daily)	Per Day	$90.00
Submersible Development Pump (Weekly)	Per Week	$270.00
Peristaltic Purging Pump	Per Day	$69.00
Magnetometer	Per Day	$64.00
Product/Water Interface Probe	Per Day	$85.00
pH/Conductivity Meter	Per Day	$30.00
Turbidity Meter	Per Day	$70.00
Dissolved Oxygen Meter	Per Day	$125.00
Water Level Indicator	Per Day	$27.50
Bailer Usage	Per Day	$29.00
Streamgaging flow meter	Per Day	$31.00
Concrete Saw	Per Day	$146.00
Vibration Monitor	Per Day	$280.00
Trimble Geo 7X w/centimeter kit GPS	Per Day	$72.00
Transducer	Per Day	$78.00
Hand Auger	Per Day	$21.00
Jon Boat & Motor	Per Day	$215.00
Ponar Dredge	Per Day	$26.00
Kemmar Sampler	Per Day	$26.00
Manta Data Sonde	Per Day	$188.00
Bridge Board	Per Day	$114.00
Inflatable Boat	Per Day	$88.00

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ARDAMAN & ASSOCIATES, INC.
2019 FEE SCHEDULE*
FIELD SERVICES (PAGE 3 OF 3)

EXPENDABLE SUPPLIES

High Capacity (1 or 0.45 micron) Filter	Each	$30.00
Disposal Teflon Bailer	Each	$28.00
Disposable Polyethylene Bailer	Each	$17.50
Disposable Free Product Bailer	Each	$29.50
Isopropyl Alcohol (decontamination)	Per Gallon	$19.25
Deionized Water (decontamination)	Per Five Gallons	$14.25
16 oz. Soil Jars (soil headspace analysis)	Per Box of 12	$14.25
Tygon Tubing	Per Foot	$3.70
Polyethylene Tubing	Per Foot	$0.65
55-gallon Drum	Each	$91.00
Master Lock	Each	$19.50

GEOPHYSICAL EQUIPMENT

Geonics EM 34-3	Per Day	$292.00
AGI Sting R1-IP	Per Day	$272.00
Liner Leak Detection Equipment	Per Day	$305.00

SPECIAL DRILLING/SOUNDING

Prices for special drilling (barge drilling; air boat sampling; amphibious drilling; NQ wire line coring; large diameter borings; drilling in corrosive, contaminated or hazardous materials; drilling at great depths; installing large diameter temporary casing; etc.), field vane testing, and other specialized sampling or field tests will be determined per project. Work performed over water will be at 1.5 times the standard unit prices.

INSTRUMENTATION

Prices for installation of monitor wells, inclinometers and settlement devices and for performance of packer tests will be determined per project.

TERMS: All invoices are due and payable upon receipt unless other arrangements have been made previously. A finance charge of 1.5% per month, which is an annual interest rate of 18%, will be paid on all invoices not paid within 30 days. Any attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by the Client.

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ARDAMAN & ASSOCIATES, INC.
2019 FEE SCHEDULE*
LABORATORY SOIL TESTING SERVICES (PAGE 1 OF 2)

CLASSIFICATION TESTS

Soil Moisture Content (ASTM D-2216)	Each	$15.25
Gypsum Moisture Content (ASTM D-2216) at 40° C	Each	$26.75
Organic Content		
Loss on Ignition (ASTM D-2974)	Each	$35.25
Wet Combustion (AASHTO T-194)	Each	$120.00
Unit Weight/Classification of Undisturbed Sample	Each	$69.50
Particle-Size Distribution		
Sieve Analysis (ASTM D-421, D-422)	Each	$54.50
Fines Content (ASTM D-1140)	Each	$36.75
Hydrometer Analysis (ASTM D-422)	Each	$118.00
Atterberg Limits (ASTM D-4318); Method A; Wet Preparation		
Plasticity Index Less than 150%	Per Set	$119.00
Plasticity Index Greater than 150%	Add'l Per Set	$73.00
Shrinkage Limit (ASTM D-4943)	Each	$94.00
Specific Gravity (ASTM D-854)	Each	$104.00
Marsh Funnel Viscosity (API 13B-1)	Each	$24.50
Slump Cone (ASTM C-143)	Each	$24.50
Effective Porosity (ASTM D-2325 at 1/3 atm)	Each	$82.50

COMPACTION TESTS

Standard (ASTM D-698) or Modified Proctor (ASTM D-1557)		
Up to 5 Points	Per Test	$120.00
More than 5 Points	Per Add'l Point	$16.00
Plasticity Index Greater than 20%	Add'l Per Test	$130.00
Maximum-Minimum Density (ASTM D-4253, D-4254)	Per Set	$134.00
Limerock Bearing Ratio (3 Points)	Per Set	$405.00

CONSOLIDATION TESTS

Incremental Consolidation Test (ASTM D-2435 w/c_v and C_{ae})		
Up to Ten Load or Unload Increments	Per Test	$670.00
More than Ten Load or Unload Increments	Per Add'l	$60.00
Constant Rate of Strain Consolidation Test (ASTM D-4186)	Each	$670.00
Settling Test (D=10cm; Ho=30cm)	Each	$130.00

PERMEABILITY TESTS

Rigid Mold Permeameter (ASTM D 2434), k≥1E-03 cm/sec & -200<10%	Each	$262.50
Flexible Wall Permeameter (ASTM D 5084), k>1E-08 cm/sec	Each	$335.00
Flexible Wall Permeameter (ASTM D 5084), k≤1E-08 cm/sec	Each	$475.00
Permeation with Fluid Other Than Water	Add'l Per Test	$210.00

STRENGTH TESTS

Strength Index Tests (Torvane, Penetrometer)	Each	$6.75
Vane Shear Test (ASTM D-4648)	Each	$26.50
Unconfined Compression Test (ASTM D-2166)		
Strength Only	Each	$60.00
With Stress-Strain Curve	Each	$111.00
Triaxial Tests		
Unconsolidated-Undrained (ASTM D-2850)	Each	$290.00
Unconsolidated-Undrained (with pore pressure response)	Each	$640.00
Consolidated-Undrained (with pore pressure measurement)	Each	$640.00
Consolidated-Drained on Sands	Each	$525.00
Consolidated-Drained on Fine Grained Soils	Each	$690.00
Use of Pore Fluid Other Than Water	Add'l Per Test	$210.00

TERMS: All invoices are due and payable upon receipt unless other arrangements have been made previously. A finance charge of 1.5% per month, which is an annual interest rate of 18%, will be paid on all invoices not paid within 30 days. Any attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by the Client.

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ARDAMAN & ASSOCIATES, INC.
2019 FEE SCHEDULE*
LABORATORY SOIL TESTING SERVICES (PAGE 2 OF 2)

STRENGTH TESTS (Continued)

Direct Shear Tests		
Conventional 2.3" Box Shear (ASTM D-3080)	Per Normal Load	$319.00
2.3" Box Shear With Stress Reversals	Per Normal Load	$485.00
2.3" Box Shear With Geosynthetics	Per Normal Load	$333.00
Direct Simple Shear Test (ASTM D-6528)	Per Normal Load	$820.00
Split Tensile for Rock Cores (ASTM D-3967)	Each	$154.50
Angle of Repose	Each	$56.50

Preparation of Laboratory Samples for Testing (e.g., sedimented or compacted) will be charged at $38.25 per sample. Prices for Visual Classification, for Special Sample Preparation, for Special Laboratory Tests (Slurry Consolidation, Leaching Tests, Settling Tests, etc.), and for testing contaminated soils or hazardous materials will be determined per project based upon technician man-hours and other considerations. In addition, a daily charge of $22.00 per day will be assessed for special long-term laboratory tests (i.e., slurry consolidation, leaching tests, etc.).

TERMS: All invoices are due and payable upon receipt unless other arrangements have been made previously. A finance charge of 1.5% per month, which is an annual interest rate of 18%, will be paid on all invoices not paid within 30 days. Any attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by the Client.

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ARDAMAN & ASSOCIATES, INC.
2019 FEE SCHEDULE*
LABORATORY CHEMICAL & GEOSYNTHETIC TESTING SERVICES

CHEMICAL TESTS

pH (FM5-550)	Each	$8.50
Specific Conductance (FM3-D 1125)	Each	$9.50
Sulfate (FM5-553)	Each	$46.50
Chloride (FM5-552)	Each	$46.50
Soil pH (FM5-550)	Each	$46.50
Soil Specific Conductance	Each	$46.50
Soil Resistivity (ASTM G-57 or FM5-551)	Each	$52.00
Carbonate Content (ASTM D 4373; HCl gasometric)	Each	$76.00
Carbonate Content (FM5-514; HCl gravimetric)	Each	$127.00
Water Corrosivity Series (FM5-550,552,553, FM3-D 1125)	Each	$106.00
Soil Corrosivity Series (ASTM D2216, FM5-550, 551, 552, 553)	Each	$186.00
Aggregate Soluble Silica (H_2SO_4 Extraction)	Each	$265.00
Concrete Low Level Chloride (FM5-516)	Each	$165.00

GEOSYNTHETICS

Geomembrane Thickness (ASTM D-751, D-5199 or D-5994)	Per Sample	$17.75
Geomembrane Asperity Height (ASTM D7466)	Per Sample	$38.50
Geomembrane Density (ASTM D-792)	Per Sample	$34.25
Geomembrane Tensile Strength (ASTM D6693; 5 MD/5 XD)	Per Set	$85.75
Geomembrane Tear Resistance (ASTM D1004; 10 MD/10 XD)	Per Set	$75.50
Geomembrane Seams (ASTM D-4437 or D-6392)		
• Extrusion Weld (5 Peel and 5 Shear) Specimens	Per Set	$50.25
• Double-Wedge Fusion Weld (10 Peel & 5 Shear) Specimens	Per Set	$75.00
Geotextile Grab Tensile Strength ((ASTM D4632; 10 MD/10 XD)	Per Set	$85.50
Geotextile Trapezoidal Tear (ASTM D4533; 10 MD/10 XD)	Per Set	$101.00
Geotextile Wide-Width Tensile (ASTM D4595; 6 MD/6 XD)	Per Set	$130.50
Geotextile Mass/Unit Area (ASTM D-3776 or D-5261)	Per Sample	$34.50
Geotextile Thickness (ASTM D-1777 or D-5199)	Per Sample	$18.00
Geotextile Seam Strength (ASTM D-4884; 6 specimens)	Per Sample	$65.00
Geocomposite Bond Strength (ASTM D7005; 5 MD Both Sides)	Per Set	$106.50
Geonet Breaking Force (ASTM D7179; 5 MD)	Per Set	$63.00
GCL Bonding Peel Strength (ASTM D6496; 5 MD)	Per Set	$63.00
GCL Tensile Strength (ASTM D6768; 5 MD)	Per Set	$63.00
Interface Direct Shear (ASTM D-5321)		
• Geosynthetic to Geosynthetic	Per Normal Stress	$292.00
• Geosynthetic to Soil	Per Normal Stress	$397.00

SAMPLE PREPARATION AND SPECIAL TESTS

Preparation of Samples for Testing (e.g., crushing for carbonate content determination, filtering of clayey soil for chemical tests) will be charged at $38.25 per sample. Prices for other tests on geomembranes and geotextiles will be determined per project based upon technician man-hours and other considerations.

TERMS: All invoices are due and payable upon receipt unless other arrangements have been made previously. A finance charge of 1.5% per month, which is an annual interest rate of 18%, will be paid on all invoices not paid within 30 days. Any attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by the Client.

*These prices are in effect for work completed through December 27, 2019. This fee schedule will be superseded by the 2020 fee schedule on December 28, 2019.

ARDAMAN & ASSOCIATES, INC.
2019 FEE SCHEDULE
DRILLING MATERIALS AND SUPPLIES

Special Task/Crew Chief - Technician V	Per Hour	$ 85.00
Special Task/ Drill Helper -Technician II	Per Hour	$ 56.65
Sensitivity Equipment	Per Day	$ 140.00
Grout Tremie Pipe	Per Foot	$ 1.70
Drilling Mud - Grouting	Per Bag	$ 17.10
Silica Sand - 50 lbs.	Per Bag	$ 7.35
Portland Cement - 47 lbs.	Per Bag	$ 11.85
Sakrete Mix	Per Bag	$ 6.85
Bentonite Pellets	Per Pound	$ 1.10
Bentonite Chips - 50 lbs.	Per Bag	$ 17.10
High Solids Bentonite Grout - 50 lbs.	Per Bag	$ 33.10
Pipe Solid - 1.00" TFJ PVC40	Per Foot	$ 1.75
Pipe Solid - 1.25" TFJ PVC40	Per Foot	$ 2.35
Pipe Solid - 1.50" TFJ PVC40	Per Foot	$ 2.65
Pipe Solid - 2.00" TFJ PVC40	Per Foot	$ 2.40
Pipe Solid - 4.00" TFJ PVC40	Per Foot	$ 6.35
Pipe Slotted - 1.00" TFJ PVC40	Per Foot	$ 2.65
Pipe Slotted - 1.25" TFJ PVC40	Per Foot	$ 3.25
Pipe Slotted - 1.50" TFJ PVC40	Per Foot	$ 3.00
Pipe Slotted - 2.00" TFJ PVC40	Per Foot	$ 3.40
Pipe Slotted - 4.00" TFJ PVC40	Per Foot	$ 8.65
Cap - 1.00" TFJ PVC40	Each	$ 7.90
Cap - 1.25" TFJ PVC40	Each	$ 10.25
Cap - 1.50" TFJ PVC40	Each	$ 9.50
Cap - 2.00" TFJ PVC40	Each	$ 6.60
Cap - 4.00" TFJ PVC40	Each	$ 36.25
Pipe Solid - 1.00" SLJ PVC40	Per Foot	$ 1.10
Pipe Solid - 1.25" SLJ PVC40	Per Foot	$ 1.10
Pipe Solid - 1.50" SLJ PVC40	Per Foot	$ 1.35
Pipe Solid - 2.00" SLJ PVC40	Per Foot	$ 1.60
Pipe Solid - 4.00" SLJ PVC40	Per Foot	$ 4.25
Pipe Solid - 6.00" SLJ PVC40	Per Foot	$ 7.65
Pipe Slotted - 1.00" SLJ PVC40	Per Foot	$ 2.10
Pipe Slotted - 1.25" SLJ PVC40	Per Foot	$ 2.65
Pipe Slotted - 1.50" SLJ PVC40	Per Foot	$ 2.40
Pipe Slotted - 2.00" SLJ PVC40	Per Foot	$ 3.35
Pipe Slotted - 4.00" SLJ PVC40	Per Foot	$ 8.65
Cap - 1.00" SLJ PVC40	Each	$ 1.00
Cap - 1.25" SLJ PVC40	Each	$ 1.10
Cap - 1.50" SLJ PVC40	Each	$ 1.20
Cap - 2.00" SLJ PVC40	Each	$ 1.60
Cap - 4.00" SLJ PVC40	Each	$ 9.50
Cap - 6.00" SLJ PVC40	Each	$ 22.00
Coupling - 1.00" SLJ PVC40	Each	$ 1.10
Coupling - 1.25" SLJ PVC40	Each	$ 1.35
Coupling - 1.50" SLJ PVC40	Each	$ 1.10
Coupling - 2.00" SLJ PVC40	Each	$ 1.90
Coupling - 4.00" SLJ PVC40	Each	$ 7.35
Coupling - 6.00" SLJ PVC40	Each	$ 23.65
8" Manhole with Cover	Each	$ 42.00
12" Manhole with Cover	Each	$ 84.00
Hollow-Stem Plug - 6"	Each	$ 2.90
Well Centralizer - 2.00" S.S.	Each	$ 29.40
Well Centralizer - 4.00" S.S.	Each	$ 36.80
4.00" Protector Pipe - Aluminum	Each	$ 100.00
6.00" Protector Pipe - Aluminum	Each	$ 246.00
4.00" Protection Pipe - Black Steel	Each	$ 107.00
6.00" Protection Pipe - Black Steel	Each	$ 218.00

TERMS: All invoices are due and payable upon receipt unless other arrangements have been made previously. A finance charge of 1.5% per month, which is an annual interest rate of 18%, will be paid on all invoices not paid within 30 days. Any attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by the Client.

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January 3, 2019

Mr. Mark Roberts, P.E.
HDR
76 South Laura Street, Suite 1600
Jacksonville, FL 32202

Subject: Proposal to Perform a GPR Investigation
Hernando County Cell 4 Expansion Site
Hernando County, Florida
GeoView Proposal Number: 7458p

Mr. Roberts,

The purpose of this letter is to transmit a proposal to complete a geophysical investigation at the subject site. This proposal is in response to your request for proposal made during your recent conversations with our office. GeoView, Inc. appreciates the opportunity to provide our services on this project. We look forward to hearing from you soon.

Sincerely,

GEOVIEW, INC.

Michael J. Wightman, P.G.
President
Florida Professional Geologist Number 1423

Enclosure

Proposal

This document shall serve as proposal for work to be performed by GeoView, Inc. (GeoView) for HDR.

Description of Site

The project site is referred to as the Hernando County Cell 4 Expansion Site and is located 14450 Landfill Road in Hernando County, Florida. A ground penetrating radar (GPR) investigation is to be performed in the four areas of the planned expansion. The locations of the study areas are provided on Figure 1 (page 7) and are described as follows:

- Class 1 Cell 4 (65 acres)
- Compost Area (18 acres)
- Leachate Treatment Area (8 acres)
- Drainage Retention Area (20 acres)

The purpose of the GPR survey will be to determine the presence and location of potential karst (sinkhole) related geological features that may be present with the project site boundaries. The survey areas are reported to be accessible to the geophysical investigation which will consist of an all-terrain vehicle towing the GPR instrumentation.

Scope of Work

GeoView will provide geophysical surveying services at the project site. The purpose of the GPR survey will be to determine the presence and location of features, as indicated by the survey results that are indicative of potential sinkhole activity.

The geophysical survey will be conducted using ground penetrating radar (GPR). The GPR survey will be conducted using a Mala GPR system. A 250-megahertz antenna will be used for the investigation. The GPR survey will be conducted across a series of perpendicular transects spaced either 25 of 50 feet (ft) apart. A transect spacing of 25 ft will be used for the Class 1 Cell 4 and Drainage Retention areas. A transect spacing of 50 ft will be used for the Compost Area and Leachate Treatment Area. The GPR data will digitally recorded for both analysis and archiving purposes.

The GPR data will be collected with an integrated GPS system that will provide sub-foot positioning accuracy for the data. It is estimated that the investigation will take 7 to 10 days to complete. Approximately 65 miles of continuous GPR data will be collected as part of the initial field investigation.

The ability of GPR to collect interpretable information at a project site is limited by the attenuation (absorption) of the GPR signal by underlying soils. Once the GPR signal has been attenuated at a particular depth, information regarding deeper geological conditions will not be obtained.

Presentation of Results

Results of the GPR investigation will be presented as a final report. As part of the final report an ACAD site drawing will be provided which indicates the location, lateral extent and apparent centers of any areas where sinkhole activity is suspected. The final report will be submitted to you within 10 days of completion of the fieldwork.

Compensation

Cost to complete the survey will be $19,500. Additional charges related to the project may also apply:

- Revisit to Site to Collect Additional GPR Data: $1700 per day
- Incorporation of Responses to Regulatory Review or Attendance for Meetings to Discuss Project Results: $195 per hour
- Principal Geophysicist: $195/hour
- Staff Geophysicist: $105/hour
- Graphics: $70/hour
- Clerical/Administration: $55/hour

Total costs for project will not exceed $30,000 based on the assumption that no significant changes to the scope of the project are requested and that the same geophysical methods are employed throughout the investigation.

This price is inclusive of all charges associated with the project. Unless otherwise agreed upon, GeoView shall be compensated for all services within 30 days of invoice date. GeoView shall be paid in full regardless of whether the results of the geophysical survey are what HDR anticipated. If it is determined during the survey that the geophysical survey will not achieve the objectives of the project, HDR will immediately be notified. If a decision is made to discontinue the survey, only charges for time and materials costs to that point will be submitted.

Requirements of Client

Unless otherwise requested, HDR will be responsible for the coordination of site access, traffic control, clearing of onsite obstructions or any other logistical consideration necessary to conduct the survey.

General Description the Geophysical Methods

Ground Penetrating Radar

Ground Penetrating Radar (GPR) consists of a set of integrated electronic components that transmits high frequency (200 to 2600 megahertz [MHz]) electromagnetic waves into the ground and records the energy reflected back to the ground surface. The GPR system consists of an antenna, which serves as both a transmitter and receiver, and a profiling recorder that both processes the incoming signal and provides a graphic display of the data. The GPR data can be reviewed real time as the data is collected and later reviewed using proprietary GPR data analysis software. GeoView uses GSSI and Mala GPR system. Geological characterization studies are typically conducted using a 250 to 500 MHz antennas.

A GPR survey provides a graphic cross-sectional view of subsurface conditions. This cross-sectional view is created from the reflections of repetitive short duration electromagnetic (EM) waves that are generated as the antenna is pulled across the ground surface. The reflections occur at the subsurface contacts between materials with differing electrical properties. The electrical property contrast that causes the reflections is the dielectric permittivity that is directly related to conductivity of a material. The GPR method is commonly used to identify such targets as underground utilities, underground storage tanks or drums, buried debris, voids or geological features.

The greater the electrical contrast between the surrounding earth materials and target of interest, the greater the amplitude of the reflected return signal. Unless the buried object is metal, only part of the signal energy will be reflected back to the antenna with the remaining portion of the signal continuing to propagate downward to be reflected by deeper features. If there is little or no electrical contrast between the target interest and surrounding earth materials it will be very difficult if not impossible to identify the object using GPR.

The depth of penetration of the GPR signal is very site specific and is controlled by two primary factors: subsurface soil conditions and selected antenna frequency. The GPR signal is attenuated (absorbed) as is passes through earth materials. As the energy of the GPR signal is diminished due to attenuation, the energy of the reflected waves is reduced, eventually to the level that they can no longer be resolved by the GPR system. The more conductive the earth materials, the greater the GPR signal attenuation, hence a reduction in signal penetration depth. Typical soil conditions that severely limit GPR signal penetration are near-surface clays and/or organic materials.

The depth of penetration of the GPR signal is also reduced as the antenna frequency is increased. However, as antenna frequency is increased the resolution of the GPR data is improved. Therefore, when designing a GPR survey a tradeoff is made between the required depth of penetration and desired resolution of the data. As a rule, the highest frequency antenna that will still provide the desired maximum depth of penetration should be used.

A GPR survey is conducted along survey lines (transects) that are measured paths along which the GPR antenna is moved. Electronic distances are maintained within the system to allow for a correlation between the GPR data and the position of the GPR antenna on the ground.

For geological characterization surveys, the GPR survey is conducted along a set of perpendicularly orientated transects. The survey is conducted in two directions because subsurface features such as sinkholes are often asymmetric. Spacing between the transects typically ranges from 10 to 50 feet. Closely spaced grids are used when the objective of the GPR survey is to identify all sinkhole features within a project site. Coarser grids are used when the objective is to provide a general overview of site conditions. After completion of a survey using a given grid spacing, additional more-closely spaced GPR transects are often performed to better characterize sinkhole features identified by the initial survey. This information can be used to provide recommended locations for geotechnical borings.

Limitations

The objective of the geophysical survey is to determine the presence and lateral extent of near-surface voids/cavities in the limestone bedrock or areas with a significant localized change in the near-surface soil composition or density. The geophysical response of these features may range from very good to marginal depending upon on the physical characteristics of the near surface soils. Accordingly, these features may not be fully resolvable using GPR. GeoView shall conduct the geophysical survey using the most "up-to-date" geophysical equipment in a manner consistent with the level of care and skill ordinarily exercised by members of the geophysical profession practicing in the same locality under similar conditions.

It is recognized that all geophysical test methods are non-intrusive and that confirmation of the significance of any identified feature must be determined by a qualified geotechnical engineer.

Other Terms and Conditions

Additional Insured: If requested, HDR will be named as an additional insured with respect to the services to be performed under this agreement.

Confidentiality: GeoView shall not directly or indirectly disclose to any third person information regarding the results of the geophysical investigation prior to obtaining written permission from HDR.

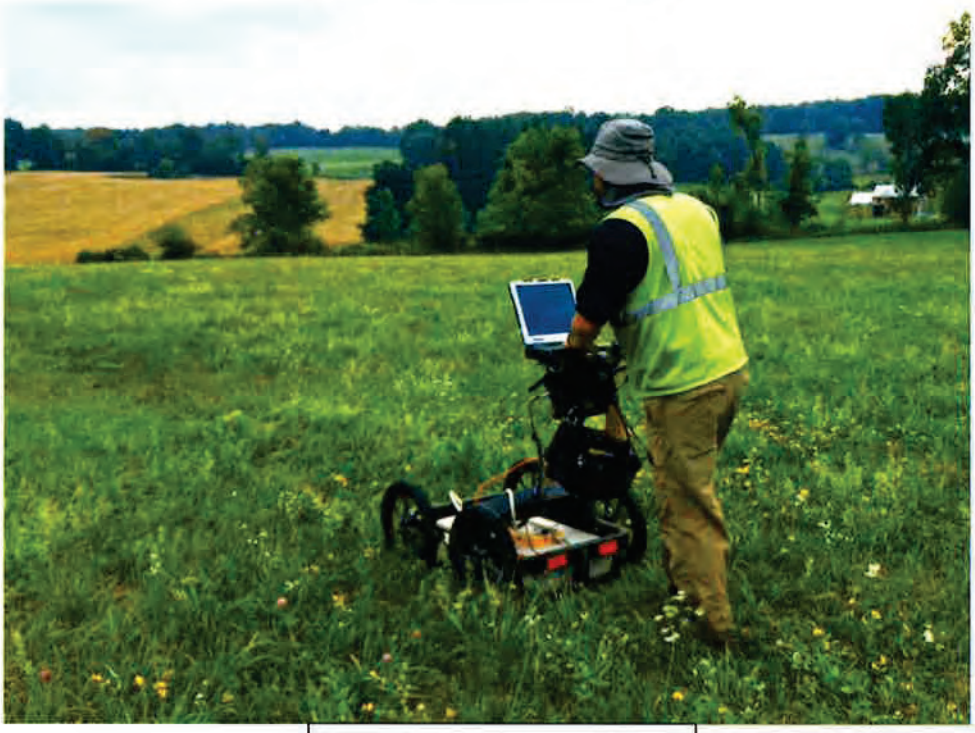
Agreement: This agreement represents the entire agreement between the parties and may only be modified in writing signed by both parties.

Governing Law: This agreement shall be deemed to have been made in the place of performance of the Geophysical Services and shall be governed by, and construed in accordance with the laws of the state in which the geophysical services were provided. Any controversy or claim arising out of this agreement, or breach thereof, shall be settled by binding arbitration administered by the American Arbitration Association under its Construction Industry Arbitration rules. Judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

Indemnity: GeoView agrees to indemnify, protect and hold harmless HDR from and against all liabilities, claims or demands of every kind of injury, including death, or damages to any person or property related in any way to GeoView's performance of this agreement, except to the extent such liabilities, claims or demands are caused by the negligence or willful misconduct of HDR.

Project Site Location

Equipment Pictures



Collection of GPR Data

EXHIBIT B - TASK FEE QUOTATION PROPOSAL

1/24/19

PROJECT NAME: HERNANDO COUNTY CLASS I CELL 4 LANDFILL EXPANSION NORTHWEST MANAGEMENT FACILITY

PROJECT ACTIVITY	Principal		Project Manager		Sr. Environmental Scientist		Senior Land Surveyor		Survey Crew		Survey CAD Tech		Admin Support		Basic Activity	Man Hrs by Activity	Avg Hrly Rate
	Man Hrs	Hrly Rate	Man Hrs	Hrly Rate	Man Hrs	Hrly Rate	Man Hrs	Hrly Rate	Man Hrs	Hrly Rate	Man Hrs	Hrly Rate	Man Hrs	Hrly Rate	$ AMOUNT		
Task 1 - Project Management																	
Subtask 1.2 - Project Review Meetings	0	$170	16	$132	0	$110	0	$110	0	$132	0	$72	0	$55	$2,112	16	$132.00
Task 2 - Survey Support Services																	
Subtask 2.1 - Preparation of a base map combining the 2018 topographic data with the current NWWMF property boundaries	1	$170	2	$132	0	$110	4	$110	0	$132	32	$72	2	$55	$3,288	41	$80.20
Subtask 2.2 - Horizontal and vertical control for geophysical surveys (GPR transects) and geotechnical investigations (borings, piezometers, etc.)	1	$170	4	$132	0	$110	0	$110	40	$132	20	$72	2	$55	$7,528	67	$112.36
Subtask 2.3 - Additional physical and topographic surveying in areas not covered by previous surveys or where more detailed topographic or facility location data may be required.	1	$170	4	$132	0	$110	2	$110	32	$132	16	$72	2	$55	$6,404	57	$112.35
Subtask 2.4 - Environmental surveys to identify the presence of wetlands and/or threatened and endangered species in areas of the NWWMF site proposed for future development in this Project. Prepare an environmental report discussing findings.	1	$170	4	$132	38	$110	0	$110	0	$132	0	$72	2	$55	$4,988	45	$110.84
Subtask 2.4 NOTES:																	
1. This task does not include permitting mitigation or field visits with agency staff.																	
2. This task does not include performing a wetland delineation.																	

SUB-TOTAL HOURLY COSTS	$ $24,320.00
I.) Sub-consultant(s) (LS):	
II.) Direct Expenses (LS):	$ $250.00
NOT TO EXCEED TOTAL LUMP SUM COST	$ $24,570.00

Firm Name: Coastal Engineering Associates, Inc.

Signature: _____

Clifford E. Manuel, Jr., President
(Printed Name and Title)

Date: _____

BROWN AND CALDWELL

_____ _____
Department Name Authorized Signature

_____ Jim Nissen, PE
(Date) (Printed Name and Title) (Date)

TASK ORDERS ARE TO INCLUDE: SCOPE OF SERVICE, PROJECT TIME FRAME, FEE QUOTATION PROPOSAL, AND ANY OTHER RELATIVE ATTACHMENTS. TASK ORDERS ARE TO BE SUBMITTED IN TWO SIGNED ORIGINAL COPIES WITH A PURCHASE REQUISITION TO THE PURCHASING AND CONTRACTS DEPARTMENT.

JHS
ENVIRONMENTAL

CLASS I CELL 4 LANDFILL EXPANSION

HERNANDO COUNTY NORTHWEST WASTE MANAGEMENT FACILITY

SCOPE OF SERVICES
PHASE I-SITE MASTER PLANNING UPDATE

January 30, 2019

This Scope of Services describes work to be performed by JHS Environmental Engineering (JHS) for the Hernando County Solid Waste & Recycling. This Scope of Services is for professional engineering services to be provided by HDR Engineering (HDR) in support of Class I Landfill expansion at Hernando County's Northwest Waste Management Facility (NWWMF). The expansion will include development of a new Class I waste disposal cell (Cell 4) on the west side of the existing NWWMF site and associated site improvements and infrastructure needed to support the new cell (Project). The Project will be implemented in three phases as follows:

- Phase 1 – Site Master Planning Update
- Phase 2 – Design and Permitting
- Phase 3 – Construction Phase Services

This Scope of Services is intended to include support for Phase I of the Project.

Task 1.0 – Project Review Meetings.

JHS will attend periodic project status meetings with Hernando County staff to review the progress of work on the project. A total of eight project meetings have been assumed for budgeting purposes which includes a project kick-off meeting which will be held prior to the initiation of work.

Task 2 – Site Master Plan Update

JHS will provide support to the HDR consulting team, in cooperation with Hernando County staff, to update the existing Site Master Plan for build-out of the existing NWWMF site. The Site Master Plan Update will present recommendations for maximizing the use of available undeveloped land while recognizing existing and future operational requirements at the site and continued protection of the environment. The Site Master Plan Update will focus on optimizing the location and size of the new Class I Cell 4 Landfill with respect to waste disposal capacity, initial construction cost and long-term operating costs, while also providing adequate land area for other planned improvements such as future C&D Landfill cells, an organic waste composting facility, a leachate pre-treatment facility, and the infrastructure to support them.

Task 3 – Conceptual Design

In Task 3, JHS will provide support to the HDR team to prepare a conceptual design for development of Cell 4 and associated infrastructure based upon the recommended location and layout in the final Site Master Plan Update. Issues to be addressed in the development of the conceptual design of Cell 4 will include the following:

- Bottom liner system;
- Phasing of Cell 4 construction;

- Sequencing of fill operations in Cell 4;
- Leachate collection, transmission and storage;
- Collection and conveyance of landfill gas.

COMPENSATION

For the professional services set forth in this Scope of Service, the County shall compensate JHS a lump sum fee for Tasks 1 - 3 on a percent completed basis as follows:

TASK	Total Cost
Task 1 – Project Review Meetings.	**$3,000.00**
Task 2 – Site Master Plan Update	**$10,000.00**
Task 3 – Conceptual Design	**$2,000.00**
TOTAL	**$15,000.00**

SCHEDULE

365 calendar days from the Notice-To-Proceed is required to complete the tasks set forth in this Scope of Services.