



Bullitt County Public Schools

1040 Highway 44 East
Shepherdsville, Kentucky 40165

502-869-8000
Fax 502-543-3608
www.bullittschools.org

Memo

To: Keith Davis

From: Bret Highley

ABH

Date: May 8, 2018

Re: Change Order #7 Bullitt Lick Middle School
Roof Asbestos Testing

Authorization was given to allow EH/Abatement Solutions to proceed with the testing at Bullitt Lick on Friday, May 4, 2018 while school was out of session. Formal Board approval is requested for the change order in the amount of \$2500.00 for the roof asbestos testing as described by Cate Noble-Ward below:

The testing is described below as well as detailed in the attached change order request for testing. The cost of these tests are being proposed at a lump sum fee of \$2,500.00.

1. The area noted in red will be removed down to the concrete layer but leave the Styrofoam. We're hoping the Styrofoam will hold up and continue to encapsulate the asbestos containing layers below.
2. The areas noted in yellow will be removed down to the existing tectum roof deck to weigh the TOTAL ROOF ASSEMBLY. Our hope is that the total weight of the roof assembly is LESS that the unit factors John Papenfuss is using to analyze the current weight on the structure. After these tests are done we'll have a better idea of the recommendations to make to the District moving forward on the roof. Right now we are making a lot of assumptions.

Please let me know if you have questions. I may be reached at 502-921-3659.

Attachments:

- AIA Change Order Form
- Change Order Supplemental Information Form
- Abatement Solution Technologies Change Order Request
- Email Correspondence Indicating Preliminary Superintendent Approval
- Explanation Letter from Cate Ward

Equal Education and Employment Institution

OK May
Ward
Bryson



AIA® Document G701™ – 2017

Change Order

PROJECT: *(Name and address)*

Bullitt Lick Middle School
555 W Blue Lick Road
Shepherdsville, KY 40165

CONTRACT INFORMATION:

Contract For: General Construction
Date: September 11, 2017

CHANGE ORDER INFORMATION:

Change Order Number: 007
Date: 5-8-2018

OWNER: *(Name and address)*

Bullitt County Board of Education
1040 Highway 44 East
Shepherdsville, KY 40165

ARCHITECT: *(Name and address)*

Studio Kremer Architects
1231 S Shelby Street
Louisville, KY 40203

CONTRACTOR: *(Name and address)*

EH Construction, LLC
1188 E Blue Lick Road
Shepherdsville, KY 40165

THE CONTRACT IS CHANGED AS FOLLOWS:

(Insert a detailed description of the change and, if applicable, attach or reference specific exhibits. Also include agreed upon adjustments attributable to executed Construction Change Directives.)

See Architect's justification letter, attached, for detailed description of change in scope.

| | |
|--|-----------------|
| The original Contract Sum was | \$ 8,967,416.93 |
| The net change by previously authorized Change Orders | \$ 121,075.03 |
| The Contract Sum prior to this Change Order was | \$ 9,088,491.96 |
| The Contract Sum will be increased by this Change Order in the amount of | \$ 2,500.00 |
| The new Contract Sum including this Change Order will be | \$ 9,090,991.96 |

The Contract Time will be increased by Zero (0) days.

The new date of Substantial Completion will be

NOTE: This Change Order does not include adjustments to the Contract Sum or Guaranteed Maximum Price, or the Contract Time, that have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

Studio Kremer Architects

ARCHITECT *(Firm name)*

Catherine N. Ward

SIGNATURE

Catherine Noble Ward, AIA

PRINTED NAME AND TITLE

5-8-2018

DATE

EH Construction, LLC

CONTRACTOR *(Firm name)*

Mike Rippey

SIGNATURE

Mike Rippey, Project Manager

PRINTED NAME AND TITLE

5-8-2018

DATE

Bullitt County Board of Education

OWNER *(Firm name)*

Keith Davis

SIGNATURE

Keith Davis, Superintendent

PRINTED NAME AND TITLE

DATE

BG #: 17-148 Change Order No.: 007

District: Bullitt County Schools District Code: 071 Facility Name: Bullitt Lick Middle School School Code: 018

Project: Renovations & Addition Time Extension Required: Yes ☒ No ☐ If yes, by day(s)

Date of Change Order: 5/8/2018 Change Order Amount: ☒ Increase ☐ Decrease ☐ Unchanged

Contractor / Vendor Name: EH Construction, LLC Bid Package No.: n/a

| | | |
|---|----|------------|
| 1. This Requested Change Order Amount + / - | \$ | 2,500.00 |
| 2. Remaining Construction Contingency Balance: (including line 1 above) | \$ | 502,798.49 |
| 3. Change in A/E Fee for this Change Order +/- | \$ | 0.00 |
| 4. Change in CM Fee for this Change Order +/- | \$ | n/a |

Note: Change Orders equal to or greater than \$25,000 shall be submitted to KDE with detail cost breakdown.
Attach additional pages if necessary.

Contract change requested by: Local Board of Education ☒ General Contractor ☒ Architect/Engineer
☐ Construction Manager ☐ Code Enforcement Official ☐ Other: _____

Contract change reason code: ☐ Reduction of Scope ☐ Expansion of Scope ☐ Improved Plans/Specs
☒ Found Condition ☐ Code Compliance ☐ Other: _____

| Change Order Description and Justification: | Cost Benefit to Owner: |
|---|--|
| <p>COR No.07: EH Construction alerted Studio Kremer Architects and BCPS district staff to an unforeseen condition at the roof on April 27, 2018. The roof composition found at BLMS is different than what was assumed based on original documents. The roof composition found lead the A/E and Construction team to believe the original roof was left in place and a new roof was built over it that included a 2" – 3" layer of light weight concrete.</p> <p>Due to the layer of concrete, Studio Kremer Architects sent this information to Slesser Engineering, the structural engineer, to review the total weight of the roof assembly and see if the structure is overstressed due to the added weight of the light weight concrete. Slesser Engineering found the structure is 20% overstressed with just the dead load (weight) considered and 60% overstressed with both dead load (weight) and live load (snow, people, wind, etc.) considered.</p> | <p>Testing of the roof will provide the A/E team with adequate information to make an informed recommendation to the District about how to address the issue of abatement and weight of the roof. If these tests are not done, the District could be guided to do more work than necessary based on actual conditions.</p> |

| | |
|---|--|
| <p>In addition to the matter of added weight – the (3) layers of built-up roofing just below the concrete and styrofoam layers is comprised of asbestos containing material. This was not in Environmental Health Management’s report because during their initial coring of the roof, the concrete layer that was present (which no one had anticipated based on the documentation made available to the A/E team) stopped their core and they had assumed they had hit the roof deck. Our assumption is that when the roof was reroofed sometime in the late 1990’s, the concrete was used to encapsulate the asbestos.</p> <p>Prior to the A/E team making a formal recommendation to the District about how to proceed, we proposed doing a several tests on the roof to check both the weight (structural implications) and the point at which we can remove the existing layers of the roof before penetrating the asbestos layer (abatement implications).</p> | |
|---|--|

Have contract unit prices been utilized to support the cost associated with this change order?

☐ Yes ☒ No If no, provide a detailed cost breakdown which separates labor, material, profit and overhead.

Cost Breakdown: Refer to the attached Change Order Request for a cost breakdown by material and labor. It was found that the work outlined in the change order did not have associated unit prices to utilize.

| Total Change Order Amt.: | Labor | Materials | Profit & Overhead* | Bond & Insurance |
|-------------------------------|--------|-----------|--------------------|------------------|
| \$2,500 | \$ n/a | \$ n/a | \$ 0 | \$ - - |
| % of Total Change Order Amt.: | n/a | n/a % | 0% | % |

*Profit & Overhead shall not exceed 15% of net cost of change order

Is the cost for this change order supported by an alternate bid or competitive price quote(s)?

☐ Yes ☒ No If no, explain why

The work can be handled by trades already on site who are familiar with the building and can accomplish the work quickly within the outlined construction timeframe.

Board of Education Designee's Signature Date

Lisa Lewis 5-8-18
Finance Officer's Signature Date

Catherine N. Ward 5-8-2018
Studio Kremer Architects Architect's Signature Date

N/A
Construction Manager's Signature Date

May 8, 2018



CHANGE ORDER REQUEST NO. 007

FROM: Studio Kremer Architects

PROJECT: BULLITT LICK MIDDLE SCHOOL
RENOVATION AND ADDITION
BG# 17-148
ska# 2016-86

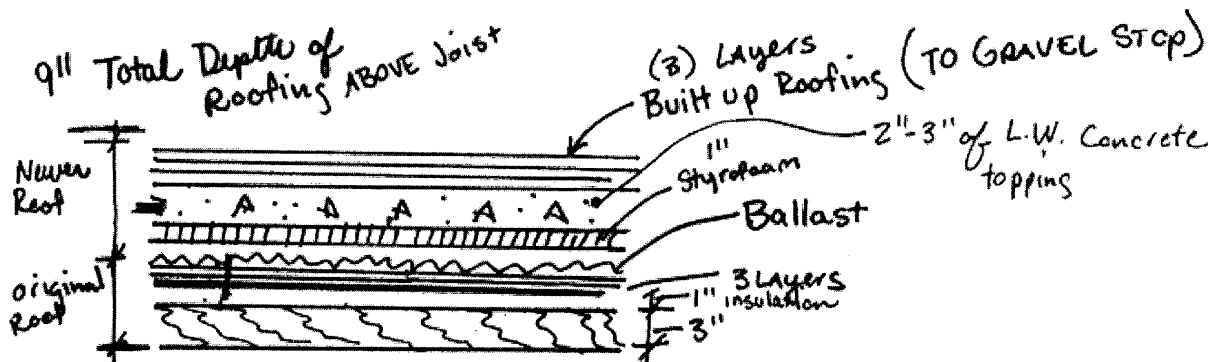
EH Construction alerted Studio Kremer Architects and BCPS district staff to an unforeseen condition at the roof on April 27, 2018. The roof composition found at BLMS is different than what was assumed based on original documents. The roof composition found lead the A/E and Construction team to believe the original roof was left in place and a new roof was built over it that included a 2" – 3" layer of light weight concrete. The roof layers are noted and illustrated below:

Newer Roof over Original

(3) Layers Built Up Roofing
2"-3" Light Weight Concrete
1" Foam Board

Original Roof

Ballast
(3) Layers Built-up Roofing (CONTAINS ASBESTOS)
1" Insulation/Cover Board
3" Tectum Deck



Due to the layer of concrete, Studio Kremer Architects sent this information to Slesser Engineering, the structural engineer, to review the total weight of the roof assembly and see if the structure is overstressed due to the added weight of the light weight concrete. Slesser Engineering found the structure is 20% overstressed with just the dead load (weight) considered and 60% overstressed with both dead load (weight) and live load (snow, people, wind, etc.) considered.

studio kremer architects

1231 S Shelby St, Louisville, KY 40203

TEL 502.499.1100 FAX 502.499.1101

Based on this unforeseen condition EH Construction is requesting a change order to the contract in the amount of **\$2,500**, not charging their typical overhead and profit on this scope of work in an effort to proceed with the work without delay. Studio Kremer Architects will also not charge their contract percentage fee for this work since it involves testing rather than construction.

We have reviewed the additional cost associated with testing of the roof and agree with the lump sum fee required to complete this work as presented by Abatement Solution Technologies. Based upon the information provided we recommend that the Bullitt County Board of Education approve the Change Order as presented.

Studio Kremer Architects

A handwritten signature in black ink, reading "Cate Noble Ward". The signature is fluid and cursive, with the first name "Cate" being the most prominent.

Cate Noble Ward | Architect

Enclosures:

- 1.) Abatement Solution Technologies Change Order Request for Roof Testing
- 2.) Email Correspondence indicating preliminary Superintendent approval on 5-4-2018.
- 3.) KDE Supplemental Instruction for Change Order #007
- 4.) AIA Document G701-2017 – Change Order #007

From: Douglas W. Peters
To: Matthew Rudolph; "Cate Noble Ward"; "Mike Rippy"; bret.highley@bullitt.kyschools.us
Cc: "Anthony"; "John Papenfuss"; "Steven Ward"; Joe Christy
Subject: RE: BLMS-Roofing Drawing
Date: Thursday, May 3, 2018 12:20:58 AM
Attachments: [image001.png](#)
[image002.png](#)
[Results of Roof Core Under Light Concrete Application BLMS 5-2-18.pdf](#)
[RM 13hp Honda HEPA Vac Saw - Roofmaster.pdf](#)

All,

Attached is the roof core sample results I collected at BLMS today. The core sample was collected from a roof section that had the light concrete layer already removed from the top.

The layers from top to bottom were identified as A) a coating covering the Styrofoam layer, B) Styrofoam (1 ¼" thick) , C) a concrete aggregate layer (about ½" thick and is Not the light concrete) , D) Black Roofing Layer that contained the asbestos, E) Yellow Insulation, and F) 3 felt layers. The Tectum roof deck was below the felt layers.

The top roof with its built-up roof layers, light concrete layer and including the Styrofoam is 3 ¾" - 4" thick.

To see if the top roof layer with the light concrete can be removed without disturbing the asbestos roof underneath, I would suggest having the asbestos contractor use a commercial roof saw with the saw depth set at 3 ½" and cut sections of the roof in 2' x 2' squares. An example of a roof saw that would be suitable is attached. It should provide a level cut. It has a HEPA vacuum attachment to help capture asbestos that might be disturbed.

Sincerely,

Douglas W. Peters, CIH, CSP
President

Let us know how we are doing: <https://www.surveymonkey.com/r/ZSZ7XZF>



Environmental Health Management
3701 Taylorsville Road, Suite 1
Louisville, KY 40220

(502) 454-8530 Fax (502) 454-8528
Mobile: (502) 541-4697

This e-mail contains proprietary information and may be confidential.

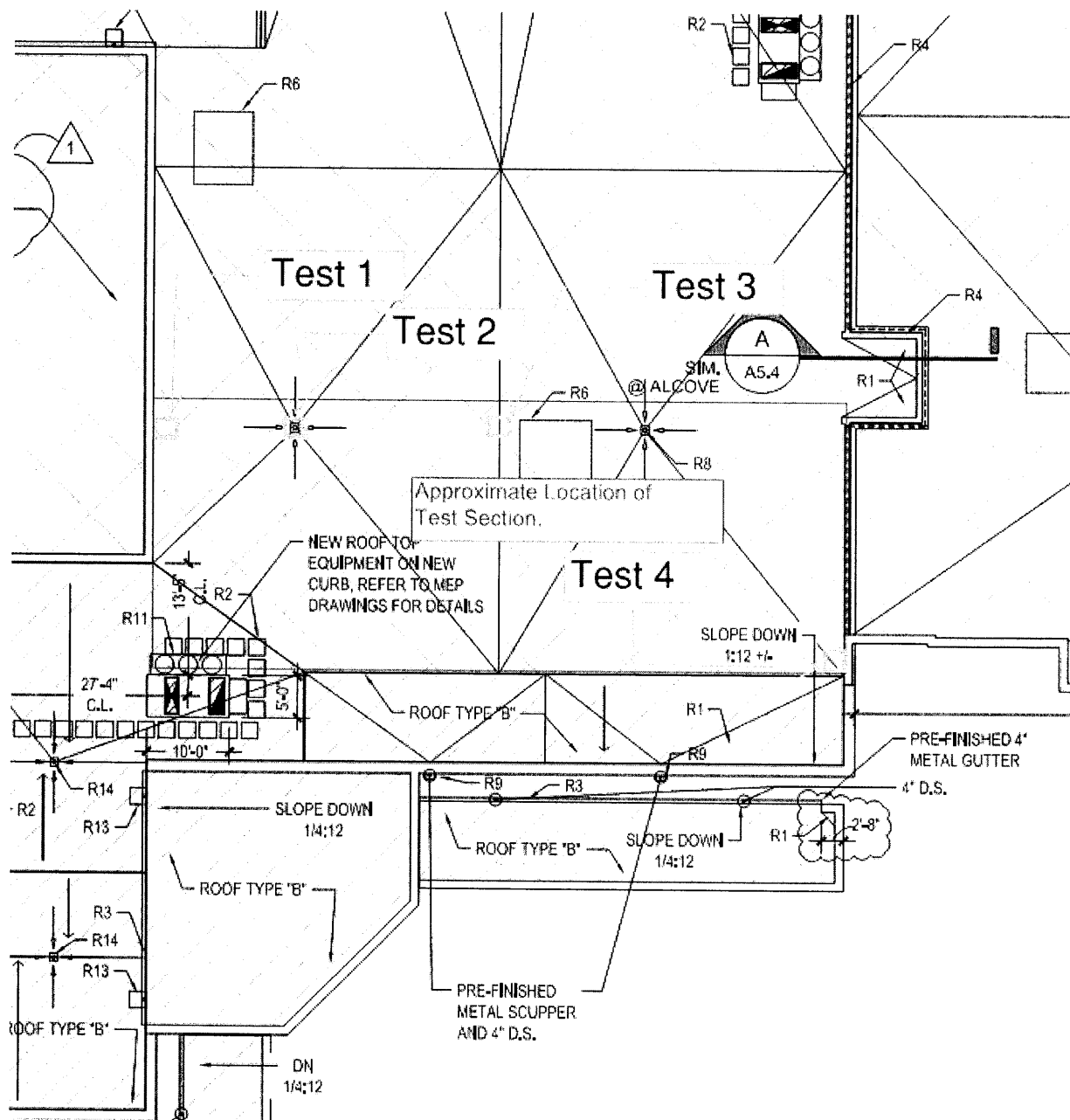
If you are not the intended recipient of this e-mail, you are hereby notified that any dissemination, distribution or copying of this message is strictly prohibited. If you received this message in error, please notify the sender and delete it immediately.

From: Cate Noble Ward [mailto:cate@studiokremer.com]
Sent: Wednesday, May 2, 2018 3:04 PM
To: Mike Rippy; Matthew Rudolph; bret.highley@bullitt.kyschools.us
Cc: Anthony; John Papenfuss; Steven Ward; douglas.w.peters@ehmlou.com
Subject: RE: BLMS-Roofing Drawing

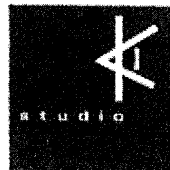
Hello Mike, Bret and Matthew,

Please see the attached sketch with test areas indicated – what we'd like to check is the total weight of the existing roof assembly to verify it's deadload.

We request (4) test cuts, each 1 square foot in size that encompasses the entire roof assembly down to the deck + a 1 square foot piece of the existing tectum roof deck. (Don't cut into the tectum deck at each test area). Once those (4) test areas are cut, bag them and weight them with the piece of tectum to give us the total weight of each test. What we're hoping to see is whether the light weight concrete changes in thickness, thus reducing the overall weight on the structure. We'd like to have a representative from GEM on site to document the proceedings – Bret would you agree to having GEM perform this additional oversight for the District? If so, I can contact Rob Peck to discuss this work.



Thank You,
Cate Noble Ward, AIA, LEED AP
 Architect



find us on facebook!

studio kremer architects
 1231 S Shelby St, Louisville KY 40203
 TEL 502.499.1100 x2519
 FAX 502.499.1101



May 3, 2018

Mr. Antony Hall
EH Construction
P.O. Box 910
Brooks, KY 40109

Direct: 502-957-7471
Fax: 502-957-3420

Subject: Change Order Request for Roof Removal Pilot Test
Bullitt Lick Middle School
555 W Blue Lick Road
Shepherdsville, Kentucky

Dear Mr. Hall,

Per your request, Abatement Solution Technologies (AST) is pleased to submit our charge order request to perform the Roof Removal Pilot Test as described and requested in emails (attached) dated May 2, 2018 and May 3, 2018 from Cate Noble Ward (Studio Kremer Architects) and Doug Peters (Environmental Health Management), respectively (emails). AST will slice and remove roofing materials from the 4 test locations described in the emails. The roofing materials will be placed in a bag and turned over to the client for further testing. AST will perform the services on a lump sum basis for the price listed below.

| | |
|-------------------------|-------------|
| Roof Removal Pilot Test | \$ 2,500.00 |
|-------------------------|-------------|

Conditions

The following assumptions and conditions were developed exclusively for this project:

- > Kentucky Certified Asbestos Supervisors and Workers will be utilized.
- > The work area will not be occupied during abatement activities.
- > Disposal will be made in a certified landfill with records made available to the owner.
- > AST will have unencumbered access to the work area.
- > Owner will provide access to electric and water service at no charge to AST.
- > The removal of furniture, equipment, or any other obstruction from work areas is not included in this proposal.
- > All waste is non-hazardous.
- > The price assumes a 40 hour work week. Overtime is not included.
- > The General Contractor will identify and clearly mark each **Test Location** prior to beginning the abatement activities.



- AST is not responsible for “drying” in the building and will not be responsible for any leaking of water into the building which may occur as a result of the abatement and / or Roof Removal Pilot Test services.
- AST understands that General Contractor is responsible for securing the roof in a water tight manner at the end of each day that the Roof Removal Pilot Test services are performed.

Qualifications

AST is well qualified for this service, having completed years of abatement projects. AST’s field personnel have completed several training courses, including the AHERA asbestos training class, HUD lead paint training, the 40-hour OSHA HAZWOPER, its associated 8-hour refresher, confined space entry, mold remediation training, water restoration and structural drying training, and CPR/first aid.

Please indicate your acceptance of this proposal by signing below or by forwarding a Purchase Order number to AST. The prices in this proposal are valid for 30 days. AST appreciates the opportunity to submit this proposal. Please feel free to contact Matt Rudolph at (502) 558-8190 or by email (matthew.rudolph@astl.com) with comments or questions.

Respectfully submitted,

Matt Rudolph

Matt C. Rudolph, CHMM
Vice President of Environmental Services
Abatement Solutions Technologies, Inc.

Attachments: Emails dated May 2, 2018 and May 3, 2018 from Cate Noble Ward (Studio Kremer Architects) and Doug Peters (Environmental Health Management)

NOTICE TO PROCEED

Name /
Title: _____

Signature: _____

Date: _____

From: Mike Rippy <MRippy@ehconst.com>

Sent: Wednesday, May 02, 2018 1:29 PM

To: douglas.w.peters@ehmlou.com; Matthew Rudolph <matthew.rudolph@astl.com>; Cate Noble Ward <cate@studiokremer.com>

Cc: Anthony <ahall@ehconst.com>

Subject: BLMS-Roofing Drawing

Doug,

Please see attached roofing drawing for BLMS. In an effort to make this the most cost effective, I would like to just demo the roof and decking in the location of the 2 roof drains shown on the attached which would need to be performed anyways to install the roof drains.

Thanks

Michael Rippy
Project Manager
EH Construction, LLC
PO Box 910
Brooks, KY 40109
www.ehconst.com



McCall and Spero

Environmental, Inc.

Specialists in Microanalysis

1831 Williamson Court • Suite 100 • Louisville, KY 40223
Phone (502) 244-7135 • (800) 841-0180 • FAX (502) 244-7136

E-mail: customerservice@mselabs.com • Website: www.mselabs.com

Date: May 2, 2018

Attention: Douglas Peters
Environmental Health Management

Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light
Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)

RE: MSE-P528EHM
BLMS Project
EHM# 118-9392-2

Dear Mr. Peters:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on May 2, 2018. These samples represent the bulk samples from the BLMS Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the six (6) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely,

S. Dewayne Lear, B.S.
Director of Testing Services

SUMMARY OF PLM BULK ANALYSIS RESULTS

Page 1

Project Name: BLMS Project EHM# 118-9392-2

McCall & Spero Environmental Project No. MSE-P528EHM

| MSE # P528EHM- | SAMPLE # DESCRIPTION | ASBESTOS TYPE & % | OTHER FIBROUS MATERIAL & % | % NON-FIBROUS MATERIAL | COLOR |
|-------------------|-------------------------------------|----------------------|-------------------------------|---------------------------|------------|
| 001 (A) | ASB-101 (A) Coating | ND** | Cellulose / 2% | 98% | Gray |
| 001 (B) | ASB-101 (B) Styrofoam | ND | Cellulose / 2% | 98% | White |
| 001 (C) | ASB-101 (C) Concrete Material | ND** | Cellulose / 2% | 98% | Light Gray |
| 001 (D) | ASB-101 (D) Roofing | CH / 10% | Cellulose / 20% | 70% | Black |
| 001 (E) | ASB-101 (E) Insulation | ND | Cellulose / 5% Glass / 5% | 90% | Yellow |
| 001 (F) | ASB-101 (F) 3 Layers Felt Bottom | ND** | Cellulose / 65% | 35% | Black |

NOTES:

ND = None Detected

CR = Crocidolite

CH = Chrysotile

AN = Anthophyllite

A = Amosite

TR = Tremolite

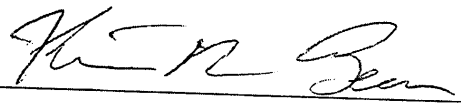
AC = Actinolite

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within $\pm 10\%$. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

** EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: Kevin R. Bean, B.A.



McCall & Spero Environmental, Inc.



1831 Williamson Court • Suite 100 • Louisville, KY 40223
Phone (502) 244-7135 • (800) 841-0180 • FAX (502) 244-7136

E-mail: customerservice@mselabs.com • Website: www.mselabs.com

Company: ENV. Health Mgt Telephone # 502-454-8536 Fax #: 502-454-8528
Contact: Douglas Peters Client Project Number: 118-9392-2
Relinquished by: Doug Peters Date: 5/2/18 Time: 12:14
Written Report To: Douglas W. Peters @ ehm100.com
Project Name: BLMS
Turn-Around (Circle One): Same Day 24 Hour 2-3 Day 4-5 Day Weekend Rush After Hour Rush
Analysis Requested (Circle One): PLM Bulk Analysis TEM Qualitative Analysis TEM Quantitative Analysis (4-5 Day)

For Laboratory Use Only

MSE Project # 0528EHM Method: EPA/600/R-93/116
 Samples Received by: [Signature] Date: 5/2/18 Time: 12:15

[illegible]

Cate Noble Ward

From: Keith Davis <keith.davis@bullitt.kyschools.us>
Sent: Thursday, May 03, 2018 4:18 PM
To: Becky Sexton
Cc: Cate Noble Ward; Steven Ward; Mike Rippy; Anthony; Mark Deasy; Bret Highley; Darrell Coleman; Debby Atherton; Lorraine McLaughlin; Diane Thompson; Dolores Ashby
Subject: Re: BLMS - Change Order Request for Test Removal of Roof

Yes, I agree this needs to be done and time is of the essence. Sounds like it might ultimately be very expensive. Bad news.

On Thu, May 3, 2018, 4:11 PM Sexton, Becky <becky.sexton@bullitt.kyschools.us> wrote:

Yes, sounds reasonable complete the \$2,500.00 asbestos tests tomorrow, May 4th, while children are out. Keith, do you agree?

On Thu, May 3, 2018 at 3:54 PM, Cate Noble Ward <cate@studiokremer.com> wrote:

Hello Keith and Becky,

I wanted to update you on a found condition at BLMS. EH Construction alerted Studio Kremer and the District on Friday, April 27 that the roof composition found at BLMS is different than what we had assumed based on original documents. The roof composition found leads us to believe the old, original roof was left in place and a new roof was built over it that included a 2" – 3" layer of light weight concrete. The roof layers are noted below and shown in the sketch.

Roof composition is as follows:

Newer Roof over Original

(3) Layers Built Up Roofing

2"-3" Light Weight Concrete

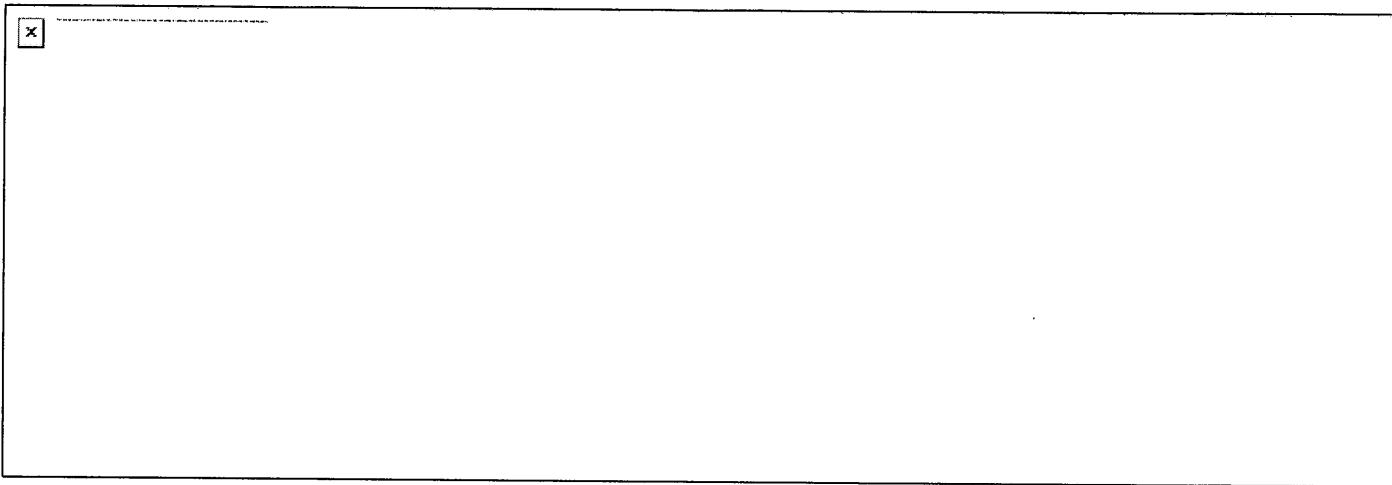
1" Foam Board

Original Roof

Ballast

(3) Layers Built-up Roofing (CONTAINS ASBESTOS)

1" Insulation/Cover Board



Due to the layer of concrete, I sent this to John Papenfuss, our structural engineer, to review the weight and see if the structure is overstressed due to the added weight of the Light Weight Concrete – here is what he found:

The structure is 20% Overstressed with just the Dead Load (weight) is Considered

And the structure is 60% Overstressed with both Dead Load (weight) and Live Load (snow, people, wind, etc.) is Considered.

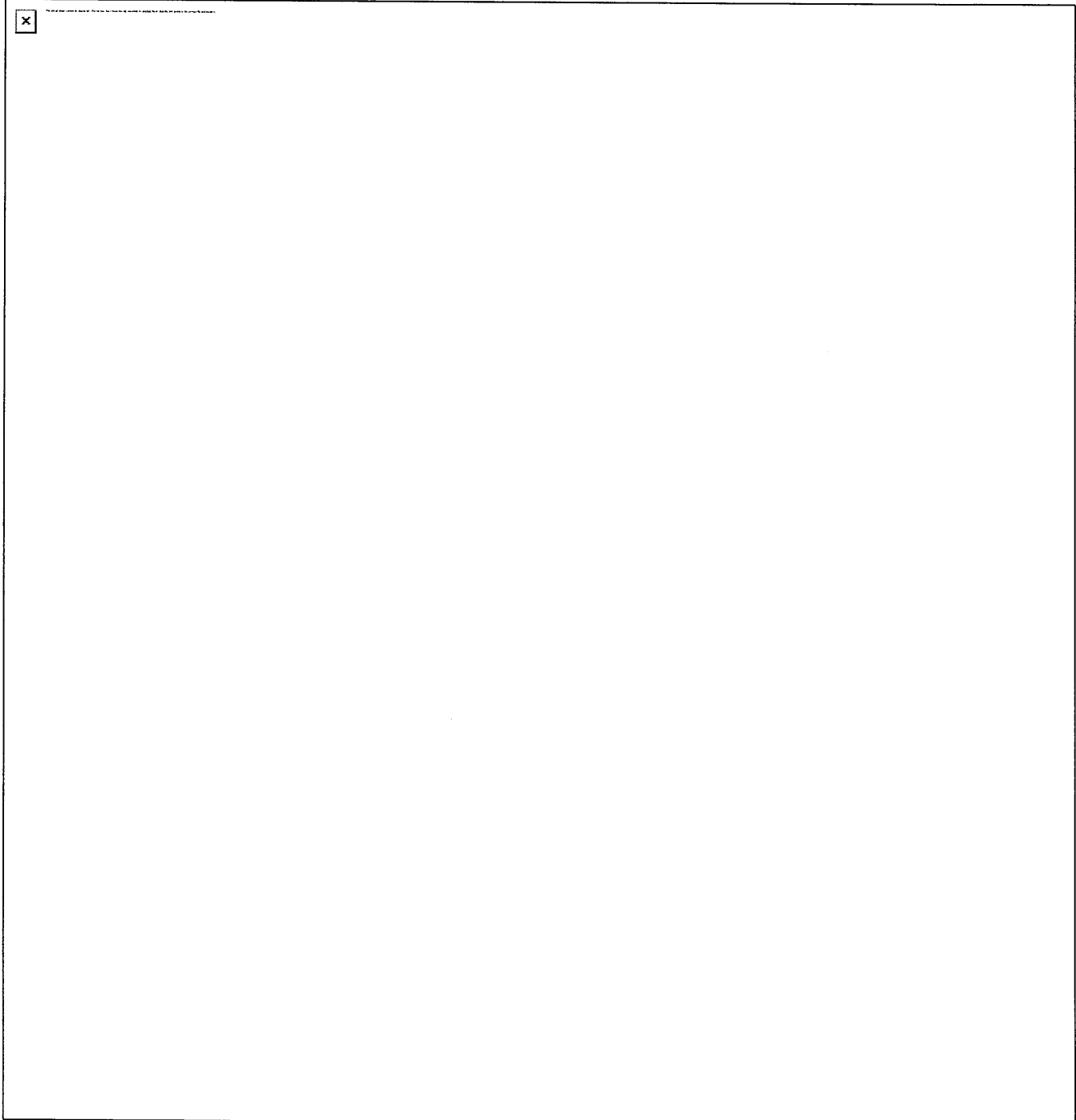
If the light weight concrete layer is removed – we'd be back in acceptable dead load ranges for the existing structure.

TO complicate the issue further – the (3) layers of built-up roof just below the concrete layer is comprised of asbestos containing material. This was not in Environmental Health Management's report because when they did their initial coring of the roof, the concrete layer that was present (which none of us has documents or expected) stopped their core and they had assumed they had hit the roof deck. Our assumption is that when the roof was reroofed sometime in the late 1990's, the District opted to encapsulate the asbestos with this layer of concrete rather than go to the expense of abatement. This is a HIGHLY irregular practice that neither Studio Kremer nor EH has ever seen done before on any facility. What is most significant to us is the total weight of the roof, which is why we had the structure analyzed by our structural engineer.

Before we can make a formal recommendation to the District about how we should proceed, we propose doing a few tests of the roof to check both the Weight (structural implications) and the point as which we can remove the existing layers of the roof before penetrating the asbestos layer (abatement implications).

The testing is described below as well as detailed in the attached change order request for testing. The cost of these tests are being proposed at a lump sum fee of \$2,500.00.

- 1.The area noted in red will be removed down to the concrete layer but leave the Styrofoam. We're hoping the Styrofoam will hold up and continue to encapsulate the asbestos containing layers below.
- 2.The areas noted in yellow will be removed down to the existing tectum roof deck to weigh the TOTAL ROOF ASSEMBLY. Our hope is that the total weight of the roof assembly is LESS that the unit factors John Papenfuss is using to analyze the current weight on the structure.



After these tests are done we'll have a better idea of the recommendations to make to the District moving forward on the roof. Right now we are making a lot of assumptions.

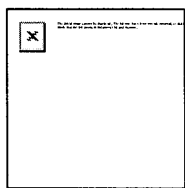
We request your authorization of this lump sum fee of \$2,500 for the tests this afternoon to allow EH/Abatement Solutions to proceed with testing while students are out of school tomorrow since this demolition does involve asbestos.

I am here all day if you have any questions or need to discuss this in more detail by phone. I will follow up with the appropriate KDE and AIA change order documents either tomorrow or Monday for your review.

Thank You,

Cate Noble Ward, AIA, LEED AP

Architect



find us on facebook!

studio kremer architects

1231 S Shelby St, Louisville KY 40203

TEL 502.499.1100 x2583

FAX 502.499.1101

--

Becky Sexton

Bullitt County Public Schools

Assistant Superintendent

for Support Services

Phone: (502) 869-8006

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