

August 25, 2020

Maya Plotkin  
Chair of Westwood School Building Committee

Re: Amendment 4 and 5 for Dore + Whittier

Dear Maya,

Attached is the proposed amendment 4 and 5 from Dore + Whittier.

Amendment 4: For Additional Service related to geotechnical investigation related to the ledge/bedrock, foundation design and drainage design. Work consisted of borings and test pits, including tree clearing, related engineering work and related surveying work to locate the boring and test pits.

Proposal from	Cost	D+W 10%	total
Sanborn Head proposal dated 8/18/20 Tasks 1 to 6	\$34,900	\$3,490	\$38,390
Nitsch Engineering proposal dated 8/19/20 Task 1	\$3,000	\$3,00	\$3,300
Total			<b>Lump Sum \$41,690</b>

Amendment 5: For additional investigation work related to the oil tanks removed from existing Hanlon School site. The proposal is a Not To Exceed proposal.

Proposal from	Cost	D+W 10%	total
Sanborn Head proposal dated 8/18/20 Task 7 & 8	NTE \$1,500	NTE \$1,500	<b>NTE \$16,500</b>
			<b>NTE \$16,500</b>

Sincerely,



Chin Lin  
Sr. Project Manager  
Compass Project Management, Inc.

August 19, 2020

Maya Plotkin  
Chair, School Building Committee  
c/o Town of Westwood  
220 Nahatan Street  
Westwood, MA 02090



Project name: **Hanlon Elementary School Building Project**  
Subject: **Amendment #4**

Dear Maya,

We are seeking an amendment to our contract, dated 4 November 2019, between the Town of Westwood and Dore + Whittier, on the Hanlon Elementary School Building Project, for professional geotechnical engineering services as well as associated professional surveying services. Included are proposals from two consultants.

Sanborn-Head -Tasks 1-6:

- Geotechnical Engineering services include, subsurface exploration, borings, testing, and report
- Stormwater Services include subsurface exploration and stormwater design memorandum
- General Consulting services
- Tree cutting and clearing as needed to access subsurface exploration areas

Total not-to-exceed fee of: \$38,390 including D+W 10% mark up.

*Note: Sanborn Head Environmental Services Tasks 7-8 are not included in this amendment. This is captured in a separate amendment.*

Nitsch Engineering, Task 1:

- Obtain elevation spot checks to confirm existing elevations in relation to the proposed building location, as well as confirm Geotech borings and test pit locations. Total not-to-exceed fee of: \$3,300 including D+W 10% mark up.

**Combined total: \$41,690**

If you could have this amendment signed, it will serve as authorization for us to proceed.

Feel free to contact me with any questions you may have.

Sincerely,

**DORE + WHITTIER**

Donald M. Walter, AIA, MCPPO

Principal

Acceptance

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Copy:           File

Mr. Donald M. Walter, AIA  
Dore + Whittier  
260 Merrimac Street, Bldg. 7  
Newburyport, MA 01950

August 18, 2020  
4717.00

Re: Proposal for Consulting Engineering Services  
Hanlon Elementary School Project  
Westwood, Massachusetts

Dear Donald:

Sanborn, Head & Associates, Inc. (Sanborn Head) is pleased to submit this contract amendment to Dore & Whittier (Client, D+W) to provide additional geotechnical and environmental engineering services for the schematic design phase for the proposed Hanlon Elementary School (HES) located at 790 Gay Street in Westwood, Massachusetts (the Site).

Based on our discussions with you, we understand that the proposed Hanlon Elementary School project has progressed with the selection of the 790 Gay Street property and further design development is underway, including siting of the HES and stormwater management features. Our objectives are: (1) complete a Site-specific subsurface investigation and advance our geotechnical engineering recommendations for the subject Site as presented in our *Preliminary Geotechnical Engineering Report*, dated January 29, 2020; (2) complete subsurface explorations in support of stormwater management design by Nitsch Engineering and prepare a stormwater design memorandum summarizing our findings; (3) complete additional Site-specific research and subsurface investigation (if necessary) to advance our environmental recommendations as presented in our *Phase 1 Environmental Site Assessment with Limited Subsurface Investigation*, dated June 29, 2020; and, (4) review Earthwork and Blasting Specifications prepared by Nitsch for inclusion in the project schematic design package.

## **SCOPE OF SERVICES**

As requested, we have prepared our contract amendment to include both geotechnical and environmental engineering services. The following paragraphs describe our proposed scope of services in more detail.

## **GEOTECHNICAL ENGINEERING SERVICES**

Our objective will be to provide design phase geotechnical engineering support, including the preparation of a final geotechnical engineering report.

## **Task 1 – Geotechnical Subsurface Exploration Program**

Based on our preliminary geotechnical recommendations, we understand that the proposed HES will be located in an area with the potential for shallow bedrock. We propose completing up to an additional five (5) test borings within the proposed building footprint to supplement previously completed explorations at the Site and provide sufficient coverage to prepare our final geotechnical engineering recommendations.

### **Test Borings**

Prior to the exploration program, Sanborn Head will mark the exploration locations using GPS in the field at least 72 hours prior to performing drilling and notify DigSafe for utility clearance. We anticipate utilizing an excavator for stormwater test pits (see below) to clear vegetation and provide access to the geotechnical test boring locations. We will coordinate site access with you and the Westwood Public Schools department.

Following the tree clearing work, Sanborn Head will retain a drilling subcontractor to perform up to two (2) days of drilling to complete up to five (5) test borings in the approximate areas shown on the attached Proposed Exploration Location Plan. We have assumed the drilling can be performed during school hours given the location of the test borings and distance from the existing school building. The subsurface explorations will be advanced using an ATV-mounted drill rig using hollow-stem auger and/or drive and wash drilling techniques. Split-spoon samples will be collected continuously through the fill, and at 5-foot intervals thereafter, or at the discretion of the geotechnical engineer. Within proposed building areas, the proposed test borings will generally be advanced up to approximately 25 feet, or refusal, whichever occurs first. Where refusal is encountered in proposed building areas within 10 feet of the finished floor elevation, we will confirm presence of bedrock by advancing a minimum of 5-ft beyond the refusal depth using an air-hammer. Sanborn Head personnel will observe and log the subsurface conditions in the test borings. After completion of the test borings, the explorations will be backfilled to match the existing ground surface.

## **Task 2 – Geotechnical Laboratory Testing**

Sanborn Head will collect and submit up to two (2) soil samples from the test borings for grain-size analysis and moisture content to assist in classifying the soils and to evaluate their suitability for re-use on-site.

## **Task 3 – Geotechnical Engineering Memorandum**

The results of our work will be summarized in a geotechnical engineering memorandum that will describe the supplemental exploration program, the subsurface conditions encountered, and revised, if necessary, preliminary geotechnical engineering recommendations for the Site that were provided in the previous report.

Additional construction recommendations will be provided regarding excavation of soil, subgrade preparation procedures, construction dewatering, fill material requirements, plus fill placement and compaction requirements, if necessary. The report will include

exploration logs prepared by Sanborn Head and others along with an exploration location plan, and will be issued as one electronic PDF.

## **STORMWATER SERVICES**

Our objective will be to provide subsurface information to Nitsch Engineering to support stormwater management design for the project.

### **Task 4 - Stormwater Design Support**

As requested, Sanborn Head will provide support for the stormwater design prepared by Nitsch. To evaluate the suitability of soils within proposed stormwater management systems, we anticipate two phases of subsurface explorations. Sanborn Head will retain an excavation subcontractor to complete up to two (2) days of test pits and tree clearing prior to the commencement of the geotechnical test borings. The test pit explorations are anticipated to be completed prior to the start of the school year. Based on information received from Nitsch to-date, we anticipate completing five (5) stormwater test pits, as well as, two (2) additional geotechnical test pits during the first phase of test pit excavation. We anticipate additional test pits may be required in a future second phase following schematic design. During test pit excavation, Sanborn Head will document visual observations of soil texture and seasonal high groundwater and share preliminary findings with Nitsch. Sanborn Head will coordinate the location of the test pits with Nitsch.

During test pit excavation, we will collect and submit up to three (3) soil samples for laboratory grain size distribution analyses (sieve testing) to estimate the appropriate Rahl's Rates of the receiving layer soils in accordance with the Massachusetts Stormwater Handbook.

Test pits will be observed and logged by a Massachusetts certified Soil Evaluator. The test pits in existing wooded areas will be backfilled and compacted (with the excavator bucket) to match the existing ground surface. We understand that test pits in developed areas will be located to minimize disturbance to existing features, including pavement and playground areas. Our budget estimate includes backfill compaction using a hand-operated plate compactor and re-seeding the area for test pits completed within landscaped areas; however, re-paving and off-site disposal of excavated asphalt is excluded.

The results of our hydrogeological findings will be transmitted to the project team via a summary memorandum which will include recommended design parameters to support the stormwater design, exploration logs, and a location plan.

## **GENERAL CONSULTING SERVICES**

### **Task 5 - Construction Specifications**

Based on our experience on similar projects, Sanborn Head will review specifications for earthwork and blasting prepared by Nitsch. Our budget estimate includes reviewing the schematic design (SD) specifications. In addition, Sanborn Head will assist in reviewing the project Drawings related to earthwork and blasting.

## **Task 6 – Design Phase Consulting, Communication and Correspondence**

Based on our experience on similar projects, we have carried a budget allowance of \$1,400 for general consulting services to assist Dore + Whittier and the project team during the schematic design phase. This allowance assumes up to 7 hours for Sanborn Head team members to participate in conference calls and/or attend project meetings (including travel time) during the schematic design phase.

### **ENVIRONMENTAL SERVICES      Environmental Services not included in this amendment**

Our objective will be to provide design phase environmental engineering support, including the preparation of a Phase II site investigation report.

## **Task 7 – Town Records and School Records Review**

As presented in our Phase I Environmental Site Assessment report, Sanborn Head will conduct an additional records review pertaining to the leaking transformer in the vicinity of the Site and former fuel oil underground storage tanks (USTs) removed from the Site. We will schedule meetings and/or interviews with the Health Department, Fire Department and/or Building Department, as well as, existing HES representatives, to obtain additional information related to these potential environmental concerns.

### **Contingency Task 7A – Environmental Subsurface Exploration Program**

Depending on the outcome of our Town Records and School Record Review, we may recommend additional environmental subsurface explorations and collection of soil and/or groundwater samples for the potential environmental concerns. For budgeting purposes, we recommend carrying a contingency for completion of 1-day of subsurface explorations using a direct-push drill rig in Site areas that may have been impacted by the leaking transformer or fuel oil USTs. The environmental subsurface exploration program contingency includes collection of up to three (3) soil samples for extractable petroleum hydrocarbons (EPH) analysis and volatile petroleum hydrocarbons (VPH) analysis and submission to Alpha Analytical, Inc. of Westborough, MA for analytical testing laboratory. Additionally, the contingency includes the installation of up to one (1) groundwater monitoring well, subsequently monitoring well development and groundwater sampling by Sanborn Head personnel, and submission of up to one (1) groundwater sample for EPH and VPH analyses. If collected, samples submitted to Alpha Analytical will be submitted for 1-week standard turn-around and results will be shared with the project team.

## **Task 8 – Summary of Potential Environmental Concerns**

Following our records review and additional subsurface exploration program(s) (including geotechnical, stormwater and/or environmental explorations), Sanborn Head will prepare a Phase II Site Investigation Report summarizing our findings pertaining to potential environmental concerns.

## BASIS OF BILLINGS AND BUDGET ESTIMATE

We propose to complete the additional base scope of services outlined above for an additional lump sum fee of \$34,900. Our estimate for Environmental Services Contingency is an additional \$15,000 that will be billed on a time and materials basis. A breakdown of the additional services is provided below:

Task	Budget
<b>Geotechnical Engineering Services (Tasks 1 to 3)</b> <i>Subsurface Exploration Program, Laboratory Testing, Geotechnical Engineering Memorandum</i>	\$18,500
<b>Stormwater Services (Task 4)</b> <i>Subsurface Exploration Program, Stormwater Design Memorandum</i>	\$13,700
<b>General Consulting Services (Tasks 5 and 6)</b> <i>Specifications, Project Meetings</i>	\$2,700
<b>BASE CONTRACT AMENDMENT SUBTOTAL</b>	<b>\$34,900</b>
<b>Environmental Services Contingency (Task 7, 7A and 8)</b> <i>Records Review, Subsurface Exploration Program, Analytical Laboratory Testing, Phase II Site Investigation Report</i>	\$15,000
<b>Environmental Services not included in this amendment TOTAL BUDGET</b>	<b>\$49,900</b>

Our budget is based on our current understanding of the project requirements for the schematic design phase. Successful completion of the project can be influenced by changes in the scope of services as dictated by your needs, as well as unforeseen conditions. Changes that may require adjusting the scope of services and budget will be reviewed with you and an addendum to this agreement, if appropriate, will be provided at a later time.

## SCHEDULE

We anticipate that we will work collaboratively with Dore + Whittier and other members of the project team to provide deliverables in a timely and responsive manner as needed. At this time, we anticipate the following sequence of field services:

- Stormwater/geotechnical test pits and tree clearing (2-days) prior to the start of school;
- Geotechnical test borings (2-days) in early September, and;
- Environmental test borings (if necessary) (1-day).

We are happy to discuss with you an alternative schedule as dictated by the project needs.

## TERMS OF ENGAGEMENT

This amendment, when accepted, shall become part of the December 13, 2019 agreement between Sanborn Head and Dore + Whittier and subject to the terms and conditions therein.

We look forward to our continued work with you on this project. Please call should you have any questions.

Very truly yours,  
SANBORN, HEAD & ASSOCIATES, INC.



Luke Norton, P.E.  
Senior Project Manager



Kevin P. Stetson, P.E.  
Senior Vice President

LDN/KPS: ldn

Attachments: Proposed Exploration Location Plan

This contract amendment is hereby accepted and executed by a duly authorized signatory who, by execution hereof, warrants that he or she has full authority to act for, in the name, and on behalf of Dore + Whittier.

By: \_\_\_\_\_  
for Dore + Whittier

Title: \_\_\_\_\_

\_\_\_\_\_  
Typed/Printed Name

Date: \_\_\_\_\_

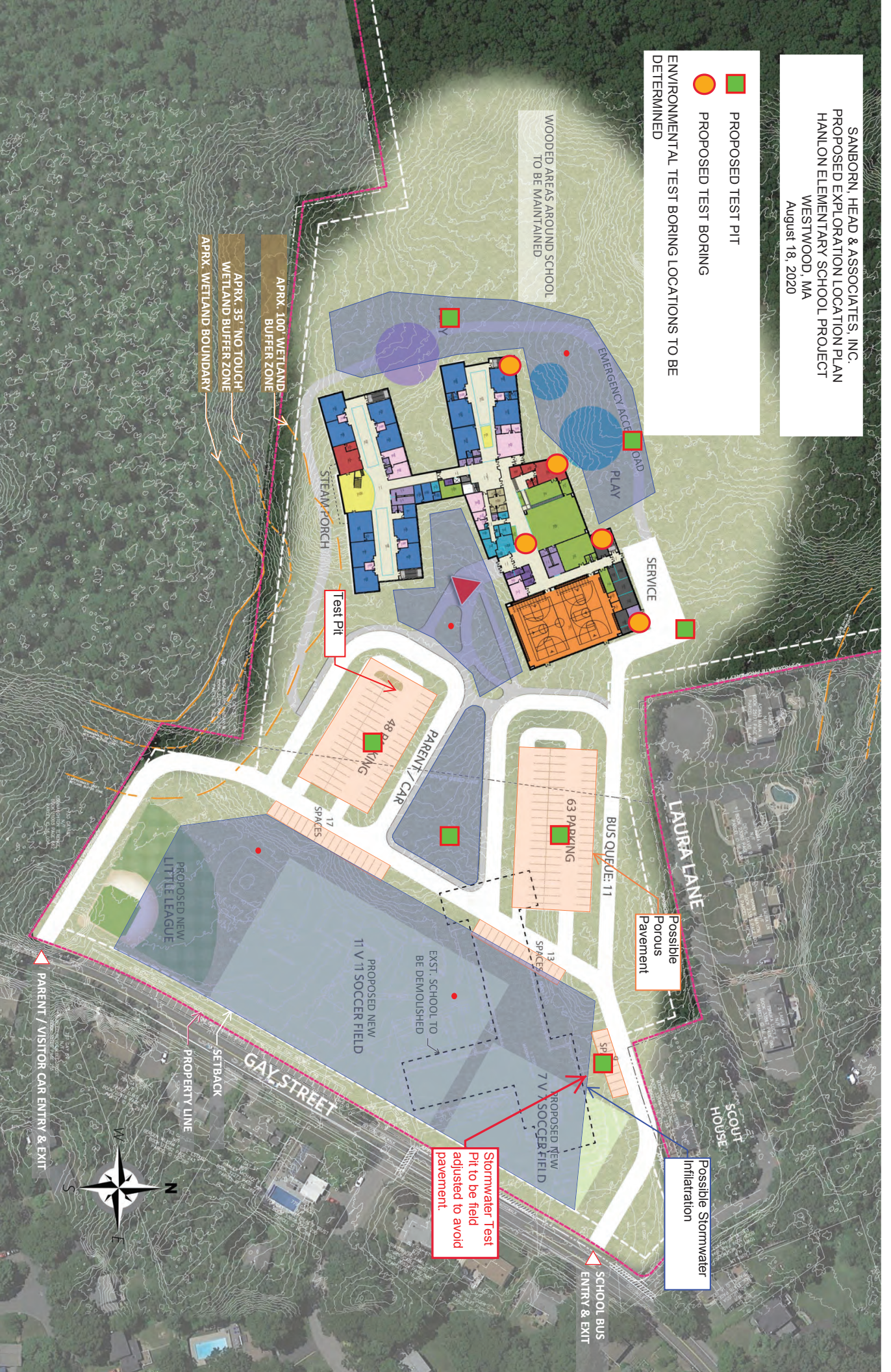
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SANBORN, HEAD & ASSOCIATES, INC.  
PROPOSED EXPLORATION LOCATION PLAN  
HANLON ELEMENTARY SCHOOL PROJECT  
WESTWOOD, MA  
August 18, 2020

- PROPOSED TEST PIT
- PROPOSED TEST BORING

ENVIRONMENTAL TEST BORING LOCATIONS TO BE DETERMINED







370 Main Street, Suite 850  
Worcester, MA 01608  
T: 508-365-1030

[www.nitscheng.com](http://www.nitscheng.com)

August 19, 2020

Mr. Donald M. Walter, AIA, MCPPO  
Partner  
Dore and Whittier Architects, Inc.  
260 Merrimac Street, Building 7, 2<sup>nd</sup> floor  
Newburyport, MA 01950

RE: Nitsch Proposal #13759.1P  
Hanlon Elementary School  
Land Surveying Services  
Additional Services  
Westwood, MA

Dear Mr. Walter,

Nitsch Engineering is pleased to submit this Additional Services proposal to you (the Client) for professional land surveying services associated with the Paul Hanlon Elementary Schools located in Westwood, Massachusetts. Per our correspondence, Nitsch Engineering understands that you are requesting our land surveying services to obtain spot elevation checks at several locations at the proposed building and parking areas, along with locating Geotech borings and test pits (see attached Survey Sketch "A"), and the geothermal test well that was just recently installed. We also understand that you are requesting a plan be prepared delineating "Area 1" for the Owner to use to transfer ownership/oversight from the Town to the School Committee (see attached Survey Sketch "B").

This letter summarizes our scope, assumptions, schedule, and fee.

## SCOPE OF ADDITIONAL SERVICES

### TASK #1: ELEVATION SPOT CHECKS AND GEOTECH LOCATIONS

1. Obtain approximately 25 elevation spot checks as shown on the attached Survey sketch "A";
2. Field locate Geotech borings and test pits as shown on the attached Survey sketch "A" (locations will include ground elevations); and
3. Process field locations and add to existing base plan.

### TASK #2: PREPARE AN APPROVAL NOT REQUIRED PLAN

1. Coordinate with the owner and/or owners' representative to develop the limits of "Area 1";  
**Task 2 not included in this proposal**
2. Prepare an Approval Not Required (81P) Plan indicating the parcel boundaries of "Area 1" as directed by the client, including calculations, review of the town of Westwood Planning Board Rules and Regulations and analysis of pertinent features in relation to new lines;
3. Prepare a description of "Area 1"; and
4. Complete the relevant portions of the town of Westwood Approval Not Required application.

#### **WORK NOT INCLUDED IN THE SCOPE OF ADDITIONAL SERVICES**

1. Performing a topographic survey.
2. Performing a full boundary line retracement survey of the town property.
3. Preparation of Article 97 land transfer plans.

#### **ASSUMPTIONS**

1. Geotech borings and test pit locations are for first Phase only.
2. All Geotech borings and test pits for first Phase will be completed prior to arrival on site.
3. The spot elevations shown on Survey Sketch B are sufficient.
4. Does not include plan(s) for Areas 2 and 3.
5. All filing fees and other associated costs related to the ANR plan, will be paid by the Client.

#### **COMPENSATION**

Compensation for the Additional Services provided will be in accordance with the Standard Contract Terms of Nitsch Engineering's executed agreement with the Client, dated November 27, 2019. **The lump-sum cost for these services is \$6,000 (see breakdown below)** and will be billed on a lump sum basis. Costs will not be incurred by Nitsch Engineering beyond this lump-sum amount without prior written approval from the Client. Expenses are included in the above-listed fees.

Task 1 – Elevation Spot Checks and Geotech Locations	\$ 3,000.00
Task 2 – Prepare an Approval Not Required Plan	\$ 3,000.00

Mr. Donald M. Walter, AIA, MCPPO: Nitsch Proposal #13759.1P (Additional Services)  
August 19, 2020  
Page 3 of 3

Should the conditions of this Additional Services proposal meet with your approval, please sign the Client Authorization section below and return this Additional Services proposal to us for our files. If Nitsch Engineering is authorized to commence and/or continue providing its services on the project, either verbally or in writing, prior to the full execution of a written contract, such authorization will be deemed an acceptance of this Additional Services proposal, and all such services will be provided and compensated for in accordance with the terms and conditions contained herein as though this Additional Services proposal were fully executed by the Client.

If you have any questions, please call.

Very truly yours,

**Nitsch Engineering, Inc.**

*Mark Violette*

Mark E. Violette, PLS  
Senior Project Manager

MEV/mma

Enclosures: Survey Sketch A  
Survey Sketch B

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Approved by:

*Denis Seguin*

Denis R. Seguin, PLS  
Vice President, Director of Land Surveying

#### **CLIENT AUTHORIZATION**

This Additional Services proposal is hereby accepted by the Client as evidenced by the execution hereof, and such a person so executing the same on behalf of the Client does hereby warrant full authority to act for, in the name of, and on behalf of the Client.

Such acceptance provides full authorization for Nitsch Engineering to proceed with providing the Scope of Additional Services under the terms and conditions stated herein.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

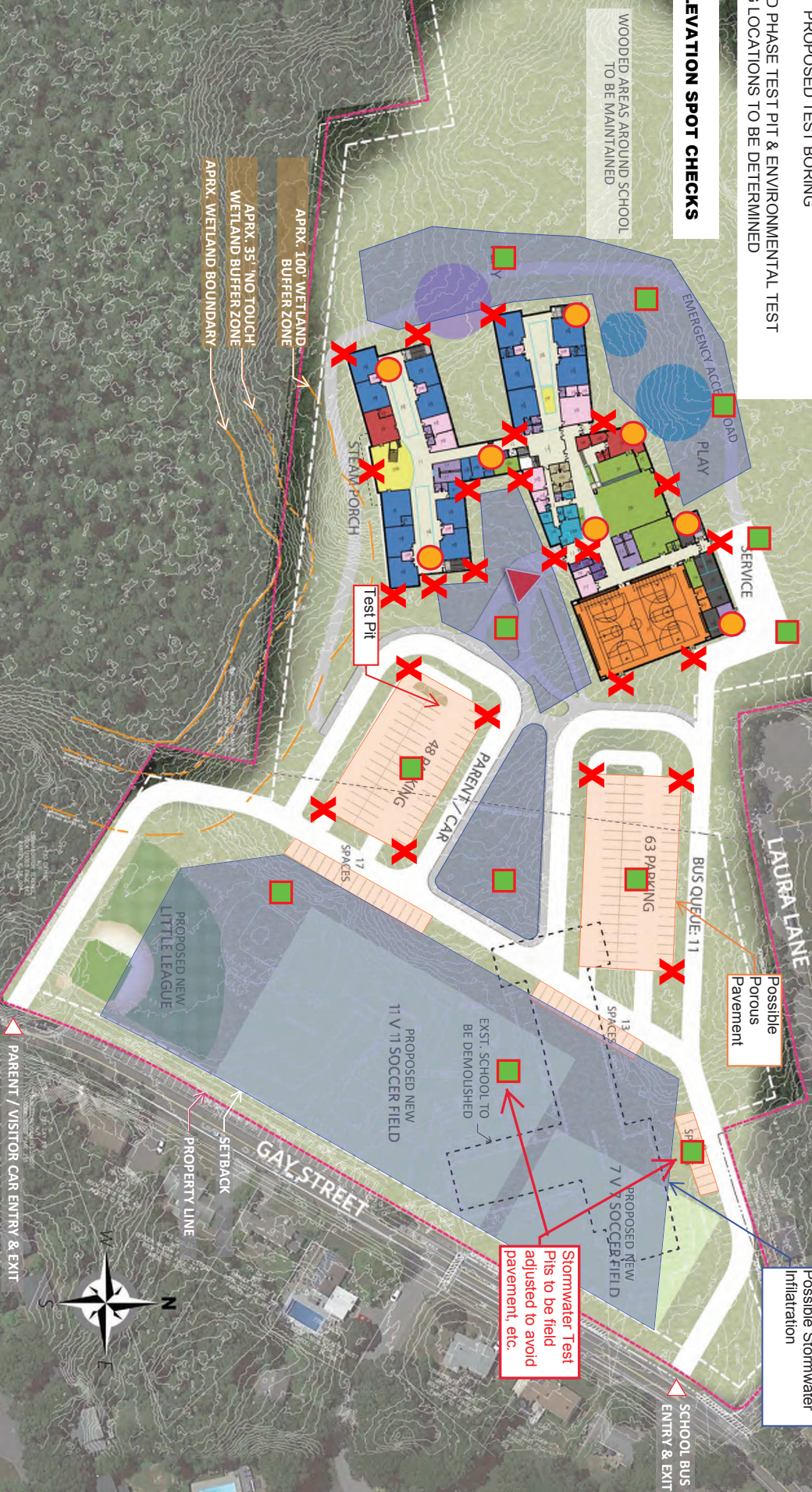
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Printed Name and Title



# SURVEY SKETCH "A"

## SECOND PHASE TEST PIT & ENVIRONMENTAL TEST BORING LOCATIONS TO BE DETERMINED

## **X** ELEVATION SPOT CHECKS





August 21, 2020

Maya Plotkin  
Chair, School Building Committee  
c/o Town of Westwood  
220 Nahatan Street  
Westwood, MA 02090



Project name: **Hanlon Elementary School Building Project**  
Subject: **Amendment #5**

Dear Maya,

We are seeking an amendment to our contract, dated 4 November 2019, between the Town of Westwood and Dore + Whittier, on the Hanlon Elementary School Building Project, for professional Geotechnical Engineering Services relative to environmental investigation and exploration.

Refer to attached proposal from Sanborn Head, Tasks 7-8 only:

- Environmental Services exploration relative to possible hazardous materials found in Ph 1 document review, and corresponding report. Since the extent of additional investigation is unknown, this work would be completed on a time and materials basis, with a not-to-exceed allowance of \$16,500 including D+W 10% mark up.

If you could have this amendment signed, it will serve as authorization for us to proceed.

Feel free to contact me with any questions you may have.

Sincerely,  
**DORE + WHITTIER**  
Donald M. Walter, AIA, MCPPO

Principal

Acceptance

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Copy:           File

Mr. Donald M. Walter, AIA  
Dore + Whittier  
260 Merrimac Street, Bldg. 7  
Newburyport, MA 01950

August 18, 2020  
4717.00

Re: Proposal for Consulting Engineering Services  
Hanlon Elementary School Project  
Westwood, Massachusetts

Dear Donald:

Sanborn, Head & Associates, Inc. (Sanborn Head) is pleased to submit this contract amendment to Dore & Whittier (Client, D+W) to provide additional geotechnical and environmental engineering services for the schematic design phase for the proposed Hanlon Elementary School (HES) located at 790 Gay Street in Westwood, Massachusetts (the Site).

Based on our discussions with you, we understand that the proposed Hanlon Elementary School project has progressed with the selection of the 790 Gay Street property and further design development is underway, including siting of the HES and stormwater management features. Our objectives are: (1) complete a Site-specific subsurface investigation and advance our geotechnical engineering recommendations for the subject Site as presented in our *Preliminary Geotechnical Engineering Report*, dated January 29, 2020; (2) complete subsurface explorations in support of stormwater management design by Nitsch Engineering and prepare a stormwater design memorandum summarizing our findings; (3) complete additional Site-specific research and subsurface investigation (if necessary) to advance our environmental recommendations as presented in our *Phase 1 Environmental Site Assessment with Limited Subsurface Investigation*, dated June 29, 2020; and, (4) review Earthwork and Blasting Specifications prepared by Nitsch for inclusion in the project schematic design package.

## **SCOPE OF SERVICES**

As requested, we have prepared our contract amendment to include both geotechnical and environmental engineering services. The following paragraphs describe our proposed scope of services in more detail.

### **GEOTECHNICAL ENGINEERING SERVICES**

**Geotechnical Services not included in this amendment**

Our objective will be to provide design phase geotechnical engineering support, including the preparation of a final geotechnical engineering report.

### **Task 1 – Geotechnical Subsurface Exploration Program**

#### **Geotechnical Services not included in this amendment**

Based on our preliminary geotechnical recommendations, we understand that the proposed HES will be located in an area with the potential for shallow bedrock. We propose completing up to an additional five (5) test borings within the proposed building footprint to supplement previously completed explorations at the Site and provide sufficient coverage to prepare our final geotechnical engineering recommendations.

#### **Test Borings**

Prior to the exploration program, Sanborn Head will mark the exploration locations using GPS in the field at least 72 hours prior to performing drilling and notify DigSafe for utility clearance. We anticipate utilizing an excavator for stormwater test pits (see below) to clear vegetation and provide access to the geotechnical test boring locations. We will coordinate site access with you and the Westwood Public Schools department.

Following the tree clearing work, Sanborn Head will retain a drilling subcontractor to perform up to two (2) days of drilling to complete up to five (5) test borings in the approximate areas shown on the attached Proposed Exploration Location Plan. We have assumed the drilling can be performed during school hours given the location of the test borings and distance from the existing school building. The subsurface explorations will be advanced using an ATV-mounted drill rig using hollow-stem auger and/or drive and wash drilling techniques. Split-spoon samples will be collected continuously through the fill, and at 5-foot intervals thereafter, or at the discretion of the geotechnical engineer. Within proposed building areas, the proposed test borings will generally be advanced up to approximately 25 feet, or refusal, whichever occurs first. Where refusal is encountered in proposed building areas within 10 feet of the finished floor elevation, we will confirm presence of bedrock by advancing a minimum of 5-ft beyond the refusal depth using an air-hammer. Sanborn Head personnel will observe and log the subsurface conditions in the test borings. After completion of the test borings, the explorations will be backfilled to match the existing ground surface.

### **Task 2 – Geotechnical Laboratory Testing**

Sanborn Head will collect and submit up to two (2) soil samples from the test borings for grain-size analysis and moisture content to assist in classifying the soils and to evaluate their suitability for re-use on-site.

### **Task 3 – Geotechnical Engineering Memorandum**

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exploration logs prepared by Sanborn Head and others along with an exploration location plan, and will be issued as one electronic PDF.

## **STORMWATER SERVICES** **Geotechnical Services not included in this amendment**

Our objective will be to provide subsurface information to Nitsch Engineering to support stormwater management design for the project.

### **Task 4 - Stormwater Design Support**

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The results of our hydrogeological findings will be transmitted to the project team via a summary memorandum which will include recommended design parameters to support the stormwater design, exploration logs, and a location plan.

## **GENERAL CONSULTING SERVICES**

### **Task 5 - Construction Specifications**

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### **Contingency Task 7A – Environmental Subsurface Exploration Program**

Depending on the outcome of our Town Records and School Record Review, we may recommend additional environmental subsurface explorations and collection of soil and/or groundwater samples for the potential environmental concerns. For budgeting purposes, we recommend carrying a contingency for completion of 1-day of subsurface explorations using a direct-push drill rig in Site areas that may have been impacted by the leaking transformer or fuel oil USTs. The environmental subsurface exploration program contingency includes collection of up to three (3) soil samples for extractable petroleum hydrocarbons (EPH) analysis and volatile petroleum hydrocarbons (VPH) analysis and submission to Alpha Analytical, Inc. of Westborough, MA for analytical testing laboratory. Additionally, the contingency includes the installation of up to one (1) groundwater monitoring well, subsequently monitoring well development and groundwater sampling by Sanborn Head personnel, and submission of up to one (1) groundwater sample for EPH and VPH analyses. If collected, samples submitted to Alpha Analytical will be submitted for 1-week standard turn-around and results will be shared with the project team.

### **Task 8 – Summary of Potential Environmental Concerns**

Following our records review and additional subsurface exploration program(s) (including geotechnical, stormwater and/or environmental explorations), Sanborn Head will prepare a Phase II Site Investigation Report summarizing our findings pertaining to potential environmental concerns.

## BASIS OF BILLINGS AND BUDGET ESTIMATE

We propose to complete the additional base scope of services outlined above for an additional lump sum fee of \$34,900. Our estimate for Environmental Services Contingency is an additional \$15,000 that will be billed on a time and materials basis. A breakdown of the additional services is provided below:

Task	Budget
<b>Geotechnical Engineering Services (Tasks 1 to 3)</b> <i>Subsurface Exploration Program, Laboratory Testing, Geotechnical Engineering Memorandum</i>	\$18,500
<b>Stormwater Services (Task 4)</b> <i>Subsurface Exploration Program, Stormwater Design Memorandum</i>	\$13,700
<b>General Consulting Services (Tasks 5 and 6)</b> <i>Specifications, Project Meetings</i>	\$2,700
<b>BASE CONTRACT AMENDMENT SUBTOTAL</b>	<b>\$34,900</b>
<b>Environmental Services Contingency (Task 7, 7A and 8)</b> <i>Records Review, Subsurface Exploration Program, Analytical Laboratory Testing, Phase II Site Investigation Report</i>	\$15,000

Our budget is based on our current understanding of the project requirements for the schematic design phase. Successful completion of the project can be influenced by changes in the scope of services as dictated by your needs, as well as unforeseen conditions. Changes that may require adjusting the scope of services and budget will be reviewed with you and an addendum to this agreement, if appropriate, will be provided at a later time.

## SCHEDULE

We anticipate that we will work collaboratively with Dore + Whittier and other members of the project team to provide deliverables in a timely and responsive manner as needed. At this time, we anticipate the following sequence of field services:

- Stormwater/geotechnical test pits and tree clearing (2-days) prior to the start of school;
- Geotechnical test borings (2-days) in early September, and;
- Environmental test borings (if necessary) (1-day).

We are happy to discuss with you an alternative schedule as dictated by the project needs.

## TERMS OF ENGAGEMENT

This amendment, when accepted, shall become part of the December 13, 2019 agreement between Sanborn Head and Dore + Whittier and subject to the terms and conditions therein.

We look forward to our continued work with you on this project. Please call should you have any questions.

Very truly yours,  
SANBORN, HEAD & ASSOCIATES, INC.



Luke Norton, P.E.  
Senior Project Manager



Kevin P. Stetson, P.E.  
Senior Vice President

LDN/KPS: ldn

Attachments: Proposed Exploration Location Plan

This contract amendment is hereby accepted and executed by a duly authorized signatory who, by execution hereof, warrants that he or she has full authority to act for, in the name, and on behalf of Dore + Whittier.

By: \_\_\_\_\_  
for Dore + Whittier

Title: \_\_\_\_\_

\_\_\_\_\_  
Typed/Printed Name

Date: \_\_\_\_\_

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