



TOWN of BROOKLINE

Massachusetts

BUILDING DEPARTMENT

Daniel Bennett
Building Commissioner

TO: Selectboard/ School Committee

FROM: Ray Masak, PE Project Manager

SUBJECT: Brookline High School- Amendment 15
Design Services (FY 19)

DATE: February 13, 2020

On the Calendar this week, the Building Department is requesting the approval of an amendment for designer services for the subject project in the total amount of \$80,820.

The appropriation for this contract was approved by Town Meeting as part of the overall CIP for FY19. This amendment is for additional design services involving the MBTA station. Refer to the Hill memo dated February 7, 2020 and the Rawn memo dated February 5, 2020 for further explanation of services.

The Building Department will be available on Tuesday evening to answer any questions. Thank you for your consideration.

TOWN OF BROOKLINE
333 Washington Street, Brookline, Massachusetts 02445

PURCHASE ORDER CHANGE FORM

INVOICE DATE: 10-Feb-20

TO:	William Rawn Associates, Architects, Inc 10 Post Office Square, Suite 1010 Boston MA 02109
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Purchase Order Number

21803108

Vendor Number

53540

PAYMENT AMOUNT

\$80,820.00

BUDGET 14,838,648.00
BALANCE 8,866,442.22

FUND	ORGANIZATION	ACTIVITY	OBJECT
	2594C204		524003

FOR: Brookline High School Expansion

Amendment	Date	
15	2/5/2020	Additional Services - MBTA Station Design

AMOUNT
\$80,820.00

BUILDING COMMISSION

APPROVAL OF:

Janet Fierman, Chairman

George Cole

Kenneth Kaplan

Karen Breslawski

Nathan E. Peck

SELECT BOARD

APPROVAL OF:

Bernard W. Greene, Chairman

Benjamin J. Franco

Nancy S. Heller

Heather Hamilton

Raul Fernandez

SCHOOL COMMITTEE

APPROVAL OF:

Mary Ellen Normen, Assistant Superintendent For Administration and Finance

HILL
Hill International

Hill International, Inc.
75 Second Avenue, Suite 300
Needham, MA 02494
Tel: 617-778-0900
Fax: 617-778-0999
www.hillintl.com

February 7, 2020

Mr. Ray Masak, P.E.
Project Manager
Town of Brookline Building Department
333 Washington Street
Brookline, MA 02445

Re: William Rawn Associates Amendment 15 – MBTA project related Add Services

Dear Ray:

Attached please find WRA's Amendment Request # 15 for additional design for changes required. Additional design services in this amendment are for three separate tasks and performed by William Rawn Associates (WRA), AECOM, Nitsch and Lemon Brooke. The services proposed were previously reviewed and commented on by Hill, and the attached now reflects revisions we support.

Scope #1 is for design changes due to the MBTA's removal and replacement of the tracks at Brookline Hills Station in September 2019 well after the 100% OCS was issued 3/15/19 and 100% Platform issued 7/1/2019. Track as-built conditions (~1"-3") affected the previous design and the design, therefore 100% designs needed to be adjusted and issued to Skanska via Bulletins.

Scope #2 regarding the Fare (AFC) Shelter, a temp. location was originally shown in the 3/15/19 100% OCS/Enabling design. Subsequently, as a result of plaza enlargement/parking lot reconfiguration, better understanding of Skanska phasing and logistic needs, and finding out during late Summer 2019 during Final Easement negotiations that MBTA may or may not have their new Fare Equipment (AFC 2.0) ready for deployment at end of the project, all those factors contributed into the AFC shelter having to be temporarily relocated once further West, to be within future new ToB parking lot. This relocation coordination was done intentionally to minimize rework in the future when the AFC shelter had to be permanently removed by MBTA and restore ToB's parking lot.

Scope #3 the OCS portal foundations were re-designed to be mini-pile supported, in lieu of original caisson design, primarily due to Contractor's equipment height constraints being too close to existing overhead lines that did not have enough slack to temporarily move to allow original caissons to be installed.

The attached letter from WRA dated February 5, 2020 and supporting proposals from the consultants indicated provide additional detail in support of the request. Hill recommends approval of the \$80,820.00 Amendment 15.

Very truly yours,



Andy Felix
Project Director

cc. A. Jonic WRA T. Guigli, ToB

WILLIAM RAWN ASSOCIATES | Architects, Inc.

10 Post Office Sq.
Suite 1010
Boston, MA 02109
t. 617.423.3470
www.rawnarch.com

Ray Masak
Project Manager
Town of Brookline Building Department
Brookline Town Hall
333 Washington Street
Brookline, MA 02445

February 5, 2020

Project Name: Brookline High School Expansion Project

Re: Contract Amendment #15

Additional MBTA service
\$20,820

Dear Ray,

There have been several instances where the platform designer (AECOM) has been required to revise their original contract documents in response comments from the MBTA, revisions requested by the Town of Brookline, and delegated design engineering work requested by the CM in order to meet the current OCS schedule. A summary of this additional work is identified below in addition to the attached proposal from AECOM.

Scope #1: Design changes to accommodate the MBTA removal and replacement of Green Line tracks.

The new Brookline Hills Station was laid out based on an existing conditions survey provided by Feldman Land Surveyors in 2017. During the summer of 2019 the MBTA tracks at the station were replaced by the MBTA. Skanska's surveyor provided an as-built survey that indicated the tracks were raised between 1" and 3". This grade change impacted the design of the platform and MBTA plaza documented in AECOM's drawings, Lemonbrooke's landscape drawings, and Nitch engineering's documents. Please see additional service proposals

• AECOM (OCS)	\$16,575*
• AECOM (Platform)	\$10,580*
• Lemonbrooke	\$5,000
• Nitsch Engineering	\$3,000
• William Rawn Associates Project Management	\$1,000
• William Rawn Associates Administration (10%)	\$3,515
Scope #1 Total:	\$39,670

*Fee reduced by \$6,800 from original 11/15/19 proposal

Scope #2: Temporary MBTA fare collection hut locations, foundation, and systems

The Town of Brookline / Hill International requested that the design team find a new, more permanent location for the MBTA fare collection hut. The MBTA stated that the fare collection system 2.0 may not be ready by the time the project is completed in 2021 requiring the temporary hut to remain in operation until the new fare collection equipment is available. The design team worked to find a

location that would prevent the temporary hut from being relocated two times during construction. See AECOM's proposal (attached) for additional detail.

• AECOM	\$13,134
• William Rawn Associates Project Management	\$1,000
• William Rawn Associates Admin (10%)	\$1,313
Scope #2 Total:	\$15,447

Scope #3: Delegated design work for the MBTA OCS portal foundations

During construction Skanska Civil determined that the equipment required to bore holes for deep OCS columns would not work with the existing overhead wires. AECOM re-designed the column footings so a low clearance mini-pile rig could be used. Under normal project conditions, the pile cap and min-piles would have been issued as a delegated design element. This additional service proposal is for the full engineering services for the mini-piles and pile caps.

Additionally, Hayward Baker had to abandon the installation of one mini-pile due to a lost casing below grade. Skanska and Hayward Baker were unable to provide a proposed re-design of the pile cap and requested assistance from AECOM's engineering team. The \$3,430 line item below is related to this scope of work.

• AECOM	\$19,936
• AECOM (Pile Cap re-design due to abandoned mini-pile)	\$3,430
• William Rawn Associates 10% Admin	\$2,337
Scope #3 Total:	\$25,703

1. ~~Scope #4: Enabling duct bank changes due to 60% MBTA platform comments~~

~~The OCS bid documents were issued on March 15, 2019. The 60% platform design submission documents were issued on March 1, 2019. During the MBTA's review of the 60% platform documents they requested a change to the platform foundation design from a cast in place concrete structure to helical piles. This foundation change resulted in the need to revise OCS duct bank routing.~~

• AECOM	\$34,590*
• William Rawn Associates Project Management	\$3,459
Scope #4 Total:	\$38,049

~~*Fee reduced by \$9,000 from original 11/15/19 proposal~~

Scope #4 Note: The additional service proposal for duct bank revisions has been temporarily removed from this submission. A proposal will be issued to the Town of Brookline once the appropriate backup has been provided.

2. ~~Scope #5: New Plaza Design~~

~~This additional service proposal represents a credit for a reduction to scope AECOM's design scope when the MBTA plaza design was revised per ToB commuter comments. Additional design and engineering fees are for revisions to the March 15, 2019 OCS bid documents resulting from the new plaza design.~~

• AECOM	\$6,530*
• William Rawn Associates Project Management	N/A
<u>Scope #5 Total:</u>	<u>\$6,530</u>

**Fee reduced by \$1,500 from original 11/15/19 proposal*

Scope #5 Note: AECOM has agreed to drop this add service proposal.

Total Contract Amendment #15 Additional Service Fee: \$80,820

Please let us know if you have any questions or comments. Upon approval of this proposal we will provide formal additional service documentation (Attachment F).

Regards,



Andy Jonic, AIA
Senior Associate
William Rawn Associates, Architects Inc.

Attachments:

- AECOM proposal dated February 4, 2020
- Lemonbrooke proposal dated January 31, 2020
- Nitsch Engineering proposal dated December 30, 2019



One Federal Street, Suite 800, Boston, MA 02110

Project Name:	Brookline Hills Station
AECOM Project Number:	60580112
Subject:	Contract Change Order No.2

Mr. Andrew Jonic, AIA, LEED AP BD+C
Senior Associate
William Rawn Associates Inc.
10 Post Office Square Suite 1010
Boston, MA 02109

February 4, 2020

The following provides AECOM's outline to Change Order No.2 for supplemental services after the conclusion of the Final Design phase and during construction. The project is scheduled to be substantially complete in in June of 2021.

1. Design changes to accommodate the MBTA removal and replacement of Green Line tracks:

The MBTA in early fall of 2019 replaced the existing Green Line tracks, ballasts and ties along the Green Line D Line branch including the tracks at the Brookline Hills Station.

- This track replacement occurred after the 100% station design was completed
- The track elevation changed each tracks' profile as much as 3" +/-.
- AECOM requested and reviewed track survey form the MBTA that was not helpful because it wasn't tied to the project, both in plan and datum
- AECOM requested track survey provided by Skanska
- Fit and aligned the provided CADD survey into the station model for review
- Adjusted OCS drawings using provided survey to maintain cable elevations
- Adjusted station drawing using provided survey to comply with MBTA and ADA requirements.

OCS

Name/Technical Team	Rate	Hours	Total
Roger Gagnier	\$280.00	6	\$1,680.00
Architect	\$185.00	8	\$1,480.00
Structural (OCS)	\$185.00	24	\$4,440.00
Civil	\$185.00	20	\$3,700.00
Designer	\$170.00	18	\$3,060.00
CADD	\$150.00	14	\$2,100.00

Technical Support	\$115.00	1	\$115.00
		91	\$16,575.00

Station

Name/Technical Team	Rate	Hours	Total
Roger Gagnier	\$280.00	7	\$1,960.00
Architect	\$185.00	16	\$2,960.00
Structural (OCS)	\$185.00		
Civil	\$185.00	20	\$3,700.00
Designer	\$170.00	8	\$1,360.00
CADD	\$150.00	4	\$600.00
Technical Support	\$115.00		
		55	\$10,580.00

2. Temporary MBTA fare collection hut locations, foundation and systems:

The MBTA's inability to provide new AFC equipment prior to the completion of the project transformed the temporary hut location into a long term permanent one.

- The temporary hut location needed to be specifically located on the plaza to minimize plaza and parking impacts and the station's main entrance.
- The relocation required attending coordination meetings
- The final coordinated location required civil and electrical drawing revisions
- The long-term placement of the hut and the potential of it staying in place after the contractor has finished, required a closer architectural review.

Name/Technical Team	Rate	Hours	Total
Roger Gagnier	\$280.00	10	\$2,800.00
George Katsoufis	\$248.00	8	\$1,984.00
Architect	\$185.00	8	\$1,480.00
Structural	\$185.00		
Electrical	\$185.00	16	\$2,960.00
Designer	\$170.00	23	\$3,910.00
CADD	\$150.00		
Technical Support	\$115.00		
		65	\$13,134.00

3. Delegated design work for the MBTA OCS portal foundations:

The 100% enabling package issued on March 15, 2019 had a coordinated portal foundation design locating the OCS poles and foundation to the outsides of the two different platforms. This design was in harmony with the MBTA portal foundation detailing standards.

- The contractor unable to find suitable equipment to construct the foundation with the existing cables directly above requested a change.
- AECOM was directed to develop a detail using mini piles with a pile cap. This type of detail will allow smaller equipment to be used, however is different from the MBTA standards.
- Two different shapes and three different orientations were developed for the 8 different portal column locations.
- The contractor lost a pile during construction and AECOM was directed to design and detail another unique pile cap based on the construction activity

Delegated Design

Name/Technical Team	Rate	Hours	Total
Roger Gagnier	\$280.00	8	\$2,240.00
George Katsoufis	\$248.00	2	\$496.00
Architect	\$185.00	10	\$1,850.00
Structural	\$185.00	30	\$5,550.00
Designer	\$170.00	40	\$6,800.00
CADD	\$150.00	20	\$3,000.00
Technical Support	\$115.00		
		110	\$19,936.00

Unique pile design to address construction activity

Name/Technical Team	Rate	Hours	Total
Roger Gagnier	\$280.00	2	\$560.00
George Katsoufis	\$248.00		
Architect	\$185.00		
Structural	\$185.00	10	\$1,850.00
Designer	\$170.00	6	\$1,020.00
CADD	\$150.00		
Technical Support	\$115.00		
		18	\$3,430.00

In total, this Change Order amounts to **\$63,655.00** labor cost. Please let us know if any further documentation is required at this time. As you know this work has been completed in good faith to keep ahead of the contractor's construction schedule.

Please note, the billing rates for the Core and Technical Team will increase as of the first of the year by 4%. This scheduled yearly increase does not affect this Change Order request only future request after the first of the year. The 2019 rates are listed below:

2020 Billing Rates

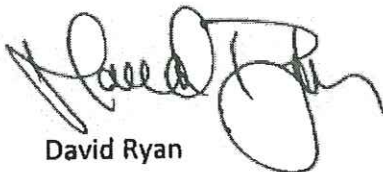
Core Team

David Ryan	\$364.00
Roger Gagnier	\$291.00
George Katsoufis	\$255.00
Scott Kelley	\$250.00

Technical Team

Architect	\$192.00
Structural	\$192.00
Electrical	\$192.00
Civil	\$192.00
Designer	\$176.00
CADD/Admin	\$156.00
Technical Support	\$120.00

Sincerely,



David Ryan
Senior Vice President

Cc: Roger Gagnier

LEMON BROOKE

31 Oxbow Road Concord MA 01742
T 978.222.3700

January 31, 2020

Mr. Andy Jonic
Senior Associate
William Rawn Associates, Architects Inc.
10 Post Office Square, Suite 1010
Boston, MA 02109

RE: Brookline High School – Additional Service Request #3 (ASR #3) for Landscape Architectural Services Related to Track Elevation Changes at the Brookline Hills Station

Dear Mr. Jonic:

Lemon Brooke LLC (LEMON BROOKE) appreciates the opportunity to submit this additional services request for landscape architectural services for the **Brookline High School Project in Brookline, MA**. This proposal sets forth the proposed limit of work, scope of services, deliverables and fees.

Scope of Service

LEMON BROOKE will provide Landscape Architectural services for revising the construction documents and coordinating with other technical subconsultants for the area known as Brookline Hills Plaza as illustrated and described in **Attachment A "Limit of Work"**. This work is necessitated by the change to track grade during the summer of 2019, after construction drawings were completed based on original track grade survey.

Fees Terms & Schedule

To undertake the above scope of services, we recommend the following fee budgets to be established:

<i>Phase</i>	<i>Schedule</i>	<i>Professional Services</i>	<i>Estimated Reimbursables</i>
Construction Documents Revision:	2 Months	\$5,000	Included

All terms shall be per the current terms of our contract.

IV. Authorization

We trust this proposal has provided you with sufficient information. If this proposal is agreeable then with your signature below, this will be our legal working contract. If another form of proposal or contract is necessary, please let us know. We look forward to discussing the project further with you and, if you need additional information or detail, please don't hesitate to contact me.

Mr. Andy Jonic
Brookline High School – ASR # 1
April 15, 2019
Page 2 of 3

Sincerely,



Christian Lemon, Principal

Accepted:

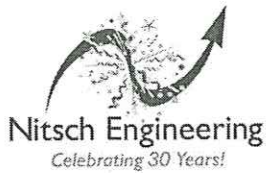
Andy Jonic
William Rawn Associates, Architects Inc.

Date

Attachment: Appendix A (Terms & Conditions)

ATTACHMENT A – LIMIT OF WORK (in highlighted area)





2 Center Plaza, Suite 430
Boston, MA 02108-1928
T: 617-338-0063
F: 617-338-6472
www.nitscheng.com

December 30, 2019

Mr. Erik Tellander
Senior Associate
William Rawn Associates
10 Post Office Square, Suite 1010
Boston, MA 02109

RE: Nitsch Proposal #12331.P
Brookline High School
Cypress Plaza
Plaza Redesign
Civil Engineering Services
Additional Services
Brookline, MA

Dear Erik,

Nitsch Engineering is pleased to submit this Additional Services proposal to you (the Client) for professional civil engineering services associated with redesign and coordination of the Cypress Plaza adjacent to the proposed building located off Tappan Street in Brookline, Massachusetts. This letter summarizes our scope and fee for the Additional Services. Work Not Included and Assumptions shall be as described in the Executed Agreement dated July 31, 2018.

SCOPE OF ADDITIONAL SERVICES

Nitsch Engineering provided Additional Services to revise the Cypress Plaza design to be coordinated with the updated Massachusetts Bay Transportation Authority (MBTA) top of rail elevation. The original top of rail elevation provided by AECOM was revised, requiring the Cypress Plaza to be redesigned and coordinated with the new top of rail elevation. Services include team coordination with the revised grades and evaluation of the impact to Nitsch Engineering's design elements relative to the Cypress Plaza design.

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 August 16, 2017. The costs for these services are **\$3,000** and will be billed on a lump-sum basis. Costs will not be incurred by Nitsch Engineering beyond this amount without verbal approval from the Client. Expenses are included in the above-listed fees.

Mr. Erik Tellander: Nitsch Proposal #12331.P (Additional Services)
December 30, 2019
Page 2 of 2

Should the conditions of this Additional Services proposal meet with your approval, please sign 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.


Jonathan Hedlund, PE
Project Manager

Approved by:


Aaron A. Gallagher, PE, CFM, LEED AP
Civil Engineering Department Manager

JRH/ajc

Q:\12331 Brookline HS\Contract\12331 - AS - Cypress Plaza 2019-12-30.docx

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

Printed Name and Title