



REQUEST FOR BOARD ACTION

ITEM NO. 12.

DATE OF MEETING: October 4, 2010

REQUESTED BY: Rick Benton, County Manager

SHORT TITLE: Resolution Approving a Purchase Order to ESC Carolinas, LLP for Construction Materials Testing Services for the Industrial Shell Building Construction Project: \$6,523

BACKGROUND: Pender County is partnering with Pender Progress Corporation and others to construct an industrial shell building in Pender Progress Industrial Park in Burgaw. While Pender Progress Corporation is the owner of the project and the funding recipient, the agreement provides that Pender County will manage and administer the project funds. In doing so, Pender County will follow its normal purchasing and financial guidelines. A capital project ordinance has been adopted by the Board of Commissioners providing for the project funding and expenditures.

Pender Progress is employing the services of ESC Carolinas, LLP for construction materials testing services required during construction of the project.

SPECIFIC ACTION REQUESTED: To adopt a resolution approving a purchase order to ESC Carolinas, LLP in the amount of \$6,523 for construction materials testing for the industrial shell building project.

COUNTY MANAGER'S RECOMMENDATION

Respectfully recommend approval.

 MT
Initial

RESOLUTION

NOW, THEREFORE BE IT RESOLVED by the Pender County Board of Commissioners that:

a purchase order to ESC Carolinas, LLP in the amount of \$6,523 for construction materials testing services for the industrial shell building project is hereby approved. The Chairman/County Manager is authorized to execute any/all documents necessary to implement this resolution.

Account 60-404505 CIP

AMENDMENTS:

MOVED _____ SECONDED _____

APPROVED _____ DENIED _____ UNANIMOUS

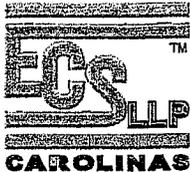
YEA VOTES: Tate ___ Blanchard ___ Brown ___ Rivenbark ___ Williams ___

Jimmy T. Tate, Chairman

Date

ATTEST

Date



ECS CAROLINAS, LLP

"Setting the Standard for Service"

Geotechnical • Construction Materials • Environmental • Facilities

September 15, 2010

Pender Progress Corporation
C/O Mr. George Alsina, Architect
7040 Wrightsville Avenue, Suite 103
Wilmington, North Carolina 28403

Subject: Proposal for Construction Materials Testing Services
Pender Progress Shell Building
Burgaw, North Carolina
ECS Proposal No. 14248

Dear Mr. Alsina:

ECS Carolinas, LLP (ECS) is pleased to submit this proposal to provide construction materials testing (CMT) services for the Pender Progress Shell Building project located in Burgaw, North Carolina.

Our considerable experience with similar projects will help us provide efficient, cost-effective construction testing and engineering consulting services. Included in this letter is our understanding of the proposed scope of services, cost estimate, fee schedule, and our general conditions.

QUALIFICATIONS

ECS is a diversified engineering and environmental consulting firm that has performed similar projects throughout North Carolina. ECS is uniquely qualified to provide CMT services on this project for the following reasons:

- We have extensive experience performing similar construction materials testing (CMT) and services for similar projects.
- We have assembled a team of trained, experienced and qualified individuals prepared to meet your needs and schedules in a cost-efficient manner.
- We have a proven track record of listening to our clients needs and concerns and the flexibility to respond to those needs.
- We have the assets of more than 1,200-person company available to us for expanding the project team to meet your needs if necessary. We have five full service offices in North Carolina (Wilmington, Raleigh, Greensboro, Asheville, and Charlotte) with Geotechnical, Environmental and Construction Materials Testing services capabilities.

The Wilmington branch of ECS was opened in 1993 and has successfully completed numerous quality control testing, special inspections, geotechnical engineering, and environmental consulting projects in coastal plain and southeastern regions of North Carolina.

The Wilmington office has 10 engineers, geologists and scientists on staff. We also have 21 technicians that are trained and certified in ASTM, ACI, NCDOT, and ICC testing procedures. Most of our technicians hold certifications in their area of expertise from nationally recognized technical organizations (ACI, Troxler, NCDOT, ICC, etc.). Our laboratory is accredited by the United States Army Corps of Engineers (USACE) and the North Carolina Department of Transportation (NCDOT) in numerous test methods on a variety of construction materials

REPORTING

ECS recognizes the importance of timely and accurate reporting. All of our technicians are equipped with a new electronic field data acquisition and electronic data transmission systems (PDA). Through the use of those new PDA systems, ECS will deliver to our clients via e-mail, the typed field report that has been reviewed by the project manager and approved by the principal engineer, within 24 to 36 hours, following the field visit.

SCOPE OF SERVICES

ECS will provide construction materials and special inspection services for the project. We propose to provide qualified engineers and engineering technicians to perform the requested services. The following reporting, testing and inspection services may be requested on this project:

Earthwork

- Inspect the site after topsoil has been stripped to verify that objectionable soils have been removed.
- Observe the proofroll of native soils prior to the placement of fill material.
- Observation of the use of proper material during the placement and compaction of fill material including soils.
- Provide certified technicians to test the compaction of fill material and verify the placement of fill material in accordance with the project specifications.
- Provide classification and testing of fill materials to include laboratory and field tests
- Perform DCP testing in footings in accordance with Geotechnical Report
- Submit written reports detailing our activities and findings.

Concrete

- Inspection and testing as required by the project specifications.
- Prior to the placement of concrete, observe the reinforcing steel for correct sizes, locations, splices, and clearances.
- Visually observe the concrete during placement and check to ensure the concrete meets the project specifications.
- Cast, cure, and test concrete cylinders for laboratory strength analysis.
- Submit written reports detailing our activities and findings.

Pender Progress Shell Building
Burgaw, North Carolina
September 15, 2010
ECS Proposal No. 14248

Project Engineering

- Reports will be reviewed by the project engineer before issue.
- Recommendations will be made on non-conforming items. Recommendations will be made from the field by our technician in communication with the project engineer.

PROJECT SERVICING REQUIREMENTS

Based on our review of the project specifications, services for this project will be provided on an on-call basis. ECS will consult with your management team to provide the appropriate level of staffing to meet the project requirements. We request **24-hour** notice prior to providing on-call services to allow us to efficiently schedule technicians.

FEE SCHEDULE

We will invoice you for our services on a monthly basis in accordance with the attached fee schedule. Based on our assumptions, the cost for our services is estimated to be **\$6,523.00**. This cost estimate does not constitute a lump sum bid for our services. Costs for construction testing services are highly dependent on the contractor's needs and the project schedule. Based on a review of the geotechnical report, there are possible unsuitable soils on the site. If undercutting of unsuitable soils is necessary, ECS will provide observation and quantification services of the undercut material on a time and material basis in accordance with the attached fee schedule. The actual cost will depend on the frequency of testing scheduled and on the project schedule and testing needs.

AUTHORIZATION REQUIREMENTS

Signing and returning the attached proposal acceptance form to us indicates your acceptance of this proposal. We are pleased to have the opportunity to offer our services to you and look forward to working with you on this project.

If you have any questions concerning the contents of this letter, or if we can be of further service, please contact us at (910) 686-9114.

Respectfully submitted,

ECS CAROLINAS, LLP



K. Brooks Wall
Project Engineer



Kris J. Stamm
Assistant Branch Manager

Attachments: Cost Estimate
Fee Schedule
Proposal Acceptance Form
General Conditions

**ECS CAROLINAS, LLP
WILMINGTON, NORTH CAROLINA
FEE SCHEDULE
PERSONNEL**

Principal Engineer.....	\$125.00/hour
Structural Engineer.....	\$100.00/hour
Project Engineer.....	\$100.00/hour
Project Manager.....	\$ 85.00/hour
Construction Services Manager.....	\$ 85.00/hour
Structural Masonry Special Inspector.....	\$ 55.00/hour
Reinforced Concrete Special Inspector.....	\$ 55.00/hour
Foundation Technician.....	\$ 40.00/hour
Soil or Materials Field or Lab Technician – Senior Level (**)	\$ 32.00/hour
NCDOT QMS Roadway Technician (**)	\$ 48.00/hour
Welding Technician, Shop or Field Inspection:	
CWI.....	\$ 65.00/hour
Secretary.....	\$ 35.00/hour
Mileage.....	\$00.55/mile

Note: Charges for engineering and technical personnel will be made for time spent in the field, in engineering analysis, in preparation and review of reports, and in travel to and from our office.

(**) = Overtime = Standard Rate x 1.50 for services performed exceeding 8 hours per day, outside our normal business hours of 7:00 am to 5:00 pm, holidays, Saturday, and Sunday.

EQUIPMENT and LABORATORY

Standard Proctor (ASTM D-698) 4 inch mold.....	\$ 95.00 each
Modified Proctor (ASTM D-1557) 4 inch mold.....	\$ 105.00 each
Atterberg Limits (LL & PL) Determination (ASTM D-4318).....	\$ 50.00/test
Grain Size Analysis Test (ASTM D-422).....	\$ 50.00 each
Asphalt Extraction & Gradation.....	\$ 60.00/each
Asphalt Density Determination.....	\$ 25.00/sample
Testing of Cylinders, Core Specimens:	
Compressive strength of grout prisms.....	\$10.00 each
Compressive strength of grout cubes.....	\$10.00 each
Compressive strength of mortar cubes.....	\$10.00 each
Compressive strength of concrete cylinders, (ASTM C-39).....	\$ 9.00 each
Masonry Prisms (including sample preparation).....	\$ 50.00/sample
F-Meter.....	\$ 75.00/day
Nuclear Density Gauge and Moisture Measuring Equipment.....	\$ 35.00/day
Core machine.....	\$ 90.00/day
Rental Equipment & Non-standard Supplies.....	Cost x 1.10

Note: The above charges will be made for tests and equipment operated by ECS personnel in addition to personnel charges already listed.



7211 Ogden Business Park, Ste Project Name:

Pender Progress Shell Building

Wilmington, North Carolina 28411

Phone: (910) 686-9114

Proposal Number:

22:14248

Fax: (910) 686-9666

Date:

September 15, 2010

CONSTRUCTION MATERIALS TESTING SERVICES

Assumptions:

Proofroll	2 days	6 hours per day	
Earthwork (Fill)	6 days	5 hours per day	
Foundation/Concrete	4 days	10 hours per day	4 sets of cyl. @ 4 cyl./set

Field Services:	Quantity		Unit Rate	Cost
Engineering Technician:				
Proofroll	2 visits	@ 6 hours / visits	\$32.00 / hour	\$ 384.00
Earthwork (Fill)	6 visits	@ 6 hours / visits	\$32.00 / hour	\$ 1,152.00
Foundation/Concrete Te	4 visits	@ 10 hours / visits	\$32.00 / hour	\$ 1,280.00
Cylinder Pickups Only	6 visits	@ 3.5 hours / visits	\$32.00 / hour	\$ 672.00
Mileage	18 visits	@ 90 miles / visits	\$0.55 / mile	\$ 891.00
Field Services Subtotal:				\$ 4,379.00
Laboratory Testing:	Quantity		Unit Rate	Cost
Grain Size Analysis	1 samples		\$50.00 / sample	\$ 50.00
Standard Proctor	2 samples		\$95.00 / sample	\$ 190.00
Comp. Strength of Concrete Cyl	4 sets		\$9.00 / cylinder	\$ 144.00
Laboratory Testing Subtotal				\$ 384.00
Equipment Rental:	Quantity		Unit Rate	Cost
Nuclear Density Equipment	6 rental fees		\$35.00 / day	\$ 210.00
Equipment Rental Subtotal:				\$ 290.00
Engineering/Project Management:	Quantity		Unit Rate	Cost
Project Engineer (P.E. Licensed)	6 hours		\$125.00 / hour	\$ 750.00
Project Manager	6 hours		\$85.00 / hour	\$ 510.00
Secretary	6 hours		\$35.00 / hour	\$ 210.00
Engineering/Project Management Subtotal:				\$ 1,470.00
ESTIMATED TOTAL COST:				\$ 6,523.00

**ECS CAROLINAS, LLP
PROPOSAL ACCEPTANCE**

Proposal No.: 14248
Scope of Work: Proposal for Construction Materials Testing
Services
Location: Pender Progress Shell Building
Burgaw, North Carolina

Client Signature: _____ Date: _____

Please complete and return this page to ECS to indicate acceptance of this proposal and to initiate work on the above-referenced project. The Client's signature above also indicates that he/she has read or has had the opportunity to read the accompanying General Conditions of Service and agrees to be bound by such General Conditions of Service.

BILLING INFORMATION
(Please Print or Type)

Name of Client: _____
Name of Contact Person: _____
Telephone No. Of Contact Person: _____

Party Responsible for Payment: _____
Company Name: _____
Person/Title: _____
Department: _____
Billing Address: _____

Telephone Number: _____
Fax Number: _____
Report Receipt Method: _____
E-mail Address: _____

Client Project/Account Number _____
Special Conditions for Invoice _____
Submittal and Approval _____

ECS CAROLINAS, LLP

TERMS AND CONDITIONS OF SERVICE

These Terms and Conditions of Service, including any supplements that may be agreed to, along with the accompanying Scope of Services and Professional Fees constitute the entire Agreement ["**AGREEMENT**"] under which Services are to be provided by ECS CAROLINAS, LLC ["**ECS**"] (including its employees, officers, successors and assigns) for Client ["**CLIENT**"] (including its employees, officers, successors and assigns).

1.0 INDEPENDENT CONSULTANT STATUS

- 1.1 Except as may be otherwise noted herein, ECS shall serve as an independent professional consultant to CLIENT and shall have control over, and responsibility for, the means and methods for providing the Services under this AGREEMENT, including the retention of Subcontractors and Subconsultants. Unless expressly stated in ECS' Scope of Services, ECS shall not serve as CLIENT'S agent or representative.

2.0 SCOPE OF SERVICES

- 2.1 It is understood that the Scope of Services, Professional Fees, and time schedule defined in the Scope of Services are based on information provided by CLIENT and/or CLIENT'S contractors and consultants. CLIENT acknowledges that if this information is not current, is incomplete or inaccurate, or if conditions are discovered that could not be foreseen by a reasonable person, the Scope of Services may change, even while the Services are in progress.

3.0 STANDARD OF CARE

- 3.1 ECS shall strive to perform its professional Services in a manner consistent with that level of skill and care ordinarily exercised by competent members of the same profession providing similar Services in the same region, under similar conditions during the same time period. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this AGREEMENT, or in any ECS report, opinion, plan or other Document of Service, in connection with ECS' Services.
- 3.2 CLIENT understands and agrees that ECS' professional judgment must rely on the facts learned during performance of the Scope of Services. CLIENT acknowledges that such data collection is limited to the immediate area that is sampled, tested and/or observed. Consequently, CLIENT agrees that it shall not bring a claim, based upon facts subsequently learned, regarding conditions between sampling/testing points, in areas not evaluated by ECS, or which were not part of the immediate area(s) explicitly evaluated by ECS.
- 3.3 ECS' professional Services shall be provided in a manner consistent with sound engineering and professional practices. If a situation arises that causes ECS to believe compliance with CLIENT'S wishes could result in ECS violating applicable Laws or Regulations, or will expose ECS to claims or other charges, ECS shall so advise CLIENT. If CLIENT'S actions or inaction result in a violation of applicable Laws or Regulations, ECS shall have the right to terminate its Services in accordance with the TERMINATION provisions of this AGREEMENT.
- 3.4 If CLIENT decides to disregard ECS' recommendations with respect to complying with applicable Laws or Regulations, ECS shall determine if ECS is required to notify the appropriate public officials. CLIENT agrees that such determinations are ECS' sole right to make. CLIENT also agrees that ECS shall not bear liability for failing to report conditions that are CLIENT'S responsibility to report.

4.0 CLIENT DISCLOSURES

- 4.1 CLIENT shall furnish and/or shall direct CLIENT'S consultant(s) or agent(s) to furnish ECS information identifying the type and location of utility lines and other man-made objects known, suspected, or assumed beneath the Site's surface, where the Scope of Services requires ECS to penetrate the Site surface.
- 4.2 CLIENT shall notify ECS of any known, assumed, or suspected regulated, contaminated, or Hazardous Materials that may exist at the Site prior to ECS mobilizing to the Site. Such Hazardous Materials shall include but not be limited to any substance which poses or may pose a present or potential hazard to human health or the environment whether contained in a product, material, by-product, waste, or sample, and whether it exists in a solid, liquid, semi-solid or gaseous form ["Hazardous Materials"].
- 4.3 If any Hazardous Materials are discovered, or are reasonably suspected by ECS after its Services are initiated, a Changed Condition shall exist.

5.0 INFORMATION PROVIDED BY OTHERS

- 5.1 CLIENT waives any claim of liability against ECS regarding any claim for injury or loss allegedly arising from errors, omissions, or inaccuracies in documents and other information in any form provided to ECS, including such information that becomes incorporated into ECS Documents of Service.

6.0 CONCEALED RISKS

- 6.1 CLIENT acknowledges that special risks are associated with the identification of concealed conditions [i.e., subsurface conditions, conditions behind a wall, etc.] that are hidden from view, are not readily apparent, or cannot be accessed for sampling/testing.
- 6.2 Conditions that ECS infers to exist between sampling/testing points may differ significantly from the conditions that exist at the sampling/testing points. Since some conditions can change substantially over time, the CLIENT recognizes that, because of natural occurrences or human intervention at or near the Site, actual conditions discovered through sampling/testing may be subject to rapid or gradual change.
- 6.3 ECS will make reasonable efforts to anticipate and identify potential concealed conditions for exploration, sampling or testing. However, CLIENT understands that such risks cannot be eliminated and agrees that the Scope of Services is that which CLIENT agrees suits CLIENT'S own risk tolerances. CLIENT may request ECS to

evaluate the risks and provide a higher level of exploration to reduce such risks, if desired or appropriate.

7.0 RIGHT OF ENTRY/DAMAGE RESULTING FROM SERVICES

- 7.1 CLIENT warrants that it possesses the authority to provide right of entry permission for the performance of ECS' Services. CLIENT hereby grants ECS and its subcontractors and/or agents, the right to enter from time to time onto the property owned by CLIENT and/or other(s) in order for ECS to perform the Scope of Services.
- 7.2 Except where ECS' Scope of Services explicitly includes obtaining permits, licenses, and/or utility clearances for the performance of ECS' Services, CLIENT warrants that it possesses all necessary permits, licenses and/or utility clearances for the Services to be provided by ECS.
- 7.3 ECS will take reasonable precautions to limit damage to the Site and Improvements during the performance of ECS' Services. CLIENT understands that use of exploration, sampling, or testing equipment may cause some damage, the correction and restoration of which is not part of this AGREEMENT, unless explicitly stated in ECS' Scope of Services, and reflected in the Professional Fees.
- 7.4 CLIENT agrees that it will not bring any claims for liability or for injury or loss allegedly arising from procedures associated with exploration, sampling or testing activities, or discovery of Hazardous Materials, or suspected Hazardous Materials, or ECS' findings, conclusions, opinions, recommendations, plans, and/or specifications related to discovery of contamination.

8.0 UNDERGROUND UTILITIES

- 8.1 In addition to CLIENT-furnished information regarding underground utilities, ECS shall take reasonable and locally customary precautions, possibly including contacting local public and/or private utility locating services, and/or conducting research of publicly available information, to identify underground utilities, as deemed appropriate in ECS' professional opinion. The extent of such precautions shall be at ECS' sole discretion.
- 8.2 CLIENT recognizes that despite due care, ECS may be unable to identify the locations of all subsurface utility lines and man-made features, and that information obtained by ECS and/or ECS' subcontractor(s) or provided to ECS from any entity may contain errors or be incomplete.
- 8.3 CLIENT agrees that ECS shall not be liable for damage or injury, consequential economic damages, and/or penalties resulting from damage to subsurface structures (pipes, tanks, cables, or other utilities, etc.) which are not called to ECS' attention in writing and correctly shown on the diagram(s) furnished by CLIENT or CLIENT'S consultants, or for underground features not marked, or improperly located by governmental or quasi-governmental locators, utility owners, or private utility locating services.

9.0 SAMPLES

- 9.1 Soil, rock, water, building materials and/or other samples and sampling by-products obtained from the Site are the property of CLIENT. ECS will store samples not consumed in laboratory testing for up to sixty (60) calendar days after the issuance of any document containing data obtained from those samples, unless other arrangements are mutually agreed upon in writing. Samples consumed by laboratory testing procedures will not be stored as outlined above.
- 9.2 Unless CLIENT directs otherwise, CLIENT authorizes ECS to dispose of CLIENT'S non-hazardous samples and sampling or testing process byproducts in accordance with applicable Laws.

10.0 ENVIRONMENTAL RISKS

- 10.1 All substances on, in, or under CLIENT'S Site, or obtained from CLIENT'S Site as samples or as byproducts of the sampling process, are and will remain CLIENT'S property.
- 10.2 When Hazardous Materials are known, assumed, or suspected to exist at the Site, ECS shall take appropriate precautions deemed prudent in ECS' sole and professional opinion to comply with applicable Laws and Regulations, and to reduce the risks to ECS' employees, public health, safety, and welfare, and the environment. CLIENT agrees to compensate ECS for such precautions.
- 10.3 When Hazardous Materials are known, assumed, or suspected to exist at the Site, ECS will handle such materials as Hazardous Materials. ECS or ECS' subcontractors will containerize and label such Materials in accordance with applicable Law, and will leave the containers on Site. CLIENT is responsible for the retrieval and lawful removal, transport and disposal of such contaminated samples, and sampling process byproducts.
- 10.4 Unless explicitly stated in ECS' Scope of Services, ECS shall not subcontract nor arrange for the transport, disposal, or treatment of Hazardous Materials. At CLIENT'S request, ECS may assist CLIENT in identifying appropriate alternatives for transport, off-site treatment, storage, or disposal of such substances, but CLIENT, not ECS, shall make final selection of methods and firms to provide such services. CLIENT shall sign all manifests for the disposal of substances affected by Hazardous Materials contaminants and shall otherwise exercise prudence in arranging for lawful disposal.
- 10.5 In those instances where ECS is expressly retained by CLIENT to assist CLIENT in the disposal of Hazardous Materials, samples, or wastes, ECS shall do so only as CLIENT'S agent (notwithstanding any other provision of this AGREEMENT to the contrary) so that ECS shall not assume the role of, nor be considered a generator, storer, transporter, or disposer of Hazardous Materials.
- 10.6 Subsurface sampling may result in unavoidable cross-contamination of certain subsurface areas, as when a probe or excavation/boring device moves through a contaminated zone and links it to an aquifer, underground stream, or other hydrous

body not previously contaminated, or connects an uncontaminated zone with a contaminated zone. Because sampling is an essential element of ECS' Services indicated herein, CLIENT agrees this risk cannot be eliminated. CLIENT will not hold ECS liable for such cross-contamination if ECS provides its Services in accordance with the applicable Standard of Care.

10.7 CLIENT understands that a Phase I Environmental Site Assessment (ESA) is conducted solely to permit ECS to render a professional opinion about the likelihood of the site having a Recognized Environmental Condition on, in, beneath, or near the Site at the time the Services are conducted. No matter how thorough a Phase I ESA study may be, findings derived from its conduct are highly limited and ECS cannot know or state for an absolute fact that the Site is unaffected by one or more Recognized Environmental Conditions. Given the foregoing, CLIENT'S acceptance of this AGREEMENT shall signify that CLIENT understands the limitations associated with Phase I ESAs.

11.0 OWNERSHIP OF DOCUMENTS

11.1 With the exception of the copies of the ECS Documents of Service provided to the CLIENT, all documents, technical reports, letters, photos, boring logs, field data, field notes, laboratory test data, calculations, designs, plans, specifications, reports, or similar documents and estimates of any kind furnished by ECS ("Documents of Service") maintained in any form deemed appropriate by ECS, are and remain, the property of ECS.

11.2 Any exploration, reconnaissance, data review, observations, testing, surveys or similar Services, analyses and recommendations associated with the Services shall be provided by ECS (including subcontracted Services) for the CLIENT'S sole use. CLIENT understands and agrees that any use of the Documents of Service by anyone other than the CLIENT is not permitted.

11.3 CLIENT agrees to not use ECS' Documents of Service for any other projects, or for the Project which has changed in scope, or extensions of the Project, from the details contemplated in ECS' Documents of Service. Any reuse without ECS' written consent shall be at CLIENT'S sole risk and without liability to ECS or to ECS' subcontractor(s).

11.4 CLIENT agrees that ECS' Documents of Service may not under any circumstances be altered by any party except ECS. CLIENT warrants that ECS' Documents of Service shall be used only and exactly as submitted by ECS.

11.5 Except for daily field reports and concrete test reports sent electronically by ECS to CLIENT and CLIENT'S designees, the following shall apply to all electronic files: Files in electronic media format of text, data, graphics, or other types that are furnished by ECS are furnished only for convenience, not reliance by the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies shall govern.

12.0 SAFETY

12.1 CLIENT agrees that ECS is responsible solely for the basic safety of ECS' employees on the Project Site. These responsibilities shall not be inferred by any party to mean that ECS has responsibility for any portion of site safety for any reason. Unless otherwise expressly agreed to in writing, ECS' Scope of Services excludes responsibility for any aspect of site safety other than for ECS' own employees, and nothing herein shall be construed to relieve CLIENT and/or its other contractors, consultants, or other parties from their responsibility for the safety of their own employees. For active construction sites, CLIENT also agrees that the General Contractor is solely responsible for Project Site safety, and that ECS personnel rely on the safety measures provided by the General Contractor.

12.2 In the event ECS expressly assumes health and safety responsibilities for toxic or other concerns specified, the acceptance of such responsibility does not and shall not be deemed an acceptance of responsibility for any other health and safety requirements, such as those relating to excavating, trenching, shoring, drilling, backfilling, blasting, or other construction activities.

13.0 CONSTRUCTION TESTING AND REMEDIATION SERVICES

13.1 CLIENT understands that construction testing and observation Services are conducted to reduce, not eliminate, the risk of problems arising during or after construction or remediation, and that provision of such Services does not create a warranty or guarantee of any type.

13.2 Monitoring and/or testing Services provided by ECS shall not in any way relieve the CLIENT'S contractor(s) from their responsibilities and obligations for the quality or completeness of construction, nor for complying with applicable Laws and codes.

13.3 The professional activities of ECS, or the presence of ECS employees and subcontractors, shall not be construed to imply ECS has any responsibility for the means, methods, techniques, sequencing of construction, or procedures of construction selected, for safety precautions and programs incidental to the Contractor's Work. Furthermore, ECS does not and shall not have or accept authority to supervise, direct, control, or stop Contractor's Work.

13.4 ECS strongly recommends that CLIENT retain ECS to provide its Services on a full time basis to lower the risk of defective or incomplete Work being installed by CLIENT'S contractor(s). If CLIENT elects to retain ECS on a part time basis for any aspect of construction monitoring and/or testing, CLIENT accepts the increased risks that a significantly lower level of construction quality may occur and that such defects may not be undetected by ECS' part time observations. Therefore CLIENT waives any and all claims against ECS related to unsatisfactory quality or performance of elements observed or tested by ECS on a part time basis.

14.0 CERTIFICATIONS

14.1 CLIENT may request, or governing jurisdictions may require, ECS to provide a "certification" regarding Services provided by ECS. Any "certification" required of ECS by the CLIENT, or jurisdiction(s) having authority over some or all aspects of the Project, shall consist of ECS' inferences and professional opinions based on limited sampling, observations, tests, and/or analyses performed by ECS at discrete locations and times. ECS' "certification" shall consist of ECS' professional opinion of a condition's existence, but ECS does not guarantee that such condition exists, nor

does it relieve other parties of responsibilities or obligations such parties have. CLIENT agrees not to make resolution of any dispute with ECS or payment of any amount due to ECS in any way contingent upon ECS signing any such "certification" documents.

16.0 BILLINGS AND PAYMENTS

16.1 Billings will be based on the unit rates, travel costs, and other reimbursable expenses stated in the Professional Fees. Any Estimate of Professional Fees stated in this AGREEMENT shall not be considered as a not-to-exceed or lump sum amount unless otherwise explicitly stated in this AGREEMENT.

16.2 Should ECS identify a Changed Condition, ECS shall notify the CLIENT of the Changed Condition(s) that in ECS' professional judgment require an amendment of the Professional Fees, time schedule, and/or Scope of Services. ECS and CLIENT shall promptly and in good faith negotiate an amendment to this AGREEMENT.

16.3 CLIENT recognizes that time is of the essence with respect of payment of ECS' invoices, and that timely payment is a material part of the consideration of this AGREEMENT. Payment shall be in U.S. funds drawn upon U.S. banks and in accordance with the rates and charges set forth in the Professional Fees. Invoices shall be due and payable upon receipt.

16.4 If CLIENT disputes all or part of an invoice, CLIENT shall provide ECS with written notice stating in detail the facts of the dispute within twenty-one (21) calendar days of the invoice date and agrees to pay the undisputed amount of such invoice promptly.

16.5 ECS reserves the right to charge CLIENT an additional charge of one-and-one-half (1.5) percent (or the maximum percentage allowed by Law, whichever is lower) of the invoiced amount per month for any payment received by ECS more than thirty (30) calendar days from the date of the invoice, excepting any portion of the invoiced amount in dispute and resolved in favor of CLIENT. Payment will first be applied to accrued interest and then to the unpaid principal amount. Payment of invoices shall not be subject to unilateral discounting or set-offs by CLIENT.

16.6 CLIENT agrees that its obligation to pay for the Services is not contingent upon CLIENT'S ability to obtain financing, zoning, approval of governmental or regulatory agencies, permits, final adjudication of a lawsuit in which ECS is not involved, upon CLIENT'S successful completion of the Project, settlement of a real estate transaction, receipt of payment from CLIENT'S client, or any other event. Retainage shall not be withheld from any payment, nor shall any deduction be made from any invoice on account of penalty, liquidated damages, or other sums incurred by CLIENT. It is agreed that all costs and legal fees including actual attorney's fees, and expenses incurred by ECS in enforcing any provision of the AGREEMENT, in perfecting or obtaining a lien, recovery under a bond, collecting any delinquent amounts due, or executing judgments, shall be reimbursed by CLIENT.

16.7 Payment of any invoice by the CLIENT shall be taken to mean that the CLIENT agrees to the provisions of the AGREEMENT and is satisfied with ECS' Services and is not aware of any defects in those Services, unless CLIENT has provided notice to ECS in accordance with the DEFECTS IN SERVICE provisions of this AGREEMENT.

16.0 DEFECTS IN SERVICE

16.1 CLIENT and CLIENT'S personnel and contractors shall promptly inform ECS of any actual or suspected defects in ECS' Services, to help ECS take those prompt, effective measures that in ECS' opinion will help reduce or eliminate the consequences of any such defect. Corrections of defects attributable to ECS' Services shall be provided at no cost to CLIENT, except in the case that the deficiency is directly attributable to CLIENT-furnished information, CLIENT shall compensate ECS for the costs of correcting such defects.

16.2 Modifications to reports, documents and plans required as a result of jurisdictional reviews or CLIENT requests shall not be considered to be defects in Services. CLIENT shall compensate ECS for Additional Services required as a result of jurisdictional review requirements.

17.0 INSURANCE

17.1 ECS represents that it and its subcontractors and subconsultants are protected by Workers Compensation Insurance, and that ECS is covered by general liability, automobile and professional liability insurance policies which it deems reasonable and adequate.

17.2 ECS shall furnish certificates of insurance upon request. The CLIENT is responsible for requesting specific inclusions or limits of coverage that are not present in ECS insurance, the cost of such inclusions or coverage increases, if available, will be at the expense of the CLIENT.

18.0 LIMITATION OF LIABILITY

18.1 CLIENT AGREES TO ALLOCATE CERTAIN OF THE RISKS ASSOCIATED WITH THE PROJECT BY LIMITING ECS' TOTAL LIABILITY TO CLIENT, SUBJECT TO AVAILABLE INSURANCE PROCEEDS, ARISING FROM ECS' PROFESSIONAL ACTS, ERRORS, OR OMISSIONS AND FOR ANY AND ALL CAUSES INCLUDING NEGLIGENCE, STRICT LIABILITY, BREACH OF CONTRACT, OR BREACH OF WARRANTY, INJURIES, DAMAGES, CLAIMS, LOSSES, EXPENSES, OR CLAIM EXPENSES (INCLUDING REASONABLE ATTORNEY'S FEES) UNDER THIS AGREEMENT TO THE FULLEST EXTENT PERMITTED BY LAW, AS FOLLOWS. For projects where ECS' Fee Estimate or proposed fees are:

18.1.1 \$10,000 or less, ECS' total aggregate liability to CLIENT shall not exceed \$5,000, or the total fee for the services rendered, whichever is greater.

18.1.2 In excess of \$10,000, ECS' total aggregate liability to CLIENT shall not exceed \$50,000, or the total fee for the services rendered, whichever is greater.

18.2 CLIENT agrees that ECS shall not be responsible for bodily injury and property damage or losses arising directly or indirectly, in whole or in part, from acts or omissions by the CLIENT, its employees, agents, staff, consultants or subcontractors or by any other person or combination of persons to the extent such injury, damage, or loss is caused by acts or omissions of CLIENT, its employees, agents, staff, consultants or subcontractors.

19.0 INDEMNIFICATION

19.1 ECS agrees, subject to the limitation of liability provisions of this AGREEMENT, to hold harmless and indemnify CLIENT from and against damages arising from ECS' negligent performance of its Services to the extent that such injury is found to be caused by ECS' negligent acts, errors or omissions, specifically excluding any damages caused by any third party or by the CLIENT.

19.2 To the fullest extent permitted by applicable Law, CLIENT agrees to indemnify, defend, and hold ECS harmless from and against any and all liability, claims, damages, demands, fines, penalties, costs and expenditures (including reasonable attorneys' fees and costs of litigation defense and/or settlement) ("Damages") caused in whole or in part by the negligent acts, errors, or omissions of the CLIENT and CLIENT'S employees, agents, staff, contractors, subcontractors, consultants, and clients, provided such Damages are attributable to: (a) the bodily injury, personal injury, sickness, disease and/or death of any person; (b) injury to or loss of value to tangible personal property; or (c) a breach of this AGREEMENT, except to the extent such Damage is caused by the sole negligence or willful misconduct of ECS.

19.3 It is specifically understood and agreed that in no case shall ECS be required to pay an amount of Damages disproportional to ECS' culpability, or any share of any amount levied to recognize more than actual economic damages, subject to any limitations of liability and INDEMNIFICATION provisions contained in this AGREEMENT.

19.4 If CLIENT is a HOMEOWNER, HOMEOWNERS' ASSOCIATION, CONDOMINIUM OWNER, CONDOMINIUM OWNER'S ASSOCIATION, OR SIMILAR RESIDENTIAL OWNER, ECS RECOMMENDS THAT LEGAL COUNSEL BE RETAINED BY CLIENT BEFORE ENTERING INTO THIS AGREEMENT TO EXPLAIN CLIENT'S RIGHTS, AND THE LIMITATIONS, AND RESTRICTIONS IMPOSED BY THIS AGREEMENT. CLIENT AGREES THAT FAILURE OF CLIENT TO RETAIN SUCH COUNSEL SHALL BE A KNOWING WAIVER OF LEGAL COUNSEL AND SHALL NOT BE ALLOWED ON GROUNDS OF AVOIDING ANY PROVISION OF THIS AGREEMENT.

19.5 If CLIENT is a residential builder or residential developer, CLIENT shall indemnify, defend and hold harmless ECS against any and all claims or demands due to injury or loss initiated by one or more homeowners, unit-owners, or their homeowners' association, cooperative board, or similar entity against CLIENT which results in ECS being brought into the dispute.

20.0 CONSEQUENTIAL DAMAGES

20.1 CLIENT shall not be liable to ECS and ECS shall not be liable to CLIENT for any consequential damages incurred by either due to the fault of the other, regardless of the nature of the fault, or wherever committed by the CLIENT or ECS, their employees, consultants, agents, contractors or subcontractors, or whether such liability arises in breach of contract or warranty, tort (including negligence), Statute, or any other cause of action. Consequential damages include, but are not limited to, loss of use and loss of profit.

20.2 ECS shall not be liable to CLIENT, or any entity engaged directly or indirectly by CLIENT, for any liquidated damages due to any fault, or failure to act, in part or in total by ECS, its employees, agents, or subcontractors.

21.0 SOURCES OF RECOVERY

21.1 All claims for damages related to the Services provided under this AGREEMENT shall be made against the ECS entity contracting with the CLIENT for the Services, and no other person or entity. CLIENT agrees that it shall not name any affiliated entity including parent, peer, or subsidiary entity or any individual officer, director, or employee of ECS, unless such claims are based on acts unrelated to the provision of Services under this AGREEMENT.

21.2 CLIENT agrees that it will not seek Damages from any individual associated with ECS as an officer, principal, partner, employee, or owner, from any and all claims or liability for injury or loss that would require such individual to relinquish personal assets to satisfy such claim.

22.0 THIRD PARTY CLAIMS EXCLUSION

22.1 This AGREEMENT shall not create any rights or benefits to parties other than CLIENT and ECS. No third-party shall have the right to rely on ECS' opinions rendered in connection with ECS' Services without both CLIENT'S and ECS' written consent and the third-party's agreement to be bound to the same terms and conditions contained in this AGREEMENT as CLIENT, and third-party's agreement that ECS' Scope of Services performed is adequate.

23.0 DISPUTE RESOLUTION

23.1 All claims, disputes or controversies ["Disputes"] arising out of, or in relation to the interpretation, application or enforcement of this AGREEMENT shall be decided as follows:

23.1.1 CLIENT and ECS agree to attend a dispute resolution meeting within fourteen (14) days of identification of a Dispute by either party. CLIENT and ECS agree to negotiate in good faith to resolve the Dispute.

23.1.2 Should negotiation fail to resolve the dispute, CLIENT and ECS agree to mediate their dispute via a mediator selected by either party, and acceptable to both parties.

23.1.3 Should mediation fail to result in resolution of the Dispute, CLIENT and ECS agree that litigation may be brought by either party.

23.2 Should third-party dispute resolution be required, through mediation or litigation, the non-prevailing party shall reimburse the prevailing party for the prevailing party's documented legal costs, in addition to whatever other judgments or settlement sums may be due. Such legal costs include, but are not be limited to, reasonable

attorney's fees, court costs, forensic consultants and expert witness fees, and other documented expenses.

23.3 Where legal action is brought by either party to resolve a dispute, the claim shall be brought and tried in the judicial jurisdiction of the county in which ECS' office contracting with the CLIENT is located. CLIENT waives the right to remove any litigation action to any other jurisdiction, unless mutually agreed to by both parties.

23.4 This AGREEMENT including all matters related to performance and remediation shall be interpreted according to the substantive Laws of the state of Virginia (but not including its choice of law rules).

24.0 CURING A BREACH

24.1 A party that believes the other has materially breached this AGREEMENT shall issue a written termination notice to the other, identifying the cause for termination within five (5) business days of identifying such cause. Both parties shall then bargain promptly and in good faith to cure such cause. If an acceptable cure can be achieved within fourteen (14) calendar days from the date of the termination notice, the parties shall commit their understandings to writing and termination shall not occur.

24.2 Either party may waive any right provided by this AGREEMENT in curing an actual or alleged breach; however, such waiver shall not affect future application of such provision or any other provision.

25.0 TERMINATION

25.1 CLIENT or ECS may terminate this AGREEMENT for breach of this AGREEMENT, or for any other reasons which may arise. In the event of termination, the party effecting termination shall so notify the other party in writing, and termination shall become effective fourteen (14) calendar days after receipt of the termination notice.

25.2 Respective of which party shall effect termination, or the cause therefore, ECS shall promptly render to CLIENT a final invoice and CLIENT shall immediately compensate ECS for Services rendered and costs incurred, in accordance with ECS' prevailing Fee Schedule and expense reimbursement policy. Services shall include those rendered up to the time of termination, as well as those associated with termination itself, including without limitation, demobilizing, modifying schedules, and reassigning personnel.

26.0 TIME BAR TO LEGAL ACTION

26.1 Unless prohibited by Law, and notwithstanding any Statute that may provide additional protection, CLIENT and ECS agree that claims by either party arising out of this AGREEMENT or the Services provided hereunder shall not be initiated more than two (2) years from the time the party knew, or should have known, of the condition giving rise to its claim, and shall under no circumstances be initiated more than three (3) years from the date of substantial completion of ECS' Services.

27.0 ASSIGNMENT

27.1 Except for Services normally or customarily subcontracted by ECS in the performance of its Services including, but not limited to surveyors, specialized consultants, drilling and excavating subcontractors, and testing laboratories, neither the CLIENT nor ECS may delegate, assign, subcontract or transfer its duties, responsibilities or interests in this AGREEMENT without the written consent of the other party.

28.0 SEVERABILITY

28.1 Any provision of this AGREEMENT later held to violate a Law, Statute, or Regulation, shall be deemed void, and all remaining provisions shall continue in full force and effect. CLIENT and ECS shall endeavor to quickly replace a voided provision with a valid substitute that expresses the intent of, or at least addresses, the issues covered by the original provision.

29.0 TITLES

29.1 The titles used in this AGREEMENT are for general reference only and are not part of the AGREEMENT.

30.0 SURVIVAL

30.1 All obligations arising prior to the termination of this AGREEMENT and all provisions of this AGREEMENT allocating responsibility or liability between the CLIENT and ECS shall survive the substantial completion of Services and the termination of this AGREEMENT.

31.0 ENTIRE AGREEMENT

31.1 This AGREEMENT including the Scope of Services and Professional Fees and all exhibits, appendices, and other documents appended to it, constitute the entire AGREEMENT between CLIENT and ECS. CLIENT acknowledges that all prior understandings and negotiations are superseded by this AGREEMENT. CLIENT acknowledges acceptance of these terms by submitting a CLIENT Work Authorization to ECS.

31.2 CLIENT and ECS agree that subsequent modifications to this AGREEMENT shall not be binding unless made in writing and signed by authorized representatives of both parties.

31.3 All preprinted Terms and Conditions on CLIENT'S purchase order or Work Authorization, or other service acknowledgement forms, are inapplicable and superseded by this AGREEMENT.

31.4 If CLIENT fails to provide ECS with a signed copy of this AGREEMENT or a Work Authorization, by the act of authorizing and accepting the services of ECS, CLIENT agrees to be fully bound by the terms of this AGREEMENT as if signed by CLIENT.

< END OF TERMS AND CONDITIONS OF SERVICE >