

June 9, 2015

Mr. Chuck Adams, Superintendent Spencer County Public Schools 207 West Main Street Taylorsville, Kentucky 40071

Re: New Spencer County Elementary School SCB Project No. 1257

Dear Mr. Adams:

On behalf of Spencer County Schools, and relative to the referenced project, Sherman Carter Barnhart solicited proposals for geotechnical investigation and for special inspections and quality control testing. Enclosed here is the Request for Proposals, as well as the proposals submitted, which are summarized as follows.

	Special inspections/		
	Geotechnical	QC tests	<u>Total</u>
American Engineers, Inc. (AEI)	\$6,900.00	\$89,500.00	\$96,400.00
Consulting Services Inc. of Kentucky (CSI)	\$21,700.00	\$80,500.00	\$102,200.00
GEM Engineering, Inc.	\$9,500.00	\$91,000.00	\$100,500.00

Based upon the information submitted, we recommend that the district accept AEI's proposal for both phases of the work.

If you have any questions concerning this information, please contact me.

Sincerely, Justin McElfresh

Project Architect

c: Jim Oliver

Sherman Carter Barnhart Architects 100 Mallard Creek Road, Suite 151 Louisville, KY 40207 502 721 6100 Office 502 721 6111 Fax scbarchitects.com

Date: June 1, 2015

General Information

This request for proposal is for a Geotechnical Investigation, Geotechnical Report and Recommendations, as well as Quality Assurance Testing for additions to Spencer County Elementary School. The proposal shall also include Special Inspections and QA/QC Testing at each school as required by the Kentucky Building Code and the project specifications. The selected geotechnical engineer should understand that their contract would be with the Spencer County School Board, not with Sherman Carter Barnhart. The Spencer County School Board will be responsible for payment for any and all services that the geotechnical engineer may provide under this proposal.

Client Contact Info:

Spencer County Board of Education Mr. Jim Oliver 207 West Main Street Taylorsville, KY 40071

Phone: (502) 477-3267 Email: jim.oliver@spencer.kyschools.us

Project Address:

Spencer County Elementary School Highway 44 Taylorsville, KY 40071

Project Description

This project consists of a new elementary school in Spencer County, Kentucky. The new school will be two-story with a footprint of approximately40,000 square feet (s.f.). Construction will be reinforced concrete (ICF) with concrete hollow core plank second floor and bar joist and metal deck roof structure.

A site plan and preliminary building plans will be available for pick-up from Sherman Carter Barnhart's Louisville office at 100 Mallard Creek Road, Suite 151; Louisville, Kentucky 40207. Please arrange drawing pick-up with David Mertz at (502) 721-6100.

Scope of Work

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Supply one unbound copy of Geotechnical Report to the Architect to be included in the specifications, four bound copies for distribution and one PDF file for each school.

During construction, supply weekly quality assurance and special inspection reports to the Architect.

Spencer County Elementary School SCB Project No. 1257

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Proposal shall include the following:

Required Geotechnical Investigation, Analysis, Engineering and Report shall include (but may not be limited to) the following

Full geotechnical investigation including all necessary borings, soundings, test pits and report for preparation of bid and construction documents which shall include but not be limited to earthwork recommendations, foundation design recommendations, earth retaining structure design recommendations, allowable bearing pressure, rigid, flexible and permeable pavement design, seismic information including seismic site classification, lateral earth pressure recommendations, sinkhole repair recommendations, frost penetration depth and recommendations for additional aspects of construction that, in the opinion of the Geotechnical Engineer may be relevant to this project. Include recommendations for compaction, subgrade preparation and drainage for the synthetic turf fields (i.e. filter fabric on clay, DGA, lime stabilization, etc.) Include a minimum of ten (10) soundings for utilities. Sounding locations shall be coordinated with the SCB Civil Department. The Geotechnical Engineer shall attend coordination/design meetings on an as needed basis to help minimize cost impacts related to subsurface conditions. Meetings will occur in either our Louisville office or on the project site as required.

Geotechnical Report shall comply with and include (but may not be limited to) the following:

- 1. All work performed by the geotechnical engineer shall be in accordance with the 2013 Kentucky Building Code (KBC) current applicable ASTM standards D1586, D1587, D2113 as well as all other applicable codes and standards.
- 2. Frost penetration depth and effect.
- 3. Foundation support of the structure and slabs, including bearing pressures, framing elevations, foundation design recommendations and anticipated settlement.
- 4. Bench marks shall be established per USGS datum as used on FEMA flood plain mapping or as provided on current topographic site survey.
- 5. The geotechnical engineer shall determine actual number of borings, boring locations, and depths based on the geotechnical engineer's knowledge of the local geology, conditions encountered in the field, and the anticipated building loads indicated herein.
- 6. A geotechnical engineer, professional geologist, engineer in training, or geologist in training, registered in the State of Kentucky, shall be on site during drilling operations to observe drilling and make adjustments as necessary based on field conditions.
- 7. The geotechnical engineer shall determine the rock core locations based on the project requirements, the geotechnical engineer's knowledge of the local geology, and conditions encountered in the field.

Spencer County Elementary School SCB Project No. 1257

20f 6

- 8. Monitor ground water (if encountered) and record the depth in each boring after 24 hours.
- 9. Management of ground water for design of structures and pavements.
- 10. Classify all samples obtained during field exploration according to the Unified Soil Classification System.
- 11. Include with report a chart illustrating the soil classification criteria and the terminology and symbols used on boring logs.
- 12. Provide plan showing boring location.
- 13. Vertical sections for each boring shown.
- 14. Provide appropriate subsurface profiles of rock or other bearing stratum.
- 15. Estimate potential variations in elevation and movements of subsurface water due to seasonal influences.
- 16. Provide recommendations for the appropriate foundation system for this project with an evaluation of any viable alternatives. The report shall provide all pertinent criteria and parameters for the proper design of the recommended foundation system(s) subjected to vertical and horizontal loads.
- 17. Provide design data for concrete floor slabs on grade. Include recommendations for granular slab base material and instructions for the placement and compaction of same. Include recommendations for slab sub-grade preparation as well as any building pad protection recommended based on construction schedules (i.e.: lime stabilization, DGA cap, sub-drainage, etc...).
- 18. Provide design data for flexible (heavy and light duty), rigid and permeable pavements. Include recommendations for granular base material and instructions for the placement and compaction of same. Include recommendations for pavement sub-grade preparation. For asphalt pavement, provide specific mix for slow moving and stationary traffic (ie: bus parking areas and drop off lanes).
- 19. The report shall also provide information on required site preparation (including any necessary rock removal) along with recommendations for structural fill. The report shall address the suitability of on-site materials for use as structural fill, site grading, or general backfill material.
- 20. Analysis of the effect of weather or construction equipment or both on soil during construction.
- 21. The report shall contain criteria and data for the design of earth retaining structures. Include active, passive and at-rest earth pressure design parameters. Coefficients shall be given for Spencer County Elementary School
 SCP Present No. 1257

SCB Project No. 1257

3of 6

- granular backfill and for native soil backfill (if appropriate) assuming drained and undrained conditions.
- 22. Define the Site Classification for use in Seismic Design in accordance with the requirements of Chapter 16 of the 2013 Kentucky Building Code (reference ASCE 7-10 Table 20.3-1).
- 23. Provided an evaluation of the overall stability of cut, fill and natural slopes if applicable.
- 24. The proposal shall include all Field and Laboratory Tests necessary to provide accurate recommendations and design parameters in the geotechnical report. The tests to be performed should include (but not be limited to) the following.
 - a. Natural Moisture Content
 - b. Plastic and Liquid (Atterberg) Limits
 - c. Swell Tests (if necessary)
 - d. Unconfined Compression Tests
 - e. Routine Soils Classification Tests
 - f. Standard Proctor Tests
 - g. California Bearing Ratio (CBR)
 - h. Infiltration Test (if necessary)
 - i. Laboratory determinations of soil properties
 - j. Existing surface conditions and subsurface condition summary

25. Disposal of samples:

a. Retain at Geotechnical Engineer's office remaining open to inspection until foundation installation is complete.

Rock may be encountered at shallow depths. To determine the quality and character of the rock, the number of cores and depths of in-situ testing shall be determined by geotechnical engineer and coordinated with the structural engineer, unless otherwise stated in this request.

NOTE: We rely on the expertise of the geotechnical engineer to determine the best locations for borings, soundings, test pits etc... The geotechnical engineer shall consult with design team prior to any fieldwork to ensure that design intent and earthwork/grading approach is fully understood.

Special Inspections testing and quality assurance

Include special inspections testing and quality assurance for the entire project. Special inspections includes all testing required by the Kentucky Building Code. Quality assurance includes all other testing indicated in specifications including but not limited to concrete breaks, steel, masonry, proof rolling for pavements and observation of earthwork and backfill operations for utilities installation. Amount of periodic and continuous testing will be determined based on specific project schedule and specification requirements.

Spencer County Elementary School SCB Project No. 1257

4of 6

Special Inspections - General Project Information

Construction Type: Primarily ICF Bearing Walls (w/ some CMU Bearing Walls) w/ pre-cast concrete Hollow Core Plank 2nd Floor Structure and Bar Joists and Metal Deck Roof Structures

Approximate Building Squar	e Footage: 68,50	0 SF
Number of stories:	Two-	Story
Anticipated Building Loads:	Maximum Column Load = Maximum Wall Load =	75.0 kips 7.5kips/foot
Approximate Construction sc	chedule: Construction to be c	ompleted 12/31/2017

Construction Budget Amount of Total Project: \$14,000,000

QUALIFICATIONS

Qualified geotechnical and testing firms shall include staff on the project who hold NICET and ICC certifications for each aspect of the work. A licensed Professional Engineer specializing in the field of geotechnical engineering shall supervise the special inspections. Qualified firms shall have in house soils testing lab.

The geotechnical engineering firm for this project will follow all guidelines of the American Society of Foundation Engineers (ASFE) in performing this work.

The geotechnical engineer for this project will be familiar with local geology and soil conditions.

The geotechnical engineering and special inspections firm will be required to carry professional liability insurance in the following minimum amounts:

Projects \$1,000,000, or less	\$500,000 per claim and \$1,000,000 aggregate per annum
Projects exceeding \$1,000,000	\$1,000,000 per claim and \$2,000,000 aggregate per annum.

A Certificate of Insurance for Errors and Omissions shall be included in the Geotechnical Report. The certificate should name Hardin County Schools as the "Certificate Holder".

Spencer County Elementary School SCB Project No. 1257

PROPOSAL FORM

Percentage Based Fee

Proposals will be evaluated based on a <u>not to exceed</u> percentage of construction value fee. Separate fees are requested for Geotechnical Investigation and Report, and for Special Inspections, Quality Assurance and Quality Control. Fees shall include all work defined in the scope of work as outlined in this request for proposal including word required by the Kentucky Building Code that may not be specifically listed herein. Special project conditions requiring work beyond scope defined above shall be clearly identified by the testing agency and included in proposal.

Provide fees and percentages on this proposal form. Include this proposal form with <u>only</u> the not to exceed fee and the percentage, which is the basis of the fee. Proposals which list fee in any other format may be rejected. <u>This request for proposal must be included for a proposal to be considered.</u>

Provide unit prices for all aspects of geotechnical investigation, special inspections and quality control testing.

Proposals shall be submitted to Sherman Carter Barnhart by 5:00 p.m. 7 days after date of this request. The selected firm will be notified within two weeks after the due date.

Geotechnical Investigation and Report are due 14 days from receipt of notice to proceed.

Fees and Fee Percentages

Geotechnical Investigation and Report -

Proposed Fee:	<u>\$</u>	6,900
Proposed Fee:	<u>\$</u>	6,100

Percent of Construction Budget: %

Special inspections, Quality Assurance and Quality Control Testing Services -

Proposed Fee: \$ 89,500

Percent of Construction Budget: %

The payment for the services listed above shall not exceed the percentage based fee listed on this fee form. Change orders for work, which does not affect Special Inspections of Quality Control will not be applicable to the percentage-based fee.

Please provide signatures and dates below to approve and accept this proposal.

Geotechnical Engineer:	Ve-	Attle	

Date: 6/4/15

Proposal Accepted By:

Date		

Spencer County Elementary School SCB Project No. 1257 American Engineers, Inc. (AEI)

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PROPOSAL FORM

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Geotechnical Investigation and Report are due 14 days from receipt of notice to proceed.

Fees and Fee Percentages

Geotechnical Investigation and Report -

Proposed Fee: \$ \$21,700 Percent of Construction Budget: 0.155 %

Special inspections, Quality Assurance and Quality Control Testing Services -

Proposed Fee: \$\$80,500 Percent of Construction Budget: 0.575 %

The payment for the services listed above shall not exceed the percentage based fee listed on this fee form. Change orders for work, which does not affect Special Inspections of Quality Control will not be applicable to the percentage-based fee.

Please provide signatures and dates below to approve and accept this proposal.

Geotechnical Engineer: Shave Brashear

Date: June 8. 2015

Proposal Accepted By:

Date:_____

Consulting Services Inc. of Kentucky (CSI)

Spencer County Elementary School SCB Project No. 1257

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PROPOSAL FORM

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Proposals shall be submitted to Sherman Carter Barnhart by 5:00 p.m. 7 days after date of this request. The selected firm will be notified within two weeks after the due date.

Geotechnical Investigation and Report are due 14 days from receipt of notice to proceed.

Fees and Fee Percentages

Geotechnical Investigation and Report -

Proposed Fee: <u>\$ 9,500.00</u> Percent of Construction Budget: <u>0.07 %</u>

Special inspections, Quality Assurance and Quality Control Testing Services -

Proposed Fee: <u>\$ 91,000.00</u> Percent of Construction Budget: 0.65 %

The payment for the services listed above shall not exceed the percentage based fee listed on this fee form. Change orders for work, which does not affect Special Inspections of Quality Control will not be applicable to the percentage-based fee.

Please provide signatures and dates below to approve and accept this proposal.

Geotechnical Engineer:	Wishal C. Ronaym	
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Date: June 5, 2015

Proposal Accepted By:_____

Date:_____

Spencer County Elementary School SCB Project No. 1257

FROM: GEM Engineering, Inc. GEM Proposal No.: G-5817 June 5, 2015 Page 6 of 8