CAVE SPRING HIGH SCHOOL

ADDRESS: 3712 Chaparral Drive, Roanoke, Virginia 24018

INSPECTION DATE: August 15, 2017

INSPECTOR: Alexandra Moon

BACKGROUND:

Cave Spring High School is located at 3712 Chaparral Drive in Roanoke, Virginia. The facility encompasses approximately 149,370 square feet and was reportedly built in 1970. The school consists of two floor levels.

ECS was retained by Roanoke County Public Schools (RCPS) to develop an Asbestos Operations and Maintenance Plan (O&M Plan) for this school facility to manage the identified asbestos-containing materials (ACMs) in place until such time as building renovation, demolition or other disturbances necessitate their removal. The newly prepared plan includes information and data collected at the facility by ECS or others. This Management Plan was prepared by a Commonwealth of Virginia licensed Asbestos Management Planners (Nos. 3304000318; 3304001654).

Findings

In accordance with Title II, Asbestos Hazard Emergency Response Act (AHERA) of the Toxic Substance Control Act (TSCA), this school was reinspected by an EPA and State of Virginia Accredited Asbestos Inspector and Management Planner. Under this law the local education agency (LEA) for each school system found to contain asbestos-containing materials (ACMs) must have those school buildings reinspected once every three years. ECS's inspection was performed based upon materials identified in the School's O&M Plan prepared by Hall Kimbrall (HK) in September 1988, and subsequent re-inspection reports, dated February 5, 2008 by Barratta and Associates (BA).

Known ACMs found within the building were visually inspected to determine their present physical condition (i.e., friable/non-friable), and to determine if any changes have occurred in their physical condition since the original assessment in 1988 and subsequent re-inspection in 2008 by HK and BA respectively.

Based upon review of the initial Management Plan and subsequent re-inspection report, the only suspect/known ACMs identified in the building were light gray with tan and blue patterned 12” floor tile, tan 12” floor tile and associated mastic located in the bookkeepers office, and various pipe insulation and mudded fittings on various insulated lines. **ECS was able to walk the school and observed the floor tile in the book keepers office. ECS also observed the mudded fittings in the boiler room.**

Visual inspection of these materials did not reveal a significant change in condition from 9/2008 re-inspection, and it is recommended that these materials continue to be maintained within the building's Management Plan - **Note: labels were not observed in the boiler room, identifying the presence of asbestos containing materials.**
In general the materials were observed to be in good condition and in their present state are non-frangible (floor tile only). No additional training or notification is required as a result of adding these materials to the O&M plan other than informing maintenance staff and outside contractors not to disturb these materials. If these materials are to be disturbed, the AHERA LEA designee will have them tested prior to disturbance.

**Note: It is assumed that additional muddied fittings might be present above the ceilings and within the walls. The suspected presence of this additional material does not require changes to the O&M Plan other than to advise school personnel, contractors, and other personnel as appropriate of the suspected presence of this material.**

### Previously Identified ACBM

Below are tables of previously identified ACBM within the building and the current assessment of the condition of the materials.

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
<th>Location</th>
<th>HA</th>
<th>Past Assessment</th>
<th>Reassessment Haz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muddied Fittings</td>
<td>Chilled Water Muddied Fittings</td>
<td></td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Muddied Fittings</td>
<td>Heating Water Muddied Fittings</td>
<td></td>
<td>5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Muddied Fittings</td>
<td>Domestic Cold Water Muddied Fittings</td>
<td></td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Muddied Fittings</td>
<td>Domestic Hot Water Muddied Fittings</td>
<td></td>
<td>7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Muddied Fittings</td>
<td>Drain Muddied Fittings</td>
<td></td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Floor Tile</td>
<td>12”X12” FT</td>
<td></td>
<td>9</td>
<td>Removed</td>
<td>Removed</td>
</tr>
<tr>
<td>Floor Tile</td>
<td>12”X12” FT</td>
<td></td>
<td>10</td>
<td>Removed</td>
<td>Removed</td>
</tr>
<tr>
<td>Floor Tile</td>
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<td>11</td>
<td>Removed</td>
<td>Removed</td>
</tr>
<tr>
<td>Floor Tile</td>
<td>12”X12” FT</td>
<td></td>
<td>12</td>
<td>Removed</td>
<td>Removed</td>
</tr>
<tr>
<td>Material</td>
<td>Description</td>
<td>Location</td>
<td>HA</td>
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<td>Reassessment Haz</td>
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<td>------------------------------</td>
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</tr>
<tr>
<td>Muddled Fittings</td>
<td>Other Muddled Fittings in Boiler Room</td>
<td>Boiler Room</td>
<td>14</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Floor Tile</td>
<td>12&quot;x12” FT - light gray w/ tan &amp; blue</td>
<td>Bookkeeper W Side</td>
<td>19</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Floor Tile; Associated Mastic</td>
<td>12&quot;x12” FT - light gray w/ tan &amp; blue; Associated tan mastic</td>
<td>Bookkeeper W Side</td>
<td>20</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Floor Tile</td>
<td>12&quot;x12” FT - Tan</td>
<td>Bookkeeper at hall door</td>
<td>21</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Floor Tile; Associated Mastic</td>
<td>12&quot;x12” FT Tan; Associated Black Mastic</td>
<td>bookkeeper at hall door</td>
<td>22</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Additional Suspect ACMs**

During the survey ECS also observed the following other suspect ACMs:

Material and Location

1. Block filler paint on CMU walls – throughout school
2. Vermiculite insulation within CMU walls – throughout school
3. Black duct mastic
4. Terrazzo floors throughout
5. Blackboards and mastic in some classrooms
6. Sink mastic in some classrooms
7. Exterior materials (roofing, soffits, glazing, caulking) – Note: These materials are not covered by AHERA but are covered in general by US EPA
8. Fume Hoods/lab benches
9. Light fixtures
10. Field houses/support structures (8-11)

10. General – Renovations have occurred at the school however no documentation exists on new materials installed including ceiling tiles, drywall joint compound, doors (suspect fire doors),

Assessment and Recommended Response Actions

In general, the suspect ACMs observed within the building were observed to be presently non-friable or in relatively good condition, and do not pose an immediate health hazard unless they become damaged or are disturbed. ECS recommends that the materials continue to be managed within the O&M Plan.

Identification, Notification, and Management

1. Based upon the observed condition and use of the known and suspect ACMs identified in the building, there is no requirements for warning labels for these materials at this time with the exception of placing an asbestos warning sign on the boiler room.

2. Notification of the existence and availability of the O & M Plan, which includes information on known and suspect ACMs should be made available to the school staff, contracted workers, and general public (if appropriate). This is being done.

3. Any contractors (electrical, mechanical, etc.) who are to perform a service at the building shall be notified of all known and suspect ACMs at the building as identified in the O&M Plan, and be instructed not to disturb these materials in any way.

4. If any suspect ACMs become damaged and/or friable, or is anticipated to become friable (i.e., through renovation or demolition activities), Roanoke Public Schools should contract with a Licensed Virginia Asbestos Inspector to sample these materials.

Inspector / Management Planner Certification

Alexandra Moon  
Asbestos Inspector  
VA Accreditation Number 3303 003364

Alexandra Moon  
Management Planner  
VA Accreditation Number 3304 001654