REQUEST FOR PROPOSAL #BC-20982-P

FOR
PERVIOUS CONCRETE PILOT PROJECT AT THE
MARYLAND SCIENCE CENTER

Issue Date:  July 8, 2015

**SIGNIFICANT MILESTONES** | **TIME** | **DATE**
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Issue Date | 4:00 PM | Wednesday, July 8, 2015
Deadline for Questions | 2:00 PM | Monday, July 20, 2015
Technical & Price Proposal Due Date | 2:00 PM | Monday, July 27, 2015
Interview Sessions | 9:00 AM - 4:00 PM | Tuesday, August 11, 2015

**WARNING:** Prospective bidders who have received this document from a source other than the Issuing Office should immediately contact the Issuing Office and provide their name and mailing address in order that amendments to the Request for Proposal or other communications can be sent to them. Any Prospective Proposer who fails to notify the Issuing Office with this information assumes complete responsibility in the event that they do not receive communications from the Issuing Office prior to the closing date.
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SECTION I: SUMMARY INFORMATION

A. SUMMARY STATEMENT

The University of Maryland Baltimore County, a constituent institution of the University System of Maryland, an agency of the State of Maryland (herein referred to as the “University” or “UMBC”) intends to contract with a firm for the installation of pervious concrete in the parking lot of the Maryland Science Center in Baltimore, consistent with the attached project manual.

B. ISSUING OFFICE

Delores R. Pertee
University of Maryland Baltimore County
Department of Procurement
Administration Building, Room 301
1000 Hilltop Circle,
Baltimore, MD 21250
Voice: (410) 455-3915
Fax: (410) 455-1009
E-mail: Dpertee@umbc.edu

The sole point of contact in the University for the purpose of this RFP is the issuing Office. Any questions with regard to any aspect of this proposal must be directed to Delores Pertee in writing.

C. QUESTIONS AND INQUIRIES

All questions and inquiries should be directed to the individual referenced with the Issuing Office as stated above. All such questions and inquiries must be submitted in writing and received by 2:00 p.m., Monday, July 20, 2015.

D. DELIVERY OF PROPOSALS

Proposals must be delivered to:

University of Maryland Baltimore County
Department of Procurement
1000 Hilltop Circle, Administration Building, Room 301
Baltimore, MD 21250
Attention: Delores Pertee
E. PROPOSAL CLOSING DATE

In order to be considered, the original and four (4) copies [for a total of five (5) sets] of the Technical Proposal and the original and two (2) copies [for a total of three (3) sets] of the Price Proposal must arrive at the issuing office by **Monday, July 27, 2015, no later than 2:00 p.m.**

**NOTE:** All UMBC mail goes through the UMBC mailroom, so please leave sufficient time for the mail distribution. A mailed (via US Post Office) proposal is not considered "received" until the document reaches the above room at UMBC. Proposals delivered to the campus central mail facility or to locations other than Room 301 in the UMBC Administration Building will not be considered "received" by UMBC until they arrive at Room 301 in the Administration Building and are clocked in. The University will not waive delay in delivery resulting from the need to transport a proposal from another campus location to Room 301, or error or delay on the part of the carrier.

Proposals received after the established closing date and time cannot be considered. Proposers are advised that a proposal is not considered "received" until it is delivered to the specific location; that is, a proposal must be received in Room 301 by the due date in order to be considered. Proposers must allow sufficient time, therefore, to insure that their proposal is "received" in accordance with this paragraph.

F. PRE-PROPOSAL CONFERENCE

A Pre-Proposal Conference will not be held in conjunction with this RFP.

G. DURATION OF PROPOSAL OFFER

Proposals are to be held valid for 120 days following the closing date for this RFP. This period maybe extended by mutual agreement between the vendor and the University.

H. TERM OF CONTRACT

The contract term shall begin with the award of the contract, approximately mid-August 2015 and end at the completion of the project, estimated to be late October, 2015. However, the Proposer should indicate an estimated time frame for completion of the project within their Technical Proposal.

The University shall have the option to renew the contract for two (2) additional one-year renewal terms, should additional projects become available. The renewals will be exercised at the sole discretion of the University.

For a Multi-Year Contract or any contract where pricing adjustments may be contemplated during the contract term or subsequent renewal options, it will be the responsibility of the Contractor to request a price increase, if any, at least ninety (90) days prior to the end of the then current contract term. Any price increase not received by that time, will **not** be considered and pricing in the renewal term will remain as stated during the just completed contract term. A price increase, if any, shall not exceed the consumer price index for “All Urban Consumers”
as published by the U.S. Department of Labor Statistics. For purposes of calculating the potential increase, the Consumer Price Index for the period ending on March 31st will be used. Statistics will be referenced as a cap for negotiating purposes only. Contractor is not to assume that any price increase will be applied to yearly renewals, as this is at the sole discretion of the University

I. EVALUATION OF OFFERS

A contract award will be made to the responsible proposer(s) whose proposal best meets the needs of the University as determined by the Procurement Officer. All proposals will be evaluated by a University Evaluation Committee. After considering the factors set forth in this RFP, the committee will make recommendations for the award of the contract to the vendor(s) whose proposal is/are determined to be the most advantageous to the University.

J. PROPOSAL ACCEPTANCE

The University reserves the right to accept or reject any and all proposals, in whole or in part, received as a result of this RFP, to waive minor irregularities, to negotiate in any manner necessary to best serve the interest of the University. Further, the University reserves the right to make a whole award, multiple awards, a partial award or no award at all. Proposers judged by the procurement officer not to be responsible or proposers whose proposals are classified as not reasonably susceptible of being selected for award shall be so notified. The University reserves the right to increase or decrease the quantities of any materials, equipment, supplies or services.

K. FORMATION OF AGREEMENT/CONTRACT OR ISSUANCE OF PURCHASE ORDER

The Contract to be entered into as a result of this RFP (the “Contract”) shall be by and between the proposer as contractor and the University in the form of a University Contract and shall contain the provisions included herein as Appendix C (Contract), as well as, any additional terms required by UMBC or the State of Maryland. By submitting an offer, the Contractor warrants that they have reviewed Appendix C (Contract) and will execute a contract on that form upon request by UMBC. Proposers must understand and acknowledge that UMBC, as an agency of the State of Maryland, cannot indemnify the Contractor, submit to binding arbitration, or agree to pay the Contractor’s attorney’s fee.

The Contract to be entered into as a result of this RFP (the “Contract”) shall be by and between the Proposer as contractor and the University and shall consist of (1) the terms, conditions and specifications of this RFP and any appendices, amendments, additions or changes thereto; (2) the Standard Contract found in Appendix C, and (3) the Proposer’s response to the RFP and any amendments or changes thereto.
L. **ORDER OF PRECEDENCE**

The contract between the parties will be embodied in the contract documents, which will consist of those items named in “K” above, listed in their order of precedence. Modifications to the Order of Precedence of those items will not be accepted in order to protect the University against obscure, unrecognized conflicts between the solicitation and a Proposer’s proposal. In the event of a conflict, the terms of the University Contract shall prevail.

M. **PROPOSAL AFFIDAVIT AND CERTIFICATIONS**

State procurement regulations require that proposals contain certifications regarding non-collusion, debarment, cost and price, etc. The affidavit form, which should be completed by all respondents and returned with their respective responses, is included in Appendix A of the RFP.

N. **PIGGYBACK CLAUSE**

UMBC is a member of the University System of Maryland (“USM”) and as such, UMBC reserves the right to extend the terms, conditions, and prices of this contract to other institutions of the USM must any of those institutions express an interest in participating in any contract that results from this solicitation for a period of up to one (1) year after UMBC makes its award. Furthermore, on occasion, other State educational institutions (e.g., St. Mary’s College, Morgan State University, Baltimore City Community College) may desire to take advantage of this contract. Each of the piggyback institutions will issue their own purchasing documents. UMBC assumes no obligation on behalf of the piggyback institutions. Proposers must set forth their willingness and ability to extend this contract and the terms, conditions and prices stated herein to these other institutions.

**END OF SECTION I**
SECTION II: GENERAL INFORMATION FOR VENDORS

A. **PURPOSE**

The overall purpose of this RFP is to provide information to vendors interested in the installation of pervious concrete pavement in the parking lot of the Maryland Science Center in Baltimore, Maryland. The pervious concrete pavement is intended to demonstrate pervious concrete and serve as a showcase of green infrastructure technology in the heart of the Baltimore Inner Harbor.

B. **GENERAL INFORMATION FOR VENDORS**

1. Proposals must be made in the official name of the firm or individual under whom business is conducted (showing official business address) and must be signed by a duly authorized person.

2. Each proposer must furnish all information required by the proposal request. Erasures or other changes must be initialed by the person signing the proposal. Proposals signed by an agent of the corporation must be accompanied by evidence of their authority.

3. This Request for Proposals creates no obligation on the part of the University to award the contract or to compensate proposers for proposal preparation expenses.

4. The University reserves the right to award a contract based upon the proposals received without further negotiations. Vendors should therefore not rely on having a chance during negotiations to change their offer.

5. Before the award of a contract, UMBC may require the proposer to submit evidence of any information related to the financial, technical, and other qualifications and abilities of the proposer.

C. **ADDENDA TO THE RFP**

The University reserves the right to amend this RFP at any time prior to the proposal due date. Any additional information not addressed in this RFP in response to an inquiry received by the Procurement Officer in writing will be answered in writing as an addendum to the RFP. For purposes of this RFP, there shall be no other communication between UMBC and Proposers other than as described in this paragraph.

If it becomes necessary to revise any part of this RFP, notice of the revision will be given in the form of an addendum, which will be emailed to the potential Proposers, and posted to the University’s Electronic Bid Board at [http://www.procurement.umbc.edu](http://www.procurement.umbc.edu). It is the responsibility of the Proposer to check for addendums, amendments and changes regarding this solicitation. Reasonable efforts will be made to avoid the identification of Proposers in any addenda.
Addendum shall be distributed within a reasonable time to allow Proposers to consider them in preparing their proposals. If, in the opinion of the Procurement Officer, the time and date for receipt of proposals does not permit preparation, the time shall be increased to the extent possible in the Addenda.

An acknowledgement of the receipt of all amendments, addenda, and changes issued shall be required from all Proposers receiving the RFP by completing the “Acknowledgement of the Receipt” Form (found in Appendix A) and submitting the completed form in the technical proposal. Failure to acknowledge receipt of addenda does not relieve the Proposer of the responsibility to perform as required by all RFP documents including addenda or changes thereto. Therefore, Proposer must make sure that all addenda has been received and acknowledged to avoid later conflict.

D. CANCELLATION OF THE RFP

The University may cancel this RFP, in whole or in part, at any time.

E. INCURRED EXPENSES

The University will not be responsible for any costs incurred by any vendor in preparing and submitting a proposal, delivery of or return of representative samples (if applicable).

F. ECONOMY OF PREPARATION

Proposals should be prepared simply and economically, providing a straightforward, concise description of the vendor’s offer to meet the requirements of the RFP.

G. ACCEPTANCE OF TERMS AND CONDITIONS

By submitting a proposal in response to this RFP, the firm accepts the terms and conditions set forth in this RFP.

H. PROCUREMENT REGULATIONS

This RFP and any resulting contract shall be governed by the USM Procurement Policies and Procedures and the State Finance and Procurement Article of the Annotated Code of Maryland and by State Procurement Regulations, Code of Maryland Regulations Title 21, as applicable.

I. MULTIPLE PROPOSALS

Vendors may not submit more than one proposal.

J. ALTERNATE SOLUTION PROPOSALS

Vendors may not submit an alternate to the solution given in this RFP.
K. **TELEGRAPHIC/FACSIMILE PROPOSAL MODIFICATIONS**

Vendors may modify their proposals by facsimile communication at any time prior to the due date and time set to receive proposals provided such communication is received by the University prior to such time and, provided further, the University is satisfied that a written confirmation of the modification with the signature of the proposer was mailed prior to the time and date set to receive proposals. The communication should not reveal the proposal price but should provide the addition or subtraction or other modification so that the final prices, percent or terms will not be known to the University until the sealed proposal is opened. If written confirmation is not received within two (2) days from the scheduled proposal opening time, no consideration will be given to the modification communication. No telephone or facsimile price proposals will be accepted.

L. **CONTRACTOR RESPONSIBILITIES**

The University shall enter into contractual agreement with the selected offering vendor(s) only. The selected vendor(s) shall be responsible for all products and/or services required by this RFP. Subcontractor services, if any, shall be identified and a complete description of their role relative to the proposal shall be included. The University’s intent is not to direct the use of any particular vendor, however, the vendor will not contract with any such proposed person or entity to whom the University has a reasonable objection. Notification of such objection will be made by the University within 15 days of contract. The vendor shall be fully responsible for the acts and omissions of its subcontractors and of persons directly or indirectly employed by them.

M. **PUBLIC INFORMATION ACT**

Proposers must specifically identify those portions of their proposals, if any, which they deem to contain confidential, proprietary information or trade secrets and must provide justification why such material should not, upon request, be disclosed by the University under the Public Information Act, Part III, Title 10, State Government Article, Annotated Code of Maryland.

Vendors must clearly indicate each and every section that is deemed to be confidential, proprietary or a trade secret (it IS NOT sufficient to preface your proposal with a proprietary statement). Failure to comply may result in rejection of your proposal.

N. **MINORITY BUSINESS ENTERPRISE NOTICES**

There is no Minority Business Enterprises subcontracting requirement on this contract, however Minority Business Enterprises are encouraged to respond to the solicitation. Proposers are encouraged to obtain minority participation where possible. MBE’s must be certified by the Maryland Department of Transportation (MDOT) and not graduated from the applicable NASIC Code. For more information on the State’s MBE program, please see the MDOT website, at [http://www.mdot.state.md.us/mbi/index.html](http://www.mdot.state.md.us/mbi/index.html).
O. **ARREARAGES**

By submitting a response to this solicitation, a vendor shall be deemed to represent that it is not in arrears in the payment of any obligation due and owing the State of Maryland, including the payment of taxes and employee benefits and that it shall not become so in arrears during the term of the contract if selected for contract award.

P. **TAXES**

The UMBC is exempt from Federal Excise Taxes, Maryland Sales and Use Taxes, and the District of Columbia Sales Taxes and Transportation Taxes, except as noted in applicable sections of COMAR. Exemption Certificates shall be provided upon request. Where a Contractor is required to furnish and install material in the construction or improvement of real property in performance of a contract, Contractor shall pay the Maryland Sales tax and the exemption does not apply.

Q. **RFP RESPONSE MATERIALS**

All written materials submitted in response to this RFP become the property of the University and may be appended to any formal documentation, which would further Define or expand the contractual relationship between the University and the successful vendor(s).

R. **RESPONSIBILITY FOR TECHNOLOGY EXPORT CONTROL:**

1. The Seller shall comply with all applicable U.S. export control laws and regulations in the performance of this Purchase Order and the distribution and use of resulting work products. Generally, U.S. export control laws and regulations apply to any shipment, transmission, transfer, or exposure to any foreign person, as defined in 22 CFR 120.16, of commodities (equipment, hardware, or material); technology (technical data, information, or assistance); and software (commercial or custom), regardless of where (inside or outside the United States) or how it may occur.

2. The Seller shall be responsible for obtaining the appropriate licenses or other approvals for exports of commodities, technology, and software, unless an exemption or exception applies. The Seller shall also be responsible for obtaining the appropriate licenses or other approvals before utilizing a foreign person or entity in the performance of this Purchase Order, including instances where the work is to be performed at the LLNL, where the foreign person or entity will have access to any information, technology, or software subject to export control.

3. The Seller shall be responsible for all regulatory record-keeping requirements associated with the use of licenses and license exemptions and exceptions.

4. The Seller shall ensure that the provisions of this clause apply to its subcontractors.

S. **SITE INVESTIGATION**

By submitting a Proposal the vendor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, and electric power. Any failure by the contractor to acquaint himself with
the available information will not relieve him from responsibility for estimating properly
the cost of successfully performing the work. The University shall not be responsible
for any conclusions or interpretations made by the contractor of the information made
available by the University.

T. PROPOSAL SECURITY - If the Proposer’s Price Proposal exceeds $100,000:

The Proposer shall furnish with his/her Price Proposal a "Bid Bond" issued by a surety company
licensed to issue bonds in the State of Maryland. The bond must be in an amount not less than five
percent (5%) of the total amount of the base bid price and shall be in the form specified with the bid
documents. The Bid Bond remains in effect a minimum of 120-days from the Proposal due date. The
Bid Bond should be included in the Price Proposal (not the Technical Proposal).

The Contractor to whom the project is awarded also must furnish a Performance Bond and Payment
Bond in the amount of one hundred percent (100%) of the contract price, including executed Change
Orders, in the form specified with the RFP documents. The Performance and Payment Bonds must be
provided at the time of the signing of the contract and prior to the start of any work.

U. DEBRIEFING OF UNSUCCESSFUL PROPOSERS

Unsuccessful proposers may request a debriefing. If the proposer chooses to do so, the
request must be submitted in writing to the Procurement Officer within ten days after
the proposer knew, or should have known its proposal was unsuccessful. Debriefings
shall be limited to discussion of the specific proposer’s proposal only and not include
a discussion of a competing proposer’s proposal. Debriefings shall be conducted at the
earliest feasible time.

The debriefing may include information on areas in which the unsuccessful proposer’s
proposal was deemed weak or insufficient. The debriefing may NOT include discussion
or dissemination of the thoughts, notes or ranking from an individual evaluation
committee member. A summarization of the procurement officer’s rationale for the
selection may be given.

V. MARYLAND PUBLIC ETHICS LAW, TITLE 15

The Maryland Public Ethics Law prohibits, among other things: State employees or officials
(an in some cases, former employees) and businesses in which such an individual is employed
or holds a financial interest form (i) submitting a proposal, (ii) negotiating a contract, and (iii)
entering into a contract with the governmental unit with which the individual is affiliated per

If the proposer/offeror has any questions concerning application of the State Ethics Law to the
proposer/offeror's participation in this procurement, it is incumbent upon the proposer/offeror
to seek advice from the State Ethics Commission, 9 State Circle, Suite 200, Annapolis,
Maryland 21401, 410-974-2068.

The procurement officer may refer any issue raised by a proposal to the State Ethics
Commission. The procurement officer may require the proposer/offeror to obtain advice from
the State Ethics Commission and may reject a bid or proposal that would result in a violation of the Ethics Law.

The resulting contract is cancelable in the event of a violation of the Maryland Public Ethics Law by the vendor or any State of Maryland employee in connection with this procurement.


X. **PAYMENTS**

1. **BY ELECTRONIC FUNDS TRANSFER**

   By submitting a response to this solicitation, the Proposer agrees to accept payments by electronic funds transfer unless the State Comptroller’s Office grants an exemption. The selected Offeror shall register using the COT/GAD X-10 Vendor Electronic Funds (“EFT”) Registration Request Form. Any request for exemption shall be submitted to the State Comptroller’s Office for approval at the address specified on the COT/GAD X-10 form and shall include the business identification information as stated on the form and include the reason for the exemption. The COT/GAD X-10 form can be downloaded at: [http://compnet.comp.state.md.us/gad/pdf/GADX-10.pdf](http://compnet.comp.state.md.us/gad/pdf/GADX-10.pdf).

2. **INVOICING:** The Contractor awarded the contract to provide all services defined in this RFP will invoice UMBC Accounts Payable on a monthly basis. Any additional work provided under this contract requires University approval prior to the work taking place, and should be clearly identified on the monthly invoice.

Y. **JOINT VENTURE PROPOSERS**

If the Proposer is a joint venture firm, the Proposer must provide all identification information for all parties and all requirements for all parties (i.e., licenses, insurance, etc.) as requested. As part of the initial technical proposal submission, the proposer must identify the percentage partnership for each joint venture party, the responsibilities of each joint venture party with respect to the scope of services/work inclusive of the requirements for each entity based on such services as described in this RFP document.

**NOTE:** All joint venture parties will be held responsible for the contract obligations jointly and severally.

**END OF SECTION II**
A. **BACKGROUND**

Established in 1966, the University of Maryland, Baltimore County (UMBC) is one of twelve universities that along with two regional centers and one system office constitute the University System of Maryland. UMBC is located 15 minutes from Baltimore’s Inner Harbor and 30 minutes from Washington, D.C. BWI Airport is five minutes away, as are AMTRAK and light rail stations.

UMBC is a public research university, emphasizing graduate programs in the sciences, engineering, public policy, information technology, and human services, building on a strong undergraduate liberal arts and science core. UMBC is increasingly recognized as a major resource for building the State’s economy and addressing its social concerns. More than 70% of UMBC’s 53,600 active alumni live and work in Maryland, contributing significantly to the State’s economic and social vitality. In Fall 2013, UMBC had 13,908 enrolled students from nearly all 50 states and more than 80 nations, creating a richly diverse student body. In 2012, the university awarded 2,231 bachelor’s degrees, 528 master’s degrees, 95 doctorates and 131 graduate certificates.

Additional information about UMBC can be found at the University’s web site, which is [http://www.umbc.edu](http://www.umbc.edu).

The Maryland Science Center, located in Baltimore's Inner Harbor, opened to the public in 1976. It includes three levels of exhibits, a planetarium, and an observatory. It was one of the original structures that drove the revitalization of the Baltimore Inner Harbor from its industrial roots to a thriving downtown destination.

B. **SCOPE OF WORK**

See Appendix D – Project Manual for detailed specifications and requirements for the pervious concrete project.

C. **MANDATORY REQUIREMENTS**

1. The Proposer must employ no less than one National Ready Mixed Concrete Association (NRMCA) certified Pervious Concrete Craftsman who must be on site and overseeing each placement crew during all concrete placement.
2. Proposing Firm must be in business for a minimum of five (5) years performing pervious concrete work comparable to the UMBC requirements.
3. Proposing Firm’s Installer must have a minimum of three (3) years of experience performing pervious concrete installation.
4. Proposing Firm’s supplier must have a minimum of three (3) years of experience in providing pervious concrete.
5. Proposing Firm must possess a current license to perform work in Maryland under this contract.
D. **WORKING HOURS:**

The Contractor shall perform the project work during the normal working hours of the Maryland Science Center, 7:30 A.M. to 4:00 P.M. The Contractor must coordinate all work plans with the UMBC Project Manager. Alternate schedules may need to be coordinated with the Maryland Science Center.

E. **EQUIPMENT**

The Contractor shall provide all equipment, tools and materials necessary to perform the work specified in this RFP Document.

F. **LABOR ACTIVITY**

If any strike, boycott, picketing, work stoppage or slowdown or other labor activity directed against the Contractor at the Maryland Science Center, which result in the curtailment or discontinuation of services performed under this Contract, UMBC shall have the right to cause the work to be performed by another Company of Agency during said period at the cost of the Contractor.

G. **PERIOD FOR ACCEPTANCE**

The awarded contractor must agree to an acceptance trial period of performance of NOT LESS THAN thirty (30) consecutive calendar days. This period shall begin on the first fully operational day. The vendor and the University of Maryland Baltimore County shall mutually agree upon, and declare the date that, the contract is considered to be fully operational with respect to the Period of Acceptance.

During the 30 day period, the vendor must perform at a rate and level consistent with the performance specifications contained in the selected vendor's specifications and/or proposal. Failure to satisfy the "acceptance trial period of performance" may result in specified performance contract termination.

In the event that the awarded contractor fails to meet all requirements, the University of Maryland Baltimore County shall have the right to declare the contractor's service(s) unacceptable and the contractor in default and to terminate all agreements, written or verbal, without penalty or obligation to the University of Maryland Baltimore County consistent with the provisions of the termination for default clause required in the contract.

Further, should there be any dispute/discrepancy on acceptability of Proposer’s performance, decisions made by the University will prevail.

H. **INSURANCE**

The successful vendor will be required to document proof of insurance for Commercial General Liability, Worker's Compensation, Automobile Insurance and Errors & Omissions Insurance. The University of Maryland Baltimore County and the State of Maryland are to be named as an "additional insured" on all but Worker's Compensation and Errors & Omissions Insurance.
1. The following conditions for insurance must be met by the Vendor:

   i. The Contractor shall not start work under this contract until the Contractor has obtained at its own expense all of the insurance called for hereunder and such insurance has been approved by the procurement officer; nor shall the Contractor allow any subcontractor to start work on any subcontract until all insurance required by the subcontract has been obtained and approved by the contractor and University of Maryland Baltimore County. Approval of insurance required of the contractor and subcontractors for the University will be granted only after submission to the University of original certificates of insurance signed by an authorized representative of the insurers or, alternately, at the University's request, certified copies of the required insurance policies.

   ii. The Contractor shall require all subcontractors to maintain during the term of this agreement, Commercial General Liability insurance, Business Automobile Liability insurance, Workers Compensation, and Errors and Omissions Insurance in the same manner, including the additional insured requirements in paragraph e. below, i.e., as specified for the Contractor. The Contractor shall furnish subcontractors' certificates of insurance to the University immediately upon request.

   iii. All insurance policies required hereunder shall be endorsed to include the following provision; "It is agreed that this policy is not subject to cancellation, non-renewal, material change, or reduction in coverage until forty-five (45) days prior written notice has been given to the University of Maryland Baltimore County".

   iv. No acceptance and/or approval of any insurance by the University of Maryland Baltimore County shall be construed as relieving or excusing the Contractor, or the surety or bond, if any, from any liability or obligation imposed upon either or both of them by the provision of the Contract Documents.

   v. NAMED ADDITIONAL INSURED - The University of Maryland Baltimore County and the State of Maryland (including their elected or appointed officials, agents and employees) are to be named as additional insured under all coverage except Workers Compensation and Errors & Omissions Insurance and the certificates of insurance (or the certified policies, if requested), must so indicate through inclusion of appropriate endorsement. Coverage afforded under this paragraph shall be primary to any other insurance of self-insurance, whether or not such other insurance or self-insurance is stated as primary, excess or contingent, as respects the above additional insured, their elected and appointed officials, agents and employees.

   vi. Insurance coverage required in these specifications shall be in force throughout the Contract Term. Should the Contractor fail to provide acceptable evidence of current insurance within ten (10) days of receipt of written notice at any time during the contract term, the University shall have the absolute right to terminate the Contract without any further obligation to the Contractor, and the Contractor shall be liable to the University for the entire additional cost of procuring substitute performance and the cost of performing the incomplete portion of the Contract at time of termination.

   vii. Contractual and other liability insurance provided under this Contract shall not contain a supervision, inspection or engineering service exclusion that would preclude...
University of Maryland Baltimore County or participation institutions from supervising or inspecting the operations of the contractors as the end result.

viii. The Contractor shall assume all on-the-job responsibilities as to the control of persons directly employed by it and of agents or subcontractors and anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

Contractor shall be as fully responsible to University of Maryland Baltimore County for the acts and omissions of the subcontractors and of persons employed by them as it is for acts and omissions of persons directly employed by Contractor.

ix. All required insurance coverage must be acquired from insurers allowed to do business in the State of Maryland and acceptable to University of Maryland Baltimore County. The insurers must have a policyholders' rating of "A-" or better, and a financial size of "Class VII" or better in the latest edition of Best's Insurance Reports.

x. The University of Maryland Baltimore County will consider deductibles or self-insured retention as part of its review of the financial stability of the proposer. Any deductibles or self-insured retention shall be disclosed in the Contractor's proposal and shall be assumed by the Contractor.

2. The following conditions for insurance must be met by the Vendor:

i. **Commercial General Liability Insurance** or its equivalent, for bodily injury, personal injury and property damage, including loss of use. It is preferred that coverage be provided on an "occurrence" basis. If "claims made" forms are submitted, the requirements noted section 4, below, must be met. Such Commercial General Liability policy shall include the following extensions:

   a) It is preferred that the General Aggregate Limit applies separately to this project.
   b) Premises/Operations.
   c) Actions of Independent Contractors.
   d) Products/completed Operations to be maintained for three (3) years after completion of the contract.
   e) Contractual Liability including protection for the Contractor for claims arising out of liability assumed under this contract.
   f) Personal injury liability including coverage for offenses related to employment, and for offenses assumed under this contract (delete any standard employment and contractual exclusions if contained in the personal injury coverage section.

ii. **Business Automobile Liability** which will pay for liabilities arising out of accidents involving the ownership, operation, maintenance or use of any owned, hired, or non-owned motor vehicles, uninsured motorists’ insurance and automobile contractual liability.

**NOTE:** INSURANCE MUST BE ON A PRIMARY BASIS, CONTRACTUAL REQUIREMENTS MUST BE CLEARLY INDICATED ON CERTIFICATE OR BY ENDORSEMENTS
iii. **Workers Compensation** - statutory benefits are required by Maryland law or other laws as required by labor union agreements, including standard Other States coverage; Employers Liability coverage.

iv. **Errors and Omissions** insurance as required by the laws of the State of Maryland.

3. The coverage listed in Section III, Item K-2, above shall be written for not less than the following limits of liability. **Limits can be furnished by a combination of primary and excess (umbrella) policies.**

   i. Commercial General Liability Insurance including all extensions:
      - $2,000,000 each occurrence;
      - $2,000,000 personal injury;
      - $2,000,000 products liability;
      - $3,000,000 general aggregate

   ii. Business Automobile Liability:
      - $2,000,000 each accident

   iii. Workers Compensation insurance - statutory requirements. Employers liability insurance - $1,000,000 each accidental injury; and $1,000,000 each employee, $1,000,000 policy limit for disease.

   iv. Errors and Omissions insurance:
      - $2,000,000 each occurrence

4. **Tort-Claim Act** - It is agreed that the contractor and its insurers will not raise or use, in the adjustment of claims or in the defense of suits against any participating USM institution, any immunity of the insured from tort liability, (including Maryland Tort Claim Act), including any limitation of liability, unless requested by any participating institution.

   **NOTE:** If insurance required in terms 2.iv and v above has been issued on a "claims made" basis, the Contractor must comply with the following additional conditions. The limits of liability and the extensions to be included as described above remain the same. The Contractor must either:

   A. Agree to provide certificates of insurance evidencing the above coverage for period of three (3) years after final payment for the contract. Such certificates shall evidence a retroactive date no later than the beginning of the Contractor's or subcontractor's work under this contract,

   or

   B. Purchase an extended [minimum three (3) years] reporting period endorsement for the policy or policies in force during the term of this contract and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself.

   C. The "retroactive date" must be effective prior to the inception of the work under this contract.

   D. No "sunset" clauses shall apply.
5. **Additional information:**

The awarded firm(s) will provide all endorsements from the insurer itself (rather than the agent); and there will be a request to see all coverage declaration pages together with all endorsements (to confirm compliance with the coverage requirements.)

A copy of a current Certificate of Insurance or a Certification Letter from the Insurer (rather than the agent) that all requested coverages are available and will be provided to the contractor upon award of this contract should be provided with the Technical Proposal.

END OF SECTION III
SECTION IV: EVALUATION AND SELECTION PROCEDURES

A. EVALUATION AND SELECTION COMMITTEE

All vendors’ proposals received by the closing deadline will be evaluated. The Procurement Officer shall establish an Evaluation and Selection Committee to review and rate the proposals. The Committee shall be composed of the Procurement Officer and any other individuals that the Procurement Officer may appoint. The Committee may request additional technical assistance from any source.

B. EVALUATION PROCEDURE

Qualifying Proposals – The Committee shall first review each proposal for compliance with the mandatory requirements of this RFP. Failure to comply with any mandatory requirement will disqualify a vendor’s proposal. The University reserves the right to waive a mandatory requirement when it is in its best interest to do so. The vendor must assume responsibility for addressing all necessary technical and operational issues in meeting the objectives of the RFP.

C. EVALUATION OF TECHNICAL PROPOSALS

1. Initial Technical Evaluation: Technical Proposals will be evaluated by the University's Evaluation and Selection Committee before Price Proposals are reviewed. Proposers must achieve a minimum technical score of 75% of the total points available for the technical evaluation in order to be considered for further evaluation. Proposers not achieving this minimum technical score will not be considered for the award. Proposer’s whose technical proposal achieves the required minimum technical score will be short-listed to continue to the Oral Presentation phase of the procurement process.

   Technical scoring will be based upon information provided in the response to the RFP.

   Upon completion of the technical evaluation, all proposers will be notified as to the results of the initial technical evaluation of its firm's technical proposal.

2. Second Technical Evaluation: Following the Oral Presentation, a Second Technical Evaluation will be conducted with the short-listed firms. Those Proposer’s whose technical proposal maintains or exceeds the 75% or better of the technical points will continue to the Pricing Phase of the procurement process. Those Proposers not maintaining 75% or better of the technical points will not continue to advance further in the procurement process.

   All short-listed proposers will be notified of the results of the second technical evaluation of its firm's technical proposal.
D. **EVALUATION OF FINANCIAL PROPOSALS**

Those Proposer’s that maintains or exceeds the 75% or better of the technical points following the Second Technical Evaluation will have their Price Proposal opened and evaluated. **Price Proposals will not be opened publicly.**

The University will establish a financial ranking of the proposals from lowest to highest total Offers. If a numerical rating is utilized, the lowest evaluated total offer will receive 100% of the points awarded to the financial portion with subsequently higher quotes receiving proportionally lower points.

The University may elect to request Best & Final Price Proposal(s).

E. **FINAL RANKING AND SELECTION**

The resulting scores from the technical and price evaluation of proposals will be used as a guide in determining the successful proposer(s). The Evaluation and Selection Committee will choose from among the highest rated proposals which will best serve the interests of the University in accordance with the University System of Maryland Procurement Policies and Procedures. **Technical merit will be given a greater weight than cost in the final ranking.**

F. **CRITERIA FOR TECHNICAL EVALUATION**

The criteria that will be used by the committee for the technical evaluation of the proposals for this specific procurement are listed in Section 5 in **order from most important to least.** Each committee member will score the proposals on each major criterion.

END OF SECTION IV
A. TRANSMITTAL LETTER

A transmittal letter prepared on the vendor’s business stationery should accompany the proposal. The purpose of this letter is to transmit the proposal; therefore, it should be brief. The letter must be signed by an individual who is authorized to bind the firm to all statements, including services and Price offers, contained in the proposal. The letter should be on the firm’s letterhead with the name and telephone number of a contact person.

B. TWO-VOLUME SUBMISSION

The selection procedure for this procurement requires that the Technical Proposal and Price Proposal be submitted and reviewed separately. The technical evaluation of the proposals is to be conducted before the price proposals are opened and evaluated. The Proposer must submit the Technical Proposals in a separate container labelled “TECHNICAL PROPOSAL”. The original should be clearly marked. The Price Proposal must be submitted in a sealed separate container and must be labelled “PRICE PROPOSAL”. Both the Technical and Price Proposals are due by 2:00 p.m. on Monday, July 27, 2015 to the Issuing Office (electronic submission is not acceptable). There shall be no pricing information included in the Technical Proposal.

Failure to submit the proposals separately as required may constitute disqualification of a vendor’s proposal.

C. VOLUME I – TECHNICAL PROPOSAL

This volume should be prepared in a clear and precise manner. It should address all appropriate points of this RFP except Price information. This volume consists of and must contain the following sections:

1. Transmittal Letter
2. Detailed responses to Paragraph D, Technical Proposal Criteria, Items 1 through 4 noted below. For purposes of evaluation, these items are “desirable”.
3. Bid/Proposal Affidavit; and,
4. Acknowledgment of Receipt of Addenda (If addenda are issued prior to the Initial Technical Proposal due date, this form acknowledging receipt of all addenda MUST be included with your Technical Proposal.)

D. TECHNICAL PROPOSAL CRITERIA:

The following information must be furnished in the Technical Proposal per this solicitation. Failure to include any of the items listed below may disqualify your firm’s response. Proposers should describe in detail and provide evidence supporting the qualifications requested below. All proposers are to compile their Technical Proposals in the order listed.
1. STATEMENT OF APPROACH:

The proposer is to provide a narrative describing how its proposed services will meet or exceed the requirements of the Scope of Work (Appendix D), and should provide a proposed approach that addresses specific methodologies and/or techniques to be used in complying with the requirements. The narrative should include an implementation/timeline schedule with the associated tasks needed to complete the project. The purpose of the narrative is to not only demonstrate the firm’s approach to the project, but also to display full comprehension of the services to be provided in the Scope of Work. This information should be in sufficient detail to permit proper evaluation by the University.

2. FIRM EXPERIENCE:

2.1 Proposers must submit information on prior experience in providing quality concrete work on similar projects. Complete an “Experience Form” (found in Appendix A) for three (3) locations/projects which are similar in size and scope to this project. The projects should be in the public sector or public/government agency within the last three (3) years. The Form shall include the following information:

- Project Name and Location;
- Project Owner, Contact Person and Telephone Number;
- Project Start Date and Completion Date;
- Project Description/Scope of Services;
- Similarities of the submitted project to the University’s project.

2.2 Firm References: Provide at least three (3) references (references may be inclusive of those from the experience list above) of locations/projects completed by your company. Provide contact name, address, telephone number and location for each reference. It is imperative that accurate contact names and telephone numbers be given. All references should include a contact person that can comment on the firm’s ability to handle an project of this type. All references should be current – three years or less. The University reserves the right to use itself as a reference, where applicable, and/or contact additional references which are known to the University but may not have been provided by the Proposer. By submitting a response to this solicitation, the Proposer consents to such reference contact and hereby releases the University from any liability on the basis of its attempt to obtain information from all such references and all persons and entities providing information from any liability and damages incurred as a result of furnishing this information.

3. KEY PERSONNEL

The Proposer must employ no less than one National Ready Mixed Concrete Association (NRMCA) certified Pervious Concrete Craftsman who must be on site and overseeing each placement crew during all concrete placement. The Pervious Concrete Craftsman must be present during all pervious concrete placement, including the test panel placements, and must be in charge of the placement crew and procedures.

3.1 Key Personnel: The Proposer must submit information on the person(s) to be assigned to this contract upon award. The information should clearly show the training and experience in quality pervious concrete work.
Complete the “Key Personnel Form” (found in Appendix A) for each of the following roles that will be assigned to this account:

- the Craftsman,
- Project Manager,
- Installer and
- Supplier

Information to be provided on each person includes a) educational background, b) employment background including positions held and durations, and prior experience. This person would be the University's primary point of contact, and be the person with whom UMBC would directly work.

**Note – Personnel Commitment:** By submitting this name for consideration under this key Personnel Section, the Proposer is committing this person to the University for this project’s duration if awarded the project. No personnel changes will be permitted without written authorization from the University via a contract amendment issued by the University’s Procurement Office.

3.2 **Key Personnel References:** Provide three (3) references for each role in the space provided on the Key Personnel form (see Appendix A):

**Reference Notes:**

a. Such references are to be from different projects; that is, only one reference per project/location is allowed.

b. The University reserves the right to verify all information given if it so chooses, as well as to check any other sources available.

c. Please be sure that accurate information is provided and that the contact person is capable of speaking to a firm's and/or key person’s capability in performing the services required. References will be held in the strictest of confidence.

4. **PROFILE OF PROPOSING FIRM:**

The Proposer must complete the “Company Profile Form” (found in Appendix A) describing your firm inclusive of its history, number of years in business, organizational structure, geographic locations, etc. Provide your firm’s annual sales volume for the last three (3) years.

**E. VOLUME II – PRICE PROPOSAL**

This volume must be submitted in a sealed envelope. The envelope shall have the Proposer's name, address, contact person’s name and telephone number, and the RFP number. Complete the Price Proposal Form (found in Appendix B). It shall be filled out completely in ink or typed. Any erasures and/or alterations to the Proposer's pricing shall be initialed in ink by the signer. **Please note, however, that no changes, alterations or additions to the Price Proposal Form are permitted.**

**F. SUBMISSION**

Vendors must submit the required number of copies of his/her proposal by the closing time and date specified in Section I, Item E of the RFP.

**END OF SECTION V**
APPENDIX A
RFP#BC-20982-P: PERVERIOUS CONCRETE PILOT PROJECT AT THE MARYLAND SCIENCE CENTER

TECHNICAL EVALUATION FORMS

(Forms are to be submitted in the Technical Proposal)

Firm Experience Form
Key Personnel Form
Company Profile
Bid/Proposal Affidavit
Acknowledgement of Receipt of Addenda (if any)
FIRM EXPERIENCE

Note: A separate form is to be completed and submitted for each of the requested three (3) projects.

Proposer: ___________________________________________________________

Project Name: _______________________________________________________

Company/Institution Name: ___________________________________________

Contact Person’s Name: ___________________ Title: ______________________

Contact Phone Number: ___________________ eMail Address: ______________

1. Description of Services Performed:

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

2. Dates services provided: (Contract/Project start date and contract completion date):

_____________________________________________________________________

3. Contract/Project Dollar Value:

$____________________________

4. Proposing Firm’s role on this project/contract:

_____________________________________________________________________

_____________________________________________________________________

5. Project Setting (i.e. University, etc.): _________________________________

6. Name of key personnel who were assigned and their role (inclusive of proposed project manager (if applicable):

<table>
<thead>
<tr>
<th>Person’s Name</th>
<th>Role on the project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Similarities to the UMBC Scope of Work: _____________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________.

RFP#BC-20982-P
KEY PERSONNEL FORM

1. PERSON'S NAME: _____________________________________________

2. POSITION TO BE ASSIGNED:  
   - Project Manager
   - Craftsman
   - Pervious Concrete Installer
   - Pervious Concrete Supplier

3. EDUCATIONAL BACKGROUND:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Degree/Diploma/Certificate</th>
<th>Major (if any) and Date of Degree or Diploma</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. EMPLOYMENT HISTORY:

   4.1 Current Employer’s Name: ________________________________
       Dates of Employment: ________________________________

       | Position Held | Duration by Date(s) |
       |---------------|---------------------|
       |               |                     |

   4.2 Prior Employer’s Name: ________________________________
       Dates of Employment: ________________________________

       | Position Held | Duration by Date(s) |
       |---------------|---------------------|
       |               |                     |

   4.3 Prior Employer’s Name: ________________________________
       Dates of Employment: ________________________________

       | Position Held | Duration by Date(s) |
       |---------------|---------------------|
       |               |                     |
5. **SIMILAR RELEVANT PROJECT EXPERIENCE/REFERENCES:** Provide a description of the person’s project experience, including their role on the project. (Note: As indicated in the solicitation document, references are to be project/contract references not employment references; that is, the University is interested in speaking to a Client regarding the person’s performance on a particular project.) Per the solicitation documents, the University will contact the references provided below during the evaluation process.

5.1 Project Reference Contact Person & Title: ______________________________________

____________________________________

Telephone Number: _____________ eMail Address: ____________________________

Company Name: ____________________________________________________________

Key Person’s Role: ____________________________________________________________

Description of Services Provided:

____________________________________

____________________________________

Contract Period: ______________________________________________________________

Duration Key Person was on the Project:

____________________________________

Note: If key person not assigned for the full duration of the contract, please explain why:

____________________________________

Why is this project similar/relevant to the University’s project?

____________________________________

____________________________________

____________________________________

____________________________________
Proposer: _______________________________________________________

5.2  Project Reference Contact Person &Title: __________________________________________

____________________________________________________________________________
____________________________________________________________________________

Telephone Number: _____________  eMail Address: ___________________________

Company Name: ______________________________________________________________

Key Person’s Role: _____________________________________________________________

Description of Services Provided:
____________________________________________________________________________
____________________________________________________________________________

Contract Period: ______________________________________________________________

Duration Key Person was on the Project:
____________________________________________________________________________

Note: If key person not assigned for the full duration of the contract, please explain why:
____________________________________________________________________________

Why is this project similar/relevant to the University’s project?
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

5.3  Project Reference Contact Person &Title: __________________________________________

____________________________________________________________________________
____________________________________________________________________________

Telephone Number: _____________  eMail Address: ___________________________

Company Name: ______________________________________________________________

Key Person’s Role: _____________________________________________________________

Description of Services Provided:
____________________________________________________________________________
____________________________________________________________________________

Contract Period: ______________________________________________________________

Duration Key Person was on the Project:
____________________________________________________________________________

Note: If key person not assigned for the full duration of the contract, please explain why:
____________________________________________________________________________
Proposer: ________________________________

Why is this project similar/relevant to the University’s project?

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

6. OTHER ACHIEVEMENTS/OTHER NOTATIONS (NOT REQUIRED):

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

NOTE: If a Proposer finds the space provided to be insufficient, he/she can attach additional pages to this form as he finds appropriate and just indicate on this form to see attached pages.

END OF KEY PERSONNEL FORM
COMPANY PROFILE FORM
Page 1 of 2

COMPANY NAME: ____________________________________________________________

MAILING ADDRESS ____________________________________________________________

CITY: ___________________________ STATE: _______ ZIP CODE: ______________

DATE OF INCORPORATION: _______________ STATE OF INCORPORATION: __________

# OF YEARS IN BUSINESS: ____________ *NUMBER OF EMPLOYEES: ___________

OTHER OR FORMER NAMES UNDER WHICH YOUR ORGANIZATION HAS OPERATED:
____________________________________________________________________________

NAMES OF PRINCIPAL(S) AND TITLE(S):
____________________________________________________________________________

____________________________________________________________________________

LOCATION OF OFFICE THAT WILL PROVIDE SERVICES TO UMBC AND NUMBER OF
EMPLOYEES AT THAT LOCATION (if different from above):

MAILING ADDRESS: ____________________________________________________________

CITY: ___________________________ STATE: _______ ZIP CODE: ______________

TELEPHONE NUMBER: _____________________ *NUMBER OF EMPLOYEES _________

*Role/Title
Number

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

TYPE(S) OF SERVICES YOUR COMPANY PROVIDES:
____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________
COMPANY PROFILE FORM
Page 2 of 2

PROPOSER: ___________________________________________________

COMPANY HISTORY (Provide a narrative on the history of the company, and the number of years providing similar services to the UMBC contract. A separate sheet may be attached and referenced below):
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

ANNUAL SALES VOLUME*

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ANNUAL SALES VOLUME</th>
<th>% PREVIOUS CONCRETE WORK</th>
<th>% OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the proposing firm the local office of a parent company or subsidiary? Yes _____ No ________

END OF COMPANY PROFILE FORM
BID/PROPOSAL AFFIDAVIT

A. AUTHORIZED REPRESENTATIVE

I HEREBY AFFIRM THAT: I am the (title) ____________________________ and the duly authorized representative of (business) ____________________________ and that I possess the legal authority to make this Affidavit on behalf of myself and the business for which I am acting.

B. NOT USED

B-1. CERTIFICATION REGARDING MINORITY BUSINESS ENTERPRISES (applicable if an MBE goal is set)

The undersigned bidder or offeror hereby certifies and agrees that it has fully complied with the State Minority Business Enterprise Law, State Finance and Procurement Article, §14-308(a)(2), Annotated Code of Maryland, which provides that, except as otherwise provided by law, a contractor may not identify a certified minority business enterprise in a bid or proposal and:

1. Fail to request, receive, or otherwise obtain authorization from the certified minority business enterprise to identify the certified minority business enterprise;
2. Fail to notify the certified minority business enterprise before execution of the contract of its inclusion in the bid or proposal;
3. Fail to use the certified minority business enterprise in the performance of the contract;
4. Pay the certified minority business enterprise solely for the use of its name in the bid or proposal.

Without limiting any other provision of the solicitation on this project, it is understood that if the certification is false, such false certification constitutes grounds for the State to reject the bid submitted by the bidder on this project, and terminate any contract awarded based on the bid.

B-2. CERTIFICATION REGARDING VETERAN-OWNED SMALL BUSINESS ENTERPRISES (if applicable to the solicitation)

The undersigned bidder or offeror hereby certifies and agrees that it has fully complied with the State veteran-owned small business enterprise law, State Finance and Procurement Article, §14-605, Annotated Code of Maryland, which provides that a person may not:

1. Knowingly and with intent to defraud, fraudulently obtain, attempt to obtain, or aid another person in fraudulently obtaining or attempting to obtain public money, procurement contracts, or funds expended under a procurement contract to which the person is not entitled under this title.
2. Knowingly and with intent to defraud, fraudulently represent participation of a veteran–owned small business enterprise in order to obtain or retain a bid preference or a procurement contract;

3. Willfully and knowingly make or subscribe to any statement, declaration, or other document that is fraudulent or false as to any material matter, whether or not that falsity or fraud is committed with the knowledge or consent of the person authorized or required to present the declaration, statement, or document;

4. Willfully and knowingly aid, assist in, procure, counsel, or advise the preparation or presentation of a declaration, statement, or other document that is fraudulent or false as to any material matter, regardless of whether that falsity or fraud is committed with the knowledge or consent of the person authorized or required to present the declaration, statement, or document;

5. Willfully and knowingly fail to file any declaration or notice with the unit that is required by COMAR 21.11.12; or

6. Establish, knowingly aid in the establishment of, or exercise control over a business found to have violated a provision of §B-2(1)—(5) of this regulation.

C. AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business (as is defined in Section 16-101(b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business’s contracting activities including obtaining or performing contracts with public bodies has been convicted of, or has had probation before judgment imposed pursuant to Criminal Procedure Article, §6-220. Annotated Code of Maryland, or has pleaded nolo contendere to a charge of bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other state or federal law, except as follows (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the business):

D. AFFIRMATION REGARDING OTHER CONVICTIONS

RFP#BC-20982-P
I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business’s contracting activities including obtaining or performing contracts with public bodies, has:

(1) Been convicted under state or federal statute of a criminal offense incident to obtaining or attempting to obtain, or performing a public or private contract, fraud, embezzlement, theft, forgery, falsification or destruction of records, or receiving stolen property;

(2) Been convicted of any criminal violation of a state or federal antitrust statute;

(3) Been convicted under the provisions of Title 18 of the United States Code for violation of the Racketeer Influenced and Corrupt Organizations Act, 18 U.S.C. §1961, et seq., or the Mail Fraud Act, 18 U.S.C. §1341 et seq., for acts arising out of the submission of bids or proposals for a public or private contract;

(4) Been convicted of a violation of the State Minority Business Enterprise Law, Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(5) Been convicted of a violation of §11-205.1 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(6) Been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction or liability under any law or statute described in subsection (1), (2), (3), (4) or (5), above;

(7) Been found civilly liable under a state or federal antitrust statutes for acts or omissions in connection with the submission of bids or proposals for a public or private contract;

(8) Admitted in writing or under oath, during the course of an official investigation or other proceedings, acts or omissions that would constitute grounds for conviction or liability under any law or statute described above, except as follows (indicate reasons why the affirmations cannot be given, and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of the person(s) involved and their current positions and responsibilities with the business, and the status of any debarment):

_________________________________________________________________________________________________________

E. AFFIRMATION REGARDING DEBARMENT

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business’s contracting activities, including obtaining or performing contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows (list each debarment or suspension providing the dates of the suspension or debarment, the name of the public entity and the status of the proceedings, the name(s) of the person(s) involved and their current positions and responsibilities with the business, the grounds of the debarment or suspension, and the details of each person’s involvement in any activity that formed the grounds of the debarment or suspension):

_________________________________________________________________________________________________________

F. AFFIRMATION REGARDING DEBARMENT OF RELATED ENTITIES

I FURTHER AFFIRM THAT:

(1) The business was not established and it does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to Sections 16-101, et seq., of the State Finance and Procurement Article of the Annotated Code of Maryland; and

(2) The business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows (you must indicate the reasons why the affirmations cannot be given without qualification):

____________________________________________________________________________________________________

G. SUB-CONTRACT AFFIRMATION

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business, has knowingly entered into a contract with a public body under which a person debarred or suspended under Title 16 of the State Finance and Procurement Article of the Annotated code of Maryland will provide, directly or indirectly, supplies, services, architectural services, construction-related services, leases of real property, or construction.
H. AFFIRMATION REGARDING COLLUSION

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business, has:

(1) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;

(2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the bidder or offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

I. FINANCIAL DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT: I am aware of, and the above business will comply with the provisions of Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, which require that every business that enters into contracts, leases, or other agreements with the State of Maryland or its agencies during a calendar year under which the business is to receive in the aggregate $100,000 or more shall, within 30 days of the time when the aggregate value of these contracts, leases or other agreements reaches $100,000, file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

J. POLITICAL CONTRIBUTION DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT: I am aware of, and that the above business will comply with, Election Law Article, §§14-101 – 14-108, Annotated Code of Maryland, which require that every person that enters into contracts, leases, or other agreements with the State of Maryland, including its agencies or a political subdivision of the State, during a calendar year in which the person receives in the aggregate $100,000 or more shall file with the State Board of Elections a statement disclosing contributions in excess of $500 made during the reporting period to a candidate for elective office in any primary or general election.

K. DRUG AND ALCOHOL-FREE WORKPLACE

(Applicable to all contracts unless the contract is for a law enforcement agency and the agency head or the agency head's designee has determined that application of COMAR 21.11.08 and this certification would be inappropriate in connection with the law enforcement agency's undercover operations.)

I CERTIFY THAT:

(1) Terms defined in COMAR 21.11.08 shall have the same meaning when used in this certification.

(2) By submission of its bid or offer, the business, if other than an individual, certifies and agrees that, with respect to its employees to be employed under a contract resulting from this solicitation, the business shall:

(a) Maintain a workplace free of drug and alcohol abuse during the term of the contract;

(b) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of drugs, and the abuse of drugs or alcohol is prohibited in the business' workplace and specifying the actions that will be taken against employees for violation of these prohibitions;

(c) Prohibit its employees from working under the influence of drugs and alcohol;

(d) Not hire or assign to work on the contract anyone whom the business knows, or in the exercise of due diligence should know, currently abuses drugs or alcohol and is not actively engaged in a bona fide drug or alcohol abuse assistance or rehabilitation program;

(e) Promptly inform the appropriate law enforcement agency of every drug-related crime that occurs in its workplace if the business has observed the violation or otherwise has reliable information that a violation has occurred;

(f) Establish drug and alcohol abuse awareness programs to inform its employees about:

(i) The dangers of drug and alcohol abuse in the workplace,

(ii) The business' policy of maintaining a drug and alcohol-free workplace,

(iii) Any available drug and alcohol counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees who abuse drugs and alcohol in the workplace;

(g) Provide all employees engaged in the performance of the contract with a copy of the statement required by K(2)(b), above;
(h) Notify its employees in the statement required by §K(2)(b) above, that as a condition of continued employment on the contract, the employee shall:

(i) Abide by the terms of the statement, and

(ii) Notify the employer of any criminal drug or alcohol abuse conviction for an offense occurring in the workplace not later than five (5) days after a conviction;

(i) Notify the procurement officer within 10 days after receiving notice under §K(2)(h)(i), above, or otherwise receiving actual notice of a conviction;

(j) Within 30 days after receiving notice under §K(2)(h)(i), above, or otherwise receiving actual notice of a conviction, impose either of the following sanctions or remedial measures on any employee who is convicted of a drug or alcohol abuse offense occurring in the workplace:

(i) Take appropriate personnel action against an employee, up to and including termination, or

(ii) Require an employee to satisfactorily participate in a bona fide drug or alcohol abuse assistance or rehabilitation program; and,

(k) Make a good faith effort to maintain a drug and alcohol-free workplace through implementation of §K(2)(a)-(j), above.

(3) If the business is an individual, the individual shall certify and agree, as set forth in K(4), below, that the individual shall not engage in the unlawful manufacture, distribution, dispensing, possession, or use of drugs or the abuse of drugs or alcohol in the performance of the contract.

(4) I acknowledge and agree that:

(a) The award of contract is conditional upon compliance with COMAR 21.11.08 and this certification;

(b) The violation of the provisions of COMAR 21.11.08 or this certification shall be cause to suspend payments under, or terminate the contract for default under COMAR 21.07.01.11 or 21.07.03.15, as applicable; and

(c) The violation of the provisions of COMAR 21.11.08 or this certification in connection with the contract may, in the exercise of the discretion of the Board of Public Works, result in suspension and debarment of the business under COMAR 21.08.03.

L. CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT

I FURTHER AFFIRM THAT:

(1) The business named above is a (domestic __|foreign ___) [check one] corporation registered in accordance with the Corporations and Associations Article, Annotated Code of Maryland, and that it is in good standing and has filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation, and that the name and address of its resident agent filed with the State Department of Assessments and Taxation is:

Name: ____________________________________________

Address: __________________________________________

(If not applicable, so state.)

(2) Except as validly contested, the business has paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Employment Security Administration, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final settlement.

M. CONTINGENT FEES

I FURTHER AFFIRM THAT: The business has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee or agent working for the business, to solicit or secure the Contract, and that the business has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee or agent, any fee or any other consideration contingent on the making of the Contract.

N. CONFLICT OF INTEREST AFFIDAVIT AND DISCLOSURE

(1) "Conflict of interest" means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the State, or the person's objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage.

(2) "Person" has the meaning stated in COMAR 21.01.02.01B(64) and includes a bidder, offeror, contractor, consultant, or subcontractor or subconsultant at any tier, and also includes an employee of an agent of any of them if the employee or agent has or will have the authority to control or supervise all or a portion of the work for which a bid or offer is made.
The bidder or offeror warrants that, except as disclosed in §(4), below, there are no relevant facts or circumstances now giving rise or which could, in the future, give rise to a conflict of interest.

The following facts or circumstances give rise or could in the future give rise to a conflict of interest (explain detail—attach additional sheets if necessary):


(5) The bidder or offeror agrees that if an actual or potential conflict of interest arises after the date of this affidavit, the bidder or offeror shall immediately make a full disclosure in writing to the procurement officer of all relevant facts and circumstances. This disclosure shall include a description of actions which the bidder or offeror has taken and proposes to take to avoid, mitigate, or neutralize the actual or potential conflict of interest. If the contract has been awarded and performance of the contract has begun, the contractor shall continue performance until notified by the procurement officer of any contrary action to be taken.

O. CERTIFICATION REGARDING INVESTMENTS IN IRAN

(1) The undersigned bidder or offeror certifies that, in accordance with State Finance & Procurement Article, §17-705:
   (i) it is not identified on the list created by the Board of Public Works as a person engaging in investment activities in Iran as described in §17-702 of State Finance & Procurement; and
   (ii) it is not engaging in investment activities in Iran as described in State Finance & Procurement Article, §17-702.

(2) The undersigned bidder or offeror is unable to make the above certification regarding its investment activities in Iran due to the following activities:


P. ACKNOWLEDGMENT

I ACKNOWLEDGE THAT this Affidavit is to be furnished to the Procurement Officer and may be distributed to units of: (1) the State of Maryland; (2) counties or other subdivisions of the State of Maryland; (3) other states; and, (4) the federal government. I further acknowledge that this Affidavit is subject to applicable laws of the United States and the State of Maryland, both criminal and civil, and that nothing in this Affidavit or any contract resulting from submission of this bid or proposal shall be construed to supersede, amend, modify or waive, on behalf of the State of Maryland or any unit of the State of Maryland having jurisdiction, the exercise of any right or remedy conferred by the Constitution and the laws of Maryland in respect to any misrepresentation made or any violation of the obligations, terms and covenants undertaken by the above business in respect to (1) this Affidavit, (2) the contract, and (3) other Affidavits comprising part of the contract.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: ___________________________ By: ___________________________
   (Authorized Representative and Affiant)

Company Name: ___________________________

FEIN No: ___________________________
ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA FORM

RFP NO.: BC-20982-P

TECHNICAL AND PRICE PROPOSAL DUE DATE: MONDAY, JULY 27, 2015 by 2:00 P.M.

RFP FOR: PERVIOUS CONCRETE PROJECT AT THE MARYLAND SCIENCE CENTER

NAME OF PROPOSER: _____________________________________________________________

The undersigned, hereby acknowledges the receipt of the following addenda:

Addendum No. _____ dated ______
Addendum No. _____ dated ______
Addendum No. _____ dated ______
Addendum No. _____ dated ______
Addendum No. _____ dated ______
Addendum No. _____ dated ______

As stated in the RFP documents, this form is included in our Technical Proposal.

________________________________________
Signature

________________________________________
Name Printed

________________________________________
Title

________________________________________
Date

END OF FORM
APPENDIX B

PRICE PROPOSAL FORM
Ms. Delores R. Pertee  
University of Maryland Baltimore County  
1000 Hilltop Circle, Administration Building #301  
Baltimore, MD 21250  

Dear Ms. Pertee,

The undersigned hereby submits the Price Proposal as set forth in RFP #BC20982-P dated 07/08/15 and the following subsequent addenda:

Addendum ______ dated______  
Addendum_______ dated______  
Addendum_________ dated______  
Addendum_________ dated______

We confirm that this Price Proposal is based on the requirements per the RFP and any subsequent addenda as noted above. Having received clarification on all matters upon which any doubt arose, the undersigned proposes to complete the work for the work as described in this RFP and subsequent Addenda as noted above. By signing and submitting this response, undersigned hereby agrees to all the terms and conditions of this RFP including any issued addenda. Proposers are cautioned to verify their final proposals prior to submission, as UMBC cannot be responsible for Proposer's errors or omissions. Any price proposal that has been accepted by UMBC may not be withdrawn by the Proposer.

We understand that by submitting a proposal we are agreeing to all of the terms and conditions included in the RFP documents, and that the Bid/Proposal Affidavit submitted as part of the original technical proposal remains in effect. The evaluation and subsequent final ranking of proposals will be in accordance the RFP documents. We understand that technical weighs greater than cost.
Proposer: ________________________________________________________________

1. Maryland Science Center Pervious Concrete Pilot Project; price includes the full cost of all labor, materials, and equipment required to complete the project.

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<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Extension</th>
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<td>Mobilization</td>
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State the total amount (in words and figures):

___________________________________________________________

Dollars ($______________________)

See the instructions for Bid Bond, Performance Bond and Payment Bond requirement in Section II: General Information for Vendors, Paragraph T: Proposal Security above.
2. Project total cost breakout (from #1 above) by role:

   General Contractor  $_____________________
   Pervious Concrete Supplier  $_____________________
   Pervious Concrete Installer  $_____________________

We further understand that this Price Proposal includes all costs associated with the provision of the Services per this RFP. We further confirm that the key personnel named within our Technical Proposal or at our Interview session, and any clarifications thereto, will be assigned to the UMBC Contract for the duration of this contract. We understand that no changes in this assignment will be allowed without written authorization from the University via contract amendment prior to such changes being made.

The undersigned hereby certifies that he/she is a duly authorized office of the Proposer and can bind the Proposer to the prices stated herein.

__________________________________________________________
Proposer (Company Name)

_____________________________________________________
Authorized Signature

__________________________________________________________
Print Name

__________________________________________________________
Title
APPENDIX C

CONTRACT FORMS

(These forms will be completed only by the firm that is awarded the contract)

Standard UMBC Services Contract
Contract Affidavit
Performance Bond
Payment Bond
CONTRACT
BETWEEN
THE UNIVERSITY OF MARYLAND, BALTIMORE COUNTY
AND
FIRM NAME

By this Contract, made as of the __ day of _______, 2015, by and between The University of Maryland, Baltimore County, a constituent institution of the University System of Maryland, agency of the State of Maryland (“University”), 1000 Hilltop Circle, Baltimore, Maryland 21250, and ____________________ (“Contractor”), for the purposes hereby agree as follows:

1. **TERM OF CONTRACT:** The term of this Contract shall begin on __________, 2015 and terminate on __________.

2. **SCOPE OF CONTRACT:** The Contractor's obligations and duties under this Contract shall include, but are not limited to, the terms, conditions and specifications contained in RFP No. BC-20982-P, and any amendments or changes thereto as well as the Contractor's proposal submitted in response to the aforementioned RFP (collectively referred to hereinafter as the “Contract Documents”). These obligations and duties are subject to the unilateral right of the University to order, in writing, changes in the work within the scope of the Contract.

3. **COMPENSATION AND METHOD OF PAYMENT:**
   A. As compensation for satisfactory performance of the work described in Paragraph 2, above, the University will pay the Contractor $______________ for the initial term and each subsequent renewal term.
   B. The Contractor's Federal Tax Identification Number or, where applicable, Social Security Number is ________________.
   C. The Contractor shall be paid only for items or services that are specifically named in this Contract. No additional costs for items or services will be paid by the University without its prior express written consent.

4. **DELIVERY:** Delivery shall be made in accordance with bid/RFP specifications. The University reserves the right to test any materials, equipment, supplies or services delivered to determine if the specifications have been met. The materials listed in the specifications shall be delivered FOB the point or points specified prior to or on the date specified in the solicitation. Any material that is defective or fails to meet the terms of the specifications shall be rejected. Rejected materials shall be promptly replaced. The University reserves the right to purchase replacement materials in the open market. Contractors failing to promptly replace materials lawfully rejects shall be liable for any excess price paid for the replacement plus applicable expenses, if any.

5. **NON-HIRING OF EMPLOYEES:** No employee of the State of Maryland or any unit thereof, whose duties as such employee include matters relating to or affecting the subject matter of this Contract, shall, while so employed, become or be an employee of the party or parties hereby contracting with the State of Maryland or any unit thereof.

6. **RESPONSIBILITY OF CONTRACTOR:**
   A. The Contractor shall perform the services with that standard of care, skill and diligence normally provided by a Contractor in the performance of services similar to the services hereunder.
   B. Notwithstanding any review, approval, acceptance or payment for the services by the University, the Contractor shall be responsible for professional and technical accuracy of its work, design drawings, specifications and other materials furnished by the Contractor under this Contract.

7. **DISSEMINATION OF INFORMATION:**
   A. During the term of this Contract, the Contractor shall not release any information related to the services or performance of the services under this Contract nor publish any final reports or documents without the prior written approval of the University.
   B. The Contractor shall indemnify and hold harmless the University, its officers, agents and employees, from all liability which may be incurred by reason of dissemination, publication,
8. **OWNERSHIP OF DOCUMENTS AND MATERIALS:** The Contractor agrees that all documents and materials, including but not limited to, reports, drawings, studies, specifications, estimates, maps, photographs, designs graphics, mechanical, artwork, and computations prepared by or for it under the terms of this Contract shall at any time during the performance of the services be made available to the University upon request by the University and shall become and remain the exclusive property of the University upon termination or completion of the services. The University shall have the right to use same without restriction or limitation and without compensation to the Contractor other than that provided by this Contract. The University shall be the owner for purposes of copyright, patent or trademark registration.

9. **PATENTS, COPYRIGHTS AND TRADE SECRETS:**
   
   A. If the Contractor furnishes any design, device, material, process or other item which is covered by a patent or copyright which is deemed proprietary to or a trade secret of another, Contractor shall obtain the necessary permission or license to use such item.
   
   B. Contractor will defend or settle, at its own expense, any claim or suit against the University alleging that any such item furnished by Contractor infringes any patent, trademark, copyright, or trade secret. Contractor also will pay all damages and costs that by final judgment may be assessed against the University due to such infringement and all attorneys’ fees and litigation expenses reasonably incurred by the University to defend against such a claim or suit. The obligations of this paragraph are in addition to those stated in paragraph 16 below.
   
   C. If any products furnished by Contractor become, or in Contractor’s opinion, are likely to become, the subject of a claim of infringement, Contractor will, at its option: (1) procure for the University the right to continue using the applicable item; (2) replace the product with a non-infringing product substantially complying with the item’s specifications; or (3) modify the item so it becomes non-infringing and performs in a substantially similar manner to the original item.

10. **DISPUTES:** This Contract shall be subject to the provisions of University System of Maryland Procurement Policies and Procedures. Pending resolution of a claim, the Contractor shall proceed diligently with the performance of the Contract in accordance with the Procurement Officer’s decision. Any dispute that is not subject to the jurisdiction of the Maryland State Board of Contract Appeals, as provided in the University System Procurement Policies and Procedures, shall be brought in and heard by the courts of the State of Maryland, and the parties voluntarily consent to the exclusive jurisdiction of the courts of this State for any such proceeding.

11. **NON-DISCRIMINATION IN EMPLOYMENT:** During the performance of this contract, the Contractor agrees as follows: (a) The Contractor will not discriminate against any employee, applicant for employment, or individual because of race, color, religion, creed, age, sex, sexual orientation, gender identity or expression, marital status, national origin, veteran’s status, genetic information, and/or physical or mental handicap. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, creed, age, sex, sexual orientation, gender identity or expression, marital status, national origin, veteran’s status, genetic information, and/or physical or mental handicap; (b) The Contractor shall establish and maintain a written sexual harassment policy and shall inform their employees of the policy. The policy must, at minimum, contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined; (c) The Contractor will post in conspicuous places, available to employees, applicants for employment, and representatives of each labor union with which the covered Contractor has a collective bargaining agreement, notices setting forth the provisions of the nondiscrimination clause in subsection (a); (d) In the event of the Contractor's noncompliance with the nondiscrimination clause, this contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the University of Maryland Baltimore County (UMBC); and (e) The Contractor will include the provisions of paragraphs (a) through (d) in every subcontract so that such provisions will be binding upon each subcontractor or vendor.
12. **CIVIL RIGHTS ACT 1964:** Vendors and Contractors providing materials, equipment, supplies or services to the State under this Contract herewith assure the State that they are conforming to the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1988, and the Civil Rights Act of 1991, and Section 202 of Executive Order 11246 of the President of the United States of America as amended by Executive Order 11375, as applicable.

13. **AFFIRMATIVE ACTION:** The Contractor and all subcontractors shall develop and maintain affirmative action plans directed at increasing the utilization of women and members of minority groups on State public works projects, pursuant to the Executive Order 11246 of the President of the United States of America and guidelines on Affirmative Action issued by the Equal Employment Opportunities Commission (EEOC) 29 C.F.R. part 1608 and the Governor of Maryland’s Executive Order 01.01.1993.16.

14. **CONFLICT OF INTEREST LAW:** It is unlawful for any University officer, employee, or agent to participate personally in his official capacity through decision, approval, disapproval, recommendation, advice, or investigation in any contract or other matter in which he, his spouse, parent, child, brother, or sister, has a financial interest or to which any firm, corporation, association, or other organization in which he has a financial interest or in which he is serving as an officer, director, trustee, partner, or employee, or any person or organization with whom he is negotiating or has any arrangement concerning prospective employment, is a party, unless such officer, employee, or agent has previously complied with the provisions of Article 40A, §3-101 et seq of the Annotated Code of Maryland.

15. **CONTINGENT FEE PROHIBITION:** The Contractor, Architect, or Engineer (as applicable) warrants that it has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee or agent working for the Contractor, Architect, or Engineer, to solicit or secure this agreement, and that it has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee or agent, any fee or any other consideration contingent on the making of this agreement.

16. **INTELLECTUAL PROPERTY:** Contractor agrees to indemnify and save harmless the State, its officers, agents and employees with respect to any claim, action, cost or judgment for patent infringement, or trademark or copyright violation arising out of purchase or use of materials, supplies, equipment or services covered by this Contract.

17. **SOFTWARE CONTRACTS:** [Delete if not applicable and insert “N/A”] As specifically provided by Maryland Code Annotated, Commercial Law Article, Section 21-104, the parties agree that this Contract shall not be governed by the Uniform Computer Information Transaction Act (“UCITA”), Title 21 of the Maryland Code Annotated, Commercial Law Article, as amended from time to time. This Contract shall be governed by the common law of Maryland relating to written agreements, as well as other statutory provisions, other than UCITA, which may apply, and shall be interpreted and enforced as if UCITA had never been adopted in Maryland. Contractor agrees that, as delivered to the University, the software does not contain any program code, virus, worm, trap door, back door, timer or clock that would erase data, or programming or otherwise cause the software to become inoperable, inaccessible, or incapable of being used in accordance with its conditions, or manually on command of Contractor.

18. **EPA COMPLIANCE:** Materials, supplies, equipment and services shall comply in all respects with the federal Noise Control Act of 1972, where applicable. Power equipment, to the greatest extent possible, shall be the quietest available. Equipment certified by the US EPA as a Low Noise Emission Product pursuant to the Federal Noise Control Act of 1972 shall be considered to meet the intent of the regulation. The Contractor must supply and have immediately available to their employees spill containment equipment/supplies necessary to contain any hazards they may introduce to the job site. The Contractor is responsible for any and all costs incurred by the University in remediating spills or releases of materials he/she introduced onto the job site.

19. **TERMINATION OF MULTI-YEAR CONTRACTS DUE TO LACK OF APPROPRIATIONS:** If the General Assembly fails to appropriate funds or if funds are not otherwise made available for continued performance for any fiscal period of this Contract succeeding the first fiscal period, this Contract shall be canceled automatically as of the beginning of the fiscal year for which funds were not appropriated or otherwise made available; provided, however, that this will not affect either the State's rights or the Contractor's rights under any termination clause in this Contract. The effect of termination
of the Contract hereunder will be to discharge both the Contractor and the State of Maryland from future performance of the Contract, but not from their rights and obligations existing at the time of termination. The Contractor shall be reimbursed for the reasonable value of any non-recurring costs incurred but not amortized in the price of the Contract. The State shall notify the Contractor as soon as it has knowledge that funds may not be available for the continuation of this Contract for each succeeding fiscal period beyond the first.

20. **TERMINATION FOR DEFAULT**: If the Contractor fails to fulfill its obligation under this contract properly and on time, or otherwise violates any provision of the contract, the University may terminate the contract by written notice to the Contractor. The notice shall specify the acts or omissions relied upon as cause for termination. All finished or unfinished work provided by the Contractor shall, at the University’s option, become the University’s property. The University shall pay the Contractor fair and equitable compensation for satisfactory performance prior to receipt of notice of termination, less the amount of damages caused by Contractor’s breach. If damages are more than the compensation payable to the Contractor, the Contractor will remain liable after termination and the University can affirmatively collect damages. Termination hereunder, including the determination of the rights and obligations of the parties, shall be governed by the provisions of USM Procurement Policies and Procedures.

21. **TERMINATION FOR CONVENIENCE**: The performance of work under this Contract may be terminated by the University in accordance with this clause in whole, or from time to time in part, whenever the University shall determine that such termination is in the best interest of the University. The University will pay all reasonable costs associated with this Contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with termination of the Contract. However, the Contractor shall not be reimbursed for any anticipatory profits that have not been earned up to the date of termination. Termination hereunder, including the determination of the rights and obligations of the parties, shall be governed by the provisions of USM Procurement Policies and Procedures.

22. **DELAYS AND EXTENSIONS OF TIME**: The Contractor agrees to perform this agreement continuously and diligently. No charges or claims for damages shall be made by the Contractor for any delays or hindrances, regardless of cause, in the performance of services under this Contract. Time extensions will be granted only for excusable delays that arise from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of the public enemy, acts of the State in either its sovereign or contractual capacity, acts of another Contractor in the performance of a State Contract, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or the delay of a sub-contractor or supplier arising from unforeseeable causes beyond the control and without the fault or negligence of either the Contractor or the subcontractors or suppliers.

23. **VARIATIONS IN ESTIMATED QuANTITIES**: [Delete is not applicable - if contract does not contain estimated quantity items.] No equitable adjustment shall be permitted in favor of either the State of Maryland or the Contractor in the event that the quantity of any pay item in this Contract is an estimated quantity and the actual quantity of such pay item varies from the estimated quantity stated in the Contract.

24. **LIQUIDATED DAMAGES**: [To be included where deemed appropriate by the Procurement Officer or insert “N/A”] Time is an essential element of the Contract and it is important that the work be vigorously prosecuted until completion. For each day that any work shall remain uncompleted beyond the time(s) specified elsewhere in the contract, the Contractor shall be liable for liquidated damages in the amount(s) provided for in the solicitation, provided, however, that the due account shall be taken of any adjustment of the specified completion time(s) for completion of work as granted by approved change orders.

25. **SUSPENSION OF WORK**: The procurement officer unilaterally may order the Contractor in writing to suspend, delay or interrupt all or any part of the work for such period of time as the Procurement Officer may determine to be appropriate for the convenience of the University.

26. **PRE-EXISTING REGULATIONS**: In accordance with the provisions of Section 11-206 of the State Finance and Procurement Article, Annotated Code of Maryland, the regulations set forth in USM
Procurement Policies and Procedures in effect on the date of execution of this Contract are applicable to this Contract.

27. **FINANCIAL DISCLOSURE:** The Contractor shall comply with the provisions of Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, as from time to time amended, which requires that every business that enters into contracts, leases or other agreements with the State of Maryland or its agencies during a calendar year under which the business is to receive in the aggregate $100,000 or more, shall, within 30 days of the time when the aggregate value of these contracts, leases or other agreements reaches $100,000, file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.

28. **POLITICAL CONTRIBUTION DISCLOSURE:** The Contractor shall comply with Article 33, Sections 14-101 through 14-104, of the Annotated Code of Maryland, which requires that every person that enters into contracts, leases, or other agreements with the State, a county, or an incorporated municipality, or their agencies, during a calendar year under which the person receives in the aggregate $100,000 or more shall file with the State Administrative Board of Election Laws a statement disclosing contributions in excess of $500 to a candidate for elective office in any primary or general election. The statement shall be filed with the State Administrative Board of Election Laws: (1) before a purchase or execution of a lease or contract by the State, a county, an incorporated municipality, or their agencies, and shall cover the preceding two calendar years; and (2) if the contribution is made after the execution of a lease or contract, then twice a year, throughout the contract term, on: (a) February 5, to cover the 6-month period ending January 31; and (b) August 5, to cover the 6-month period ending July 31.

29. **RETENTION OF RECORDS:** The Contractor shall retain and maintain all records and documents relating to this Contract for three (3) years after final payment by the University hereunder or any applicable statute of limitations, whichever is longer, and shall make them available for inspection and audit by authorized representatives of the University, including the Procurement Officer or the Procurement Officer's designee, at all reasonable times.

30. **AUDIT:** The University reserves the right to request an independent review of the Contractor's financial operations and overall contract compliance (“Review”). The Review would be at the Contractor’s expense and comprised of an agreed upon procedures engagement by an independent certified public accountant with a protocol acceptable to both parties at the time of the request.

31. **COMPLIANCE WITH LAWS:** The Contractor hereby represents and warrants that:
   A. It is qualified to do business in the State of Maryland and that it will take such action as, from time to time hereafter, may be necessary to remain so qualified;
   B. It is not in arrears with respect to the payment of any monies due and owing the State of Maryland, or any department or unit thereof, including but not limited to the payment of taxes and employee benefits, and that it shall not become so in arrears during the term of this Contract;
   C. It shall comply with all federal, State and local laws, regulations, and ordinances applicable to its activities and obligations under this Contract; and
   D. It shall obtain at its expense, all licenses, permits, insurance, and governmental approval, if any, necessary to the performance of its obligations under this Contract.

32. **COST AND PRICE CERTIFICATION:** By submitting cost or price information, the Contractor certifies to the best of its knowledge that the information submitted is accurate, complete, and current as of a mutually determined specified date prior to the conclusion of any price discussions or negotiations for:
   A. A negotiated contract, if the total contract price is expected to exceed $100,000, or a smaller amount set by the procurement officer; or
   B. A change order or contract modification, expected to exceed $100,000, or a smaller amount set by the procurement officer.
   C. The price under this Contract and any change order or modification hereunder, including profit or, fee, shall be adjusted to exclude any significant price increases occurring because the Contractor furnished cost or price information which, as of the date agreed upon between the parties, was inaccurate, incomplete, or not current.
33. **TRUTH-IN NEGOTIATION CERTIFICATION:** [Mandatory provision for architectural services or engineering services contracts exceeding $100,000. It shall be in substantially the same form as follows: or insert “N/A” if not applicable.] The Contractor by submitting cost or price information, including wage rates or other actual unit costs, certifies to the best of its knowledge, information and belief, that:

A. the wage rates and other factual unit costs supporting the firm’s compensation, as set forth in the proposal, are accurate, complete and current as of the contract date;

B. if any items of compensation were increased due to the furnishing of inaccurate, incomplete or noncurrent wage rates or other units of costs, the State is entitled to an adjustment in all appropriate items of compensation, including profit or fee, to exclude any significant sum by which the price was increased because of the defective data. The University’s right to adjustment includes the right to a price adjustment for defects in costs or pricing data submitted by a prospective or actual subcontractor; and

C. If additions are made to the original price of the contract, such additions may be adjusted to exclude any significant sums where it is determined the price has been increased due to inaccurate, incomplete or noncurrent wage rates and other factual costs.

34. **PAYMENT OF UNIVERSITY OBLIGATIONS:** Payments to the Contractor pursuant to this Contract shall be made no later than 30 days after the University’s receipt of a proper invoice from the Contractor. Each such invoice must reflect the Contractor’s federal tax identification number. Charges for late payment of invoices, other than as prescribed by Title 15, Subtitle 1, of the State Finance and Procurement Article, Annotated Code of Maryland, as from time to time amended, are prohibited.

35. **SET-OFF:** The University may deduct from and set-off any amounts due and payable to the Contractor any back-charges or damages sustained by the University by virtue of any breach of this Contract by the Contractor or by virtue of the failure or refusal of the Contractor to perform the services or any part of the services in a satisfactory manner. Nothing herein shall be construed to relieve the Contractor of liability for additional costs resulting from a failure to satisfactorily perform the services.

36. **INDEMNIFICATION:** The University shall not assume any obligations to indemnify, hold harmless, or pay attorneys’ fees that may arise from or in any way be associated with the performance or operation of this Contract.

37. **PROHIBITION AGAINST SHIFTING MARYLAND INCOME TO OUT-OF-STATE AFFILIATES:** Contractor may not, for any period during the Contract term, seek to reduce the amount of Contractor’s income subject to Maryland income tax by payments made to an affiliated entity or an affiliate’s agent for the right to use trademarks, trade names, or other tangible property associated with Contractor. Contractor agrees that during the course of this Contract it shall not make any such royalty or similar payments to any affiliated company; and if any such royalty or similar payments are made, Contractor and the affiliated company shall file separate Maryland income tax, under a formula that reasonably apportions the income of the affiliated company among the states, including Maryland, in which the Contractor does business. Contractor agrees that it is authorized to bind its affiliated entities to the terms hereof.

38. **USE OF CONTRACTOR’S FORMS NOT BINDING ON STATE:**

A. The use or execution by the University of any forms, orders, agreements, or other documents of any kind, other than the Contract documents, used pursuant to or in the administration of any contract awarded by the University to the Contractor, shall not bind the University to any of the terms and conditions contained therein except those provisions:

1. Generally describing for the purposes of ordering: equipment or services to be provided, locations, quantities, delivery or installation dates, and, to the extent consistent with the Contract Documents, prices; and

2. not otherwise inconsistent with the Contract Documents.

B. Any such form, order, or others document shall not vary, modify, or amend the terms and provisions of the Contract Documents, notwithstanding any provision to the contrary in such document, unless all of the following conditions are met:
(1) the document expressly refers to the particular document and provision of the Contract Documents being modified and plainly and conspicuously identifies any modifications thereto as a modification; and
(2) the document is executed on behalf of the University by the procurement officer; and
(3) execution of the document is approved by the procurement authority whose approval is required by law.

39. **ASSIGNMENT**: This Contract and the rights, duties, and obligations hereunder may not be assigned or subcontracted by Contractor without the prior written consent of the University.

40. **WAIVER OF JURY**: UNIVERSITY AND CONTRACTOR, HEREBY WAIVE TRIAL BY JURY IN ANY ACTION OR PROCEEDING TO WHICH THEY ARE PARTIES ARISING OUT OF OR IN ANY WAY PERTAINING TO THIS CONTRACT. IT IS AGREED AND UNDERSTOOD THAT THIS WAIVER CONSTITUTES A WAIVER OF TRIAL BY JURY OF ALL CLAIMS AGAINST ALL PARTIES WHO ARE NOT PARTIES TO THIS CONTRACT. THIS WAIVER IS KNOWINGLY, WILLINGLY AND VOLUNTARILY MADE BY UNIVERSITY AND CONTRACTOR, WHO HEREBY REPRESENT AND WARRANT THAT NO REPRESENTATIONS OF FACT OR OPINION HAVE BEEN MADE BY AN INDIVIDUAL TO INDUCE THIS WAIVER OF TRIAL BY JURY OR TO IN ANY WAY MODIFY OR NULLIFY ITS EFFECT.

41. **MARYLAND LAW**: This Agreement shall be governed by and construed in accordance with the laws of the State of Maryland, without regard to its conflicts of law or choice of law principles.

42. **FORCE MAJEURE**: If either party’s performance(s) hereunder is rendered impossible, hazardous or is otherwise prevented or impaired due to sickness, inability to perform, accident, interruption or failure of means of transportation, Act(s) of God, riots, strikes, labor difficulties, epidemics, earthquakes, any act or order of any public authority, and/or any other cause or event, similar or dissimilar, beyond that party’s control, then each party’s obligations with respect to the affected performance(s) shall be excused and neither party will have any liability in connection therewith.

43. **SUCCESSORS AND ASSIGNS**: This Agreement will bind upon and inure to the benefit of the parties hereto and their respective personal representatives/successors and assigns. Successors and assigns shall agree to assume in writing the obligations under this Contract.

44. **COMPLIANCE WITH FERPA**: The University agrees that, for purposes of the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. § 1232g) as amended (“FERPA”), the Contractor will be considered a contractor to whom functions and services have been outsourced by the University. As a result of these function and services, the Contractor might have access to educational records, as defined by FERPA. Contractor agrees that it shall not re-disclose personally identifiable educational records that it receives from the University pursuant to this Agreement, unless such disclosure is authorized to perform the functions and services provided through this agreement or is authorized under FERPA. Contractor expressly warrants and represents that it shall not use the student information or educational records provided by the University for any purpose other than to comply with the terms of this Agreement with the University. Contractor shall indemnify and hold harmless the University from and against any and all claims, suits, proceedings, costs, losses, damages, liabilities, expenses, demands, and judgments, including court costs, attorney's fees, and other reasonable expenses of litigation, which may arise out of, relate to, or be a consequence of, an unauthorized disclosure of educational records. Contractor will, upon discovery, or receipt of notice, of a potential, or actual, material unauthorized disclosure of educational records, immediately report said occurrence to the University. Contractor will work with the University to remediate the unauthorized disclosure (or anticipated unauthorized disclosure) at the expense of Contractor. The terms of the remediation are the sole and exclusive determination of the University.

45. **SMOKE-FREE CAMPUS**: In an effort to provide a healthy, smoke-free environment for everyone on campus, and in accordance with USM policy, effective July 1, 2013, UMBC has become smoke-free campus. The campus has provided two designated areas removed from major pedestrian traffic. All existing smoking urns have been removed, and new urns have been placed at each designated smoking area. Permanent smoking shelters will be installed during the fall semester. The two locations will be the Park Road Smoking Area, adjacent to Lots 1 and 3; and the Fine Arts Service Smoking Area, near...
the Fine Arts Building service area. To ensure that this policy is adhered to, individuals found in violation will be directed to review the smoking policy online at smokefree.umbc.edu. Those violating the policy after that will be subject to a fine. This new policy reflects a national movement to provide healthy, smoke-free environments on college campuses and brings UMBC in line with more than 800 colleges in the United States that are already smoke free.

46. **RESPONSIBILITY FOR TECHNOLOGY EXPORT CONTROL:**

   A. The Seller shall comply with all applicable U.S. export control laws and regulations in the performance of this Purchase Order and the distribution and use of resulting work products. Generally, U.S. export control laws and regulations apply to any shipment, transmission, transfer, or exposure to any foreign person, as defined in 22 CFR 120.16, of commodities (equipment, hardware, or material); technology (technical data, information, or assistance); and software (commercial or custom), regardless of where (inside or outside the United States) or how it may occur.

   B. The Seller shall be responsible for obtaining the appropriate licenses or other approvals for exports of commodities, technology, and software, unless an exemption or exception applies. The Seller shall also be responsible for obtaining the appropriate licenses or other approvals before utilizing a foreign person or entity in the performance of this Purchase Order, including instances where the work is to be performed at the LLNL, where the foreign person or entity will have access to any information, technology, or software subject to export control.

   C. The Seller shall be responsible for all regulatory record-keeping requirements associated with the use of licenses and license exemptions and exceptions.

   D. The Seller shall ensure that the provisions of this clause apply to its subcontractors.

47. **CONTRACT CONTROLS:** It is mutually agreed that any attached contract, or addenda thereto, by and between the University and the Contractor pertaining to this Contract is supplemental and subordinate to this University of Maryland, Baltimore County Contract. The terms and conditions of this University of Maryland, Baltimore County Contract shall, at all times and in all events and situations, be controlling.

48. **CONTRACT AFFIDAVIT:** The Contract Affidavit required by the USM Procurement Policies and Procedures, consisting of Authorized Representative statement, Certification of Corporate Registration and Tax Payment, and Certain Affirmations Valid is attached and is a part of this Contract that must be executed by an authorized representative of the Contractor.

49. **ENTIRE AGREEMENT:**

   A. This Contract constitutes the entire agreement of the parties and supersedes all prior written or oral and all contemporaneous oral agreements, understandings, and negotiations between the parties with respect to the subject matter hereof. This Contract is intended by the parties as the final expression of their agreement and may not be contradicted by evidence of any prior or contemporaneous agreement.

   B. Headings: All headings are for reference purposes only and must not affect the interpretation of this Contract. All references to days in this Agreement mean calendar days, unless otherwise expressly stated. All references to including mean including without limitation.

   C. Partial Invalidity. Any provision of this Contract which is found to be invalid or unenforceable shall be ineffective to the extent of such invalidity or unenforceability, and the invalidity or unenforceability of such provision shall not affect the validity or enforceability of the remaining provisions hereof.

   D. Notices. Any notice required to be given hereunder shall be deemed to have been given either when served personally, by facsimile, or when sent by first class mail addressed to the parties at the addresses set forth in this Agreement.

   E. Counterparts. This Contract may be executed simultaneously, in two (2) or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same document. The signature of any party to any counterpart shall be deemed a signature to, and may be appended to any other counterpart.
IN WITNESS WHEREOF, the parties have caused this Contract to be executed on their behalf by the undersigned as of the date first shown above.

Contractor: ______________________________
BY: ______________________________
Signature

_______________________________
Typed/Printed Name
Title
Date
Telephone Number

University of Maryland Baltimore County
BY: ______________________________
Signature

_______________________________
Typed/Printed Name
Title
Date
Telephone Number

(Revised 05/29/14)
CONTRACT AFFIDAVIT

(This affidavit is a mandatory contract addendum in accordance with USM Procurement Policies and Procedures, but it is only required from the successful Contractor.)

A. AUTHORIZED REPRESENTATIVE
I HEREBY AFFIRM THAT:
I am the (title) ___________________ and the duly authorized representative of (business) ______________________ and that I possess the legal authority to make this Affidavit on behalf of myself and the contractor for which I am acting.

B. CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT
I FURTHER AFFIRM THAT:

(1) The business named above is a (domestic____) (foreign____) [check one] corporation registered in accordance with the Corporations and Associations Article, Annotated Code of Maryland, and that it is in good standing and has filed all its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation, and that the name and address of its resident agent filed with the State Department of Assessments and Taxation is:
Name: ___________________________________________________________
Address: __________________________________________________________

(2) Except as validly contested, the Contractor has paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Employment Security Administration, as applicable, and will have paid all withholding taxes due to the State of Maryland prior to final settlement.

C. CERTIFICATION REGARDING INVESTMENTS IN IRAN
(1) The undersigned bidder or offeror certifies that, in accordance with State Finance & Procurement Article, §17-705:
   (i) it is not identified on the list created by the Board of Public Works as a person engaging in investment activities in Iran as described in §17-702 of State Finance & Procurement; and
   (ii) it is not engaging in investment activities in Iran as described in State Finance & Procurement Article, §17-702.

(2) The undersigned bidder or offeror is unable to make the above certification regarding its investment activities in Iran due to the following activities:
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

D. CERTAIN AFFIRMATIONS VALID
I FURTHER AFFIRM THAT:
To the best of my knowledge, information, and belief, each of the affirmations, certifications, or acknowledgments contained in that certain Proposal Affidavit dated ______________, 20__, and executed by me for the purpose of obtaining the contract to which this Exhibit is attached remains true and correct in all respects as if made as of the date of this Contract Affidavit and as if fully set forth herein.
I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.
# PERFORMANCE BOND

<table>
<thead>
<tr>
<th>Principal</th>
<th>Business Address of Principal</th>
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<tbody>
<tr>
<td>Surety</td>
<td>Obligees STATE OF MARYLAND</td>
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<tr>
<td>a corporation of the State of ..........</td>
<td>By and through the following</td>
</tr>
<tr>
<td>and authorized to do business in the State of Maryland</td>
<td>Administration .....................</td>
</tr>
</tbody>
</table>

Penal Sum of Bond (express in words and figures) | Date of Contract  

| Description of Contract | Date Bond Executed |

| Contract Number: | |

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal named above and Surety named above, are held and firmly bound unto the Obligees named above in the Penal Sum of this Performance Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns, jointly and severally, firmly by these presents. However, where Surety is composed of corporations acting as co-sureties, we, the cosureties, bind ourselves, our successors and assigns, in such Surety jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of the Penal Sum.

WHEREAS, Principal has entered into or will enter into a contract with the State of Maryland, by and through the Administration named above acting for the State of Maryland, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as "the Contract."

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW, THEREFORE, during the original term of said Contract, during any extensions thereto that may be granted by the Administration, and during the guarantee and warranty period, if any, required under the Contract, unless otherwise stated therein, this Performance Bond shall remain in full force and effect unless and until the following terms and conditions are met:

1. Principal shall well and truly perform the Contract; and
2. Principal and Surety shall comply with the terms and conditions in this Performance Bond.

Whenever Principal shall be declared by the Administration to be in default under the Contract, the Surety may, within 15 days after notice of default from the Administration, notify the Administration of its election to either promptly proceed to remedy the default or promptly proceed to complete the contract in accordance with and subject to its terms and conditions. In the event the Surety does not elect to exercise either of the above stated options, then the Administration thereupon shall have the remaining contract work completed, Surety to remain liable hereunder for all expenses of completion up to but not exceeding the penal sum stated above.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this Performance Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Performance Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Performance Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture have signed below, each member has set forth below the name of the partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation’s name to be set forth below, a duly authorized representative of the corporation to affix below the corporation’s seal and to attach hereto a notarized corporate resolution or power of attorney authorizing such action, and each such duly authorized representative to sign below and to set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.
# PAYMENT BOND

<table>
<thead>
<tr>
<th>Principal</th>
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<tr>
<td>Surety</td>
<td>Obligee</td>
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<tr>
<td>a corporation of the State of Maryland and authorized to do business in the State of Maryland</td>
<td>STATE OF MARYLAND</td>
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<tr>
<td>Penal Sum of Bond (express in words and figures)</td>
<td>Date of Contract</td>
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<tr>
<td>Description of Contract</td>
<td>Date Bond Executed</td>
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</table>

**Contract Number:**

**KNOW ALL MEN BY THESE PRESENTS,** That we, the Principal named above and Surety named above, being authorized to do business in Maryland, and having business addresses as shown above, are held and firmly bound unto the Obligee named above, for the use and benefit of claimants as hereinafter defined, in the Penal Sum of this Payment Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns jointly and severally, firmly by these co-sureties, bind ourselves, our successors and assigns, in such Penal Sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of the Penal Sum.

**WHEREAS,** Principal has entered into or will enter into a contract with the State, by and through the Administration named above acting for the State of Maryland, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as “the Contract.”

**WHEREAS,** it is one of the conditions precedent to the final award of the Contract that these presents be executed.

**NOW, THEREFORE,** the condition of this obligation is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials furnished, supplied and reasonably required for use in the performance of the Contract, then this obligation shall be null and void otherwise it shall remain in full force and effect, subject to the following conditions:

1. A claimant is defined to be any and all of those persons supplying labor and materials (including lessors of the equipment to the extent of the fair market value thereof) to the Principal or its subcontractors and sub-contractors in the prosecution of the work provided for in the Contract, entitled to the protection provided by Section 9-113 of the Real Property Article of the Annotated Code of Maryland, as from time to time amended.

2. The above named Principal and Surety hereby jointly and severally agree with the Obligee that every claimant as herein defined, who has not been paid in full may, pursuant to and when in compliance with the provisions of the aforesaid Section 9-113, sue on this Bond for the use of such claimant, prosecute the suit to final judgement for such sum or sums as may be justly due claimant and have execution thereon. The Obligee shall not be liable for the payment of any costs or expenses of any such suit.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this Payment Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Payment Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal of Surety heading below.

**IN WITNESS WHEREOF,** Principal and Surety have set their hands and seals to this Payment Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture have signed below, each member has set forth below the name of the partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation’s name to be set forth below, a duly authorized representative of the corporation to affix below the corporation’s seal and to attach hereto a notarized corporate resolution or power of attorney authorizing such action, and each duly authorized representative to sign below and to set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.

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| By: President          |
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| AFFIX CORPORATE SEAL   |

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<tr>
<th>Agent’s Address</th>
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(Contractor shall fill in all blank spaces above this line)

Approved as to legal form and sufficiency

this day of 19

Attorney
RFP#BC-20982-P: MARYLAND SCIENCE CENTER PERVIOUS CONCRETE PILOT PROJECT

APPENDIX D

PROJECT MANUAL
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SP-01

PROJECT DESCRIPTION

This project is for installation of pervious concrete pavement in the parking lot of the Maryland Science Center in Baltimore, MD. The pervious concrete pavement is intended to demonstrate pervious concrete and serve as a showcase of green infrastructure technology in the heart of the Baltimore Inner Harbor.

Proposed installation of this pavement is as follows:

1. Removal and disposal of existing PCC pavement
2. Excavation and disposal of subgrade as required for subbase, pervious concrete and underdrain installation and disposal of materials at an approved site as noted on the Contract plans
3. Subgrade lining with impervious, polyethylene sheeting
4. Perforated underdrain installation and connection of underdrain to existing underground sand filter including reconstruction of PCC apron
5. Installation of pervious concrete in accordance with ACI 522 including:
   A. Qualifications and on-site supervision of Contractor as specified in 1.05.B.
   B. Proposed concrete mixture proportions with density and void content of freshly mixed pervious concrete per ASTM C1688/C1688M.
   C. Achieving design infiltration rate of cured concrete per ASTM 1701.
   D. In-place pavement test results from previous work, completed in the last 24 months, including density, infiltration rate, and void content of freshly mixed pervious concrete, mixture proportions, thickness, density and void content of cores extracted from the pavement, if tested, when required by the Engineer.
   E. Reports covering the source and quality of concrete materials.
   F. One test panel installed and approved as described in the Contract Documents.
   G. Jointing plan and placing sequence.
   H. Detailed procedures for the production, transportation, placement, protection, curing, and temperature monitoring of concrete during hot weather.
   I. Detailed procedures for the production, transportation, placement, protection, curing, and temperature monitoring of concrete during cold weather.
   J. Installation of pervious concrete monitoring equipment as described in the Contract Documents.
   K. Proposed schedule to minimize disruption of Maryland Science Center operations.

6. Installation and maintenance of erosion and sediment control as detailed in the Contract documents
GENERAL SPECIFICATIONS

All work on this project shall conform to the Maryland Department of Transportation, State Highway Administration's Specifications entitled, "Standard Specifications for Construction and Materials" dated January 2008 revisions thereof, or additions thereto, and the Special Provisions included herein. The Maryland State DOT standard specifications are available online at http://www.roads.maryland.gov/ohd/frontpage.pdf.
PART 1: GENERAL

1.01 DESCRIPTION:
A. This Specification provides requirements for the construction of pervious concrete pavement for parking lots as specified in the Contract Documents or as directed by the Engineer.

1.02 SUBMITTALS:
A. Contractor shall submit the following in accordance with UMBC standard procedures:

1. Qualifications of Contractor as specified in 1.05.B.
2. Proposed concrete mixture proportions with theoretical density, density and void content of freshly mixed pervious concrete per ASTM C1688/C1688M.
3. In-place pavement test results from previous work, completed in the last 24 months, including density and void content of freshly mixed pervious concrete, mixture proportions, thickness, density and void content of cores extracted from the pavement, if tested, when required by the Engineer.
4. Reports covering the source and quality of concrete materials.
5. One test panel, as described in 1.05.E.2, shall be placed, jointed, and cured; a minimum of 144 square feet and being within tolerance of the required thickness defined by Contract Documents. The required information to be submitted from the test panels shall be: density of the fresh concrete, length of cores, density of cores and infiltration rate
6. Jointing plan and placing sequence, if proposed alternatively to the Contract Documents.
7. When hot weather is anticipated, submit detailed procedures for the production, transportation, placement, protection, curing, and temperature monitoring of concrete during hot weather.
8. In cold weather, submit detailed procedures for the production, transportation, placement, protection, curing, and temperature monitoring of concrete.
9. Qualifications of testing agency as specified in 1.05.C.
10. Construction schedule including breakdown of all items noted herein.

1.03 DEFINITIONS
A. Award – decision by the University to execute the purchase agreement or contract after all necessary approvals have been obtained.
B. **Acceptable or accepted**—determined to be satisfactory by the Engineer.

C. **Acceptance**—acknowledgment by the Engineer that submittal or completed Work is acceptable.

D. **COMAR**—refers to the Code of Maryland Regulations.

E. **Contract Documents**—a set of documents supplied by owner to bidders during bidding phase of a construction project. These documents include general requirements, contract forms, contract conditions, specifications, drawings, and addenda.

F. **Contractor**—the successful person, firm, or entity receiving a contract as a result of this solicitation.

G. **Construction joint**—the surface where two successive placements of concrete meet, across which it may be desirable to achieve bond.

H. **Contraction joint**—formed, sawed, or tooled groove in a concrete structure to create a weakened plane to regulate the location of cracking.

I. **Design void content**—the percentage of voids of a unit volume of pervious concrete based on the theoretical mixture proportions and design density and where the unit volume includes the volume of the solids and the voids.

J. **Early-entry dry-cut saw**—a tool designed to produce joints in concrete commencing 1 to 4 hours after finishing.

K. **Hardened density**—the dry density of pervious concrete as determined by Paragraphs 8.3 and 9.3 of ASTM C140-12.

L. **Hydration-stabilizing admixtures**—set-retarding admixtures, conforming to ASTM C494/C494M Type B or D, that can predictably reduce the hydration rate of cement for applications requiring the management of time of setting of returned concrete, reducing the hydration rate of cement fines in water from concrete production, or for applications requiring extended delivery time of ready mixed concrete.

M. **Isolation joint**—a normally vertical interface allowing relative movement without transferring sufficient tension, compression, or traction forces to negatively affect the performance of a pavement structure.

N. **MBE**—“Minority Business Enterprise” which is any legal entity other than a joint venture, organized to engage in commercial transactions which is at least 51 percent-owned and controlled by one or more minority persons, or a nonprofit entity organized to promote the interests of the physically or mentally disabled as certified by the Maryland Department of Transportation.

O. **Owner**—the corporation, association, partnership, individual, public body, or authority for whom the Work is constructed.

P. **Permitted**—accepted by or acceptable to the Engineer, usually pertaining to a request by Contractor, or when specified in Contract Documents.
Q. *Pervious pavement*—a pavement comprising material with sufficient continuous voids to allow water to pass from the surface to the underlying layers.

R. *Project Drawings*—graphic presentation of project requirements.

S. *Project Specification*—written document that details requirements for the Work in accordance with service parameters and other specific criteria.

T. *Proposer*—any person submitting a response to an RFP.

U. *Proposals*—the response by a Proposer to a request for proposals issued by a procurement agency to obtain goods or labor. The response may include but is not limited to a Proposer’s price and terms for the proposed contract, a description of technical expertise, work experience, and other information requested in the solicitation.

V. *Referenced standards*—standardized mandatory language documents of a technical society, organization, or association, including codes of local or state authorities, which are incorporated by reference in Contract Documents.

W. *RFP*—Request for Proposal(s)

X. *Subbase*—the layer in a pavement system between the subgrade and the base course, or between the subgrade and a pervious concrete pavement.

Y. *Submittal*—document or material provided to the Engineer for review and acceptance.

Z. *University or “UMBC”*—University of Maryland Baltimore County.

AA. *USM*—University System of Maryland.

BB. *Work*—the entire construction or separately identifiable parts thereof required to be furnished under Contract Documents.

### 1.04 REFERENCED STANDARDS

A. Standards of ACI and ASTM referred to in this specification are listed with serial designation including year of adoption or revision, and are part of this specification.

1. American Concrete Institute (ACI) Standards

2. ASTM International
   a. C42/C42M-13—Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
   b. C94/C94M-13—Standard Specification for Ready Mixed Concrete
   c. C140-12—Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units
   d. C150/C150M-12—Standard Specification for Portland Cement
   e. C171-07—Standard Specification for Sheet Materials for Curing Concrete
f. C172/C172M-10—Standard Practice for Sampling Freshly Mixed Concrete

g. C174/C174M-12—Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores


i. C494/494M-12—Standard Specification for Chemical Admixtures for Concrete


k. C618-12—Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete

l. C979/C979M-10—Standard Specification for Pigments for Integrally Colored Concrete

m. C989/C989M-12a—Standard Specification for Slag Cement for Use in Concrete and Mortars

n. C1017/C1017M-07—Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete

o. C1077-13—Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation

p. C1116/C1116M-10—Standard Specification for Fiber-Reinforced Concrete


r. C1240-12—Standard Specification for Silica Fume Used in Cementitious Mixtures

s. C1688/C1688M-13—Standard Test Method for Density and Void Content of Freshly Mixed Pervious Concrete

t. D994/D994M-11—Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type)


w. D3385-09—Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer
1.05 QUALITY CONTROL

A. **General**—Test and inspect concrete materials and operations as Work progresses as described in 1.05.F. Failure to detect defective Work or material at any time will not prevent rejection if a defect is discovered later, nor shall it constitute final acceptance.

B. **Contractor**—Employ no less than one National Ready Mixed Concrete Association (NRMCA) certified Pervious Concrete Craftsman who must be on site and overseeing each placement crew during all concrete placement. The Pervious Concrete Craftsman must be present during all pervious concrete placement, including the test panel placements, and must be in charge of the placement crew and procedures. Complete the Key Personnel Form (Appendix A) for this person and submit with the Technical Proposals.

C. **Testing agencies**—Agencies that perform testing services on concrete materials shall meet the requirements of ASTM C1077. Agencies inspecting the Work shall meet the requirements of ASTM E329. Testing agencies performing the testing shall be accepted by the Engineer before performing any Work.

D. **Field technicians**—Field tests of concrete required in 1.05.F shall be performed by an individual certified as both an NRMCA Certified Pervious Concrete Technician, or equivalent, and an ACI Concrete Field Testing Technician—Grade I, or equivalent.

E. **Responsibilities of the Contractor**
   1. Advise testing agency at least 48 hours before concrete placement.
   2. Test panels—Place one test panel on the project site, on a subgrade and subbase prepared as specified, using the material and construction requirements for pavement in this Specification. Each panel must have an area of at least 144 square feet and a thickness as specified for the pavement in the Contract Documents.

F. **Responsibilities of testing agency**
   1. Complete at least one density test on a sample of freshly mixed pervious concrete for each day of concrete placement and for each test panel in accordance with ASTM C1688/C1688M. Sample freshly mixed concrete in accordance with ASTM C172/C172M. Size of sample shall be at least 1 cubic foot.
   2. Remove three cores from each lot of 5000 square feet (or a minimum of three cores) and each test panel in accordance with ASTM C42/C42M, not less than 7 days after placement of the pervious concrete.
      a. Cores shall be a nominal 4 in. diameter.
      b. Select three core locations in accordance with ASTM D3665.
c. Measure the core length in accordance ASTM C174/C174M.

d. After thickness determination, trim the cores and measure the hardened density of the core in accordance with Paragraphs 8.3 and 9.3 of ASTM C140. Trim core bottoms to remove only the material necessary to produce a flat end. Trimmed core ends shall be perpendicular to the longitudinal axis and meet the requirements of ASTM C42/C42M, 7.4.1 and 7.4.2.

e. Record the length and density of each individual core and the average length and density of the three cores. Test results will be submitted to the Contractor, concrete producer, and the Engineer within 24 hours of completing the tests.

f. Core holes shall be filled with conventional concrete, preblended grout or pervious concrete if approved by the Engineer.

G. **Acceptance of test panels**

1. The fresh density from a test panel shall be within ±5 lb/ft³ of the accepted fresh density from the submitted mixture proportion in 1.02.A.3.

2. Surface infiltration rate of hardened cured pervious concrete per ASTM 1701

3. Tolerances from specified thickness of pavement shall comply with the following:
   a. Average length of three cores: −3/8 in., +1.5 in.
   b. Length of an individual core: −3/4 in.

4. If the test panel does not comply with 1.05.G.1 and 1.05.G.2, the test panel shall be rejected, removed, and replaced at Contractor’s expense, unless otherwise permitted.

5. If the test panel complies with 1.05.G.1 and 1.05.G.2 and the Engineer accepts the test panel, the panel may be left in place and included in the completed Work. The average hardened densities from the accepted test panel shall be the hardened density used as the basis of acceptance for the remainder of the pavement in accordance with 1.05.H.3.

H. **Acceptance of pavement**

1. The fresh density from a lot must be within ±5 lb/ft³ of the accepted fresh density from the submitted mixture proportion in 1.02.A.3.

2. Minimum 1701 surface infiltration rate of at least 400 in/hr

3. Tolerance from specified thickness of pavement shall comply with the following:
   a. Average length of three cores: −3/8 in., +1.5 in.
   b. Length of an individual core: −3/4 in.

4. The average hardened density from a lot must be within ±5 percent of the accepted hardened density in 1.05.G.5.
5. When a lot is outside one or more of the limits of 1.05.H.1 through 1.05.H.3, the lot shall be subject to rejection, removal, and replacement at Contractor’s expense, unless accepted by Owner.

I. Monitoring Equipment Installation and Coordination Testing - Monitoring equipment to be supplied by the University of Maryland Baltimore County (UMBC) shall be installed by the Contractor at no more than two (2) total locations. Details of the two (2) types of monitoring points are included in this specification for the Contractor’s information. The Contractor shall coordinate with UMBC personnel in order to properly schedule, identify monitoring point locations in the subgrade and complete the installation. The coordination effort shall be represented on the Contractor’s schedule. The Contractor shall contact the UMBC Project Manager no less than 14 calendar days prior to monitoring point installation. Details of the proposed monitoring equipment are included at the end of this section for the Contractor’s information.

PART 2: PRODUCTS

2.01 HDPE LINER
   A. HDPE Liner material shall be supplied, handled and installed in accordance with the applicable sections of the Contract Documents.

2.02 SUBBASE
   A. Coarse aggregate shall meet the size and grading requirements of Contract Documents including:

      1. No. 57 Coarse Aggregate Layer

2.03 UNDERDRAIN
   A. Perforated underdrain shall meet the requirements of SHA 905.01 and AASHTO M304.

2.04 PERVIOUS CONCRETE
   A. Pervious concrete shall comply with ASTM C94/C94M (except sections: 4.2, 6.1.2, 6.1.3, 6.1.4, 6.1.5, 7, 8, 16, 17, 18, 19, and 20) and the requirements listed in 2.2.1 through 2.2.7. The volume of fresh concrete in a given batch shall be determined from the total mass of the batch divided by the design density of the concrete. The total mass of the batch shall be determined as the net mass of the concrete in the batch as delivered, including the total mixing water as defined in ASTM C94/C94M Paragraph 9.3.

      1. Thickness—The thickness of pervious concrete pavement shall be as specified in contract documents.
2. Aggregates—Nominal maximum aggregate size shall not exceed 1 in., unless otherwise specified. See ASTM C 33 for additional aggregate requirements.

3. Cement—Cement shall comply with ASTM C150/C150M, C595/C595M, or C1157/C1157M.


5. Fibers—Fibers shall comply with ASTM C1116/C1116M, 4.1.3 or 4.1.4. Fibers may be used in pervious concrete mixtures when permitted by the Engineer.

6. Pigments—Pigments shall comply with ASTM C979/C979M.

7. Supplementary cementitious materials—Supplementary Cementitious Materials shall comply with ASTM C618, C989/C989M, or C1240.

2.05 ISOLATION JOINT MATERIAL
A. Isolation joint materials shall comply with ASTM D994, D1751, or D1752.

2.06 FORMS
A. Fabricate forms with steel, wood, or other material that is sufficiently rigid to maintain specified tolerances, and capable of supporting concrete and mechanical concrete placing equipment.
B. Forms shall be clean and free of debris of any kind, rust and hardened concrete.
C. The contractor shall not penetrate the HDPE liner with form pins or other materials. If deemed necessary alternate methods for form stabilization (e.g. concrete blocks, etc.) shall be implemented to ensure form stability.

2.07 POLYETHYLENE CURING SHEET
A. Polyethylene curing sheet shall comply with ASTM C171.

PART 3: EXECUTION

3.02 SUBBASE
A. A minimum of fourteen (14) calendar days prior to the beginning of demolition operations, the Contractor shall contact the Engineer so that the Engineer may coordinate disposal of subgrade materials. The existing PCC surface shall be removed along existing pavement joints as shown on the Contract plans and disposed of offsite at an approved location. All material below the PCC surface shall be excavated and disposed of at the following location:
Quarantine Road Sanitary Landfill
6100 Quarantine Road
Baltimore, MD 21264

Disposal of the material shall be coordinated with the Engineer. The Contractor shall be responsible for all material handling and disposal fees.

B. The subgrade shall be uniform and free of any and all debris or foreign material prior to placement of the subbase aggregate material.

C. Place HDPE liner in accordance with the Contract Documents.

D. Place No. 57 Stone Layer in un-compacted, uniform lifts not to exceed 6 inches. Light plate compaction may be used to ensure uniformity in lift thickness only and shall be approved by the Engineer prior to material placement. Concurrently place CPP-SP drain where indicated on the Contract Plans.

3.03 SETTING FORMWORK

A. Set, align, and brace forms so that the hardened pavement meets the tolerances specified in 3.09 and the jointing requirements specified in 3.12.

B. Apply form release agent to the form face, which will be in contact with concrete, immediately before placing concrete.

C. The vertical face of previously placed concrete may be used as a form.
   1. Protect previously placed pavement from damage.
   2. Do not apply form release agent to previously placed concrete.

D. Placement width shall be as specified in Contract Documents. When slab panel dimensions and layout are not indicated on the Project Drawings, submit drawings describing proposed jointing in accordance with Section 01200 SUBMITTALS of these Specifications. See 3.12 below.

E. Concrete placement width shall not exceed 20 ft (6 m) unless otherwise specified.

F. The larger horizontal dimension of a slab panel shall not exceed 125% of the smaller dimension.

G. The Contractor shall have the responsibility of ensuring that all formwork is set to produce final grades in accordance with the Americans with Disabilities Act (ADA) for all handicap-accessible facilities where pervious concrete is specified.

3.04 BATCHING, MIXING, AND DELIVERY

Begin mixing immediately after cement has been added to aggregates. Batch and mix in compliance with ASTM C94/C94M, except that discharge shall be completed within 60 minutes of the introduction of mixture water or aggregate to the cement. Time may be extended up to 120 minutes when using a hydration-stabilizing admixture. Additional water may be added on site, but the fresh density must still meet requirements of 1.05.H.1 after water addition.
3.05 PLACING AND FINISHING FIXED-FORM PAVEMENT
   A. Wet the subgrade or subbase with water before concrete placement such that the material is saturated but without any standing water on the prepared subbase immediately before concrete placement.
   B. Deposit concrete either directly from the transporting equipment or by conveyor onto the subgrade or subbase, unless otherwise specified.
   C. Do not place concrete on frozen subgrade or subbase.
   D. Deposit concrete between the forms to an approximately uniform height.
   E. Spread the concrete using mechanized equipment or hand tools, without segregation.
   F. Strike off concrete between forms using a formriding paving machine, roller screed, or vibrating screed. Other strike-off devices may be used when accepted by the Engineer.
   G. Finish the pavement to the elevations and thickness specified in accordance with 3.09.

3.06 PLACING AND FINISHING SLIPFORM PAVEMENT
   A. Slipform equipment is permitted.
   B. Deposit concrete in accordance with 3.05.

3.07 FINAL SURFACE TEXTURE
   B. Compact concrete to a dense, open-textured surface to match the appearance of the test panel.
   C. Final surface shall be free from surface-sealing from excess paste, debris or over-compaction.

3.08 EDGING
   A. Edge top surface to a radius of not less than 1/4in. (6 mm).

3.09 TOLERANCES
   A. Construct pavement to comply with the tolerances in 3.09.1 through 3.09.1:
      4. Smoothness: Similar to approved test panel with no abrupt offsets unless required by the contract drawings.
   B. Mechanically sweep or vacuum pavement with clean equipment, or flush with water, before testing for compliance with tolerances.
3.10 CURING
A. Begin curing within 20 minutes of concrete discharge, unless otherwise specified or permitted.
B. Completely cover the pavement surface and all exposed edges with a polyethylene sheet, unless otherwise permitted.
C. Thoroughly secure a polyethylene sheet at all exterior edges and interior laps without using soil. The method of securing the cover material shall prevent wind from removing the sheet and from blowing under the sheet across the surface of the concrete.
D. Cure pavement for a minimum of 7 uninterrupted days, unless otherwise specified.

3.11 HOT COLD WEATHER CONSTRUCTION
D. Protect concrete from freezing and record concrete temperature no less than twice per 24-hour period in accordance with ACI 306.1.

3.12 JOINTING
A. Unless otherwise specified, construct joints at the locations, depths, and with horizontal dimensions indicated in Contract Documents.
B. When jointing requirements are not indicated on the Project Drawings, submit drawings describing proposed jointing in accordance with Section 01200 SUBMITTALS of these Specifications. Do not proceed with work until the jointing requirements are accepted by the Engineer. Indicate locations of all contraction joints, construction joints, and isolation joints.
C. The angle between two intersecting joints shall be between 80 and 100 degrees.
D. Joints shall intersect pavement free edges at 90-degree angles and shall extend straight for a minimum of 1-1/2 ft (0.5 m) from the pavement edge where possible.
E. Use isolation joints only where pavement abuts fixed objects, such as buildings, foundations, and manholes.
F. Extend isolation joints through the full depth of the pavement. Fill the entire isolation joint with isolation joint material.
G. Spacing between contraction joints shall not exceed 20 ft (6 m).
H. Contraction joint depth shall be 1/4 to 1/3 of the pavement thickness. Minimum joint width for saw-cutting is 1/8 in. (3 mm). When using an early-entry dry-cut saw, the depth of the cut shall be at least 1 in. (25 mm).
I. Create contraction joints by one of the following methods:
   1. Tool contraction joints to the specified depth and width in fresh concrete immediately after the concrete is compacted.
2. Sawcut concrete after concrete has hardened sufficiently to prevent aggregate from being dislodged and soon enough to control pavement cracking. To minimize drying, ensure that curing materials are removed only as needed to make cuts.

3.13 OPENING TO TRAFFIC

A. Do not open the pavement to vehicular traffic until the concrete has cured for at least 7 uninterrupted days during which the ambient temperature has exceeded 55°F during any time of the day.

PART 4: MEASUREMENT AND PAYMENT

Pervious Concrete Pavement, No. 57 Stone Base, Underdrains, Monitoring Equipment and all appurtenances described herein will not be measured for payment but shall be incidental to the Contract Lump Sum Cost.

END OF SECTION
Seal penetration of casing through HDPE liner with bentonite or other means recommended by the liner manufacturer
PART 1: GENERAL

1.01 DESCRIPTION.

A. This Section includes the requirements for providing all labor, materials, equipment and services necessary for and incidental to the placement of the High Density Polyethylene (HDPE) liners, and protection of the work as shown on the Drawings and in accordance with the Contract Documents or as directed by the Engineer.

1.02 SUBMITTALS.

A. Contractor shall submit the following in accordance with UMBC standard procedures:

1. Shop Drawings shall be submitted for the materials intended to be furnished. The shop drawings shall include the following information: product information; material strength; “type” or “class”; lab and field test results; and storage, handling, and installation recommendations, including seaming procedures. Samples shall be submitted as specified herein.

2. Certificates of compliance shall be submitted for the various products and materials intended to be supplied. Manufacturer’s certification for HDPE liners shall indicate that it has a minimum thickness of 30 mils, that the permeability is less than or equal to 1x10-10 cm/sec, and that the material meets applicable ASTM standards.

1.03 QUALITY ASSURANCE.

A. All materials shall be subject to test by the Engineer to determine the suitability for portions of the work in which they are to be placed. Such tests may consist of chemical or physical analysis to determine any properties pertinent to satisfactory performance of the work proposed, and as described in the Construction section below.

PART 2: PRODUCTS

2.01 HIGH DENSITY POLYETHYLENE (HDPE) LINERS
A. The HDPE liners shall be High Density Polyethylene formed from virgin resins, and shall have been manufactured for use in containment systems. The liners shall have a minimum thickness of 30 mils (0.030 inches).

B. The HDPE liners shall conform to the following requirements:

<table>
<thead>
<tr>
<th>Typical Property</th>
<th>Test Method</th>
<th>Units</th>
<th>30-mils Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density (min.)</td>
<td>ASTM D1505</td>
<td>g/cc</td>
<td>0.94</td>
</tr>
<tr>
<td>Carbon Black Content</td>
<td>ASTM D1603</td>
<td>percent</td>
<td>2 to 3</td>
</tr>
<tr>
<td>Tensile Properties</td>
<td>ASTM D638</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress @ yield</td>
<td></td>
<td>ppi</td>
<td>130</td>
</tr>
<tr>
<td>Stress @ break</td>
<td></td>
<td>ppi</td>
<td>225</td>
</tr>
<tr>
<td>Strain @ yield</td>
<td></td>
<td>percent</td>
<td>13</td>
</tr>
<tr>
<td>Strain @ break</td>
<td></td>
<td>percent</td>
<td>700</td>
</tr>
<tr>
<td>Tear Resistance</td>
<td>ASTM D1004</td>
<td>lbs.</td>
<td>45</td>
</tr>
<tr>
<td>Dimensional Stability (max.)</td>
<td>ASTM D1204</td>
<td>percent</td>
<td>1.5</td>
</tr>
<tr>
<td>ESCR</td>
<td>ASTM D1693</td>
<td>hours</td>
<td>1500</td>
</tr>
<tr>
<td>Puncture Resistance</td>
<td>FTMS 101, Method 2065</td>
<td>lbs.</td>
<td>75</td>
</tr>
<tr>
<td>Soil Burial Resistance (max.)</td>
<td>ASTM D3083, NSF mod.</td>
<td>% change</td>
<td>10</td>
</tr>
<tr>
<td>Coef. of Linear Thermal Expansion (max.)</td>
<td>ASTM D696</td>
<td>°C⁻¹</td>
<td>1.5x10⁻⁴</td>
</tr>
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</table>

PART 3: EXECUTION

3.01 SUBGRADE PREPARATION

A. The liner installer shall certify in writing to the Engineer that the surface on which the HDPE liner is to be installed is acceptable.

3.02 LINER INSTALLATION

A. The HDPE liner shall be installed as shown on the Contract Plans. No equipment or vehicle traffic shall be allowed on the HDPE liner.

B. Any puncture or tear in the liner shall be immediately repaired by the Contractor. All stones, roots, trash or other materials that may puncture the liner shall be removed from the surface prior to placing the liner.

C. Field seaming shall be performed in accordance with the manufacturer’s recommendations and previously approved installation procedures. Seams shall be water tight. All field seams shall be tested by the Contractor using the methods approved by the Engineer prior to performing any onsite Work. The Contractor shall demonstrate the Workmanship and suitability of seaming procedures, prior to performing onsite Work and periodically during the liner installation.
D. The HDPE liner shall be covered, as shown on the Drawings, as soon after seaming and testing as is practical.

PART 4: MEASUREMENT AND PAYMENT

HDPE liners will not be measured for payment but shall be incidental to the Contract Lump Sum Cost.
ATTACHMENT A
SOIL BORING LOGS

MARYLAND SCIENCE CENTER
PERVIOUS CONCRETE PILOT PROJECT
# Boring Log

**FOR:** Maryland Science Center  
**PROJECT:** MD Science Center Parking Lot Reconstruction  
**HOLE NO.:** MDSC-1  
**ELEV.:**  
**SHT NO.:**  
**W.O. #:** 31981-000  
**START DATE:** 7/17/2014  
**COMPLETED:** 7/17/2014  
**DRILLING BY:** Geomatrix  
**DRILLER:** Paul Sult  
**INSPECTOR:**  
**WR&A REP.:** Kevin T. Roberts  

### Ground Water Observations

**ENCOUNTERED:**  
**CAVE-IN:**  

### Hammer Type: Automatic  
**Sampler Type:** SS  
**Rod Size:**  
**Borehole Dia:**  
**Rock Core Size:**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Well Construction</th>
<th>Blow Count</th>
<th>Class</th>
<th>Description</th>
<th>Sample Submitted</th>
<th>Recovery</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3'</td>
<td></td>
<td>7,12,13,11</td>
<td>Fill</td>
<td>Brown FG silty sand, dry, some brick frags</td>
<td>X</td>
<td>10&quot;</td>
<td></td>
</tr>
<tr>
<td>3-5'</td>
<td></td>
<td>12,20,13,22</td>
<td>Fill</td>
<td>Dark brown/black, M-CG sand, dry</td>
<td>X</td>
<td>12&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Boring terminated at 5' BGS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Boring Method:**

- HSA: HOLLOW STEM AUGER
- HATR: HAND AUGER & TRIPOD
- DC: DRIVEN CASING
- MD: MUD DRILLING
- DP: DIRECT PUSH
- AR: AIR ROTARY/AIR HAMMER

**Sampler Type:**

- SPT: STANDARD PENETRATION TEST: DRIVING 2" O.D. SAMPLER
- AS: AUGER SAMPLE
- RC: ROCK CORE
- SS: SPLIT SPOON
- ST: SHELBY TUBE 9" INTERVALS (SPLIT SPOON)

**Abbreviations:**

- NA: Not Applicable
- SAA: Same as above
- F: Fine
- C: Coarse
- G: Grained
- BGS: below ground
- Surface
### Boring Log

**FOR:** Maryland Science Center  
**PROJECT:** MD Science Center Parking Lot Reconstruction  
**HOLE NO.:** MDSC-2  
**START DATE:** 7/17/2014  
**COMPLETED:** 7/17/2014

**W.O. #:** 31981-000  
**ELEV.:**  
**SHT NO.:**

**ENCOUNTERED:**  
- **FT. @ COMP.:**  
- **HRS.: FT.**  

**CAVE-IN:**  
- **FT. @ COMP.:**  
- **HRS.: FT.**  

**GROUND WATER OBSERVATIONS:**  
- **DRILLING BY:** Geomatrix  
- **DRILLER:** Paul Suitt  
- **INSPECTOR:**  
- **WR&A REP.:** Kevin T. Roberts

**HAMMER TYPE:** Automatic  
**SAMPLER TYPE:** SS  
**ROD SIZE:**  
**BOREHOLE DIA.:**  
**ROCK CORE SIZE:**

<table>
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<tr>
<th>DEPTH</th>
<th>WELL CONSTRUCTION</th>
<th>BLOW COUNT</th>
<th>CLASS</th>
<th>DESCRIPTION</th>
<th>SAMPLE SUBMITTED</th>
<th>RECOV.</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>1-3'</td>
<td></td>
<td>8,11,50/1&quot;</td>
<td>Fill</td>
<td>Dark brown M-CG sand, moist</td>
<td>X</td>
<td>10&quot;</td>
<td></td>
</tr>
<tr>
<td>3-5'</td>
<td></td>
<td>12,20,13,22</td>
<td>Fill</td>
<td>SAA</td>
<td>X</td>
<td>12&quot;</td>
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</table>

**Boring Method**  
- **HSA:** HOLLOW STEM AUGER  
- **HATIR:** HAND AUGER & TRIPOD  
- **DC:** DRIVEN CASING  
- **MD:** MUD DRILLING  
- **DP:** DIRECT PUSH  
- **AR:** AIR ROTARY/AIR HAMMER

**Sampler Type:**  
- **BP:** STANDARD PENETRATION TEST: DRIVING 2" O.D. SAMPLER  
- **AS:** AUGER SAMPLE  
- **RC:** ROCK CORE  
- **SS:** SPLIT SPOON  
- **SST:** SHELBY TUBE 6" INTERVALS, (SPLIT SPOON)

**Abbreviations:**  
- **NA:** Not Applicable  
- **BAA:** Same as above  
- **F-CG:** fine to coarse grained  
- **BGS:** below ground surface

9/8/2014
<table>
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<tr>
<th>DEPTH</th>
<th>WELL CONSTRUCTION</th>
<th>BLOW COUNT</th>
<th>CLASS</th>
<th>DESCRIPTION</th>
<th>SAMPLE</th>
<th>RECOV.</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1-3</td>
<td></td>
<td>8,17,12,11</td>
<td>Fill</td>
<td>Brown CG sand, brick frags</td>
<td>X</td>
<td>10&quot;</td>
<td></td>
</tr>
<tr>
<td>3-5</td>
<td></td>
<td>17,15,20,18</td>
<td>Fill</td>
<td>SAA</td>
<td>X</td>
<td>11&quot;</td>
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Boring terminated at 5' BGS

**Boring Method**
- HSA: HOLLOW STEM AUGER
- HAUTR: HAND AUGER & TRIPOD
- DC: DRIVEN CASING
- MD: MUD DRILLING
- DP: DIRECT PUSH
- AR: AIR ROTARY/AIR HAMMER

**Sampler Type**
- BPT: STANDARD PENETRATION TEST; DRIVING 2" G.D. SAMPLER
- 1.0 FT W/ 140 LB HAMMER FALLING 30" BLOW COUNTS RECORDED
- AS: AUGER SAMPLE
- RC: ROCK CORE
- SS: SPLIT SPOON
- ST: SHELBY TUBE 6" INTERVALS (SPLIT SPOON)

**Abbreviations**
- NA: Not Applicable
- SAA: Same as above
- F: Fine
g: Grained
- BGS: Below ground surface
<table>
<thead>
<tr>
<th>DEPTH</th>
<th>WELL CONSTRUCTION</th>
<th>BLOW COUNT</th>
<th>CLASS</th>
<th>DESCRIPTION</th>
<th>SAMPLE SUBMITTED</th>
<th>RECOV.</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>8&quot; Concrete, no rebar</td>
<td>X</td>
<td>9&quot;</td>
<td></td>
</tr>
<tr>
<td>1-3'</td>
<td></td>
<td>12,20,22,29</td>
<td>Fill</td>
<td>Brown/black CG sand, some quartz gravel and brick frags</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-5'</td>
<td></td>
<td>17,15,20,18</td>
<td>Fill</td>
<td>No recovery</td>
<td></td>
<td>0&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Boring terminated at 5' BGS</td>
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</table>

**Boring Method:**
- HSA: HOLLOW STEM AUGER
- HATR: HAND AUGER & TRIPOD
- DC: DRIVEN CASING
- MD: MUD DRILLING
- DP: DIRECT PUSH
- AR: AIR ROTARY/AIR HAMMER

**Sampler Types:**
- SPT: STANDARD PENETRATION TEST: DRIVING 2" O.D. SAMPLER
- 10 FT W/ 140 LB HAMMER FALLING 30" BLOW COUNTS RECORDED
- AS: AUGER SAMPLE
- RC: ROCK CORE
- SS: SPLIT SPOON
- ST: SHELBY TUBE 6" INTERVALS (SPLIT SPOON)

**Abbreviations:**
- NA: Not Applicable
- SAA: Same as above
- F-CG: fine to coarse grained
- BGS: below ground surface
<table>
<thead>
<tr>
<th>DEPTH</th>
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<th>CLASS</th>
<th>DESCRIPTION</th>
<th>SAMPLE</th>
<th>RECOV.</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>1-3'</td>
<td></td>
<td>55,35,51/4&quot;</td>
<td>Fill</td>
<td>Brown/black CG sand, some quartz gravel and brick frags</td>
<td>x</td>
<td>4&quot;</td>
<td></td>
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<tr>
<td>3-5'</td>
<td></td>
<td></td>
<td></td>
<td>Refusal @ 2' BGS</td>
<td></td>
<td>0&quot;</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>Boring terminated at 2'BGS</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Abbreviations:**
- HSA: HOLLOW STEM AUGER
- HATR: HAND AUGER & TRIPOD
- DC: DRIVEN CASING
- MD: MUD DRILLING
- DP: DIRECT PUSH
- AR: AIR ROTARY/AIR HAMMER
- SPT: STANDARD PENETRATION TEST: DRIVING Ø2" O.D. SAMPLER
- 1.0 FTW/140 LB HAMMER FALLING 30" BLOW COUNTS
- AS: AUGER SAMPLE
- RC: ROCK CORE
- SS: SPLIT SPOON
- ST: SHELBY TUBE 8" INTERVALS; (SPLIT SPOON)
- NA: Not Applicable
- SAA: Same as above
- F-CG: fine to coarse grained
- BGS: below ground surface
### Boring Log

**FOR:** Maryland Science Center  
**PROJECT:** MD Science Center Parking Lot Reconstruction  
**HOLE NO.:** MDSC-6  
**W.O. #:** 31981-000  
**START DATE:** 7/17/2014  
**COMPLETED:** 7/17/2014  
**DRILLING BY:** Geomatrix  
**DRILLER:** Paul Suit  
**INSPECTOR:** Kevin T. Roberts

<table>
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<th>DEPTH</th>
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<th>BLOW COUNT</th>
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<th>SAMPLE SUBMITTED</th>
<th>RECOV.</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>1-3'</td>
<td></td>
<td>18,18,17,21</td>
<td>Fill</td>
<td>Grey/brown clayey sand, moist</td>
<td>X</td>
<td>14&quot;</td>
<td></td>
</tr>
<tr>
<td>3-5'</td>
<td></td>
<td>8,10,10,10</td>
<td>Fill</td>
<td>Brown/tan M-CG sand, moist</td>
<td>X</td>
<td>10&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Boring Method:**
- HSA: HOLLOW STEM AUGER
- HAH: HAND AUGER & TRIPOD
- DC: DRIVEN CASING
- MD: MUD DRILLING
- DP: DIRECT PUSH
- AR: AIR ROTARY/AIR HAMMER

**Sampler Type:**
- SPT: STANDARD PENETRATION TEST: DRIVING 2" O.D. SAMPLER
- 1.0 FT W/ 140 LB HAMMER FALLING 30" BLOW COUNTS RECORDED
- AS: AUGER SAMPLE
- RC: ROCK CORE
- SS: SPLIT SPOON
- @ST: SHELBY TUBE 6" INTERVALS. (SPLIT SPOON)

**Abbreviations:**
- NA: Not Applicable
- BAA: Same as above
- F-CG: fine to coarse grained
- BGS: below ground surface
### Boring Log

**FOR:** Maryland Science Center  
**PROJECT:** MD Science Center Parking Lot Reconstruction  
**W.O. #:** 31981-000  
**HOLE NO:** MDSC-7  
**START DATE:** 7/17/2014  
**COMPLETED:** 7/17/2014  
**DRILLING BY:** Geomatrix  
**DRILLER:** Paul Suit  
**INSPECTOR:** Kevin T. Roberts

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>WELL CONSTRUCTION</th>
<th>BLOW COUNT</th>
<th>CLASE</th>
<th>DESCRIPTION</th>
<th>SAMPLE SUBMITTED</th>
<th>RECOV.</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>1-3'</td>
<td></td>
<td>100/5'</td>
<td></td>
<td>8&quot; Concrete, no rebar</td>
<td>X</td>
<td>0&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fill</td>
<td>No recovery, concrete blocked SS shoe</td>
<td>X</td>
<td>5&quot;</td>
<td>Boring terminated at 5' BGS</td>
</tr>
</tbody>
</table>

**Boring Method:** 
- HSA: Hollow Stem Auger  
- HATIR: Hand Auger & Tripod  
- DC: Driven Casings  
- MD: Mud Drilling  
- DP: Direct Push  
- AR: Air Rotary/Air Hammer

**Sampler Type:** 
- SPT: Standard Penetration Test. Driving 2" O.D. Sampler  
- 1.0 FT W/140 LB HAMMER FALLING 30" BLOW COUNTS RECORDED  
- AS: Auger Sample  
- RC: Rock Core  
- SS: Split Spoon  
- ST: Shelby Tube 6" Intervals (Split Spoon)

**Abbreviations:** 
- NA: Not Applicable  
- SAA: Same as above  
- F-CG: Fine to coarse  
- BGS: Below ground surface
### BORING LOG

**FOR:** Maryland Science Center  
**PROJECT:** MD Science Center Parking Lot Reconstruction  
**W.O. #:** 31981-000  
**HOLE NO.:** MDSC-8  
**START DATE:** 7/17/2014  
**COMPLETED:** 7/17/2014

**GROUND WATER OBSERVATIONS**

- **ENCOUNTERED:**  
  - FT: @ COMP:  
  - HRS: FT.
- **CAVE-IN:**  
  - FT: @ COMP:  
  - HRS: FT.

**DRILLING BY** Geomatrix  
**DRILLER:** Paul Suit  
**INSPECTOR:** Kevin T. Roberts

**HAMMER TYPE:** Automatic  
**SAVER TYPE:** SS  
**ROD SIZE:**

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<th>DEPTH</th>
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<th>SAMPLE</th>
<th>RECOV.</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>1-3'</td>
<td></td>
<td>100/3&quot;</td>
<td></td>
<td>8&quot; Concrete, no rebar</td>
<td></td>
<td>0&quot;</td>
<td></td>
</tr>
<tr>
<td>3-5'</td>
<td></td>
<td>100/1&quot;</td>
<td></td>
<td>Spoon is bouncing on concrete</td>
<td></td>
<td>0&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Boring Method**

- **HSA:** HOLLOW STEM AUGER  
- **HATR:** HAND AUGER & TRIPOD  
- **DC:** DRIVEN CASING  
- **MD:** MUD DRILLING  
- **DP:** DIRECT PUSH  
- **AR:** AIR ROTARY/AIR HAMMER

**Sampler Type:**

- **SP1:** STANDARD PENETRATION TEST: DRIVING 2" O.D. SAMPLER  
- **AS:** AUGER SAMPLE  
- **RC:** ROCK CORE  
- **SS:** SPLIT SPOON  
- **@ST:** SHELBY TUBE 6" INTERVALS. (SPLIT SPOON)

**Abbreviations:**

- **NA:** Not Applicable  
- **F-G:** fine to coarse  
- **BGS:** below ground surface
# Boring Log

**FOR:** Maryland Science Center  
**PROJECT:** MD Science Center Parking Lot Reconstruction  
**HOLE NO:** MDSC-9  
**W.O. #:** 31981-000  
**START DATE:** 7/17/2014  
**COMPLETED:** 7/17/2014  
**DRILLING BY:** Geomatix  
**DRILLER:** Paul Suit  
**INSPECTOR:** Kevin T. Roberts  
**HAMMER TYPE:** Automatic  
**SAMPLER TYPE:** SS  
**ROD SIZE:**  
**BORING METHOD:** HSA  
**BOREHOLE DIA:**  
**ROCK CORE SIZE:**

<table>
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<th>DEPTH</th>
<th>WELL CONSTRUCTION</th>
<th>BLOW COUNT</th>
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<th>SAMPLE SUBMITTED</th>
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</thead>
<tbody>
<tr>
<td>1-2&quot;</td>
<td></td>
<td>100/3&quot;</td>
<td></td>
<td>8&quot; Concrete, 3&quot; sand/gravel base, no rebar</td>
<td>0&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3&quot;</td>
<td></td>
<td>100/1&quot;</td>
<td></td>
<td>Spoon is bouncing on concrete, can feel flat/flush concrete slab at approximately 2' BGS</td>
<td>0&quot;</td>
<td></td>
<td></td>
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**Boring Method:**  
- HSA: HOLLOW STEM AUGER  
- HATR: HAND AUGER & TRIPOD  
- DC: DRIVEN CASING  
- MD: MUD DRILLING  
- DP: DIRECT PUSH  
- AR: AIR ROTARY/HAMMER

**Sampler Type:**  
- SPT: STANDARD PENETRATION TEST; DRIVING 2" O.D. SAMPLER  
- AS: AUGER SAMPLE  
- RC: ROCK CORE  
- SS: SPLIT SPOON  
- BST: SHELBY TUBE 6" INTERVALS, (SPLIT SPOON)

**Abbreviations:**  
- NA: Not Applicable  
- SAA: Same as above  
- F-CG: fine to coarse grained  
- BGS: below ground surface

N:\31981-000\Engineering\Design\Geotech\MD Science Center Boring Logs.xlsm  
9/8/2014
END OF APPENDIX D

END OF RFP