CONTRACT FOR DESIGNER SERVICES

AMENDMENT NO. 5

WHEREAS, the TOWN OF BROOKLINE ("Owner") and JONATHAN LEVI ARCHITECTS LLC. (the "Designer") (collectively, the "Parties") entered into a Contract on August 31, 2018, ("Contract") for Designer Services for the New Construction of the Michael Driscoll Elementary School, Abatement and Demolition of the Existing School, Site Improvements and All Associated Work at the 64 Westbourne Terrace, Brookline, MA 02446; and

WHEREAS, the scope of this work is summarized in the attached Proposal for basic Geo-Environment Engineering Services and Geotechnical Services including Supplemental Subsurface Exploratory Services for Geo-Environmental and Geotechnical Services from McPhail Associates, Inc.; and

WHEREAS, Contract Amendment No. 2 was approved by the Town of Brookline on January 17, 2020; and
WHEREAS, Contract Amendment No. 3 was approved by the Town of Brookline on March 18, 2020; and
WHEREAS, Contract Amendment No. 4 was approved by the Town of Brookline on March 18, 2020; and

WHEREAS, effective as of March 26, 2020, the parties wish to amend the contract, as amended:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. The Owner hereby authorizes this Contract Amendment No. 5 for the total value of $340,725.00. This Amendment is based on McPhail's Geo-Environmental Engineering Services Proposal, dated March 4, 2020 for $134,200.00; McPhail's Geotechnical Services Proposal, dated April 2, 2020, for $189,475.00; and McPhail's Subsurface Exploratory Services for Geo-Environmental and Geotechnical for $17,050.00 for the Driscoll School. The Designer is herein authorized to commence the services outlined in this Amendment, pursuant to the terms and conditions set forth in the Contract, as amended.

2. For the performance of services required under the Contract, as amended, the Designer shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services	Original Contract	Previous Amendments	Amount of This Amendment	Total of All Amendments
Feasibility Study/Schematic Design Phase	$1,179,260	$ 500	$ 0	$ 1,179,760
CA #2 - Design Development Phase	$ 0	$ 1,814,766	$ 0	$ 1,814,766
CA #2 - Construction Documents Phase	$ 0	$ 2,540,672	$ 0	$ 2,540,672
CA #2 - Bidding Phase	$ 0	$ 290,363	$ 0	$ 290,363

CA #2 - Construction Phase	$ 0	$ 2,540,672	$ 0	$ 2,540,672
CA #2 - Completion Phase	$ 0	$ 72,590	$ 0	$ 72,590
CA #3 - Geotechnical Engineering – Geothermal Test Well	$ 0	$ 117,673	$ 0	$ 117,673
CA #3 -Acoustical Engineering – Noise Sound Measurements	$ 0	$ 5,500	$ 0	$ 5,500
CA #4 – HAZMAT Consulting	$ 0	$ 138,512	$ 0	$ 138,512
CA #5 – Geo-Environmental & Geotechnical, Subsurface	$ 0	$ 0	$ 340,725	$ 340,725
Extra Services Estimate – $15,263 Remaining	$ 0	$ 0	$ 0	$ 0
Total Fee	**$1,179,260**	**$ 7,521,248**	**$ 340,725**	**$9,041,233.00**

This Amendment is a required to provide the basic geo-environmental and geotechnical services including the supplemental subsurface exploratory services for both geo-environmental and geotechnical as required to support the project.

3. The Construction Budget shall be as follows:

   Original Budget: $ 93,335,813

   Amended Budget $ 93,197,301

4. The Project Schedule shall be as follows:

   Original Schedule: Phase 1 Substantial Completion – 11/4/2022

   Phase 2 Substantial Completion – 8/31/2024

   Amended Schedule _____

   Phase 1 – New Building, Roadways and Sidewalk Work
   Phase 2 – Abatement & Demolition of Existing Building, Geothermal Wells & Site Improvements

5. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract, as amended. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract, as amended, shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract, as amended, remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Designer have caused this Amendment to be executed by their respective authorized officers.

OWNER:

_____
(print name)

_____
(print title)

By: _____
(signature)

Date: _____

DESIGNER:

_____
(print name)

_____
(print title)

By: _____
(signature)

Date: _____

Jonathan Levi Architects
266 beacon street boston ma 02116 tel 617.437.9458 fax 617.437.1965 www.leviarc.com

3 April 2020

Mr. Jim Rogers
Principal
LEFTFIELD Project Management
225 Franklin Street, 26th Floor
Boston, MA 02110

Re: *Fee Proposal, Geotechnical Services*
Driscoll School, Brookline MA

Dear Jim,
Attached please find a proposal from McPhail for Geotechnical services to be performed as a subconsultant to JLA.

Fee
As described in Article 4.11 of the Contract for Designer Services, the services associated with this proposal are to be invoiced on a lump sum basis as Extra Services, plus the 10% standard markup specified in Articles 9.1 and 9.1.1.

Task 1: Exploration and Report		$47,000
Task 2: Design Assistance		$8,500
Task 3: Submittal Review		$8,500
Task 3: Construction Monitoring		$108,250
	Subtotal	$172,250
10% markup		$17,225
Total		**$189,475**

Please do not hesitate to contact me if you would like us to clarify or modify our assumptions, or if there is anything represented here which does not conform to your expectations.

Sincerely,

Philip Gray
Associate Principal
Jonathan Levi Architects

March 4, 2020

Jonathan Levi Architects
266 Beacon Street
Boston, MA 02116

Attention: Mr. Philip Gray

Reference: Driscoll School; Brookline, Massachusetts
Proposal for Final Geotechnical and Construction Phase Engineering Services

Ladies and Gentlemen:

We are pleased to present our proposal for providing final geotechnical and construction phase engineering services for the above-referenced project.

Background

The existing Michael Driscoll School fronts onto Westbourne Terrace to the north, and is bounded by Bartlett Street to the west. Bartlett Crescent parallels the school to the southwest. Currently, an existing 2 to 3-story brick school building occupies the northern portion of the site, a playground, an athletic field and tennis courts are present at the southern and eastern ends of the school property. The existing ground surface across the project site generally slopes from north to south ranging from approximately Elevation +125 along Westbourne Street to about Elevation +103 along Washington Street.

Based on the information provided to us, the proposed 4-story Driscoll School building will occupy a footprint of approximately 43,900 square feet. The proposed structure will include a basement level that extends beneath the majority of the building footprint. Within the northern and eastern portions of the building, the basement will occupy a footprint of approximately 20,300 square feet at approximately Elevation +87.5. The northern portion of the basement will contain the gymnasium, locker rooms, storage, and mechanical space. The first floor of the new building is understood to be at approximately Elevation +105.5 with a portion of the first-floor space along extending beyond the basement footprint to the south.

A preliminary subsurface exploration program was completed by McPhail in November 2018 for geotechnical purposes as part of a feasibility study for the proposed project. At that time, the proposed building footprint and lowest level slab elevations had not been identified. Based on the recent information provided to us by JLA, the proposed building footprint and associated lowest level slab elevations have been determined and additional borings are recommended to complete our foundation engineering design study and recommendations. Specifically, it is recommended that eight (8) additional borings be completed within the proposed building footprint to obtain further subsurface information as part of the development of our final geotechnical engineering design recommendations. It is anticipated that excess soil will be generated from construction of the proposed below-grade portions of the development which will require off-site disposal. In addition,

construction dewatering is anticipated to be required in order to perform the building excavations at the site which are anticipated to extend below the groundwater level for construction of the foundations, and also to provide for management of water which may become trapped within the excavation areas following periods of precipitation. Accordingly, McPhail provided JLA with a scope of work fee proposal dated January 16, 2020 for geoenvironmental engineering services related to soil pre-characterization and preparation of a Soil Management Plan (SMP) to provide recommendations for handling, management, on-site reuse and off-site reuse or disposal of excavated site soils. Our scope of work in the January 16, 2020 proposal also included groundwater sampling and analysis and preparation of temporary construction dewatering discharge permit application.

In addition, we propose herein to provide design assistance services to assist the design team through the various design phases of the project.

Lastly, we propose to provide construction phase monitoring during the construction phase of the project.

The proposed scope of services contained herein includes the following six (6) tasks:

Task 1 – Subsurface Exploration & Final Foundation Engineering Report

Task 2 – Design Assistance Services

***Task 3* – Construction Phase Submittal Review**

Task 4 – Construction Phase Monitoring Services

Task 1 – Subsurface Exploration & Final Foundation Engineering Report

In order to provide final foundation design recommendations, we propose to perform a subsurface exploration program consisting of eight (8) borings. The borings would be located within the area of the proposed building footprint and would be advanced to an approximate depth of 50 feet below ground surface or to refusal, whichever is encountered first. If bedrock is encountered within the proposed depth of the excavation, we propose to perform one (1) 5-foot long rock core. The borings would include continuous sampling through fill deposit and standard 5-foot sampling afterwards through the underlying natural soil deposits. Samples of the fill material obtained from the eight (8) borings will be submitted for chemical testing, which is addressed in detail in the following Task 2 section of this proposal. In addition, three (3) observation wells would be installed within the completed borings. The borings will be completed utilizing truck-mounted drilling equipment. The borings are anticipated to take nine (9) days to complete and the cost of the drilling subcontractor is estimated to be $24,500.

We propose to provide the following geotechnical engineering services associated with the subsurface exploration program and final foundation design study:

1. Subcontract with a qualified drilling subcontractor to perform the borings described above and clear utilities with Dig-Safe;

2. Provide a field engineer to observe the explorations, to obtain representative soil samples, to monitor the groundwater levels within the completed explorations, to prepare detailed field logs, to make modifications to the subsurface exploration program depending upon actual conditions encountered, and to determine the existing ground surface elevation at each borehole utilizing vertical control indicated on the site survey;

3. Prepare a detailed subsurface exploration plan and exploration logs;

4. Perform final geotechnical engineering analyses related to foundation design;

5. Prepare a final foundation engineering report presenting results of the subsurface explorations and providing final foundation recommendations, including recommendations for the proposed temporary earth support as well as subsurface cross-sections and contour plans of the top of the natural sand deposit; and

6. Attend up to three (3) team meetings to discuss the geotechnical aspects of foundation design and construction.

The lump sum fee to complete **Task 1** is $47,000, which includes an estimated cost of $24,500 for the drilling contractor.

Task 2 – Design Assistance Services

We propose to provide geotechnical design phase services to the design team. During the final design phase, our services would include the following:

1. Preparation of the earthwork, soil management and temporary excavation support sections of the project specifications;

2. Review foundation-related drawings as a coordination check that the foundation design recommendations are properly incorporated into the Construction Documents for the project;

3. Provide the layout of the underslab and foundation drainage system for inclusion on the foundation drawings; and

4. Provide consultation to the design team during the design phase to assist with geotechnical engineering-related aspects of the project.

The lump sum fee to complete **Task 2** is $8,500.

Task 3- Construction Phase Submittal Review

This task item includes providing consultation in connection with the review of various submittals by the Contractor regarding:

1. Construction dewatering re-charge system;
2. Earth Support System;
3. Proposed soil disposal facilities;
4. Excavation methods and sequence;
5. Backfill material sources and placement methods; and
6. Health and Safety Plan.

The lump sum fee to complete **Task 3** is $8,500.

Task 4- Construction Monitoring Services

During the construction period, it is recommended that McPhail be retained to monitor the geotechnical and geoenvironmental-related construction work for compliance with the requirements of the Contract Documents. Our proposed fee for geotechnical and geoenvironmental construction monitoring services is a combined fee since the services will be performed in conjunction with one another and by the same field and project managers from our office.

Specifically, we proposed to provide the following construction monitoring services:

1. Provide a field engineer to observe the following earthwork-related foundation construction activities:
    a. Observing the installation of the earth support system;
    b. Preparation of foundation bearing surfaces;
    c. Placement and compaction of soil backfill materials, including field density testing;
    d. Performing required quality control soil testing including laboratory sieve and compaction tests;
    e. Monitor segregation of soils during excavation and loading onto trucks for off-site disposal, manage the Material Shipping Records, and perform monitoring for total volatile organics (TVOC) with Photo Ionization

Detector (PID) and odors that may be generated during the excavation of the natural organic soils;

2. Prepare field reports summarizing the progress of the work and our observations of the geotechnical and geoenvironmental-related construction activities, including any deviations by the Contractors from the requirements of the Contract Documents. Field reports would be submitted on a monthly basis; and

3. Attend job meetings as required to provide consultation on geotechnical or geoenvironmental-related issues and problems which may arise during the course of the work.

We estimate our fee for providing the field engineer, with the associated oversight and engineering consultation to be about $3,500 per half-time week (20 hours on-site) and $6,000 per full-time week (40 hours on-site).

For the purposes of this proposal, we have assumed our presence on-site will be required for fifteen (15) full-time (40-hour) weeks and four (4) part-time (20-hour) weeks. In addition, the fee includes a $50 per day per PID equipment cost or $4,250 for seventeen (17) weeks for providing one (1) PID as outlined in Item 1.e. Therefore, predicated on the assumed time on site, our lump sum fee to complete **Task 4** is $108,250.

Our proposed budget is based on our presence on-site during normal shift hours (7 am to 3:30 pm) Monday through Friday.

Our total fee would be dependent upon the duration of our required presence on the site, which is a function of the Contractor's scheduling, phasing of activities and progress. Should our presence on the site be required for a greater or lesser period, the cost of our field representative's time would be adjusted accordingly.

Invoices for services would be submitted monthly and payment would be due within 30 days. The Client agrees to pay interest at the rate of 1.5 percent per month on monies outstanding in excess of 30 days and reasonable collection costs on monies outstanding in excess of 90 days.

Estimated Fee Summary

The lump sum fees for the above Tasks are summarized as follows:

Task	*Description*	
1	Subsurface Investigation & Final Foundation Engineering Report	$47,000
2	Design Assistance Services	$8,500
3	Construction Phase Submittal Review	$8,500
4	Construction Phase Monitoring Services	$108,250
	Total	***$172,250***

Terms and Conditions

The Client agrees to provide right of entry to the site in order that the subsurface exploration program can be performed. While the geotechnical engineer will take reasonable precautions to avoid damage to property, subterranean structures or utilities, the Client agrees to hold the geotechnical engineer harmless for any damage to subterranean structures or utilities not shown on the plans furnished or evident in the field. Utilities are required to be cleared by the drilling subcontractor with Dig-Safe. The Client agrees to accept the condition of the site after the explorations have been completed.

Since the Client agrees that McPhail has neither created or contributed to the creation of any hazardous materials, oil, or other environmental pollutants that is now or may be introduced or discovered on the project site in the future, the Client agrees to defend, indemnify, and hold harmless McPhail, its subcontractors, agents, officers, and employees from and against any and all claims for damages and all associated expenses incurred as a result of claims sustained or alleged by any person or entity other than the client, based upon a release of environmental contaminants or pollutants, any governmental fines or penalties related to environmental contaminants or pollutants, or any bodily injury or property damage caused by the release, removal, assessment, or investigation of hazardous materials associated with the subject project, except to the extent that such claims arise out of the negligence or willful misconduct of McPhail.

It is hereby understood that the presence of our field representative on the site will be solely for the purpose of construction monitoring for the above-described construction. Our work does not include supervision or direction of the actual work of the Contractor or his employees. The Contractor should be informed that neither the presence of our field representative nor the observations and testing of our firm shall relieve him in any way from his responsibility concerning defects discovered in his work. It is also understood that we will not be responsible in any way for job site safety as this will be the sole responsibility of the Contractor.

The engineer's liability for damages due to professional negligence in performing engineering services will be limited to an amount not to exceed $1,000,000 in accordance with the terms and conditions of our policy.

Invoicing for services would be submitted monthly and payment would be due within 30 days. The Client agrees to pay interest at the rate of 1.5 percent per month on monies outstanding in excess of 30 days and collection costs on monies outstanding in excess of 90 days.

We appreciate being invited to submit this proposal and look forward to the opportunity of being of service to you on this project. To authorize us to proceed with the services proposed above, please sign and return a copy of this letter.

Should you have any questions, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

Nicholas D. Hodge

Nicholas D. Hodge

Joseph G. Lombardo, Jr., L.S.P.

JONATHAN LEVI ARCHITECTS

BY

DATE

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NDH/jgl

Jonathan Levi Architects
266 beacon street boston ma 02116 tel 617.437.9458 fax 617.437.1965 www.leviarc.com

3 April 2020

Mr. Jim Rogers
Principal
LEFTFIELD Project Management
225 Franklin Street, 26th Floor
Boston, MA 02110

Re: *Fee Proposal, Geoenvironmental Services*
Driscoll School, Brookline MA

Dear Jim,
Attached please find a proposal from McPhail for Geoenvironmental services to be performed as a subconsultant to JLA.

Fee
As described in Article 4.11 of the Contract for Designer Services, the services associated with this proposal are to be invoiced on a lump sum basis as Extra Services, plus the 10% standard markup specified in Articles 9.1 and 9.1.1.

Task 1: Exploration and Management Plan	$103,500
Task 2: Groundwater testing and permit	$9,500
Task 3: LSP Services	$9,000
Subtotal	$122,000
10% markup	$12,200
Total	**$134,200**

Please do not hesitate to contact me if you would like us to clarify or modify our assumptions, or if there is anything represented here which does not conform to your expectations.

Sincerely,

Philip Gray
Associate Principal
Jonathan Levi Architects

March 4, 2020

Jonathan Levi Architects
266 Beacon Street
Boston, MA 02116

Attention: Mr. Philip Gray

Reference: Driscoll School; Brookline, Massachusetts
Proposal for Geoenvironmental Engineering Services

Ladies and Gentlemen:

We are pleased to present our proposal for providing geoenvironmental engineering services for the above-referenced project.

Background

The existing Michael Driscoll School fronts onto Westbourne Terrace to the north, and is bounded by Bartlett Street to the west. Bartlett Crescent parallels the school to the southwest. Currently, an existing 2 to 3-story brick school building occupies the northern portion of the site, a playground, an athletic field and tennis courts are present at the southern and eastern ends of the school property. The existing ground surface across the project site generally slopes from north to south ranging from approximately Elevation +125 along Westbourne Street to about Elevation +103 along Washington Street.

Based on the information provided to us, the proposed 4-story Driscoll School building will occupy a footprint of approximately 43,900 square feet. The proposed structure will include a basement level that extends beneath the majority of the building footprint. Within the northern and eastern portions of the building, the basement will occupy a footprint of approximately 20,300 square feet at approximately Elevation +87.5. The northern portion of the basement will contain the gymnasium, locker rooms, storage, and mechanical space. The first floor of the new building is understood to be at approximately Elevation +105.5 with a portion of the first-floor space along extending beyond the basement footprint to the south.

A preliminary subsurface exploration program was completed by McPhail Associates, LLC in November 2018 for geotechnical purposes as part of a feasibility study for the proposed project. At that time, the proposed building footprint and lowest level slab elevations had not been identified. Based on the recent information provided to us by Jonathan Levi Architects (JLA), the proposed building footprint and associated lowest level slab elevations have been determined and additional borings are recommended to complete our foundation engineering design study and recommendations.

Our proposed scope of geotechnical engineering services will be provided to JLA under separate cover.

Further, McPhail prepared a Phase I Environmental Site Assessment (ESA) for the property dated November 30, 2018. As documented therein, the report concluded that no Recognized Environmental Conditions (RECs) were identified with respect to the property. However, as documented therein, according to the Massachusetts Department of Environmental Protection (DEP) Waste Site database, the subject site is listed with the DEP under Release Tracking Number (RTN) 3-14448 due to a 120-day release condition. As reported by others, RTN 3-14448 is associated with a release of No. 4 fuel oil to soils which was encountered during the replacement of one (1) fuel oil underground storage tank (UST). As identified by the DEP database, RTN 3-14448 was closed out under a Class A-2 Response Action Outcome in April of 1997 and a Permanent Solution (regulatory closure) has been achieved for the release.

Geoenvironmental Engineering Services

Excess soil will be generated from construction of the proposed below-grade portions of the development which will require off-site disposal. It is currently estimated based on the plans and slab elevations provided that approximately 24,200 cubic yards of existing fill and natural soil may require off-site reuse/disposal. Prior to general excavation, we recommend that site soils be pre-characterized to the planned depth of excavation for off-site disposal in accordance with current Massachusetts Department of Environmental Protection (DEP) Policy. Accordingly, we propose to prepare a Soil Management Plan (SMP) to provide recommendations for handling, management, on-site reuse and off-site reuse or disposal of excavated site soils.

Construction dewatering is anticipated in order to perform the building excavations at the site which are anticipated to extend below the groundwater level for construction of the foundations, and also to provide for management of water which may become trapped within the excavation areas following periods of precipitation. It will be necessary to discharge construction dewatering effluent into the town storm drainage system if on-site recharge is not feasible. It is recommended that groundwater testing be performed to evaluate potential dewatering and potential off-site discharge costs during construction.

In addition, we propose to provide design assistance services to assist the design team through the various design phases of the project.

The proposed scope of services contained herein includes the following three (3) tasks:

Task 1 – Subsurface Exploration & Soil Management Plan

Task 2 – Groundwater Testing for Construction Dewatering Permit

Task 3 – LSP Profiles for Proposed Soil Disposal Facilities

Task 1 – Subsurface Exploration & Soil Management Plan

Based on information provided by to us, it is anticipated that up to 24,200 cubic yards of excess soil (including 20,000 cubic yards of fill material and 4,200 cubic yards of underlying natural soil) may be generated from within the new building footprint during development of the subject site. Prior to general excavation, it is recommended that site soils be pre-characterized to the planned depth of excavation for off-site disposal in accordance with current DEP Policy.

The intent of pre-characterizing the site soils for off-site disposal is to allow the earthwork contractor to conduct a mass excavation and load truck trailers directly for the transportation of excess soils off-site (i.e. "load and go" method). Otherwise, stockpiling and testing of soils on-site would be required to be conducted concurrent with earthwork activities. Based on the size of the proposed project site, this method of soil characterization would significantly hinder the Contractor's earthwork production, therefore precharacterization is recommended.

Off-site disposal of regulated material is currently governed by the DEP's "Interim Remediation Waste Management Policy for Petroleum Contaminated Soils", Policy #WSC-94-400, dated April 21, 1994 and DEP Policy #COMM-97-001 entitled "Reuse and Disposal of Contaminated Soils at Massachusetts Landfills", dated August 15, 1997. Analytical requirements set forth by the above referenced policies include chemical analysis for total petroleum hydrocarbons, volatile organics, RCRA-8 metals or MCP-14 metals, semivolatile organic compounds (SVOCs), PCB's, pH, reactivity, conductivity and flashpoint. Additional analysis for the presence of TCLP (leachable) metals may be required based upon the levels of total metals identified.

In general, regulated and less than RCS-1 receiving facilities require that disposal characterization be performed at a frequency of 1 sample for every 500 cubic yards of fill material and 1 sample for every 1,000 cubic yards of natural soil. Due to the configuration of the basement and the elevations of the lowest level slabs, it is anticipated that laboratory testing of 50 samples will be required to characterize the estimated 20,000 cubic yards of excess fill and 4,200 cubic yards of excess natural soil for construction of the proposed building.

We propose to complete 18 geoenvironmental borings, spaced in a grid pattern across the proposed building footprint in order to obtain representative samples of the fill and natural soils for laboratory analysis. Each boring would extend to the full depth of the proposed excavation or to the top of natural deposit, whichever is deeper. Anticipated depths are based on the lowest level slabs elevations as provided to us by JLA and the anticipated depth to the natural bearing deposit obtained within the previous borings. Estimated depths and volumes of soil to be excavated are indicated in the table below:

Lowest Level Slab Elevation	Approximate Area of Excavation (Square Feet)	Depth of Excavation (Feet)	Volume of Soil (Cubic Yards)
+105.5	23,600	6	5,300±
+87.5	20,300	25	18,900±
Total Area	**43,900**	**Total Volume**	**24,200±**

Once the laboratory results of the precharacterization testing have been received from the testing laboratory, the results of our explorations would be presented in a Soil Management Plan which would provide recommendations for off-site disposal of soil from the subject site.

It is anticipated that the geoenvironmental borings will be completed alongside the Geotech borings and will require an additional four (4) rig-days to complete on top of the nine (9) rig days for the geotechnical explorations.

Our proposed scope of engineering services for **Task 1** will include the following:

1. Subcontract with a qualified drilling subcontractor to perform the borings described above and clear utilities with Dig-Safe;

2. Provide a field engineer to observe the explorations, to obtain representative soil samples, to monitor the groundwater levels within the completed explorations, to prepare detailed field logs, to make modifications to the subsurface exploration program depending upon actual conditions encountered, and to determine the existing ground surface elevation at each borehole utilizing vertical control indicated on the site survey;

3. Prepare a detailed subsurface exploration plan and exploration logs;

4. Provide a field engineer to obtain representative soil samples and to prepare field logs;

5. Screen soil samples obtained from the borings, for the presence of total volatile organics (TVOC) utilizing a photoionization detector (PID);

6. Prepare and submit 50 soil samples obtained from the explorations for laboratory analyses for the off-site disposal parameters as referenced above. Additionally, chemical testing for the presence of TCLP metals will be performed, as required, based upon our review of the initial chemical testing as referenced above. It is anticipated that approximately 50% of the samples will require TCLP Lead testing;

7. Review the soil chemical test results with respect to the applicable reporting thresholds contained in the MCP; and

8. Prepare a Soil Management Plan (SMP) based on the results of the soil characterization. The SMP will classify the soil across the site to the proposed depth

of excavation. In addition, the SMP will contain appropriate figures indicating where different soil classifications exist and relevant summary tables. Finally, the SMP will identify the appropriate types of receiving facilities for the excess soil.

The lump sum fee to complete **Task 1** is $103,500, which includes the estimated fee of $9,200 for the drilling contractor and an allowance of $79,500 for the soil chemical testing.

Based on our experience preparing SMPs, it is recommended that an allowance of $8,500 should be carried to include one (1) extra day of borings and an allowance of $5,000 for chemical testing which may be required to delineate between soil disposal precharacterization categories, dependent on the results of the chemical testing.

Task 2 – Groundwater Testing for Temporary Construction Dewatering Permit

A groundwater discharge permit from the US Environmental Protection Agency (EPA) and possibly the Massachusetts Department of Environmental Protection (DEP) will be required in order to legally discharge groundwater off-site. Given the size of the site (greater than one-acre) a US EPA Construction General Permit (CGP) is required. The permit requires chemical analysis of groundwater samples obtained from the site. If the contaminant concentrations in the groundwater sample are above the Remediation General Permit (RGP) effluent limits, then a US EPA Remediation General Permit (RGP) would be required in addition to the CGP. The RGP would also require submittal to the DEP.

To assess the future dewatering permit needed for the project, we recommend obtaining one (1) groundwater sample to submit for testing and evaluation. Therefore, we propose to perform the following groundwater testing services associated with future preparation of the temporary construction dewatering permit application:

1. Provide a field engineer to develop one (1) groundwater monitoring well in preparation for sampling;

2. Obtain one (1) groundwater sample from the existing monitoring wells and submit the sample to a Massachusetts DEP-certified chemical testing laboratory for analyses for the parameters required under the US EPA Remediation General Permit (RGP) for Massachusetts Discharge MAG910000. The sample will be tested for the following parameters: total suspended solids (TSS), total residual chlorine (TRC), total petroleum hydrocarbons (TPH), cyanide, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), total and dissolved Priority Pollutants (PP-13) metals, total phenols, pH and polychlorinated biphenyls (PCBs);

3. Prepare a dewatering submittal describing the dewatering system and treatment processes, if required, for review by the Design Team.

The lump sum fee to complete **Task 2** above is $9,500 which includes an allowance of $2,000 for chemical testing charged by the laboratory.

It should be noted that further compliance testing will be required during the off-site discharge of treated groundwater pursuant to the provisions of the Remedial General Permit. The compliance testing criteria is established by the EPA upon issuance of the NPDES discharge permit and therefore an accurate cost associated with the testing cannot be provided at this time.

Task 3 - LSP Profiles for Proposed Soil Disposal Facilities

This task item includes providing geoenvironmental engineering services associated with the preparation of LSP profiles for the off-site disposal of excavated soil. The proposed scope of service includes:

1. Prepare profiles for the disposal facilities which will include an opinion letter written by a Licensed Site Professional (LSP), the chemical test data, a sampling location plan, and a table summarizing the chemical test data; and

2. Prepare Bills of Lading and/or Material Shipping Records to record the disposal of the excess excavated material, as required by the MCP and DEP's soil management policies.

The lump sum fee to complete **Task 3** is $9,000, which assumes that a maximum of six (6) LSP disposal profiles will be required to be prepared.

Estimated Fee Summary

The lump sum fees for the above Tasks are summarized as follows:

Task	*Description*	
1	Subsurface Exploration & Soil Management Plan	$103,500
2	Groundwater Testing for Construction Dewatering Permit	$9,500
3	LSP Profiles for Proposed Soil Disposal Facilities	$9,000
	Total	***$122,000***

Contingency Allowance

As documented in our November 2018 Phase I ESA Report, the site is a DEP listed release site under RTN 3-14448 associated with a release of fuel oil identified during the replacement of a now former fuel oil UST. The release condition was closed with the DEP and no further action is required under RTN 3-14448. However, given that the scope of redevelopment includes the complete demolition and removal of the existing school building, it is assumed that closure and removal of the replacement UST will be required. Therefore, for budgeting purposes, we recommend an allowance for the following scope of services associated with the UST closure/removal:

1. Provide a field representative for on-site oversight (up to 1 day) of the cleaning of he UST and to obtain soil samples from the sides and bottom of the UST;

2. Screen soil samples with a PID for the presence of total volatile organics;

3. Submit up to two (2) soil samples for laboratory analysis for the presence of extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH); and

4. Provide a summary memorandum or letter of the results of soil screening and testing including a data summary table and sample location plan to the Client, including recommendations for DEP/MCP compliance action, if identified.

The lump sum fee for the above scope of work is $3,000.

Terms and Conditions

The Client agrees to provide right of entry to the site in order that the subsurface exploration program can be performed. While the geotechnical engineer will take reasonable precautions to avoid damage to property, subterranean structures or utilities, the Client agrees to hold the geotechnical engineer harmless for any damage to subterranean structures or utilities not shown on the plans furnished or evident in the field. Utilities are required to be cleared by the excavating subcontractor with Dig-Safe. The Client agrees to accept the condition of the site after the explorations have been completed.

Since the Client agrees that McPhail has neither created or contributed to the creation of any hazardous materials, oil, or other environmental pollutants that is now or may be introduced or discovered on the project site in the future, the Client agrees to defend, indemnify, and hold harmless McPhail, its subcontractors, agents, officers, and employees from and against any and all claims for damages and all associated expenses incurred as a result of claims sustained or alleged by any person or entity other than the client, based upon a release of environmental contaminants or pollutants, any governmental fines or penalties related to environmental contaminants or pollutants, or any bodily injury or property damage caused by the release, removal, assessment, or investigation of hazardous

materials associated with the subject project, except to the extent that such claims arise out of the negligence or willful misconduct of McPhail.

In addition, our scope does not include the level and frequency of chemical testing that would be required should unanticipated levels of contaminants be detected (e.g. unusually high levels of metals or contaminants indicative of a Hazardous Waste as defined in 310 CMR 30.0000). Should the results of the chemical testing indicate that the soil is subject to the DEP notification criteria contained in the Massachusetts Contingency Plan 310 CMR 40.0000, additional geoenvironmental engineering services will be required, for which a work scope and estimated fees will be provided. The actual scope and fees for the additional work, if any, will be dependent upon the results of the chemical testing to be undertaken as indicated in the work scope proposed herein.

The engineer's liability for damages due to professional negligence in performing engineering services will be limited to an amount not to exceed $1,000,000 in accordance with the terms and conditions of our policy.

Invoicing for services would be submitted monthly and payment would be due within 30 days. The Client agrees to pay interest at the rate of 1.5 percent per month on monies outstanding in excess of 30 days and collection costs on monies outstanding in excess of 90 days.

We appreciate being invited to submit this proposal and look forward to the opportunity of being of service to you on this project. To authorize us to proceed with the services proposed above, please sign and return a copy of this letter.

Should you have any questions, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

Nicholas D. Hodge

Nicholas D. Hodge

Joseph G. Lombardo, Jr., L.S.P.

JONATHAN LEVI ARCHITECTS

BY _____

DATE _____

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NDH/jgl

Jonathan Levi Architects
266 beacon street boston ma 02116 tel 617.437.9458 fax 617.437.1965 www.leviarc.com

3 April 2020

Mr. Jim Rogers
Principal
LEFTFIELD Project Management
225 Franklin Street, 26th Floor
Boston, MA 02110

Re: *Fee Proposal, Geotechical and Geoenvironmental Subsurface Exploratory Services*
Driscoll School, Brookline MA

Dear Jim,
Attached please find a proposal from McPhail for supplemental Geotechical and Geoenvironmental subsurface exploratory services to be performed as a subconsultant to JLA.

Fee
As described in Article 4.11 of the Contract for Designer Services, the services associated with this proposal are to be invoiced on a lump sum basis as Extra Services, plus the 10% standard markup specified in Articles 9.1 and 9.1.1.

Task 4: Supplemental Geoenvironmental	$11,500
10% markup	$1,150
Task 5: Supplemental Geotechnical	$4,000
10% markup	$400
Total	**$17,050**

Please do not hesitate to contact me if you would like us to clarify or modify our assumptions, or if there is anything represented here which does not conform to your expectations.

Sincerely,

Philip Gray
Associate Principal
Jonathan Levi Architects

April 2, 2020

Jonathan Levi Architects
266 Beacon Street
Boston, MA 02116

Attention: Mr. Philip Gray

Reference: Driscoll School; Brookline, Massachusetts
Proposal for Supplemental Geoenvironmental and Geotechnical Engineering Services

Ladies and Gentlemen:

We are pleased to present our proposal for providing supplemental geoenvironmental engineering services for the above-referenced project. The proposed scope of work is being provided as a supplement to our March 4, 2020 proposal for geoenvironmental engineering services and our March 4, 2020 proposal for geotechnical engineering services. Task numbers referenced herein are numerically sequenced to the March 4 proposals.

Background

Two (2) subsurface exploration programs have been completed by McPhail Associates, LLC in November 2018 for preliminary geotechnical purposes and more recently during February 2020 for geotechnical and geoenvironmental purposes. In general, the results of testing identified the presence of the constituents analyzed at concentrations typical to fill material and/or consistent with background for the natural soil samples. However, the presence of tetrachloroethene ("PCE", a chlorinated volatile organic compound "CVOC") was detected in a sample of fill obtained from boring B-106, S8 (14-15 feet) at a concentration of 2 milligrams per kilogram (mg/kg) which exceeds the applicable RCS-1 Reportable Concentration of 1 mg/kg as contained in the Massachusetts Contingency Plan 310 CMR 40.0000 (MCP). Accordingly, the detection of PCE is considered to be a Reportable Condition that requires notification to the DEP within 120 days of the owner or operator of the subject property obtaining knowledge of the release condition via the filing of a Release Notification Form (RNF) to the DEP.

Geoenvironmental Task 4: Supplemental Geoenvironmental Services

McPhail proposes a supplemental phase of geoenvironmental subsurface explorations at the site to obtain soil samples from within the vicinity of the identified release of PCE at boring B-106 to further assess the nature and extent of soil contamination, provide recommendations for remedial response actions, and characterize the contaminated soil for off-site reuse, recycling or disposal. Therefore, we propose to advance a total of 9 borings, to determine the extent of the contamination within the vicinity of borings B-106.

One boring will be completed adjacent to B-106 to further assess the vertical depth of contamination and to install a groundwater observation well at this location to assess

possible impacts to groundwater. A series of four (4) borings will then be completed approximately 5 to 10 feet away from the original boring B-106 location in north, south, east, and west directions. A second series of for (4) borings would be completed an additional 10 feet away from the first series. Our initial approach to testing would be to test the soil samples nearest the original boring locations first. Pending results of that testing, the second-level boring samples would only be submitted for testing if the results of the initial testing do not adequately define the extent of contamination. For budgeting purposes, our chemical testing fee detailed below assumes that testing will be performed on each of the 10 soil samples.

Our proposed scope of supplemental geoenvironmental engineering services will include the following:

1. Subcontract with a qualified drilling subcontractor to perform the geoprobes, install the groundwater monitoring well and clear utilities with Dig-Safe;

2. Provide a qualified field engineer or geologist to mark the exploration locations in the field by taping from existing site features, to monitor the explorations, to obtain representative soil samples, to monitor the groundwater levels in the completed explorations, to prepare detailed field logs, to make modifications to the subsurface exploration program depending upon actual conditions encountered and to determine the existing ground surface elevation at each exploration location

3. Screen soil samples obtained from the geoprobes with a MiniRAE 3000 (or equivalent) photoionizer for the presence of total volatile organic compounds (TVOC);

4. Based on the results of our research, soil screening and field observations, submit up to 10 soil samples for testing for the presence of volatile organic compounds (VOCs);

5. Obtain and submit one sample of groundwater to be installed at the location of boring B-106 for the presence of VOCs;

6. Review the chemical test results with respect to the applicable reporting thresholds contained in the MCP;

7. Prepare an Environmental Conditions summary memorandum based on the results of the supplemental exploration program including requirements/recommendations for MCP compliance; and

8. Prepare an Addendum to the Soil Management Plan which will contain an estimate of the quantity of PCE contaminated soil, update color-coded soil reuse plan and recommendations for management and off-site reuse of the affected soil.

The cost of chemical testing charged by the laboratory is predicated upon a turnaround time (TAT) of five (5) business days. The fee for engineering services would be based on a multiple of 2.5 times salary cost for technical personnel directly attributable to the project plus any direct expenses (e.g. chemical testing) at cost plus 15 percent.

The lump sum fee for the scope of geoenvironmental engineering services listed above in Items 1 through 8 is $11,500, which includes the drilling subcontractor and an allowance of up to $2,200 for the maximum scope of chemical testing (the minimum estimated chemical testing fee is approximately $1,000).

Geotechnical Task 5: Supplemental Geotechnical Subsurface Exploration

In addition to the proposed supplemental geoenvironmental scope of work, based on our recent discussions with JLA, boring B-109 and B-110 encountered possible bedrock at an elevation above the proposed lowest level slab. Although these borings were outside of the basement area, additional explorations are recommended to determine the bedrock elevation within the basement area closet to these borings to further assess possible impacts to foundation design and construction.

In order to provide final foundation design recommendations, we propose to perform a subsurface exploration program consisting of two (2) borings. The borings would be located within the area of the proposed elevator pit on the southwestern portion of the basement level and would be advanced to an approximate depth of 25 feet below ground surface or to refusal, whichever is encountered first. If bedrock is encountered within the anticipated depth of the foundation excavation, we propose to perform one (1) 5-foot long rock core. The borings will be completed utilizing track-mounted drilling equipment. The borings are anticipated to take one (1) day to complete and the cost of the drilling subcontractor is estimated to be $3,000.

We propose to provide the following geotechnical engineering services associated with the subsurface exploration program and final foundation design study:

1. Subcontract with a qualified drilling subcontractor to perform the borings described above and clear utilities with Dig-Safe;

2. Provide a field engineer to observe the explorations, to obtain representative soil samples, to monitor the groundwater levels within the completed explorations, to prepare detailed field logs, to make modifications to the subsurface exploration program depending upon actual conditions encountered, and to determine the existing ground surface elevation at each borehole utilizing vertical control indicated on the site survey.

The lump sum fee to complete Geotechnical **Task 5** is $4,000, which includes an estimated cost of $2,700 for the drilling contractor. This results from the additional borings, will be

incorporated with the Final Foundation Engineering Report to be completed as part of **Task 1** of the March 4, 2020 geotechnical engineering services proposal.

Estimated Fee Summary

The lump sum fees for the above Tasks are summarized as follows:

Task	*Description*	
4	Supplemental Geoenvironmental Engineering Services	$11,500
5	Supplemental Geotechnical Engineering Subsurface Investigation	$4,000
	Total	***$15,500***

Terms and Conditions

The Client agrees to provide right of entry to the site in order that the subsurface exploration program can be performed. While the geotechnical and geoenvironmental engineer will take reasonable precautions to avoid damage to property, subterranean structures or utilities, the Client agrees to hold the geotechnical and geoenvironmental engineer harmless for any damage to subterranean structures or utilities not shown on the plans furnished or evident in the field. Utilities are required to be cleared by the excavating subcontractor with Dig-Safe. The Client agrees to accept the condition of the site after the explorations have been completed.

Since the Client agrees that McPhail has neither created or contributed to the creation of any hazardous materials, oil, or other environmental pollutants that is now or may be introduced or discovered on the project site in the future, the Client agrees to defend, indemnify, and hold harmless McPhail, its subcontractors, agents, officers, and employees from and against any and all claims for damages and all associated expenses incurred as a result of claims sustained or alleged by any person or entity other than the client, based upon a release of environmental contaminants or pollutants, any governmental fines or penalties related to environmental contaminants or pollutants, or any bodily injury or property damage caused by the release, removal, assessment, or investigation of hazardous materials associated with the subject project, except to the extent that such claims arise out of the negligence or willful misconduct of McPhail.

The engineer's liability for damages due to professional negligence in performing engineering services will be limited to an amount not to exceed $1,000,000 in accordance with the terms and conditions of our policy.

Invoicing for services would be submitted monthly and payment would be due within 30 days. The Client agrees to pay interest at the rate of 1.5 percent per month on monies outstanding in excess of 30 days and collection costs on monies outstanding in excess of 90 days.

We appreciate being invited to submit this proposal and look forward to being of continued service to you and the design team on this challenging project. To authorize us to proceed with the services proposed above, please sign and return a copy of this letter.

Should you have any questions, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

Nicholas D. Hodge

Joseph G. Lombardo, Jr., L.S.P.

JONATHAN LEVI ARCHITECTS

BY _____

DATE _____

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