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barryisett.com

February 17, 2022
Project #00343421.005

Ms. Stacy C. Milo, Borough Manager
Borough of Topton
205 S. Callowhill Street
Topton, PA 19562

Sent via email to smilo@toptonborough.com

RE: TOPTON BOROUGH HALL AND COMMUNITY POOL – GEOTECHNICAL INVESTIGATION
205 South Callowhill Street, Topton, Berks County, Pennsylvania 19562
Proposal for Professional Engineering Services

Dear Ms. Milo:

Barry Isett & Associates, Inc. has performed a structural assessment of the subject structure and pool with an *Initial Structural Assessment Report* issued on February 3, 2022. Isett appreciates the opportunity to provide this proposal for subsequent invasive geotechnical services to investigate the subgrade as recommended in the *Initial Structural Assessment Report*. The purpose of this investigation is to determine if there are any voids within the subsurface within the exterior area of the Borough Building and the pool, and provide a summary of report of findings with opinion of cause and conceptual recommendations for repair.

PROJECT UNDERSTANDING

Based on the field observations during the initial assessment, Isett recommends a subsurface investigation focusing on the western side of the pool (near the dividing wall) and the pavement area north of the Borough Building. The geotechnical investigation is proposed in two phases. Phase 1 will be a non-invasive geophysical study to determine subsurface anomalies that may indicate voids within the subsurface. Phase 2 will be an invasive subsurface exploration within the indicated areas of anomalies to determine the actual extent of voiding. The results of the geotechnical investigation will be used to provide recommendations for subsurface remediation and structural repair concepts.

Following selection of a subsurface remediation and structural repair concepts, Isett can provide a proposal for the preparation of the construction documents and construction oversight.

Any existing structural drawings of the structure should be provided to Isett for our use in performing the assessment.

PROPOSAL BASIS

Isett has based the geotechnical scope of this proposal on the following items:

1. Our geotechnical scope and fee are based on being able to access the exterior of the Borough Building and the pool with a track-mounted drill rig. All field work will be limited to weekday daytime hours.
2. Upon completion, the holes will be backfilled with the extracted soil mixed with dry grout. Probes that penetrate asphalt paving will be capped with cold-patch asphalt to match adjacent ground surface material. Probes that penetrate concrete will be capped with non-shrink grout. No other restoration to the site is included with this proposal. Settlement of the soils at the borehole locations should be anticipated. Restoration of this anticipated future settlement is not included with this proposal.
3. Isett will contact the Pennsylvania One Call System to locate public utilities that may be present at the site. The property owner is responsible for identifying private utilities that may be present at the site. If private utility information cannot be provided prior to the scheduled investigation, Isett can subcontract a private utility locator to delineate buried private utilities on the site at an additional fee. Based on the anticipated work area size, Isett expects private utility locating can be completed in one day at a cost not to exceed \$1,800. If private utility locating services are not elected, Isett is not responsible for any damage or disrupted service of these unmarked, private utilities.
4. Existing fill material may be encountered within the subsurface. This proposal excludes any unexpected subsurface conditions that may include fill material that cannot be penetrated with standard drilling methods. Existing fill, if encountered, will be described in detail along with an estimate of the percentage of organic material content (including topsoil, wood, etc.), relative density, moisture content, and amount and type of debris.
5. A geotechnical investigation has been planned for the project that includes one day of drilling. The drilling is proposed to include **four (4) borings to a maximum depth of 25 feet or to auger refusal**. To optimize the relevance of subsurface data obtained within the day of drilling, the location and depth of the borings may vary from this initial scope as the field investigation progresses.
6. Soil samples obtained will be retained for further laboratory analysis to confirm field classifications and determine moisture content. Logs will be maintained throughout the entire investigation and supplemented with photographs.

SCOPE OF SERVICES

Forensic/Structural Engineering Services

1. Review results of geophysical testing and assist the geotechnical engineer with determining the optimum places for geotechnical borings.
2. Review the geotechnical borings to assist in determining subsurface remediation options and developing the structural repair design.
3. Prepare a summary of findings, including introduction, background, document review, geotechnical findings, observations, evaluation, conclusions/recommendations, key plan, photographs, and references, as required.

Geophysical Investigation Services

A geophysical survey is proposed that will consist of non-invasive imaging, including microgravity, ground-penetrating radar (BPR), and electrical resistivity to identify potential voids or soft zones. The intent of the survey is to reveal anomalous low-gravity areas with corresponding higher resistivity areas in the problem areas designated by the *Initial Assessment Report*. The areas of low-gravity and higher resistivity will guide the direction of the subsurface investigation.

Geotechnical Subsurface Investigation Services

4. Preliminary Geotechnical Engineering

- a. Notify the Pennsylvania One Call System and schedule the fieldwork to accommodate the drilling contractor, Client, and Isett personnel. Law requires a minimum of 3 days after notification to the One Call System before starting any type of subsurface work. Drilling will be scheduled as soon as it is feasible after the required 3-day waiting period.
- b. Subcontract a utility locating service to locate the presence of private utilities at the testing locations.
- c. Field-locate interior and exterior testing locations. Boring depths shall be measured in relation to existing reference elevations.
- d. Review published information regarding topographic history, geologic data, soil data, groundwater data, and historical aerial photographs, as well as subsurface information available to Isett from neighboring sites. This information will be used to optimize the testing plan.
- e. Research site geology and assess prior karst (sinkhole) activity in the area. Historical aerial photography will also be reviewed to assess potential causes of subsidence.

5. Geotechnical Field Work

- a. Advance standard geotechnical borings into the subsurface using hollow-stem augers in general accordance with the testing method defined by the American Society of Testing and Materials (ASTM) D6151. Split-barrel samples of the subsurface materials will be taken at regular intervals in accordance with the ASTM D1586.
- b. Rock cores, if collected, will be obtained in accordance with ASTM D2113. Undisturbed thin-walled samples will be taken of fine-grained saturated clay, if encountered, in accordance with ASTM D1587.
- c. Measure the depth of groundwater within each hole upon completion or refusal, and prior to backfilling the borehole.
- d. Complete up to three probes within the pool; probes are only possible if the concrete is up to 6 inches thick. The pool floor will be first penetrated with a hand-held drill with a concrete bit to determine if there are voids directly beneath the pool floor. The pool floor will then be cored with a portable electric concrete coring machine with direct push samples of the subsurface material collected to a maximum depth of 5 feet. The holes in the pool will be patched with quick-set grout which may not completely seal the hole from water leakage.
- e. Monitor and supervise the subcontracted subsurface investigation procedures as recommended in the *International Building Code (IBC)*, 2015, Section 1803.4.

- f. Log field data and properly label the samples placed in containers. At the completion of the field investigation, the samples will be transported to an Isett office and retained for a maximum of 1 year, unless the Client makes other project arrangements.
- g. Contact Client prior to leaving the site to review clean-up conditions. Any concerns need to be voiced to Isett prior to demobilizing from the site or additional fees may be assessed.

6. Laboratory Analysis

- a. Subject at least one field sample to the suite of tests required for classification of soil samples in accordance with the ASTM D2487 (classification of soil samples with the Unified Soil Classification System). This suite of tests includes the ASTM D4643, ASTM D422, and ASTM D4318.
- b. If applicable, test up to two field samples of any existing fill for percentage of organic content in accordance with ASTM D2974.
- c. If deemed necessary, report the laboratory-determined unit weight of up to five representative soil samples in accordance with ASTM D7263.

7. Geotechnical Report

Prepare and submit a report of the geotechnical findings in electronic form including, at a minimum, the following:

- a. Summary of research of published information.
- b. Brief description of existing site conditions in the areas of investigation.
- c. Summary of field investigation methods.
- d. Graphical presentation of testing locations.
- e. Reduced field data presented in the form of probe logs and subsurface cross-sections.
- f. Results of geophysical analysis.
- g. Results of laboratory analysis.
- h. Summary of subsurface findings that may have an impact on the support of the existing building.

8. Geotechnical Conclusions

Discuss the geotechnical findings with Isett's Forensic Engineering Team to aid in the determination of the underlying cause of the settlement or subsidence, and development of remediation options or further investigative needs.

Video Survey of Pool Piping

1. Contract for video scoping of accessible pool lines.
2. Review video of the interior of the accessible pool lines for any possible blockages, leaks, or collapse.

COMPENSATION

Based upon the Project Understanding and Scope of Services outlined above, our fees are presented below and shall be billed on a monthly basis in accordance with the percentage of tasks completed.

1. Forensic Engineering Services	\$2,250.00
2. Geophysical Investigation	\$5,000.00
3. Geotechnical Subsurface Investigation Services (Includes utility locating services, drilling contractor, probe investigation)	\$11,900.00
4. Video Survey of Pool Piping (per day)	\$ 750.00
Total	<u>\$19,900.00</u>

SCHEDULE

Upon receipt of a signed proposal of services, Isett will coordinate with the Client to determine a mutually-agreeable date and time to perform the site visit. The Geotechnical Report, inclusive of remediation recommendations, will be completed approximately 4 weeks after completion of the subsurface investigation.

ADDITIONAL SERVICES/EXCLUSIONS

1. Structural design and production of drawings of any subsurface remediation or structural repairs.
2. Determination of Opinion of Probable Costs for subsurface remediation or structural repairs.

Prior to performing any work that is outside the scope of work of this agreement, Isett will provide an estimate of the additional cost based on the attached hourly rate schedule and will obtain approval from the Client.

The attached standard contract terms and conditions shall be made a part of this agreement.

If, after you have reviewed this proposal, you are satisfied with the terms, please sign, and return it to us, as it will serve as our agreement for this work. If work authorization is not approved, there is no obligation for Isett to complete the work. This proposal is valid for 60 days from date of issuance.

We appreciate the opportunity to serve you and look forward to the successful completion of this work.

Sincerely,



Candace Christy Hickey, P.E.
PA Registration #PE049833E
Chief Geotechnical Engineer
Department Head
Geotechnical Engineering Department

Attachments:
Hourly Rate Schedule
Standard Terms and Conditions

Accepted by:

Signature

Printed Name & Title

Date

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	I	II	III	IV
Project Management	\$130	\$150	\$170	\$190
DESIGN				
Professional Engineer	\$130	\$150	\$170	\$190
Staff Engineer/Designer	\$110	\$130	\$150	\$160
CAD Drafter	\$80	\$95		
GIS Specialist/Analyst	\$80	\$100	\$140	\$140
Registered Landscape Architect	\$130	\$150	\$170	\$190
Landscape Design	\$110	\$130	\$150	\$160
FIELD				
Professional Forensic Engineer		\$150	\$170	\$190
Professional Geotech/Engineer	\$130	\$150	\$170	\$190
Geotechnical Staff	\$110	\$130	\$150	\$160
Professional Geologist/Scientist	\$130	\$150	\$170	\$190
Staff Geologist/Scientist	\$110	\$130	\$150	\$160
Professional Surveyor	\$130	\$150	\$170	\$190
Survey Specialist	\$80	\$95	\$110	\$130
Survey Technician	\$65	\$80	\$95	\$110
Construction Inspector	\$80	\$95	\$130	\$150
CMT Field Technician/Special (ICC) Inspections	\$65		\$85	
Master Code Professional	\$190			
Emergency Response (One-Person)	\$250			
Grants Specialist	\$105			
Assistant/Clerk	\$65		\$80	

NOTE: The cost of reimbursable expenses that are in addition to the basic services will be itemized separately. Reimbursable expenses include mileage; priority/express mail and packages; preparation of materials for electronic transfer; hand delivery of materials; reproductions; prints; and any additional insurance coverage or limits (including professional liability insurance) requested in **excess** of that normally carried.

Costs relating to any outside services contracted directly by Isett will be passed on to the client and may have up to a 15% service charge.

When related to a project, the following rates will be charged for reimbursable expenses:

Listed prices are for black and white prints only (additional charge for color prints).

Photocopies	\$0.18 per sheet
Large Format Copies	\$0.35 per square foot
Large Format Plotting (tiff, cal, plt, pdf, jpeg)	\$0.40 per square foot
Large Format Scans	\$0.45 per square foot
Large Format Plotting (dwg's)	\$0.60 per square foot

Above rates are subject to change if conditions warrant. Reimbursables subject to Sales Tax.

Effective: 1/1/2022

STANDARD CONTRACT TERMS AND CONDITIONS

1. DUTIES AND RESPONSIBILITIES

1.1 Engineer agrees to provide those professional services as agreed to in the scope of services.

2. RESTRICTIONS ON USE OF DOCUMENTS

2.1 It is understood that the drawing(s) rendered under this agreement will be prepared in accordance with the agreed scope and will pertain only to the subject project. Use of the drawings, information or data contained therein for other purposes is at user's sole risk and responsibility.

2.2 Client agrees that all documentation including drawings and other work Engineer furnished to Client or Client's agents, which Engineer does not receive compensation for under the terms of this agreement shall remain Engineer's property and shall be returned upon demand and shall not be used for any purpose whatsoever.

2.3 Plans, CADD disks, and specifications, as instruments of service, are and shall remain the property of Engineer, whether the project for which they are intended is executed or not. The plans, CADD disks and specifications shall not be used by Client on other projects, for additions to this project, or for completion of this project by others, except by agreement in writing with the appropriate compensation to Engineer, provided Engineer is not in default under this agreement.

3. STANDARD OF CARE

3.1 Services performed by Engineer under the agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession practicing under similar circumstances in the same or similar locality.

4. OBSERVATION SERVICES

4.1 If required under the scope of services Engineer will provide personnel to observe and report on specific aspects or phases of construction in accordance with the agreed scope of services. If observational services are required, Engineer's services do not include supervision or direction of the actual work of the contractor, his employees, agents, or subcontractors. Client agrees to notify the contractor accordingly. The contractor shall also be informed by Client that neither the presence of Engineer's field representative nor the observation by Engineer shall excuse the contractor for defects or omissions in his work.

4.2 It is understood that the Engineer shall not be held responsible for any errors or omissions on the part of the contractor, including, but not limited to the contractor's failure to adhere to the plans and specifications regardless of whether or not Engineer is performing observational services. This provision shall be included in the contract between Client and his contractor.

4.3 It is understood that the contractor shall be solely and completely responsible for working conditions on the job site, including safety of all persons and property during the performance of the work, and that these requirements shall apply continuously and not be limited to normal working hours. Any monitoring of the contractor's performance conducted by our personnel is not intended to include review of the adequacy of the contractor's safety measures in, on or near the construction site.

4.4 Engineer shall not be held responsible for any contractor's failure to observe or comply with the Occupational Health and Safety Act of 1970, and regulations or standards promulgated thereunder, or any state, county, or municipal law or regulation of similar import or intent.

4.5 It is understood that if Engineer's scope of services does not include observation services, then Client assumes all responsibility for interpretation of the Contract Documents and for construction observation, and Client waives any claims against Engineer that may in any way be connected thereto. Client agrees to the fullest extent permitted by law to indemnify and hold harmless Engineer, its officers, directors, employees and subconsultants against all damages, liabilities or costs, including reasonable attorneys' fees and defenses costs, arising out of or in any way connected with the performance of such services by other persons or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustment or changes made to the Contract Documents to reflect changed field or other conditions.

5. TERMINATION, SUSPENSION

5.1 This agreement may be terminated by either party upon written notice. In the event of termination, Engineer shall be paid for services performed to the termination date plus reasonable termination expenses.

5.2 In the event of termination or suspension for more than three (3) months, prior to completion of all services contemplated by the agreement, Engineer may complete such analysis and records as are necessary to complete his files and may also complete a report on the services performed on the date of notice of termination or suspension. The expenses of termination or suspension shall include all costs of Engineer in reporting, completed data, completing such analysis records and reports.

5.3 Client shall make no request of Engineer that, in Engineer's reasonable opinion, would be contrary to Engineer's professional responsibilities to protect the public. Client shall take all actions and render all reports required of Client in a timely manner. Should Client fail to do so, Client agrees Engineer has the right to exercise its professional judgment in reporting to public officials. Client agrees to take no action against or attempt to hold Engineer liable in any way for carrying out what Engineer reasonably believes to be its public responsibility. Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless Engineer, its officers, directors, employees and subconsultants against all damages, liabilities or costs arising out of or in any way connected with Engineer's notifying or failing to notify appropriate public officials.

6. INVOICES, PAYMENTS

6.1 Engineer will submit invoices to Client monthly and a final invoice upon completion of services. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. Client agrees to pay a service charge of one and one-half (1-1/2) percent per month (18% per annum) or fraction thereof on past due payments under this agreement. If an invoice remains unpaid for a period in excess of sixty (60) days Barry Isett & Associates, Inc., reserves the right to pursue all appropriate remedies including stopping work and retaining all drawings without recourse.

6.2 Payment to Engineer is a material consideration of this agreement. Therefore, Engineer has a right to suspend services for non-payment. Engineer shall not be liable, nor in any way be responsible for damages, delays or increased costs that may occur as a result of Engineer's suspension of services. Client shall hold harmless, indemnify, and defend Engineer for claims that arise due to any suspension.

6.3 It is further agreed that in the event a lien or suit is filed to enforce payment under this agreement Engineer shall be reimbursed by Client for all court costs and reasonable attorney's fees in addition to accrued service charges.

7. DISPUTES

7.1 In the event that Client institutes suit or arbitration against Engineer because of any alleged failure to perform, or for any alleged error, omission, or negligence, and if such suit or arbitration is dropped or dismissed, or if judgment is rendered for Engineer, Client agrees to reimburse Engineer or pay any and all costs and any and all other expense of defense, immediately following dropping or dismissal of the case or immediately upon judgment being rendered on behalf of Engineer.

8. WARRANTY OF AUTHORITY TO SIGN

8.1 The person signing this contract warrants they have authority to sign as, or on behalf of, Client for whom or for whose benefit that Engineer's services are rendered, and also that, if Client is a corporation, that the person signing this contract shall be personally liable, if necessary, for all monies owed under this agreement. If such person does not have such authority, he agrees that he is personally liable for all breaches of this contract and that in any action against him for breach of such warranty a reasonable attorney fee shall be included in any judgment rendered.

8.2 If a proposal is submitted to Client and Client fails to return a signed copy of the proposal but knowingly allows Engineer to proceed with services, then Client shall be deemed to have accepted the terms of the proposal and these Standard Terms and Conditions.

9. CHOICE OF LAW

9.1 This contract shall be construed in accordance with the laws of the Commonwealth of PA.

10. SEVERABILITY

10.1 In the event that any provisions herein shall be deemed invalid or unenforceable, the other provisions hereof shall remain in the full force and effect, and binding upon the parties hereto.

11. REMEDY

11.1 If the services performed by Engineer are faulty, Client's exclusive remedy shall be for Engineer to re-perform such services to the extent necessary to correct the fault therein without charge to Client or damages limited to those amounts set forth in Warranty, Liability, and Indemnification.

11.2 All claims, disputes, and other matters in question between Engineer and Client, not in excess of \$200,000.00 arising out of or relating to, the contract documents or the breach thereof, shall be resolved as follows:

11.3 A written demand for non-binding mediation, which shall specify in detail the facts of the dispute, and within ten (10) days from the date of delivery of the demand, shall be submitted to "Judicate Headquartered in Philadelphia." The mediator's fee shall be shared equally by the parties. If the dispute has not been resolved by mediation, the matter shall then be submitted to arbitration in accordance with paragraph 11.5.

11.4 No mediation, arbitration, arising out of or relating to this agreement, shall include, by consolidation, joinder or in any other manner, any additional person not a party to this agreement except by written consent containing a specific reference to this agreement, and signed by Engineer, Client, and any other person sought to be joined. Any consent to mediation, arbitration involving an additional person or persons shall not constitute consent to mediation, arbitration of any dispute not described herein. This agreement to mediate, arbitrate (and any agreement to mediate, arbitrate) with an additional person or persons duly consented to by the parties to this agreement shall be specifically enforceable under the prevailing mediation, arbitration law.

11.5 Any dispute between the parties that is to be resolved by arbitration shall be settled and decided by arbitration conducted by the American Arbitration Association in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, as then in effect. Any such arbitration shall be held and conducted in Trexlerstown, PA. In no event shall the demand for arbitration be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations. The award rendered by the arbitrators shall be final and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

12. VALIDITY

12.1 It is understood that this agreement is valid for a period of sixty (60) days after which time, if it is not rejected by Client, Engineer reserves the right to revise or withdraw this agreement.

13. CHANGES IN THE WORK

13.1 The stated total fee constitutes Engineer's estimate of the effort required to complete the project as Engineer understands it to be defined. For those projects involving conceptual or process development work, activities often are not fully definable in the initial planning. In any event, as the project progresses, the facts developed may dictate a change in direction, additional effort, or suspension of effort, which may alter the scope. Engineer will inform Client of such situations so that negotiations or change in scope and adjustments to the time of performance can be accomplished as required. If such change, additional effort, or suspension of effort results in an increase or decrease in the cost of or time required for performance of the services, whether or not changed by any order, an equitable adjustment shall be made and the agreement modified accordingly.

14. WARRANTY, LIABILITY, AND INDEMNIFICATION

14.1 Engineer's liability for damages due to error, omission or professional negligence shall be limited to the amount not to exceed \$50,000.00 or Engineer's fee, whichever is less. If Client prefers not to limit Engineer's professional liability to this sum, Engineer will waive this limitation upon Client's request provided that Client agrees to pay an additional consideration for this waiver, prior to commencement of services.

14.2 Client agrees at their/its sole cost and expense to indemnify, defend and hold harmless, Engineer, its subsidiaries, affiliates, officers, employees, and consultants or such other who may have assisted Engineer in the rendering of its services in connection with the project from and against, for any in respect of, and all claims, liabilities, costs, and expenses, including, but without limitation, reasonable attorney's fees and other costs and expenses incident to any claim, demand, suit actions, suffered, sustained or require to be paid by Engineer as a result of any claims, demands or legal proceedings which may be asserted by any party other than Client and in any way relates to any act or error, omission, negligence, carelessness or breach of duty, contractual or otherwise on the part of Engineer in connection with the project. In the event Client is required to defend Engineer under the last paragraph, Engineer shall have the right to counsel of its own choosing.

14.3 Client agrees to be entirely liable for providing any/all contractors working on this project with the latest revisions of all plans.

14.4 Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither Client nor Engineer, their respective officers, directors, partners, employees, contractors or subconsultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the Project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation and any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranty. Both Client and Engineer shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.