



# CITY OF SUFFOLK

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## ADDENDUM NO. 3

City of Suffolk  
IFB #17087-JS  
March 24, 2017

Purchasing Division  
442 Market Street, Room 1086  
Suffolk, VA 23434-5237  
Phone: (757) 514-7520 / Fax: (757) 514-7524  
<http://www.suffolkva.us/purchasing>

The Invitation for Bid (IFB) for IFB 17087-JS Selective Demolition of Nansemond County Training School for the Department of Capital Programs and Buildings has been amended.

All bid submittals shall conform to this Addendum. Bidders are responsible for familiarizing themselves with the modifications and the effect they may have on the scope of work.

### ADD:

Attachment A – Representative Hazardous Materials Inspection for Former Nansemond Training Facility prepared by Applied Laboratory Services

**New IFB Due Date: April 5, 2017**

The new bid opening dates supersedes the previous due date.

Contract Officer: \_\_\_\_\_

Jay Smigielski, Purchasing Agent.

All other specifications, provisions, terms and conditions are unchanged.

Bidder to acknowledge review of addendum on Bid Form. Failure to do so may result in disqualification of your bid.

If you have any questions regarding this Addendum, please contact Jay Smigielski, Purchasing Agent at [jsmigielski@suffolkva.us](mailto:jsmigielski@suffolkva.us)

**APPLIED  
LABORATORY  
SERVICES**

**REPRESENTATIVE  
HAZARDOUS MATERIALS INSPECTION**

**“FORMER NANSEMOND TRAINING FACILITY  
9307 SOUTHERN BOULEVARD  
SUFFOLK, VIRGINIA**

Prepared For:  
The City of Suffolk  
Director of Capital Programs and Facilities  
Attn: Mr. Gerry Jones  
442 W. Washington Street  
Suffolk, Virginia 23234

Prepared By:  
Applied Laboratory Services  
4101 Granby Street, Suite 404  
Norfolk, Virginia 23504

Report Number: ALS 17-11754

March 22, 2017

**SIGNATURE PAGE**

Applied Laboratory Services LLC, conducted a Hazardous Materials Inspection on March 16, 2017 of the "Former" Nansemond Training Facility located at 9307 Southern Boulevard in Suffolk, Virginia in support of future demolition activities. The inspection included an investigation for locating suspect hazardous materials to specifically include asbestos, lead, PCBs and mercury.

This report was compiled by:



Matthew D. Ostrowski  
Environmental Professional  
VA. Asbestos Inspector License # 3303004047  
VA Lead Inspector License #3355000874

03/24/2017  
Date

This report was reviewed by:



Paul D. Thomas  
Operations Manager  
Commonwealth of Virginia Asbestos Inspector License # 3303002215  
Commonwealth of Virginia Asbestos Management Planner License # 3304001330  
Commonwealth of Virginia Asbestos Designer License # 3305000966  
Commonwealth of Virginia Lead Inspector License # 3355000025  
Commonwealth of Virginia Lead Designer License # 3357000198

03/23/2017  
Date

If there are any questions concerning this report, or if we may be of further assistance to your office, please feel free to contact our office at (757) 623-0121.

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This representative hazardous materials inspection encompasses the building located at 9307 Southern Boulevard, Suffolk, Virginia. The building was a former school that has severe structural damage causing limited access to the collapsed portions.

### **Asbestos-Containing Building Materials**

The asbestos building inspection was performed by Commonwealth of Virginia Licensed Asbestos Inspectors Matthew D. Ostrowski and Shannon Hoskins. The completion of the asbestos inspection included a visual assessment and the collection of twenty-four (24) bulk samples in the interior and exterior of 9307 Southern Boulevard, Suffolk, Virginia. The representative bulk samples were individually documented, labeled, packaged, and submitted under chain of custody to Applied Laboratory Services in-house, state-licensed and accredited laboratory for analysis. The bulk samples were subsequently analyzed by PLM utilizing dispersion staining techniques. Due to multiple individual layers within samples, a total of thirty two (32) analyses were conducted. Due to extensive severe structural damage to much of the building, the sampling was limited to safely accessible areas of a classroom and its adjacent bathroom, stairwell, and boiler room. Sample quantities are based on those areas which were accessible and not for the entire building.

Several suspected asbestos-containing materials were sampled during the course of the inspection. These materials include the following:

- 12"x12" Floor Tiles
- Mastic Flooring Adhesives
- Boiler Refractory Insulation
- Boiler Insulation
- Boiler Gaskets
- Boiler Door Insulation
- Wall Plaster over Brick
- Wall Plaster
- Thermal Systems Pipe Insulation (TSI)
- CMU Block Sealant
- Shingle Roof Membrane
- Roof Tar Paper
- Tin Roof Tar like Mastic

During the inspection, asbestos-containing materials were identified. The findings of the inspection are further detailed in the "Asbestos Results Summary" section of this report.

## **Lead-Based Paint**

Commonwealth of Virginia Licensed Lead Risk Assessor Shannon S. Hoskins and Lead Inspector Matthew D. Ostrowski conducted a representative lead-based paint survey testing painted surfaces within the interior and exterior of the "Former" Nansemond Training Facility located at 9307 Southern Boulevard, in Suffolk, Virginia.

The lead-based paint survey included a representative investigation of painted surfaces and components. Tested surfaces included walls, window components, door components, ceilings, beams, stair tread and risers, soffits, fascia, lentils, and all other accessible painted surfaces. The lead based paint survey was conducted utilizing an X-ray Fluorescence (XRF) lead-measuring instrument. The inspection included the United States Environmental Protection Agency (EPA) guidelines which specify a positive determination of lead in paint when the lead content is equal to or greater than 1.0 milligrams of lead per square centimeter of painted surface (mg/cm<sup>2</sup>) when measured by X-ray Fluorescence (XRF). Based on the approximate surface area of the deteriorated paint, the inspector assessed the condition as intact (good), fair, cracked, peeling, or poor. Please note that a large portion of the building was inaccessible due to severe structural damage.

## **Polychlorinated Biphenyls (PCBs)/Mercury Tubes and Thermostats**

A visual inspection was conducted on site of accessible light fixture and thermostats within the 9307 Southern Boulevard building. All lighting fixtures manufactured prior to January of 1979 must be clearly marked as "Non-PCB" or otherwise be treated as PCB-containing fixtures. Mercury is typically present in fluorescent light bulbs and thermostats associated with HVAC systems.

As part of the inspection, light fixtures and thermostats were tallied to create an inventory of potential PCB/Mercury containing materials. No bulk sampling of materials for PCB or Mercury took place as part of this aspect of the inspection.

## **Chemical Inventory**

A general inventory of chemicals identified on-site was not created as part of this inspection, however, several 55 gallon drums filled with unknown contents and paint cans were observed in the boiler room.

## RESULTS

### Asbestos-Containing Building Materials Results Summary

Following the inspection and laboratory analysis of bulk samples, asbestos-containing building materials were identified. Friable asbestos-containing materials identified on-site include: thermal systems insulation (TSI) piping and associated mudded fitting elbows. Friable asbestos was also found in a boiler room tank gasket in the boiler room. Non-friable asbestos-containing materials identified include: black mastic (and associated contaminated 12"x12" floor tiles), and perimeter interior window glazing.

Tables I and II provide the sample number, material type, location, condition, and estimated quantity of asbestos-containing materials identified at the structures:

**TABLE I – March 16, 2017**  
**Non-Friable ACM's**  
**"Former" Nansemond Training Facility**

Sample#	Material/ Description	Material/ Location	Friability	%/Type Asbestos & Assessed Condition	Estimated Homog. Quantity
5-8 (Layers 1-2)	12"x12" Floor Tile and Mastic	Classroom 116	Non- friable	5% Chrysotile, Significantly Damaged Condition	11,200 SF
9,10	Interior Window Glazing	Classroom 116	Non- friable	2% Chrysotile, Damaged Condition	4,400 LF

LF = Linear Feet  
SF = Square Feet

**TABLE II - March 16, 2017  
Friable ACM's  
"Former" Nansemond Training Facility**

Sample#	Material/ Description	Material/ Location	Friability	%/Type Asbestos & Assessed Condition	Estimated Homog. Quantity
11	4" O.D. Pipe Insulation	Boiler Room	Friable	45% Chrysotile, Significantly Damaged Condition	850 LF
12	4" O.D. Pipe Elbow	Boiler Room	Friable	60% Chrysotile, Significantly Damaged Condition	23 Fittings
13	8" O.D. Pipe Insulation	Boiler Room	Friable	45% Chrysotile, 5% Amosite Significantly Damaged Condition	165 LF
14	8" O.D. Pipe Elbow	Boiler Room	Friable	45% Chrysotile, 5% Amosite Significantly Damaged Condition	7 Fittings
18	Boiler Tank Outer Gasket	Boiler Room	Friable	10% Chrysotile Significantly Damaged Condition	10 LF

LF = Linear Feet

\*At the time of the inspection, only one classroom, one stairwell, and the boiler rooms were accessible for sampling. The quantities noted are for those specific locations only and do not reflect any suspect materials that may be in inaccessible parts of the rest of the building. Quantities have been estimated for the building and materials are assumed to be homogeneous.

Applied Laboratory Services, LLC, recommends the removal of any ACM, which is in poor condition and is subject to disturbance or within easy access of the general public. Additionally, it is recommended that all other ACM be removed prior to commencement of any renovation or demolition work in which the materials will be disturbed. If, during renovation or demolition activities, previously unidentified materials are encountered, it is strongly advisable that said materials are analyzed for asbestos content prior to their disturbance.



### Lead-Based Paint Results Summary

A total of forty (40) shots (including six (6) device calibrations) of representative painted surfaces were inspected utilizing a Niton XL-300 X-Ray Fluorescence (XRF) Paint Analyzer to measure the lead content of surface coatings on representative homogenous building components. A homogeneous component is a building material that is uniform in color, texture, and appears identical in every respect.

The sampling methodology for this survey was based on the EPA guidelines specify a positive determination of lead in paint when the lead content is equal to or greater than 1.0 milligrams of lead per square centimeter of painted surface ( $\text{mg}/\text{cm}^2$ ) when measured by X-Ray Fluorescence (XRF).

Following the inspection and testing of various accessible surfaces within the property, lead-based paints were identified at the Nansemond Training Facility. Lead-based paints ranged in condition from good (intact) to fair and poor (cracking and peeling). The lead-based paint inspection was limited to one classroom and adjacent bathroom, one stairwell, and the boiler rooms. The following tables list the identified lead-based paints at each structure:

Table III - Lead-Based Paints at Bread Factory

XRF Reading Number	Tested Surface	Sample Location	Reported Concentration ( $\text{mg}/\text{cm}^2$ )	EPA Regulatory Limit ( $\text{mg}/\text{cm}^2$ )
6	Window Frame	Classroom 116	11.7	1.0
9	Beam	Classroom 116	18.9	1.0
10	Bath Door	Classroom 116	8.7	1.0
11	Bath Door Frame	Classroom 116	6	1.0
12	Ceiling	Classroom 116	8.7	1.0
14	Window Muntin	Classroom 116	7.5	1.0
18	Door Frame	Stairwell	11.1	1.0
20	Stair Riser	Stairwell	3.1	1.0
35	Fascia	Outside, B Side	1.9	1.0
36	Soffit	Outside, B Side	1.9	1.0

Other surfaces that did not contain lead-based paint contained lower levels of lead and are considered lead-containing paints. The requirements of the OSHA Lead in Construction Standard (29 CFR 1926.62) must be complied with by all contractors disturbing painted surfaces, as OSHA does not have a minimum concentration reporting limit. Painted surfaces were found to range in condition from good to fair with peeling or cracking paint identified on some surfaces. Lead-based paint inspection results are included in Appendix B of this report.

Prior to disposal of building materials, contractors performing demolition activities must perform Toxicity Characteristics Leachate Procedure (TCLP) for Lead.

## **Polychlorinated Biphenyls (PCBs)/Mercury Results Summary**

Included in the inspection was an inventory of potential PCB sources, mercury-containing lighting fixtures, and mercury-containing thermostats. Due to the poor condition of the buildings structure, the inspection was limited to a single classroom, its bathroom, a stairwell, and the boiler rooms. During the inspection, four (4) ballasts were identified as suspected sources of PCBs. Additionally, eight (8) cylindrical fluorescent lights were identified as potential sources of mercury. In the area that was once the front entrance, other broken cylindrical fluorescent lights were spotted in the debris. Two (2) mercury-containing thermostats were also identified in the boiler room within the structure located. All light ballasts, fluorescent tube lights and thermostats are thought to be throughout the building. A breakdown of suspect PCB-containing ballasts and mercury-containing fluorescent light bulbs and thermostats for each building is as follows:

1. "Former" Nansemond Training Facility
  - a. Fluorescent Light Bulbs - 8
  - b. Ballasts - 4
  - c. Thermostats - 2

At the time of the inspection, some of these light bulbs appeared damaged. During removal, fluorescent light bulbs, ballasts, and thermostats should be removed intact to prevent gross contamination within the structures.

## INSPECTION TECHNIQUES

The asbestos inspection was comprised of seven parts:

1. Reviewing the results of any previous investigations for ACM and inspecting building records which were made available for our evaluation.
2. Visual inspection of readily accessible spaces within the specified areas of the building. Documentation of physical description and location of suspect ACM.
3. Testing all specified surfaces for friability and determining the condition of suspect materials.
4. Sampling and documentation of observable suspect friable or non-friable materials by Environmental Protection Agency guidelines.
5. Recording assessment information.
6. Completing the appropriate laboratory analyses.
7. Preparing the report.

The results of the inspection are outlined in Appendixes of this report. Please note, in the absence of sample collection and analyses, OSHA's asbestos standard identifies some materials as being presumed asbestos-containing materials (PACM). PACM includes any thermal system insulation (TSI), any surfacing material, and any resilient flooring found in buildings constructed prior to 1980.

This inspection entailed the use of minimum destructive sampling techniques; therefore materials that were only accessible by significant destructive sampling techniques were not evaluated. If, during demolition activities, suspect materials are encountered it is strongly advisable that said materials be analyzed for asbestos content prior to their disturbance. Due to being physically or visually inaccessible, the following areas were excluded from this inspection report:

1. The interior of all mechanical equipment.
2. The interior of all electrical equipment.
3. The interior of all HVAC equipment.
4. The interior spaces between block, concrete, plaster walls and ceilings

Applied Laboratory Services performed the lead-based paint (LBP) inspection in accordance with the United States Environmental Protection Agency (EPA) guidelines specify a positive determination of lead in paint when the lead content is equal to or greater than 1.0 milligrams of lead per square centimeter of painted surface ( $\text{mg}/\text{cm}^2$ ) when measured by X-ray Fluorescence (XRF).

## **ASBESTOS ANALYSIS AND LABORATORY INFORMATION**

### **Testing Laboratories**

Applied Laboratory Services, LLC, participates and is proficient in the National Institute of Standards and Technology (NIST) Proficiency Test for bulk analysis. In addition to this program Applied Laboratory Services, LLC, requires that its laboratories compare their performance by PLM with that of other laboratories and maintains an in-house quality control/quality assurance program. The intra/inter-laboratory programs serve to monitor all asbestos analysts and continually test their skills. In conjunction, ten percent of the bulk samples analyzed are to be reanalyzed monthly and statistical data maintained on the subsequent results, to include ratings of each analyst's performance. These samples shall be blind unknowns to the analyst, but their true compositions are known to other members of the laboratory in order to compare results.

### **Qualitative Assessment Method**

Samples are first viewed separately under a stereomicroscope for the presence of observable fibers. A portion of the sample is then mounted on a slide in a liquid of known refractive index. The analyst then utilizes optical properties and identification methods including, but not limited to, morphological characteristics, angles of extinction, sign of elongation, and dispersion staining colors to verify the presence/absence of asbestos.

### **Quantitative Assessment Method**

The analyst expresses an estimate of fibrous and non-fibrous materials as an area percent of all material present. Since the distribution of material will not be homogenous on the slide, the analyst combines quantitative estimates from both the gross and microscopic examinations. This estimation method is in accordance with the Asbestos Hazard Emergency Response Act (AHERA) regulations (40 CFR Part 763) and has been successfully applied to the analysis of EPA Bulk Sample Analysis Quality Assurance Program samples.

### **Laboratory Results**

The laboratory results of each sample can be obtained from the Appendices of this report. The analytical results form identifies the types of asbestos contained within a sample and the nature of other fibrous materials. These "other" material components include binders, fillers, and may include forms of asbestos other than chrysotile or amosite.

## APPLICABLE ASBESTOS REGULATIONS

Asbestos presents a significant risk to human health as a result of air emissions from one or more sources. As such, it is considered a hazardous air pollutant and is subject to EPA regulations under the "National Emission Standards for Hazardous Air Pollutants" (NESHAP) which was promulgated as a result of Section 112 of the Clean Air Act (CAA).

The Asbestos NESHAP rule makes a distinction between an ACM that would readily release asbestos fibers when damaged or disturbed, described as "Friable", and an ACM that is unlikely to result in significant fiber release, described as "Non-friable". A dry, ACM that can be crumbled, pulverized, or reduced to powder by hand pressure is considered Friable. A Non-friable ACM cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Friable ACMs include TSI and surfacing materials which have been applied by spraying or troweling.

Non-friable ACMs can be further categorized as Category I or Category II. Category I Non-friable materials include any asbestos-containing packings, gaskets, resilient floor coverings or asphalt roofing products which contain more than 1 percent asbestos. Category II Non-friable materials include any asbestos-containing materials other than those listed as Category I.

Regulated Asbestos-Containing Material (RACM) is:

- Friable asbestos material,
- Category I non-friable ACM that has become friable,
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of demolition or renovation operations.

The Occupational Safety and Health Administration (OSHA) have asbestos standards which protect the health of employees. Under these standards, the building/facility owner may be required to notify tenants, employees, or subcontractors of the presence, location, and quantity of ACM or PACM at the work sites in their buildings and facilities. In addition, the standards separate work involving asbestos into four (4) classes of activities. Each class is associated with increasing potential for exposures and is matched with increasingly stringent control requirements:

**Class I Removal Activities** involving TSI and/or Surfacing ACM.

**Class II Removal Activities** involving ACM which is neither TSI and/or Surfacing ACM. This includes, but is not limited to, materials such as flooring and roofing materials.

- Class III **Repair and Maintenance Activities**, where ACM (any type) may be disturbed.
- Class IV **Maintenance and Custodial Activities** during which employees contact ACM and/or in which the employee is required to clean up waste and debris containing ACM.

All Class I, II, and III asbestos work must be conducted within regulated areas. Each of these asbestos operations has engineering controls and work practices that are required. Different levels of respiratory protection and employee training are also required, dependent on the Class of activities.

Once a material has been identified as an ACM, recommendations are made based on the type of material and the condition of the material. The recommendations are based on the following table:

Table 1. Recommendations
1. Required and recommended removal methods for CLASS I removals, which involve Thermal Systems Insulation and/or Surfacing ACM/PACM, when inside of a building.
2. Required and recommended removal methods for CLASS I removals, which involve Thermal Systems Insulation and/or Surfacing ACM/PACM, when outside of a building.
3. Required and recommended removal methods for CLASS II removals. This involves ACM/PACM, which is neither Thermal Systems Insulation, and/or Surfacing ACM/PACM. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and built-up roofing.
4. Recommended removal methods for Incidental Roofing Material, which is flashing. The material must not be sanded, abraded, or ground, but must be removed using manual methods that do not render the material friable. Otherwise, removal of material becomes a CLASS II activity.
5. Required and recommended practices for CLASS IV activities such as Maintenance and Custodial operations. This includes demolition of in-place NESHAP Category I and II Non-friable materials in good condition, during which employees contact ACM/PACM and/or are required to clean up waste and debris containing ACM/PACM.
6. NESHAP Category I or II non-friable ACM with a low probability of becoming crumbled, pulverized, or reduced to powder during demolition need not be removed. However, if the probability is high that the material will become crumbled, pulverized or reduced to powder during demolition, it must be considered "Regulated Asbestos Containing Material" (RACM) and is subject to Asbestos NESHAP. If the material is to be sanded, ground, cut or abraded during demolition the material is also considered "RACM" and is subject to the Asbestos NESHAP <sup>1</sup>

<sup>1</sup>U.S. Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants (NESHAP), Asbestos Regulations. 40 CFR Part 61, Subpart M, November 20, 1990.

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|--|
| <p>7. Required and recommended practices for CLASS III activities such as Repair and Maintenance operations. This includes operations where the ACM, including TSI and surfacing ACM/PACM, may be disturbed. Maintenance activities that disrupt the matrix of ACM or PACM, or generate visible debris from ACM or PACM are classified as CLASS III.</p> |
| <p>8. OSHA no longer regulates ACM cements, coatings, and mastics. These materials, if demolished in place, or removed substantially intact, are also NOT regulated by NESHAP, and can be handled as construction debris.</p>  |

The following work practices should be followed whenever demolition/renovation activities involving RACM occur (State regulations may require more stringent actions or reporting.):

- Notify EPA of intention to demolish/renovate,
- Remove all RACM from a facility being demolished or renovated before any disruptive activity begins or before access to the material is precluded,
- Keep RACM adequately wet before, during, and after removal operation,
- Conduct demolition/renovation activities in a manner which produces no visible emissions to the outside air, and
- Handle and dispose of all RACM in an approved manner.



## APPLICABLE LEAD-BASED PAINT REGULATIONS

Lead is a prevalent toxic substance associated with certain paints, various types of piping, some soils and dusts (particularly around the perimeter of houses/buildings and within one mile of major roadways), vicinity of railroad tracks, pesticide application areas, industrial facilities, gasoline stations, and other media found in the vicinity of the subject site.

A number of regulations govern lead-based paint activities. In 1977 the Consumer Product Safety Commission, acting under the authority of the Consumer Product Safety Act, banned the sale of "lead-based paints" (coatings with lead content of greater than 0.06%, per CPSC definition) to consumers and banned the use of such paints where consumers may have direct access to painted surfaces (households, schools, recreation areas, toys, furniture, etc.). The Uniform Statewide Building Code (USBC) of the Code of Virginia requires proper management of lead-based paint in dwellings, dwelling units, and childcare facilities, including fences and outbuildings. The Federal Lead-based Paint Hazard Reduction Act of 1992 provides that, commencing 28 October 1995, no contract for the sale or lease of pre-1978 housing is binding on the purchaser or lessee unless the seller or lessor provides a copy of an EPA-prepared lead hazard pamphlet, discloses any known presence of lead-based paint and provides the purchaser with a 10-day period in which to conduct a risk assessment or lead inspection. The Act also requires specific language that must be included and countersigned in the contract of sale or the lease.

**In addition to the above regulations which mostly concern residential exposure, OSHA regulations control construction activities involving lead from paint (including paint with less than 0.5% lead content) and other lead-containing materials, in residential, commercial, or industrial situations.**

Available studies indicate that dust is the most important lead transmission vehicle and risk factor. Lead-contaminated dust can be generated in large quantities during renovation projects, even at locations where paint contains less than 0.5% lead. Therefore, it is advisable that renovation projects that disturb painted surfaces should be conducted under the assumption that lead is present in paint at the site.

## BUILDING INSPECTION DISCLAIMER & ENDORSEMENTS

Applied Laboratory Services, LLC, is pleased to assist The City of Suffolk with the hazardous materials building inspection at the subject property outlined in this report. This report has been prepared for the exclusive use of The City of Suffolk, and their agents for specific application to the property assessed. This work has been performed using reasonable care within the scope of work and in accordance with budgetary limitations. Applied Laboratory Services, LLC, strives to conduct services in keeping with regulatory boundaries, industry standards and in accordance with generally accepted industrial hygiene practice. No other warranty, expressed or implied, is made.

Our conclusions and recommendations are based upon our observations at the site, any reviewed documentation, test results, interviews, other information provided and our previous experience. The information contained in this document is based on physical inspections conducted by Applied Laboratory Services, LLC. We certify that our findings with regard to the presence or absence of visible and physically accessible asbestos is based on our inspection and the laboratory analysis of bulk samples taken during the inspection, unless otherwise noted in the report. All specified sampling areas which are reported to contain no asbestos have been inspected and, based on the inspection and analysis of suspect materials encountered or other reviews as described in this report were found to contain no ACM.

Applied Laboratory Services, LLC, has analyzed the information obtained in this audit in keeping with existing guidelines and regulations, but cannot accurately predict what actions or interpretations any given agency may take presently, or what standards and practices may apply to the site in the future. Should such variations in regulations, guidelines or site conditions become apparent in the future, it will be necessary to reevaluate our conclusions and recommendations based upon additional analyses and on-site observations as appropriate. The pricing for this work is based on the absence of personal liability of the preparers with respect to the work, and the understanding that any claim associated with the work shall look solely to Applied Laboratory Services, LLC.

Applied Laboratory Services, LLC., acknowledges that it maintained in full force and effect at the time the services described in the inspection were performed, professional liability (errors and omissions) insurance with minimum policy limits of one million dollars each occurrence and one million dollars in the aggregate. Applied Laboratory Services, LLC, currently maintains such insurance in full force and effect and currently has no plan to terminate such insurance in the foreseeable future. Applied Laboratory Services, LLC's liability in connection with this inspection shall cease after a period of three years from the date of completion of the study, and Applied Laboratory Services' total aggregate liability in connection with the inspection shall not exceed that amount actually covered by insurances on any such claim.

Please note that no environmental investigation can wholly eliminate uncertainty regarding the potential for adverse environmental conditions in connection with a property. This study is intended to reduce, but not eliminate, such uncertainty. The investigation recognizes reasonable limits of time and cost, and is designed to provide an appropriate level of inquiry, based on existing industry standards.

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## **APPENDICES**

**APPENDIX A - ASBESTOS ANALYTICAL RESULTS  
AND BULK SAMPLE CHAIN OF CUSTODY FORMS**

**APPLIED  
LABORATORY  
SERVICES**

*Commonwealth of Virginia Asbestos  
Analytical Laboratory # 3333000153  
NVLAP Lab # 200515-0*

**Certificate of Analysis**  
*Analysis of Bulk Building Materials by Polarized Light Microscopy Techniques  
EPA Test Method (EPA/600/R-93/116)*

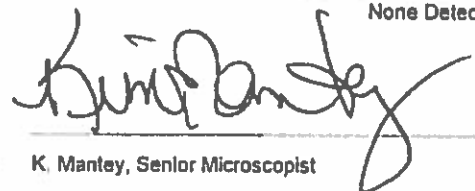
**ALS Account:** 01-163  
**Customer:** ALS Consulting  
4101 Granby Street  
Norfolk, VA 23504  
  
**P O:**  
**TAT:** ALS Standard

**LIMS ID:** ALS-2017-54771  
**Project Name:** Nansemond Training Fac.  
**ProjectNo:** 11754  
**Location:** 9307 Southwestern Blvd.  
**Samples Received:** 3/16/2017  
**Date Analyzed:** 3/19/2017

Lab ID Layer	Cust. ID Homogenous	Sample Date Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
54771-1 1	1 No	3/16/2017 White Granular Plaster	Stairwell	100% NON FIBROUS MATERIAL		None Detected
54771-2 1	2 Yes	3/16/2017 White Granular Plaster	Stairwell	100% NON FIBROUS MATERIAL		None Detected
54771-3 1	3 Yes	3/16/2017 White Cementitious Plaster	Classroom	100% NON FIBROUS MATERIAL		None Detected
54771-3 2	3 Yes	3/16/2017 Beige Fibrous/Granular Scratch Coat	Classroom	96% NON FIBROUS MATERIAL	2% ANIMAL HAIR 2% CELLULOSE FIBER	None Detected
Sample analyzed as individual layers.						
54771-4 1	4 Yes	3/16/2017 White Cementitious Plaster	Classroom	100% NON FIBROUS MATERIAL		None Detected
54771-4 2	4 Yes	3/16/2017 Beige Fibrous/Granular Scratch Coat	Classroom	96% NON FIBROUS MATERIAL	2% CELLULOSE FIBER 2% ANIMAL HAIR	None Detected
Sample analyzed as individual layers.						
54771-5 1	5 Yes	3/16/2017 Beige Granular 12x12 Floor Tile	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
54771-5 2	5 Yes	3/16/2017 Black Adhesive Mastic	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
Sample analyzed as individual layers.						
54771-6 1	6 Yes	3/16/2017 Beige Granular 12x12 Floor Tile	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE

Lab ID Layer	Cust. ID Homogenous	Sample Date Description	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
54771-6 2	6 Yes	3/16/2017 Black Adhesive Mastic	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
Sample analyzed as individual layers.						
54771-7 1	7 Yes	3/16/2017 Beige Granular 12x12 Floor Tile	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
54771-7 2	7 Yes	3/16/2017 Black Adhesive Mastic	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
Sample analyzed as individual layers.						
54771-8 1	8 Yes	3/16/2017 Beige Granular 12x12 Floor Tile	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
54771-8 2	8 Yes	3/16/2017 Black Adhesive Mastic	Classroom	95% NON FIBROUS MATERIAL		5% CHRYSOTILE
Sample analyzed as individual layers.						
54771-9 1	9 Yes	3/16/2017 White Granular Glazing	Classroom	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
54771-10 1	10 Yes	3/16/2017 White Granular Glazing	Classroom	98% NON FIBROUS MATERIAL		2% CHRYSOTILE
54771-11 1	11 Yes	3/16/2017 White Fibrous Insulation	Boiler Room	15% NON FIBROUS MATERIAL	40% CELLULOSE FIBER	45% CHRYSOTILE
54771-12 1	12 Yes	3/16/2017 White Fibrous Insulation	Boiler Room	40% NON FIBROUS MATERIAL		60% CHRYSOTILE
54771-13 1	13 Yes	3/16/2017 White Fibrous Insulation	Boiler Room	20% NON FIBROUS MATERIAL	30% CELLULOSE FIBER	45% CHRYSOTILE 5% AMOSITE
54771-14 1	14 Yes	3/16/2017 White Fibrous Insulation	Boiler Room	40% NON FIBROUS MATERIAL	10% CELLULOSE FIBER	45% CHRYSOTILE 5% AMOSITE
54771-15 1	15 No	3/16/2017 Green & Grey Cementitious Concrete & Paint	Boiler Room	100% NON FIBROUS MATERIAL		None Detected
54771-16 1	16 Yes	3/16/2017 White Granular Glazing	Boiler Room	100% NON FIBROUS MATERIAL		None Detected
54771-17 1	17 Yes	3/16/2017 White Granular Glazing	Boiler Room	100% NON FIBROUS MATERIAL		None Detected

Lab ID	Cust. ID	Sample Date	Sample Location	Non Fibrous	Non Asbestos Fibers	Asbestos Fibers
Layer	Homogenous	Description				
54771-18	18	3/16/2017	Boiler Room	65% NON FIBROUS MATERIAL	5% SYNTHETIC FIBER 20% CELLULOSE FIBER	10% CHRYSOTILE
1	Yes	Black Adhesive Gasket				
54771-19	19	3/16/2017	Boiler Room	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
1	Yes	White Fibrous Cloth				
54771-19	19	3/16/2017	Boiler Room	15% METAL FOIL 30% NON FIBROUS MATERIAL	10% FIBROUS GLASS 45% CELLULOSE FIBER	None Detected
2	No	Beige & Grey Fibrous/Granular Jacket				
Sample analyzed as individual layers.						
54771-19	19	3/16/2017	Boiler Room	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
3	Yes	Yellow Fibrous Insulation				
Sample analyzed as individual layers.						
54771-20	20	3/16/2017	Boiler Room	2% NON FIBROUS MATERIAL	98% FIBROUS GLASS	None Detected
1	Yes	Yellow Fibrous Insulation				
54771-21	21	3/16/2017	Boiler Room	99% NON FIBROUS MATERIAL	1% FIBROUS GLASS	<1% CHRYSOTILE
1	No	Black Granular Insulation				
< 1% = trace.						
54771-22	22	3/16/2017	Roof	90% NON FIBROUS MATERIAL	10% FIBROUS GLASS	None Detected
1	No	Black & White Fibrous/Granular Shingle				
54771-23	23	3/16/2017	Roof	25% NON FIBROUS MATERIAL	25% CELLULOSE FIBER	None Detected
1	Yes	Black Fibrous Tar Paper				
54771-24	24	3/16/2017	Roof	100% NON FIBROUS MATERIAL		None Detected
1	Yes	Black Granular Paint				
Analyst:	Kim Mantey		NIST Signatory:	K. Mantey, Senior Microscopist		
			Date Released:	3/20/2017		



*This Certificate of Analysis presents analytical data covered by this laboratory's accreditation under the National Voluntary Laboratory Accreditation Program (NVLAP). Detection, identification, and quantification of asbestos in certain building materials (e.g., floor tiles, caulk, asphalts, roofing materials) by PLM is difficult due to interfering matrix components. PLM technique has an estimated detection limit of 1% (v.v). Fibers smaller than 0.25 um cannot be detected; hence, correlative techniques should be considered for data verification. Non-detection of asbestos in certain materials should be verified by analytical electron microscopy techniques (refer to AHERA criteria). Quantifications are estimated by calibrated visual estimate, unless otherwise noted. The estimated measurement of uncertainty in PLM analysis is available upon request. The data reported herein relates only to those samples analyzed. This report shall not be reproduced, except in full, without the written permission of senior managers of this laboratory. This report shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.*

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 11754 Project Name: Nondestructive Training Facility Project Location: 9307 Southwestern Blvd, Suffolk, VA  
 Date Sampled: 3/16/17 Results Due: Due 3/21/17 Inspector(s): Ostrowski, Hoskins ALS Lim#: 5477

Sample #	Sample Description	Sample Location	Quantity	Condition G/D/SD	Friable Y/N
1	Plaster over brick	Stairwell	400SF	SD	Y
2	Plaster over brick	Stairwell	R-1	SD	Y
3	Plaster wall	Class room	1100SF	SD	Y
4	Plaster wall	Class room	R-3	SD	Y
5	12"x12" FT m	Classroom	600SF	SD	N
6	12"x12" FT m	Classroom	R-5	SD	N
7	12"x12" FT m	Classroom	R-5	SD	N
8	12"x12" FT m	Classroom	R-5	SD	N
9	Window Glazing (interior)	Classroom	4400LF	SD	N
10	Window Glazing (interior)	Classroom	R-9	SD	N

Condition - (G) Good (D) Damaged (SD) Significantly Damaged

\*Special Instructions: Quantities based on one classroom only accessible by window, quantities will be multiplied and approximated based on city blue print

Released By: M. Ostrowski Company: ALS Date/Time: 3/16/17  
 Received By: CEB Company: ALS Date/Time: 3-16-17

Released By: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: \_\_\_\_\_



ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 11754 Project Name: Wesmond Training Facility Project Location: 9307 South Western Blvd, Suffolk, VA  
 Date Sampled: 3/16/17 Results Due: 3/21/17 Inspector(s): Ostromski, Haskins ALS Lim#: 54771

Sample #	Sample Description	Sample Location	Quantity	*Condition G/D/SD	Friable Y/N
11	4" pipe insulation	Boiler Room	200LF	SD	Y
12	4" pipe elbow	Boiler Room	13 fittings	SD	Y
13	8" pipe insulation	Boiler Room	165LF	SD	Y
14	8" pipe elbow	Boiler Room	7 fittings	SD	Y
15	dmu Block sealant	Boiler Room	400SF	D	Y
16	Window Glazing (interior)	Boiler Room	12-9	SD	N
17	Window Glazing (interior)	Boiler Room	12-9	SD	N
18	Boiler Gasket	Boiler Room	10LF	SD	Y
19	Boiler Insulation	Boiler Room	125 SF	SD	Y
20	Boiler Door Insulation	Boiler Room	8 SF	SD	Y

\*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

\* Special Instructions: Quantities in Boiler Room based on measurements for Boiler Room and visual assessment of pipe throughout building in inaccessible areas  
 Released By: M. Ostromski Company: ALS Date/Time: 3/16/17  
 Received By: CEB Company: ALS Date/Time: 3-16-17

Released By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Company: \_\_\_\_\_ Company: \_\_\_\_\_

ASBESTOS FIELD INSPECTION FORM/CHAIN OF CUSTODY

ALS Project #: 11754 Project Name: ~~Norfolk Training Facility~~ Project Location: 9307 Southwestern Blvd, Suffolk VA  
 Date Sampled: 3/16/17 Results Due: 3/21/17 Inspector(s): ~~Ostrawski / Heskings~~ ALS Limb#: ~~54771~~

Sample #	Sample Description	Sample Location	Quantity	Condition G/D/SD	Friable Y/N
Z1	Refractory Insulation (Boiler)	Boiler Room	300SF	SD	Y
Z2	Roof shingle	Roof	15,000SF	SD	N
Z3	Tar paper	Roof	15,000SF	SD	N
Z4	Tin Roof Tar / mastic	Roof	15,000SF	SD	N

\*Condition - (G) Good (D) Damaged (SD) Significantly Damaged

\* Special Instructions: Roof covered in unable to distinguish which areas are tin and which areas are shingle, quantity based on outside measurements of building

Released By: M. Ostrawski Company: ALS Date/Time: 3/16/17  
 Received By: CEB Company: ALS Date/Time: 3-16-17

Released By: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Company: \_\_\_\_\_ Date/Time: \_\_\_\_\_

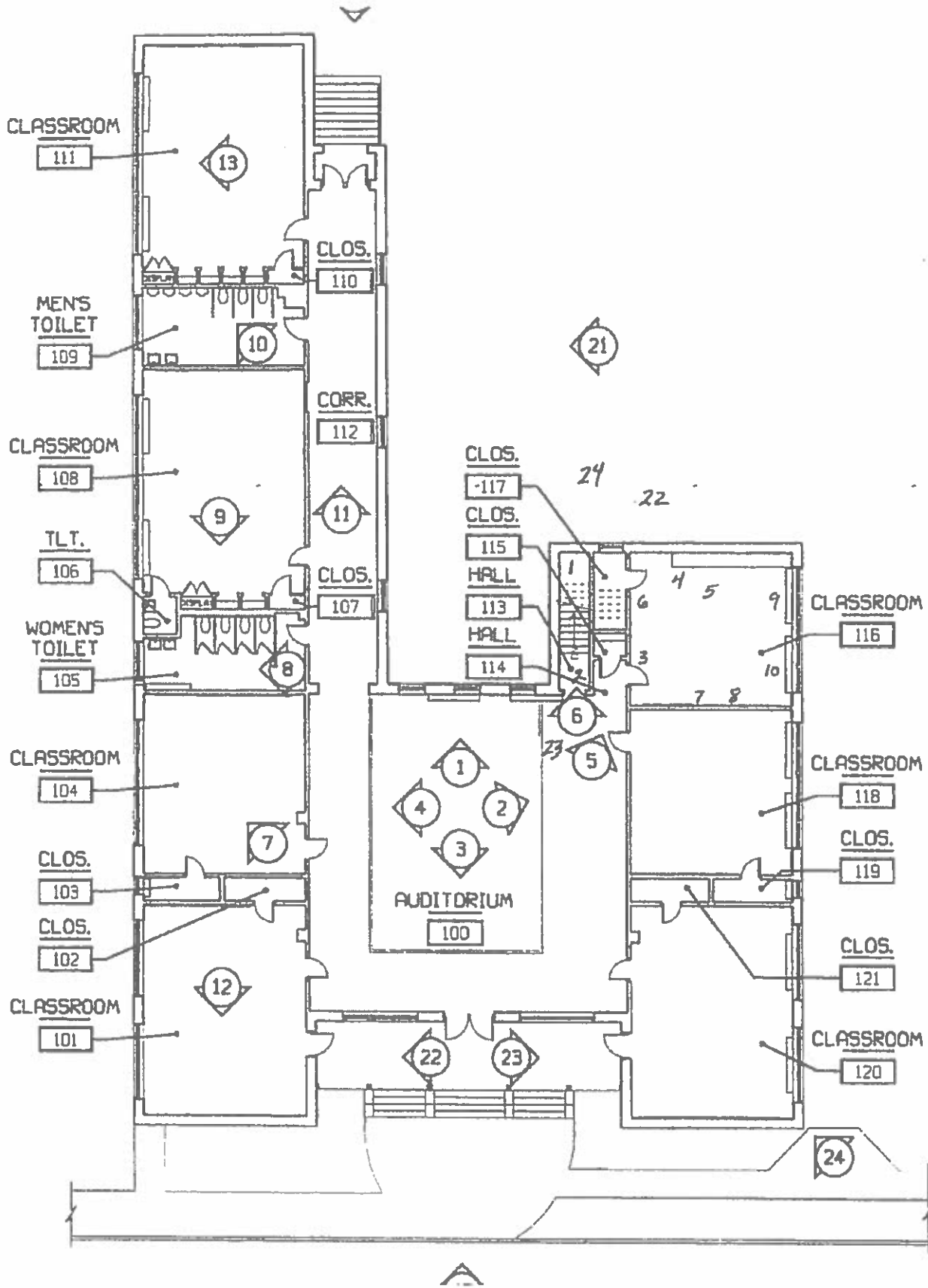
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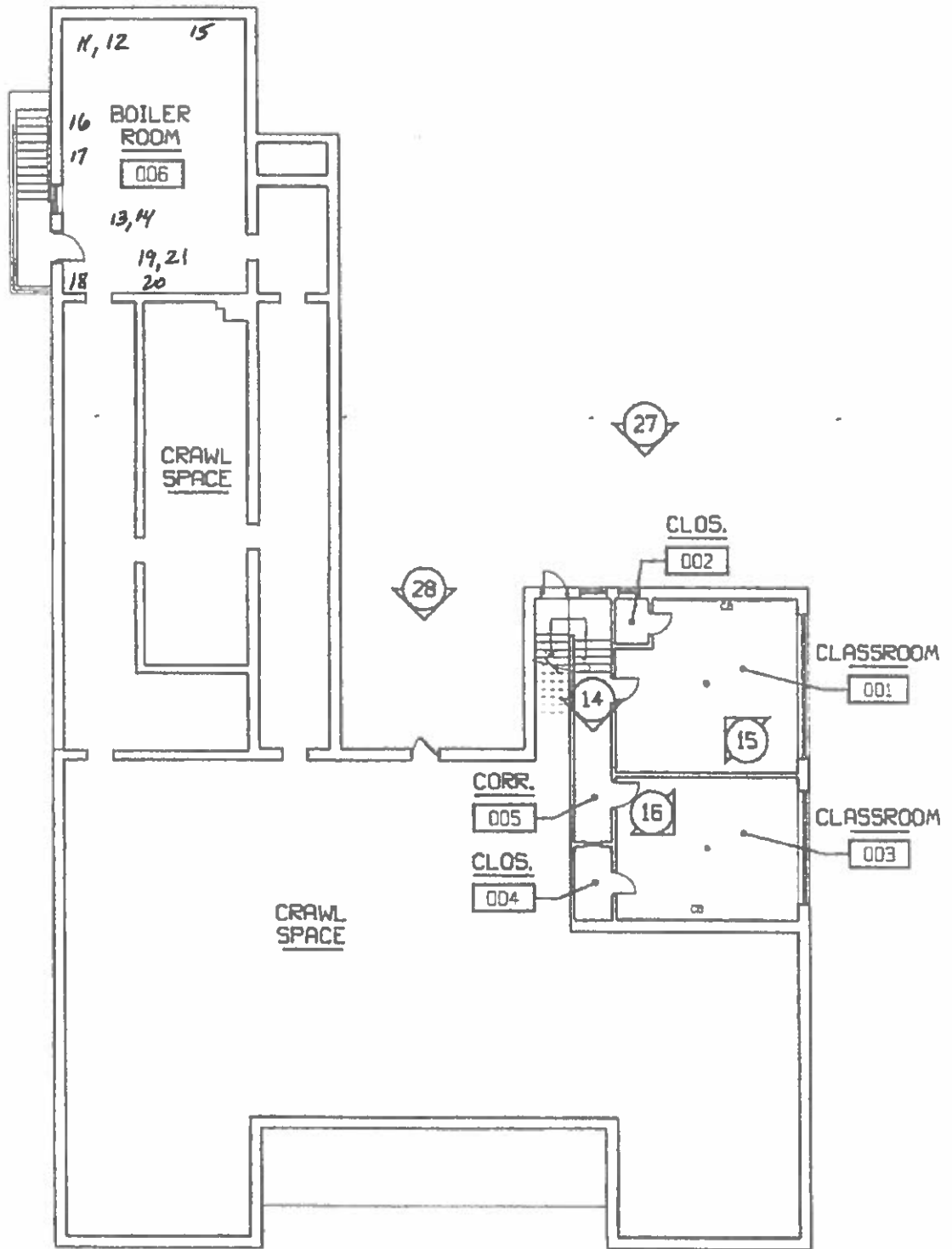
**APPENDIX B - XRF LEAD-BASED PAINT TESTING  
RESULTS**

REPRESENTATIVE XRF LEAD BASED PAINT SURVEY  
 9307 SOUTHWESTERN BLVD  
 SUFFOLK, VIRGINIA

Reading No	Time	Component	Substrate	Side	Condition	Color	Site	Floor	Room	Results	PbC	Units
1	3/16/2017 8:46											1.42 cps
2	3/16/2017 8:48	CALIBRATE					NANSEMOND			Positive		2.8 mg / cm ^2
3	3/16/2017 8:48	CALIBRATE					NANSEMOND			Positive		1.4 mg / cm ^2
4	3/16/2017 8:49	CALIBRATE					NANSEMOND			Negative		0.3 mg / cm ^2
5	3/16/2017 8:51	WALL	PLASTER	D	POOR	BLUE	NANSEMOND	FIRST	CLASSROOM	Negative		< LOD mg / cm ^2
6	3/16/2017 8:51	WINDOW FRAME	WOOD	D	POOR	BLUE	NANSEMOND	FIRST	CLASSROOM	Positive		11.7 mg / cm ^2
7	3/16/2017 8:52	RADIATOR	METAL	C	POOR	BLUE	NANSEMOND	FIRST	CLASSROOM	Negative		< LOD mg / cm ^2
8	3/16/2017 8:53	WALL	WOOD	A	CRACKED	BLUE	NANSEMOND	FIRST	CLASSROOM	Negative		< LOD mg / cm ^2
9	3/16/2017 8:54	BEAM	METAL		POOR	BLUE	NANSEMOND	FIRST	CLASSROOM	Positive		18.9 mg / cm ^2
10	3/16/2017 8:55	BATH DOOR	WOOD	B	PEELING	BLUE	NANSEMOND	FIRST	CLASSROOM	Positive		8.7 mg / cm ^2
11	3/16/2017 8:56	BATH DOOR FRAME	WOOD	B	PEELING	BLUE	NANSEMOND	FIRST	CLASSROOM	Positive		6 mg / cm ^2
12	3/16/2017 8:57	CEILING	WOOD		PEELING	WHITE	NANSEMOND	FIRST	CLASSROOM	Positive		8.7 mg / cm ^2
13	3/16/2017 8:59	PIPE	METAL		PEELING	WHITE	NANSEMOND	FIRST	CLASSROOM	Negative		< LOD mg / cm ^2
14	3/16/2017 9:00	MUNTIN	WOOD	D	CRACKED	BLUE	NANSEMOND	FIRST	CLASSROOM	Positive		7.5 mg / cm ^2
15	3/16/2017 9:02	WALL	PLASTER	D	POOR	BLUE	NANSEMOND	FIRST	STAIRWELL	Negative		< LOD mg / cm ^2
17	3/16/2017 9:03	DOOR	WOOD	C	INTACT	RED	NANSEMOND	FIRST	STAIRWELL	Negative		< LOD mg / cm ^2
18	3/16/2017 9:04	DOOR FRAME	WOOD	C	PEELING	BEIGE	NANSEMOND	FIRST	STAIRWELL	Positive		11.1 mg / cm ^2
19	3/16/2017 9:06	TREAD	WOOD	C	FAIR	GRAY	NANSEMOND	FIRST	STAIRWELL	Negative		< LOD mg / cm ^2
20	3/16/2017 9:07	RISER	WOOD	C	CRACKED	WHITE	NANSEMOND	FIRST	STAIRWELL	Positive		3.1 mg / cm ^2
21	3/16/2017 9:08	WALL	WOOD	D	CRACKED	BEIGE	NANSEMOND	FIRST	STAIRWELL	Negative		< LOD mg / cm ^2
22	3/16/2017 9:14	WINDOW FOUNDATION	CONCRETE	D	PEELING	RED	NANSEMOND		OUTSIDE	Negative		0.22 mg / cm ^2
23	3/16/2017 9:16	COAL DOOR	METAL	C	PEELING	RED	NANSEMOND		OUTSIDE	Negative		< LOD mg / cm ^2
24	3/16/2017 9:17	HAND RAIL	METAL	B	PEELING	RED	NANSEMOND		OUTSIDE	Negative		< LOD mg / cm ^2
25	3/16/2017 9:19	WINDOW BOARD	WOOD	B	PEELING	RED	NANSEMOND		OUTSIDE	Negative		< LOD mg / cm ^2
26	3/16/2017 9:19	WINDOW BOARD	WOOD	B	PEELING	RED	NANSEMOND		OUTSIDE	Negative		< LOD mg / cm ^2
27	3/16/2017 9:20	DOOR	METAL	B	INTACT	RED	NANSEMOND		OUTSIDE	Negative		< LOD mg / cm ^2
28	3/16/2017 9:21	DOOR FRAME	METAL	B	INTACT	RED	NANSEMOND		OUTSIDE	Negative		< LOD mg / cm ^2
30	3/16/2017 10:02	CEILING	CONCRETE		INTACT	BEIGE	NANSEMOND	FIRST	BOILER RM	Negative		< LOD mg / cm ^2
31	3/16/2017 10:03	WALL	BRICK	A	POOR	BEIGE	NANSEMOND	FIRST	BOILER RM	Negative		< LOD mg / cm ^2
32	3/16/2017 10:04	WALL	CONCRETE	C	INTACT	BEIGE	NANSEMOND	FIRST	BOILER RM	Negative		< LOD mg / cm ^2
33	3/16/2017 10:05	BOILER	METAL		PEELING	GRAY	NANSEMOND	FIRST	BOILER RM	Negative		< LOD mg / cm ^2
34	3/16/2017 10:08	MUNTIN	METAL	B	PEELING	GRAY	NANSEMOND	FIRST	BOILER RM	Negative		< LOD mg / cm ^2
35	3/16/2017 10:17	FASCIA	WOOD	B	PEELING	GRAY	NANSEMOND		OUTSIDE	Positive		1.9 mg / cm ^2
36	3/16/2017 10:18	SOFFIT	WOOD	B	PEELING	GRAY	NANSEMOND		OUTSIDE	Positive		1.9 mg / cm ^2
37	3/16/2017 10:21	LENTIL	CONCRETE	B	PEELING	RED	NANSEMOND		OUTSIDE	Negative		< LOD mg / cm ^2
38	3/16/2017 10:21	CALIBRATE					NANSEMOND			Positive		3.2 mg / cm ^2
39	3/16/2017 10:22	CALIBRATE					NANSEMOND			Positive		1.4 mg / cm ^2
40	3/16/2017 10:22	CALIBRATE					NANSEMOND			Negative		0.29 mg / cm ^2

## **APPENDIX C - SAMPLE LOCATION DIAGRAMS**





**APPENDIX D - ASBESTOS CERTIFICATION FOR  
PERMIT**



**APPLIED  
LABORATORY  
SERVICES**

**ASBESTOS CERTIFICATION**

Asbestos Certification issued pursuant to an application  
for building, electrical, mechanical, or plumbing permit.  
(Code of Virginia, Section 36-99.7)

Building Address: 9307 Southwestern Boulevard  
Suffolk, Virginia 23437

Areas Inspected: Interior and Exterior

Materials Inspected: All suspect building materials

Client's Name: City of Suffolk  
Director of Capital Programs and Facilities  
Attn: Mr. Gerry Jones

Client's Address: 442 W. Washington Street  
Suffolk, Virginia 23234

Agent's Name & Address: Applied Laboratory Services, LLC  
4101 Granby Street, Suite 404  
Norfolk, Virginia 23504

Asbestos Inspector's Name: Matthew D. Ostrowski  
Inspector License No.: Va. 3303004047, Exp. 31 March 2018

I certify that I personally inspected and/or reviewed the inspection documents for the building listed above for asbestos, this inspection being in accordance with applicable regulation and standards, developed by the US Environmental Protection Agency, and that: (check appropriate box)

- No suspect asbestos containing materials were identified in the areas to be affected by the repair/renovation/demolition.
- Asbestos was detected in the areas to be affected by the demolition and response actions to abate any risk to human health have been completed.
- Asbestos was detected in the areas to be affected by the demolition and response actions to abate any risk to human health will be undertaken as a part of the demolition.

I further certify that I hold a valid Asbestos Inspector's License issued by the Commonwealth of Virginia, Department of Professional and Occupational Regulation, Asbestos Licensing Board, and otherwise meet the minimum competency requirements.

  
\_\_\_\_\_  
Signature of Inspector

23 March 2017  
Date