Entrepreneurial and Workforce Development Strategies (Building Collaborative Communities)

Final Report
July 2017

Prepared by:

Accomack-Northampton Planning District Commission

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PROJECT SUMMARY

In November 2016, the A-NPDC received a Building Collaborative Communities grant from the Virginia Department of Housing and Community Development. The overall goal of the project was to advance high-priority and feasibility strategies identified within the 2016 regional Stronger Economies Together (SET) plan which addresses specific regional barriers for providing adequate small business facilities, workforce development opportunities, and regional small business information resources.

Three measurable and specific objectives were identified in the proposal: 1) Develop a phased implementation plan for a Regional Small Business Incubator and Community Commercial Kitchen at the Northampton County Community Facilities Building (former Northampton County Middle School); 2) Develop a strategic vision plan and leadership team for a regional aquatic workforce development center; and 3) Create a Regional Small Business Resource Index.

PROJECT ACTIVITIES & FINDINGS

Goal 1: Develop a Regional Small Business Incubator and Community Commercial Kitchen Feasibility Plan

Northampton County Community Facilities Building Feasibility Study

The grant proposal identified the 65,000 sq. ft. Northampton County Community Facilities Building, located at 7247 Young Street in Machipongo, VA, as the potential site for the development of a business incubator and commercial kitchen. Originally constructed as Northampton County's African American high school, the building has served multiple purposes and has had several additions and renovations since its original construction in 1953. Currently, the facility houses the Virginia Cooperative Extension Office, County Parks & Recreation programs, archival storage space, and it is used as a polling station.

With the reduced usage of the facility and the inefficient heating and cooling systems, a mold problem has developed. In order to determine the feasibility of the site's further reuse, an indoor environmental risk assessment was a necessary first step. A-NPDC issued an Invitation to Bid for the environmental testing services in February, 2017 (Appendices A-B). ATC Group Services LLC of Virginia Beach, was chosen through a competitive bid process to perform the assessment based on the following scope of services (Appendix C):

- Performance of an indoor air quality study of all areas of the facility
- Development of potential health risks of using the facility in its current condition
- Development of a mold management plan for prevention and remediation of mold and moisture problems, including any modifications to the existing building necessary to accomplish humidity control, on an area-by area/room-by-room basis
- Performance of a lead and asbestos survey in all areas where renovation activities would be required to mitigate mold and moisture problems
- Testing for lead in areas showing chipping/flaking paint
- Development of probable mold remediation costs on an area-by-area/case-by-case basis
- Development of probable lead and asbestos abatement costs on an area-by-area/case-by-case basis

Lab results identified multiple areas of environmental concern leading to the recommendation for limited access to the affected areas of the facility until a microbial remediation and HAZMAT abatement plan is developed and implemented (Appendix D).

In addition to the environmental risk assessment, multiple stakeholders including County Supervisors and Public Works personnel, as well as community members, expressed concern regarding the wastewater treatment system's capacity to treat the potential increased

flow as the result of the facility's expanded reuse. A-NPDC contracted with GMB in Salisbury, MD, to provide the following wastewater treatment analysis:

- Review design and operations documents provided by Northampton County Public Works Department of the existing pond system.
- Review the existing VDPED Permit and existing design data of the pond system as compared to the current Virginia Sewage and Collection Treatment Regulations (SCAT).
- Provide a letter report of findings and generate an Engineer's opinion on the capability of the existing wastewater pond system and utilizing the facility to the permitted flow condition and treatment limits.

GMB conducted their analysis in early April (Appendix E). Their findings indicated that the system has the potential to treat additional flow (up to 3,500 gal/day as determined by historic usage, the current flow rate is 400 gal/day). The assessment notes potential leakage of the lagoons, however, monthly monitoring of the surrounding groundwater wells has shown no above normal limits. Continued well monitoring was recommended to ensure no major changes develop.

A-NPDC staff estimate that the facility would need to generate an annual gross rental income of at least $255K, which equates to approximately 75% occupancy rate, to cover operating expenses and the anticipated $635K in debt service needed. This calculation is based on current operating cost, previous rehabilitation estimates (bathrooms, roof, asbestos abatement, and mold mitigation) and assumptions regarding rent and mortgage loan rates. Full occupancy of the facility is estimated to generate $340K in gross income. The rehabilitation costs may qualify for historic tax credits, but first the building would need to be certified as a "historic structure" through the National Register of Historic Places and/or the Virginia Landmarks Register or be certified as a structure "contributing to" a historic district.

Recommendations

Based on the indoor environmental risk assessment, wastewater treatment system analysis, and the mitigation, remediation, and renovation estimates, A-NPDC staff provided County officials with three potential options moving forward:

Option 1 - Continue current use of the facility and take immediate action to:

- Limit access to the 1980s and 1990s additions, as well Room #23 and Room #25 until the area can be addressed by a licensed restoration company. The County's archives are currently housed in an area of environmental/health risk concern and should be cleaned and moved posthaste.
- Maintain the mechanical systems based on the recommended temperature and humidity thresholds in these areas until restoration activities commence.
- Develop an Operations and Maintenance Plan for the asbestos containing material that remain in place. Removal of any ACM should be addressed by a licensed abatement contractor.
- Retain a licensed lead abatement contractor to evaluate the lead-containing paint

identified on the window support poles associated with the original section of the structure.

Option 2 - Option 1 plus:

- Install climate control mini-split systems in rooms #23 - #27 (cost estimate $19,000). The space could then be used for the County's archival storage, offices, or as income producing rental space.
- Further renovations to the gymnasium (currently ongoing), restrooms, auditorium, and cafeteria could provide additional income from rental fees and provide much needed community event facilities for the community.

Option 3 - Options 1 and 2 plus:

- Raze the 1980s and 1990s editions of the building, returning the school to its historic footprint. Most of the adaptive reuse plans supported by the community stakeholders involve the gymnasium, cafeteria, and auditorium, and there is limited interest in classroom space. The County Director of Public Works estimates that the demolition and renovation costs, not including hazardous abatement, would be over $800,000.

Further adaptive reuse planning of the facility is dependent on the Board of Supervisors taking action to mitigate the identified environmental concerns as well as approving any future business plans for reuse of the facility.

Stakeholder Engagement

A-NPDC staff attended multiple community stakeholders meetings to determine potential reuses of the facility. Initially, the grant focused on the development of a small business incubator and a community and/or commercial kitchen. Input from the community expanded potential reuses to include the development of a multi-use community center. A core group of stakeholders formed under the umbrella of the "Historic Northampton County High School Community Center." This group continues to meet regularly and is developing bylaws, a mission statement, a governance board, and a business plan which they hope to present to the Board of Supervisors by the end of the year, as well as to potential funding sources. The group is working in collaboration with the Friends of Northampton Parks & Recreation and the Northampton County Parks and Recreation Advisory Board.

Commercial vs Community Kitchen Planning Efforts

After the initial community stakeholder meeting, a second meeting of individuals

interested specifically in the development of a commercial kitchen business plan for the Northampton County Community Facilities Building took place in April. After that meeting, a stakeholder, with expertise in both commercial real estate and culinary arts, assisted in the research and development of a white paper on the feasibility of a commercial and/or community kitchen (Appendix F). Concurrently, a private investor approached the County with plans to develop a commercial kitchen at a nearby site. It was decided to suspend further development of a commercial kitchen feasibility/business study until plans for the privately funded project are shared publically. If the decision is made that a commercial kitchen is ultimately not viable at the site, the County may want to consider the benefits of improvements to the space as a "community" kitchen to accommodate the use of current occupants as well potential future users of the proposed community center.

Business Incubator Planning Efforts

Since the grant award, additional interest has developed regionally in a business incubator. Sites in Exmore, Onley, Melfa, Parksley, and Wallops Island have been discussed as potential incubator sites. A-NPDC staff are currently working with stakeholders, including the Eastern Shore Community College, Eastern Shore Chamber of Commerce, Small Business Development Center, and private investors to discuss next steps including a market analysis/feasibility study to identify at a minimum:

- Who would use an incubator on the Shore?
- What are their needs?
- What type of incubator is most needed: co-working space; makerspace; manufacturing; etc.
- Where is the best location?
- What layout/equipment is needed?
- What is the need/expectation for mentorship?
- Who are the stakeholders/collaborators?
- What funding is available for the development of the incubator as well as support of the businesses who may use the incubator(angel investors and or accelerator).

Potential funding sources to assist in the development of an incubator on the Shore include the USDA Rural Business Development Grant and the Building Entrepreneurial Economies Grant from the Virginia Department of Housing and Community Development.

Goal 2: Develop a Strategic Vision Plan and Leadership Team for a Regional Aquatic Workforce Development Center

The initial Leadership Team consisted of staff from the A-NPDC and Eastern Shore Community College Workforce Development. The team met to discuss current resources and a

stakeholder outreach strategy. It was decided that a survey of stakeholders would allow for the greatest level of input from individuals/businesses in the marine-based industry sector.

Twenty-two individuals from 7 sectors were interviewed by phone or in-person (Appendix G). These representatives were asked what their needs were for existing or incoming staff training and certifications. The interview discussion was made adaptable depending upon the interviewee. Half of those interviewed did not express a need for a unique facility. Those that were interested in a facility expressed the need for a pool for various trainings such as swimming, lifeguard, STCW (Standards for Training, Certification, and Watchkeeping, etc. Additional facility suggestions included an area with aquariums and touch tanks for marine life teaching and an area for hands on training for pumps and other gear.

Based on the interview results, there are mixed emotions in the aquaculture field in particular about training programs. Representatives from this industry were insistent that the different companies all operate with unique procedures, and were somewhat weary of extensive training. Instead, they were interested more in small engine repair, pump operation/maintenance, and basic food handling safety (in English and Spanish).

Through the interview process, existing opportunities on the Shore were discovered, and the beginning of a resource database created. Dissemination of information about programs, courses, and training opportunities needs to be more effective and collaboration between instructors and facilities enhanced. One immediate conclusion is that there are a number of fragmented resources already on the Shore. As part of the Regional Small Business Resource Index, staff developed a clearinghouse page on the A-NPDC website to consolidate the available resources and information for community-wide benefit (http://www.a-npdc.org/marine-based- industry- resources/). The Leadership team plans to continue meeting to determine future collaborative efforts to support the aquatic workforce development needs of individuals and businesses on the Shore.

Goal 3: Development a Regional Small Business Resource Index

The purpose of the the Regional Small Business Resource Index is to support and expand the development of the entrepreneurial ecosystem on the Shore by providing a comprehensive list of resources for prospective and existing businesses and creating a virtual network for entrepreneurs. The grant allowed for the re-development of the A-NPDC Economic Development website and resulted in the creation of the following three web pages:

http://www.a-npdc.org/economic-development-resources/
http://www.a-npdc.org/marine-based-industry-resources/
http://www.a-npdc.org/data-dashboard/

As with most online content, the pages created will continue to be developed and updated on a regular basis and the availability of the Index will continue to be shared across our stakeholder networks. It is anticipated that the buildout will include informational graphs that will make regional demographic and economic data more readily accessible and user-friendly by citizens, business owners, entrepreneurs, grant writers, non-profit organizations, and local

governments.

Monthly economic development newsletters began in October 2016. The content is focused on current economic data and trends within the region, conference and workshop information, updates on industry advancements and progress made through the implementation of the SET and CEDS regional economic development plans, and other pertinent information to support local entrepreneurs. The e-blast is distributed to over 300 individuals and has on average a 50% open rate. Past newsletters are archived on the A-NPDC website: http://www.a-npdc.org/economic-development-newsletter/. In addition, time sensitive and information which is deemed of broad interest is shared via the A-NPDC Facebook page.

The final Small Business Resource Index grant activity was the second in a series of envisioned entrepreneurship workshops. "The Entrepreneurship Option," held on October 24, 2016, was presented by Jim Flowers, Executive Director of VT KnowledgeWorks. Over thirty people registered for the event which was held at the Eastern Shore Community College. Plans are currently underway to sponsor a third entrepreneurship training before the end of the year.

Additional Activities in Support of Grant Goals

The grant provided A-NPDC staff the opportunity to register/attend the following conferences and workshops:

- Virginia Main Street Downtown Intersections Conference (July 2017)
- Virginia Association of Planning District Commissions Conference (July 2017)
- Virginia Governor's Housing Conference (November 2017)
- DHCD Best Practices in Grant Management Workshop (November 2017)

These professional development opportunities assist staff in building the capacity of the A-NPDC Economic Development Office to support and educate entrepreneurs and business owners by bringing to the Shore knowledge of best practices in economic development, professional networking connections, and relevant resources. Finally, the grant provided necessary funds to replace an aging, and unserviceable, large-format plotter. The ability to visualize and share information via poster size maps and graphics will assist the staff in community engagement efforts for many years to come.

APPENDICES

- Appendix A: Notice of Availability of Invitation to Bid
- Appendix B: Invitation to Bid and Addendums
- Appendix C: ATC Proposal
- Appendix D: ATC Final Report
- Appendix E: GMB Report
- Appendix F: Community Kitchen Study
- Appendix G: Marine Industry Interviews

A-NPDC
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Notice of Availability of an Invitation to Bid for Environmental Testing Services

The Accomack-Northampton Planning District Commission (A-NPDC) is accepting sealed bids from qualified firms for an indoor environmental risk assessment of the Northampton County Community Facilities Building (Former Northampton Middle School) located at 7247 Young Street, Machipongo, VA 23405. This project is described in general as an indoor air testing study and hazardous materials assessment of the facility.

Pre-bid inspections of the building may be scheduled with the Northampton County Director of Public Works at 757-678-0414 or cthomas@co.northampton.va.us. Bids will be received at the A-NPDC Office 23372 Front Street, PO Box 417, Accomac, VA 23301 until 10 AM on February 28, 2017. Firms interested in receiving a copy of the full Invitation to Bid and Scope of Services should contact:

Caroline Bott
A-N Planning District Commission
23372 Front Street, Accomac, VA.
cbott@a-npdc.org
(757) 787-2936 Ext. 111
Relay Virginia: 711

INVITATION TO BID FOR
INDOOR ENVIRONMENTAL RISK ASSESSMENT
OF NORTHAMPTON COUNTY COMMUNITY FACILITIES BUILDING

I. INTRODUCTION

The Accomack-Northampton Planning District Commission (A-NPDC) is accepting sealed bids from qualified firms for an indoor environmental study of the Northampton County Community Facilities Building (Former Northampton Middle School) located at 7247 Young Street, Machipongo, VA 23405.

Bids will be evaluated by the A-NPDC Economic Development Coordinator and the Northampton County Public Works Director.

An original and two (2) copies of the sealed bids from each vendor for the services specified must be received prior to 10 AM on February 28, 2017, by the A-NPDC. All bids shall be signed by an authorized representative of the vendor. All bid envelopes must have the company name on the outside of the envelope along with the notation **"Bid – Indoor Environmental Risk Assessment of Northampton County Community Facilities Building."**

Bids may be mailed or hand delivered to the A-NPDC office at P.O. Box 417, Accomac, Virginia 23301, or 23372 Front Street, Accomac Virginia. It is the vendor's responsibility to ensure that the bid is received by the A-NPDC prior to the due date. Bids received after 10 AM on February 28, 2017, will not be accepted or considered. All bids will be time stamped upon arrival. The A-NPDC will not be responsible for the loss of any bid that is not appropriately marked as specified. **Faxed or e-mailed bids are not acceptable**.

The A-NPDC reserves the right to reject any or all bids and to waive any irregularities or informalities in the bidding.

No bid may be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the consent of the Owner. The procedure for withdrawal of bids shall be according to Section 11-54 (I) of the Code of Virginia.

The contract is to be awarded on the basis of the lowest responsive and responsible bid.

All bidders are subject to and must comply with the provisions of Northampton County's Equal Employment Opportunity Policy and applicable State and Federal anti-discrimination laws.

II. BACKGROUND

The oldest part of the former middle school facility, located at 7247 Young Street at Machipongo, was constructed circa 1960. Two later enlargements were added in the mid-1980s and 1993. The building comprises 65,000 sq. ft.

Several years ago, the Northampton County School Board transferred the subject property back to the Board of Supervisors as it was no longer needed for school purposes.

Since that time, the building has been repurposed to house the Northampton County office of the Virginia Cooperative Extension Service as well as serving other functions including county archival storage space, the location of the county-operated Summer Camp program (through the Department of Parks & Recreation) as well as the District Four Polling Place. In addition, the rental of the cafeteria, auditorium and community room (former home economics classroom) for various community functions and private events has occurred.

The transfer of the property was accomplished through a subdivision of the parcel with County government receiving the subject building and part of the parking lot; ownership and maintenance of the water wells; and responsibility for the operation of the septic/wastewater facility that serves the former middle school and the adjacent school administration building.

In 2010, County Administration occupied the newest wing of the building while they were undergoing renovation of their Eastville offices. This wing was upgraded to handle their electrical, phone and internet needs. In addition, the archival records for all of County Administration was moved to this facility, which currently remain at the site.

With the reduced usage of the building and the inefficient heating and cooling systems, the building has developed a mold problem and the County commissioned an environmental assessment. This document, the Indoor Environmental Assessment, prepared by McKee Environmental (April 17, 2012) is made a part of the contract documents and is attached hereto as Exhibit A, to assist in your understanding of the extent and nature of this problem.

With the building currently being partially utilized and the possibility of utilizing more of the building in the future, the potential human exposure risks to occupants of the building is a concern.

A floor plan of the facility is attached as Exhibit B.

III. SCOPE OF SERVICES

The successful vendor shall be responsible for the following scope of work:

- Performance of an indoor air quality study of all areas of the facility
- Development of potential health risks of using this facility in its current condition
- Development of a mold management plan for prevention and remediation of mold and moisture problems, including any modifications to the existing building necessary to accomplish humidity control, on an area-by-area/room-by-room basis
- Development of modifications required to maintain code compliance for ventilation requirements
- Performance of a lead and asbestos survey in all areas where renovation activities would be required to mitigate mold and moisture problems
- Testing for lead in areas showing chipping/flaking paint
- Development of probable mold remediation costs on an area-by-area/case-by-case basis
- Development of probable lead and asbestos abatement costs on an area-by-area/case-by-case basis

IV. GENERAL REQUIREMENTS

A. The A-NPDC reserves the right to reject any and/or all bids and to waive any irregularities or technicalities when it is deemed to be in the best interest of the A-NPDC.

B. No proposal will be awarded to any person, firm or corporation that is in arrears or is in default to Northampton County upon any debt or contract or that is a defaulter as surety or otherwise upon any obligation to the County.

C. Successful Contractor must obtain a Northampton County Business License.

D. Bidders must possess and maintain throughout the duration of professional services Worker's Compensation and Commercial General Liability insurance coverage.

E. No bid may be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the consent of the Owner. The procedure for withdrawal of bids shall be according to Section 11-54 (I) of the Code of Virginia.

I. The contract is to be awarded on the basis of the lowest responsive and responsible bid.

J. All bidders are subject to and must comply with the provisions of Northampton County's Equal Employment Opportunity Policy and applicable State and Federal anti-discrimination laws.

V. GENERAL TERMS ANDCONDITIONS

A. **Inquiries**

Questions concerning bid procedures or the scope of services in this Invitation to Bid should be addressed in writing to Caroline Bott, Economic Development Coordinator, P.O. Box 417, Accomac, VA 23301. Inquiries may also be made via e-mail at cbott@a-npdc.org, or by FAX at 757-787-4221. No questions will be answered verbally. All inquiries must be received no later than 5 PM, February 21, 2017. Answers to submitted questions will be answered through the issuance of an addendum.

B. **Incurring Cost**

Neither the County nor the A-NPDC are liable for any cost incurred by any proposer interested in submitting a bid, or any costs incurred by the selected proposer, prior to the execution of a contract.

C. **Non-Discrimination**

Neither the County nor the A-NPDC discriminate against race, color, religion, sex, national origin, age, disability, political affiliation, belief or faith-based organizations.

In accordance with Section 2.2-4311 of the Code of Virginia, every contract for goods or services over $10,000 shall include the following provisions:

During the performance of this contract, the CONSULTANT agrees as follows:
The CONSULTANT will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating

to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the CONSULTANT. The CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

The CONSULTANT, in all solicitations or advertisements for employees placed by or on behalf of the CONSULTANT, will state that such CONSULTANT is an equal opportunity employer.

Notices, advertisements, and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

The CONSULTANT shall include the provisions of the foregoing paragraphs in every subcontract or purchase order of over $10,000 so that the provisions will be binding upon each subcontractor or vendor.

D. **Drug-free Workplace**

The contract with the selected CONSULTANT shall provide that during the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

E. **INDEMNIFICATION AND CONDITIONS**

The CONSULTANT is an independent contractor and, as such, is not and shall not be construed to be an agent or employee of the A-NPDC. The CONSULTANT further agrees to indemnify, hold harmless and defend the A-NPDC or COUNTY at the CONSULTANT'S expense from and against any and all liability for loss, damage, or expense for which it may be held liable by reason of injury, including death, to any person or damage to any property arising out of or in any manner connected with the operations to be performed under this Contract, or costs and expenses for, or on account of, any patented or copyrighted equipment, materials, articles or processes used in the performance of this Contract.

F. **INSURANCE**

The CONSULTANT shall purchase and maintain in force, at his own expense:

a) Broad Form Comprehensive General Liability - $2,000,000 Combined Single Limit coverage to include: Premises – Operations; Products/Completed Operations; Contractual; Independent

Contractors; County and Contractor's Protective; Personal Injury (Libel, Slander, Defamation of Character, etc.)

b) Professional Liability Coverage (errors and omissions) - $1,000,000 minimum

c) Automobile Liability: $2,000,000 Combined Single Limit coverage

d) Workers' Compensation: Coverage A, Statutory; Coverage B, $100,000

The insurance specified herein shall name the A-NPDC and the COUNTY as additional insured with regard to work performed under any contract. All policies shall provide that the A-NPDC and the COUNTY receive written notice by certified mail, thirty (30) days in advance of cancellation or alteration of any policy. The CONSULTANT shall provide the A-NPDC and the COUNTY with copies of certificates of insurance coverage and proof of payment for all premiums.

Upon execution of this contract, and thereafter no less than fifteen (15) days prior to the expiration date of any insurance policy delivered pursuant to this contract, the CONSULTANT shall deliver to the A-NPDC and the COUNTY a certificate(s) of insurance to show compliance with this section.

Each policy of insurance shall be issued by financially responsible insurers duly licensed to do business in the Commonwealth of Virginia.

Each policy of insurance shall include a waiver of subrogation in favor of the A-NPDC and the COUNTY and shall provide no less than thirty (30) days' notice to the A-NPDC and the COUNTY in the event of a cancellation or change in conditions or amounts of coverage.

G. **Ethics in Public Contracting**

This Invitation to Bid incorporates by reference any state or federal law related to ethics, conflicts of interest, or bribery, including by way of illustration and not limitation, the Virginia State and Local Government Conflict of Interests Act, the Virginia Governmental Frauds Act, and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Virginia Code, as amended. The Proposer certifies that its offer is made without collusion or fraud and that it has not offered or received any kickbacks or inducements from any other proposer, supplier, manufacturer, or sub-proposer and that it has not conferred on any public employee having official responsibility for this purchase any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised unless consideration of substantially equal or greater value was exchanged.

H. **Immigration Reform and Control Act of1986**

In accordance with Section 2.2-4311.1 of the Code of Virginia, every contract for goods or services shall include the following provisions:

During the performance of this contract, the CONSULTANT does not and shall not knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

I. **Proposal Binding**

The contents in their entirety of the proposal submitted by the accepted firm shall become an attachment to and part of the agreement between the firm and the A-NPDC. The proposal shall adhere

to the complete bid specifications. If any conflicts exist between the proposal and these written specifications, these specifications shall govern.

J. **Applicable Law**

This ITB and any subsequent contract and the work performed thereunder shall be governed in all respects by the laws of the Commonwealth of Virginia and the venue for any litigation with respect thereto shall be in the Circuit Court for Northampton County, Virginia or as otherwise required by law. The Proposer shall comply with applicable federal, state, and local laws and regulations.

K. **Assignment**

The Proposer shall not assign, transfer, convey, sublet, or otherwise dispose of any award, or any or all of its rights, obligations, or interests under this contract, without the prior written consent of the A-NPDC.

Indoor Environmental Assessment

Client
Mike Thornes
Northampton County Public Works
P.O. Box 66
Eastville, Virginia 23347

Job Site
Northampton County Community Facilities Building
7247 Young Street
Machipongo, Virginia 23405

Building Owner
Northampton County Public Works
P.O. Box 66
Eastville, Virginia 23347

Assessment Started
March 14, 2012

Assessment Completed
March 14, 2012

Report Date
April 17, 2012

Commercial • Industrial • Healthcare • Educational • IAQ Diagnostics • Building Baselines
Clearance Testing • Moisture & Mold Assessments • Remediation Design • Post Remediation Assessments

P.O. Box 61775
Virginia Beach, VA 23466
Phone (757) 333-3363
Fax (757) 962-5634
Info@McKee-Env.com

Table of Contents

Background

McKee Environmental, Inc. ("MEI") was contracted to:

1. Perform an initial indoor environmental site assessment of this facility to determine the extent to which suspected water/mold damage has adversely impacted this environment and whether environmental testing is appropriate, or necessary. The overall goal of the Northampton County is to determine a cost estimate for repairs and this study may eventually be used to help obtain the necessary estimates for the environmental clean-up portion of any required repairs;
2. Recommend whether development of a microbial remediation is appropriate;
3. Recommend a criteria for evaluation of the efficacy of cleaning following implementation of the remediation plan;
4. Prepare this written report.

Disclaimer

This document is the property of McKee Environmental, Inc. and our Client. The content of this report is legally privileged and confidential under applicable law and is intended only for the use of the individual(s) or entity(ies) named above and only for the structural property named above. If you are not the intended recipient of this report, no part of this document may be used or reproduced in any manner whatsoever without written permission from McKee Environmental, Inc. or our Client, except 1) in the case of brief quotations which are periodically embodied in our protocols or, 2) in the case where our client provides this entire document as a guideline to persons or entities working on this project.

Currently, there are no federal standards or regulations for acceptable levels of microorganisms in indoor environments. However, the premise for this assessment is reasonable because it is well established that moisture damage in buildings can lead to the growth of microorganisms on wetted surfaces, which in turn can become airborne (called bioaerosols). Bioaerosols can cause and contribute to various adverse health effects, although specific scientific data on actual correlations between health effects and inhalation exposure is limited. Amplified levels of bioaerosols can be present in buildings that have sustained water damage, therefore environmental risk assessments are appropriate. The scope of this study was intended to assess the water damaged areas (relevant to the scope of this study) and the potential for exposure risks caused from that damage. This type of environmental assessment is limited in that we can only indicate a potential for human exposure. Therefore, it is important to recognize that should biological growth be documented in a building assessment, that finding does not mean that occupants are necessarily exposed to airborne agents from the visible contamination or that occupant's health symptoms are due to the biological contamination. In fact, remediation of microbial problems in buildings may not alleviate health symptoms if the cause(s) of the symptoms is not the microbial growth. Therefore, a licensed health care practitioner must always answer occupant's specific questions about health risk or make the diagnosis as to causes of specific human health effects. MEI cannot diagnose human health effects.

Finally, the opinions expressed throughout this report are to a reasonable degree of certainty and probability and are based upon my background, training and experience in my field of expertise in microbial and indoor environmental inspection, as well as based upon the information set forth in this report and available for my review. I reserve the right to amend or supplement this report at any time as additional information may be provided to me for consideration.

McKEE ENVIRONMENTAL

Executive Summary

During our March 14, 2012 on-site assessment, we documented the following:

- Visible mold and mold odors were present throughout most areas we inspected including old classrooms, hallways and offices. Some of these areas appear to be in use either as day care areas, training rooms, or storage areas.

- Visible mold indicates the potential for that mold to become airborne, but does not mean that the visible mold has become airborne. If mold does become airborne and indoor levels are amplified over outdoor levels, there is an increased risk of human exposure. When airborne, molds and their metabolic byproducts can be inhaled by humans, which could result in some people developing adverse health symptoms. All molds are considered potential allergens. Of particular concern is that some areas of the Northampton County Community Services building are in current use by the public.

- Therefore, based upon the findings of this study, there appears to be some level of a potential public health risk of exposure to the mold reservoirs within parts of the building. Because everyone reacts differently to mold, it is impossible to qualify what exposure could mean to one person or another (nor are we attempting to do so in this study). The medical community has long understood that amplified mold and dust are asthma triggers and some people with suppressed immune systems would usually be considered at a greater risk of being effected by an exposure. I am recommending that a baseline air testing study be done – focusing on the areas of the building currently in use – to determine potential exposure risks to the people that come into and use your building. The goal of the study would be to determine potential risk for human exposure, not to document the visible mold.

- There were a few zones in the building that we did NOT find any visible mold, such as the Gym or the Auditorium, but due to the small size of mold spores, other adjacent areas could still impact these spaces and should be environmentally air tested. Also, we were unable to inspect the occupied offices near the front entry of the building.

- Based upon this additional study, I estimate the fee for performing the baseline sampling to be approximately $2460 (20 sample sites x $75 per sample + on-site time and report generation not to exceed 8 hours @ $120 per hour).

- Also, a mold management plan is appropriate and would entail approximately an additional 5-8 hours of time for the write-up should you request one. Mold Management Plan estimated not to exceed $960

Finally, most all mold damaged items will continue to deteriorate over time if left unremediated, therefore the damaged areas should be cleaned up as soon as is possible to return the building back to a Condition 1

Environment[1]. Usually, hiring state licensed, professional mold remediation companies can be a safe and effective method to clean up extensive water damage issues.

Assessment Performed by:

Eric C. McKee, M.E., CIEC, CIE, CMR
VA Licensed Mold Inspector
Accredited Independent Environmental Professional

[1] Conditions 1, 2, and 3 are defined for indoor environments by the IICRC Standard S520 *Standard and Reference Guide for Professional Mold Remediation* for the purpose of the standard. A Condition 1 environment demonstrates normal fungal ecology, which by the IICRC S520 definition is "an indoor environment that may have settled spores, fungal fragments or traces of actual growth whose identity, location and quantity are reflective of a normal fungal ecology for a similar indoor environment". A Condition 2 environment demonstrates settled spores, which by the IICRC S520 definition is "an indoor environment which is primarily contaminated with settled spores that were dispersed directly or indirectly from a Condition 3 area, and which may have traces of actual growth." A Condition 3 environment demonstrates actual growth, which by the IICRC S520 definition is "an indoor environment contaminated with the presence of actual mold growth and associated spores. Actual growth includes growth that is active or dormant, visible or hidden."

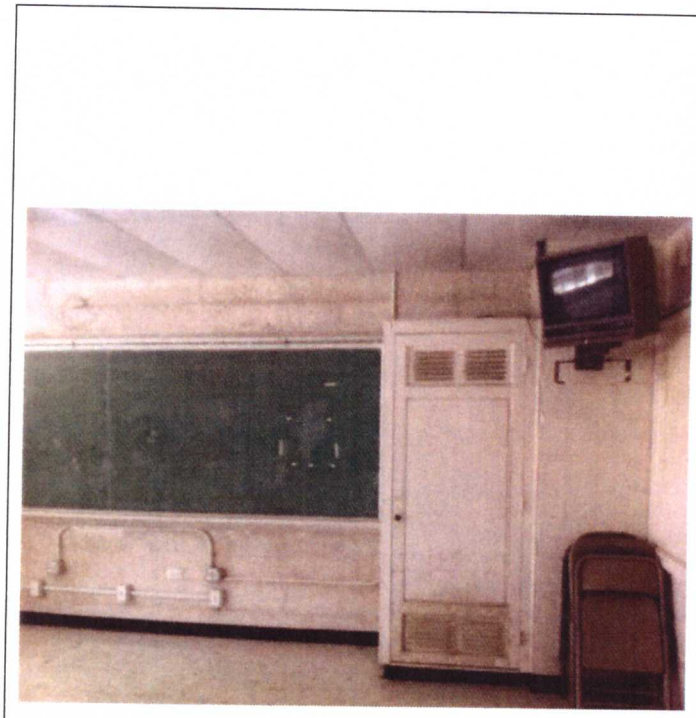
INITIAL FINDINGS

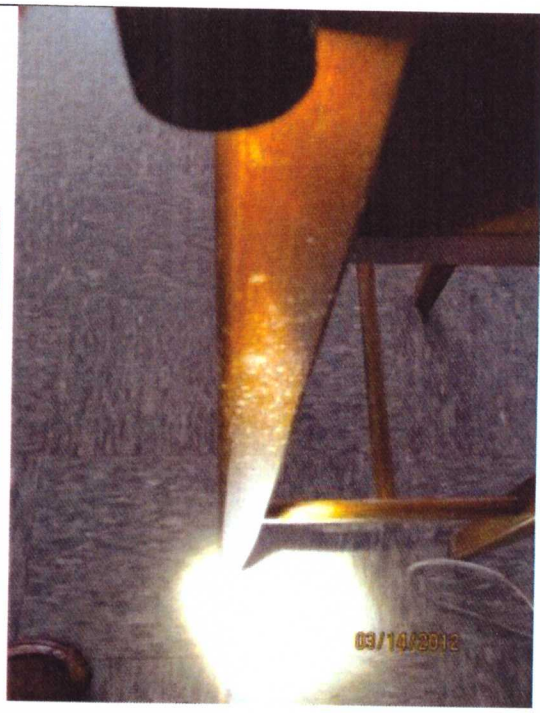
Based upon our findings obtained during the site visit, the following issues were noted:

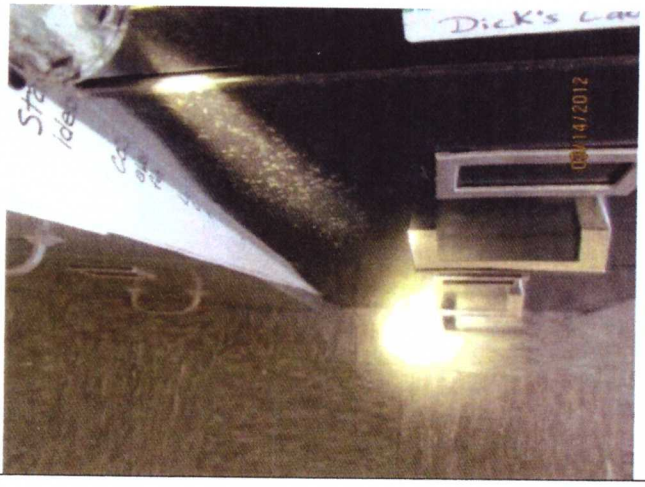
- Issue 1: Humidity related microbial growth visible in various rooms – on walls, ceilings and some contents including furniture and casework.
- Issue 2: Poorly insulated chilled water supply lines
- Issue 3: Water damaged ceiling tiles
- Issue 4: Old Classroom ventilation systems – in poor condition and outdated for current usage plans
- Issue 5: Water migration through exterior masonry walls
- Issue 6: Probable amplified mold throughout many areas of the currently occupied portions of this building

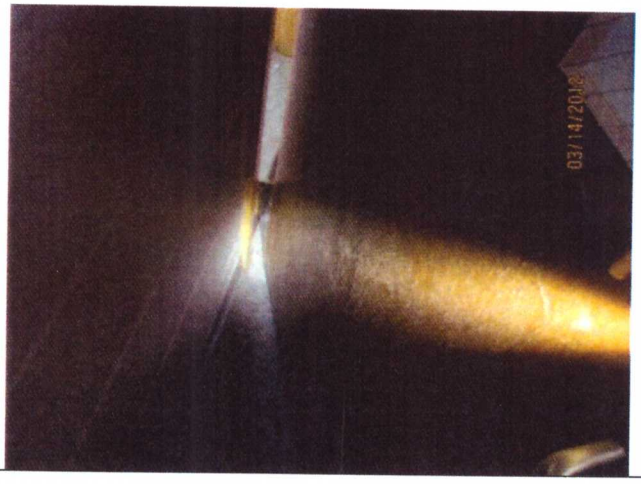
See the following Pages for a detailed Issue-by-Issue discussion with initial recommendations.

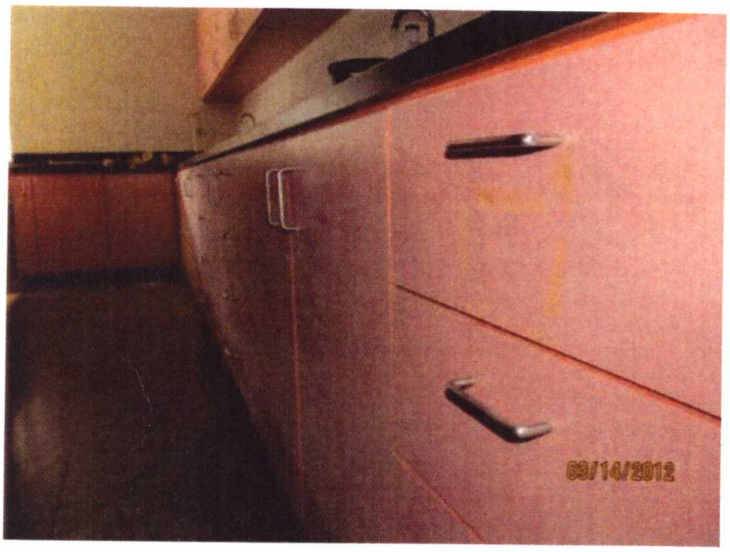
1. **ISSUE 1: Humidity Related Microbial Growth Visible in Various Rooms, on walls, ceilings and some contents including wooden casework/cabinetry**







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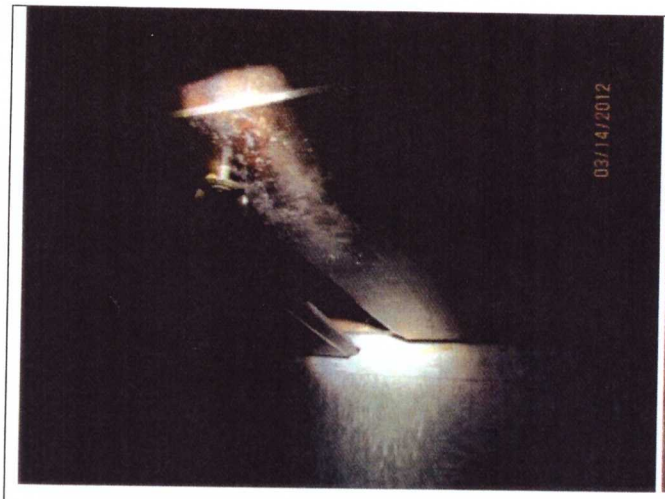
09/14/2012

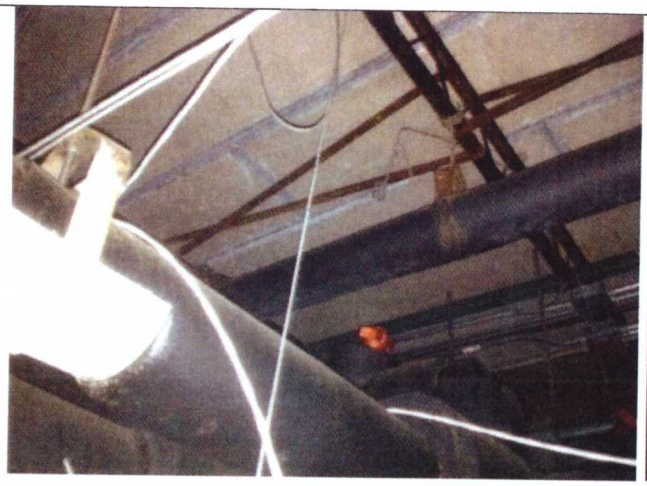


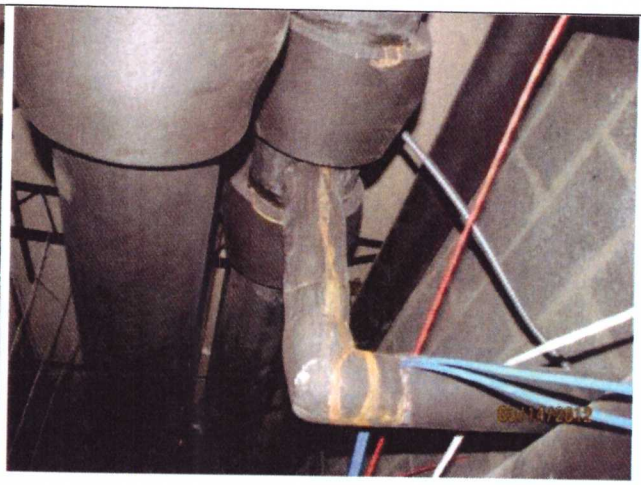
Discussion: Most classrooms we inspected had visible mold growth on various interior surfaces such as desks, casework, ceiling tiles, concrete block walls, bulletin boards, and even some floors. The mold patterns in many rooms were generally ubiquitous throughout the room alluding to climate control/elevated indoor humidity issues - rather than local water events. Each room was somewhat different in the damage profile –some had more damage than others. The photos above show typical conditions found in most of the classroom areas.

Initial Recommendations:

Environmental controls need to be able to keep relative humidity within acceptable ranges (as per code/industry engineering standards) full time/year round. Modifications to the existing building are obviously necessary to accomplish humidity control. If the humidity control issues are not addressed, cleaning the mold will not be effective over the long term. Mold growth will likely recur if humidity control is not dependably effective throughout the entire building. Some contents with mold damage caused by elevated indoor humidity can be cleaned, while others cannot. The cleaning strategy will require a mold management plan that we can develop on an area-by-area/room-by-room basis.

2. ISSUE 2: Poorly insulated Chilled Water Supply (CHWS) Lines

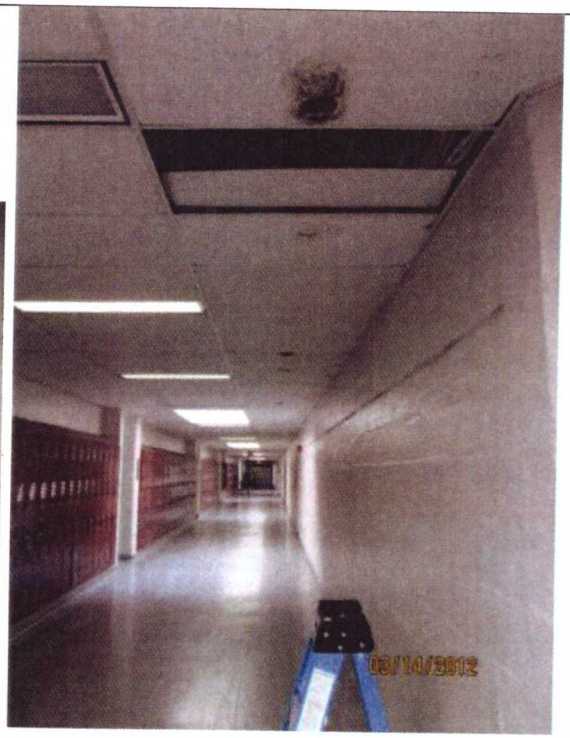




Discussion: The chilled water supply (CHWS) piping has several inherent conditions that result in chronic condensation issues. The first are obvious gaps in the insulation layer, randomly at seams in the insulation. The second is that some pipes have the hangers on the exterior of the insulation lining (correct configuration) while others are incorrectly supported by pipe hangers going into the insulation layer, creating yet another point where moisture in the air will condense on the cool hanger, dripping down into the insulation layer and eventually out onto the ceiling tiles resulting in chronic mold growth.

Initial Recommendations:
Either 1) remove the current insulation and properly insulate the CHWS piping [hanging all hangers on the exterior and eliminating all joints/seams (with any air pockets) – all of them], or 2) go with a different more modern system and drain/eliminate the use of this piping (still remove the insulation due to mold damage).

3. **ISSUE 3: Water Damaged Ceiling Tiles (From Old Ceiling Leaks and CHWS Pipe Condensation)**

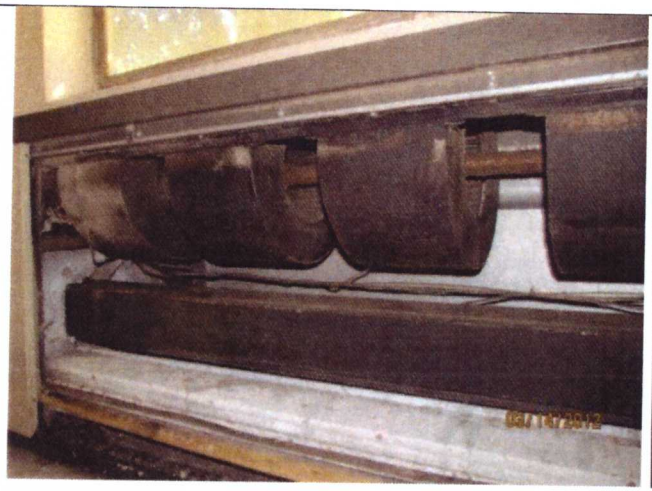


Discussion: Water damaged ceiling tiles provide a perfect nutrient media for microbial reservoirs to form. Visible mold is evident throughout the building on most any ceiling tile that has been wetted. Regardless of whether the leak source has been fixed or not, once mold begins growing in the ceiling tile, it will remain there until the tile is removed and discarded. Mold in ceiling tiles can negatively impact the indoor air quality by releasing mold spores and other potential toxins into the indoor environment. Keep in mind that rooms with evidence of chronic humidity as evidenced by mold on the walls throughout will likely have mold on the ceiling tiles as well (just harder to see because of the texture).

Initial Recommendations:

Due to the wide extent of water damaged/mold damaged ceiling tiles resulting from roof leaks, condensation drips, and humidity issues, remove and discard all ceiling tiles. Replace tiles only after all leaks and humidity issues are under control.

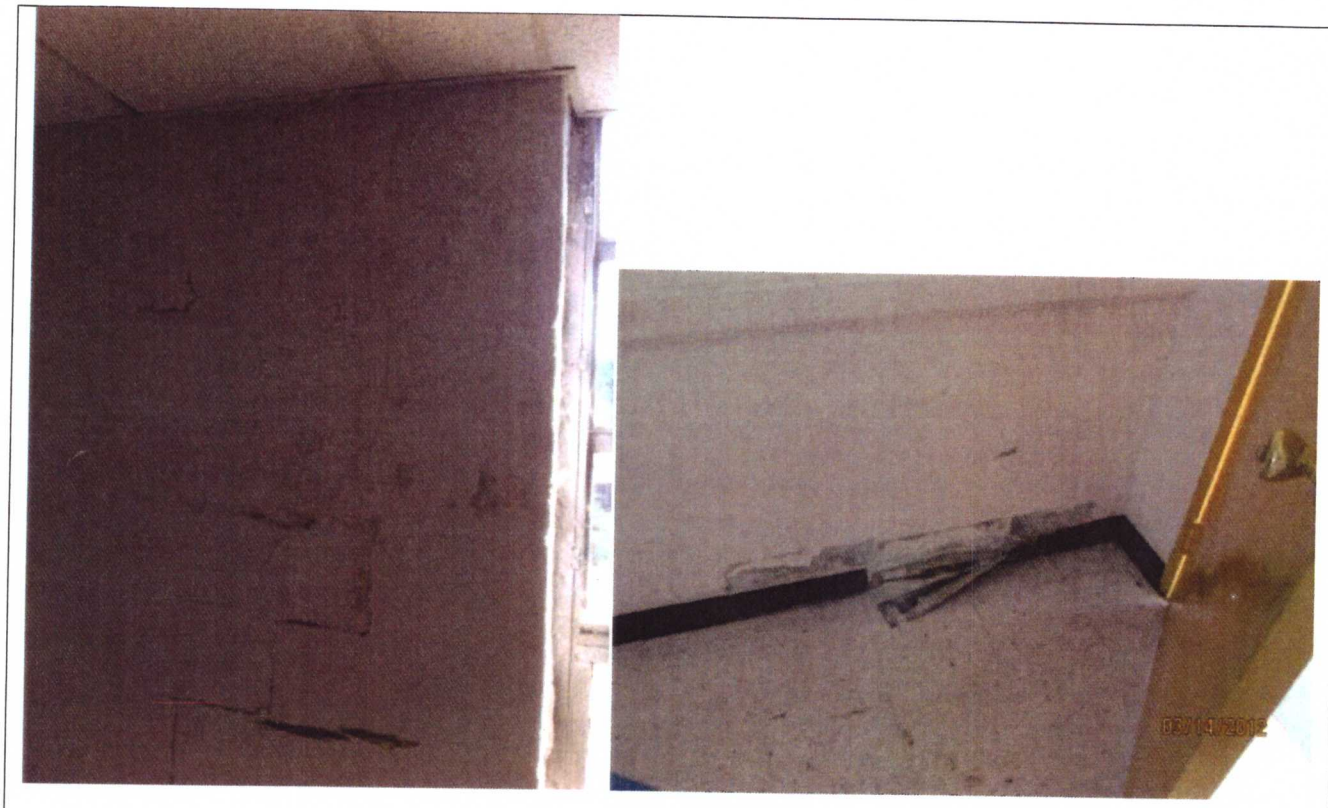
4. **ISSUE 4: Old Classroom HVAC systems & with Natural Ventilation Ducting– Poor Indoor Climate Control in Some Areas**



Discussion: Climate control in most of the classrooms is by exterior wall mounted unit ventilators. Additionally, many of the classrooms have a natural ventilation duct built adjacent to a bookcase that allows for free airflow from the classroom to the roof. This duct allows humidity to easily rise in areas of the building and when the HVAC systems are off (which apparently has happened in the past) mold growth occurs. Many of the unit ventilators are in very poor condition and most have mold damage. These units can adversely affect the indoor air in the condition they are in now by spreading mold throughout. The combination of the natural ventilation ducts in many of the classrooms, along with the poor condition of the unit ventilators, has resulted in much of the humidity related mold damage now visible.

Initial Recommendations:
Repurposing these rooms for office/lease space will change the ventilation requirements as per ANSI/ASHRAE 62 and current building codes. Modern heat/cooling and moisture loading engineering controls control will be required to bring the building into modern HVAC condition.

5. ISSUE 5: Water Migration through Masonry Exterior Walls - Efflorescence



Discussion: Several exterior masonry walls, such as in the corridor adjacent to Classroom 31, Classroom 31, and one of the rear walls of the old kitchen show clear evidence of moisture movement through the masonry from the exterior to the interior. This condition, known as efflorescence, leaves a harmless mineral deposit on the interior surface of the wall when moisture moving through the masonry brings minerals in the wall with it, and when the moisture evaporates, a crystalline looking deposit is left behind. If there is a good coat of paint on the wall, early signs of efflorescence will cause the paint to bubble and eventually chip. We did not test the paint, but if there was lead in the paint, efflorescence can lead to a health risk when the paint chips and flakes off.

Recommendations:
Efflorescence is usually stopped by addressing the root source of water migration from the exterior. Each area needs to be looked at on a case-by-case basis by a licensed/qualified contractor and repaired first on the outside, then cleaned up properly on the inside..

6. **ISSUE 6: Probable Amplified Mold levels throughout currently occupied areas of the building**

Discussion:

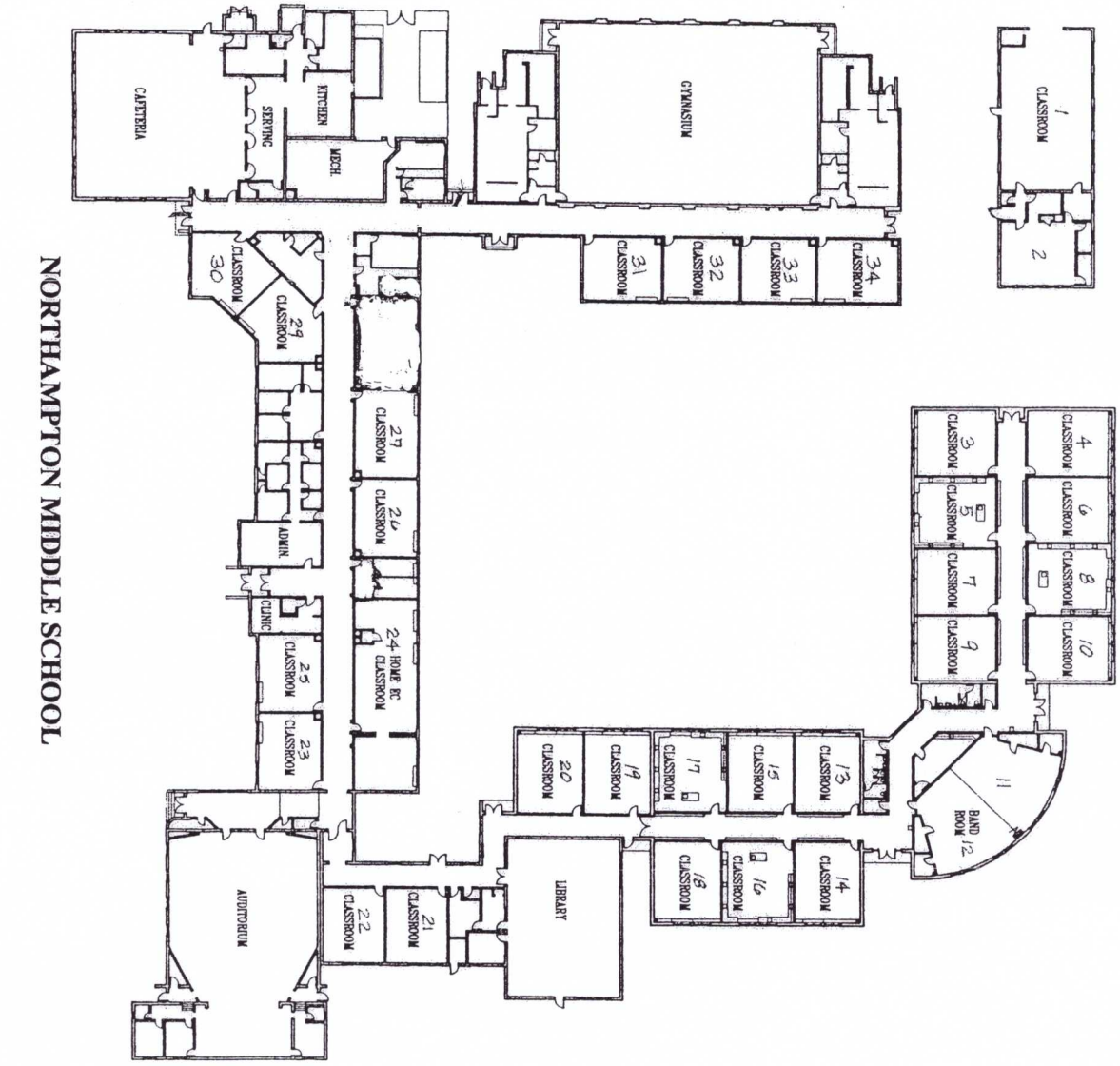
With the presence of numerous visible reservoirs of mold throughout the building, the risk of human exposure to mold is high if the mold becomes airborne. Some of the mold is in the classroom HVAC units which will provide a mechanical method of recirculating the mold when they are operated. Other mold is on contents that if used will increase risk of exposure. Some of the classrooms had heavy amounts of mold on most all wall and ceiling surfaces and those rooms should not be used at all (though some apparently have been/or are).

Health effects from mold exposure will vary person-to-person. Some may experience no noticeable symptoms, while others may not.

Recommendations:

Environmental sampling is appropriate to help determine what the mold levels are in various areas of the building – especially as relates to areas that are being currently used. Indoor air samples should be compared to outdoor air to determine acceptability. Based upon the results of the samples along with other data gathered in this assessment, MEI can advise the County regarding health risks of using areas of the building until the mold is cleaned up.

Exhibit B


NORTHAMPTON MIDDLE SCHOOL
CAFETERIA
SERVING
KITCHEN
MECH.
GYMNASIUM
CLASSROOM 1
2
31 CLASSROOM
32 CLASSROOM
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24 HOME EC CLASSROOM
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10 CLASSROOM

ADDENDUM #1

Date: February 21, 2017

Bid: Invitation to Bid for Indoor Environmental Risk Assessment

This addendum is being issued to make the following changes, corrections, clarifications, and additions to the bidding document. The information in this addendum modifies and changes the original bidding document and takes precedence over the original document. Receipt of this addendum shall be acknowledged by the bidder signing and dating below and submitting this document with your bid proposal. Failure to acknowledge this addendum may preclude consideration of the bid proposal for award.

Replace Page 2, Article III. Scope of Services, in its entirety with the following:

- *Performance of an indoor air quality study of all areas of the facility*
- *Development of potential health risks of using this facility in its current condition*
- *Development of a mold management plan for prevention and remediation of mold and moisture problems on an area-by-area/room-by-room basis*
- *Performance of a lead and asbestos survey in all areas where renovation activities would be required to mitigate mold and moisture problems*
- *Testing for lead in areas showing chipping/flaking paint*
- *Development of probable mold remediation costs on an area-by-area/case-by-case basis*
- *Development of probable lead and asbestos abatement costs on an area-by-area/case-by-case basis*

Add Page 3, Article IV. General Requirements, Section C.:

If the contract is less than $25,000, Contractors may submit a copy of their contractor's license, in lieu of obtaining a Northampton County Business License, to the Northampton County Commissioner of the Revenue. Bidders who do not have a contractor's license must obtain a Northampton County Business License.

TO QUALIFY YOUR BID, OF WHICH THIS ADDENDUM BECOMES A PART, RECEIPT OF IT MUST BE ACKNOWLEDGED AND RETURNED WITH YOUR BID.

Vendor Name	Vendor Address
Name	Title
Signature	

ADDENDUM #1

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Replace Page 2, Article III. Scope of Services, in its entirety with the following:

- *Performance of an indoor air quality study of all areas of the facility*
- *Development of potential health risks of using this facility in its current condition*
- *Development of a mold management plan for prevention and remediation of mold and moisture problems, including any modifications to the existing building necessary to accomplish humidity control, on an area-by-area/room-by-room basis*
- *Performance of a lead and asbestos survey in all areas where renovation activities would be required to mitigate mold and moisture problems*
- *Testing for lead in areas showing chipping/flaking paint*
- *Development of probable mold remediation costs on an area-by-area/case-by-case basis*
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Vendor Name	Vendor Address
Name	Title
Signature	

BID FOR ENVIRONMENTAL TESTING SERVICES

NORTHAMPTON COUNTY COMMUNITY FACILITIES
7247 YOUNG STREET
MACHIPONGO, VIRGINIA 23405

ATC PROPOSAL NO. 88IHS17-004

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

211 Expressway Court
Virginia Beach, VA. 23462
T 757.467.2100

February 22, 2017

Accomack-Northampton Planning District Commission
23372 Front Street
P.O. Box 417
Accomack, Virginia 23301-0417

Dear Accomack-Northampton Planning District Commission:

ATC Group Services LLC (ATC) is pleased to provide this Bid for Indoor Environmental Risk Assessment of Northampton County Community Facilities Building.

ATC's industrial hygienists, scientists, and engineers can help you determine causal factors, delineate damages, develop corrective actions and prevention strategies for your indoor environmental air quality and hazardous materials issues. We routinely team with architects, property owners/managers, engineers, and facility managers across the US. We evaluate external and internal pollution factors, as well as conduct indoor air quality assessments, including environmental sampling and limited HVAC system examinations.

We appreciate this opportunity and look forward to working with the Accomack-Northampton Planning District Commission (A-NPDC) on this project. ATC has the experience, personnel, resources, and organizational structure to meet the requirements for this contract. ATC will deliver exceptional services to the A-NPDC at a reasonable cost. If you have any questions, please contact Thomas Post, Industrial Hygiene Project Manager, at 757.467.2100, or via e-mail at tom.post@atcassociates.com.

Sincerely,
ATC Group Services LLC

Thomas Post
Industrial Hygiene Project Manager

APPENDIX A

BID FOR ENVIRONMENTAL TESTING SERVICES

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

211 Expressway Court
Virginia Beach, VA 23462
Telephone 757-467-2100
Fax 757-467-9178

February 22, 2017

Accomack-Northampton Planning District Commission
Ms. Caroline Bott
23372 Front Street
Accomack, Virginia 23301
cbott@a-npdc.org

RE: Bid for Environmental Testing Services
Northampton County Community Facilities Building
7247 Young Street
Machipongo, Virginia 23405
ATC Proposal Number: 88IHS17-004

Dear Ms. Bott and Planning Commission:

ATC Group Services LLC (ATC) is pleased to provide the Accomack-Northampton County Planning District Commission (A-NPDC) with our bid for environmental testing services in regards to a potential revitalization effort of the former Northampton County Middle School located at 7247 Young Street, Machipongo, Virginia.

Based on our understanding from the invitation to bid, the A-NPDC is seeking a qualified third party consulting firm to conduct an indoor air quality (IAQ) study along with a hazardous materials (HAZMAT) assessment of the above listed structure. This bid proposal includes a brief summary of the scope-of-work, followed by a cost estimate for our services. All services performed will be under the direction of an ATC Certified Industrial Hygienist (CIH).

BACKGROUND

ATC understands the structure to be the former Northampton County middle school with an original construction date circa 1960. Additions to the structure were constructed in the 1980's and again in 1993 comprising an estimated sixty-five thousand (65,000) square feet. The structure was transferred from the school board back to the county for repurposing in which various county agencies utilized the interior spaces for their services. ATC was provided documentation and observed during a site visit, suspected microbial colonization due to the documented inefficient heating ventilation and air conditioning (HVAC) systems. Additionally ATC understands asbestos abatement activities occurred at various stages during the structures' existences as a public school.

SCOPE OF WORK

Asbestos Containing Material Inspection

ATC will conduct a physical inspection of the Northampton County Community Facilities Building interior materials of construction and select exterior and roof components that may be directly related to ongoing moisture intrusion concerns. The materials to be tested within this scope of work are: surface coatings, flooring materials, ceiling materials, boiler and mechanical systems. It is anticipated the climate control system will be active during the survey activities. This survey will identify and assess the physical condition of suspect asbestos containing building materials (ACBM). Also, bulk sample suspect asbestos containing materials that may be disturbed during planned future revitalization activities will be sampled.
A summary of proposed sampling procedures are as follows:

- ATC will conduct a visual asbestos survey of accessible areas deemed safe in each building and area for the presence of suspect ACBMs. An assessment of the condition of the suspect ACBM will be completed and determination whether the materials are friable or non-friable materials will be made. During this asbestos assessment, the site is inspected for the presence of ACBM's that may contain more than 1 percent (>1%) asbestos.

- All of the materials suspected of being ACBMs are categorized in homogeneous areas (HAs). Each HA consists of all observed materials found in various locations in a building that are similar in color, appearance, texture and date of installation. All samples will be collected by an ATC building inspector who is accredited by the State of Virginia, as required by Virginia regulations. A fully accredited laboratory will perform all analyses.
- The collection of representative bulk samples of potential ACBM within each unique and homogeneous area (areas similar in appearance and material composition) utilizing wet sampling methods, clean extraction tools, and personal protective equipment (PPE).
- Representative photographs of each material group sampled will be obtained, as allowed.
- Submittal of collected bulk samples to a subcontracted NAVLAP accredited analytical laboratory, for microscopic analyses utilizing Polarized Light Microscopy (PLM) with dispersion staining using US Environmental Protection Agency (USEPA) protocol in general accordance with NIOSH manual of analytical methods (USEPA 40 CFR Part 763, entitled Methods for Determination of Asbestos in Bulk Samples). Samples will also be analyzed using a stop on first positive method to reduce redundant analysis of materials (and cost) that test positive for asbestos.
- ATC will collect and estimated sixty (60) bulk asbestos samples for laboratory analysis per layer following recommended industry practices.

The amended NESHAP standard (dated November 20, 1990) includes a requirement that when asbestos is found in a bulk sample of friable material, but the asbestos content is determined by visual estimation to be less than 10%, the building owner/operator may either (1) elect to assume that the material contains more than 1% asbestos, and is therefore a legally defined ACM, or (2) require verification of the asbestos content using the Point Counting method.

The purpose of the Point Count procedure is to minimize false negative analysis (reporting samples to contain less than 1% asbestos for materials actually containing more than 1%) and false positive analysis (reporting the samples to contain more than 1% asbestos for materials actually containing less than 1%).

Unless otherwise directed by the client, ATC will assume that visual estimation is acceptable for this facility without verification by the Point Counting Method. Should you request verification using the Point Counting Method; a cost will be provided per sample.

Lead-Based Paint Inspection

ATC will provide a current EPA or State licensed/certified lead based paint (LBP) Building Inspector to conduct a LBP survey on various painted components within the above mentioned facility. The LBP assessment will occur concurrent with the above ACBM assessment. A description of the sampling tasks for the LBP inspection is as follows:

- ATC will conduct a physical inspection of the interior painted surfaces. This survey will identify, quantify and assess the physical condition of suspected lead-based paint that is within all three build areas of the facility.
- Our Industrial Hygienist will perform lead-based paint (LBP) testing by collecting suspect bulk paint chips samples, twelve (12) in total for laboratory analysis. The paint chip samples will be collected to support ATC's XRF findings. Additional sampling will be collected by the use of an X-Ray Fluorescence (XRF) instrument.
- Sampling will not be conducted under the US Department of Housing and Urban Development (HUD) guidelines and must not be used as a HUD risk assessment, which shall not be performed as part of the scope of work.
- A summary of our findings and laboratory analysis shall be included in a final report

Indoor Air Quality Assessment

ATC will provide a qualified indoor environment consultant to conduct a limited indoor air sample event and provide a report of findings that includes our observations, environmental data, and recommendations to maintain a healthy environment if applicable. Our services for this air sampling event will be under the direction of ATC's Certified Industrial Hygienist (CIH).

ATC will conduct a baseline survey of the aforementioned spaces within the Northampton County community facilities building, in accordance with ASTM standard E248-06, *Standard Guide for Readily Observable Mold and Conditions Conducive to Mold in Schools and Commercial Buildings.*

The building surveys will also include collection of ambient building parameters, such as temperature and relative humidity. ATC will collect indoor environmental bio aerosol samples, in the primary area(s) of concern or where appropriate. Direct lift sampling will be conducted on visible mold detected during our assessments. Evaluation of the HVAC systems will be limited to accessible supply and return air vents and air handling units (AHU), including air filters.

ATC will measure the moisture content in selected building materials affected by suspect moisture intrusion and areas affected by the inefficient HVAC system. Moisture readings will be collected using a Protimeter MMS moisture meter.

Additionally ATC will obtain and record direct read measurements with a four (4) gas portable analyzing instrument during each building assessment. These measurements will collect ambient breathing air comfort parameters common in different functional areas of the first floor hallways and lobby. The measurements will include:

- Temperature and relative humidity measurements used to document thermal variation, humidity variation and air circulation at the facility.
- Carbon Dioxide (CO_2) to document ventilation efficiency and potential contamination from outside the building.
- Carbon Monoxide (CO) levels as a screening tool for combustion exhaust gases in the facility.

REPORTING

Following completion of the projects, ATC will present a report of findings that includes our observations, investigative methodologies, environmental/ analytical data, along with our conclusions and recommendations related to the project.

Our report will outline the potential for health risk associated with human occupancy in work places associated with microbial colonization and/or hazardous building materials.

The final reports will be completed as outlined in the **Scope Of Services** section of A-NPDC Bid for Environmental Services. ATC's development of a working mold remediation plan as well as a HAZMAT design can only be satisfied once our initial study has been completed and reviewed by both ATC and the client.

PHASE II/ REMEDIATION & ABATEMENT DESIGN IMPLEMENTATION

Upon completion of the indoor environmental risk assessment and client approval, ATC will develop a microbial remediation and HAZMAT materials abatement plan for corrective actions related to our findings. Although in the early stages of facility risk assessment ATC cannot accurately determine a cost for the implementation methods of restorative services due to unknown findings of the indoor environmental risk assessment. ATC will elect to price these services as a Phase II task upon conclusion of the indoor environmental risk assessment. ATC's fee for design implementation below is an estimate based on industry standards and similar assessments conducted on comparable facilities.

COST ESTIMATE

The project will be administered on a lump sum basis (unless otherwise noted below). Based on the proposed scope of work presented in the bid descriptions, ATC anticipates the probable costs as per task items, detailed below. A-NPDC will be invoiced in accordance with the fee schedule below for this project. These estimates will not be exceeded without prior approval by the A-NPDC. The lab cost is estimated on a forty-eight (48) hour analysis time upon laboratory receipt.

Should additional sampling above the estimated samples become necessary additional sample analysis will be billed at the above indicated rate per sample. However no additions to the above quoted pricing will be performed without your prior approval. A breakdown of total estimated costs, by tasks, is provided below:

Task Cost Estimate,		Task Total
Task 1- Environmental Testing Services	$	2,483.00
Task 1- Laboratory Analysis	$	899.00
Task 1- Reporting	$	1,430.00
Task 2- Design Implementation	$	3,163.00
Total Project Cost Estimate (Lump Sum)	**$**	**7,975.00**

ASSUMPTIONS

We assume the following, as applicable, regarding the Limited Asbestos and LBP Assessment:

- The entirety of the structures must be safely accessible without limited access or other restrictions. ATC will make an effort to observe the entire structure, but certain areas may be excluded from our visual observations based on safe access;
- Knowledgeable site personnel to conduct us around the property and/or provide information concerning past and present operations; and
- Access to the main building area and all ancillary spaces.

The above scope of work is based on ATC's current understanding of site conditions and the purpose of the limited asbestos, LBP and microbial assessment. If the assumptions are contradicted, changes in scope, schedule, and cost may arise, but ATC will only perform additional work and change schedule or fees upon authorization.

PROJECT SCHEDULE

ATC will submit an electronic copy of the Limited Asbestos and LBP report within 20 business days of authorization to proceed.

Hardcopies, if requested, can also be provided. The time frame may be altered in the event of access delays, weather events, and/or other conditions that are beyond ATC's control.

CLIENT RESPONSIBILITIES

The proposed fee estimate and schedule in this proposal are based on Client responsibilities that include, but are not limited to: providing timely access to the Property, accurate Property location information, and available historic site documentation and information. Any such information and/or documentation will be discussed and included in the final assessment report unless otherwise specified by you.

THIRD PARTY RELIANCE

If the report or a letter of reliance is to be addressed to a third party other than you, that party must be identified by you prior to report issuance and accept the terms and limitations in the report and/or Letter of Reliance, unless an alternative written agreement is executed between ATC and the third party.

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AUTHORIZATION

The terms and conditions of this project will be in accordance with the Customer Service Agreement attached. If in agreement, please acknowledge acceptance by signing the CSA and returning to Tom Post.

ATC is pleased to have this opportunity to respond to the Accomack-Northampton Planning District Commissions invitation to bid for environmental testing services and looks forward to working with you on this project. If you have any questions regarding this estimate, please contact Tom Post at (757) 467-2100.

Sincerely,
ATC Group Services LLC

Thomas C. Post II
Industrial Hygienist, Project Manager
Direct Line + 1 757-467-2100
Email: tom.post@atcassociates.com

APPENDIX B

NOTICE OF AVAILABILITY OF AN INVITATION TO BID FOR ENVIRONMENTAL TESTING SERVICES

A-NPDC
ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION
PO Box 417 • 23372 FRONT STREET • ACCOMAC, VIRGINIA 23301
(757) 787-2936 • TOLL FREE (866) 787-3001 • FAX (757) 787-4221
WEBSITE: www.a-npdc.org

Notice of Availability of an Invitation to Bid for Environmental Testing Services

The Accomack-Northampton Planning District Commission (A-NPDC) is accepting sealed bids from qualified firms for an indoor environmental risk assessment of the Northampton County Community Facilities Building (Former Northampton Middle School) located at 7247 Young Street, Machipongo, VA 23405. This project is described in general as an indoor air testing study and hazardous materials assessment of the facility.

Pre-bid inspections of the building may be scheduled with the Northampton County Director of Public Works at 757-678-0414 or cthomas@co.northampton.va.us. Bids will be received at the A-NPDC Office 23372 Front Street, PO Box 417, Accomac, VA 23301 until 10 AM on February 28, 2017. Firms interested in receiving a copy of the full Invitation to Bid and Scope of Services should contact:

Caroline Bott
A-N Planning District Commission
23372 Front Street, Accomac, VA.
cbott@a-npdc.org
(757) 787-2936 Ext. 111
Relay Virginia: 711

INVITATION TO BID FOR
INDOOR ENVIRONMENTAL RISK ASSESSMENT
OF NORTHAMPTON COUNTY COMMUNITY FACILITIES BUILDING

I. INTRODUCTION

The Accomack-Northampton Planning District Commission (A-NPDC) is accepting sealed bids from qualified firms for an indoor environmental study of the Northampton County Community Facilities Building (Former Northampton Middle School) located at 7247 Young Street, Machipongo, VA 23405.

Bids will be evaluated by the A-NPDC Economic Development Coordinator and the Northampton County Public Works Director.

An original and two (2) copies of the sealed bids from each vendor for the services specified must be received prior to 10 AM on February 28, 2017, by the A-NPDC. All bids shall be signed by an authorized representative of the vendor. All bid envelopes must have the company name on the outside of the envelope along with the notation **"Bid – Indoor Environmental Risk Assessment of Northampton County Community Facilities Building."**

Bids may be mailed or hand delivered to the A-NPDC office at P.O. Box 417, Accomac, Virginia 23301, or 23372 Front Street, Accomac Virginia. It is the vendor's responsibility to ensure that the bid is received by the A-NPDC prior to the due date. Bids received after 10 AM on February 28, 2017, will not be accepted or considered. All bids will be time stamped upon arrival. The A-NPDC will not be responsible for the loss of any bid that is not appropriately marked as specified. **Faxed or e-mailed bids are not acceptable.**

The A-NPDC reserves the right to reject any or all bids and to waive any irregularities or informalities in the bidding.

No bid may be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the consent of the Owner. The procedure for withdrawal of bids shall be according to Section 11-54 (l) of the Code of Virginia.

The contract is to be awarded on the basis of the lowest responsive and responsible bid.

All bidders are subject to and must comply with the provisions of Northampton County's Equal Employment Opportunity Policy and applicable State and Federal anti-discrimination laws.

II. BACKGROUND

The oldest part of the former middle school facility, located at 7247 Young Street at Machipongo, was constructed circa 1960. Two later enlargements were added in the mid-1980s and 1993. The building comprises 65,000 sq. ft.

Several years ago, the Northampton County School Board transferred the subject property back to the Board of Supervisors as it was no longer needed for school purposes.

Since that time, the building has been repurposed to house the Northampton County office of the Virginia Cooperative Extension Service as well as serving other functions including county archival storage space, the location of the county-operated Summer Camp program (through the Department of Parks & Recreation) as well as the District Four Polling Place. In addition, the rental of the cafeteria, auditorium and community room (former home economics classroom) for various community functions and private events has occurred.

The transfer of the property was accomplished through a subdivision of the parcel with County government receiving the subject building and part of the parking lot; ownership and maintenance of the water wells; and responsibility for the operation of the septic/wastewater facility that serves the former middle school and the adjacent school administration building.

In 2010, County Administration occupied the newest wing of the building while they were undergoing renovation of their Eastville offices. This wing was upgraded to handle their electrical, phone and internet needs. In addition, the archival records for all of County Administration was moved to this facility, which currently remain at the site.

With the reduced usage of the building and the inefficient heating and cooling systems, the building has developed a mold problem and the County commissioned an environmental assessment. This document, the Indoor Environmental Assessment, prepared by McKee Environmental (April 17, 2012) is made a part of the contract documents and is attached hereto as Exhibit A, to assist in your understanding of the extent and nature of this problem.

With the building currently being partially utilized and the possibility of utilizing more of the building in the future, the potential human exposure risks to occupants of the building is a concern.

A floor plan of the facility is attached as Exhibit B.

III. SCOPE OF SERVICES

The successful vendor shall be responsible for the following scope of work:

- Performance of an indoor air quality study of all areas of the facility
- Development of potential health risks of using this facility in its current condition
- Development of a mold management plan for prevention and remediation of mold and moisture problems, including any modifications to the existing building necessary to accomplish humidity control, on an area-by-area/room-by-room basis
- Development of modifications required to maintain code compliance for ventilation requirements
- Performance of a lead and asbestos survey in all areas where renovation activities would be required to mitigate mold and moisture problems
- Testing for lead in areas showing chipping/flaking paint
- Development of probable mold remediation costs on an area-by-area/case-by-case basis
- Development of probable lead and asbestos abatement costs on an area-by-area/case-by-case basis

IV. GENERAL REQUIREMENTS

A. The A-NPDC reserves the right to reject any and/or all bids and to waive any irregularities or technicalities when it is deemed to be in the best interest of the A-NPDC.

B. No proposal will be awarded to any person, firm or corporation that is in arrears or is in default to Northampton County upon any debt or contract or that is a defaulter as surety or otherwise upon any obligation to the County.

C. Successful Contractor must obtain a Northampton County Business License.

D. Bidders must possess and maintain throughout the duration of professional services Worker's Compensation and Commercial General Liability insurance coverage.

E. No bid may be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the consent of the Owner. The procedure for withdrawal of bids shall be according to Section 11-54 (I) of the Code of Virginia.

I. The contract is to be awarded on the basis of the lowest responsive and responsible bid.

J. All bidders are subject to and must comply with the provisions of Northampton County's Equal Employment Opportunity Policy and applicable State and Federal anti-discrimination laws.

V. GENERAL TERMS ANDCONDITIONS

A. **Inquiries**

Questions concerning bid procedures or the scope of services in this Invitation to Bid should be addressed in writing to Caroline Bott, Economic Development Coordinator, P.O. Box 417, Accomac, VA 23301. Inquiries may also be made via e-mail at cbott@a-npdc.org, or by FAX at 757-787-4221. No questions will be answered verbally. All inquiries must be received no later than 5 PM, February 21, 2017. Answers to submitted questions will be answered through the issuance of an addendum.

B. **Incurring Cost**

Neither the County nor the A-NPDC are liable for any cost incurred by any proposer interested in submitting a bid, or any costs incurred by the selected proposer, prior to the execution of a contract.

C. **Non-Discrimination**

Neither the County nor the A-NPDC discriminate against race, color, religion, sex, national origin, age, disability, political affiliation, belief or faith-based organizations.

In accordance with Section 2.2-4311 of the Code of Virginia, every contract for goods or services over $10,000 shall include the following provisions:

During the performance of this contract, the CONSULTANT agrees as follows:
The CONSULTANT will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating

to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the CONSULTANT. The CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

The CONSULTANT, in all solicitations or advertisements for employees placed by or on behalf of the CONSULTANT, will state that such CONSULTANT is an equal opportunity employer.

Notices, advertisements, and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

The CONSULTANT shall include the provisions of the foregoing paragraphs in every subcontract or purchase order of over $10,000 so that the provisions will be binding upon each subcontractor or vendor.

D. **Drug-free Workplace**

The contract with the selected CONSULTANT shall provide that during the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

E. **INDEMNIFICATION AND CONDITIONS**

The CONSULTANT is an independent contractor and, as such, is not and shall not be construed to be an agent or employee of the A-NPDC. The CONSULTANT further agrees to indemnify, hold harmless and defend the A-NPDC or COUNTY at the CONSULTANT'S expense from and against any and all liability for loss, damage, or expense for which it may be held liable by reason of injury, including death, to any person or damage to any property arising out of or in any manner connected with the operations to be performed under this Contract, or costs and expenses for, or on account of, any patented or copyrighted equipment, materials, articles or processes used in the performance of this Contract.

F. **INSURANCE**

The CONSULTANT shall purchase and maintain in force, at his own expense:

a) Broad Form Comprehensive General Liability - $2,000,000 Combined Single Limit coverage to include: Premises – Operations; Products/Completed Operations; Contractual; Independent

Contractors; County and Contractor's Protective; Personal Injury (Libel, Slander, Defamation of Character, etc.)

b) Professional Liability Coverage (errors and omissions) - $1,000,000 minimum

c) Automobile Liability: $2,000,000 Combined Single Limit coverage

d) Workers' Compensation: Coverage A, Statutory; Coverage B, $100,000

The insurance specified herein shall name the A-NPDC and the COUNTY as additional insured with regard to work performed under any contract. All policies shall provide that the A-NPDC and the COUNTY receive written notice by certified mail, thirty (30) days in advance of cancellation or alteration of any policy. The CONSULTANT shall provide the A-NPDC and the COUNTY with copies of certificates of insurance coverage and proof of payment for all premiums.

Upon execution of this contract, and thereafter no less than fifteen (15) days prior to the expiration date of any insurance policy delivered pursuant to this contract, the CONSULTANT shall deliver to the A-NPDC and the COUNTY a certificate(s) of insurance to show compliance with this section.

Each policy of insurance shall be issued by financially responsible insurers duly licensed to do business in the Commonwealth of Virginia.

Each policy of insurance shall include a waiver of subrogation in favor of the A-NPDC and the COUNTY and shall provide no less than thirty (30) days' notice to the A-NPDC and the COUNTY in the event of a cancellation or change in conditions or amounts of coverage.

G. **Ethics in Public Contracting**

This Invitation to Bid incorporates by reference any state or federal law related to ethics, conflicts of interest, or bribery, including by way of illustration and not limitation, the Virginia State and Local Government Conflict of Interests Act, the Virginia Governmental Frauds Act, and Articles 2 and 3 of Chapter 10 of Title 18.2 of the Virginia Code, as amended. The Proposer certifies that its offer is made without collusion or fraud and that it has not offered or received any kickbacks or inducements from any other proposer, supplier, manufacturer, or sub-proposer and that it has not conferred on any public employee having official responsibility for this purchase any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised unless consideration of substantially equal or greater value was exchanged.

H. **Immigration Reform and Control Act of1986**

In accordance with Section 2.2-4311.1 of the Code of Virginia, every contract for goods or services shall include the following provisions:

During the performance of this contract, the CONSULTANT does not and shall not knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

I. **Proposal Binding**

The contents in their entirety of the proposal submitted by the accepted firm shall become an attachment to and part of the agreement between the firm and the A-NPDC. The proposal shall adhere

to the complete bid specifications. If any conflicts exist between the proposal and these written specifications, these specifications shall govern.

J. **Applicable Law**

This ITB and any subsequent contract and the work performed thereunder shall be governed in all respects by the laws of the Commonwealth of Virginia and the venue for any litigation with respect thereto shall be in the Circuit Court for Northampton County, Virginia or as otherwise required by law. The Proposer shall comply with applicable federal, state, and local laws and regulations.

K. **Assignment**

The Proposer shall not assign, transfer, convey, sublet, or otherwise dispose of any award, or any or all of its rights, obligations, or interests under this contract, without the prior written consent of the A-NPDC.

APPENDIX C

ADDENDUM #1

ADDENDUM #1

Date: February 21, 2017

Bid: Invitation to Bid for Indoor Environmental Risk Assessment

This addendum is being issued to make the following changes, corrections, clarifications, and additions to the bidding document. The information in this addendum modifies and changes the original bidding document and takes precedence over the original document. Receipt of this addendum shall be acknowledged by the bidder signing and dating below and submitting this document with your bid proposal. Failure to acknowledge this addendum may preclude consideration of the bid proposal for award.

Replace Page 2, Article III. Scope of Services, in its entirety with the following:

- *Performance of an indoor air quality study of all areas of the facility*
- *Development of potential health risks of using this facility in its current condition*
- *Development of a mold management plan for prevention and remediation of mold and moisture problems on an area-by-area/room-by-room basis*
- *Performance of a lead and asbestos survey in all areas where renovation activities would be required to mitigate mold and moisture problems*
- *Testing for lead in areas showing chipping/flaking paint*
- *Development of probable mold remediation costs on an area-by-area/case-by-case basis*
- *Development of probable lead and asbestos abatement costs on an area-by-area/case-by-case basis*

Add Page 3, Article IV. General Requirements, Section C.:

If the contract is less than $25,000, Contractors may submit a copy of their contractor's license, in lieu of obtaining a Northampton County Business License, to the Northampton County Commissioner of the Revenue. Bidders who do not have a contractor's license must obtain a Northampton County Business License.

TO QUALIFY YOUR BID, OF WHICH THIS ADDENDUM BECOMES A PART, RECEIPT OF IT MUST BE ACKNOWLEDGED AND RETURNED WITH YOUR BID.

ATC Group Services LLC.	211 Expressway Court Virginia Beach, VA. 23462
Vendor Name	Vendor Address
Thomas C Post II	Industrial Hygiene Project Manager
Name	Title
Signature	02-22-2017

ENVIRONMENTAL ABATEMENT COST PROJECTION
NORTHAMPTON COUNTY COMMUNITY FACILITIES BUILDING

Prepared For
Accomack-Northampton Planning District Commission

A-N Planning District Commission
23372 Front Street
Accomack, VA. 23301

ATC Project No. 88ACCO7036

May 25, 2017

Prepared By
ATC Group Services LLC
211 Expressway Court
Virginia Beach, VA. 23462

Phone 757-467-2100
Fax 757-467-9178
www.atcgroupservices.com

May 25, 2017

Ms. Caroline M. Bott
Economic Development Coordinator
Accomack-Northampton Planning District Commission
23372 Front Street
Accomack, Virginia 23405
Email: cbott@a-npdc.org

RE: Environmental Abatement Cost Projection
Northampton County Community Facilities Building
7247 Young Street
Machipongo, Virginia 23405
ATC Project No. M206512368

Dear Ms. Bott:

ATC Group Services LLC (ATC) is pleased to submit this environmental abatement cost projection for the anticipated cleanup of mold, asbestos and lead based paint in regards to the potential revitalization of the Northampton County Community Facilities Building located in Machipongo, Virginia. The fees listed herein are estimations only and based on current industry standards during the time of this report. ATC's recommendations and fees are based off our Limited Indoor Environmental Risk Assessment Report dated April 28, 2017 and do not account for the feasibility and potential use of the structure.

ATC appreciates the opportunity to provide additional industrial hygiene services to the Accomack-Northampton County Planning District Commission. In the meantime, if you have questions or comments regarding the information in this estimate or if we can be of further assistance, please do not hesitate to contact Tom Post at (757) 467-2100.

Respectfully Submitted,
ATC Group Services LLC

Thomas C. Post II
Industrial Hygiene Project Manager
Direct Line +1 757-467-2100
Email: tom.post@atcassociates.com

TABLE OF CONTENTS

SECTION 1

EXECUTIVE SUMMARY

Executive Summary
Limited Indoor Environmental Risk Assessment
7247 Young Street
Machipongo, Virginia 23405

ATC Group Services LLC (ATC) performed a limited indoor environmental risk assessment as requested by the A-NPDC and in your invitation to bid and ATC proposal for testing services dated February 22, 2017. Testing services were conducted within the Northampton County Community Facilities Building located at 7247 Young Street, Machipongo, Virginia 23405. ATC performed the limited environmental risk assessment on March 22 and 23, 2017.

The survey was performed in accordance with Federal, State and local rules for conducting asbestos and lead based paint (LBP) surveys to meet Occupational Safety and Health Administration (OSHA) and United States Environmental Protection Agency (EPA) / National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements. The mold evaluation was performed in accordance with the ASTM standard E2418-06, Standard Guide for Readily Observable Mold and Conditions Conducive to Mold in Commercial Buildings: Baseline Survey Process. The work was also performed in general accordance with the scope of work outlined in *ATC's Limited Indoor Environmental Risk Assessment* dated April 28, 2017.

During this assessment ATC was able to identify the presence of asbestos containing building materials and LBP by means of laboratory and electronic analysis. Based on our study, mold was identified by laboratory analysis on various building components throughout the assessed structure. ATC concludes the primary area of mold colonization to be in the 1980 and 1990's sections of the structure. Based on these findings ATC concluded a complex problem in relation to indoor heating and cooling exists, licensed trades fully knowledgeable of the heating ventilation and air condition (HVAC) industry should be consulted.

On May 10, 2017 ATC meet on site with the Northampton County Public Works Director, private architectural firm and a local restoration consultant to determine the extent of the HVAC, building comfort parameters and mold concerns.

Site Information			
Site	**Northampton County Community Facility Building**	Site Address	**7247 Young Street Machipongo, VA. 23405**
On-site Contact	**Mr. Chris Thomas, Director of Public Works**	Contact Information	**Phone: 757-678-0414**
Site and Building Descriptions	**The approximately 65,000 single story structure sits atop a slab-on-grade, and primarily consist of masonry and steel/wood frame construction. Interior finishes include suspended tile and sheetrock ceilings; sheetrock and concrete block walls; and carpeted, vinyl or ceramic tiled concrete floors. The original building was constructed in the 1960s with two additions reportedly built in the 1980s and 1990s.**		

Consultant Information			
Inspection Date	**March 22/23, 2017**	Time	**Daytime, between 0800 and 1700**
Inspector Names	**Mr. Thomas Post**	License No.	**3303003257**
Project Manager Name	**Mr. Thomas Post**	License No.	
Performing Company	**ATC Group Services LLC Virginia Beach, Virginia**	Contact Information	**Phone: 757.467.2100**

Note: There are currently no accepted regulatory standards or guidelines with respect to acceptable microbial levels inside buildings within the Commonwealth of Virginia, as of July 1, 2012, and no state credentials are required for mold remediation and/or inspection activities in Virginia.

SECTION 2

PROJECTED COST ESTIMATE

Projected Cost Estimate
Limited Indoor Environmental Risk Assessment
7247 Young Street
Machipongo, Virginia 23405

Projected Cost Estimates:

ATC's projected cost for abatement and restoration efforts are based solely on the known conditions at the time of this report. The information provided is only a preliminary estimate for environmental services and do not take into account major components needed to fully address the buildings underlying conditions or future usage. Further assessments by qualified and licensed personnel in direct correlation with the A-NPDC should include:

- Architectural and Structural
- Life Safety
- Mechanical Systems
- Roofing Systems
- Electrical/Plumbing
- Feasibility
- Building Usage

Mold/Moisture Restoration:

- Consult with a licensed architectural design firm to conduct an operational feasibility study of the structure for future use.
- Consult with a licensed architectural design firm to investigate the current mechanical system, discuss design options and determine practicality of the system.
- Development of a mold remediation plan (MRP) to address microbial colonization and delineate restoration efforts for mold/moisture impacted building materials. This plan should be developed by a knowledgeable professional proficient in mold studies and overseen by a Certified Industrial Hygienist (CIH). **Note:** *The development of a mold remediation plan may require destructive investigation of walls ceilings and other building components.*
- Consult with a licensed and knowledgeable restoration company to address the areas of moisture damage and mold growth identified in the findings section of the risk assessment report.
- Consult with a licensed general contractor to address the coordination of all contracted efforts to revitalize the site building.
- Address all possible exterior moisture intrusion points, grading, and AHU ground intake vents prior to any planed restoration efforts.
- Address all visible mold and moisture damage areas throughout the structure, primarily within the 1980 and 1990 additions.

    - **Mold remediation plan, implementation……..$4,922.00**
      (Includes site visit for delineation, plan writing, and review)
    - **Restoration Services per square foot.....$5.00**

ATC was advised remediation service fees **cannot** be accurately provided until use and feasibility studies have been completed. Based on the large scale area, pre-existing and unknown conditions, a detailed site investigation is required to document the extent of water loss and mold colonization. Additionally as with many large scale mold restoration projects an MRP may be requested by the bidding restoration contractor to delineate the proposed scope of

work (SOW). The proposed SOW will coincide with the general contractors building materials build back cost. All conditions related to the current mold/moisture damage indoor air quality (IAQ) must be corrected prior to obtaining a restoration base bid.

Asbestos:

- Develop and Operations and Maintenance (O&M) plan for the ACMs that remain in place if applicable.
- Develop an asbestos project design for ACM's that may be removed during future planed renovations if applicable.
- Materials elected for removal should be addressed by a Virginia licensed asbestos abatement contractor. Current industry prices for removal of ACM may vary from contractor to contractor, fees may not include mobilization, waste disposal, permits if applicable, etc. The listed fees are an estimate only and the A-NPDC should consult with several asbestos abatement companies prior to abatement. Fees below are general and only depict the positive ACM materials identified during ATC's limited assessment.

    - **Asbestos O&M Plan……$1,336.00**
    - **Asbestos Project Design.....$1,576.00**
    - **Asbestos Containing Floor Tile w/ Mastic (per sf, per layer).....$2.50**
    - **Asbestos Window Glazing (per window) …….....$375.00**
    - **Asbestos Air Monitoring Services (daily rate)……$423.00**
    - **Asbestos Program Manager Training (1 day)……$300.00**

- **Estimated floor tile and mastic abatement (Original Build)……..$60,000.00**
- **Estimated window glaze abatement……$43,125.00**

Asbestos containing vinyl floor tiles with mastic adhesive are associated with the original build section of the structure. During past interior renovations the asbestos floor tiles and mastic were covered with new non-asbestos containing floor tiles. ATC estimates two (2) layers of flooring throughout the original build with one (1) layer in the Auditorium. Although the original asbestos floor tiles have been removed from the Auditorium, the original black floor mastic remains under new vinyl non-asbestos containing floor tiles. Above estimated floor tile abatement is based of twenty four thousand (24,000) square feet. No asbestos floor tiles were observed during the Gymnasium assessment.

ATC's Asbestos O&M Plan accounts for site time to delineate quantities. The asbestos O&M plan is required when an asbestos inspection reveals the presence of friable asbestos or asbestos with the potential to become friable in a building, and the ACM is in good condition. Although the plan may be appropriate and sufficient for managing asbestos in-place and assuring compliance with construction and exposure regulations, in some cases the plan is not enough and abatement may be necessary

The primary objective of this O&M plan is to control building occupant and employee exposure to asbestos fibers. In addition, the procedures in this plan attempt to minimize any potential hazard posed by ACM/assumed ACM during cleaning, maintenance, and general operation activities. This plan applies to employees, other building occupants, and contractors. The O&M accounts for facilities on-site personnel (Asbestos Program Manager) to be knowledgeable of asbestos in the building under OSHA Class III provision, Removal & Asbestos Operations, Maintenance.

ATC's Asbestos Project Design accounts for site time to delineate quantities. The project design is written to address engineering controls to be set forth during planned asbestos abatement activities. The project design allows for coordination between the Mechanical, Electrical, Plumbing, and General Contractor(s) to ensure that all appropriate systems that will be impacted by planned revitalization efforts have been properly decommissioned prior to the start of any work if applicable.

ATC's asbestos project air monitor is assigned to the abatement activities at a daily rate to function as the on-site representative to the facility owner or other persons. Duties include but are not limited to; interpret project specifications or asbestos management plans, monitor and evaluate contractor/employee compliance with applicable rules, regulations or specifications, including collection and analysis of the air samples at asbestos project sites.

Lead Based Paint:

- ATC recommends that a licensed lead abatement contractor be retained to evaluate the lead-containing paint identified on the window support poles associated with the original section of the structure.
- The contractor must use proper engineering controls (wet methods, etc.) and personal protection equipment (PPE). All remediation activities should follow the U.S. EPA Lead Renovation, Repair, and Painting (LRRP) Rule under 40 CFR Part 745.
- All loose and flaking (L&F) paint to be disturbed during future planned renovation should be conducted under the LRRP rule.

The listed fees are an estimate only and the A-NPDC should consult with several abatement companies prior to LBP abatement. Fees below are general and only depict the positive L&F LBP material identified during ATC's limited assessment.

- **L&F LBP (per pole)……$375.00**
- **L&F LBP (per sf)……..$5.00**
- **LBP Monitoring Services (daily rate)……...$423.00**
- **LBP RRP Training (Optional, 1 day/person)……$150.00**

- **Estimated window pole LBP abatement……..$22,500.00**

The A-NPDC has the option to properly train staff personnel under the LRRP rule, however the training primarily applies to general contractors and all contractors working in child-occupied facilities built before 1978. The LRRP establishes requirements for firms and individuals performing renovations, and affects contractors, property managers, and others who disturb painted surfaces. It applies to work in houses, apartments, and child-occupied facilities (such as schools and day-care centers). It includes pre-renovation education requirements as well as training, firm certification, and work practice requirements. Paint identified below the HUD EPA ruling should be considered as lead in paint unless determined negative by laboratory analysis. ATC would caution on any untrained personnel or contractor from knowingly working on LBP or lead in paint.

ATTACHMENT A

LIMITED RISK ASSESSMENT

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

211 Expressway Court
Virginia Beach, VA 23462
Telephone 757-467-2100
Fax 757-467-9178
atcgroupservices.com

April 28, 2017

Accomack-Northampton Planning District Commission
Ms. Caroline Bott
23372 Front Street
Accomack, Virginia 23301
Email: cbott@a-npdc.org

RE: Limited Indoor Environmental Risk Assessment
Northampton County Community Facilities Building
7247 Young Street
Machipongo, Virginia 23405
ATC Project Number: 88ACCO7036

Dear Ms. Bott:

ATC Group Services LLC (ATC) is pleased to provide the Accomack-Northampton Planning District Commission (A-NPDC) with our limited indoor environmental risk assessment of the Northampton County Community Facilities Building (former Northampton County Middle School) located at 7247 Young Street in Machipongo, Virginia. This report presents observations, opinions, and recommendations for corrective actions based on this assessments.

SITE INFORMATION

ATC understands the structure is the former Northampton County Middle School (the "Site") with an original construction date circa 1960. Additions to the structure were constructed in the 1980s and again in 1993 comprising of an estimated sixty five thousand (65,000) square feet. The structure was transferred from the school board back to county for repurposing in which various county agencies utilized the interior spaces for their services.

The site building is a single-story brick and mortar building with commercial grade building materials making up the structures interior. Concrete masonry units (CMU) blocks walls are the primary wall system in the original build while drywall make up the 1980s and 1990s sections. The heating, ventilation, and air conditioning (HVAC) is supplied by a commercial chiller and boiler system. The roof systems are comprised of a flat roof over the original portion of the structure, and asphalt shingled "A" framed roof on the more recent renovations.

ATC understands that a potential indoor air quality (IAQ) concern has arisen in regards to a past moisture damage and suspect visible mold growth (VMG) associated with chiller lines sweating in wall cavities/ceilings. Due to the age of the original phase of this structure the A-NPDC also requested that this assessment address building components which may be asbestos-containing materials (ACM) and lead-based paint (LBP).

SCOPE OF SERVICES

Based on ATC's understanding of your request pertaining to VMG, ACM, LBP and concerns of a health risk surrounding this request, ATC's conducted a limited indoor environmental risk assessment of the above listed property. ATC visually surveyed the entire facility for evidence to possible causes and the extent of the mold concerns, ACMs, and LBP. ATC accessed the interior spaces for mold/mildew concerns and collected air/ tape lift samples from within the complaint areas where suspect mold/moisture impacts have reportedly occurred. ATC collected temperature, relative humidity, general comfort parameters and moisture readings within the structure. In addition ATC collected samples of building materials for asbestos analysis and paint chip samples for the presence

of LBP. This sample event was performed to document baseline data correlating with planned future revitalization of the structure. Photo documentation of our findings can be found in the attachment section of this report. **Attachment II**.

Due to the amount of photos collected during ATC s assessment only those pictures that represent and support our report findings are included in this report. Additional photos have been archived in our report file.

MOLD ASSESSMENT

Methodology

This evaluation of the space was performed in accordance with the ASTM standard E2418-06, Standard Guide for Readily Observable Mold and Conditions Conducive to Mold in Commercial Buildings: Baseline Survey Process.

To verify that suspect mold growth may in fact be mold, environmental samples were collected. The following specific assessment methods were utilized during this survey in an attempt to validate this concern:

Total Countable Fungal Bio-Aerosol Samples:

For microbial air sample collection, a high volume calibrated sample pump and Air-O-Cell™ cassettes were utilized for the collection of airborne fungal spore samples. Samples were collected at a flow rate of 15 liters per minute for 10 minutes for both the interior and exterior samples. ***Table I***

The mold samples were submitted to Hayes Microbial Consulting (Hayes) in Midlothian, Virginia for laboratory analysis under proper chain-of-custody protocol. Hayes is accredited by the AIHA Laboratory Accreditation Programs LLC (AIHA-LAP LLC) and is a participant in the Environmental Microbiology & Lead Proficiency Analytical Testing program (EMPAT #188863, inclusive of bacteria, fungi and lead). It should be noted that sample locations/descriptions within the report may be modified from the original sample identification given on the chain-of-custody in order to clarify the sample's actual location (i.e., more descriptive). The analytical results and chain of custody are attached.

Ambient Air Parameters:

Measurements of temperature and relative humidity were collected outside the facility and inside various locations of the site. ATC measured temperature/relative humidity in the selected areas of the site using an EXTECH Instruments hygrometer.

Moisture Assessment:

ATC measured the moisture content in select locations of the plaster and drywall systems of various locations within the site using a moisture meter. The moisture meter used for this survey was a Protimeter™ MMS moisture meter.

OBSERVATIONS

A synopsis of ATC's March 22 and 23, 2017 observations for the site at the time of ATC's site inspection is included below:

General Observations/Conditions

Former Northampton Middle School

- In general, a "musty or moldy" odor was detected in the various areas of the 1980 and 1990s section.

- Water stains or damage from chiller pipe condensation were observed on ceiling tiles throughout the structure.
- Water stains and damage from moisture intrusion were observed on portions of the walls and ceilings within Room 23.
- Water stains and damage from moisture intrusion were observed on portions of the walls and ceilings within the Boys Locker Room.
- Suspect VMG was present within the structure on ceiling tiles, walls, drywall ceilings, door frames, and thermal systems insulation (TSI) located throughout the structure.
- Damaged TSI was observed on the overhead chiller pipes throughout the structure.
- Heavy suspect VMG was primarily confined to the 1980s and 1990s sections of the structure.
- Heavy suspect VMG was documented on the TSI throughout the structure
- Light suspect VMG was observed on the boiler room TSI.
- Peeling paint and efflorescence were observed on the CMU walls throughout the original section of the structure.
- Temperature and humidity conditions varied throughout the structure possibly associated with HVAC electrical control programing errors.
- TSI throughout the main building appeared damaged and inadequate as an insulator.
- TSI in the mechanical room appears to be in good condition.
- A light layer VMG was noted on the mechanical room TSI paper overwrap.
- Heating and air units in each room are dirty and show light contamination.
- Numerous exterior fresh air intakes vents for the room air units covered with vegetation and below grade.
- Due to vacancy of the structure evidence of insect and rodent activity is present throughout the structure.

FINDINGS:

A summary of the laboratory results and general IAQ screening is provided below. The complete analytical report can be found in the attachment section of this report.

MICROBIOLOGICAL ANALYSIS

Bio-aerosols in Ambient Air

ATC conducted a bioaerosol sample event for non-culturable mold spores for several areas within the structure and from outside the structure for comparison to the natural environment. **Table 1** presents the predominant fungal taxa reported from the non-culturable (spore-trap) sample event performed on March 22, 2017. Reference attached analytical report. **Attachment I**.

Table I – Microbial Air Sampling Analysis Data.

Table 1: Airborne Non-Culturable Sample Analysis Former Northampton County Middle School Date: March 22 , 2017			
Sample Number	**Location**	**Species**	**Spore/m3**
24055188	Outside Background S	*Alternaria*	13
		Ascospores	20
		Aspergillus/Penicillium	13
		Basidiospores	93
		Cladosporium	47
		Epicoccum	13
		Total	**199**
24055174	County Office	*Aspergillus/Penicillium*	33
		Basidiospores	7
		Total	**40**

24053705	Cafeteria @ Kitchen	*Aspergillus/Penicillium*	7
		Basidiospores	27
		Cladosporium	40
		Total	**74**
224053928	Hall @ Gym/Rm #34	*Aspergillus/Penicillium*	13
		Basidiospores	33
		Cladosporium	7
		Total	**53**
224053656	Room #25	Basidiospores	20
		Cladosporium	13
		Total	**33**
224053618	Auditorium @ Stage	*Aspergillus/Penicillium*	47
		Basidiospores	7
		Cladosporium	7
		Total	**61**
24053665	Media Center (Library)	*Aspergillus/Penicillium*	500
		Basidiospores	13
		Pithomyces	7
		Total	**520**
224055171	Hall @ Room #20	*Aspergillus/Penicillium*	147
		Basidiospores	7
		Total	**154**
224053627	Band Room	*Alternaria*	7
		Aspergillus/Penicillium	5,333
		Basidiospores	27
		Cladosporium	40
		Epicoccum	7
		Total	**5,414**

Key: spore/m^3 = spores per cubic meter of air

Interpretation of Data:
Fungal bio-aerosols include aerosolized components of fungi (generally molds), such as spores and hyphal, or mycelial, fragments. Spore trap samples were utilized to screen the building for bio-aerosols indicative of hidden indoor reservoirs of molds.

The laboratory calculates an estimated concentration of fungal bio-aerosols based on the number of identifiable spores observed in the sample trace and the volume of air drawn through the spore trap cassette. In this case, the laboratory's minimum reporting level was approximately seven (7) spores (or fungal structures) per cubic meter of air sampled.

The American Conference of Governmental Industrial Hygienists (ACGIH) considers comparison of indoor/outdoor bio-aerosol data a common method for evaluating indoor fungal damage or concerns. In normal indoor environments, the concentrations of fungi in the indoor air are typically equal to, or less than, the concentration outdoors and the fungal taxa detected should be similar. If indoor fungal bio-aerosol concentrations are consistently greater than those outdoors, then indoor fungal reservoirs may be present. In addition, the types (i.e., taxa or groups) of fungi found inside the building should be qualitatively similar compared with the outdoor air, if the outdoor air is the only source of fungi. There are no regulatory standards or other widely accepted numerical guidelines available for interpretation of bio-aerosol data.

The analytical results indicated that the total concentration of airborne fungal spores were lower than the outdoor sample, except for two (2) locations: the Media Center (Library) and the Band Room. The *Aspergillus/Penicillium* concentrations measured in these two (2) rooms were also elevated when compared to its concentration in the background outdoor sample at the time of this survey. Laboratory data for the fungal bio-aerosol samples suggests the presence of indoor reservoirs of fungi

colonization in these two rooms of the structure, likely related to suspect mold growth associated with our findings of the overhead chiller pipes and inadequate heating and cooling of the structure.

Environmental Non-Cultruable Surface Samples

ATC collected eight (8) tape samples from the select areas within the building. **Table 2** presents the predominant fungal taxa reported from the non-culturable tape lift sample event performed on March 22, 2017. Reference attached analytical reports, **Attachment I**.

Table 2 - Non-Culturable Surface Sample Analysis
Former Northampton County Middle School
Date: March 22 , 2017

Sample Number	Sample Location	Fungal Spores / Structures	Prevalence
NPDC-DI1	Hall @ Room 33, Ceiling Tile Surface	*Stachybotrys*	Moderate
NPDC-DI2	Mechanical Room, TSI Surface, Boiler #2	*Stachybotrys*	Very Heavy
NPDC-DI3	Ceiling Tile Surface, Hall @ Room #29	*Stachybotrys*	Very Heavy
NPDC-DI4	Door Surface, Room #25	*Cladosporium*	Very Heavy
NPDC-DI5	Hall @ Room #21, Ceiling Tile Surface	*Cladosporium* *Stachybotrys*	Very Heavy Very Heavy
NPDC-DI6	Media Center (Library), Office Door Surface	*Cladosporium*	Very Heavy
NPDC-DI7	Room #5, Ceiling Drywall Surface	*Cladosporium* *Stachybotrys*	Very Heavy Very Heavy
NPDC-DI8	Pudney Office, HVAC Supply Register	*Alternaria* *Cladosporium* *Stachybotrys*	Light Heavy Moderate

Interpretation of Data

Levels of mold detected on the direct tape lift samples collected from the surveyed sample locations indicated the presence of heavy levels of fungal spores/structures on the materials sampled.

Note on fungal analytical results: There are currently no accepted regulatory standards or guidelines with respect to acceptable microbial levels inside buildings within the Commonwealth of Virginia. This data has been interpreted qualitatively using general industry standards and previous experience.

MOISTURE ASSESSMENT

Moisture readings were collected using a Protimeter™ MMS moisture meter. This instrument may be operated in two independent modes. The non-destructive “search mode” uses radio-frequency induction to detect moisture in a substrate. Using the search mode, the Protimeter is capable of detecting moisture in solid, homogeneous materials at depths up to 10 millimeters (0.39 inches). When operated in search mode, the Protimeter produces qualitative readings (“dry”, “at risk”, “wet”) along with a numerical indication (relative) of the moisture content on a scale from 0 to 100.

The Protimeter may also be used in “measure mode” to obtain actual moisture percentage readings in wood and other solid, non-conductive materials. Measurements are taken by inserting the pins of a moisture probe into the material being tested. For wood substrates, the moisture percentage is expressed as “% Moisture Content (MC)”; for other materials this number is expressed as “% Wood Moisture Equivalent (WME)”. In general, %MC or %WME values of less than 17 are considered “dry”, values greater than or equal to 17 but less than 20 are considered “at risk” for moisture damage, and

values of 20 or greater are considered “wet”. Values of greater than 17% typically are considered at risk for mold growth.

Areas tested for the presence of moisture measured “dry” during this assessment. Although our testing indicated “dry” materials through the structure this does not preclude moisture presence in inaccessible or areas not addressed in this limited assessment.

INDOOR AIR SCREENING

During this assessment, ATC collected baseline readings for the comfort parameters using TSI's Q-TRAK™ Indoor Air Quality Monitor. The Q-TRAK can measure temperature, relative humidity, carbon monoxide (CO) and carbon dioxide (CO_2) simultaneously, and provide instant real time data. During our assessment, ATC was able to collect numerous readings from various locations within the administration building.

Carbon Monoxide

CO is a colorless, odorless, and tasteless gas emitted from combustion processes. Nationally, and particularly in urban areas, the majority of CO emissions to ambient air come from mobile sources. CO can cause harmful health effects by reducing oxygen delivery to the body's organs and at extremely high levels can cause death. Exposure limits established by OSHA for CO content of the atmosphere in a room, building, vehicle, railcar or any enclosed space shall be maintained at not more than 50 parts per million (ppm) as an eight hour average area level (29 CFR 1917.24). During ATC’s assessment of CO levels inside the building, no detectable limits were recorded.

During ATC’s assessment CO readings were collected from numerous locations within the structure. CO readings were 0.0 in the sampled areas with an outdoor fresh air reading of 1.2ppm.

Carbon Dioxide

CO_2 is a colorless, odorless gas. Humans produce CO_2 every time they exhale. Other human activities produce CO_2 such as burning fossil fuels. Unless a building has some source of fossil fuel like a kiln, humans are solely responsible for levels in buildings. CO_2 is not confined to buildings; it is found in all outdoor air, although the levels are generally lower than indoor air.

Numerous factors influence the levels of CO_2 inside buildings, including the levels outside the building. The more people inside the building, the higher the levels. The morning brings lower levels after the building has been empty all night. A busy day produces higher levels in late afternoon. The type of ventilation system greatly influences CO_2 levels.

A highly efficient system circulates air and the fresh air keeps the levels low. Rarely do high levels of CO_2 cause serious injury or death; levels need to reach 40,000 ppm to have such an effect. Exposure to levels more than 5,000 ppm over an extended period of time may cause headaches and related conditions like fatigue. Any illnesses from indoor pollution are more likely from sources other than CO_2.

During ATC’s assessment CO_2 levels ranged from 547 ppm to 706 ppm with an overall average of 599 ppm. The outside fresh air calibration reading was 313 ppm at the time of this assessment. No spikes or unusual readings of CO_2 were detected during this assessment.

Temperature

The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and American National Standards Institute (ANSI) recommend that indoor temperatures be maintained between 69^o and 79^{o}F (ANSI/ASHRAE Standard 55-2013, Thermal Environmental Conditions for Human Occupancy). These values are considered the comfort zone, i.e., acceptable ranges of

temperature for persons wearing typical clothing. These "comfort zones" assume that occupants are engaged in only light activity, such would be performed in a typical office setting.

At the time of the testing, indoor temperatures ranged from 67.3º to 83.1ºF in various locations throughout the building. The temperature readings within the assessment area were relatively consistent and several readings were outside the range of the ASHRAE comfort zone guidelines. Rooms five (5) and fourteen (14) were elevated when compared to the comfort zone guidelines.

Relative Humidity

The ASHRAE recommended relative humidity range is between 30% and 60% (ANSI/ASHRAE Standard 55-2013, Thermal Environmental Conditions for Human Occupancy). OSHA's Policy on Indoor Air Quality (February 25, 2003) recommends humidity control in the range of 20% and 60%. These values are considered the comfort zone, i.e., acceptable ranges of humidity for persons wearing typical clothing. These "comfort zones" assume that occupants are engaged in only light activity, such as what would be performed in a typical office building setting.

Relative humidity levels ranged from 39.7% to 52.3% throughout the building. The relative humidity levels were within the published acceptable range.

LIMITED ASBESTOS-CONTAINING MATERIALS SURVEY

The limited ACM survey was conducted March 23, 2017 by Mr. Tom Post a Virginia Department of Professional and Occupational Regulation (VA-DPOR) accredited Asbestos Building Inspector **Attachment II.** The structure's interior, exterior and mechanical room building components were visually surveyed for the presence of suspected ACM. The structure's roof, roofing components and annex building (classroom 1&2) were omitted from this assessment. Bulk samples of identified suspect ACM were collected and placed into individual containers for transport to Hayes. Hayes is a member of the NVLAP and an American Industrial Hygiene Association (AIHA)-accredited laboratory for asbestos analysis.

Sample Strategy

The asbestos survey was conducted in general accordance with the Asbestos Hazard Emergency Response Act **(**AHERA), American Society for Testing and Materials (ASTM) Standard E2356, and National Emission Standards for Hazardous Air Pollutants **(**NESHAP) guidelines using a minimum number of samples collected from each homogeneous area (HA). The survey generally complies with the sample requirements found in 29 CFR 1926.1101.

Professional judgment was used in the selection of the number of bulk samples collected for laboratory testing and was in general accordance with US Department of Labor and Industry (DOLI), OSHA the US Environmental Protection Agency (EPA), and the NESHAP requirements for asbestos surveying, as discussed below:

Homogeneous Areas

- Prior to sample collection, HA's were identified and listed to develop a sample strategy. An HA can be described as a material of similar appearance and texture with a similar installation date and function and must be from the same building. The actual number of samples collected from each HA may vary, based on the type of material and the professional judgment of the inspector.

Hazard Assessment Factors

- From the list of suspect HAs, a physical assessment was performed for each material on the list. A physical assessment includes evaluating the condition, assessing the potential for disturbance, and determining the friability of each material. By definition, friable materials are

those that can be crumbled or reduced to powder by hand pressure when dry.

- Each material on the list was further classified into one of three categories, which have specific sampling requirements for each category.
  - Surfacing Materials: Refers to spray-applied or troweled-on surfaces such as plaster ceilings and walls, fireproofing, textured paints, textured plasters, and spray-applied acoustical surfaces.
  - Thermal System Insulation (TSI): Refers to insulation used to inhibit heat gain or loss on pipes, boilers, tanks, ducts, and other various building components and are usually associated with HVAC or other mechanical systems.
  - Miscellaneous Materials: Refers to products and materials that do not fit in any of the other two categories such as resilient floor covering, baseboards, and mastics, adhesives, roofing materials, caulking, glazing, and siding. This category also contains wallboard and ceiling tile.

Materials were also assessed by their condition as good (intact), fair (damaged) or poor (significantly damaged) per Title 40 Code of Federal Regulations Part 763.

During the March 23, 2017 sample event, sixty-six (66) bulk asbestos samples were collected from selected areas of the structure's and accessible building components. Materials consisting of multiple layers such as flooring materials and adhesives were analyzed separately so that the actual number of samples/layers analyzed for this survey totaled seventy-five (75). Sample containers were marked with a unique identification number which is also recorded in the field notes.

As stated, the collected bulk samples were submitted to Hayes for microscopic analysis by polarized light microscopy (PLM), using a standard NVLAP method, to determine the presence and type (if any) of asbestos. Sample collection, analysis, and disposition followed standard chain-of-custody procedures. Stop-positive sample testing was conducted, so that the first instance of a material containing a regulated level of asbestos defines the entire material including other samples as ACM, without further testing. The chain-of-custody (COC) document assigns a unique sample number, designates a sampling location, provides for a description of a homogeneous area, and contains laboratory instructions for sample analysis. A copy of the laboratory analytical results and COC are provided as **Attachment I**.

Analytical Results – Asbestos

ACM is defined as any building material containing greater than one percent (>1%) asbestos as determined using the PLM method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1. Under NESHAP, ACM may be considered Regulated Asbestos-Containing Material (RACM).

RACM materials are classified as:

- A friable ACM is defined as any ACM that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.
- A non-friable ACM is defined as any ACM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- Category I non-friable ACM's are listed as following: packings, gaskets, resilient floor coverings, and asphalt roofing products containing greater than one percent (>1%) asbestos.
- Category II non-friable ACMs are listed as any material, excluding Category I non-friable ACM, containing greater than one percent (>1%) asbestos.

ACMs were identified during this inspection; five (5) separate samples of building materials which contained regulated concentrations of asbestos are listed below.

Non-Friable Asbestos
Asbestos (**3% Chrysotile**) was detected in one (1) sample collected of the red 9"x9" floor tile, located throughout the original building. This material is classified by US EPA NESHAP regulations as a Category I non-friable ACBM and presumed in fair condition. Similar materials found in the building should be assumed to contain asbestos.

Asbestos (**4% Chrysotile**) was detected in one (1) sample collected of the white 9"x9" floor tile, located throughout the original building. This materials is classified under US EPA NESHAP regulations as a Category I non-friable ACBM and presumed in fair condition. Similar materials found in the building should be assumed to contain asbestos.

Asbestos (**4% Chrysotile**) was detected in one (1) sample collected of the black 9"x9" floor tile, located throughout the original build. This material is classified under US EPA NESHAP regulations as a Category I non-friable ACBM and presumed in fair condition. Similar materials found in the building should be assumed to contain asbestos.

Asbestos (**3% Chrysotile**) was detected in one (1) sample collected of the gray mottled 12"x12" floor tile, located in the auditorium. This material is classified under US EPA NESHAP regulations as a Category I non-friable ACBM and is in good condition. Similar materials found in the building should be assumed to contain asbestos.

Asbestos (**5-8% Chrysotile**) was detected in two (2) sample collected of the black floor mastic, located throughout the original building and Auditorium. This material is classified under US EPA NESHAP regulations as a Category I non-friable ACBM and presumed in fair condition. Similar materials found in the building should be assumed to contain asbestos.

Regulated Asbestos Containing Materials (RACM)
Asbestos (**3% Chrysotile**) was detected in one (1) sample collected of the interior white window glaze, located in room 33. This material is classified under US EPA NESHAP regulations as a RACM.

Should future planned revitalization of this structure impact the materials identified in this report as ACMs, ATC recommends these material be addressed by a Virginia licensed asbestos abatement contractor. Similar materials or other suspect ACBMs found in the building that were not sampled, but that are encountered during renovation or demolition, should be assumed to contain regulated amounts of asbestos.

Assumed Suspect ACMs
Additional ACM may be present on site in inaccessible or concealed spaces. If the future planned demolition makes these areas accessible, ATC recommends that a thorough assessment of these spaces be conducted at that time to identify and confirm the presence or absence of additional ACBMs. Until or unless such assessment is conducted, such unidentified materials should be treated as assumed ACBM in accordance with 40 CFR 763 and managed accordingly.

During this survey, attempts were made to access all suspect building materials within the structure. However, due to the nature of this limited asbestos survey and the inability and impracticality of accessing all hidden locations, some areas/materials may still be deemed inaccessible/unsafe or were not sampled. These spaces include, but are not limited to, pipe chases, spaces between walls/ceilings, and around exterior facing doors and windows. This includes, but is not limited to, the following materials:

- Pipe insulation (TSI), if present, within walls and ceiling cavities are assumed to contain asbestos;
- Pipe insulation (TSI), fittings, within walls and ceiling cavities are assumed to contain asbestos;

- All roofing materials omitted from this assessment are assumed to contain asbestos.
- All vapor barriers around windows, doors, between walls and under the structures foundation are assumed to contain asbestos.
- All auditorium stage fire curtains are assumed to contain asbestos.
- All metal fire doors are assumed to contain asbestos.
- All other building materials not accessible during this assessment are assumed to contain asbestos.

LIMITED LEAD-BASED PAINT ASSESSMENT

Bulk paint chips were collected on March 24, 2017 and submitted to Hayes for lead analysis. Sample collection was performed under industry standards by collecting bulk paint samples to determine if LBP or lead-containing paints are present at the structure. Sample collection was not conducted under Housing and Urban Development (HUD) Guidelines as a risk assessment, which was not being performed as part of ATC's scope of work. Therefore, HUD regulations do not apply. However ATC conducted the sampling using the recommended HUD sampling methodology. It is important to note that this survey was not a comprehensive, surface-by-surface evaluation, but rather a screening survey of major painted components which may contain LBP.

Survey Methods

The purpose of the assessment was to collect a representative sample of suspect lead coated materials from spaces within the structure. The suspect paint chip samples were collected utilizing hand tools, and placed into individual, labeled plastic bags.

The paint chip samples were collected from various building component surfaces and sent to Hayes Microbial Consulting for analysis. Paint chips samples were collected to verify by laboratory analysis the actual percentage of lead by weight if present and eliminate a potential false positive by electronic means. The analysis was performed via Atomic Absorption EPA Method 7000B. Chain-of-custody procedures were maintained throughout the sampling and testing process. Hayes is listed as an accredited laboratory under the AIHA/ELLAP Program. A copy of the analytical results and COC are provided as **Attachment I.**

Additional LBP surveying was performed utilizing an NITON XLp 300A Lead Paint Analyzer. The NITON XRF measures the concentration of lead in a measured surface area. XRF testing is nondestructive and does not damage the painted surface being tested.

Results of this direct read measurement are available immediately. ATC's Industrial Hygienist sampled (measure) the various color/types of paint applied to select piping in the building for the evaluation of LBP concentrations. NITON XRF spectrum analysis does not require substrate correction as determined by the Environmental Protection Agency (EPA) and HUD. Lead XRF datasheets are provided as **Attachment III**.

Sample descriptions were detailed by a narrative description in the provided data spreadsheet generated from the NITON Lead Paint Analyzer. Sample protocol (NITON XLp XRF Spectrum Analyzers) was based on the performance characteristic sheets prepared by NITON and accepted by EPA.

Analytical Results-Lead Based Paint

HUD and EPA defines LBP as any paint, varnish, stain or other coating that contains lead at, or above 0.5 % dry weight or 1.0 mg/cm^2 (milligram per square centimeter). A list for the material sampled and analyzed for lead content is provided below, **Table 3**.

Table 3- LBP Analysis Former Northampton County Middle School Date: March 24 , 2017		
Sample #	**Color/Sample Type, Location, Substrate**	**% by Weight**
NPDC-LP-1	Yellow/PC, Mechanical Room Floor, Concrete	<0.00301
NPDC-LP-2	Red/PC, Locker Room Bench, Wood	0.0156
NPDC-LP-3	White/PC, Cafeteria/Kitchen Wall, CMU	<0.00298
NPDC-LP-4	Red/PC, SE Hall Exit Door Frame, Metal	0.0509
NPDC-LP-5	Yellow/PC, Room #24 Door Frame, Metal	0.0288
NPDC-LP-6	Pink/PC, Room #30 Door Frame, Metal	0.0912
NPDC-LP-7	Green/PC, Room #15 Door Frame, Metal	0.0346
NPDC-LP-8	White/PC, Hall @ Room #13 Wall, CMU	<0.00292
NPDC-LP-9	Yellow/PC, Library Wall, Drywall	<0.00302
NPDC-LP-10	White/PC, Administration Wall, Drywall	<0.00311
NPDC-LP-11	Yellow-Red-Green/PC, Auditorium Wall, CMU	0.0586
NPDC-LP-12	White/PC, Auditorium Wall, CMU	0.0911
NPDC-LP-13	White/PC, Exterior Steps, Concrete	<0.00298

Key: PC= Paint Chip, CMU= Concrete Masonry Unit,

Findings

Laboratory analysis of the selected paint chip samples indicate the paint coatings are below the HUD LBP Guidelines.

XRF reading forty two (42) indicates the silver window pole paint tested in in classroom #31 was positive for LBP within the selected survey area.

Discussion

A number of regulations govern LBP activities. In 1977 the Consumer Product Safety Commission (CPSC), 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 Federal LBP Hazard Reduction Act of 1992 provides that, commencing October 28, 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 LBP and provides the purchaser with a 10-day period in which to conduct a risk assessment or lead inspection.

It is important to note that even if a component is negative based on HUD and EPA standards it may still contain lead concentrations in the paint, which when disturbed, may generate lead dust greater than the Permissible Exposure Limit (PEL) of 50 micrograms per cubic millimeter (ug/mm^3) as an 8-hour Time Weighted Average (TWA) established by the OSHA “Lead Exposure in Construction Rule (29 CFR 1926.62).” A copy of the OSHA Lead Regulation is included as **Attachment V.**

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

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on our assessment mold was identified by laboratory analysis on various building components throughout the assessed structure. ATC concludes the primary area of mold colonization is in the 1980 and 1990s sections of the structure. Additionally ATC believes the laboratory analysis indicating elevated mold counts warrants additional measures to avoid occupant exposure

The presence of *Stachybotrys* is concerning due to its indoor presence and ability to colonize over mass areas. Molds such as *Stachybotrys* species commonly referred to as "Black Mold" are rarely found in outdoor samples. It is usually difficult to find in indoor air samples unless it is physically disturbed because the spores are in a gelatinous mass. *Stachybotrys* grows well on wet media, preferably containing cellulose. It proliferates in the indoor environment with long term water damage, growing on wallpaper, gypsum board, and textiles.

Many factors affect IAQ. These factors include poor ventilation (lack of outside air), problems controlling temperature, high or low humidity, overcrowding, and other activities in or near a building that can affect the fresh air coming into the building or recirculating. Sometimes, specific contaminants like dust from construction or renovation, mold, cleaning supplies, pesticides, or other airborne chemicals (including small amounts of chemicals released as a gas over time) may cause poor IAQ. The quality of indoor air inside offices, schools, and other workplaces is important not only for workers' comfort but also for their health.

Poor indoor air quality (IAQ) has been tied to symptoms like headaches, fatigue, trouble concentrating, and irritation of the eyes, nose, throat and lungs. Also, some specific diseases have been linked to specific air contaminants or indoor environments, such as asthma with damp indoor environments.

The results of the limited asbestos survey for the sampled areas indicate that asbestos was identified by PLM analysis in five (5) of the sampled building materials. The materials identified are considered to be both friable and non-friable and are in good to fair condition. Structure revitalization or demolition should be conducted only after appropriate abatement of the ACBM by a licensed abatement contractor in accordance with all applicable regulations. If non-friable asbestos remain in place, an Operations and Maintenance plan should be established to manage these materials.

XRF reading number 42 indicate that lead is present within the paint coated building component and is considered by EPA and HUD as a LBP. A licensed lead abatement contractor should be retained to abate the lead containing paints using proper engineering controls (wet methods, etc.) and personal protection equipment (PPE).

ATC Recommendations

Mold/Moisture Restoration:

- Consult with a licensed and knowledgeable restoration company to address the areas of moisture damage and mold growth identified in the findings section of this report.
- Address all visible mold and moisture damage areas throughout the structure, primarily within the 1980 and 1990 addition areas.
- Address cleaning and sanitizing the original section of the structure with an emphasis on Rooms #23, #25, and Media Center (Library).
- ATC recommends that restoration activities be performed in general accordance with the guidelines described in OSHA's March 2010 Safety and Health Information Bulletin (SHIB-03-10-10), EPA's Mold Remediation in Schools and Commercial Buildings (EPA 402-K-01-001) and the IICRC S500/S520 standards and references.

- Retain the services of a licensed mechanical contractor to address the air handling units in the structure. The units should be cleaned and sanitized after all restoration and/or revitalization efforts have been completed. ATC recommends these services be conducted by a licensed and qualified HVAC mechanical contractor in accordance with the National Air Duct Cleaners Association (NADCA) ACR 2013 standards.
- Retain the services of licensed professional engineer (PE) to address the mechanical plumbing system throughout the building. Address the chiller pipe insulation, effectiveness of the current TSI, clearance between the TSI and drop ceiling, overhead ceiling area ventilation and air balance inside the structure.
- Consult with a licensed general contractor to address the ceiling damage in Room #23 and the boy's Locker Room.
- Inaccessible moisture/mold damage may be extensive, ATC's report is not be used as a delineation guideline.
- ATC recommends limited human access to the 1980s, 1990s, Media Center, Room #23 and Room #25 until the area can be addressed by a licensed restoration company. Attempt to maintain temperature and humidity per ASHRAE standards in these areas.
- ATC recommends a site walk with the A-NPDC, a licensed restoration company, engineer and ATC to evaluate the above listed concerns. After this evaluation a mold management plan can be addressed as a Phase II conclusion and recommendations.

Note: Additional references and clean-up guidelines are advised to be in accordance with industry recommended guidelines under ANSI/IICRC S500, Guide for Professional Water Damage Restoration.

Asbestos:

- Develop and Operations and Maintenance (O&M) plan for the ACM that remain in place.
- Materials elected for removal should be addressed by a Virginia licensed asbestos abatement contractor. Current industry prices for removal of ACM may vary from contractor to contractor, fees do not include mobilization, waste disposal, permits if applicable, etc. The listed fees are an estimate only and the A-NPDC should consult with several ACM abatement companies prior to abatement. Fees below are general and only depict the positive ACM materials identified during ATC's limited assessment.
    - Asbestos Containing Floor Tile w/ Mastic…..$2.50 (per square foot, per layer)
    - Asbestos Window Glazing……$375.00 (per window)

An O&M Plan is required when an asbestos inspection reveals the presence of friable asbestos or asbestos with the potential to become friable in a building, and the ACM is in good condition. Although the plan may be appropriate and sufficient for managing asbestos in-place and assuring compliance with construction and exposure regulations, in some cases the Plan is not enough and abatement may be necessary.

The primary objective of this O&M plan is to control building occupant and employee exposure to asbestos fibers. In addition, the procedures in this plan attempt to minimize any potential hazard posed by ACM/assumed ACM during cleaning, maintenance, and general operation activities. This plan applies to employees, tenants, other building occupants, and contractors.

Lead Based Paint:

ATC recommends that a licensed lead abatement contractor be retained to evaluate the lead-containing paint identified on the window support poles associated with the original section of the structure. The contractor must use proper engineering controls (wet methods, etc.) and personal protection equipment (PPE). All remediation activities should follow the U.S. EPA Lead Renovation, Repair, and Painting (RRP) Rule under 40 CFR Part 745.

ATC recommends areas where loose and flaking (L&F) LBP are discovered the county utilize a licensed lead abatement contractor to address these issues or county personnel trained under the RRP rule. Current industry prices for removal of LBP may vary from contractor to contractor, fees do not include mobilization, waste disposal, permits if applicable, etc. The listed fees are an estimate only and the A-NPDC should consult with several abatement companies prior to LBP abatement. Fees below are general and only depict the positive LBP material identified during ATC's limited assessment.

- L&F LBP on structural poles at windows…..$200.00 (per pole)

LIMITATIONS

The services provided for this project were performed with the skill and care ordinarily exercised by reputable members of the industrial hygiene profession practicing under similar conditions at the same time or similar locality. Any future or currently occurring moisture problems within or around the structure may create an environment that would allow for mold growth and affect the indoor air quality within the structure.

It should be understood that fungal spores are ubiquitous to our environment and that background fungal spore counts naturally occur in outdoor and indoor air and in the dust within occupied structures. The concentrations of these organisms are variable and depend on factors including climate, effectiveness of the HVAC system, general housekeeping and maintenance and original construction of the structure, among many others.

The work performed in conjunction with this assessment and the data developed is intended as a description of available information at the dates and locations given. This report does not warrant against future operations or conditions, nor does it warrant against extant, or future, conditions of a type or at a location not investigated.

Because of the nature of this type of work (microbial contamination reduction) and the difficulties involved in conducting remediation work, ATC cannot guarantee that the methods or recommendations described in this report will eliminate all potential IAQ issues. Since monitoring the performance of the remediation work is also beyond ATC's scope of services, ATC also cannot be held responsible for the performance or execution of the remediation work. Additionally ATC also notes that we cannot preclude the possibility of discovery of mold in areas outside or inaccessible during our assessment. In the event that on-site contractors discover an area(s) with suspect mold, it is recommended that work in that location stop immediately and the contractor notify the facility construction superintendent for further directions.

ATC is not liable for the discovery and elimination of hazards that may potentially cause damage, accidents, injury, or disease. The conclusions and recommendations presented in this report are based on a reasonable level of evaluation within the normal bounds and standards of professional practice for an evaluation of this nature. The recommendations have no relationship to insurance coverage. This document is not a legal mandate and should be used as a guideline only.

The report is designed to aid the building owner, architect, construction manager, general contractors, and potential asbestos abatement contractors in locating possible hazards. **Under no circumstances is the report to be utilized as a bidding document or as a project specification document since it does not have all the components required to serve as an Asbestos Project Design, or Asbestos Abatement Work Plan.**

No expressed or implied warranty is made or intended by the rendition of these consulting services or by furnishing oral or written reports of the findings made. ATC reserves the right to revise or amend our opinion in this report in the event new information, documentation, or evidence becomes available.

The client agrees to notify the appropriate local, state, or federal public agencies as required by law, or otherwise to disclose, in a timely manner, information that may be necessary to prevent any danger to public health, safety, or the environment.

ATC appreciates the opportunity to be of service to the Accomack-Northampton County Planning District Commission on this project and we look forward to working with you on future assignments. In the meantime, if you have questions or comments regarding the information in this report or if we can be of further assistance, please do not hesitate to contact Tom Post at (757) 467-2100.

Sincerely,
ATC Group Services LLC

Thomas C. Post II
Industrial Hygiene Project Manager
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Kurt M. Juntunen, CIH, CAP,CMC
Building Science Division Manager
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Attachment:
Attachment I- Microbial/ Asbestos/ LBP Laboratory Analysis
Attachment II- Photo Documentation
Attachment III- XRF Data Sheet
Attachment IV- Certifications
Attachment V- OSHA Lead Regulation

ATTACHMENT I

LABORATORY ANALYSIS

HMC #17007862

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contact@hayesmicrobial.com
http://hayesmicrobial.com/

Analysis Report prepared for

ATC Group Services

211 Expressway Ct
Virginia Beach, VA. 23462
Phone: (757) 467-2100 Fax: (757) 467-9178 #7

Job Number:	**88ACCO7036**
Job Name:	**Northampton Facility Building**
	7247 Young Street
	Machipongo, VA 23405
Date Sampled:	**03-22-2017**
Date Analyzed:	**03-27-2017**
Report Date:	**03-27-2017**

EPA Laboratory ID# VA01419

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ISO/IEC 17025:2005
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LAB #188863

AIHA EMPAT Lab ID# 188863

TEXAS Department of State Health Services

Mold License: LAB1021

Keeping Connecticut Healthy
DPH
Connecticut Department of Public Health

License: #PH-0198

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HMC #17007862

ATC Group Services
211 Expressway Ct
Virginia Beach, VA 23462

March 27, 2017

Client Job Number: 88ACCO7036
Client Job Name: Northampton Facility Building
7247 Young Street
Machipongo, VA 23405

Dear ATC Group Services,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On March 27, 2017 we received 9 samples by FedEx for the job referenced above. 9 samples were received in good condition.

The results in this analysis pertain only to this job, collected on the stated date and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial Consulting. In no event, shall Hayes Microbial Consulting or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of your use of the test results.

Stephen N. Hayes

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC

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Spore Trap Analysis
SOP #HMC101

HMC #17007862

Job Number:	**88ACCO7036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/22/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/27/2017**

HMC ID Number	17007862 - 1	17007862 - 2	17007862 - 3	17007862 - 4
Sample ID#	24055188	24055174	24053705	24053928
Sample Name	Outside Background S	County Office	Cafeteria @ Kitchen	Hall @ Gym @ Room 34
Sample Volume	150 liters	150 liters	150 liters	150 liters
Reporting Limit	7 spores/M3	7 spores/M3	7 spores/M3	7 spores/M3
Background	2	2	2	2
Fragments	ND	ND	ND	ND

Organism	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total
Alternaria	2	13	6.5%									
Ascospores	3	20	10.1%									
Aspergillus|Penicillium	2	13	6.5%	5	33	82.5%	1	7	9.5%	2	13	24.5%
Basidiospores	14	93	46.7%	1	7	17.5%	4	27	36.5%	5	33	62.3%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium	7	47	23.6%				6	40	54.1%	1	7	13.2%
Curvularia												
Epicoccum	2	13	6.5%									
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Unspecified Spore												
Total	30	199		6	40		11	74		8	53	

Water Damage Indicator | Common Allergen | Slightly Higher than Outside Air | Significantly Higher than Outside Air | Ratio Abnormality

Signature: P. Ramesh **Date:** 03/27/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/27/2017

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Spore Trap Analysis
SOP #HMC101

HMC #17007862

Job Number:	**88ACCO7036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/22/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/27/2017**

HMC ID Number	17007862 - 5	17007862 - 6	17007862 - 7	17007862 - 8
Sample ID#	24053656	24053618	24053665	24055171
Sample Name	Room 25	Auditorium @ Stage	Media Center (Library)	Hall @ Room 20
Sample Volume	150 liters	150 liters	150 liters	150 liters
Reporting Limit	7 spores/M3	7 spores/M3	7 spores/M3	7 spores/M3
Background	2	2	2	2
Fragments	ND	ND	ND	ND

Organism	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total
Alternaria												
Ascospores												
Aspergillus|Penicillium				7	47	77.0%	75	500	96.2%	22	147	95.5%
Basidiospores	3	20	60.6%	1	7	11.5%	2	13	2.5%	1	7	4.5%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium	2	13	39.4%	1	7	11.5%						
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces							1	7	1.3%			
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Unspecified Spore												
Total	5	33		9	61		78	520		23	154	

Water Damage Indicator | Common Allergen | Slightly Higher than Outside Air | Significantly Higher than Outside Air | Ratio Abnormality

Signature: P. Ramesh **Date:** 03/27/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/27/2017

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Spore Trap Analysis
SOP #HMC101

HMC #17007862

Job Number:	**88ACCO7036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/22/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/27/2017**

HMC ID Number	17007862 - 9
Sample ID#	24053627
Sample Name	Band Room
Sample Volume	150 liters
Reporting Limit	7 spores/M3
Background	2
Fragments	7/M3

Organism	Raw Count	Count / M3	% of Total
Alternaria	1	7	< 1%
Ascospores			
Aspergillus|Penicillium	800	5333	98.5%
Basidiospores	4	27	< 1%
Bipolaris|Drechslera			
Chaetomium			
Cladosporium	6	40	< 1%
Curvularia			
Epicoccum	1	7	< 1%
Fusarium			
Memnoniella			
Myxomycetes			
Pithomyces			
Stachybotrys			
Stemphylium			
Torula			
Ulocladium			
Unspecified Spore			
Total	812	5414	

Water Damage Indicator | Common Allergen | Slightly Higher than Outside Air | Significantly Higher than Outside Air | Ratio Abnormality

Signature: P. Ramesh **Date:** 03/27/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/27/2017

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Spore Trap Information

HMC #17007862

Reporting Limit	The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated.
Blanks	Results have not been corrected for field or laboratory blanks.
Background	The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 4 and each level is determined as follows: **ND** : No background detected. (Pump or cassette malfunction.) Recollect sample. **1** : <5% of field occluded. No spores will be uncountable. **2** : 5-25% of field occluded. **3** : 25-75% of field occluded. **4** : 75-90% of field occluded. **5** : >90% of field occluded. Suggest recollection of sample.
Fragments	Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.
Indoor/Outdoor Comparisons	There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments.

Water Damage Indicators	These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.
Common Allergens	Although all molds are potential allergens, these are the most common allergens that may be found indoors.
Slightly Higher than Outside Air	The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.
Significantly Higher than Outside Air	The spore count is significantly higher than the outdoor count and probably indicates a source of contamination.
Ratio Abnormality	The types of spores found indoors should be similar to the ones that were identified in the outdoor sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.

Color Note	Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damage indicators.

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Organism Descriptions

HMC #17007862

Alternaria

Habitat: Commonly found outdoors in soil and decaying plants. Indoors, it is commonly found on window sills and other horizontal surfaces.

Health Effects: A common allergen and has been associated with hypersensitivity pneumonitis. Alternaria is capable of producing toxic metabolites which may be associated with disease in humans or animals. Occasionally an agent of onychomycosis, ulcerated cutaneous infection and chronic sinusitis, principally in the immunocompromised patient.

Ascospores

Habitat: A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report.

Health Effects: Health affects are poorly studied, but many are likely to be allergenic.

Aspergillus|Penicillium

Habitat: The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates.

Health Effects: This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions.

Basidiospores

Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings.

Health Effects: Common allergens and are also associated with hypersensitivity pneumonitis.

Cladosporium

Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.

Health Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.

Epicoccum

Habitat: It is found in soil and plant litter and is a plant pathogen. It can grow indoors on a variety of substrates, including paper and textiles and is commonly found on wet drywall.

Health Effects: It is a common allergen. No cases of infection have been reported in humans.

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Organism Descriptions

HMC #17007862

Pithomyces

Habitat: Common fungus isolated from soil, decaying plant material. Rarely found indoors.

Health Effects: Allergenic properties are poorly studied. No cases of infection in humans.

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Company: ATC Group Services
211 Expressway Court
Virginia Beach, VA. 23462

Chain of Custody
Form v.2101208.1
HMC # 007862

Job Number: 88ACCO7036 | Job Name: Northampton Facility Building | Collector: Tom Post | Email: tom.post@atcassociates.com
Date Collected: 03/22/2017 | 7247 Young Street | Notes: Pre-Cal 15 LPM
Mobile: | Machipongo, VA 23405 | Pre-Cal 15 LPM
Exp 02-18

Sample #	Sample Name	Analysis Type	Volume	TAT	Notes
AOC 24055188	Outside Background S	S	150	24h	On: 1124 Off: 1134
24055174	County Office				On: 1125 Off: 1135
24053705	Cafeteria @ Kitchen				On: 1140 Off: 1150
24053928	Hall @ Gym @ Rm 34				On: 1144 Off: 1154
24053656	Room 25				On: 1159 Off: 1209
24053618	Auditorium @ Stage				On: 1206 Off: 1216
24053665	Media Center (Library)				On: 1215 Off: 1225
24055171	Hall @ Room 20				On: 1221 Off: 1231
24053627	Band Room				On: 1232 Off: 1242

Analysis Type		Description	TAT	Acceptable Sample Types
Spore Trap	S	Identification & Enumeration of Fungal Spores	24 Hour	Spore Trap cassettes, Impact slides
	S+	I & E of Fungal Spores + total dander, fiber and pollen count	24 Hour	Spore Trap cassettes, Impact slides
Direc: ID	D	ID and Semi-quantative enumeration of spores and mycelium	24 Hour	Tape, Bio-tape, swab, bulk, agar plate for ID only
	D+	ID and Enumeration with spores count	24 Hour	Tape, Bio-tape, swab, bulk, agar plate for ID only
Culture	C1	Identification & Enumeration of Mold only	7 Day	Anderson Air Plate, Swab, Bulk
	C2	Identification & Enumeration of Bacteria only	4 Day	Anderson Air Plate, Swab, Bulk
	C3	Identification & Enumeration of Mold and Bacteria	7 Day	Anderson Air Plate, Swab, Bulk
	C5	Coliform Screen for Sewage Bacteria	2 Day	Anderson Air Plate, Swab, Bulk
Dust Mite	A1	Semi-quantative analysis of dust mite allergen	24 Hour	Bulk Dust
Particle	P	Total Particulate Analysis	24 Hour	Spore Trap cassettes, Impact slides, Bio-Tape

Relinquished by:	Date:	Rcvd By:	Date:	Time:
	03-22-17		3/27/17	

HMC #17007851

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Analysis Report prepared for

ATC Group Services

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Job Number:	**88ACCO7036**
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EPA Laboratory ID# VA01419

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TEXAS Department of State Health Services

Mold License: LAB1021

Keeping Connecticut Healthy
DPH
Connecticut Department of Public Health

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211 Expressway Ct
Virginia Beach, VA 23462

March 27, 2017

Client Job Number: 88ACCO7036
Client Job Name: Northampton Facility Building
7247 Young Street
Machipongo, VA 23405

Dear ATC Group Services,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On March 27, 2017 we received 8 samples by FedEx for the job referenced above. 8 samples were received in good condition.

The results in this analysis pertain only to this job, collected on the stated date and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial Consulting. In no event, shall Hayes Microbial Consulting or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of your use of the test results.

Stephen N. Hayes

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC

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ATC Group Services
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Phone: (757) 467-2100 Fax: (757) 467-9178 #7

Direct ID Analysis
SOP #HMC102

HMC #17007851

Job Number:	**88ACCO7036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/22/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/27/2017**

HMC ID Number:	**17007851 - 1**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI1**	**Sample Name:**	**Ceiling Tile Surface Hall At Room 33**

Organism	Spore Estimate	Mycelial Estimate	Note
Stachybotrys	Moderate	Few	

HMC ID Number:	**17007851 - 2**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI2**	**Sample Name:**	**Mechanical Room TSI Surface, Boiler 2**

Organism	Spore Estimate	Mycelial Estimate	Note
Stachybotrys	Very Heavy	Many	

HMC ID Number:	**17007851 - 3**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI3**	**Sample Name:**	**CT Surface Hall At Room 29**

Organism	Spore Estimate	Mycelial Estimate	Note
Stachybotrys	Very Heavy	Many	

HMC ID Number:	**17007851 - 4**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI4**	**Sample Name:**	**Door Surface Room 25**

Organism	Spore Estimate	Mycelial Estimate	Note
Cladosporium	Very Heavy	Many	

Signature: Stephen Enders **Date:** 03/27/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/27/2017

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SOP #HMC102

HMC #17007851

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HMC ID Number:	**17007851 - 5**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI5**	**Sample Name:**	**Hall At Room 21 CT Surface**

Organism	Spore Estimate	Mycelial Estimate	Note
Cladosporium	Very Heavy	Many	
Stachybotrys	Very Heavy	Many	

HMC ID Number:	**17007851 - 6**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI6**	**Sample Name:**	**Library Office Door Surface**

Organism	Spore Estimate	Mycelial Estimate	Note
Cladosporium	Very Heavy	Many	

HMC ID Number:	**17007851 - 7**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI7**	**Sample Name:**	**Room 5 Ceiling Drywall Surface**

Organism	Spore Estimate	Mycelial Estimate	Note
Cladosporium	Very Heavy	Many	
Stachybotrys	Very Heavy	Many	

HMC ID Number:	**17007851 - 8**	**Sample Media:**	**Bio-Tape**
Sample ID Number:	**NPDC-DI8**	**Sample Name:**	**Pudney Office HVAC Supply Register**

Organism	Spore Estimate	Mycelial Estimate	Note
Alternaria	Light	Few	
Cladosporium	Heavy	Many	
Stachybotrys	Moderate	Few	

Signature: Stephen Enders **Date:** 03/27/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/27/2017

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Additional Information for Direct Identification Analysis

Spore Estimate		Percentages
ND	None Detected	0%
Rare	Less than 10 spores	< 1%
Light	10 - 99 spores	1-10%
Moderate	100 - 999 spores	11-25%
Heavy	1000 - 9999 spores	26-50%
Very Heavy	10000 or greater spores	51-100%

Mycelial Estimate		
ND	None Detected	No active growth at site
Trace	Very small amount of Mycelium	Probably no active growth at site
Few	Some Mycelium	Possible active growth at site
Many	Large amount of Mycelium	Probable active growth at site

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Organism Descriptions

HMC #17007851

Alternaria

Habitat: Commonly found outdoors in soil and decaying plants. Indoors, it is commonly found on window sills and other horizontal surfaces.

Health Effects: A common allergen and has been associated with hypersensitivity pneumonitis. Alternaria is capable of producing toxic metabolites which may be associated with disease in humans or animals. Occasionally an agent of onychomycosis, ulcerated cutaneous infection and chronic sinusitis, principally in the immunocompromised patient.

Cladosporium

Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.

Health Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.

Stachybotrys

Habitat: Commonly found in soil and on decaying plant material. It is cellulolytic, and can be found indoors on wet materials containing cellulose, such as wallboard, ceiling tile, and other paper-based materials. It is found outdoors on decaying plant material although it is rarely detected on outdoor air samples.

Health Effects: Allergenic properties are poorly studied and no cases of infection have been reported in humans. They do however produce potent tricothecene mycotoxins. The toxins produced by this fungus can suppress the immune system affecting the lymphoid tissue and the bone marrow. The mycotoxin is also reported to be a liver and kidney carcinogen.

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Company: ATC Group Services
211 Expressway Court
Virginia Beach, VA. 23462

Chain of Custody

Form v.2101208.1

HMC # 107851

Job Number: 88ACCO7036	Job Name: Northampton Facility Building	Collector: Tom Post	Email: tom.post@atcassociates.com
Date Collected: 03/22/2017	7247 Young Street	Notes:	
Mobile:	Machipongo, VA 23405		

BT

Sample #	Sample Name	Analysis Type	Volume	TAT	Notes
NPDC-DI1	Ceiling tile surface, hall @ Room 33	D	N/A	24	
NPDC-DI2	Mech Rm TSI surface, Boiler #2				
NPDC-DI3	CT surface, hall @ Room 29				
NPDC-DI4	Door Surface Rm 25				
NPDC-DI5	Hall @ RM 21, CT surface				
NPDC-DI6	Library, office door surface				
NPDC-DI7	Room 5, ceiling drywall surface				
NPDC-DI8	Pudney Office, HVAC supply register				

Analysis Type		Description	TAT	Acceptable Sample Types
Spore Trap	S	Identification & Enumeration of Fungal Spores	24 Hour	Spore Trap cassettes, Impact slides
	S+	I & E of Fungal Spores + total dander, fiber and pollen count	24 Hour	Spore Trap cassettes, Impact slides
Direct ID	D	ID and Semi-quantative enumeration of spores and mycelium	24 Hour	Tape, Bio-tape, swab, bulk, agar plate for ID only
	D+	ID and Enumeration with spores count	24 Hour	Tape, Bio-tape, swab, bulk, agar plate for ID only
Culture	C1	Identification & Enumeration of Mold only	7 Day	Anderson Air Plate, Swab, Bulk
	C2	Identification & Enumeration of Bacteria only	4 Day	Anderson Air Plate, Swab, Bulk
	C3	Identification & Enumeration of Mold and Bacteria	7 Day	Anderson Air Plate, Swab, Bulk
	C5	Coliform Screen for Sewage Bacteria	2 Day	Anderson Air Plate, Swab, Bulk
Dust Mite	A1	Semi-quantative analysis of dust mite allergen	24 Hour	Bulk Dust
Particle	P	Total Particulate Analysis	24 Hour	Spore Trap cassettes, Impact slides, Bio-Tape

Relinquished by:	Date: 3-22-17	Rcvd By: BT	Date: 3/27/17	Time:

HMC #17007837

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contact@hayesmicrobial.com
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Analysis Report prepared for

ATC Group Services

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Job Number:	**88ACC07036**
Job Name:	**Northampton Facility Building**
	7247 Young Street
	Machipongo, VA 23405
Date Sampled:	**03-24-2017**
Date Analyzed:	**03-29-2017**
Report Date:	**03-29-2017**

EPA Laboratory ID# VA01419

NVLAP Lab Code: 500096-0

Asbestos License: 300435

License: #PH-0198

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ATC Group Services
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March 29, 2017

Client Job Number: 88ACC07036
Client Job Name: Northampton Facility Building
7247 Young Street
Machipongo, VA 23405

Dear ATC Group Services,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On March 27, 2017 we received 66 samples by FedEx for the job referenced above. 66 samples were received in good condition.

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EPA 600/R-93, M-4/82-020 (PLM)

HMC #17007837

Job Number:	**88ACC07036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/24/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/29/2017**

#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
1	NPDC-AB-1	TSI Seam Seal White Chil Water	Brittle / Tan/White	(None Detected)	5 % Mineral/Glass wool	95 %
2	NPDC-AB-2	TSI Seam Seal White Hot Water	Brittle / Gray	(None Detected)	8 % Mineral/Glass wool	92 %
3	NPDC-AB-3	TSI Seam Seal White Expand Tank	Rubbery / White	(None Detected)	(None Detected)	100 %
4	NPDC-AB-4	2ft x 4ft CT Fissured Gray/White Rm 31	Fibrous / Gray	(None Detected)	45 % Cellulose fibers 30 % Fiberglass	25 %
5	NPDC-AB-5	2ft x 4ft CT Fissured Gray/White Gall at Rm 24	Fibrous / Gray	(None Detected)	45 % Cellulose fibers 30 % Fiberglass	25 %
6	NPDC-AB-6	2ft x 4ft CT Fissured Gray/White Rm 16	Fibrous / Gray	(None Detected)	45 % Cellulose fibers 30 % Fiberglass	25 %
7	NPDC-AB-7	12in x 12in Ft White/Mottled Adhesive Tan Rm 33	Tile / White	(None Detected)	(None Detected)	100 %
	Layer 2	12in x 12in Ft White/Mottled Adhesive Tan Rm 33	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
8	NPDC-AB-8	12in x 12in FT White/Mottled Adhesive Tan Rm 26	Tile / White	(None Detected)	(None Detected)	100 %
	Layer 2	12in x 12in FT White/Mottled Adhesive Tan Rm 26	Adhesive / Brown	(None Detected)	3 % Cellulose fibers	97 %
9	NPDC-AB-9	12in x 12in FT White/Mottled Adhesive Tan Rm 13	Tile / White	(None Detected)	(None Detected)	100 %

Signature: _____ **Date:** 03/29/2017 **Reviewed by:** _____ **Date:** 03/29/2017

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#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
	Layer 2	12in x 12in FT White/Mottled Adhesive Tan Rm 13	Adhesive / Brown	(None Detected)	5 % Cellulose fibers	95 %
10	NPDC-AB-10	9in x 9in FT Blk Mastic Blk Rm 33	Tile / Black	**3 % Chrysotile**	(None Detected)	97 %
	Layer 2	9in x 9in FT Blk Mastic Blk Rm 33	Mastic / Black	**5 % Chrysotile**	(None Detected)	95 %
11	NPDC-AB-11	9in x 9in FT Blk Mastic Blk Gym Men's Rm	Tile /			
		Notes: Not Analyzed: Positive Stop.				
	Layer 2	9in x 9in FT Blk Mastic Blk Gym Men's Rm	Mastic /			
		Notes: Not Analyzed: Positive Stop.				
12	NPDC-AB-12	9in x 9in FT BLk Mastic Blk Gym Ladies Rm	Tile /			
		Notes: Not Analyzed: Positive Stop.				
	Layer 2	9in x 9in FT BLk Mastic Blk Gym Ladies Rm	Mastic /			
		Notes: Not Analyzed: Positive Stop.				
13	NPDC-AB-13	9in x 9in FT Red Mastic Blk Rm 33	Tile / Red	**3 % Chrysotile**	(None Detected)	97 %
	Layer 2	9in x 9in FT Red Mastic Blk Rm 33	Adhesive / Black	(None Detected)	(None Detected)	100 %

Signature: _____ **Date:** **03/29/2017** **Reviewed by:** Stephen N. Hayes **Date:** **03/29/2017**

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#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
14	NPDC-AB-14	9in x 9in FT Red Mastic Blk Gym Men's Rm	Tile /			
		Notes: Not Analyzed: Positive Stop.				
	Layer 2	9in x 9in FT Red Mastic Blk Gym Men's Rm	Mastic / Black	(None Detected)	(None Detected)	100 %
15	NPDC-AB-15	9in x 9in FT Red Mastic Blk Main Office AHU Closet	Tile /			
		Notes: Not Analyzed: Positive Stop.				
	Layer 2	9in x 9in FT Red Mastic Blk Main Office AHU Closet	Mastic / Black	(None Detected)	(None Detected)	100 %
16	NPDC-AB-16	9in x 9in FT White Mastic Blk Rm 33	Tile / Brown	**4 % Chrysotile**	(None Detected)	96 %
	Layer 2	9in x 9in FT White Mastic Blk Rm 33	Mastic / Black	**8 % Chrysotile**	(None Detected)	92 %
17	NPDC-AB-17	9in x 9in FT White Mastic Blk Gym Men's Rm	Tile / Brown			
		Notes: Not Analyzed: Positive Stop.				
	Layer 2	9in x 9in FT White Mastic Blk Gym Men's Rm	Mastic /			
		Notes: Not Analyzed: Positive Stop.				
18	NPDC-AB-18	9in x 9in FT White Mastic Blk Main Office AHU...	Tile /			
		Notes: Not Analyzed: Positive Stop.				

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#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
	Layer 2	9in x 9in FT White Mastic Blk Main Office AHU...	Mastic /			
		Notes: Not Analyzed: Positive Stop.				
19	NPDC-AB-19	12in x 12in FT Gray Adhesive Tan Hall at Gym	Tile / Gray	(None Detected)	(None Detected)	100 %
	Layer 2	12in x 12in FT Gray Adhesive Tan Hall at Gym	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
20	NPDC-AB-20	12in x 12in FT Gray Adhesive Tan Clinic	Tile / Gray	(None Detected)	(None Detected)	100 %
	Layer 2	12in x 12in FT Gray Adhesive Tan Clinic	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
21	NPDC-AB-21	12in x 12in FT Gray Adhesive Tan Hall at Rm 19	Tile / Gray	(None Detected)	(None Detected)	100 %
	Layer 2	12in x 12in FT Gray Adhesive Tan Hall at Rm 19	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
22	NPDC-AB-22	VCB Blk Adhesive Tan Rm 32	Cove Base / Black	(None Detected)	(None Detected)	100 %
	Layer 2	VCB Blk Adhesive Tan Rm 32	Adhesive / Tan	(None Detected)	(None Detected)	100 %
23	NPDC-AB-23	VCB Blk Adhesive Tan Rm 23	Cove Base / Black	(None Detected)	(None Detected)	100 %

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#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
	Layer 2	VCB Blk Adhesive Tan Rm 23	Adhesive / Tan	(None Detected)	(None Detected)	100 %
24	NPDC-AB-24	VCB Brown Adhesive Tan Library	Cove Base / Brown	(None Detected)	(None Detected)	100 %
	Layer 2	VCB Brown Adhesive Tan Library	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
25	NPDC-AB-25	VCB Gray Adhesive Tan Gym at Ladies Rm	Cove Base / Gray	(None Detected)	(None Detected)	100 %
	Layer 2	VCB Gray Adhesive Tan Gym at Ladies Rm	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
26	NPDC-AB-26	VCB Gray Adhesive Tan Clinic	Cove Base / Gray	(None Detected)	(None Detected)	100 %
	Layer 2	VCB Gray Adhesive Tan Clinic	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
27	NPDC-AB-27	VCB Gray Adhesive Tan Hall at Rm 19	Cove Base / Gray	(None Detected)	(None Detected)	100 %
	Layer 2	VCB Gray Adhesive Tan Hall at Rm 19	Adhesive / Yellow	(None Detected)	(None Detected)	100 %
28	NPDC-AB-28	Roof Deck White Hall at Rm 27	Brittle / White	(None Detected)	(None Detected)	100 %
29	NPDC-AB-29	Roof Deck White Cafeteria	Brittle / White	(None Detected)	3 % Cellulose fibers	97 %

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#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
30	NPDC-AB-30	Roof Deck White Rm 23	Brittle / White	(None Detected)	(None Detected)	100 %
31	NPDC-AB-31	2ft x 4ft CT Wormhole Gray/White Kitchen Serv	Fibrous / Gray	(None Detected)	45 % Cellulose fibers 30 % Fiberglass	25 %
32	NPDC-AB-32	2ft x 4ft CT Wormhole Gray/White Kitchen at Wash	Fibrous / Gray	(None Detected)	45 % Cellulose fibers 30 % Fiberglass	25 %
33	NPDC-AB-33	AHU Vibe Damp Cloth White Gym Boy's Locker Room	Fibrous / Tan	(None Detected)	70 % Synthetic Fiber	30 %
34	NPDC-AB-34	AHU Vibe Damp Cloth Whtie Auditorium Equip Rm	Fibrous / Gray	(None Detected)	80 % Synthetic Fiber	20 %
35	NPDC-AB-35	Ceiling Plaster SC White Gym AHU Closet Boys	Brittle / White	(None Detected)	(None Detected)	100 %
36	NPDC-AB-36	Ceiling Plaster SC White Gym Boys Locker Room	Brittle / White	(None Detected)	(None Detected)	100 %
37	NPDC-AB-37	Ceiling Plaster SC White Gym Girls Locker Room	Brittle / White	(None Detected)	(None Detected)	100 %
38	NPDC-AB-38	Ceiling BC Brown Gym AHU Closet Boys	Cementitious / Gray	(None Detected)	2 % Animal Hair	98 %
39	NPDC-AB-39	Ceiling BC Brown Gym Boys Locker Room	Granular / Gray	(None Detected)	(None Detected)	100 %
40	NPDC-AB-40	Ceiling BC Brown Gym Girls Locker Room	Granular / Gray	(None Detected)	2 % Animal Hair	98 %

Signature: _____ **Date:** 03/29/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/29/2017

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Phone: (757) 467-2100 Fax: (757) 467-9178 #7

EPA 600/R-93, M-4/82-020 (PLM)

HMC #17007837

Job Number:	**88ACC07036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/24/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/29/2017**

#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
41	NPDC-AB-41	Window Glaze Gray Interior Room 33	Brittle / White	**3 % Chrysotile**	(None Detected)	97 %
42	NPDC-AB-42	Window Glaze Gray Interior Hall at Gym	/			
		Notes: Not Analyzed: Positive Stop.				
43	NPDC-AB-43	Window Glaze Gray Interior Room 29	/			
		Notes: Not Analyzed: Positive Stop.				
44	NPDC-AB-44	Carpet Adhesive Tan Main Office	Adhesive / Brown	(None Detected)	3 % Cellulose fibers	97 %
45	NPDC-AB-45	Carpet Adhesive Tan Office at 26	Adhesive / Brown	(None Detected)	3 % Cellulose fibers	97 %
46	NPDC-AB-46	Sink Basin Gray Room 27	Cementitious / Gray	(None Detected)	(None Detected)	100 %
47	NPDC-AB-47	Sink Mastic Gray Room 24	Brittle / Gray	(None Detected)	8 % Cellulose fibers	92 %
48	NPDC-AB-48	Sink Mastic Black Info Tech	Brittle / Black	(None Detected)	(None Detected)	100 %
49	NPDC-AB-49	Doors ins White Auditorium Equip Rm Door	Fibrous / Tan	(None Detected)	90 % Mineral/Glass wool	10 %
50	NPDC-AB-50	12in x 12in FT Gray/Mottled Mastic Blk Auditorium	Tile / Gray/Green	**3 % Chrysotile**	(None Detected)	97 %

Signature: _____ **Date:** **03/29/2017** **Reviewed by:** Stephen N. Hayes **Date:** **03/29/2017**

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EPA 600/R-93, M-4/82-020 (PLM)

HMC #17007837

Job Number:	**88ACC07036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/24/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/29/2017**

#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
	Layer 2	12in x 12in FT Gray/Mottled Mastic Blk Auditorium	Mastic / Black	8 % Chrysotile	(None Detected)	92 %
51	NPDC-AB-51	12in x 12in FT Gray/Mottled Mastic Blk Auditorium	Tile /			
		Notes: Not Analyzed: Positive Stop.				
	Layer 2	12in x 12in FT Gray/Mottled Mastic Blk Auditorium	Mastic /			
		Notes: Not Analyzed: Positive Stop.				
52	NPDC-AB-52	Drywall JC White Ceiling Skylight at Boy's Locker	Brittle / White	(None Detected)	(None Detected)	100 %
53	NPDC-AB-53	Drywall JC White Media Center Library	Brittle / White	(None Detected)	(None Detected)	100 %
54	NPDC-AB-54	Drywall JC White Deitch Office	Brittle / White	(None Detected)	(None Detected)	100 %
55	NPDC-AB-55	Drywall White Ceiling Skylight at Boy's Locker	Debris / White	(None Detected)	(None Detected)	100 %
56	NPDC-AB-56	Drywall White Media Center Library	Brittle / White	(None Detected)	(None Detected)	100 %
57	NPDC-AB-57	Ext Window Glaze White at Room 23	Glazing / White	(None Detected)	(None Detected)	100 %
58	NPDC-AB-58	Ext Window Glaze White at Room 30	Brittle / White	(None Detected)	(None Detected)	100 %

Signature: _____ **Date:** **03/29/2017** **Reviewed by:** Stephen N. Hayes **Date:** **03/29/2017**

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EPA 600/R-93, M-4/82-020 (PLM)

HMC #17007837

Job Number:	**88ACC07036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/24/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/29/2017**

#	Sample	Name	Description	Asbestos Fibers	Other Fibers	Non- Fibers
59	NPDC-AB-59	Ext Window Glaze White at Room 32	Brittle / White	(None Detected)	(None Detected)	100 %
60	NPDC-AB-60	Ext Door Case Caulk Brown Main Entrance	Caulk / Red	(None Detected)	(None Detected)	100 %
61	NPDC-AB-61	Ext Door Case Caulk Brown Kitchen	Caulk / Red	(None Detected)	(None Detected)	100 %
62	NPDC-AB-62	Ext Door Care Caulk Brown N Wing at Rm 34	Caulk / Red	(None Detected)	(None Detected)	100 %
63	NPDC-AB-63	Ext Window Case Caulk Old at Room 25	Caulk / White	(None Detected)	(None Detected)	100 %
64	NPDC-AB-64	Ext Window Case Caulk Old at Room 31	Caulk / White	(None Detected)	(None Detected)	100 %
65	NPDC-AB-65	Ext Window Case Caulk White New at Room 26	Caulk / White	(None Detected)	(None Detected)	100 %
66	NPDC-AB-66	Ext Window Case Caulk WHite New at Room 9	Caulk / Gray	(None Detected)	(None Detected)	100 %

Signature: _____ **Date:** **03/29/2017** **Reviewed by:** Stephen N. Hayes **Date:** **03/29/2017**

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Asbestos - Additional Information

HMC #17007837

All samples were received in acceptable condition unless otherwise noted on the report. The Report must not be used by the client to claim product certification, approval, or endorsement by: AIHA, NIST, NVLAP NY ELAP, or any agency. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested. None detected: Below the detected reporting limit of 1% unless point counting is performed, then the detected, reporting limit is .25%. Per NY ELAP198.6 (NOB) TEM is the only reliable method to declare an NOB material as Non-Asbestos Containing. Hayes Microbial Consulting reserves the right to dispose of all samples after a period of 60 days in compliance with state and federal guidelines.

Signature: _____ **Date:** 03/29/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/29/2017

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211 Expressway Court
Virginia Beach, VA. 23462

Asbestos - Chain of Custody

Form v.101302.5

HMC # 007837

Job Number: 88ACCO7036 | Job Name: Northampton Facility Building | Collector: Tom Post | Email: tom.post@atcassociates.com

Date Collected: 3/24/2017 | 7247 Young Street | Notes: **Please Note Positive Stops**

Mobile: | Machipongo, VA 23405

Sample #	Sample Name	Analysis Type	Volume	TAT	Group #	Pos. Stop
NPDC-AB 1	TSI Seam seal, white, Chil water	PLM	N/A	2 Day	HA 1	✓
NPDC-AB 2	, hot water					
NPDC-AB 3	, expand tank					
NPDC-AB 4	2'x4' CT, fissured, gray/white, Rm 31				HA 2	✓
NPDC-AB 5	, Hall @ Rm 24					
NPDC-AB 6	, Rm 16					
NPDC-AB 7	12"x12" FT, white/mottled, adhesive tan, Rm 33				HA 3	✓
NPDC-AB 8	, Rm 26					
NPDC-AB 9	, Rm 13					
NPDC-AB 10	9"x9" FT, blk, mastic, blk, Rm 33				HA 4	✓
NPDC-AB 11	, Gym mens Rm					
NPDC-AB 12	, Gym ladies Rm					

Analysis Type		Description	Available Turn-Around Times
PLM	PLM	EPA 600/R-93/116, M-4/82-020	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	PC	EPA Point Count	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	NY	NYSDOH ELAP 198.1, 198.6	1 Day, 2 Day, 3 Day, 5 Day
PCM	PCM	NIOSH 7400	Same Day, 1 Day, 2 Day, 3 Day, 5 Day
TEM	TEM-A	TEM Air (AHERA)	1 Day, 2 Day, 3 Day, 5 Day
	TEM-C	TEM Bulk (Chatfield)	1 Day, 2 Day, 3 Day, 5 Day

Relinquished by:	Date:	Rcvd By:	Date:	Time:
II	03-24-17	03/27/17		

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Asbestos - Chain of Custody

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HMC # 007837

Job Number: 88ACCO7036 | Job Name: Northampton Facility Building | Collector: Tom Post | Email: tom.post@atcassociates.com

Date Collected: 3/24/2017 | 7247 Young Street | Notes: **Please Note Positive Stops**

Mobile: | Machipongo, VA 23405

Sample #	Sample Name	Analysis Type	Volume	TAT	Group #	Pos. Stop
NPDC-AB13	9"x9" FT, red, mastic blk, Rm 33	PLM	N/A	2 Day	HA5	✓
NPDC-AB14	, Gym mens rm					
NPDC-AB15	, Main Office AHU closet					
NPDC-AB16	9"x9" FT, white, mastic blk, Rm 33				HA6	✓
NPDC-AB17	, Gym mens rm					
NPDC-AB18	, Main office AHU Closet					
NPDC-AB19	12"x12" FT, gray, adhesive tan, Hall @ Gym				HA7	✓
NPDC-AB20	, Clinic					
NPDC-AB21	, Hall @ Rm 19					
NPDC-AB22	VCB blk, adhesive tan, Rm 32				HA8	✓
NPDC-AB23	, Rm 23					
~~NPDC-AB24~~						
NPDC-AB24	VCB brown, adhesive tan, library					

Analysis Type		Description	Available Turn-Around Times
PLM	PLM	EPA 600/R-93/116, M-4/82-020	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	PC	EPA Point Count	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	NY	NYSDOH ELAP 198.1, 198.6	1 Day, 2 Day, 3 Day, 5 Day
PCM	PCM	NIOSH 7400	Same Day, 1 Day, 2 Day, 3 Day, 5 Day
TEM	TEM-A	TEM Air (AHERA)	1 Day, 2 Day, 3 Day, 5 Day
	TEM-C	TEM Bulk (Chatfield)	1 Day, 2 Day, 3 Day, 5 Day

Relinquished by:	Date:	Rcvd By:	Date:	Time:
TT	03-24-17	03/27/17		

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HMC # 007837

Job Number: 88ACCO7036	Job Name: Northampton Facility Building	Collector: Tom Post	Email: tom.post@atcassociates.com
Date Collected: 3/24/2017	7247 Young Street	Notes: **Please Note Positive Stops**	
Mobile:	Machipongo, VA 23405		

Sample #	Sample Name	Analysis Type	Volume	TAT	Group #	Pos. Stop
NPDC-AB25	VCB gray, adhesive tan, Gym @ ladies rm	PLM	N/A	2 Day	HA9	✓
NPDC-AB26	↓ ↓ ,Clinic	↓	↓	↓	↓	
NPDC-AB27	↓ ↓ ,Hall @ Rm 19	↓	↓	↓	↓	
NPDC-AB28	Roof deck, white, Hall @ rm 27	↓	↓	↓	HA 10	✓
NPDC-AB29	↓ ,Cafeteria	↓	↓	↓	↓	
NPDC-AB30	↓ ,Rm 23	↓	↓	↓	↓	
NPDC-AB31	2'x4' CT, wormhole, gray/white, kitchen serv	↓	↓	↓	HA 11	✓
NPDC-AB32	↓ ↓ ,Kitchen@wash	↓	↓	↓	↓	
NPDC-AB33	AHU Vibe damp cloth, white, Gym boys lockeroom	↓	↓	↓	HA 12	✓
NPDC-AB34	↓ ↓ ,Auditorium equip rm.	↓	↓	↓	↓	
NPDC-AB35	Ceiling plaster, SC, white, Gym AHU closet (boys)	↓	↓	↓	HA 13	✓
NPDC-AB36	↓ ↓ ,Gym boys lockeroom	↓	↓	↓	↓	
NPDC-AB37	↓ ↓ ,Gym girls lockroom	↓	↓	↓	↓	

Analysis Type		Description	Available Turn-Around Times
PLM	PLM	EPA 600/R-93/116, M-4/82-020	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	PC	EPA Point Count	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	NY	NYSDOH ELAP 198.1, 198.6	1 Day, 2 Day, 3 Day, 5 Day
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TEM	TEM-A	TEM Air (AHERA)	1 Day, 2 Day, 3 Day, 5 Day
	TEM-C	TEM Bulk (Chatfield)	1 Day, 2 Day, 3 Day, 5 Day

Relinquished by:	Date:	Rcvd By:	Date:	Time:
[signature] II	03-24-17	03/27/17		

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Asbestos - Chain of Custody

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HMC # 007837

Job Number: 88ACCO7036	Job Name: Northampton Facility Building	Collector: Tom Post	Email: tom.post@atcassociates.com
Date Collected: 3/24/2017	7247 Young Street	Notes: **Please Note Positive Stops**	
Mobile:	Machipongo, VA 23405		

Sample #	Sample Name	Analysis Type	Volume	TAT	Group #	Pos. Stop
NPDC-AB38	Ceiling BC, brown, Gym AHU closet, boys	PLM	N/A	2 Day	HA14	✓
NPDC-AB39	↓ ↓ ,Gym boys locker room	↓	↓	↓		
NPDC-AB40	↓ ↓ ,Gym girls locker room	↓	↓	↓		
NPDC-AB41	Window glaze, gray, interior, Room 33	↓	↓	↓	HA15	✓
NPDC-AB42	↓ ,Hall @ gym	↓	↓	↓		
NPDC-AB43	↓ ,Room 29	↓	↓	↓		
NPDC-AB44	Carpet adhesive, tan, main office	↓	↓	↓	HA16	✓
NPDC-AB45	↓ ↓ Office @ 26	↓	↓	↓	↓	
NPDC-AB46	Sink basin, gray, Room 27	↓	↓	↓	—	—
NPDC-AB47	Sink mastic, gray, Room 24	↓	↓	↓	—	—
NPDC-AB48	Sink mastic, black, Info Tech	↓	↓	↓	—	—
NPDC-AB49	Door ins, white, auditorium equip rm door	↓	↓	↓	—	—
NPDC-AB50	12"x12" FT, gray/mottled, mastic blk, Audotorium	↓	↓	↓	HA17	✓
NPDC-AB51	↓ ↓	↓	↓	↓	↓	

Analysis Type		Description	Available Turn-Around Times
PLM	PLM	EPA 600/R-93/116, M-4/82-020	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
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TEM	TEM-A	TEM Air (AHERA)	1 Day, 2 Day, 3 Day, 5 Day
	TEM-C	TEM Bulk (Chatfield)	1 Day, 2 Day, 3 Day, 5 Day

Relinquished by:	Date:	Rcvd By:	Date:	Time:
II	03-24-17	03/27/17		

(4)

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Asbestos - Chain of Custody

Form v.101302.5

HMC # 007837

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Date Collected: 3/24/2017	7247 Young Street	Notes: **Please Note Positive Stops**	
Mobile:	Machipongo, VA 23405		

Sample #	Sample Name	Analysis Type	Volume	TAT	Group #	Pos. Stop
NPDC-AB52	Drywall JC, white, ceiling skylight @ boys locker	PLM	N/A	2 Day	HA18	✓
NPDC-AB53	, media center - library					
NPDC-AB54	, Deitch office					
NPDC-AB55	Drywall white, ceiling skylight @ boys locker				HA19	✓
NPDC-AB56	, media center - library					
NPDC-AB57	Ext. window glaze, white, @ room 23				HA20	✓
NPDC-AB58	, @ room 30					
NPDC-AB59	, @ room 32					
NPDC-AB60	Ext. door case caulk, brown, main enterance				HA21	✓
NPDC-AB61	, Kitchen					
NPDC-AB62	, N wing @ rm 34					
NPDC-AB63	Ext. wind case caulk, old, @ room 25				HA22	✓
NPDC-AB64	@ room 31					

Analysis Type		Description	Available Turn-Around Times
PLM	PLM	EPA 600/R-93/116, M-4/82-020	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	PC	EPA Point Count	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
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PCM	PCM	NIOSH 7400	Same Day, 1 Day, 2 Day, 3 Day, 5 Day
TEM	TEM-A	TEM Air (AHERA)	1 Day, 2 Day, 3 Day, 5 Day
	TEM-C	TEM Bulk (Chatfield)	1 Day, 2 Day, 3 Day, 5 Day

Relinquished by:	Date:	Rcvd By: 03/27/17	Date:	Time:

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Asbestos - Chain of Custody

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HMC # 007837

Job Number: 88ACCO7036 | Job Name: Northampton Facility Building | Collector: Tom Post | Email: tom.post@atcassociates.com

Date Collected: 3/24/2017 | 7247 Young Street | Notes: **Please Note Positive Stops**

Mobile: | Machipongo, VA 23405

Sample #	Sample Name	Analysis Type	Volume	TAT	Group #	Pos. Stop
NPDC-AB65	Ext. window case caulk, white, new, @ sm 26	PLM	N/A	2 Day	HA23	✓
NPDC-AB66	↓ ↓ ↓ , @ sm 9	↓	↓	↓	↓	

Analysis Type		Description	Available Turn-Around Times
PLM	PLM	EPA 600/R-93/116, M-4/82-020	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
	PC	EPA Point Count	3 Hour, Same Day, 1 Day, 2 Day, 3 Day, 5 Day
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TEM	TEM-A	TEM Air (AHERA)	1 Day, 2 Day, 3 Day, 5 Day
	TEM-C	TEM Bulk (Chatfield)	1 Day, 2 Day, 3 Day, 5 Day

Relinquished by:	Date:	Rcvd By:	Date:	Time:
II	03-24-17	03/27/17		

HMC #17007838

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contact@hayesmicrobial.com
http://hayesmicrobial.com/

Analysis Report prepared for

ATC Group Services

211 Expressway Ct
Virginia Beach, VA. 23462
Phone: (757) 467-2100 Fax: (757) 467-9178 #7

Job Number:	**88ACC07036**
Job Name:	**Northampton Facility Building**
	7247 Young Street
	Machipongo, VA 23405
Date Sampled:	**03-24-2017**
Date Analyzed:	**03-29-2017**
Report Date:	**03-29-2017**

EPA Laboratory ID# VA01419

NVLAP Lab Code: 500096-0

Asbestos License: 300435

License: #PH-0198

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HMC #17007838

ATC Group Services
211 Expressway Ct
Virginia Beach, VA 23462

March 29, 2017

Client Job Number: 88ACC07036
Client Job Name: Northampton Facility Building
7247 Young Street
Machipongo, VA 23405

Dear ATC Group Services,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On March 27, 2017 we received 13 samples by FedEx for the job referenced above. 13 samples were received in good condition.

The results in this analysis pertain only to this job, collected on the stated date and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial Consulting. In no event, shall Hayes Microbial Consulting or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of your use of the test results.

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC

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Lead Analysis

HMC #17007838

Job Number:	**88ACC07036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/24/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/29/2017**

HMC ID Number:	17007838 - 1	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-1	Sample Name:	Yellow Floor Paint Mechanical Room		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
333.00	<10.0	<0.00301	<30.1		

HMC ID Number:	17007838 - 2	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-2	Sample Name:	Red Wooden Bench Top Rocker Room		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
190.00	29.6	0.0156	156	Sample Weight below Method Guidelines	

HMC ID Number:	17007838 - 3	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-3	Sample Name:	White CMU Wall Paint Cafeteria/Kitchen		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
336.00	<10.0	<0.00298	<29.8		

HMC ID Number:	17007838 - 4	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-4	Sample Name:	Red Door/Door Frame Paint SE Hall Exit		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
337.00	171	0.0509	509		

HMC ID Number:	17007838 - 5	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-5	Sample Name:	Yellow Door/Door Frame Paint Room 24		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
345.00	99.5	0.0288	288		

Signature: _____ **Date:** 03/29/2017 **Reviewed by:** _____ **Date:** 03/29/2017

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Lead Analysis

HMC #17007838

Job Number:	**88ACC07036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/24/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/29/2017**

HMC ID Number:	17007838 - 6	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-6	Sample Name:	Pink Door/Door Frame Paint Room 30		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
339.00	309	0.0912	912		

HMC ID Number:	17007838 - 7	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-7	Sample Name:	Green Door/Door Frame Paint Room 151		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
329.00	114	0.0346	346		

HMC ID Number:	17007838 - 8	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-8	Sample Name:	White Paint on CMV Walls 1993 Addition		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
343.00	<10.0	<0.00292	<29.2		

HMC ID Number:	17007838 - 9	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-9	Sample Name:	Yellow Paint on Gypsum Wall Library		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
332.00	<10.0	<0.00302	<30.2		

HMC ID Number:	17007838 - 10	Sample Media:	Bulk		
Sample ID Number:	NPDC-LP-10	Sample Name:	White Paint on Gypsum Wall Admin		
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**	
322.00	<10.0	<0.00311	<31.1		

Signature: _____ **Date:** 03/29/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/29/2017

HAYES
MICROBIAL CONSULTING
3005 East Boundary Terrace, #F
Midlothian, VA 23112, USA
804.562.3435 Fax: 804.447.5562

ATC Group Services
211 Expressway Ct
Virginia Beach, VA 23462
Phone: (757) 467-2100 Fax: (757) 467-9178 #7

Lead Analysis

HMC #17007838

Job Number:	**88ACC07036**	Job Name:	**Northampton Facility Building**	Date Collected:	**03/24/2017**
Collected by:	**Tom Post**		**7247 Young Street**	Date Received:	**03/27/2017**
Email:	**tom.post@atcassociates.com**		**Machipongo, VA 23405**	Date Reported:	**03/29/2017**

HMC ID Number:	17007838 - 11	Sample Media:	Bulk	
Sample ID Number:	NPDC-LP-11	Sample Name:	Yellow/Red/Green Paint on CMV Auditorium	
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**
317.00	186	0.0586	586	

HMC ID Number:	17007838 - 12	Sample Media:	Bulk	
Sample ID Number:	NPDC-LP-12	Sample Name:	White Pain on CMV Auditorium	
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**
328.00	299	0.0911	911	

HMC ID Number:	17007838 - 13	Sample Media:	Bulk	
Sample ID Number:	NPDC-LP-13	Sample Name:	Whit Exterior Paint on Concrete at Entry Ways	
Sample Weight (mg)	**Total Lead (ug)**	**% Lead by Weight**	**Lead Concentration (PPM)**	**Note**
336.00	<10.0	<0.00298	<29.8	

Signature: _____ **Date:** 03/29/2017 **Reviewed by:** Stephen N. Hayes **Date:** 03/29/2017

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Lead in Air Analysis

The OSHA Action Level for Lead in Air is 30 ug/m^3. The OSHA Permissable Exposure Limit for an 8 Hour Time Weighted Average is 50ug/m^3. Sample Results denoted with a "less than" (<) symbol contain less than 2.00ug total lead, based on a 10mL volume.

Dust Wipe Lead Analysis

The Federal lead guidelines for dust clearance levels by wipe sampling: Floors (FL) - 40ug/ft^2, Interior Window Sills (SL) - 250ug/ft^2, Window Wells (WW) - 400ug/ft^2. The reporting limit is 10.0ug Total Pb.

Paint Chip Lead Analysis

The HUD lead guidelines for lead paint chips are 0.50% by weight, 5000 ppm, or 1.0mg/cm^2. The reporting Limit is 10ug Total Pb.

Water Lead Analysis

Minimum Reporting Limit: 5ppb. EPA MCL: [15ppb](40 CFR 141.\, 7/1/99). Data precision justifies 2 signifigant figures.

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Company: ATC Group Services
211 Expressway Court
Virginia Beach, VA 23462

Lead - Chain of Custody

Form v.101308.1

HMC # 807838

Job Number: 88ACCO7036	Job Name: Northampton Facility Building	Collector: Tom Post	Email: tom.post@atcassociates.com
Date Collected: 3/24/2017	7247 Young Street	Notes:	
Mobile:	Machipongo, VA 23405		

Sample #	Sample Name	Analysis Type	Volume	TAT	Notes
NPDC-LP-1	Yellow floor paint, mechanical room	LP	N/A	2 Day	
NPDC-LP-2	Red wooden bench top, locker room				
NPDC-LP-3	White CMU wall paint, cafeteria/kitchen				
NPDC-LP-4	Red door/~~fire~~ door frame paint, SE hall exit				
NPDC-LP-5	Yellow door/door frame paint, Room 24				
NPDC-LP-6	Pink door/door frame paint, Room 30				
NPDC-LP-7	Green door/door frame paint, Rooms 15?				
NPDC-LP-8	White paint on CMU walls, 1993 addition				
NPDC-LP-9	Yellow paint on Gypsum wall, Library				
NPDC-LP-10	White paint on Gypsum wall, Admin				
NPDC-LP-11	Yellow/Red/Green paint on CMU, auditorium				
NPDC-LP-12	White paint on CMU, auditorium				
NPDC-LP-13	White exterior paint on concrete at entryways				

Analysis Type		Description	Available Turn-Around Times
Air	LA	NIOSH 7082	Same Day, 1 Day, 3 Day, 5 Day
Wipe	LW	EPA 7000B Lead Wipe	Same Day, 1 Day, 3 Day, 5 Day
Paint	LP	EPA 7000B Paint Chip	Same Day, 1 Day, 3 Day, 5 Day
TCLP	TCLP	TCLP Lead	1 Day, 3 Day

Relinquished by:	Date:	Rcvd By:	Date:	Time:
	03-24-17		03/27/17	

ATTACHMENT II

PHOTO DOCUMENTATION

Photo 1: Northampton County Community Facilities Building

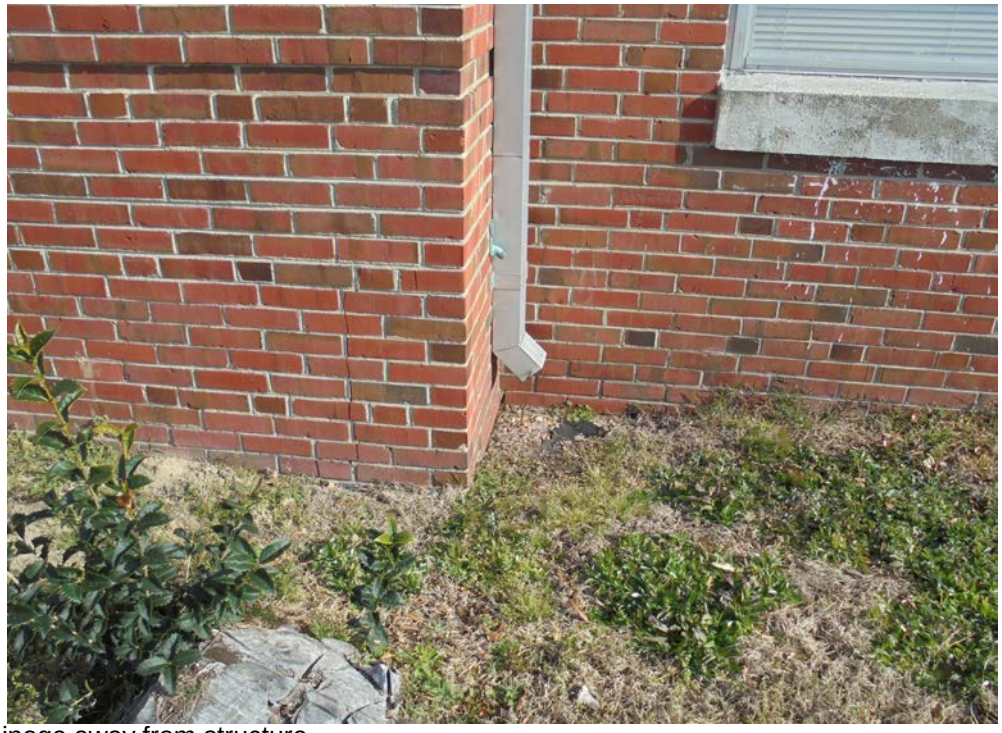

Photo 2: Poor drainage away from structure.

Site Photographs

NCCFB
7247 Young Street
Machipongo, VA 23405

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

Virginia Beach, Virginia 23462
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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 3: Vegetation and poor drainage from AHU fresh air intake.

Photo 4: Ground view appears to flow back towards building and swale.

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 5: Moisture damage, boy's locker room.

Photo 6: VMG on mechanical room TSI.

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 7: VMG contamination and moisture damage in Room #23.

Photo 8: VMG contamination Room #25.

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 9: VMG on CT's, 1980s hall.

Photo 10: VMG on metal painted surfaces 1980s wing.

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 11: VMG on CT's 1990s wing.

Photo 12: VMG on ceiling drywall, Room #5.

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 13: Media Center, VMG on surfaces and area had unpleasant mildew odor.

Photo 14: Auditorium stage, efflorescence .

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 15: Overhead TSI on mechanical lines, 80s 90s transition area.

Photo 16: Typical 9”x9” FT, restroom/locker area at Gym.

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 17: FT layers, 12” over 9” with black mastic, Room #33

Photo 18: Old framed windows with AB window glaze, hall at Gym.

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

Photo 19: LBP on support poles Room #34

Photo 20: Broad view of LBP and pole location.

Site Photographs

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Photos Taken By: Tom Post	Date: March 22, 2017	ATC Project No.: 88ACCO7036

ATTACHMENT III

XRF DATA SHEET

XRF Data Results
7247 Young Street
Machipongo, Virginia
Data collected: March 23, 2017

XRF Reading	Location	Color	Substrate	Component	Condition	Pb	Pb +/-
1	Standardization						
2	Calibration					1.18	0.08
3	Calibration					1.24	0.11
4	Calibration					1.16	0.08
5	Calibration					0.88	0.04
6	Calibration					1.26	0.11
7	Blank					0	0
8	Blank					0	0
9	Blank					0	0
10	Standardization						
11	Mechanical Room	White	Concrete	Wall	Intact	0	0
12	Mechanical Room	White	Concrete	Wall	Intact	0	0
13	Mechanical Room	White	Concrete	Wall	Intact	0	0
14	Mechanical Room	White	Brick	Wall	Intact	0	0
15	Mechanical Room	White	Brick	Wall	Intact	0	0
16	Mechanical Room	Blue	Metal	Wall	Intact	0	0
17	Mechanical Room	Blue	Metal	Wall	Intact	0.05	0.02
18	Mechanical Room	Yellow	Concrete	Floor	Poor	0	0
19	Mechanical Room	Yellow	Concrete	Floor	Poor	0	0
20	Western Wing, Hall, North End	Red	Metal	Door	Fair	0	0
21	Western Wing, Hall, North End	Red	Metal	Door	Fair	0.35	0.09
22	Western Wing, Hall, North End	Red	Metal	Door Frame	Fair	0.05	0.02
23	Western Wing, Hall, North End	Red	Metal	Door Frame	Fair	0.09	0.03
24	Western Wing, Hall, North End	Red	Metal	Door Frame	Fair	0	0
25	Western Wing, Hall to Women's Locker Room	Grey	Metal	Door	Fair	0	0
26	Western Wing, Hall to Women's Locker Room	Grey	Metal	Door	Fair	0.17	0.03
27	Western Wing, Hall to Women's Locker Room	Grey	Metal	Door Frame	Intact	0	0
28	Western Wing, Hall to Women's Locker Room	Grey	Metal	Door Frame	Intact	0.1	0.02
29	Western Wing, Hall to Women's Locker Room	Grey	Metal	Door Frame	Intact	0	0
30	Western Wing, Hall	Grey	Metal	Lockers	Intact	0.07	0.02
31	Western Wing, Hall	Grey	Metal	Lockers	Intact	0.05	0.02
32	Western Wing, Hall Door to Classroom 31	Yellow	Metal	Door	Intact	0	0
33	Western Wing, Hall Door to Classroom 32	Yellow	Metal	Door	Intact	0	0
34	Western Wing, Hall Door to Classroom 31	Yellow	Metal	Door Frame	Intact	0	0
35	Western Wing, Hall Door to Classroom 32	Yellow	Metal	Door Frame	Intact	0	0
36	Western Wing, Hall Door to Classroom 31	Yellow	Metal	Door Frame	Intact	0	0
37	Western Wing, Hall Door to Classroom 36	Yellow	Metal	Door Frame	Intact	0	0
38	Western Wing, Hall Door to Classroom 37	Pink	Metal	Door	Intact	0	0
39	Western Wing, Hall Door to Classroom 38	Pink	Metal	Door	Intact	0	0
40	Western Wing, Hall Door to Classroom 39	Pink	Metal	Door Frame	Intact	0	0
41	Western Wing, Hall Door to Classroom 40	Pink	Metal	Door Frame	Intact	0	0
42	**Western Wing, Classroom 31**	**Silver**	**Metal**	**Window Pole**	**Intact**	**2.19**	**0.21**
43	Gymnasium	Red	Wood	Baseboard	Intact	0.06	0.02
44	Western Wing, Hall	White	Wood	Bulletin Board Frame	Intact	0.09	0.03
45	Western Wing, Classroom 32	White	Wood	Bulletin Board Frame	Intact	0.08	0.03
46	Western Wing, Classroom 33	White	Wood	Built-in Cabinet	Intact	0.31	0.07
47	Gymnasium	Black	Wood	Floor	Intact	0	0
48	Gymnasium	Black	Wood	Floor	Intact	0	0
49	Western Wing, Women's Restroom	Green	CMU	Wall	Intact	1	0.04
50	Western Wing, Classroom 34	White	CMU	Wall	Intact	0	0
51	Gymnasium	White	CMU	Wall	Intact	0.2	0.03
52	Western Wing, Hall	White	CMU	Wall	Intact	1	0
53	Gymnasium	White	CMU	Wall	Intact	0.22	0.06
54	Gymnasium	White	CMU	Wall	Intact	0.26	0.06

XRF Data Results
7247 Young Street
Machipongo, Virginia
Data collected: March 23, 2017

XRF Reading	Location	Color	Substrate	Component	Condition	Pb	Pb +/-
55	Western Wing, Men's Restroom	Pink	Ceramic	Wall Tile	Intact	1	0.03
56	Western Wing, Men's Restroom	Black	Ceramic	Wall Tile	Intact	5	0.68
57	Western Wing, Hall	White	Concrete	Window Frame	Intact	0.02	0.04
58	Western Wing, Classroom 34	White	Concrete	Window Frame	Intact	0.06	0.02
59	Western Wing, Classroom 31	White	Concrete	Window Frame	Intact	0.02	0.03
60	Western Wing, Ceiling Plenum	Black	Metal	Pipe Cover	Intact	0	0
61	Western Wing, Men's Locker Room	Green	CMU	Wall	Intact	0.1	0.02
62	Western Wing, Men's Locker Room	Green	CMU	Wall	Intact	0.09	0.03
63	Western Wing, Women's Locker Room	Red	CMU	Wall	Intact	0.17	0.03
64	Western Wing, Women's Locker Room	Red	Wood	Other	Intact	0	0
65	Western Wing, Men's Locker Room	Red	Wood	Other	Intact	0.01	0.02
66	Western Wing, Men's Locker Room	Red	Wood	Other	Intact	0	0
67	Cafeteria	White	CMU	Wall	Intact	0	0
68	Cafeteria	White	CMU	Wall	Intact	0	0
69	Cafeteria	White	CMU	Wall	Intact	0	0
70	Cafeteria	White	CMU	Wall	Intact	0	0
71	Cafeteria	White	CMU	Wall	Intact	0	0
72	Cafeteria	White	CMU	Wall	Intact	0	0
73	Western Wing, Hall, South End	Red	Metal	Door	Intact	0	0
74	Western Wing, Hall, South End	Red	Metal	Door Frame	Intact	0	0
75	Kitchen	Brown	Ceramic	Floor	Intact	0	0
76	Western Wing, Restroom	Brown	Ceramic	Floor	Intact	0	0
77	Western Wing, Restroom	Brown	Ceramic	Floor	Intact	0	0
78	Main Section, Classroom 30	White	CMU	Wall	Intact	0	0
79	Main Section, Classroom	White	CMU	Wall	Intact	0	0
80	Main Section, Hall	White	CMU	Wall	Intact	0	0
81	Main Section, Home Ec. Classroom	White	CMU	Wall	Intact	0	0
82	Main Section, Classroom 23	White	CMU	Wall	Intact	0	0
83	Hall Beside Auditorium	White	CMU	Wall	Intact	0.46	0.06
84	Main Section, Hall	White	CMU	Wall	Intact	0	0
85	Hall Beside Auditorium	Green	CMU	Wall	Intact	0.48	0.06
86	Hall Beside Auditorium	Green	CMU	Wall	Intact	0.48	0.06
87	Main Section, Hall	Beige	CMU	Wall	Intact	0.06	0.07
88	Main Section, Hall	Red	Metal	Lockers	Intact	0.02	0.01
89	Main Section, Hall	Red	Metal	Other	Intact	0.13	0.03
90	Main Section, Offices	White	Drywall	Wall	Intact	0	0
91	Main Section, Offices	White	Drywall	Wall	Intact	0	0
92	Standardization						
93	Standardization						
94	Eastern Wing, Hall	White	CMU	Wall	Intact	0	0
95	Eastern Wing, Classroom 3	White	CMU	Wall	Intact	0	0
96	Eastern Wing, Classroom 6	White	CMU	Wall	Intact	0	0
97	Eastern Wing, Hall	White	CMU	Wall	Intact	0	0
98	Eastern Wing, Women's Restroom	White	CMU	Wall	Intact	0	0
99	Eastern Wing, Classroom 12	White	CMU	Wall	Intact	0	0
100	Eastern Wing, Hall	White	CMU	Wall	Intact	0	0
101	Eastern Wing, Classroom 13	White	CMU	Wall	Intact	0	0
102	Eastern Wing, Hall	White	CMU	Wall	Intact	0	0
103	Eastern Wing, Hall Door to Classroom 15	Green	Metal	Door Frame	Intact	0	0
104	Eastern Wing, Hall	White	Brick	Wall	Intact	0	0
	Hall Beside Auditorium	White	Brick	Wall	Intact	0	0
105	Library	Yellow	Drywall	Wall	Intact	0	0
106	Eastern Wing, Office	Yellow	Drywall	Wall	Intact	0	0
107	Eastern Wing, Office	Yellow	Drywall	Wall	Intact	0	0

XRF Data Results
7247 Young Street
Machipongo, Virginia
Data collected: March 23, 2017

XRF Reading	Location	Color	Substrate	Component	Condition	Pb	Pb +/-
108	Eastern Wing, Classroom 21	White	Drywall	Wall	Intact	0	0
109	Library	White	Drywall	Wall	Intact	0	0
110	Auditorium	Yellow	CMU	Wall	Intact	0	0
111	Auditorium	Yellow	CMU	Wall	Intact	0	0
112	Auditorium	Red	CMU	Wall	Intact	0	0
114	Auditorium	White	CMU	Wall	Intact	0	0
115	Auditorium	Yellow	Concrete	Floor	Intact	0	0
116	Auditorium, Stage	Black	CMU	Wall	Intact	0	0
117	Auditorium, Stage	Black	CMU	Wall	Intact	0.04	0.06
118	Auditorium, Stage	Black	CMU	Wall	Intact	0.02	0.02
119	Auditorium, Backstage	Green	CMU	Wall	Intact	0	0.01
120	Auditorium	Green	Wood	Wall Trim	Intact	0	0
121	Exterior, Main Section	White	Concrete	Window Sill	Poor	0.07	0.04
122	Exterior, Main Section	White	Concrete	Window Sill	Poor	0	0.01
123	Exterior, Main Section	White	Concrete	Window Sill	Poor	0	0.01
124	Exterior, Main Section	White	Concrete	Window Sill	Poor	0	0
125	Exterior, Main Section	White	Concrete	Window Sill	Poor	0.03	0.02
126	Exterior Entrance	White	Concrete	Wall Top	Poor	0	0
127	Exterior Entrance	White	Concrete	Wall Top	Poor	0	0
128	Exterior Entrance	White	Concrete	Wall Top	Poor	0	0
129	Exterior Entrance	White	Concrete	Wall Top	Poor	0	0
130	Exterior Entrance	White	Concrete	Decorative Feature	Poor	0	0
131	Exterior Entrance	White	Concrete	Decorative Feature	Poor	0	0

ATTACHMENT IV

CERTIFICATIONS

DPOR License Lookup License Number 3303003257

License Details

Name	POST, THOMAS CHARLES II
License Number	3303003257
License Description	Asbestos Inspector License
Rank	Asbestos Inspector
Address	CHESAPEAKE, VA 23322-0000
Initial Certification Date	2007-01-04
Expiration Date	2018-01-31

DPOR License Lookup build 1,192 (built 2016-06-23 09:13:05).

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

Hayes Microbial Consulting

3005 E. Boundary Terrace, Suite F, Midlothian, VA 23112

Laboratory ID: 188863

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

☐	**INDUSTRIAL HYGIENE**	Accreditation Expires:
☐	**ENVIRONMENTAL LEAD**	Accreditation Expires:
✓	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: August 01, 2018
☐	**FOOD**	Accreditation Expires:
☐	**UNIQUE SCOPES**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

William Walsh, CIH
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 15: 03/30/2016

Date Issued: 09/29/2016

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 500096-0

Hayes Microbial Consulting

Midlothian, VA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2017-01-01 through 2017-12-31

Effective Dates

For the National Voluntary Laboratory Accreditation Program

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

Schneider Laboratories Global, Inc.

2512 West Cary Street, Richmond, VA 23220-5117

Laboratory ID: 100527

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

✓	**INDUSTRIAL HYGIENE**	Accreditation Expires: 06/01/2017
✓	**ENVIRONMENTAL LEAD**	Accreditation Expires: 06/01/2017
✓	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: 06/01/2017
☐	**FOOD**	Accreditation Expires:
☐	**UNIQUE SCOPES**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

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ATTACHMENT V

OSHA LEAD REGULATIONS

- **Part Number:** 1926
- **Part Title:** Safety and Health Regulations for Construction
- **Subpart:** D
- **Subpart Title:** Occupational Health and Environmental Controls
- **Standard Number:** 1926.62
- **Title:** Lead
- **Appendix:** A , B , C , D

1926.62(a)

Scope. This section applies to all construction work where an employee may be occupationally exposed to lead. All construction work excluded from coverage in the general industry standard for lead by 29 CFR 1910.1025(a)(2) is covered by this standard. Construction work is defined as work for construction, alteration and/or repair, including painting and decorating. It includes but is not limited to the following:

1926.62(a)(1)

Demolition or salvage of structures where lead or materials containing lead are present;

1926.62(a)(2)

Removal or encapsulation of materials containing lead;

1926.62(a)(3)

New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;

1926.62(a)(4)

Installation of products containing lead;

1926.62(a)(5)

Lead contamination/emergency cleanup;

1926.62(a)(6)

Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, and

1926.62(a)(7)

Maintenance operations associated with the construction activities described in this paragraph.

1926.62(b)

Definitions.

Action level means employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30 ug/m^3) calculated as an 8-hour time-weighted average (TWA).

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Competent person means one who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions and who has authorization to take prompt corrective measures to eliminate them.

Director means the Director, National Institute for Occupational Safety and Health (NIOSH), U.S. Department of Health and Human Services, or designee.

Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

This section means this standard.

1926.62(c)

Permissible exposure limit.

1926.62(c)(1)

The employer shall assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air (50 ug/m^3) averaged over an 8-hour period.

1926.62(c)(2)

If an employee is exposed to lead for more than 8 hours in any work day the employees' allowable exposure, as a time weighted average (TWA) for that day, shall be reduced according to the following formula:

Allowable employee exposure (in ug/m^3) = 400 divided by hours worked in the day.

1926.62(c)(3)

When respirators are used to limit employee exposure as required under paragraph (c) of this section and all the requirements of paragraphs (e)(1) and (f) of this section have been met, employee exposure may be considered to be at the level provided by the protection factor of the respirator for those periods the respirator is worn. Those periods may be averaged with exposure levels during periods when respirators are not worn to determine the employee's daily TWA exposure.

1926.62(d)

Exposure assessment.

1926.62(d)(1)

General.

1926.62(d)(1)(i)

Each employer who has a workplace or operation covered by this standard shall initially determine if any employee may be exposed to lead at or above the action level.

1926.62(d)(1)(ii)

For the purposes of paragraph (d) of this section, employee exposure is that exposure which would occur if the employee were not using a respirator.

1926.62(d)(1)(iii)

With the exception of monitoring under paragraph (d)(3), where monitoring is required under this section, the employer shall collect personal samples representative of a full shift including at least one sample for each job classification in each work area either for each shift or for the shift with the highest exposure level.

1926.62(d)(1)(iv)

Full shift personal samples shall be representative of the monitored employee's regular, daily exposure to lead.

1926.62(d)(2)

Protection of employees during assessment of exposure.

1926.62(d)(2)(i)

With respect to the lead related tasks listed in this paragraph (d)(2)(i) of this section, where lead is present, until the employer performs an employee exposure assessment as required in paragraph (d) of this section and documents that the employee performing any of the listed tasks is not exposed above the PEL, the employer shall treat the employee as if the employee were exposed above the PEL, and not in excess of ten (10) times the PEL, and shall implement employee protective measures prescribed in paragraph (d)(2)(v) of this section. The tasks covered by this requirement are:

1926.62(d)(2)(i)(A)

Where lead containing coatings or paint are present: Manual demolition of structures (e.g, dry wall), manual scraping, manual sanding, heat gun applications, and power tool cleaning with dust collection systems;

1926.62(d)(2)(i)(B)

Spray painting with lead paint

1926.62(d)(2)(ii)

In addition, with regard to tasks not listed in paragraph (d)(2)(i), where the employer has any reason to believe that an employee performing the task may be exposed to lead in excess of the PEL, until the employer performs an employee exposure assessment as required by paragraph (d) of this section and documents that the employee's lead exposure is not above the PEL the employer shall treat the employee as if the employee were exposed above the PEL and shall implement employee protective measures as prescribed in paragraph (d)(2)(v) of this section.

1926.62(d)(2)(iii)

With respect to the tasks listed in this paragraph (d)(2)(iii) of this section, where lead is present, until the employer performs an employee exposure assessment as required in paragraph (d) of this section, and documents that the employee performing any of the listed tasks is not exposed in excess of 500 ug/m(3), the employer shall treat the employee as if the employee were exposed to lead in excess of 500 ug/m(3) and shall implement employee protective measures as prescribed in paragraph (d)(2)(v) of this section. Where the employer does establish that the employee is exposed to levels of lead below 500 ug/m(3), the employer may provide the exposed employee with the appropriate respirator prescribed for such use at such lower exposures, in accordance with Table 1 of this section. The tasks covered by this requirement are:

1926.62(d)(2)(iii)(A)

Using lead containing mortar; lead burning

1926.62(d)(2)(iii)(B)

Where lead containing coatings or paint are present: rivet busting; power tool cleaning without dust collection systems; cleanup activities where dry expendable abrasives are used; and abrasive blasting enclosure movement and removal.

1926.62(d)(2)(iv)

With respect to the tasks listed in this paragraph (d)(2)(iv) of this section, where lead is present, until the employer performs an employee exposure assessment as required in paragraph (d) of this section and documents that the employee performing any of the listed tasks is not exposed to lead in excess of 2,500 ug/m(3) (50 x PEL), the employer shall treat the employee as if the employee were exposed to lead in excess of 2,500 ug/m(3) and shall implement employee protective measures as prescribed in paragraph (d)(2)(v) of this section. Where the employer does establish that the employee is exposed to levels of lead below 2,500 ug/m(3), the employer may provide the exposed employee with the appropriate respirator prescribed for use at such lower exposures, in accordance with Table I of this section. Interim protection as described in this paragraph is required where lead containing coatings or paint are present on structures when performing:

1926.62(d)(2)(iv)(A)

Abrasive blasting,

1926.62(d)(2)(iv)(B)

Welding,

1926.62(d)(2)(iv)(C)

Cutting, and

1926.62(d)(2)(iv)(D)

Torch burning.

1926.62(d)(2)(v)

Until the employer performs an employee exposure assessment as required under paragraph (d) of this section and determines actual employee exposure, the employer shall provide to employees performing the tasks described in paragraphs (d)(2)(i), (d)(2)(ii), (d)(2)(iii) and (d)(2)(iv) of this section with interim protection as follows:

1926.62(d)(2)(v)(A)

Appropriate respiratory protection in accordance with paragraph (f) of this section.

1926.62(d)(2)(v)(B)

Appropriate personal protective clothing and equipment in accordance with paragraph (g) of this section.

1926.62(d)(2)(v)(C)

Change areas in accordance with paragraph (i)(2) of this section.

1926.62(d)(2)(v)(D)

Hand washing facilities in accordance with paragraph (i)(5) of this section.

1926.62(d)(2)(v)(E)

Biological monitoring in accordance with paragraph (j)(1)(i) of this section, to consist of blood sampling and analysis for lead and zinc protoporphyrin levels, and

1926.62(d)(2)(v)(F)

Training as required under paragraph (l)(1)(i) of this section regarding 29 CFR 1926.59, Hazard Communication; training as required under paragraph (1)(2)(iii) of this section, regarding use of respirators; and training in accordance with 29 CFR 1926.21, Safety training and education.

1926.62(d)(3)

Basis of initial determination.

1926.62(d)(3)(i)

Except as provided under paragraphs (d)(3)(iii) and (d)(3)(iv) of this section the employer shall monitor employee exposures and shall base initial determinations on the employee exposure monitoring results and any of the following, relevant considerations:

1926.62(d)(3)(i)(A)

Any information, observations, or calculations which would indicate employee exposure to lead;

1926.62(d)(3)(i)(B)

Any previous measurements of airborne lead; and

1926.62(d)(3)(i)(C)

Any employee complaints of symptoms which may be attributable to exposure to lead.

1926.62(d)(3)(ii)

Monitoring for the initial determination where performed may be limited to a representative sample of the exposed employees who the employer reasonably believes are exposed to the greatest airborne concentrations of lead in the workplace.

1926.62(d)(3)(iii)

Where the employer has previously monitored for lead exposures, and the data were obtained within the past 12 months during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the employer may rely on such earlier monitoring results to satisfy the requirements of paragraphs (d)(3)(i) and (d)(6) of this section if the sampling and analytical methods meet the accuracy and confidence levels of paragraph (d)(10) of this section.

1926.62(d)(3)(iv)

Where the employer has objective data, demonstrating that a particular product or material containing lead or a specific process, operation or activity involving lead cannot result in employee exposure to lead at or above the action level during processing, use, or handling, the employer may rely upon such data instead of implementing initial monitoring.

1926.62(d)(3)(iv)(A)

The employer shall establish and maintain an accurate record documenting the nature and relevancy of objective data as specified in paragraph (n)(4) of this section, where used in assessing employee exposure in lieu of exposure monitoring.

1926.62(d)(3)(iv)(B)

Objective data, as described in this paragraph (d)(3)(iv) of this section, is not permitted to be used for exposure assessment in connection with paragraph (d)(2) of this section.

1926.62(d)(4)

Positive initial determination and initial monitoring.

1926.62(d)(4)(i)

Where a determination conducted under paragraphs (d)(1), (2) and (3) of this section shows the possibility of any employee exposure at or above the action level the employer shall conduct monitoring which is representative of the exposure for each employee in the workplace who is exposed to lead.

1926.62(d)(4)(ii)

Where the employer has previously monitored for lead exposure, and the data were obtained within the past 12 months during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the employer may rely on such earlier monitoring results to satisfy the requirements of paragraph (d)(4)(i) of this section if the sampling and analytical methods meet the accuracy and confidence levels of paragraph (d)(10) of this section.

1926.62(d)(5)

Negative initial determination. Where a determination, conducted under paragraphs (d)(1), (2), and (3) of this section is made that no employee is exposed to airborne concentrations of lead at or above the action level the employer shall make a written record of such determination. The record shall include at least the information specified in paragraph (d)(3)(i) of this section and shall also include the date of determination, location within the worksite, and the name and social security number of each employee monitored.

1926.62(d)(6)

Frequency.

1926.62(d)(6)(i)

If the initial determination reveals employee exposure to be below the action level further exposure determination need not be repeated except as otherwise provided in paragraph (d)(7) of this section.

1926.62(d)(6)(ii)

If the initial determination or subsequent determination reveals employee exposure to be at or above the action level but at or below the PEL the employer shall perform monitoring in accordance with this paragraph at least every 6 months. The employer shall continue monitoring at the required frequency until at least two consecutive measurements, taken at least 7 days apart, are below the action level at which time the employer may discontinue monitoring for that employee except as otherwise provided in paragraph (d)(7) of this section.

1926.62(d)(6)(iii)

If the initial determination reveals that employee exposure is above the PEL the employer shall perform monitoring quarterly. The employer shall continue monitoring at the required frequency until at least two consecutive measurements, taken at least 7 days apart, are at or below the PEL but at or above the action level at which time the employer shall repeat monitoring for that employee at the frequency specified in paragraph (d)(6)(ii) of this section, except as otherwise provided in paragraph (d)(7) of this section. The employer shall continue monitoring at the required frequency until at least two consecutive measurements, taken at least 7 days apart, are below the action level at which time the employer may discontinue monitoring for that employee except as otherwise provided in paragraph (d)(7) of this section.

1926.62(d)(7)

Additional exposure assessments. Whenever there has been a change of equipment, process, control, personnel or a new task has been initiated that may result in additional employees being exposed to lead at or above the action level or may result in employees already exposed at or above the action level being exposed above the PEL, the employer shall conduct additional monitoring in accordance with this paragraph.

1926.62(d)(8)

Employee notification.

1926.62(d)(8)(i)

The employer must, as soon as possible but no later than 5 working days after the receipt of the results of any monitoring

performed under this section, notify each affected employee of these results either individually in writing or by posting the results in an appropriate location that is accessible to employees.

1926.62(d)(8)(ii)

Whenever the results indicate that the representative employee exposure, without regard to respirators, is at or above the PEL the employer shall include in the written notice a statement that the employees exposure was at or above that level and a description of the corrective action taken or to be taken to reduce exposure to below that level.

1926.62(d)(9)

Accuracy of measurement. The employer shall use a method of monitoring and analysis which has an accuracy (to a confidence level of 95 percent) of not less than plus or minus 25 percent for airborne concentrations of lead equal to or greater than 30 ug/m(3).

1926.62(e)

Methods of compliance

1926.62(e)(1)

Engineering and work practice controls. The employer shall implement engineering and work practice controls, including administrative controls, to reduce and maintain employee exposure to lead to or below the permissible exposure limit to the extent that such controls are feasible. Wherever all feasible engineering and work practices controls that can be instituted are not sufficient to reduce employee exposure to or below the permissible exposure limit prescribed in paragraph (c) of this section, the employer shall nonetheless use them to reduce employee exposure to the lowest feasible level and shall supplement them by the use of respiratory protection that complies with the requirements of paragraph (f) of this section.

1926.62(e)(2)

Compliance program.

1926.62(e)(2)(i)

Prior to commencement of the job each employer shall establish and implement a written compliance program to achieve compliance with paragraph (c) of this section.

1926.62(e)(2)(ii)

Written plans for these compliance programs shall include at least the following:

1926.62(e)(2)(ii)(A)

A description of each activity in which lead is emitted; e.g. equipment used, material involved, controls in place, crew size, employee job responsibilities, operating procedures and maintenance practices;

1926.62(e)(2)(ii)(B)

A description of the specific means that will be employed to achieve compliance and, where engineering controls are required engineering plans and studies used to determine methods selected for controlling exposure to lead;

1926.62(e)(2)(ii)(C)

A report of the technology considered in meeting the PEL;

1926.62(e)(2)(ii)(D)

Air monitoring data which documents the source of lead emissions;

1926.62(e)(2)(ii)(E)

A detailed schedule for implementation of the program, including documentation such as copies of purchase orders for equipment, construction contracts, etc.;

1926.62(e)(2)(ii)(F)

A work practice program which includes items required under paragraphs (g), (h) and (i) of this section and incorporates other relevant work practices such as those specified in paragraph (e)(5) of this section;

1926.62(e)(2)(ii)(G)

An administrative control schedule required by paragraph (e)(4) of this section, if applicable;

1926.62(e)(2)(ii)(H)

A description of arrangements made among contractors on multi-contractor sites with respect to informing affected employees of potential exposure to lead and with respect to responsibility for compliance with this section as set-forth in 1926.16.

1926.62(e)(2)(ii)(I)

Other relevant information.

1926.62(e)(2)(iii)

The compliance program shall provide for frequent and regular inspections of job sites, materials, and equipment to be made by a competent person.

1926.62(e)(2)(iv)

Written programs shall be submitted upon request to any affected employee or authorized employee representatives, to the Assistant Secretary and the Director, and shall be available at the worksite for examination and copying by the Assistant

Secretary and the Director.

1926.62(e)(2)(v)

Written programs must be revised and updated at least annually to reflect the current status of the program.

1926.62(e)(3)

Mechanical ventilation. When ventilation is used to control lead exposure, the employer shall evaluate the mechanical performance of the system in controlling exposure as necessary to maintain its effectiveness.

1926.62(e)(4)

Administrative controls. If administrative controls are used as a means of reducing employees TWA exposure to lead, the employer shall establish and implement a job rotation schedule which includes:

1926.62(e)(4)(i)

Name or identification number of each affected employee;

1926.62(e)(4)(ii)

Duration and exposure levels at each job or work station where each affected employee is located; and

1926.62(e)(4)(iii)

Any other information which may be useful in assessing the reliability of administrative controls to reduce exposure to lead.

1926.62(e)(5)

The employer shall ensure that, to the extent relevant, employees follow good work practices such as described in Appendix B of this section.

1926.62(f)

Respiratory protection.

1926.62(f)(1)

General. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this paragraph. Respirators must be used during:

1926.62(f)(1)(i)

Periods when an employee's exposure to lead exceeds the PEL.

1926.62(f)(1)(ii)

Work operations for which engineering and work-practice controls are not sufficient to reduce employee exposures to or below the PEL.

1926.62(f)(1)(iii)

Periods when an employee requests a respirator.

1926.62(f)(1)(iv)

Periods when respirators are required to provide interim protection of employees while they perform the operations specified in paragraph (d)(2) of this section.

1926.62(f)(2)

Respirator program.

1926.62(f)(2)(i)

The employer must implement a respiratory protection program in accordance with § 1910.134(b) through (d) (except (d)(1)(iii)), and (f) through (m), which covers each employee required by this section to use a respirator.

1926.62(f)(2)(ii)

If an employee has breathing difficulty during fit testing or respirator use, the employer must provide the employee with a medical examination in accordance with paragraph (j)(3)(i)(B) of this section to determine whether or not the employee can use a respirator while performing the required duty.

1926.62(f)(3)

Respirator selection.

1926.62(f)(3)(i)

Employers must:

1926.62(f)(3)(i)(A)

Select, and provide to employees, the appropriate respirators specified in paragraph (d)(3)(i)(A) of 29 CFR 1910.134.

1926.62(f)(3)(i)(B)

Provide employees with a full facepiece respirator instead of a half mask respirator for protection against lead aerosols that may cause eye or skin irritation at the use concentrations.

1926.62(f)(3)(i)(C)

Provide HEPA filters for powered and non-powered air-purifying respirators.

1926.62(f)(3)(ii)

The employer must provide a powered air-purifying respirator when an employee chooses to use such a respirator and it will provide adequate protection to the employee.

1926.62(g)

Protective work clothing and equipment.

1926.62(g)(1)

Provision and use. Where an employee is exposed to lead above the PEL without regard to the use of respirators, where employees are exposed to lead compounds which may cause skin or eye irritation (e.g. lead arsenate, lead azide), and as interim protection for employees performing tasks as specified in paragraph (d)(2) of this section, the employer shall provide at no cost to the employee and assure that the employee uses appropriate protective work clothing and equipment that prevents contamination of the employee and the employee's garments such as, but not limited to:

1926.62(g)(1)(i)

Coveralls or similar full-body work clothing;

1926.62(g)(1)(ii)

Gloves, hats, and shoes or disposable shoe coverlets; and

1926.62(g)(1)(iii)

Face shields, vented goggles, or other appropriate protective equipment which complies with 1910.133 of this chapter.

1926.62(g)(2)

Cleaning and replacement.

1926.62(g)(2)(i)

The employer shall provide the protective clothing required in paragraph (g)(1) of this section in a clean and dry condition at least weekly, and daily to employees whose exposure levels without regard to a respirator are over 200 ug/m(3) of lead as an 8-hour TWA.

1926.62(g)(2)(ii)

The employer shall provide for the cleaning, laundering, and disposal of protective clothing and equipment required by paragraph (g)(1) of this section.

1926.62(g)(2)(iii)

The employer shall repair or replace required protective clothing and equipment as needed to maintain their effectiveness.

1926.62(g)(2)(iv)

The employer shall assure that all protective clothing is removed at the completion of a work shift only in change areas provided for that purpose as prescribed in paragraph (i)(2) of this section.

1926.62(g)(2)(v)

The employer shall assure that contaminated protective clothing which is to be cleaned, laundered, or disposed of, is placed in a closed container in the change area which prevents dispersion of lead outside the container.

1926.62(g)(2)(vi)

The employer shall inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead.

1926.62(g)(2)(vii)(A)

The employer shall ensure that the containers of contaminated protective clothing and equipment required by paragraph (g)(2)(v) of this section are labeled as follows:

DANGER: CLOTHING AND EQUIPMENT CONTAMINATED WITH LEAD. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM. DO NOT EAT, DRINK OR SMOKE WHEN HANDLING. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

1926.62(g)(2)(vii)(B)

Prior to June 1, 2015, employers may include the following information on bags or containers of contaminated protective clothing and equipment required by paragraph (g)(2)(v) in lieu of the labeling requirements in paragraph (g)(2)(vii)(A) of this section:

Caution: Clothing contaminated with lead. Do not remove dust by blowing or shaking. Dispose of lead contaminated wash water in accordance with applicable local, state, or federal regulations.

1926.62(g)(2)(viii)

The employer shall prohibit the removal of lead from protective clothing or equipment by blowing, shaking, or any other means which disperses lead into the air.

1926.62(h)

Housekeeping—

1926.62(h)(1)

All surfaces shall be maintained as free as practicable of accumulations of lead.

1926.62(h)(2)

Clean-up of floors and other surfaces where lead accumulates shall wherever possible, be cleaned by vacuuming or other methods that minimize the likelihood of lead becoming airborne.

1926.62(h)(3)

Shoveling, dry or wet sweeping, and brushing may be used only where vacuuming or other equally effective methods have been tried and found not to be effective.

1926.62(h)(4)

Where vacuuming methods are selected, the vacuums shall be equipped with HEPA filters and used and emptied in a manner which minimizes the reentry of lead into the workplace.

1926.62(h)(5)

Compressed air shall not be used to remove lead from any surface unless the compressed air is used in conjunction with a ventilation system designed to capture the airborne dust created by the compressed air.

1926.62(i)

Hygiene facilities and practices.

1926.62(i)(1)

The employer shall assure that in areas where employees are exposed to lead above the PEL without regard to the use of respirators, food or beverage is not present or consumed, tobacco products are not present or used, and cosmetics are not applied.

1926.62(i)(2)

Change areas.

1926.62(i)(2)(i)

The employer shall provide clean change areas for employees whose airborne exposure to lead is above the PEL, and as interim protection for employees performing tasks as specified in paragraph (d)(2) of this section, without regard to the use of respirators.

1926.62(i)(2)(ii)

The employer shall assure that change areas are equipped with separate storage facilities for protective work clothing and equipment and for street clothes which prevent cross-contamination.

1926.62(i)(2)(iii)

The employer shall assure that employees do not leave the workplace wearing any protective clothing or equipment that is required to be worn during the work shift.

1926.62(i)(3)

Showers.

1926.62(i)(3)(i)

The employer shall provide shower facilities, where feasible, for use by employees whose airborne exposure to lead is above the PEL.

1926.62(i)(3)(ii)

The employer shall assure, where shower facilities are available, that employees shower at the end of the work shift and shall provide an adequate supply of cleansing agents and towels for use by affected employees.

1926.62(i)(4)

Eating facilities.

1926.62(i)(4)(i)

The employer shall provide lunchroom facilities or eating areas for employees whose airborne exposure to lead is above the PEL, without regard to the use of respirators.

1926.62(i)(4)(ii)

The employer shall assure that lunchroom facilities or eating areas are as free as practicable from lead contamination and are readily accessible to employees.

1926.62(i)(4)(iii)

The employer shall assure that employees whose airborne exposure to lead is above the PEL, without regard to the use of a respirator, wash their hands and face prior to eating, drinking, smoking or applying cosmetics.

1926.62(i)(4)(iv)

The employer shall assure that employees do not enter lunchroom facilities or eating areas with protective work clothing or equipment unless surface lead dust has been removed by vacuuming, downdraft booth, or other cleaning method that limits dispersion of lead dust.

1926.62(i)(5)

Hand Washing facilities.

1926.62(i)(5)(i)

The employer shall provide adequate handwashing facilities for use by employees exposed to lead in accordance with 29 CFR 1926.51(f).

1926.62(i)(5)(ii)

Where showers are not provided the employer shall assure that employees wash their hands and face at the end of the work-shift.

1926.62(j)

Medical surveillance—

1926.62(j)(1)

General.

1926.62(j)(1)(i)

The employer shall make available initial medical surveillance to employees occupationally exposed on any day to lead at or above the action level. Initial medical surveillance consists of biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin levels.

1926.62(j)(1)(ii)

The employer shall institute a medical surveillance program in accordance with paragraphs (j)(2) and (j)(3) of this section for all employees who are or may be exposed by the employer at or above the action level for more than 30 days in any consecutive 12 months;

1926.62(j)(1)(iii)

The employer shall assure that all medical examinations and procedures are performed by or under the supervision of a licensed physician.

1926.62(j)(1)(iv)

The employer shall make available the required medical surveillance including multiple physician review under paragraph (j)(3)(iii) without cost to employees and at a reasonable time and place.

1926.62(j)(2)

Biological monitoring—

1926.62(j)(2)(i)

Blood lead and ZPP level sampling and analysis. The employer shall make available biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin levels to each employee covered under paragraphs (j)(1)(i) and (ii) of this section on the following schedule:

1926.62(j)(2)(i)(A)

For each employee covered under paragraph (j)(1)(ii) of this section, at least every 2 months for the first 6 months and every 6 months thereafter;

1926.62(j)(2)(i)(B)

The employer shall notify each employee whose blood lead level is at or above 40 [mu]g/dl that the standard requires temporary medical removal with Medical Removal Protection benefits when an employee's blood lead level is at or above the numerical criterion for medical removal under paragraph (k)(1)(i) of this section.

1926.62(j)(2)(i)(C)

For each employee who is removed from exposure to lead due to an elevated blood lead level at least monthly during the removal period.

1926.62(j)(2)(ii)

Follow-up blood sampling tests. Whenever the results of a blood lead level test indicate that an employee's blood lead level is at or above the numerical criterion for medical removal under paragraph (k)(1)(i) of this section, the employer shall provide a second (follow-up) blood sampling test within two weeks after the employer receives the results of the first blood sampling test.

1926.62(j)(2)(iii)

Accuracy of blood lead level sampling and analysis. Blood lead level sampling and analysis provided pursuant to this section shall have an accuracy (to a confidence level of 95 percent) within plus or minus 15 percent or 6 ug/dl, whichever is greater, and shall be conducted by a laboratory approved by OSHA.

1926.62(j)(2)(iv)

Employee notification.

1926.62(j)(2)(iv)(A)

Within five working days after the receipt of biological monitoring results, the employer shall notify each employee in writing of his or her blood lead level; and

1926.62(j)(2)(iv)(B)

The employer shall notify each employee whose blood lead level is at or above 40 [mu]g/dl that the standard requires temporary medical removal with Medical Removal Protection benefits when an employee's blood lead level exceeds the numerical criterion for medical removal under paragraph (k)(1)(i) of this section.

1926.62(j)(3)

Medical examinations and consultations—

1926.62(j)(3)(i)

Frequency. The employer shall make available medical examinations and consultations to each employee covered under paragraph (j)(1)(ii) of this section on the following schedule:

1926.62(j)(3)(i)(A)

At least annually for each employee for whom a blood sampling test conducted at any time during the preceding 12 months indicated a blood lead level at or above 40 ug/dl;

1926.62(j)(3)(i)(B)

As soon as possible, upon notification by an employee either that the employee has developed signs or symptoms commonly associated with lead intoxication, that the employee desires medical advice concerning the effects of current or past exposure to lead on the employee's ability to procreate a healthy child, that the employee is pregnant, or that the employee has demonstrated difficulty in breathing during a respirator fitting test or during use; and

1926.62(j)(3)(i)(C)

As medically appropriate for each employee either removed from exposure to lead due to a risk of sustaining material impairment to health, or otherwise limited pursuant to a final medical determination.

1926.62(j)(3)(ii)

Content. The content of medical examinations made available pursuant to paragraph (j)(3)(i)(B)-(C) of this section shall be determined by an examining physician and, if requested by an employee, shall include pregnancy testing or laboratory evaluation of male fertility. Medical examinations made available pursuant to paragraph (j)(3)(i)(A) of this section shall include the following elements:

1926.62(j)(3)(ii)(A)

A detailed work history and a medical history, with particular attention to past lead exposure (occupational and non-occupational), personal habits (smoking, hygiene), and past gastrointestinal, hematologic, renal, cardiovascular, reproductive and neurological problems;

1926.62(j)(3)(ii)(B)

A thorough physical examination, with particular attention to teeth, gums, hematologic, gastrointestinal, renal, cardiovascular, and neurological systems. Pulmonary status should be evaluated if respiratory protection will be used;

1926.62(j)(3)(ii)(C)

A blood pressure measurement;

1926.62(j)(3)(ii)(D)

A blood sample and analysis which determines:

1926.62(j)(3)(ii)(D)(1)

Blood lead level;

1926.62(j)(3)(ii)(D)(2)

Hemoglobin and hematocrit determinations, red cell indices, and examination of peripheral smear morphology;

1926.62(j)(3)(ii)(D)(3)

Zinc protoporphyrin;

1926.62(j)(3)(ii)(D)(4)

Blood urea nitrogen; and,

1926.62(j)(3)(ii)(D)(5)

Serum creatinine;

1926.62(j)(3)(ii)(E)

A routine urinalysis with microscopic examination; and

1926.62(j)(3)(ii)(F)

Any laboratory or other test relevant to lead exposure which the examining physician deems necessary by sound medical practice.

1926.62(j)(3)(iii)

Multiple physician review mechanism.

1926.62(j)(3)(iii)(A)

If the employer selects the initial physician who conducts any medical examination or consultation provided to an employee under this section, the employee may designate a second physician:

1926.62(j)(3)(iii)(A)(1)

To review any findings, determinations or recommendations of the initial physician; and

1926.62(j)(3)(iii)(A)(2)

To conduct such examinations, consultations, and laboratory tests as the second physician deems necessary to facilitate this review.

1926.62(j)(3)(iii)(B)

The employer shall promptly notify an employee of the right to seek a second medical opinion after each occasion that an initial physician conducts a medical examination or consultation pursuant to this section. The employer may condition its participation in, and payment for, the multiple physician review mechanism upon the employee doing the following within fifteen (15) days after receipt of the foregoing notification, or receipt of the initial physician's written opinion, whichever is later:

1926.62(j)(3)(iii)(B)(1)

The employee informing the employer that he or she intends to seek a second medical opinion, and

1926.62(j)(3)(iii)(B)(2)

The employee initiating steps to make an appointment with a second physician.

1926.62(j)(3)(iii)(C)

If the findings, determinations or recommendations of the second physician differ from those of the initial physician, then the employer and the employee shall assure that efforts are made for the two physicians to resolve any disagreement.

1926.62(j)(3)(iii)(D)

If the two physicians have been unable to quickly resolve their disagreement, then the employer and the employee through their respective physicians shall designate a third physician:

1926.62(j)(3)(iii)(D)(1)

To review any findings, determinations or recommendations of the prior physicians; and

1926.62(j)(3)(iii)(D)(2)

To conduct such examinations, consultations, laboratory tests and discussions with the prior physicians as the third physician deems necessary to resolve the disagreement of the prior physicians.

1926.62(j)(3)(iii)(E)

The employer shall act consistent with the findings, determinations and recommendations of the third physician, unless the employer and the employee reach an agreement which is otherwise consistent with the recommendations of at least one of the three physicians.

1926.62(j)(3)(iv)

Information provided to examining and consulting physicians.

1926.62(j)(3)(iv)(A)

The employer shall provide an initial physician conducting a medical examination or consultation under this section with the following information:

1926.62(j)(3)(iv)(A)(1)

A copy of this regulation for lead including all Appendices;

1926.62(j)(3)(iv)(A)(2)

A description of the affected employee's duties as they relate to the employee's exposure;

1926.62(j)(3)(iv)(A)(3)

The employee's exposure level or anticipated exposure level to lead and to any other toxic substance (if applicable);

1926.62(j)(3)(iv)(A)(4)

A description of any personal protective equipment used or to be used;

1926.62(j)(3)(iv)(A)(5)

Prior blood lead determinations; and

1926.62(j)(3)(iv)(A)(6)

All prior written medical opinions concerning the employee in the employer's possession or control.

1926.62(j)(3)(iv)(B)

The employer shall provide the foregoing information to a second or third physician conducting a medical examination or consultation under this section upon request either by the second or third physician, or by the employee.

1926.62(j)(3)(v)

Written medical opinions.

1926.62(j)(3)(v)(A)

The employer shall obtain and furnish the employee with a copy of a written medical opinion from each examining or consulting physician which contains only the following information:

1926.62(j)(3)(v)(A)(1)

The physician's opinion as to whether the employee has any detected medical condition which would place the employee at increased risk of material impairment of the employee's health from exposure to lead;

1926.62(j)(3)(v)(A)(2)

Any recommended special protective measures to be provided to the employee, or limitations to be placed upon the employee's exposure to lead;

1926.62(j)(3)(v)(A)(3)

Any recommended limitation upon the employee's use of respirators, including a determination of whether the employee can wear a powered air purifying respirator if a physician determines that the employee cannot wear a negative pressure respirator; and

1926.62(j)(3)(v)(A)(4)

The results of the blood lead determinations.

1926.62(j)(3)(v)(B)

The employer shall instruct each examining and consulting physician to:

1926.62(j)(3)(v)(B)(1)

Not reveal either in the written opinion or orally, or in any other means of communication with the employer, findings, including laboratory results, or diagnoses unrelated to an employee's occupational exposure to lead; and

1926.62(j)(3)(v)(B)(2)

Advise the employee of any medical condition, occupational or nonoccupational, which dictates further medical examination or treatment.

1926.62(j)(3)(vi)

Alternate physician determination mechanisms. The employer and an employee or authorized employee representative may agree upon the use of any alternate physician determination mechanism in lieu of the multiple physician review mechanism provided by paragraph (j)(3)(iii) of this section so long as the alternate mechanism is as expeditious and protective as the requirements contained in this paragraph.

1926.62(j)(4)

Chelation.

1926.62(j)(4)(i)

The employer shall assure that any person whom he retains, employs, supervises or controls does not engage in prophylactic chelation of any employee at any time.

1926.62(j)(4)(ii)

If therapeutic or diagnostic chelation is to be performed by any person in paragraph (j)(4)(i) of this section, the employer shall assure that it be done under the supervision of a licensed physician in a clinical setting with thorough and appropriate medical monitoring and that the employee is notified in writing prior to its occurrence.

1926.62(k)

Medical removal protection—

1926.62(k)(1)

Temporary medical removal and return of an employee—

1926.62(k)(1)(i)

Temporary removal due to elevated blood lead level. The employer shall remove an employee from work having an exposure to lead at or above the action level on each occasion that a periodic and a follow-up blood sampling test conducted pursuant to this section indicate that the employee's blood lead level is at or above 50 ug/dl; and,

1926.62(k)(1)(ii)

Temporary removal due to a final medical determination.

1926.62(k)(1)(ii)(A)

The employer shall remove an employee from work having an exposure to lead at or above the action level on each occasion that a final medical determination results in a medical finding, determination, or opinion that the employee has a detected medical condition which places the employee at increased risk of material impairment to health from exposure to lead.

1926.62(k)(1)(ii)(B)

For the purposes of this section, the phrase *final medical determination* means the written medical opinion on the employees' health status by the examining physician or, where relevant, the outcome of the multiple physician review mechanism or alternate medical determination mechanism used pursuant to the medical surveillance provisions of this section.

1926.62(k)(1)(ii)(C)

Where a final medical determination results in any recommended special protective measures for an employee, or limitations on an employee's exposure to lead, the employer shall implement and act consistent with the recommendation.

1926.62(k)(1)(iii)

Return of the employee to former job status.

1926.62(k)(1)(iii)(A)

The employer shall return an employee to his or her former job status:

1926.62(k)(1)(iii)(A)(1)

For an employee removed due to a blood lead level at or above 50 [mu]g/dl when two consecutive blood sampling tests indicate that the employee's blood lead level is below 40 µg/dl;

1926.62(k)(1)(iii)(A)(2)

For an employee removed due to a final medical determination, when a subsequent final medical determination results in a medical finding, determination, or opinion that the employee no longer has a detected medical condition which places the employee at increased risk of material impairment to health from exposure to lead.

1926.62(k)(1)(iii)(B)

For the purposes of this section, the requirement that an employer return an employee to his or her former job status is not intended to expand upon or restrict any rights an employee has or would have had, absent temporary medical removal, to a specific job classification or position under the terms of a collective bargaining agreement.

1926.62(k)(1)(iv)

Removal of other employee special protective measure or limitations. The employer shall remove any limitations placed on an employee or end any special protective measures provided to an employee pursuant to a final medical determination when a subsequent final medical determination indicates that the limitations or special protective measures are no longer necessary.

1926.62(k)(1)(v)

Employer options pending a final medical determination. Where the multiple physician review mechanism, or alternate medical determination mechanism used pursuant to the medical surveillance provisions of this section, has not yet resulted in a final medical determination with respect to an employee, the employer shall act as follows:

1926.62(k)(1)(v)(A)

Removal. The employer may remove the employee from exposure to lead, provide special protective measures to the employee, or place limitations upon the employee, consistent with the medical findings, determinations, or recommendations of any of the physicians who have reviewed the employee's health status.

1926.62(k)(1)(v)(B)

Return. The employer may return the employee to his or her former job status, end any special protective measures provided to the employee, and remove any limitations placed upon the employee, consistent with the medical findings, determinations, or recommendations of any of the physicians who have reviewed the employee's health status, with two exceptions.

1926.62(k)(1)(v)(B)(1)

If the initial removal, special protection, or limitation of the employee resulted from a final medical determination which differed from the findings, determinations, or recommendations of the initial physician or;

1926.62(k)(1)(v)(B)(2)

If the employee has been on removal status for the preceding eighteen months due to an elevated blood lead level, then the employer shall await a final medical determination.

1926.62(k)(2)

Medical removal protection benefits—

1926.62(k)(2)(i)

Provision of medical removal protection benefits. The employer shall provide an employee up to eighteen (18) months of medical removal protection benefits on each occasion that an employee is removed from exposure to lead or otherwise limited pursuant to this section.

1926.62(k)(2)(ii)

Definition of medical removal protection benefits. For the purposes of this section, the requirement that an employer provide medical removal protection benefits means that, as long as the job the employee was removed from continues, the employer shall maintain the total normal earnings, seniority and other employment rights and benefits of an employee, including the employee's right to his or her former job status as though the employee had not been medically removed from the employee's job or otherwise medically limited.

1926.62(k)(2)(iii)

Follow-up medical surveillance during the period of employee removal or limitation. During the period of time that an employee is medically removed from his or her job or otherwise medically limited, the employer may condition the provision of medical removal protection benefits upon the employee's participation in follow-up medical surveillance made available pursuant to this section.

1926.62(k)(2)(iv)

Workers' compensation claims. If a removed employee files a claim for workers' compensation payments for a lead-related disability, then the employer shall continue to provide medical removal protection benefits pending disposition of the claim. To the extent that an award is made to the employee for earnings lost during the period of removal, the employer's medical removal protection obligation shall be reduced by such amount. The employer shall receive no credit for workers' compensation payments received by the employee for treatment-related expenses.

1926.62(k)(2)(v)

Other credits. The employer's obligation to provide medical removal protection benefits to a removed employee shall be reduced to the extent that the employee receives compensation for earnings lost during the period of removal either from a publicly or employer-funded compensation program, or receives income from employment with another employer made possible by virtue of the employee's removal.

1926.62(k)(2)(vi)

Voluntary removal or restriction of an employee. Where an employer, although not required by this section to do so, removes an employee from exposure to lead or otherwise places limitations on an employee due to the effects of lead exposure on the employee's medical condition, the employer shall provide medical removal protection benefits to the employee equal to that required by paragraph (k)(2)(i) and (ii) of this section.

1926.62(l)

Communication of hazards—

1926.62(l)(1)

General.

1926.62(l)(1)(i)

Hazard communication. The employer shall include lead in the program established to comply with the Hazard Communication Standard (HCS) (§ 1910.1200). The employer shall ensure that each employee has access to labels on containers of lead and safety data sheets, and is trained in accordance with the provisions of HCS and paragraph (l) of this section. The employer shall ensure that at least the following hazards are addressed:

1926.62(l)(1)(i)(A)

Reproductive/developmental toxicity;

1926.62(l)(1)(i)(B)

Central nervous system effects;

1926.62(l)(1)(i)(C)

Kidney effects;

1926.62(l)(1)(i)(D)

Blood effects; and

1926.62(l)(1)(i)(E)

Acute toxicity effects.

1926.62(l)(1)(ii)

The employer shall train each employee who is subject to exposure to lead at or above the action level on any day, or who is subject to exposure to lead compounds which may cause skin or eye irritation (*e.g.*, lead arsenate, lead azide), in accordance with the requirements of this section. The employer shall institute a training program and ensure employee participation in the program.

1926.62(l)(1)(iii)

The employer shall provide the training program as initial training prior to the time of job assignment or prior to the start up date for this requirement, whichever comes last.

1926.62(l)(1)(iv)

The employer shall also provide the training program at least annually for each employee who is subject to lead exposure at or above the action level on any day.

1926.62(l)(2)

Training program. The employer shall assure that each employee is trained in the following:

1926.62(l)(2)(i)

The content of this standard and its appendices;

1926.62(l)(2)(ii)

The specific nature of the operations which could result in exposure to lead above the action level;

1926.62(l)(2)(iii)

The purpose, proper selection, fitting, use, and limitations of respirators;

1926.62(l)(2)(iv)

The purpose and a description of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead (with particular attention to the adverse reproductive effects on both males and females and hazards to

the fetus and additional precautions for employees who are pregnant);

1926.62(l)(2)(v)

The engineering controls and work practices associated with the employee's job assignment including training of employees to follow relevant good work practices described in Appendix B of this section;

1926.62(l)(2)(vi)

The contents of any compliance plan in effect;

1926.62(l)(2)(vii)

Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician; and

1926.62(l)(2)(viii)

The employee's right of access to records under 29 CFR 1910.20.

1926.62(l)(3)

Access to information and training materials.

1926.62(l)(3)(i)

The employer shall make readily available to all affected employees a copy of this standard and its appendices.

1926.62(l)(3)(ii)

The employer shall provide, upon request, all materials relating to the employee information and training program to affected employees and their designated representatives, and to the Assistant Secretary and the Director.

1926.62(m)

Signs—

1926.62(m)(1)

General.

1926.62(m)(1)(i)

The employer shall post the following warning signs in each work area where an employee's exposure to lead is above the PEL.

DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR SMOKE IN THIS AREA

1926.62(m)(1)(ii)

The employer shall ensure that no statement appears on or near any sign required by this paragraph (m) that contradicts or detracts from the meaning of the required sign.

1926.62(m)(1)(iii)

The employer shall ensure that signs required by this paragraph (m) are illuminated and cleaned as necessary so that the legend is readily visible.

1926.62(m)(1)(iv)

The employer may use signs required by other statutes, regulations or ordinances in addition to, or in combination with, signs required by this paragraph (m).

1926.62(m)(1)(v)

Prior to June 1, 2016, employers may use the following legend in lieu of that specified in paragraph (m)(1)(i) of this section:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

1926.62(n)

Recordkeeping—

1926.62(n)(1)

Exposure assessment.

1926.62(n)(1)(i)

The employer shall establish and maintain an accurate record of all monitoring and other data used in conducting employee exposure assessments as required in paragraph (d) of this section.

1926.62(n)(1)(ii)

Exposure monitoring records shall include:

1926.62(n)(1)(ii)(A)

The date(s), number, duration, location and results of each of the samples taken if any, including a description of the sampling procedure used to determine representative employee exposure where applicable;

1926.62(n)(1)(ii)(B)

A description of the sampling and analytical methods used and evidence of their accuracy;

1926.62(n)(1)(ii)(C)

The type of respiratory protective devices worn, if any;

1926.62(n)(1)(ii)(D)

Name, social security number, and job classification of the employee monitored and of all other employees whose exposure the measurement is intended to represent; and

1926.62(n)(1)(ii)(E)

The environmental variables that could affect the measurement of employee exposure.

1926.62(n)(1)(iii)

The employer shall maintain monitoring and other exposure assessment records in accordance with the provisions of 29 CFR 1926.33.

1926.62(n)(2)

Medical surveillance.

1926.62(n)(2)(i)

The employer shall establish and maintain an accurate record for each employee subject to medical surveillance as required by paragraph (j) of this section.

1926.62(n)(2)(ii)

This record shall include:

1926.62(n)(2)(ii)(A)

The name, social security number, and description of the duties of the employee;

1926.62(n)(2)(ii)(B)

A copy of the physician's written opinions;

1926.62(n)(2)(ii)(C)

Results of any airborne exposure monitoring done on or for that employee and provided to the physician; and

1926.62(n)(2)(ii)(D)

Any employee medical complaints related to exposure to lead.

1926.62(n)(2)(iii)

The employer shall keep, or assure that the examining physician keeps, the following medical records:

1926.62(n)(2)(iii)(A)

A copy of the medical examination results including medical and work history required under paragraph (j) of this section;

1926.62(n)(2)(iii)(B)

A description of the laboratory procedures and a copy of any standards or guidelines used to interpret the test results or references to that information;

1926.62(n)(2)(iii)(C)

A copy of the results of biological monitoring.

1926.62(n)(2)(iv)

The employer shall maintain or assure that the physician maintains medical records in accordance with the provisions of 29 CFR 1926.33.

1926.62(n)(3)

Medical removals.

1926.62(n)(3)(i)

The employer shall establish and maintain an accurate record for each employee removed from current exposure to lead pursuant to paragraph (k) of this section.

1926.62(n)(3)(ii)

Each record shall include:

1926.62(n)(3)(ii)(A)

The name and social security number of the employee;

1926.62(n)(3)(ii)(B)

The date of each occasion that the employee was removed from current exposure to lead as well as the corresponding date on which the employee was returned to his or her former job status;

1926.62(n)(3)(ii)(C)

A brief explanation of how each removal was or is being accomplished; and

1926.62(n)(3)(ii)(D)

A statement with respect to each removal indicating whether or not the reason for the removal was an elevated blood lead level.

1926.62(n)(3)(iii)

The employer shall maintain each medical removal record for at least the duration of an employee's employment.

1926.62(n)(4)

Objective data for exemption from requirement for initial monitoring.

1926.62(n)(4)(i)

For purposes of this section, objective data are information demonstrating that a particular product or material containing lead or a specific process, operation, or activity involving lead cannot release dust or fumes in concentrations at or above the action level under any expected conditions of use. Objective data can be obtained from an industry-wide study or from laboratory product test results from manufacturers of lead containing products or materials. The data the employer uses from an industry-wide survey must be obtained under workplace conditions closely resembling the processes, types of material, control methods, work practices and environmental conditions in the employer's current operations.

1926.62(n)(4)(ii)

The employer shall maintain the record of the objective data relied upon for at least 30 years.

1926.62(n)(5)

Availability. The employer shall make available upon request all records required to be maintained by paragraph (n) of this section to affected employees, former employees, and their designated representatives, and to the Assistant Secretary and the Director for examination and copying.

1926.62(n)(6)

Transfer of records.

1926.62(n)(6)(i)

Whenever the employer ceases to do business, the successor employer shall receive and retain all records required to be maintained by paragraph (n) of this section.

1926.62(n)(6)(ii)

The employer shall also comply with any additional requirements involving the transfer of records set forth in 29 CFR 1910.1020(h).

1926.62(o)

Observation of monitoring—

1926.62(o)(1)

Employee observation. The employer shall provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to lead conducted pursuant to paragraph (d) of this section.

1926.62(o)(2)

Observation procedures.

1926.62(o)(2)(i)

Whenever observation of the monitoring of employee exposure to lead requires entry into an area where the use of respirators, protective clothing or equipment is required, the employer shall provide the observer with and assure the use of such respirators, clothing and equipment, and shall require the observer to comply with all other applicable safety and health procedures.

1926.62(o)(2)(ii)

Without interfering with the monitoring, observers shall be entitled to:

1926.62(o)(2)(ii)(A)

Receive an explanation of the measurement procedures;

1926.62(o)(2)(ii)(B)

Observe all steps related to the monitoring of lead performed at the place of exposure; and

1926.62(o)(2)(ii)(C)

Record the results obtained or receive copies of the results when returned by the laboratory.

1926.62(p)

Appendices. The information contained in the appendices to this section is not intended by itself, to create any additional obligations not otherwise imposed by this standard nor detract from any existing obligation.

[57 FR 26627, May 4, 1993, as amended at 58 FR 34218, June 24, 1993; 61 FR 5507, Feb. 13, 1996; 63 FR 1152, Jan. 8, 1998; 70 FR 1143, Jan. 5, 2005; 71 FR 16674, April 3, 2006; 71 FR 50191, Aug. 24, 2006; 73 FR 75588, Dec. 12, 2008; 76 FR 33611, June 8, 2011; 76 FR 80741, Dec. 27, 2011; 77 FR 17890, March 26, 2012]

Next Standard (1926.62 App A)

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April 7, 2017

Accomack-Northampton Planning District Commission
PO Box 417
23372 Front Street
Accomac, Virginia 23301

Attn: Mr. Curtis Smith
Director of Planning

Re: Northampton County Facilities Building
Machipongo, VA
Wastewater Treatment System Assessment
GMB File No. 170058

Dear Mr. Smith:

We have reviewed the documents provided via email by Northampton County's Public Works Director, Mr. Thomas, pertaining to the existing wastewater treatment system at the Northampton County Facilities Building located in Machipongo, Virginia.

The existing system consists of an influent headworks, pump station, stabilization pond, withdrawal structure, polishing pond, chlorine contact tank with associated equipment, outfall pipe, and ground water monitoring wells. The facility is permitted to discharge treated effluent to surface waters of the State of Virginia under permit no. VA0023817. The discharge permit indicates that the facility has an average daily design flow of 0.0208 million gallons per day (20,800 gpd). Currently the system has an average daily flow (ADF) of approximately 300-400 gpd and there is no discharge of effluent through the outfall. The current discharge permit is set to expire in August 2017. It is assumed that the permit will be reissued with the same discharge limitations as the current permit and that nutrient (nitrogen or phosphorus) limitations will not be imposed. Enclosed with this letter report is a copy of the current permit discharge limitations.

The pond system was constructed in the mid-1960s and there was addition of an emergency means to disinfect effluent (contact tank) around year 2000. Both ponds are unaerated, have an operating liquid depth of 4-feet, and operate under facultative conditions. The focus of this assessment pertains to the system's ability to treat wastewater and comply with permit conditions; accordingly, the assessment is limited to the pond system and the disinfection process. However, the headworks and pump station do appear adequate to serve the rated capacity of the facility.

Following review of the discharge permit, GMB's initial opinion is that the 30 mg/l monthly average concentration permit requirement for total suspended solids (TSS) is more stringent than that which is typically imposed on facultative pond systems. For facultative ponds, a monthly average TSS concentration of 90 mg/l is a more typical permit condition. As facultative ponds are "natural" systems, the TSS concentration of the treated effluent can vary greatly seasonally due to the presence of algae. Regarding the monthly average concentration permit condition for the 5-day biological oxygen demand (BOD_5), the 30 mg/l concentration imposed is what is typically deemed as the technology's limit, with facilities often struggling to meet this requirement seasonally when the facility is operating at design flow conditions. However, GMB is familiar with several former facultative ponds systems that were located on Maryland's eastern shore serving municipalities, which successfully met a monthly average BOD_5 concentration of 30 mg/l.

In reviewing the Virginia Sewage Collection and Treatment (SCAT) regulations for stabilization pond sizing criteria, Section 720 notes "*proposed design parameters to achieve other than 45 mg/l BOD_5 effluent limits shall be thoroughly reviewed with the area engineer*". This section also implies that 45 mg/l or higher TSS concentrations are typical of stabilization ponds. This information supports GMB's opinion expressed in the preceding paragraph.

Of the two (2) pond system, both ponds are operated in series, with the first pond (stabilization) serving for treatment and the second pond indicated for "polishing". Section 810 of the SCAT regulations covers polishing ponds and indicates their primary purpose is not for treatment, but rather for improving discharge reliability and protection of downstream waters by serving as a buffer. Therefore, for this assessment, it has been assumed that the polishing pond cannot be included in the calculations for treatment capability. The reader should note that as the polishing pond is about one-half the size of the stabilization pond, it would have a minimal impact on increasing the systems' treatment capability.

To determine the BOD_5 treatment capability of the existing system, the effective treatment area (stabilization pond only) together with an organic loading of 30 pounds per day of BOD_5 per acre of treatment pond surface area (surface area measured at coinciding pond depth of 4-feet, per SCAT regulations) were used. As the effective surface area of the stabilization pond is 0.52 acres, the system is capable of treating approximately 15 pounds per day of BOD_5. Assuming an influent BOD_5 concentration (raw sewage) of 250 mg/l, this equates to a raw sewage ADF of approximately 7,000 gpd. According to SCAT regulations, this design would result in a system that would satisfy a BOD_5 concentration of 45 mg/l. As the permit condition is 30 mg/l on a monthly average basis, GMB is of the opinion that including a significant design safety factor in this design calculation would be necessary for the system to reliably meet a discharge concentration of 30 mg/l. Assuming a design safety factor of 100%, together

with the polishing pond's presence, GMB believes the existing system can comfortably treat 3,500 gpd of raw sewage and comply with the existing BOD_5 permit requirement.

The design calculation described above does not account for the TSS permit condition. As noted earlier, during the warmer months, it is highly unlikely that the effluent discharged from the pond system would comply with the TSS permit condition. As this is only a seasonal issue, one option that pond systems have is to "hold" the flow within the pond(s) during this period to prevent discharge. Once the algae content of the ponds lessens, discharge can resume. The stabilization pond is able to increase the liquid depth to 5-feet (+1-foot) and increase the pond's volume by 170,000 gallons. At a flow of 3,500 gpd, this equals nearly 50-days of storage. However, to allow adequate operational flexibility, 75-days of storage would likely be needed. This can be achieved if the polishing pond's level is also increase by 1-foot, but approval would be needed by Virginia DEQ as the maximum water level in the polishing pond would be above that of the permitted system. It is also probable that modifications to the existing structures/piping to hold effluent and control the release of effluent would likely be necessary. Also, only discharging flow ten (10) or so months out of the year would result in a higher discharge rate to the downstream disinfection process when the ponds are actively discharging. Review of the disinfection processes sizing criteria indicates that the system would be able to handle this increased flow rate (assuming the annual ADF is 3,500 gpd).

The permit also includes a requirement for a minimum dissolved oxygen (DO) concentration of 6.0 mg/l. It is assumed that this requirement must be met at any point in time of any day when the facility is discharging. The existing facility does not include a post aeration process to increase the dissolved oxygen concentration. Stabilization ponds are a natural process and part of the natural process is the growth of algae within the system. During nighttime hours, algae removes oxygen for respiration; it is during these periods that the permit condition may not be met. However, if during the peak periods when algae is present (summer), effluent is held in the ponds and not discharged (as described previously for TSS control), it is probable that the dissolved oxygen concentration of the effluent would be within permit during the other times of the year when the system is actively discharging. Based on this, coupled with the building's limited use (subsequent generation of wastewater and system discharge) during nighttime hours, GMB believes it is probable that the system could be managed to ensure permit compliance for this parameter.

Currently wastewater flow to the system is minimal and there is no discharge through the outfall at any time of the year. It is our understanding that groundwater monitoring well results required under the discharge permit are at acceptable levels and that there is no indication that the system is degrading groundwater quality. Continued use of the system under recent flow conditions

will likely yield results that continue to be the same. As with any pond system such as this, increasing the volume of effluent can increase the risk of groundwater contamination. If increased usage were to occur, groundwater quality shall continue to be closely monitored to ensure no major changes are presented. In the event of non-compliant groundwater quality results, corrective action may need to be implemented in the future.

In summary, although engineering principles indicate that the system does have potential to treat some additional flow with those constraints noted above, due to possible risk associated with ground water contamination, GMB does not recommend increasing the wastewater flow significantly above recent conditions for which satisfactory groundwater monitoring results have occurred.

Please let me know if you would like to discuss these findings in more detail.

Sincerely,

Chris Derbyshire, P.E.
Vice President / Sr. Project Manager

CBD/cs

Enclosures

cc: Northampton County
Attn: Chris Thomas

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

Permit No: VA0023817
Effective Date: August 28, 2012
Expiration Date: August 27, 2017

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth herein.

Owner: Northampton County
Facility Name: Northampton Facilities Building
City: Machipongo
County: Northampton
Facility Location: 7247 Young Street, Machipongo, VA 23405

The owner is authorized to discharge to the following receiving stream:

Stream: Unnamed Tributary to Jacobus Creek
River Basin: Chesapeake Bay, Atlantic Ocean and Small Coastal
River Subbasin: N/A
Section: 2a
Class: III
Special Standards: None

_____

Maria R. Nold

_____

Date

PART I

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall(s): **001 (Discharge from polishing pond after emergency chlorination)**

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	Monthly Average		Weekly Average		Minimum	Maximum	Frequency	Sample Type
Flow (MGD) [2] [b]	NL		NA		NA	NL	1/Day	Estimate
pH (S.U.)	NA		NA		6.0	9.0	1/Day	Grab
BOD_5 (mg/l; kg/d) [c]	30	2.4	45	3.5	NA	NA	1/Month	Grab
Total Suspended Solids (mg/l; kg/d) [c]	30	2.4	45	3.5	NA	NA	1/Month	Grab
Total Residual Chlorine (TRC) (mg/l) [a] [c]	.008		.010		NA	NA	1/Day	Grab
Dissolved Oxygen (mg/l)	NA		NA		6.0	NA	1/Day	Grab
Fecal Coliform (N/CML)	200		NA		NA	NA	1/Month (Between 10 AM & 4 PM)	Grab
Ammonia-Nitrogen (NH_3-N) (mg/l; kg/d) [c]	NL	NL	NA	NA	NA	NL NL	1/Month	Grab
Temperature (^{0}C)	NA		NA		NL	NL	1/Month	I.S.
E. Coli (N/CML)	126		NA		NA	NA	1/Day (between 10am and 4pm)	Grab

NA = Not Applicable.
NL = No limitation, however, reporting is required.

To: Caroline Bott, A-NPDC

From: Arthur T. Gormley, III

Re: Proposed Shared Use Community Kitchen

As part of a grant being administered by A-NPDC, the feasibility of a commercial kitchen in the former Northampton County High School was to be studied. Below is a synopsis of the findings made by Arthur T. Gormley, III, a stakeholder who offered his services in determining the viability of converting the existing kitchen and cafeteria space to a commercial kitchen. Mr. Gormley is a former Commercial Income Property Real Estate Executive. Upon retirement he graduated from the Culinary Institute of Virginia, the San Francisco Baking Institute, and is an Adjunct Professor in the Culinary Studies Program at Stratford University in Virginia Beach. He is a citizen of Northampton County.

Definition of Shared- Use Community Kitchen

Shared-use community kitchens models vary to reflect the stakeholder needs of a community. They are often located in community centers like the proposed reuse of the Historic Northampton County High School. They are typically small facilities (less than 3,000 sq. ft.) with a limited range of food processing.

Some examples include both fee based and non-fee based uses:

- Incubator space for fledgling value-added food entrepreneurs.
- Training in food processing techniques such as canning and pickling for profit and sustenance.
- Food safety training.
- Preparation space for community service projects such as Meals on Wheels.
- Food preparation for functions held by other users in the community center.
- Instruction for children and at-risk citizens on how to cook nutritious, healthy food.
- Recreational classes for cooking and baking.

Research has stressed that a small rural community kitchen cannot exist simply as a stand-alone kitchen that depends on local entrepreneur use as its only stream of income. Its mission and business plan and must encompass as many grant worthy uses as possible to avoid being subsidized by the County. The business plan should also include as many on-site income producing activities as possible.

These would include:

- A small store to sell food products made in the shared-use kitchen.
- Integrating the kitchen with an on-site Farmers Market.
- Selling prepared meals.
- Renting the kitchen to other tenants in the community center when prepared food is required.

Research also showed that the highest probability of success depends on:

- Hiring a director to implement the business plan, provide food safety training, grant writing, fund raising, assist entrepreneurs with business plans, product development, compliance and marketing, and manage the facility.
- Recruiting stakeholders who would function as "anchor tenants". Such anchor tenants contract to use the facility at an established fee and a minimum number of hours per year. Their repeat use subsidizes the more infrequent use by small scale entrepreneurs. This facilitates more accurate budget. It also dictates what specialty equipment needs to be purchased for use by the anchor tenants.
- Improper food preparation can result in severe illness and even death. Consideration must be given to the cost each user. In October 2013 food product liability insurance was $600 to $1,000 per user. Can the business model of the user support this cost?

Description of Kitchen Space and Equipment

An estimate of the size of the existing kitchen space at the Historic Northampton County High School has been determined from a document in the files of the former Director of Economic Development for Northampton County, VA. It is titled "Dimensional Measurements, Interior Space for Vendor Agreement" which has been attached to this report. The document offers approximate measurements that permit a preliminary estimate for the size of the kitchen space. For purposes of this report, we will not include the approximate 4,000 sq. ft. dining and serving area. It should be noted that the HVAC system is shared with other areas of the school. Therefore, it is difficult to estimate the actual cost to heat and cool this space. Additionally, the electrical use is shared, making it difficult to estimate that cost as well.

There is approximately 1,010 sq. ft. of space that is a traditional school kitchen, office and storage area. There is also a 200 sq. ft. walk-in refrigerator and freezer. Not included in this square footage is a large walk-in freezer attached to the back of the building, a separate room containing a stainless steel commercial grade dish washer,

and the stainless steel serving line which is in a long room between the kitchen and dining space.

An inspection of the kitchen space was conducted on April 7, 2017 with facility management personnel from Northampton County. This inspection was done by a person familiar with commercial kitchen and baking space, but lacking the expertise to determine the cost to bring all existing equipment/services to good working order and in compliance with safety and health codes, as well as the cost to install the equipment needed to fulfill a business plan for the space.

Briefly, the space has tiled floors with drains and grease traps. The walls are cinder block. These materials permit the space to be cleaned in an efficient manner. There is ample electricity to service traditional kitchen equipment. And, the outlets are well placed to accommodate a functioning floor plan. Gas lines are placed so that equipment such as stoves and ovens can be installed to accommodate a traditional floor plan for a school kitchen. It is assumed the functioning septic system is sufficient to support a kitchen.

The large overhead vent and fire suppression system is intact, and reportedly in working order. That piece of equipment is very expensive, and the fact that it is operational is a large cost savings for any reuse. The dishwasher is intact, and there is a three sink clean up area. The walk-in refrigerator and freezer works, but its floor is showing rust and will need repair. It is believed that the freezer outside works. There are hand sinks for worker sanitation.

There is no functioning cooking/baking equipment. Basic equipment needs to be purchased. The scope of the equipment will reflect the intended uses of stakeholders. At a minimum, purchases should include a stand/floor mixer, 6 burner gas stove/ oven with a char broiler and griddle, double stacked convection oven, stainless steel prep tables, speed racks and ice maker. It is recommended that an ethical vendor of used equipment be consulted when purchasing the equipment in order to keep the cost reasonable.

There is a traditional stainless steel serving line. It is not known whether it functions to health department specifications.

In summary, there are significant start-up savings as a result of existing equipment and services. The gas, water, septic, electric systems are installed and functional. They are already arranged to accommodate an efficient production floor plan. There is an existing venting and fire suppression system. Hygienic cleanup of the area is facilitated by the existing tile floors and drains, as well as the cider block walls, hand sinks, and three sink clean up area, mop room, and commercial grade dish washer. There is an existing service line to hold and serve food to large numbers of people at one time. The storage

room is large and could act as on-site secure storage space for different users of the kitchen.

Feasibility Study Required

Any feasibility study of the adaptive reuse of this kitchen space must first start with a clear direction from committed stakeholders. One expert interviewed stated that stakeholders will try to have a kitchen facility purchase equipment that will rarely be used. It is imperative to get stakeholder to agree to have a business plan that includes very specific shared intended uses of the space. Then the cost must be established to have the facility upgraded and repaired to conform to current health and safety codes (including gas, electric water and septic) for the use of the required equipment as stated by the stakeholders. Then the cost to purchase, install, and maintain the equipment and services should be budgeted. It is recommended that a reserve be established to pay for the eventual replacement of all equipment. Once these costs have been determined, a business plan formulating operational income and expenses can be established.

Interviews indicated that 5% to 10% of potential stakeholders actually end up using the kitchen. Several reasons were given for this low start-up rate. Reasons included, the inability to put together an executable business plan, lack of commitment to become an entrepreneur, and fear of dealing with the various regulatory entities. Because of this, and that users of the kitchen will come from the limited population of the Virginia Eastern Shore, it is critical to hire an expert in Feasibility Studies for Shared-Use Community Kitchens to determine the viability of a shared-use community kitchen at the former Northampton County High School. Prior to commissioning such a study, it was necessary to determine potential stakeholder interest.

Actions Taken to Determine Stakeholder Interest in a Shared-Use Community Kitchen

On April 6, 2017 a stakeholder meeting was held to determine interest in the type of shared-use community kitchen described above. An email was sent out to approximately thirty individuals that had previously expressed interest in such a community resource, and had provided their email for future contact. Only two potential stakeholder interests were represented in that meeting. It is not clear why there was a low attendance. One suggestion was that stakeholders had grown weary of false starts on a shared-use community kitchen. Another theory was that many citizens held the belief that the Historic Northampton County High School had asbestos and mold that would preclude its adaptive reuse.

At the time of the meeting, the grant funded study was being done to determine the extent of any asbestos or mold, as well as the septic capacity/function at the school. It was decided that any further action to determine stakeholder interest be delayed until

the report was concluded. If the report showed that the facility was conducive for creating a shared-use community kitchen, efforts would be made to expand the solicitation of stakeholders, including residents of the entire Eastern Shore of Virginia.

On approximately April 14, 2017 Eyre Baldwin announced at a Northampton County Board of Supervisors Meeting that a commercial kitchen business was going to be opening in Eastville, VA. Mr. Baldwin is a wealthy Northampton County businessman. The studies and interviews included in this report, all made it abundantly clear that most rural, shared-use community kitchens are subsidized by their County and must take the steps described above (Definition of Shared-Use Community Kitchen) for success. A shared-use community kitchen cannot compete with a well-funded private enterprise.

There is not enough of a population in Accomack and Northampton Counties to support two community/commercial kitchens. Neither should it be the role of the County to compete with private enterprise such as the kitchen announced by Mr. Baldwin. Therefore, it is recommended that no further action be taken at this time to determine the feasibility of the type of shared-use community kitchen described above. The success or failure of the private commercial kitchen should be established before any further feasibility analysis is conducted on a shared-use community kitchen.

However, there is a movement within the community to convert the former Northampton County High School to a Community Center. In the event the facility is deemed safe for an adaptive reuse, the kitchen could be improved to accommodate the use of those constituents who would use the proposed Community Center for dinners, or food related fund raisers that could use both the kitchen and the spacious dining area.

Sources:

I. Feasibility Studies:

City of Staunton Feasibility Study for Shared Use Commercial Kitchen Viability; Skill Set Partners, LLC, October 3, 2014.

Developing Shared-Use Food and Agricultural Facilities in North Carolina; Smithson Mills Center for Assessment and Research Alliances at Mars Hills College and Cameron Wold, Wold & Associates, February 2007.

A Report on Establishing the Prince Edward Community Cannery As a Center for Production, Marketing, and Education of Value Added Food Processing Serving Virginia Farm-Based Producers; Smithson Mills, Inc., August 29, 2012

II. Interviews:

Hanover County, VA - Hanover County has a Cannery that also operates as a commercial kitchen where residents, non-residents and commercial customers may process their produce on commercial-grade equipment. The County subsidizes the cannery/commercial kitchen. They do not have a specific number for the subsidy since they use personnel form various departments for labor and services. For instance maintenance will clean up, Facilities will make repairs. They have not done a cost breakout. According to the County, there are a core group of citizens who want it open, that is why it is still open, operating at a loss.

Highland County VA. The Highland Center. The Highland Center operates in a restored Highland Elementary School building. The Highland Center houses tenants a mix of small businesses, individual artists and non-profit organizations. Its food programs include a center for business incubation, farmers market, and a Community Incubator Kitchen. The Highland Center assists local food entrepreneurs with a full-service inspected kitchen and knowledgeable staff to help navigate regulations and safety concerns. Equipment includes a walk-in freezer, commercial mixer, pH meter, steam-jacketed kettle, 10-burner stove, and convection oven. They recommended considering as many uses as possible in order to qualify for various grants, including, for example, Meals on Wheels.

Allison Hill, Director of Virginia Food Works. "Virginia Food Works is a non-profit organization that works with existing and prospective producers of value-added foods,

providing expertise and guidance on the steps involved from product development to final production. They implement programs that strengthen the capacity of Virginia food producers to enter and succeed in the value-added food market, thereby providing Virginia residents with access to safely-processed, and nutritious local foods throughout the year. Specializing in the creation of value-added foods from locally grown ingredients." They operate the Prince Edward Cannery, which operates at an approximate $100K loss each year. Prince Edward County funds the operating shortfall.

III. Websites:

http://kitchenthymerva.com/

Kitchen Thyme is a full service commercial kitchen operating in Richmond, VA

Community Kitchen
Dimensional Measurements
Interior
Space for Vendor Agreement

Main Hall, Filling and Wash, and Prep Areas

74x60	4440 square feet

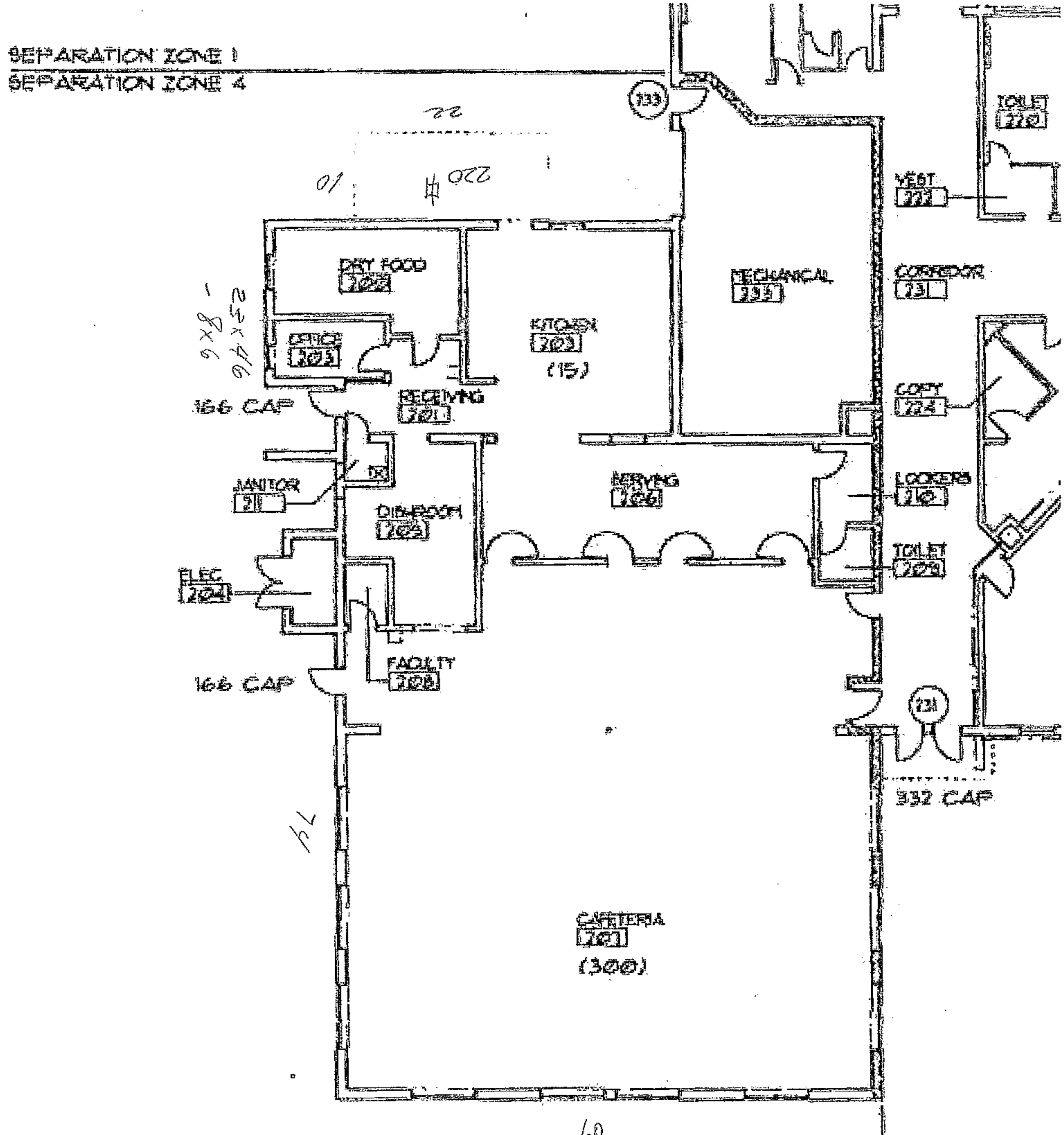
Kitchen, Receiving, Office and Store

23x46	1058 square feet
less 8x6 entry	48 square feet
	1010 square feet

Cooler/Freezer on exterior

22x10	220 square feet

Total Interior Space	5450
Total Usable Space	5670



SEPARATION ZONE 1
SEPARATION ZONE 4
TOILET
VEST
DRY FOOD
MECHANICAL
CORRIDOR
OFFICE
KITCHEN
(15)
166 CAP
RECEIVING
COPY
JANITOR
SERVING
LOCKERS
DISHROOM
TOILET
ELEC
FACULTY
166 CAP
731
332 CAP
CAFETERIA
(300)
60
SEPARATION ZONE 4
SEPARATION Z

Aquatic Workforce Development Stakeholder Interviews

Interview Summary

Twenty-two individuals from 7 sectors were interviewed by phone or in-person. These representatives were asked what their needs were for existing or incoming staff training and certifications. The interview discussion was made adaptable depending upon the interviewee. Half of those interviewed did not express a need for a unique facility. Those that were interested in a facility expressed the need for a pool for various trainings such as swimming, lifeguard, STCW (Standards for Training, Certification, and Watchkeeping, etc. Additional facility suggestions included an area with aquariums and touch tanks for marine life teaching and an area for hands on training for pumps and other gear.

Based on the interview results, there are mixed emotions in the aquaculture field in particular about training programs. Representatives from this industry were insistent that the different companies all operate with unique procedures, and were somewhat weary of extensive training. Instead, they were interested more in small engine repair, pump operation/maintenance, and basic food handling safety (in English and Spanish).

Through the interview process, existing opportunities on the Shore were discovered, and the beginning of a resource database created. Dissemination of information about programs, courses, and training opportunities needs to be more effective and collaboration between instructors and facilities enhanced.

Aquaculture/Seafood Businesses

HM Terry Co. – Heather Lusk

Curriculum	Facility

• Aquaculture Business Curriculum:
  o OSHA Class
  o Business Planning
  o Permitting
  o BMPs
• Suggests using agriculture curriculum as template
	• Boater Safety
	• Food Safety
	• Small Engine Repair

Ballard Fish & Oyster Company / Cherrystone Aqua & Shellfish Farms – Tim Rapine

Curriculum	Facility
• Hard to grow due to lack of trained workforce • Need to expose people to the industry more • Maintenance • Boater Safety	• Suggests doing jointly with VIMS ESL • Controlled environment for learning the operation and function of floats, pumps, valves, etc.

Shooting Point Oyster Company – Tom Gallivan

Curriculum	Facility

• Basic Boating Skills
  ○ Boater Safety Course
  ■ Needs to also taught in Spanish
  ○ VDH training (HACCP)
  ■ Basic seafood handling/safety to understand VMRC time restrictions
  ■ Not necessarily HACCP certification, even only 2 hours of basic training.
• Capt. License; 6-Pack
• Oyster Aquaculture Training (OAT) Program at VIMS
  ○ Actually good to start with a clean slate and train primarily on the job
  ○ They overestimate their knowledge/skills
  ○ Detailed biology, etc. might be too much
  ○ Dangerous to overstate the value of a short-course
	• Small engine repair
	• Forklift operator certification
	• Basic knowledge of pumps, electric wiring, plumbing
	• Learn to follow a procedure

Tom's Cove Aquafarm – Tommy Clark	
Curriculum	Facility
• Alarm clock • Engines: responsible maintenance • General • Work with VMRC about 'Watermen's Cards' (currently 1-2 year wait, to commercially harvest of public grounds) and learn BMPs ; If you complete this course can get Watermen's Card; • Rules/Regulations VMRC • HACCP Health and Safety certification • Online courses for harvesters are required • Night classes that pair with daytime employment/internship	• VIMS already exists • Already have internships, but need to send them to smaller scale facilities as well ○ Harbor Branch Oceanographic Institute facility in FL
Eco Tourism Business	
Broadwater Bay Eco Tours – Rick Kellam	
Curriculum	Facility
• One Captain operation • Took the Virginia Certified Ecotour Course twice already	• One Captain operation • Did not express a need

Cape Charles Boat & Tour Company – David Lee	
Curriculum	Facility

• Demographics of wants and needs of tourist that are coming to the area (specifically with water interests)
• Business course
  ○ ID emerging trends (i.e. visitor's fascination with everything oysters right now)
• Eastern Shore Waterways 101
  ○ unique attributes about ESVA waterways
  ○ wildlife of CB & BIs
• Real Estate training/resource
  ○ commercial areas
	• HR Assistance Office
	  ○ recruitment office in-house
	  ○ helping marine related-businesses here are resources: marine insurance, finance marine related equipment, etc.
	• Mentor match-up
	• Internship Program

Captain Dan's Around the Island Boat Tours – Dan Davis	
Curriculum	Facility
• Took the Virginia Certified Ecotour Course	• Did not express a need
Bay Country Kayaking – Shannon Alexander	
Curriculum	Facility

• First Aid / CPR
• Wilderness First Aid
• Lifeguard Certification
• VA Eco Tour Guide Certification
• Boater Safety Course
• Ideas not for my business:
  ○ STCW (Standards of Training, Certification, and Watchkeeping) Basic Safety Training (& other stew courses)
  ○ Dive certification for marine vessel and in-water equipment maintenance services particularly
	• Pool for Lifeguard, early spring ACA rescue training, etc.
	• Live 'touch' tanks to discuss and teach about native wildlife

Southeast Expeditions – David Burden	
Curriculum	Facility
• First Aid / CPR • Ecosystem Education • Captain's Course (6-pack) • Taught the Virginia Certified Ecotour Course	• Ecosystem Education that could be done at one location for the various types of systems on the Shore • Pool that would facilitate swimming, safety, and lifeguarding training.
Eastern Shore Tourism Commission – Kerry Allison	
Curriculum	Facility

• Customer Service Training
• Entrepreneurial Training
  ○ Accounting
	• Community kitchen (certified)
	  ○ again way to utilize/monetize local resources; agritourism

○ Marketing ● Utilizing/Monetizing local resources	

Marine Services

Seaworthy Marine – Steve Smith	
Curriculum	Facility
● Outboard motor dealer and service to Yamaha/Suzuki School (were unaware of local ESCC course option) ○ Basic mechanic school ● The challenge is in finding a number of locally interested folks and those with drive/dedication.	● Mechanic shop ○ Installation, repair

Cape Charles Yacht Center - Renee Rice	
Curriculum	Curriculum
● Boat Repair ○ basic engine ○ diesel engine repair ● Bottom painting & composite boat repair ● Etiquette training ● Customer service training ● Boating knowledge can be gained through existing Coast Guard programs	● No need was expressed

Deep Creek Marina and Boatyard – Karl Wendley	
Curriculum	Facility
● Stakeholder in the ESCC Workforce Development Services Marine Maintenance Advisory Committee in 2008. Courses developed include: Basic Marine Systems, Outboard Engines, and Advanced Outboard Engines. Explored an apprenticeship program, which was not developed.	● No need was expressed ● Single owner/operator business, no intention to hire or expand business

Public Safety

USCG Auxiliary – John Pavlik	
Curriculum	Facility
● The USCG Auxillary only has classroom training opportunities, no 'in-the-water' activities.	● No need was expressed

EMS - Doug Jones	
Curriculum	Facility
● Training done in house ● CPR offered to the public through the CERT and sometimes upon request ● No marine/water related services	● No need was expressed ● They have their own facilities

Recreation

Northampton County Parks and Recreation – Laura Jenrette

Curriculum	Facility
• CPR/First Aid • Lifeguard training with sr. and jr. • Swim lesson instructor (for team in collaboration with public schools) • Training for swim coaches • Senior Aerobics instructor training • Boating safety • Help new recreation and commercial fisherman/boaters as to what to do in emergency situation in a controlled environment (Coast Guard too?)	• Pool Committee already • Pool • Amenities, showers, etc.

Chincoteague Wildlife Refuge (NPS Lifeguard Training)

Curriculum	Curriculum
• National Park Service has a lead lifeguard for the Commonwealth of Virginia (Jeff Clark) • The NFWS has their own training facility (not local)	• National Park Service has a lead lifeguard for the Commonwealth of Virginia (Jeff Clark) • The NFWS has their own training facility (not local)

YMCA – Andre Elliott

Curriculum	Facility

• Self-sufficient. Offer training/certification programs (open to the public) and even for Country Club, etc. as well for:
  ○ CPR/First Aid
  ○ Lifeguard
  ○ Swim Instructor
	• No need was expressed

Aerospace

NASA Wallops Flight Facility – Caroline Massey

Curriculum	Facility
• CPR/First Aid • Dive Certifications • OSHA	• No need was expressed

Research / Education

VIMS ESL – Dick Snyder

Curriculum	Facility

• Already working on developing this, tagged “Clam College”
  o Algae culture
  o Fluid dynamics
  o Etc.
	• Main concern: How quickly would you saturate the market with a training facility?
	  o Internships probably make more sense

● How many ES high school students are interested in curriculum?	o Would private business owners be willing to take on internships?
Chincoteague Bay Field Station - Elise Trelegan	
Curriculum	Facility
● CPR/First Aid ● Wilderness First Aid ● ACA (American Canoe Association) training opportunity ● Lifeguard certification ● CDL license course ● Repair staff certified to work on LEED Certified Buildings	● Pool (for lifeguard training and ACA training)
Broadwater Academy - Joe Spagnolo	
Curriculum	Facility
● Offer dive certification for their students already	● No need was expressed