

# PRE-CONSTRUCTION INDOOR ENVIRONMENTAL QUALITY REPORT



## PREPARED FOR:

### Howard County Public School Systems

HARRIET TUBMAN BUILDING  
8045 HARRIET TUBMAN LANE  
COLUMBIA, MD 21044

## REPORT PREPARED BY:



Soil and Land Use Technology, Inc.  
1818 NEW YORK AVENUE, NE SUITE 231  
WASHINGTON, DC 20002

October 24, 2017

## Table of Contents

<b>EXECUTIVE SUMMARY</b>	<b>01</b>
<b>ACRONYMS</b>	<b>01</b>
<b>1.0 INTRODUCTION</b>	<b>03</b>
<b>2.0 Indoor Environmental Quality (IEQ) Inspection</b>	<b>04</b>
<b>2.1 Survey Methodology</b>	<b>04</b>
<b>2.1.1 Inaccessible Areas and Limited Access</b>	<b>04</b>
<b>2.2 Survey Findings</b>	<b>05</b>
<b>2.3 Conclusions and Recommendations</b>	<b>08</b>

### Figures, Tables and Appendices

**Figure 1: Mount View Middle School Facility Location**

**Table 1: Observed Locations**

**Appendices:**

**Appendix A – Photo Catalog**

## EXECUTIVE SUMMARY

Soil and Land Use Technology, Inc (SaLUT) was contracted by Howard County Public School System to conduct an Indoor Environmental Quality (IEQ) visual inspection and assessment for suspected mold growth matters, existence or the potential of water intrusion events, and odors at **Mount View Middle School** premises located in 12101 Woodford Drive, Marriottsville, MD 21104. The inspection and assessment was conducted between August 17 and 18, 2017.

The overall no suspect mold growth was observed, suspect water intrusion was minimal and the school was in good condition. The main concern was water intrusion around the exit door in the Supply Storage inside Tech Ed. Classroom and on the ceiling of the Science 2 lab. A few ceiling tiles had stains of dried off water damage. Some lower level classrooms had a musky odor but no signs of water intrusion or water damage. Family and Consumer Sciences room had swollen plywood boards underneath kitchen sink cabinets with high chances of mold growth potential. Good housekeeping practices were seen throughout the school premises and, therefore, no mold growth was observed.

## ACRONYMS

AHU	Air Handler Unit
CIH	Certified Industrial Hygienist
IEQ	Indoor Environmental Quality
IH	Industrial Hygienist

## 1.0 INTRODUCTION

On August 17 and August 18, 2017, SaLUT performed a Pre-Construction IEQ Inspection at **Mount View Middle School** premises located in 12101 Woodford Drive, Marriottsville, MD 21104. The inspection performed for Howard County Public Schools System was intended to document suspected mold growth matters, existence or the potential of water intrusion events, and odors in the building assigned for inspection, in order to facilitate upcoming renovation work. This report documents the observations and findings related to suspected mold growth matters, existence or the potential of water intrusion events, and odors during the time of the assessment. This survey did not include the documentation of any ventilation concerns, environmental sampling, electrical hazards and/or other potential hazardous materials that may be found in the building.

Figure 1 displays the building location of **Mount View Middle School**, a one story building with no below grade level. Mount View Middle school consisted of a main floor, lower level with classrooms and laboratories. There were two trailers outside functioning as portable classrooms. The AHU's were located on the rooftop.

Figure 1: Mount View Middle school Facility Location



## **2.0 Indoor Environmental Quality (IEQ) Inspection**

All accessible areas of the facility were inspected for the presence of suspected mold growth and water intrusion events. The results of this survey are presented in Section 2.2, Survey Findings. The IEQ survey was conducted under the direct guidance of a Certified Industrial Hygienist (CIH), Mr. Indika Jayathilake, and the Project Manager, Mr. Azzam Jawad, and Industrial Hygienists (IH's) Mr. Mapa Mapagunaratne and Mr. Dhanika Ranasinghe

### **2.1 Survey Methodology**

Inspection survey was divided into three distinct phases: pre-inspection planning, inspection for IEQ issues, and development of IEQ response options recommendations.

Pre-inspection planning consisted of a review of the history (both construction and utilization) of the building, planning an inspection strategy, and scheduling inspection work. It was determined that this survey should include all portions of the building likely to be impacted by planned renovations to ensure that intended modification could be conducted in a safe manner.

The following assessment methods represent the most current industry standards and practices. The following diagnostic tools were used in the survey:

- Thermal imaging cameras: FLIR 65 and FLIR MR176 was used to detect ongoing water intrusion events in the building.

Using previous experience, SaLUT planned to inspect the areas with current and previous water intrusion areas first (if any). Any areas with current or previous water intrusion areas were thoroughly inspected for any suspected mold growth. Areas which were access often such as boiler room were also thoroughly inspected for suspected mold. Areas above the ceiling also inspected, visually and using the thermal imaging cameras to observe any water intrusion events. Crew also conducted room by room odor observations in the inspection for unusual odors. Exterior surfaces were examined for evidence of water damage or intrusion and potential for future problem areas. The location, odors, number of air vents, water stains, evidence of suspected mold growth and other special notes were recorded in the inspector's log and locations were marked on provided maps of the property.

#### **2.1.1 Inaccessible and Limited Access Spaces**

Every reasonable attempt was made to locate suspected mold growth and water intrusion in the areas surveyed. However, areas that were inaccessible could be addressed only through extrapolation of conditions in accessible building spaces and review of building plans, specifications, or other building documents provided to SaLUT. Areas that were inaccessible or where the survey was limited to visual observation only are identified on building drawings and/or in report narrative. Such inaccessible areas might include but are not limited to:

- ☐ Within walls
- ☐ Within fire doors
- ☐ Enclosed pipe/duct chases
- ☐ Inside mechanical equipment/ductwork
- ☐ Above plaster ceilings
- ☐ Behind locked/jammed doors
- ☐ High areas beyond reach of provided 20-foot ladders
- ☐ Beneath materials stored in the building

SaLUT does not take responsibility for any missing and/or incomplete data, and/or reports that were not provided prior to and/or during this survey.

## **2.2 Survey Findings and Observations**

General observation throughout the building at Oakland Mills Middle School:

The overall suspect water intrusion was limited to four areas and suspect mold growth was not found in the school and the school was in a good condition. The main concern was water intrusion around the exit door in the Supply Storage inside Tech Ed. Classroom and on the ceiling of the Science 2 lab. A few ceiling tiles had stains of dried off water damage. Some lower level classrooms had a musky odor but no signs of water intrusion or water damage. Family and Consumer Sciences room had swollen boards underneath. Good housekeeping practices were seen throughout the school premises.

### **Supply Storage and Project Room inside Tech Ed. Classroom**

A ceiling tile with stains of dried off water damage due to leakage of water at sanitary drainage pipe joint. The leak appeared to be repaired thus the tile was not damp at the time of the inspection. The ceiling tile can be simply replaced as a remediation method since there are no signs of current water leaks above the tile. The metal frame of the door shows signs corrosion and the wall paint around the frame is peeling off. No signs of mold as of the day of inspection.

### **Band Room**

A ceiling tile with stains of dried off water damage due to leakage of water at sprinkler pipe joint. The leak appeared to be repaired thus the tile was not damp at the time of the inspection. The ceiling tile can be simply replaced as a remediation method since there are no signs of current water leaks above the tile.

### **Storage/Work room next to Orchestra Room**

Water stains behind the utility sink but no signs of mold. A good cleanup of that area with disinfectant can prevent potential mold growth

### **Art Room**

Water damage and stains on the plywood baseboard at the sink due to paint supply storage underneath.

### **Science 2 Lab**

Water damage and stains around the edge of the atrium. No signs of visible mold growth. The inspectors suspect it was leaking through the roof since there were no visible pipes running above the atrium edge.

### **Family and Consumer Sciences Room**

Water damage on the plywood baseboard of sinks 1, 2, 3 and 4. The cause of the damage was the dish drain pan stored under the sink which drains water from the dishes on to the floorboard. The floor board could be replaced with a non-porous material like metal or plastic as means of remediation.



**Table 1: Observed Locations**

Building material with water intrusion	Location and Material	Quantities (Approximate)	Response Options
Cinder block	<ul style="list-style-type: none"> <li>Back wall of the supply storage room inside the Tech Ed. Classroom</li> </ul>	25 SF	Accelerate the drying process using dehumidifiers, fans and/or heaters
Wallboard	<ul style="list-style-type: none"> <li>Along the edge of the skylight inside Lab 2</li> </ul>	28 SF	May be dried in place if there is no obvious swelling and the seams are intact. If not, remove, discard, and replace
Plywood Board	<ul style="list-style-type: none"> <li>Baseboards of sinks 1,2,3 and 4 inside Family and Consumer Sciences Room</li> <li>Baseboards of sinks inside the Art Room</li> </ul>	20 SF	Discard and Replace. If the drain pans are to be stored underneath, replace with a non-porous baseboard

\*LF- Linear Feet

\*\*SF- Square Feet



## **2.3 Conclusions and Recommendations**

Based on observations and information received from the school officials, suspected mold growth was not observed and water intrusion events were limited to four areas.

The following is recommended and considered good indoor environmental quality practices that may prevent, reduce and/or improve indoor environmental concerns in general.

- Cleanup on suspected water intrusion events areas following the industry best work practices and professional judgement.

## Appendix A: Photos Catalog



Photo 1: Supply Storage



Photo 2: Supply Storage



Photo 3: Supply Storage

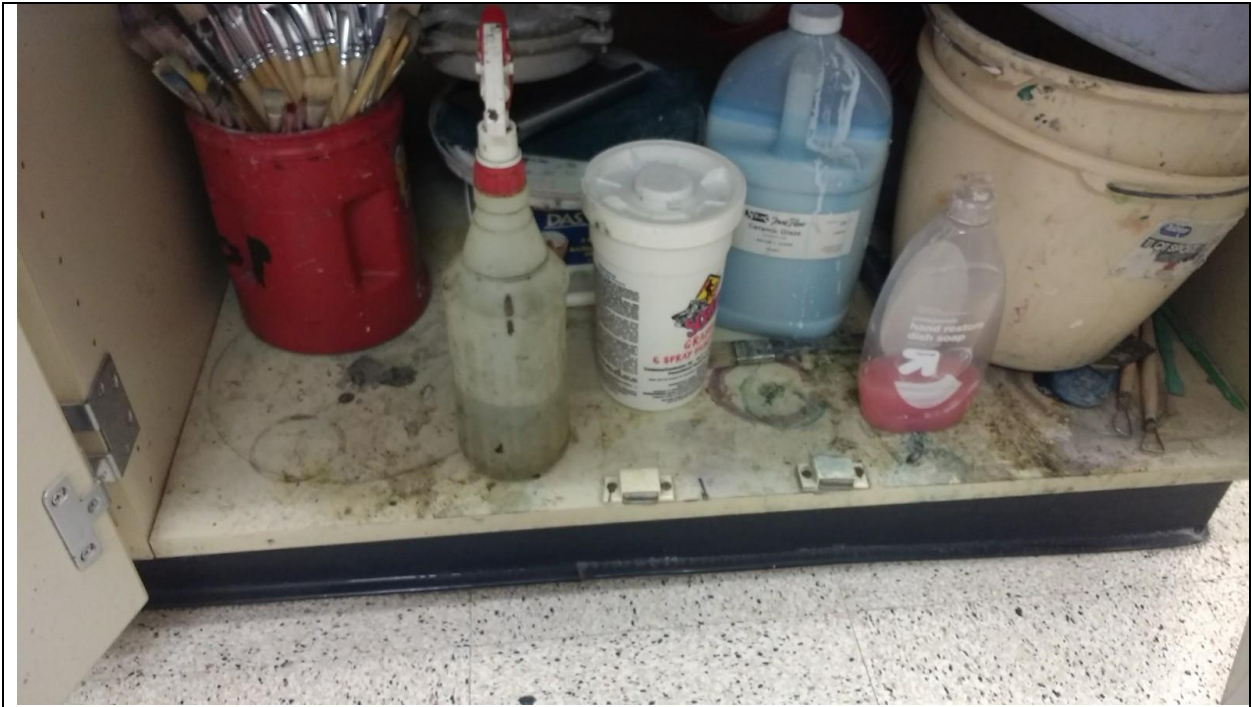


Photo 4: Sink baseboard – Art Room



Photo 5: Sink baseboard – Art Room





Photo 6: Science 2 - Skylight Edge



Photo 7: Science 2 - Skylight Edge

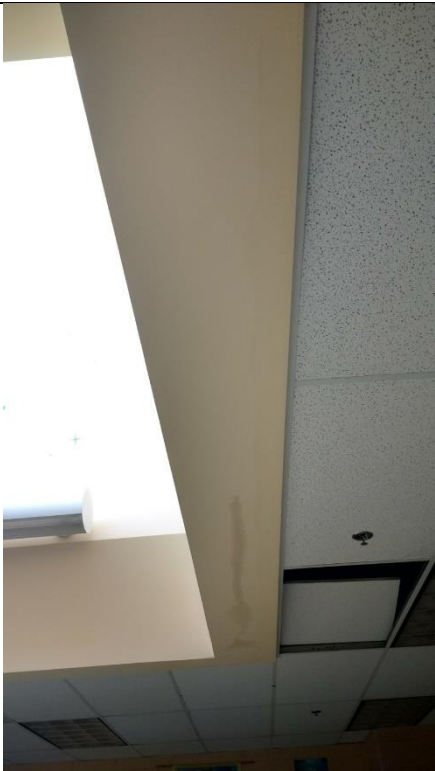


Photo 8: Science 2 - Skylight Edge



Photo 9: Science 2 - Skylight Edge

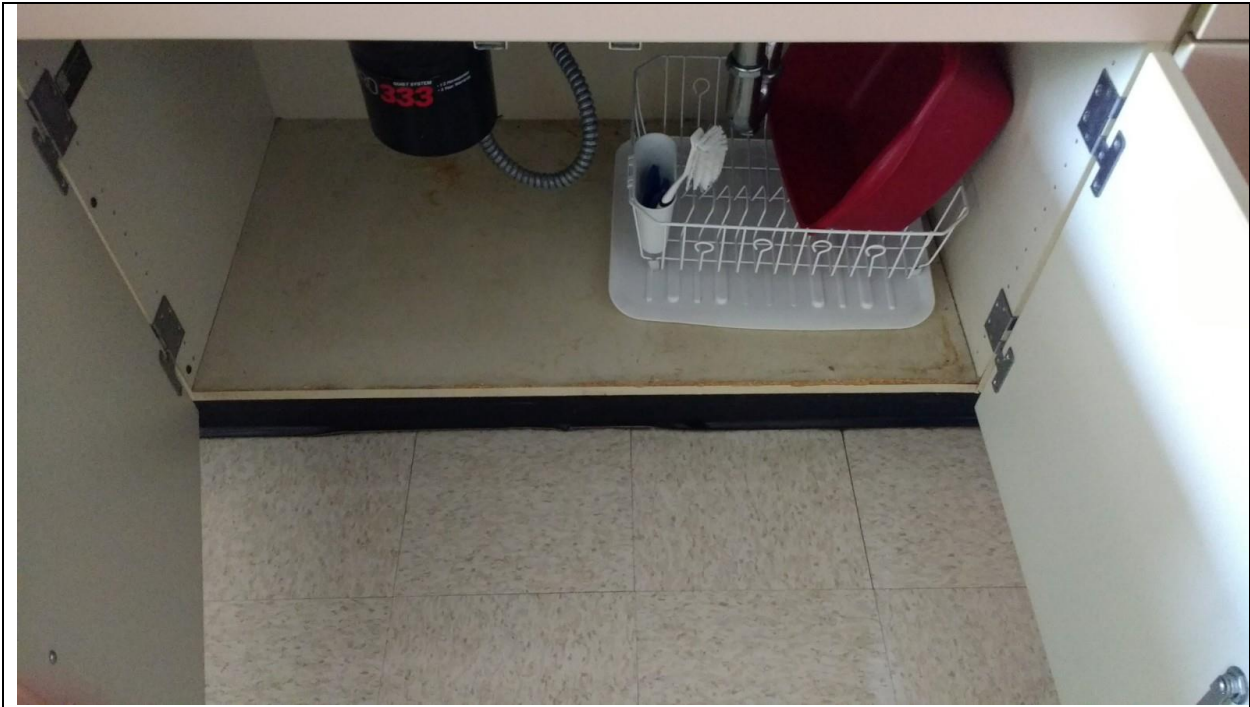


Photo 10: Sink Baseboard – Family and Consumer Sciences Room



Photo 11: Sink Baseboard – Family and Consumer Sciences Room