

**HARFORD COUNTY PUBLIC SCHOOLS
SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING SERVICES
REQUEST FOR PROPOSAL**

New Combination Harford Academy and Elementary School

SCOPE OF SERVICE:

Provide a soils testing program to include soil test borings as required producing a comprehensive geotechnical report for the anticipated construction as outlined on the enclosed Grimm & Parker Architecture Inc. memo dated January 22, 2025. Services to include subsurface explorations, laboratory testing, engineering evaluation and report. Registered professional geotechnical engineer shall supervise entire subsurface investigation.

The proposal shall indicate the number and types of all tests which will be performed with unit pricing for each test. Harford County Public Schools reserves the right to award this project based solely on the best interest of Harford County Public Schools as determined by the Supervisor of Planning and Construction.

PROJECT DESCRIPTION:

Construction of a new approximately 215,000 square foot two story school and site restoration. The enclosed scope for Geotechnical Investigation outlines the purpose, loads and requirements for the proposed building borings.

GEOTECHNICAL REPORT:

It shall be the geotechnical engineer's responsibility to perform the tests to produce a comprehensive geotechnical report in with current local applicable adopted building codes. The report shall include, but not necessarily be limited to the following:

- A. A description of site, subsurface, and geologic conditions.
- B. A description of exploration, samplings, testing and analysis methods.
- C. Boring location plan, profiles and ground surface elevations at borings.
- D. Allowable bearing pressure for foundations.
- E. Recommendations and alternatives for the design and construction of foundation system.
- F. Foundation bearing elevations.
- G. Recommendations for design and details of pavements and its subgrade.
- H. Recommendations and specifications for placement of structural fill, if required. The recommendations should address potential use of on-site materials as fill.
- I. Settlement considerations as related to any proposed cut/fill grading scheme across the building area.
- J. Lateral earth pressure diagrams for walls for both active and at rest conditions.

- K. Location of water table at the completion of the investigations and at 24 hours after completion, and at 48 hours after completion.
- L. Recommendations regarding slab-on-grade construction.
- M. Earthwork, excavation criteria, and subgrade preparation recommendations.
- N. Modify geotechnical investigation and testing as required to provide complete professional engineering report in all areas to be investigated.
- O. Equivalent fluid pressure diagrams for foundation and retaining walls.
- P. Field testing or inspections required during construction.
- Q. Extent of rock formation.
- R. Passive earth pressure coefficient.
- S. Coefficient of sliding friction for retaining wall design.
- T. Provide site soil classification for seismic design per current local applicable adopted building codes.
- U. The Final Report is due within 45 days of proposal acceptance.

THE LABORATORY TESTING SHOULD INCLUDE:

- A. Natural Moisture Contents
- B. Moisture - Density Relationships (ASTM D 1557, AASHTO T 180)
- C. California Bearing Ratio Test (ASTM D 1883, AASHTO T 1293)
- D. USDA Classification
- E. Atterberg Limits (ASTM D4318).

REMARKS:

1. For bidding purposes only, boring depths shall be assumed to be as outlined in the Grimm & Parker Architecture Inc. memo. Actual boring depths shall be determined by the Geotechnical consultant to produce a comprehensive and accurate geotechnical report. The boring locations must be approved by the Geotechnical Engineer. If the Geotechnical Engineer feels additional borings may be required to provide a comprehensive report, then it shall be so noted in his proposal.
2. Geotechnical Engineer shall conform to the requirements of MD 378: "All investigations shall be logged using the Unified Soil Classification System."
3. Additional tests will be necessary if the initial field percolation test yields a rate greater than 0.52 inches/hour.
4. Coordinate boring locations with existing utilities and existing structures.
5. It shall be the geotechnical consultant's responsibility to perform the necessary tests to produce a comprehensive and accurate geotechnical report in accordance with current local applicable adopted building codes.
6. The proposal shall indicate the number and types of all tests which will be performed.
7. Refer to Grimm & Parker Architecture Inc. memo dated January 22, 2025, for additional boring information.

LOCATION OF BORINGS:

It shall be the responsibility of the geotechnical consultant to provide for stake out of all proposed borings and tests. Subsurface investigations shall be performed at the locations to be determined. Underground obstructions shown on the plan are for the convenience of the soils engineer and are not guaranteed accurate. The driller shall satisfy himself as to the existence of location of all underground construction before beginning work. The location of borings may be adjusted in the field as dictated by site conditions, and the revised boring locations noted in the report. Harford County Public Schools reserves the right to change the location of any test boring to another point within the site; Harford County Public Schools reserves the right to add additional test borings to the sequence at the unit price.

SAMPLES:

Samples shall be taken of each different material encountered in the investigations. The location of all samples shall be noted on the boring logs. Samples shall be taken at approximately five-foot intervals, at each boring.

NOTIFICATION:

The geotechnical consultant shall notify the Project Manager at Harford County Public Schools' Planning and Construction Department, 410-638-4090, at least 48 hours prior to mobilizing on site and after completion of all borings before removing drilling rig from site.

PROTECTION:

The geotechnical consultant shall exercise care and provide the necessary protection for the existing facilities and roads. The geotechnical consultant shall initiate, maintain, and supervise all required safety precautions and programs in connection with the work.

Underground obstructions shown on the plan are for the convenience of the soils engineer and are not guaranteed accurate. The driller shall satisfy himself as to the existence and location of all underground construction before beginning work. The location of soil borings may be adjusted in the field as dictated by site conditions.

DEPTH:

For bidding purposes only. Borings may be terminated at a shallower depth if rock is encountered or as designated on the enclosed plan. Rock shall be defined as the materials that has a resistance

to the sampling spoon of 100 blows to drive it into the material one inch or less using a 140-pound hammer having a 30-inch fall.

1. Do not terminate borings in “fill” materials.
2. Do not terminate borings in “soft” material not capable of supporting proposed structure.

FORM OF PROPOSAL:

A written proposal shall include an itemized description of all costs as well as the lump sum totals and unit prices for additional services. The proposal shall include a work schedule noted in calendar days, stating mobilization, boring completion, verbal report and final report dates. The timeliness of the schedule is a consideration in the evaluation of these proposals.

PROPOSALS ARE TO BE SUBMITTED TO:

Mrs. Brittney Mattlin
Planning and Construction Department
Harford County Public Schools
2209 Conowingo Road
Bel Air, Maryland 21015
Phone: 410-688-5639

PROPOSALS **will not** be accepted electronically and **must** be received at the address listed above by:

**FRIDAY, FEBRUARY 14, 2025
2:00 P.M. LOCAL TIME
NO EXCEPTIONS**

January 22, 2025

RE: **Harford Academy + Elementary School**
Grimm & Parker Job No. 22419

Scope for geotechnical investigation for proposed New Combination Harford Academy + Elementary School in Bel Air, Maryland. The approximate proposed FFE for the building is 334.5.

The purpose of this investigation is to determine the general subsurface conditions at the site and to evaluate those conditions with respect to the geotechnical aspects of the project, including the following:

- Determine the general subsurface conditions at the site, including soil and groundwater conditions. (Provide min. 24 hr. reading for accurate depth of water.)
- Provide 23 stormwater management borings (23 shall be infiltration tests), depth shall be from 10' to 25' depths from existing grade, as indicated on the attached soil boring plans. All infiltration testing shall be in accordance with Appendix D of the current 2000 Maryland Stormwater Design Manual Volumes I and II.
- Provide 5 paving borings to a depth of 20' from existing grade and recommend an appropriate paving design based on the soil conditions encountered.
- Provide geotechnical considerations related to the proposed SWM facilities.
- Provide price for additional mobilization if required.
- Provide price for additional borings if required.
- Structural borings as outlined below.
- The Geotechnical Engineer is responsible for boring stakeout and contacting Miss Utility to locate underground utilities at the site.

Structural requirements for geotechnical report are as follows:

The minimum requirements for the geotechnical report are as follows:

1. An Executive summary with the project findings and recommendations.
2. A general description of the site including existing grades and the regional geology.
3. A description of the proposed project including the assumed building loadings of typical exterior column load of 350 kips, typical interior column 450 kips and bearing wall load of 10 kips per foot at gym and auditorium.
4. A general site plan accurately showing test boring and test pit locations.
5. A description of the subsurface conditions including the ground water levels.
6. The Site Class Definition per table 1613.2.3(1) of the 2021 International Building Code/IBC 2021.
7. Description of the field exploration and laboratory tests performed.

8. Final logs of the soil borings and records of the field exploration in accordance with the standard practice of soil mechanics and foundation engineers. A site location plan shall be included, and the results of the laboratory tests will be plotted on the final boring logs.
9. Provide recommendations for foundation and slab systems. Recommendations should be based on the most economical system that is acceptable for use with the soil conditions. If a shallow foundation system is recommended, provide allowable soil bearing pressures for conventional spread footing foundations and slab on grade. Acceptable foundation settlements should be determined by the geotechnical engineer as is consistent with industry standards with buildings of similar size and construction. Include any relevant project details and indicate anticipated foundation settlements.
10. Provide additional recommendations specific to selected foundation system as required. For example, if auger cast piles are recommended, provide guidelines for load testing of piles, specifications for their installations, etc.
11. Evaluate the on-site soil characteristics encountered in the soil borings. Specifically, discuss the suitability of the on-site materials for re-use as engineered fill to support the slab.
12. Provide recommendations for excavation and rock removal at the site, if applicable.
13. Provide recommendations for lateral earth pressure (active, at rest and passive) likely to develop on below grade walls. Provide coefficient of friction for soil conditions present for use in sliding stability analysis. Provide recommendations for drainage and backfill at the walls below grade.
14. As requested, consult with the architects and engineers on any problems that may arise related to performance of the structure and subsurface foundations.

We estimate 22 borings will be needed and that these should be drilled to depths on the order of 30 feet each below existing ground for bidding purposes. Borings should not be terminated in fill or in soft material not capable of supporting the proposed structure.

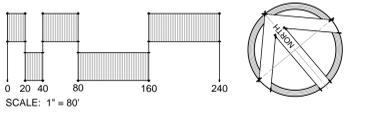
The number of soil boring locations and drilling depths are for bidding purposes only but is to be considered the minimum requirement. If, in the judgment of the geotechnical engineer, deeper or additional borings are required to make a reasonable assessment of the soil conditions for determination of allowable soil bearing pressures, then it is the responsibility of the geotechnical engineer to provide the additional borings. The geotechnical engineer is also responsible for notifying the Project Architect if different boring depths are required. A unit price shall be provided in the proposals indicating the cost of drilling per foot of boring depth.

LEGEND

- PROPERTY LINE
- EXISTING TREELINE
- EXISTING BUILDING
- EXISTING WALK
- EXISTING ROAD
- EXISTING CURB
- EXISTING FENCE
- EXISTING WETLANDS
- WETLAND BUFFER
- EXISTING STREAM
- EXISTING TREES
- EXISTING WATER
- EXISTING SANITARY SEWER
- EXISTING CONTOURS
- PROPOSED SOIL BORING

BORING NOTES

- SWM BORINGS / INFILTRATION TEST (SWM-4 & SWM-5):**
- BORING DEPTH OF 2' FROM EXISTING GRADE
 - PROVIDE DEPTH TO GROUNDWATER (WHERE APPLICABLE)
 - PROVIDE DEPTH TO ROCK / RIG REFUSAL (WHERE APPLICABLE)
 - INCLUDE INFILTRATION TESTING AS REQUIRED BY MDE
- SWM BORINGS / INFILTRATION TEST (SWM-1 THROUGH SWM-3, SWM-6 THROUGH SWM-8, SWM-14 THROUGH SWM-18, & SWM-23):**
- BORING DEPTH OF 15' FROM EXISTING GRADE
 - PROVIDE DEPTH TO GROUNDWATER (WHERE APPLICABLE)
 - PROVIDE DEPTH TO ROCK / RIG REFUSAL (WHERE APPLICABLE)
 - INCLUDE INFILTRATION TESTING AS REQUIRED BY MDE
- SWM BORINGS / INFILTRATION TEST (SWM-9 THROUGH SWM-13 & SWM-19 THROUGH SWM-22):**
- BORING DEPTH OF 10' FROM EXISTING GRADE
 - PROVIDE DEPTH TO GROUNDWATER (WHERE APPLICABLE)
 - PROVIDE DEPTH TO ROCK / RIG REFUSAL (WHERE APPLICABLE)
 - INCLUDE INFILTRATION TESTING AS REQUIRED BY MDE
- PAVEMENT BORINGS (P-1 THROUGH P-5):**
- PROVIDE PAVEMENT RECOMMENDATION FOR FLEXIBLE AND RIGID HEAVY DUTY PAVEMENT WHICH CAN SUPPORT FIRE TRUCKS AND AMBULANCES
- STRUCTURAL BORING (S-1 AND S-22):**
- PROVIDE EXECUTIVE SUMMARY WITH THE PROJECT FINDINGS AND RECOMMENDATIONS
 - PROVIDE GENERAL DESCRIPTION OF THE SITE INCLUDING EXISTING GRADES AND THE REGIONAL GEOLOGY
 - PROVIDE DESCRIPTION OF THE PROPOSED PROJECT INCLUDING THE ASSUMED BUILDING LOADINGS OF TYPICAL EXTERIOR COLUMN LOAD OF 350 KIPS, TYPICAL INTERIOR COLUMN 450 KIPS, AND BEARING WALL LOAD OF 10 KIPS PER FOOT AT GYM AND AUDITORIUM
 - PROVIDE GENERAL SITE PLAN ACCURATELY SHOWING TEST BORING AND TEST PIT LOCATIONS
 - PROVIDE DESCRIPTION OF THE SUBSURFACE CONDITIONS INCLUDING THE GROUND WATER LEVELS
 - PROVIDE THE SITE CLASS DEFINITION PER TABLE 1613.3.2 OF 2021 INTERNATIONAL BUILDING CODE / IRC 2021
 - PROVIDE DESCRIPTION OF THE FIELD EXPLORATION AND LABORATORY TESTS PERFORMED
 - PROVIDE FINAL LOGS OF THE SOIL BORINGS AND RECORDS OF THE FIELD EXPLORATION IN ACCORDANCE WITH THE STANDARD PRACTICE OF SOIL MECHANICS AND FOUNDATION ENGINEERS. SITE LOCATION PLAN SHALL BE INCLUDED, AND THE RESULTS OF THE LABORATORY TESTS WILL BE PLOTTED ON THE FINAL BORING LOGS
 - PROVIDE RECOMMENDATIONS FOR FOUNDATION AND SLAB SYSTEMS. RECOMMENDATIONS SHALL BE BASED ON THE MOST ECONOMICAL SYSTEM THAT IS ACCEPTABLE FOR USE WITH THE SOIL CONDITIONS. IF A SHALLOW FOUNDATION SYSTEM IS RECOMMENDED, PROVIDE ALLOWABLE SOIL BEARING PRESSURES FOR CONVENTIONAL SPREAD FOOTING FOUNDATIONS AND SLAB ON GRADE. ACCEPTABLE FOUNDATION SETTLEMENTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AS IS CONSISTENT WITH INDUSTRY STANDARDS WITH BUILDINGS OF SIMILAR SIZE AND CONSTRUCTION. INCLUDE ANY RELEVANT PROJECT DETAILS AND INDICATE ANTICIPATED FOUNDATION SETTLEMENTS
 - PROVIDE ADDITIONAL RECOMMENDATIONS SPECIFIC TO SELECTED FOUNDATION SYSTEM AS REQUIRED. FOR EXAMPLE, IF AUGER CAST PILES ARE RECOMMENDED, PROVIDE GUIDELINES FOR LOAD TESTING OF PILES, SPECIFICATIONS FOR THEIR INSTALLATIONS, ETC.
 - EVALUATE THE ON-SITE SOIL CHARACTERISTICS ENCOUNTERED IN THE SOIL BORINGS. SPECIFICALLY, DISCUSS THE SUITABILITY OF THE ON-SITE MATERIALS FOR REUSE AS ENGINEERED FILL TO SUPPORT THE SLAB
 - PROVIDE RECOMMENDATIONS FOR EXCAVATION AND ROCK REMOVAL AT THE SITE, IF APPLICABLE
 - PROVIDE RECOMMENDATIONS FOR LATERAL EARTH PRESSURE (ACTIVE, AT REST, AND PASSIVE) LIKELY TO DEVELOP ON BELOW GRADE WALLS. PROVIDE COEFFICIENT OF FRICTION FOR SOIL CONDITIONS PRESENT FOR USE IN SLIDING STABILITY ANALYSIS. PROVIDE RECOMMENDATIONS FOR DRAINAGE AND BACKFILL AT THE WALLS BELOW GRADE
 - AS REQUESTED, CONSULT WITH THE ARCHITECTS AND ENGINEERS ON ANY PROBLEMS THAT MAY ARISE RELATED TO PERFORMANCE OF THE STRUCTURE AND SUBSURFACE FOUNDATIONS
 - WE ESTIMATE 22 BORINGS WILL BE NEEDED AND THAT THESE SHOULD BE DRILLED TO DEPTHS ON THE ORDER OF EACH BELOW EXISTING GRADE FOR BIDDING PURPOSES. BORINGS SHOULD NOT BE TERMINATED IN FILL OR IN SOFT MATERIAL NOT CAPABLE OF SUPPORTING THE PROPOSED STRUCTURE
 - THE NUMBER OF SOIL BORING LOCATIONS AND DRILLING DEPTHS ARE FOR BIDDING PURPOSES ONLY BUT IS TO BE CONSIDERED THE MINIMUM REQUIREMENT. IF, IN THE JUDGEMENT OF THE GEOTECHNICAL ENGINEER, DEEPER OR ADDITIONAL BORINGS ARE REQUIRED TO MAKE A REASONABLE ASSESSMENT OF THE SOIL CONDITIONS FOR DETERMINATION OF ALLOWABLE SOIL BEARING PRESSURES, THEN IT IS THE RESPONSIBILITY OF THE GEOTECHNICAL ENGINEER TO PROVIDE THE ADDITIONAL BORINGS. THE GEOTECHNICAL ENGINEER IS ALSO RESPONSIBLE FOR NOTIFYING THE PROJECT ARCHITECT IF DIFFERENT BORING DEPTHS ARE REQUIRED. A UNIT PRICE SHALL BE PROVIDED IN THE PROPOSALS INDICATING THE COST OF DRILLING PER FOOT OF BORING DEPTH



NOT FOR CONSTRUCTION

DRAWN BY: E.J.L. CHECKED BY: PCS
 DATE: 11/27/2024 PROJECT #: 22015
 SCALE: AS SHOWN
 DRAWING NAME:

EXISTING SOIL BORING PLAN

SB001

LEGEND	
	PROPERTY LINE
	EXISTING TREELINE
	EXISTING BUILDING
	EXISTING WALK
	EXISTING ROAD
	EXISTING CURB
	EXISTING FENCE
	EXISTING WETLANDS
	WETLAND BUFFER
	EXISTING STREAM
	EXISTING TREES
	EXISTING WATER
	EXISTING SANITARY SEWER
	EXISTING CONTOURS
	PROPOSED BUILDING
	PROPOSED BUILDING OVERHANG
	PROPOSED RETAINING WALL
	PROPOSED CONCRETE WALK
	PROPOSED CURB
	PROPOSED SOIL BORING

BORING NOTES

SWM BORINGS / INFILTRATION TEST (SWM-4 & SWM-5):
 1. BORING DEPTH OF 25' FROM EXISTING GRADE
 2. PROVIDE DEPTH TO GROUNDWATER (WHERE APPLICABLE)
 3. PROVIDE DEPTH TO ROCK / RIG REFUSAL (WHERE APPLICABLE)
 4. INCLUDE INFILTRATION TESTING AS REQUIRED BY MDE

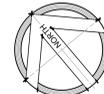
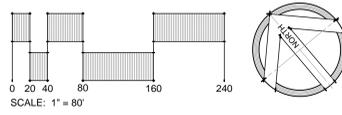
SWM BORINGS / INFILTRATION TEST (SWM-1 THROUGH SWM-3, SWM-6 THROUGH SWM-8, SWM-14 THROUGH SWM-16 & SWM-20):
 1. BORING DEPTH OF 15' FROM EXISTING GRADE
 2. PROVIDE DEPTH TO GROUNDWATER (WHERE APPLICABLE)
 3. PROVIDE DEPTH TO ROCK / RIG REFUSAL (WHERE APPLICABLE)
 4. INCLUDE INFILTRATION TESTING AS REQUIRED BY MDE

SWM BORINGS / INFILTRATION TEST (SWM-9 THROUGH SWM-13 & SWM-19 THROUGH SWM-22):
 1. BORING DEPTH OF 10' FROM EXISTING GRADE
 2. PROVIDE DEPTH TO GROUNDWATER (WHERE APPLICABLE)
 3. PROVIDE DEPTH TO ROCK / RIG REFUSAL (WHERE APPLICABLE)
 4. INCLUDE INFILTRATION TESTING AS REQUIRED BY MDE

PAVEMENT BORINGS (P-1 THROUGH P-5):
 1. PROVIDE PAVEMENT RECOMMENDATION FOR FLEXIBLE AND RIGID HEAVY DUTY PAVEMENT WHICH CAN SUPPORT FIRE TRUCKS AND AMBULANCES

STRUCTURAL BORING (S-1 AND S-22):

1. PROVIDE EXECUTIVE SUMMARY WITH THE PROJECT FINDINGS AND RECOMMENDATIONS
2. PROVIDE GENERAL DESCRIPTION OF THE SITE INCLUDING EXISTING GRADES AND THE REGIONAL GEOLOGY
3. PROVIDE DESCRIPTION OF THE PROPOSED PROJECT INCLUDING THE ASSUMED BUILDING LOADINGS OF TYPICAL EXTERIOR COLUMN LOAD OF 350 KIPS, TYPICAL INTERIOR COLUMN 450 KIPS, AND BEARING WALL LOAD OF 10 KIPS PER FOOT AT GYM AND AUDITORIUM
4. PROVIDE GENERAL SITE PLAN ACCURATELY SHOWING TEST BORING AND TEST PIT LOCATIONS
5. PROVIDE DESCRIPTION OF THE SUBSURFACE CONDITIONS INCLUDING THE GROUND WATER LEVELS
6. PROVIDE THE SITE CLASS DEFINITION PER TABLE 1613.3.2 OF 2021 INTERNATIONAL BUILDING CODE / IBC 2021
7. PROVIDE DESCRIPTION OF THE FIELD EXPLORATION AND LABORATORY TESTS PERFORMED
8. PROVIDE FINAL LOGS OF THE SOIL BORINGS AND RECORDS OF THE FIELD EXPLORATION IN ACCORDANCE WITH THE STANDARD PRACTICE OF SOIL MECHANICS AND FOUNDATION ENGINEERS. SITE LOCATION PLAN SHALL BE INCLUDED, AND THE RESULTS OF THE LABORATORY TESTS WILL BE PLOTTED ON THE FINAL BORING LOGS
9. PROVIDE RECOMMENDATIONS FOR FOUNDATION AND SLAB SYSTEMS. RECOMMENDATIONS SHALL BE BASED ON THE MOST ECONOMICAL SYSTEM THAT IS ACCEPTABLE FOR USE WITH THE SOIL CONDITIONS. IF A SHALLOW FOUNDATION SYSTEM IS RECOMMENDED, PROVIDE ALLOWABLE SOIL BEARING PRESSURES FOR CONVENTIONAL SPREAD FOOTING FOUNDATIONS AND SLAB ON GRADE. ACCEPTABLE FOUNDATION SETTLEMENTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AS IS CONSISTENT WITH INDUSTRY STANDARDS WITH BUILDINGS OF SIMILAR SIZE AND CONSTRUCTION. INCLUDE ANY RELEVANT PROJECT DETAILS AND INDICATE ANTICIPATED FOUNDATION SETTLEMENTS
10. PROVIDE ADDITIONAL RECOMMENDATIONS SPECIFIC TO SELECTED FOUNDATION SYSTEM AS REQUIRED. FOR EXAMPLE, IF AUGER CAST PILES ARE RECOMMENDED, PROVIDE GUIDELINES FOR LOAD TESTING OF PILES, SPECIFICATIONS FOR THEIR INSTALLATIONS, ETC.
11. EVALUATE THE ON-SITE SOIL CHARACTERISTICS ENCOUNTERED IN THE SOIL BORINGS. SPECIFICALLY, DISCUSS THE SUITABILITY OF THE ON-SITE MATERIALS FOR RE-USE AS ENGINEERED FILL TO SUPPORT THE SLAB
12. PROVIDE RECOMMENDATIONS FOR EXCAVATION AND ROCK REMOVAL AT THE SITE, IF APPLICABLE
13. PROVIDE RECOMMENDATIONS FOR LATERAL EARTH PRESSURE (ACTIVE, AT REST, AND PASSIVE) LIKELY TO DEVELOP ON BELOW GRADE WALLS. PROVIDE COEFFICIENT OF FRICTION FOR SOIL CONDITIONS PRESENT FOR USE IN SLIDING STABILITY ANALYSIS. PROVIDE RECOMMENDATIONS FOR DRAINAGE AND BACKFILL AT THE WALLS BELOW GRADE
14. AS REQUESTED, CONSULT WITH THE ARCHITECTS AND ENGINEERS ON ANY PROBLEMS THAT MAY ARISE RELATED TO PERFORMANCE OF THE STRUCTURE AND SUBSURFACE FOUNDATIONS
15. WE ESTIMATE 22 BORINGS WILL BE NEEDED AND THAT THESE SHOULD BE DRILLED TO DEPTHS ON THE ORDER OF 30' EACH BELOW EXISTING GRADE. FOR BIDDING PURPOSES BORINGS SHOULD NOT BE TERMINATED IN FILL OR IN SOFT MATERIAL NOT CAPABLE OF SUPPORTING THE PROPOSED STRUCTURE
16. THE NUMBER OF SOIL BORING LOCATIONS AND DRILLING DEPTHS ARE FOR BIDDING PURPOSES ONLY BUT IS TO BE CONSIDERED THE MINIMUM REQUIREMENT. IF, IN THE JUDGMENT OF THE GEOTECHNICAL ENGINEER, DEEPER OR ADDITIONAL BORINGS ARE REQUIRED TO MAKE A REASONABLE ASSESSMENT OF THE SOIL CONDITIONS FOR DETERMINATION OF ALLOWABLE SOIL BEARING PRESSURES, THEN IT IS THE RESPONSIBILITY OF THE GEOTECHNICAL ENGINEER TO PROVIDE THE ADDITIONAL BORINGS. THE GEOTECHNICAL ENGINEER IS ALSO RESPONSIBLE FOR NOTIFYING THE PROJECT ARCHITECT IF DIFFERENT BORING DEPTHS ARE REQUIRED. A UNIT PRICE SHALL BE PROVIDED IN THE PROPOSALS INDICATING THE COST OF DRILLING PER FOOT OF BORING DEPTH



NOT FOR CONSTRUCTION

DRAWN BY: E.J.L. CHECKED BY: PCS
 DATE: 11/27/2024 PROJECT #: 22015
 SCALE: AS SHOWN
 DRAWING NAME:

PROPOSED SOIL BORING PLAN

SB002

**HARFORD COUNTY PUBLIC SCHOOLS
REQUEST FOR PROPOSALS
FOR QUALITY CONTROL TESTING SERVICES**

New Combination Harford Academy and Elementary School

SCOPE OF SERVICE:

Provide a comprehensive testing program to meet quality assurance needs for the above-mentioned project. Engineering technicians must have appropriate certifications, such as American Concrete Institute and National Institute for Certification in Engineering Technologies and may be required on both a full-time and part-time basis. A US Army Corps of Engineers or American Association of State Highway Officials accredited laboratory will be required for testing in accordance with all pertinent codes, regulations, ASTM specifications, and project requirements.

Services are to include:

- A. Foundation and soils inspection and testing to include monitoring undercutting operations; field density tests for structural and trench fill; and observation of soils in foundation excavations. Laboratory testing includes classification tests, proctor tests, and other tests as necessary.
- B. Concrete and reinforcing steel inspection and testing to include sampling and field testing, acquiring and transporting concrete test cylinders for curing and compressive strength testing.
- C. Structural steel inspection and testing services are to be performed by a qualified inspector to include checking fastener tension of bolted connections, visually checking welds, and nondestructive testing of welds.
- D. All other testing as necessary to comply with the project specifications including testing and inspection of bituminous paving, masonry, and sprayed-on fireproofing.
- E. All required material and installation certifications (Federal, State, Local, Permitting).

All tests and inspections shall require appropriate evaluations and reports to be submitted in a complete format. Inspection and testing reports shall include date, times technician is onsite, contractors' activities, technicians' activities, tests taken, test/inspection location map, field test results, etc. A registered professional engineer shall supervise and certify all testing and inspections.

PROJECT DESCRIPTION:

New Combination Harford Academy and Elementary School

Construction of a new, approximately 215,000 square foot two story school, which includes: paving, utilities, foundations, retention walls, and stormwater management facilities.

COORDINATION:

The testing consultant shall be responsible to coordinate schedules with the construction manager and prime contractors for required testing and inspections.

FORM OF PROPOSAL:

See the Quality Control Testing Proposal evaluation sheet for an itemized description of all costs, including the estimated number and types of all tests and inspections which will be performed, unit pricing for each service as well as the lump sum totals, and unit prices for any additional services. Engineering technicians' rates shall include mileage, travel time, sample pickup, project engineer review, and issuance of all reports, administrative fees, clerical fees, and field supervision. Engineering unit price shall include only requested site meetings and consultation. Refer to the attached evaluation sheet for engineering services and laboratory testing to be included.

Use the Quality Control Testing Proposal Evaluation Sheet attached.

PROPOSALS ARE TO BE SUBMITTED TO:

Mrs. Brittney Mattlin
Planning & Construction Department
Harford County Public Schools
2209 Conowingo Road
Bel Air, Maryland 21015
Phone: 410-688-5639

PROPOSALS **will not** be accepted electronically and **must** be received at the address listed above by:

**FRIDAY, FEBRUARY 14, 2025
2:00 P.M. LOCAL TIME
NO EXCEPTIONS**

**HARFORD COUNTY PUBLIC SCHOOLS
QUALITY CONTROL TESTING PROPOSAL
EVALUATION SHEET**

<u>SERVICES</u>	<u>FEE OR HOURLY RATE</u>	<u>ESTIMATED HOURS OR QUANTITY</u>	<u>TOTAL ESTIMATED PRICE</u>
Footing, Reinforcement, Concrete Testing and Inspection			
Engineering Technician		600 Hours	
Technician Overtime		120 Hours	
Concrete Cylinder Breaks		800 Cyls	
Floor Flatness/Levelness		15 Surveys	
Structural Fill, Foundation, Retaining Wall, Utility Backfill, Asphalt and SWM Facilities			
Engineering Technician		2,700 Hours	
Technician Overtime		350 Hours	
Nuclear Density Gauge Rental		200 Days	
Proctors		25 Samples	
Atterbert Limits		25 Samples	
Graduation Analysis		25 Samples	
Structural Steel and Light Gauge Metal Framing Inspection and Ultrasonic Testing			
Structural Steel Inspector		120 Hours	
Ultrasonic Inspector		60 Hours	
Fireproofing Inspection			
Fireproofing Inspector		40 Hours	
Masonry Inspection			
Engineering Technician		480 Hours	
Grout Compression Tests		60 Cubes	
Mortar Compression Tests		60 Cubes	
Masonry Prisms		25 Prisms	
Site Concrete Testing			
Engineering Technician		450 Hours	
Concrete Cylinder Breaks		400 Cyls	
Project Management/Engineering			
Senior Engineer/P.E.		60 Hours	
Project Manager		120 Hours	
TOTAL ESTIMATED FEE			\$

**HARFORD COUNTY PUBLIC SCHOOLS
REQUEST FOR PROPOSALS
FOR QUALITY CONTROL TESTING SERVICES
AND**

SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING SERVICES

INTRODUCTION:

Proposals are being sought for Quality Control Testing Services and Subsurface Exploration and Geotechnical Engineering Services for the New Combination Harford Academy and Elementary School project. The construction phase of this project is anticipated to begin in February/March 2026 and continue until August 2028.

AWARD OF PROPOSAL:

The contract is a total amount of the combination of the Quality Control Testing Services fee and the Subsurface Exploration and Geotechnical Engineering Services fee. The contract will be awarded to the lowest responsive and responsible bidder complying with all requirements of the invitation to submit proposals, provided the proposal price is reasonable and it is to the interest of Harford County Public Schools to accept it. Harford County Public Schools reserves the right to reject any or all bids received whenever such rejection or waiver is in the best interest of Harford County Public Schools.

A. Quality Control Testing Services

\$ _____
Estimated fee based on the attached Quality Control Testing Proposal Evaluation Sheet

B. Subsurface Exploration and Geotechnical Engineering Services

\$ _____
Lump sum Fee

B1. Additional Mobilization for Subsurface Exploration and Geotechnical Engineering Services

\$ _____

B2. Unit Price per foot for Additional Boring Depths

\$ _____

Total Fee for A and B

\$ _____