



UPPER UWCHLAN TOWNSHIP
BOARD OF SUPERVISORS

SPECIAL MEETING

AGENDA

APRIL 9, 2019
6:00 p.m.

LOCATION: Township Building, 140 Pottstown Pike, Chester Springs PA 19425

I. CALL TO ORDER

- A. Salute to the Flag
- B. Moment of Silence
- C. Inquire if any Attendee plans to video or audio record the Meeting

II. Township Building Renovation and Expansion Project

- A. Prime Contract Bid Results – Consider Award
- B. Construction Material Testing – Consider Award

III. OPEN SESSION

IV. ADJOURNMENT



April 3, 2019

Cary Vargo, Township Manager
Upper Uwchlan Township
140 Pottstown Pike
Chester Springs, PA 19425

Re: Additions and Renovations to Township Building
Review of Bid Results

Dear Mr. Vargo,

I have reviewed the bids received on March 6, 2019 and April 2, 2019 in response to the Invitation to Bid for the Additions and Renovations to Upper Uwchlan Township Building Project.

A total of twenty-six bids were received across five prime contracts. Based on my review, bids submitted by all recommended bidders appear to be substantially complete. While the combined bids do exceed the estimated project budget by approximately 8%, we do believe, after careful review, that the bids represent fair value in the current competitive market. Please see the attached bid tabulation for additional information and itemized bid results.

Upon review of the bids, it is my recommendation that bids be awarded as follows:

	<u>Recommended Contractor</u>	<u>Contract Amount</u>
General Construction Bid	Gordon H. Baver, Inc	\$ 2,696,225
Mechanical Construction	Clipper Pipe Service, Inc	\$ 567,000
Plumbing Construction	GM Mechanical, Inc	\$ 158,500
Electrical Construction.....	Wescott Electric	\$ 460,000
Fire Protection Construction.....	Accelerated Fire Protection	\$ 132,126
Total, all contracts		\$ 4,013,851

Feel free to contact me with any questions, or if further information is needed.

Sincerely,

Theodore L. Vedock, AIA, Principal

Theodore L. Vedock, AIA

25 East Grant Street, Suite 102 | Lancaster, PA 17602 | 717•393•3713 | www.HAMMELARCH.com

Upper Uwchlan Township Bid Tabulation

April 2, 2019

General Construction Contract

Gordon H. Baver	\$2,696,225
Hollenbach Construction	\$2,922,700
Uhrig Construction	\$2,970,700
Caldwell, Heckles and Egan	\$2,977,525
Sha-Nic, Inc	\$3,166,433

Mechanical Contract

Clipper Pipe Service, Inc.	\$567,000
Five Star, Inc.	\$649,000
Shannon A. Smith, Inc	\$677,975
Myco Mechanical, Inc.	\$703,000
Garden Spot Mechanical, Inc.	\$734,000
GEM Mechanical Services	\$771,000

Plumbing Contract

GM Mechanical, Inc.	\$158,500
Hirschberg Mechanical	\$207,000
Myco Mechanical, Inc.	\$297,000
Garden Spot Mechanical, Inc.	\$300,000
Vision Mechanical	\$299,644
Five Star, Inc.	\$314,600

Electrical Contract (Rebid)

AJM Electric	\$465,000
BSI	\$590,000
Cedar Electric, Inc.	\$524,000
Shannon A. Smith, Inc.	\$552,500
Trefz Mechanical, Inc.	\$574,178
Wescott Electric	\$460,000

Fire Protection Contract

Accelerated Fire Protection, Inc.	\$132,126
Guy M. Cooper Inc.	\$170,000
ABJ Sprinkler Co., Inc.	\$211,700

UPPER UWCHLAN ADMIN & POLICE DEPT RENOVATION


140 POTTSTOWN PIKE,
CHESTER SPRINGS, PA 19425

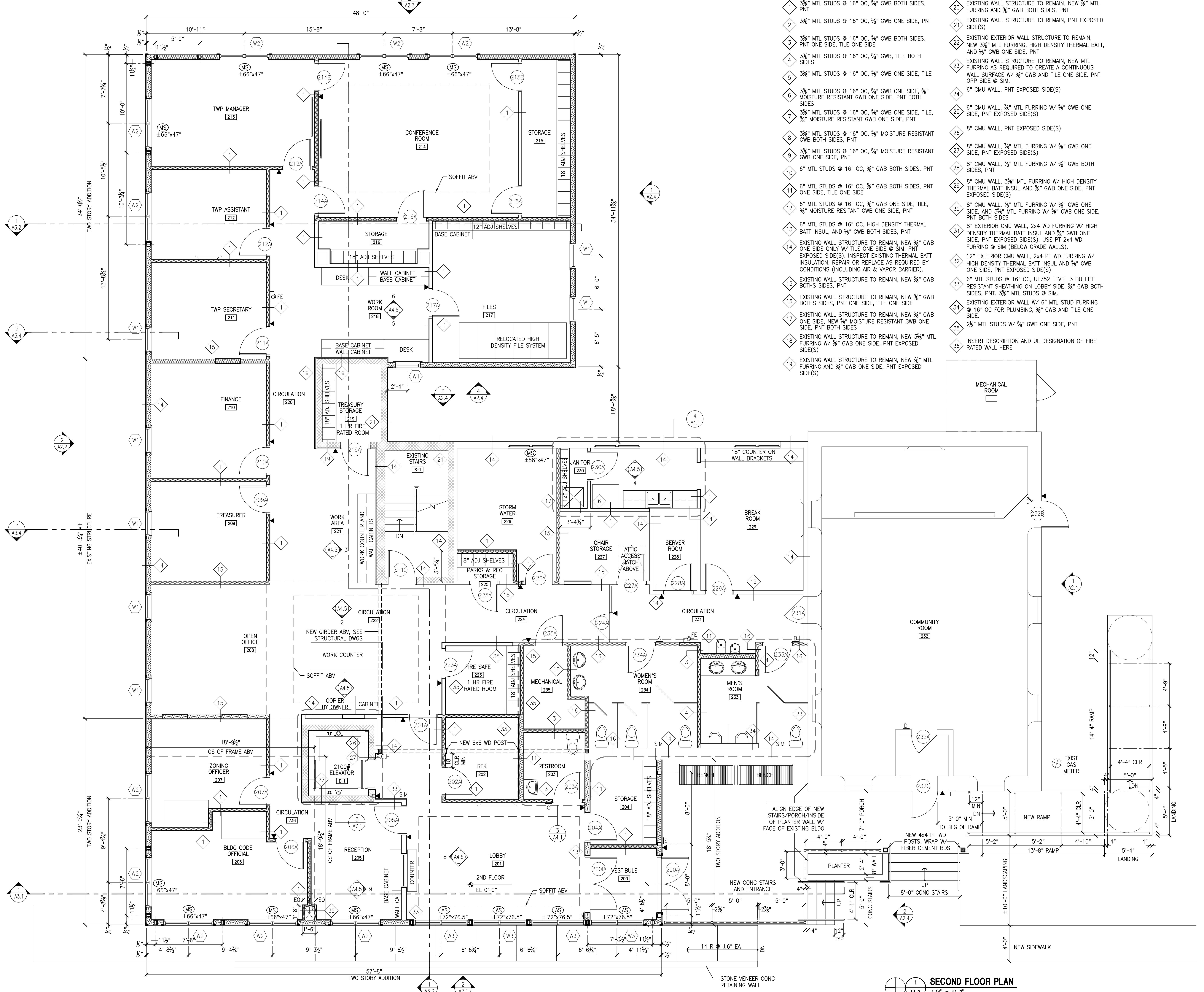


NORTH ELEVATION



WEST ELEVATION







UPPER UWCHLAN TOWNSHIP

MEMORANDUM

ADMINISTRATION

TO: **Board of Supervisor**

FROM: **Cary B. Vargo**
Township Manager

RE: **Construction Materials Testing**

DATE: **March 1, 2019**

Boyle Construction, on behalf of the Township, solicited proposals for construction materials testing for the Upper Uwchlan Township Building Expansion/Renovation Project. Six responsive proposals were received. Attached for your review is a recommendation letter drafted by Boyle Construction which contains the bid tabulation sheet. The proposals were reviewed, and a recommendation was based on cost per day, testing costs, and reimbursable costs. Boyle Construction recommends awarding the construction materials testing contract to David Blackmore & Associates, Inc.

I would respectfully request that the BOS award the construction materials testing contract to David Blackmore & Associates, Inc. at an estimated cost of \$30,695.60



Boyle Construction, Inc
1209 Hausman Road, Suite B
Allentown, PA 18104

www.boyleconstruction.com

tel 484-223-0726
fax 484-223-0767

February 28, 2019

Cary B. Vargo, Township Manager
Upper Uwchlan Township
140 Pottstown Pike
Chester Springs, PA 19425

Re: Upper Uwchlan Township Building – Additions and Renovations
Award Recommendation Letter for Construction Testing Contract
BCI Project #1810 160

Dear Cary,

Per your request, we have carefully reviewed the seven (7) proposals received for the Construction Testing Contract for the above-referenced project. The proposals are somewhat difficult to compare because they all vary in format. We have boiled the information down into the attached bid tabulation for your use and have included copies of all proposals. Hillis-Carnes Engineering Associates submitted a proposal with little level of detail and no total cost, therefore, their information is not included on the bid tab.

Boyle Construction, Inc recommends awarding the Construction Testing Contract to David Blackmore & Associates, Inc. based on the following:

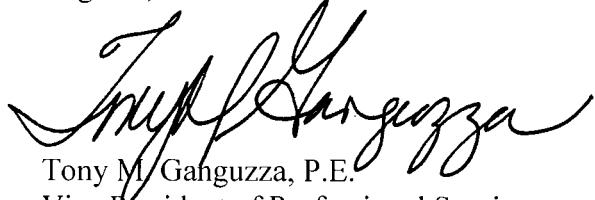
- Cost per Day was the lowest of all bidders
- Testing Cost was reasonable at third lowest
- Reimbursables are reasonable and in line with other bidders

Please note these costs are estimates and the actual costs will be based on the number of hours/days spent on the project. The estimated costs projected for David Blackmore & Associates, Inc. should be reasonably close to the amount of their total billings.

Also note KAKS & Company, LLC is competitive with David Blackmore & Associates, Inc.. When adding a reasonable amount of reimbursable expenses (they excluded expenses), their total cost could be within \$1,000 or so from David Blackmore & Associates, Inc.

If you have any questions or would like to meet to further discuss this matter, please do not hesitate to contact me.

Regards,



Tony M. Gahguzza, P.E.
Vice President of Professional Services

cc: Theodore Vedock, Principal, Hammel Associates Architects, LLC
 Shanna Lodge, Assistant Township Manager, Upper Uwchlan Township
 Al Gaspari, Code Administrator / Zoning Officer, Upper Uwchlan Township
 Christian Donovan, Project Manager, Boyle Construction, Inc.

Attachments: Bid Tabulation

David Blackmore & Associates, Inc. - Proposal Copy
KAKS & Company, LLC. - Proposal Copy
Cowan Associates, Inc. - Proposal Copy
Geo-Technology Associates, Inc. - Proposal Copy
Advantage Engineers - Proposal Copy
Earth Engineering, Inc. - Proposal Copy
Hillis-Carnes Engineering Associates - Proposal Copy

Upper Uwchlan Twp Building

BID COMPARISON SHEET

Construction Testing Services

PROJECT # 1810 160

2/26/18

"Built Better"



Company	Labor Costs	# of Days	Cost / Day	Testing	Reimbursables	Total
David Blackmore & Associates, Inc.	\$23,640.00	80	\$295.50	\$2,885.00	\$4,170.60	\$30,695.60
Brian McCree						
610.495.6255						
bmccree@dbaengineering.com						
KAKS & Company, LLC	\$22,945.00	75	\$305.93	\$3,912.00	Not Included	\$26,857.00
Krishan Saini						
215.375.7050						
ksaini@kaksco.com						
Cowan Associates, Inc.	\$37,430.00	110	\$340.27	\$10,262.00	\$2,150.00	\$49,842.00
Michael Smith						
215.536.7075, x1331						
mrs@cowanassociates.com						
Geo-Technology Associates, Inc.	\$51,546.00	131	\$393.48	\$3,400.00	\$6,252.00	\$61,198.00
AJ Davis						
215.536.8363						
ddavis@gtaeng.com						
Advantage Engineers	\$24,215.50	57	\$424.83	\$1,900.00	\$3,264.00	\$29,379.50
Trevor Dombach, E.I.T						
610.366.7120 (ofc)						
717.824.2100 (cell)						
TDombach@advantageengineers.com						
Earth Engineering, Inc.	\$27,943.00	57	\$490.23	\$2,561.00	\$3,080.00	\$33,584.00
John Pusey						
610.277.0880 (ofc)						
610.637.1193 (cell)						
johnp@earthengineering.com						



Proposal 5096I1P1
February 21, 2019

UPPER UWCHLAN TOWNSHIP

140 Pottstown Pike

Chester Springs, PA 19425

TEL: (610) 646-7008

ATTN: Cary B. Vargo, Township Manager

RE: Geotechnical and Construction Quality Control Contract
Additions and Renovations to the Upper Uwchlan Township Building
Upper Uwchlan Township, Chester County, Pennsylvania

Dear Mr. Vargo:

David Blackmore & Associates, Inc. appreciates this opportunity to provide Geotechnical and Construction Quality Control Services for the above referenced site. David Blackmore & Associates, Inc. must complete or be provided a copy of the geotechnical report prepared by others prior to performing foundation evaluation and/or subgrade preparation services (Items B & C, herein)¹.

For this contract, David Blackmore & Associates, Inc. will be referred to as DBA, and UPPER UWCHLAN TOWNSHIP will be referred to as CLIENT. The Agreement and our Terms and Conditions are included and require your review and signature.

I. SCOPE OF WORK

The client or the client's representative must schedule DBA personnel by calling DBA's office no later than 4:00 PM on the day prior to the day services are needed. Failure to do so may result in DBA being late or absent from the site, depending upon our personnel availability.

DBA will provide geotechnical personnel qualified to observe and report on the quality of work performed by contractors. The following is a description of the services DBA is expected to provide for this project. DBA can provide further testing services as needed, such as tiebacks, sheeting and shoring, masonry, waterproofing, roofing and environmental testing. To avoid any confusion, please indicate the scope of work required by initialing next to the individual description(s) below. The geotechnical personnel will observe and perform tests on a full-time basis to evaluate the work performed related to the scope of services initialed by CLIENT below.

¹ In accordance with the International Building Code (IBC 2012) the performance of a Geotechnical Exploration including standard test borings and associated bearing capacity analysis may be waived if the foundations system is designed using a presumed bearing capacity not exceeding 1,500 psf (or 2,000 psf depending on bearing soil type) and the anticipated bearing surface is either engineered fill or undisturbed virgin soils. This does not preclude the need to have a geotechnical engineer verify the presence of suitable bearing conditions. In addition, the field verification of foundation bearing conditions through the completion of a geotechnical exploration including standard test borings is highly recommended for any proposed construction as a means of verifying the presence of suitable bearing conditions and establishing available bearing capacity information.

The personnel assigned to these tasks will be either a Geotechnical Technician (GT) or a Geotechnical Engineer (GE), or Steel Inspector (SI).

DESCRIPTION OF SERVICES

A. Earthwork _____ (initial as required) (GT)

DBA personnel will monitor the placement and compaction of load bearing fill and backfill for the buildings, pavement areas, and utilities as required by the CLIENT. DBA's field personnel will perform the appropriate soil testing to determine the quality and suitability of the fill material, the effort of compaction, and the construction procedures utilized. It must be noted that DBA can provide compaction data on fill that our personnel observe being placed. DBA cannot comment or provide data on material placed in our absence.

Field testing will be intensified if the results indicate that the specified degree of compaction is not readily achievable.

In addition, representative samples of the proposed fill material will be analyzed in our laboratory for their suitability for use as structural fill. The CLIENT is responsible for submitting samples of on-site or borrow fill to DBA's laboratory for testing at least one (1) week prior to use on-site. A minimum of two (2) 5-gallon buckets is required. Laboratory tests will consist of determinations of water content, engineering classification and proctor compaction tests. All laboratory tests will be performed in accordance with applicable ASTM Standards.

B. Subgrade Preparation _____ (initial as required) (GT)

DBA personnel will observe the proof rolling for the floor slab and pavement subgrades prior to fill placement and again prior to placement of slab/pavement subbase material. During these operations DBA will delineate any unstable/soft areas encountered and will provide recommendations for corrective actions. These corrective actions will generally consist of re-compaction, undercutting and replacement, the use of geosynthetics, and/or other stabilization methods.

C. Foundation Evaluation _____ (initial as required) (GE/GT)

DBA will confirm the foundation bearing conditions that have been previously established by a geotechnical investigation that includes a test boring program and a geotechnical report.

DBA personnel will monitor and document the excavations for foundations and the foundation dimensions. Bearing conditions will be evaluated for their compatibility with the design criteria. If bearing conditions are found to be inadequate, recommendations for remedial measures will be provided.

D. Reinforcing Steel _____ (initial as required) (GE/GT)

Prior to concrete placement, DBA personnel will observe and document the type and placement of steel reinforcement in order to determine its compliance with the project plans and specifications.

E. Cast-In-Place-Concrete _____ (initial as required) (GT)

DBA personnel will monitor the placement of foundation and floor slab concrete on-site. DBA will perform concrete testing in accordance with your specifications (slump, temperature, and air entrainment, as appropriate) during the placement operations. In addition, DBA will mold sets of concrete cylinders for later compressive strength testing in our laboratory. A total of five (5) cylinders will be prepared per set. A minimum of one set of cylinders will be prepared daily. Should daily pour exceed 100 cubic yards, an additional set of cylinders shall be prepared for each 50 yards of additional concrete poured or as requested by CLIENT.

F. Structural Steel _____ (initial as required) (GE/SI)

If required, DBA will provide observation and documentation of field erection procedures to determine of the construction complies with the intent of the project plans, shop drawings, and specification. This will include random inspections of materials, dimensions, and on fabrications as well as the monitoring of the installation of metal decking for the roof.

Field evaluation will primarily be limited to monitoring the makeup of bolted joints and the measurements of torque in the bolted connections. Unless otherwise specified, DBA will perform torque measurements on at least 10 percent of the bolted connections (a minimum of 2 bolts per joint). Welding monitoring will be limited to the documentation of the class of electrodes, evaluation of welding procedures, and visual inspection of the welds. Radiographic or ultrasonic evaluations will not be performed unless specifically requested.

The field monitoring of the structure steel will be coordinated with the Structural Engineer.

G. Roofing _____ (initial as required) (SI)

Neoprene, EPDM (ethylene, propylene diene monomer) build up roofing inspection can be performed. This will include perimeter and roof penetration flashing inspection, bitumen and ballast inspection. Deviations from specifications, and other problems will be brought to the attention of the contractor, job superintendent and the CLIENT.

H. Fireproofing _____ (initial as required) (GT/SI)

Fire rating specifications will be reviewed and as built thickness and density of spray fireproofing materials will be recorded. Deviations from specifications, and other problems will be brought to the attention of the contractor, job superintendent and the CLIENT.

I. Asphalt Inspection _____ (initial as required)

DBA will measure thickness, temperature, and in place density of the asphalt paving during placement. It is essential for the client or client's contractor to supply the laboratory mix data, particularly density and other design criteria. DBA can also provide post construction coring and laboratory testing/analysis upon request.

J. Masonry _____ (initial as required) (GT)

DBA personnel will monitor the placement of masonry walls, reinforcing steel and grout on-site. DBA will perform mortar and grout sampling and testing in accordance with your specifications during the placement operations. In addition, DBA will mold sets of mortar cubes or grout cylinders for later compressible strength testing in our laboratory. DBA can also test masonry units and prisms as requested by CLIENT.

K. Reports

Observations, measurements, and field tests results will be documented by our personnel in the form of a daily field report. In addition, conditions encountered which are not in accordance with the project plans and specifications will be noted, along with recommended corrective actions and any remedial work performed.

Please note that these daily field reports serve as a documentation of construction; they will be issued approximately one week after their origin. CLIENT shall provide a distribution list to our office. DBA will provide two (2) hard copies of daily field reports to the client. Additional hard copies can be provided, however, there will be an additional cost of \$0.10/page. On-site conditions which are contrary to project plans and specifications will be transmitted verbally by our representative to you, the General Contractor, and the appropriate subcontractors at the time that we become aware of them.

II. PERSONNEL DESCRIPTIONS AND QUALIFICATIONS

DBA's field staff will perform their duties under the direction of a Geotechnical Engineer, which will provide overall technical and budgetary management for the project. In addition, our Geotechnical Engineer will be available for scheduled site meetings concerning our scope of work or for consultation regarding unusual site or subsurface conditions. DBA's Principal Engineer, who is a registered Professional Engineer in the Commonwealth of Pennsylvania, will perform the in-house technical review of services.

Geotechnical Technician (GT)

A Geotechnical Technician is a trained employee capable of performing routine observation and testing related to the construction of **structural fill**. The technician is qualified to perform in place density tests, laboratory classifications, moisture/density relationship tests, and in-situ moisture content. The Technician is also qualified to perform **concrete** temperature and slump tests, preparing concrete cylinders for compressive strength testing, and verifying the placement of **concrete reinforcing steel**.

The majority of the field work will be performed by the Geotechnical Technician. Consultation with the Geotechnical Engineer will be limited to telephone and office conversations, and a weekly review of daily field reports and project status. If unusual site conditions warrant a site meeting will be held with the Geotechnical Engineer present.

The technician is not typically qualified to make recommendations or modifications to the design in the field without consultation with the Geotechnical Engineer. The technician must perform work under the supervision of a Geotechnical Engineer.

Geotechnical Engineer (GE)

The Geotechnical Engineer is qualified to alter, change, modify, or add recommendations contained in the Geotechnical Report to provide solutions for unanticipated field conditions. The Geotechnical Engineer has an educational background, which minimally includes graduate level Geotechnical Engineering course work.

The Geotechnical Engineer will review the daily field reports on a weekly basis (1/2 hour per week average billing), and will attend site meetings when necessary.

Structural Steel Inspector (SI)

Certified Welding Inspector (CWI), Level III NDT, minimum of 10 years experience in inspection of steel fabrication and erection including bolted connections, visual welding and non-destructive welding testing (NDT). NDT methods will include ultrasonic, radiographic and magnetic particle and liquid penetrant.

Principal Engineer

The Principal Engineer is a Licensed Professional Engineer specializing in Geotechnical Engineering. The Principal Engineer is the only person authorized to modify the contract agreements contained herein. Contract documents shall not be modified by anyone other than the Principal and shall be modified in writing.

Project Costs

As requested, an approximate budget for our services has been prepared based on the milestone schedule provided. It is recommended that this budget estimate be re-visited once the contractor actual construction schedule is available.

GEOTECHNICAL QUALITY CONTROL FEE SCHEDULE
David Blackmore & Associates, Inc.
February 21, 2019

<u>Personnel</u>	<u>Rate</u>
Geotechnical Technician (half day minimum, 4 hours)	\$280.00/day (8 hrs)
Senior Technician	\$45.00/hour
Structural Steel Inspector	\$70.00/hour
Structural Steel Inspector w/ultrasonic testing	\$73.00/hour
Draftsman	\$45.00/hour
Staff Engineer/Project Manager	\$85.00/hour
Geotechnical Field Engineer	\$85.00/hour
Associate/Supervising Engineer	\$95.00/hour
Principal Engineer	\$115.00/hour

<u>Laboratory Testing</u>	<u>Test Designation</u>	<u>Unit Cost</u>
Engineering Classification of Soils	ASTM D-2487	\$85.00/sample
Grain Size Analysis	ASTM D-421	\$55.00/sample
Grain Size w/hydrometer	ASTM D-422	\$125.00/sample
Atterberg Limits	ASTM D-4318	\$55.00/sample
Percent Organics of Soil Testing	ASTM D-2974	\$25.00/sample
<u>Moisture Density Relationship</u>		
Standard Proctor	ASTM D-698	\$105.00/sample
Modified Proctor	ASTM D-1557	\$130.00/sample
Rock Correction	ASTM D-4718	\$35.00/sample
One Dimensional Consolidation	ASTM D-2435	\$450.00/sample
California Bearing Ratio(CBR)	ASTM D-1883	\$675.00/sample
Direct Shear Test	ASTM D-3080	\$750.00/sample
Specific Gravity of soils	ASTM D-854	\$45.00/sample
Falling Head Permeability	ASTM D-2434	\$125.00/sample
Soil Moisture	ASTM D-2216	\$10.00/sample
<u>Compressive Strength Testing</u>		
Concrete Cylinders	ASTM C-39	\$12.00/sample
Grout Specimens	ASTM C-1019	\$12.00/sample
Mortar Cubes	ASTM C-109	\$12.00/cube
Masonry Prisms	ASTM C-1314	\$175.00/prism
Gypcrete Cubes	ASTM C472	\$25.00/cube
Density of Structural Lightweight Concrete	ASTM C-567	\$25.00/cylinder
Density of Lightweight Insulated Concrete	ASTM C-495	\$25.00/cylinder
Floor Flatness Testing	ASTM E-1155	\$0.05/square foot*
SRFM Density Testing	ASTM E-605	\$25.00/sample
Cylinder Pick-up Charge		\$60.00/pick up **

* A minimum fee of \$575.00 applies to slab pours of less than 10,000 SF.

** Average one to two pick-ups per week, depending on pour sequence.

NOTES:

1. Travel Expenses: Mileage will be invoiced at \$0.50/mile. One half of the total travel time (to and from the job site) will be invoiced at the normal hourly rate indicated above.
2. Field Inspection Reports: An average of 1/2 hour per week of engineering time will be invoiced for review of field inspection reports as an additional charge.
3. Weekend, overtime (2nd and 3rd shift) and hazardous duty will be invoiced at 1.5 times the normal rate.

**TERMS FOR GEOTECHNICAL SERVICES
DAVID BLACKMORE & ASSOCIATES, INC.**

THE AGREEMENT: This agreement is made between: David Blackmore & Associates, Inc., hereinafter referred to as DBA, and UPPER UWCHLAN TOWNSHIP, hereinafter referred to as CLIENT.

The agreement between the parties consists of these terms, the attached proposal identified as Proposal Number 5096I1P1, dated February 21, 2019, DBA's current fee schedule and any exhibits or attachments noted in the proposal. Together, these elements will constitute the entire agreement superseding any and all prior negotiations, correspondence, or agreements either written or oral. Any changes to this agreement must be mutually agreed to in writing.

STANDARD OF CARE: Services performed by DBA under this agreement are expected by the CLIENT to be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the geotechnical engineering profession practicing contemporaneously under similar conditions in the locality of the project. No other warranty, expressed or implied, is made.

REPRESENTATION OF OWNER: The CLIENT acknowledges that they are acting as agents for the owner of the property which DBA will be performing Geotechnical, Geologic, or Environmental Services. The CLIENT shall make the owner aware of the conditions and scope of work being contemplated and indicate the owner's approval, as the owner's legal agent, by signing this contract.

CHANGE IN COST STRUCTURE: CLIENT understands that the Fee Schedule, Cost Estimates, and Scope of Work set forth in the Proposal are subject to change after a period of three (3) months of the date of issue of the Proposal.

CHANGED CONDITIONS: CLIENT has relied on DBA's judgment in establishing the workscope and fee for this project, given the project's nature and risks. CLIENT shall therefore rely on DBA's judgment as to the continued adequacy of this Proposal in light of occurrences or discoveries that were not originally contemplated by or known to DBA. Should DBA call for contract re-negotiation, DBA shall identify the changed conditions which in DBA's professional judgment make such re-negotiation necessary, and DBA and CLIENT shall promptly and in good faith enter into re-negotiation of this Proposal to help permit DBA to continue to meet CLIENT's needs. If re-negotiation terms cannot be agreed to, CLIENT agrees that DBA has an absolute right to terminate this Proposal.

SITE ACCESS AND SITE CONDITIONS: CLIENT will grant or obtain free access to the site for all equipment and personnel necessary for DBA to perform the work set forth in this agreement. The CLIENT will notify any and all possessors of the project site that CLIENT has granted DBA free access to the site. DBA will take reasonable precautions to minimize damage to the site, but it is understood by CLIENT that, in the normal course of work, some damage may occur and the correction of such damage is not part of this agreement unless so specified in the proposal.

The CLIENT is responsible for the accuracy of locations for all subterranean structures and utilities. DBA will take reasonable precautions to avoid known subterranean structures, and the CLIENT waives any claim against DBA, and agrees to defend, indemnify, and hold DBA harmless from any claim or liability for injury or loss, including costs of defense, arising from damage to subterranean structures and utilities not identified or accurately located. In addition, CLIENT will be responsible for compensation for reasonable and/or unavoidable damage to crops, lawns and/or similar claims related to DBA's subsurface exploration.

SAMPLE DISPOSAL: DBA will dispose of all remaining soil and rock samples 60 days after submission of report covering those samples. Further storage or transfer of samples can be

made at CLIENT's expense upon CLIENT's prior written request.

BILLING AND PAYMENT: Invoices will be submitted to CLIENT by DBA, and will be due and payable upon presentation. If CLIENT objects to all or any portion of any invoice, CLIENT will so notify DBA in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay when due that portion of the invoice, not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. In the absence of written notification described above, the balance as stated on the invoice will be paid.

Invoices are delinquent if payment has not been received within thirty (30) days from date of invoice. CLIENT will pay an additional charge of 1-1/2 (1.5) percent per month (or the maximum percentage allowed by law, whichever is lower) on any delinquent amount, excepting any portion of the invoiced amount in dispute and resolved in favor of CLIENT. Payment thereafter will first be applied to accrued interest and then to the principal unpaid amount. All time spent and expenses incurred (including any attorney's fees) in connection with collection of any delinquent amount will be paid by the CLIENT to DBA per DBA's current fee schedules. In the event CLIENT fails to pay DBA within sixty (60) days after invoices are rendered, CLIENT agrees that DBA will have the right to consider the failure to pay DBA's invoice as a breach of this agreement.

ADDITIONAL PAYMENT REQUIREMENTS: DBA may provide separate invoices from subcontractor's to CLIENT for direct payment to subcontractors. DBA will review subcontractors invoices and will indicate if the invoices are reasonable. Payment requirements contained in Billing and Payment Condition, above, shall apply to subcontractor invoices, submitted to CLIENT by DBA.

TERMINATION: This agreement may be terminated by either party seven (7) days after written notice in the event of any breach of any provision of the agreement or in the event of substantial failure of performance by the other party, or if the CLIENT suspends the work for more than three (3) months. In the event of termination, DBA will be paid for services performed prior to the date of termination plus reasonable termination expenses, including the cost of completing analyses, records and report necessary to document job status at the time of termination.

RISK ALLOCATION: Client and engineer are each sophisticated parties and are aware of the risks involved in this project. Client and engineer have specifically discussed the allocation of risk provision in this Agreement taking into account the nature of this Project, the risks involved, the amount of fees being paid by Client to the Engineer (DBA) on this Project, the potential claims and the Client's own insurance protection, and other appropriate factors. Both parties agree that this provision represents a reasonable allocation and sharing of risks between the Client and DBA the Engineer.

To the fullest extent permitted by law, the Client and DBA the Engineer agree to a limitation of DBA's liability to the client for all claims arising out of any negligent errors or omissions in the performance of DBA's professional services under this Agreement. The total aggregate liability of DBA will not exceed the sum of \$50,000.00 for any such errors or omissions in the performance of DBA's professional services under this Agreement. This limitation of liability shall apply whether or not DBA is solely or partially responsible for the damages resulting out of such professional negligence.

DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS: CLIENT warrants that a reasonable effort to inform DBA of known or suspected hazardous materials on or near the project site has been made.

TERMS FOR GEOTECHNICAL SERVICES DAVID BLACKMORE & ASSOCIATES, INC.

Hazardous materials may exist at a site where there is no reason to believe they could or should be present. DBA and CLIENT agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. DBA and CLIENT also agree that the discovery of unanticipated hazardous materials may make it necessary for DBA to take immediate measures to protect health and safety. CLIENT agrees to compensate DBA for all costs incurred by DBA for immediate action.

DBA agrees to notify CLIENT when unanticipated hazardous materials or suspected hazardous materials are encountered. CLIENT agrees to make any disclosures required by law to the appropriate governing agencies. CLIENT also agrees to hold DBA harmless for any and all consequences of disclosures made by DBA which are required by governing law. In the event the project site is not owned by CLIENT, CLIENT recognized that it is the CLIENT's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.

Notwithstanding any other provision of the agreement, CLIENT waives any claim against DBA, and to the maximum extent permitted by law, agrees to defend, indemnify, and save DBA harmless from any claim, liability, and/or defense costs for injury or loss arising from DBA's discovery of unanticipated hazardous materials or suspected hazardous materials including any costs created by delay of the project and any cost associated with possible reduction of the property's value. CLIENT will be responsible for ultimate disposal of any samples secured by DBA which are found to be contaminated.

CONSTRUCTION MONITORING: Inspection is defined in this contract as limited to the reporting of observations of construction, which service shall consist of various tests and interpretation of test results. For the specified assignment, DBA will report observations and professional opinions to the CLIENT. No action of DBA or DBA's site representative can be construed as altering any agreement between the CLIENT and others. DBA will report any observed work to the CLIENT which, in DBA's professional opinion, does not conform with plans and specifications. DBA has no right to reject or stop work of any agent of the CLIENT. Such rights are reserved solely for the CLIENT. Furthermore, DBA's presence on site does not in any way guarantee the completion or quality of the performances of the work of any party retained by the CLIENT to provide construction related services.

DBA will not be responsible for and will not have control or charge of specific means, methods, techniques, sequences or procedures of construction selected by any agent or agreement of the CLIENT, or safety precautions and programs incident thereto.

HAZARDOUS DUTY RATE: Time expended by Engineers or Technicians who perform duties on projects where contact with hazardous, or suspected hazardous materials, or involve hazardous duty including but not limited to caisson or pile driving inspection will be invoiced at the hazardous duty rate.

AQUIFER CONTAMINATION: Subsurface sampling and monitoring well installation may result in unavoidable contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading hazardous materials off-site. Because nothing can be done to eliminate the

risk of such an occurrence, and because subsurface sampling and monitoring well installation is a necessary aspect of the work which DBA will perform on CLIENT's behalf, CLIENT waives any claim against DBA, and agrees to defend, indemnify and hold DBA harmless of any claim or liability for injury or loss which may arise as a result of alleged cross-contamination caused by sampling. CLIENT further agrees to hold harmless and indemnify DBA in respect to any attorney's fee and/or costs incurred by DBA as to claims made in respect to the contract above recited and the work done by DBA in the performance of said contract.

PUBLIC RESPONSIBILITY: CLIENT recognizes that he owes a duty of care to the public that requires him to conform to applicable codes, standards, regulations and ordinances, principally to protect public health and safety. DBA likewise owes a duty of care to the public, in that the public, through its professional engineer registration law, has granted to DBA an exclusive license to perform functions which require engineering skill and knowledge, to protect public health and safety. DBA will at all times endeavor to perform in faithful and trustworthy manner and, in this regard, do his best to alert CLIENT to any matter of which DBA becomes aware and believes requires CLIENT's immediate attention to help protect public health and safety, or which DBA believes requires CLIENT to issue a notice or report to certain public officials, or to otherwise conform with applicable codes, standards, regulations or ordinances. If CLIENT for any reason decides to disregard DBA's recommendations in these respects, DBA shall employ his best judgment in deciding whether or not he shall notify public officials. CLIENT agrees that such decisions are DBA's to make, in light of DBA's public responsibilities as DBA perceives them and, in any event, DBA should not be held liable in any respect for failing to report conditions which were CLIENT's responsibility to report. Accordingly, CLIENT waives any claim against DBA, and agrees to defend and indemnify DBA from any claim or liability for injury or loss allegedly arising from DBA's notifying or not notifying public officials about conditions existing at the project site. Further, CLIENT agrees to compensate DBA for any time spent or expenses incurred by DBA in defense of any such claim, with such compensation to be based upon DBA prevailing fee schedule and expense reimbursement policy.

DISPUTES RESOLUTION: All claims, disputes, and other matters in controversy between DBA and CLIENT arising out of or in any way related to this agreement will be submitted to "alternative dispute resolution" (ADR) such as mediation before and as a condition precedent to other remedies provided by law.

OWNERSHIP OF INSTRUMENTS OF SERVICE: All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by DBA as instruments of service shall remain the property of DBA. DBA shall retain these records for a period of seven (7) years following submission of their report, during which period they will be made available to CLIENT at all reasonable times.

GOVERNING LAW AND SURVIVAL: The law of the State of Pennsylvania will govern the validity of these terms, their interpretation and performance.

If any of the provisions contained in this agreement are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this agreement for any cause.



The parties have read the foregoing, understand completely the terms, and willingly enter into this agreement which will become effective on the date signed by the CLIENT below.

CLIENT SIGNATURE

CLIENT NAME & TITLE (Please print or type)



DAVID BLACKMORE & ASSOCIATES, INC.
Brian D. McCree, P.E.
Vice President

February 21, 2019

DATE

DATE

Proposal 5096I1P1
February 21, 2019

Upper Uwchlan Township Special Inspection Costs Based on Milestone Construction Schedule*

Task (Phase)	Scheduled Duration	DBA Man days	Personnel Type	Unit Cost (hrly)	Personnel Subtotals	Laboratory Test	Sample Quantity	Unit Cost	Lab Subtotals
SITE WORK									
Cuts and Fills - Compaction	15	10	Tech	\$35.00	\$2,800.00	Proctor(D698)	1	\$95.00	\$95.00
Underground Utilities - Backfill Compaction	20	5	Tech	\$35.00	\$1,400.00				
Site Utilities and Basin	10	5	Tech	\$35.00	\$1,400.00				
Curb, Sidewalk, and Site walls in HOP area	15	10	Tech	\$35.00	\$2,800.00	Test Cylinders	40	\$12.00	\$480.00
Interior Curb, Walks	10	5	Tech	\$35.00	\$1,400.00	Test Cylinders	20	\$12.00	\$240.00
Paving	10	5	Tech	\$35.00	\$1,400.00				
Site Work Subtotals:	80	40			\$11,200.00				\$815.00

Task (Phase)	Scheduled Duration	DBA Man days	Personnel Type	Unit Cost (hrly)	Personnel Subtotals	Laboratory Test	Sample Quantity	Unit Cost	Lab Subtotals
BUILDING ADDITIONS									
Under pinning and Footings Complete - Cast in Place Concrete	10	20	Tech	\$35.00	\$5,600.00	Test Cylinders	80	\$12.00	\$960.00
Prep and stone slab- Proofroll and compaction	10	4	Tech	\$35.00	\$1,120.00				
Structural Steel- Structural connections	5	1	Steel Insp	\$70.00	\$560.00				
VB and rebar mats, form and pour SOG -cast in place concrete	10	2	Tech	\$35.00	\$560.00	Test Cylinders	16	\$12.00	\$192.00
Bar Joist and Decking - connections & studs	5	1	Steel Insp	\$70.00	\$560.00				
Roof Trusses, bracing and sheathing - wood framing connections	15	1	Steel Insp	\$70.00	\$560.00				
CMU walls-rebar, mortar & grout	20	8	Tech	\$35.00	\$2,240.00	Mortar/Grout	48	\$12.00	\$576.00
Slab on Deck -cast in place concrete	5	2	Tech	\$35.00	\$560.00	Prisms(ASTM C1314)	2	\$75.00	\$150.00
Eng Supervision/Mngmt		1	Geo. Eng.	\$85.00	\$680.00	Test Cylinders	16	\$12.00	\$192.00
POLICE BUILDING SUBTOTALS	80	40			Total \$12,440.00				Total \$2,070.00

Anticipated Expenses Based on DBA Estimated Man Days (Note: Tech bills for 1/2 of travel time, all other personnel bill full travel time using straight time)

	Personnel Type	Man Days	Miles per Day	Travel Time	Total Travel Time	Total Miles	Expense Totals
Expenses (travel time & mileage)	Tech	74	70	0.5	37	5180	\$3,885.00
	Steel Insp	5	102			510	\$285.60

\$4,170.60

Estimated Total Costs

	Personnel	Lab	Expenses	TOTAL
TOTAL	\$23,640.00	\$2,885.00	\$4,170.60	\$30,695.60

Notes:

1. This cost estimate is based on the milestone schedule prepared by Boyle Construction Management
2. Actual special inspection costs will be based on actual contractor durations.