LIMITED NON-INVASIVE ASBESTOS-CONTAINING MATERIAL TESTING

MARSHALL COURTS
741 34TH STREET
NEWPORT NEWS, VIRGINIA

ECS PROJECT NO. 03:10188

FOR

REHABILITATION/CAPITAL PROGRAMS ADMINISTRATOR
NEWPORT NEWS REDEVELOPMENT & HOUSING AUTHORITY
PO BOX 797
NEWPORT NEWS, VIRGINIA 23607
ATTN: MS. SANDRA WALKER

JUNE 3, 2011
June 3, 2011

Rehabilitation/Capital Programs Administrator
Newport News Redevelopment & Housing Authority
ATTN: Ms. Sandra Walker
PO Box 797
Newport News, Virginia 23607

ECS Project No. 03:10188

Reference: Limited Non-Invasive Asbestos-Containing Material Testing
Marshall Courts
741 34th Street
Newport News, Virginia

Dear Ms. Walker:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide Newport News Redevelopment & Housing Authority (NNRHA) the results of our Asbestos-Containing Material (ACM) Testing for the Marshall Courts property located in Newport News, Virginia. It is our understanding the units are slated for renovation.

Feel free to contact us at (804) 353-6333, if there are questions regarding this report, or if you need further information.

Respectfully submitted,

ECS MID-ATLANTIC, LLC

Israel Santana, III
Environmental Scientist

Marlee A. Parker, REM/CSEM
Principal/Environmental Department Manager

Chris J. Chapman, CIH
Director of Industrial Hygiene

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LIMITED NON-INVASIVE ASBESTOS-CONTAINING MATERIAL TESTING

For
Marshall Courts
741 34th Street
Newport News, Virginia

ECS Project No. 03:10188

Prepared For:
Rehabilitation/Capital Programs Administrator
Newport News Redevelopment & Housing Authority
ATTN: Ms. Sandra Walker
PO Box 797
Newport News, Virginia 23607

Prepared By:
ECS Mid-Atlantic, LLC
2119 D North Hamilton Street
Richmond, Virginia 23230
Phone: (804) 353-6333
Fax: (804) 353-9478

Israel Santana, III
Environmental Scientist
Signature

Marlee A. Parker, REM/CSEM
Principal/Environmental Department Manager
Signature

Chris J. Chapman, CIH
Director of Industrial Hygiene
Signature

June 3, 2011
# LIMITED NON-INVASIVE ASBESTOS-CONTAINING MATERIAL SURVEY

**MARSHALL COURTS**  
741 34TH STREET  
NEWPORT NEWS, VIRGINIA

**ECS PROJECT NO. 03:10188**

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## APPENDICES

- Appendix I  Asbestos Analytical Test Results and Chain-of-Custody
- Appendix II Virginia Asbestos Inspector License
1.0  INTRODUCTION

1.1  Purpose and Scope of Work

ECS Mid-Atlantic, LLC (ECS) was contracted by Mr. Pat Devereux, NNRHA to sample selected locations at the site that were identified by the General Contractor to have suspect asbestos containing materials previously not addressed or identified. These materials had in general been concealed and had been recently uncovered by the Contractor during preliminary exploratory renovation activities.

The sampling was performed in general accordance with the scope and limitations in ECS Proposal 03:10216 dated May 24, 2011. The scope of services performed for the limited ACM survey consisted of the following:

- A non-invasive sampling of selected items identified material found by the contractor on site.

- The collection of representative bulk samples of potential ACM within each unique and homogeneous area (areas similar in appearance and material composition) utilizing wet sampling methods, clean extraction tools, and personal protective equipment. Materials sampled were done based upon ECS’s understanding of the scope of work.

- Evaluation of the physical condition and general locations of the sampled materials that were found to contain asbestos.

- Submittal of collected bulk samples to a subcontracted 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).

1.2  Site Location and Description

The property is located at 741 34th Street in Newport News, Virginia and consists of a multi-family apartment complex. At this time, ECS understands that the Marshall Courts property consists of seventy-two (72) dwelling buildings which contain a total of three hundred and forty nine (349) individual apartment units. The construction date of Marshall Courts was reported to be 1940. The site is scheduled for renovation.
2.0 LIMITED ASBESTOS-CONTAINING MATERIALS SURVEY

2.1 Sampling Locations and Methods

A total of four (4) unique suspect ACM samples were collected during this survey. Sample methodology was conducted in general accordance with applicable regulations. Materials consisting of multiple layers such as floor tile with mastic were analyzed separately so that the actual number of samples/layers analyzed for this survey totaled six (6). Samples were submitted to Environmental Hazards Services, LLC, (EHS) is certified by the National Voluntary Laboratory Accreditation Program to perform analysis of bulk asbestos samples by Polarized Light Microscopy (PLM) in accordance with the EPA Method 600/R-93/116. EPA recommended chain-of-custody procedures were maintained throughout the sampling and testing operations. A list of the materials sampled and analyzed for asbestos content is located in Table 1. A separate attachment for the asbestos laboratory analysis is also found in the appendices.

In general, the interior/exterior of the buildings were observed to range from good to poor condition since it appears that some vandalism has occurred to the structures. The location of the collected samples, sample numbers and asbestos content are provided in Table entitled “Table ACM Testing – Marshall Courts Complex,” included in this report.

The collected bulk samples were stored in properly labeled and sealed containers. 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 (OSHA) and US EPA NESHAP requirements for asbestos sampling.

As stated, the collected bulk samples were submitted to EHS in Richmond, Virginia for microscopic analysis by Polarized Light Microscopy (PLM) to determine the presence and type (if any) of asbestos. Sample collection, analysis, and disposition followed standard chain-of-custody procedures. The chain-of-custody, which includes the sample number, sampling location, and homogeneous area description, in addition to bulk sample analysis results, is included in Appendix I.

2.2 Analytical Test Results

ACM is defined as any material containing more than one percent (>1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, PLM. 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. A Category I non-friable ACM are listed as following: packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than one percent (>1%) asbestos. A Category II non-friable ACM are listed as any material, excluding Category I non-friable ACM, containing more than one percent (>1%) asbestos.
### Table
**ACM Testing – Marshall Courts Complex**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Sample Location</th>
<th>Sample Type</th>
<th>Analytical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D2 Style Housing Exterior</td>
<td>Transite Panel Behind Wood Siding</td>
<td>18% Chrysotile</td>
</tr>
<tr>
<td>2</td>
<td>D2 Style Housing Exterior</td>
<td>Caulking Underneath Transite Panel</td>
<td>5% Chrysotile</td>
</tr>
<tr>
<td>3(a)</td>
<td>Unit 863-B 33rd Street Kitchen 1st Floor</td>
<td>12” x 12” Floor Tile (Beige)</td>
<td>NAD</td>
</tr>
<tr>
<td>3(b)</td>
<td>Unit 863-B 33rd Street Kitchen 1st Floor</td>
<td>12” x 12” Floor Tile Mastic (Brown)</td>
<td>NAD</td>
</tr>
<tr>
<td>4(a)</td>
<td>Unit 863-A 33rd Street Bathroom 2nd Floor</td>
<td>12” x 12” Floor Tile (Tan)</td>
<td>2% Chrysotile</td>
</tr>
<tr>
<td>4(b)</td>
<td>Unit 863-A 33rd Street Bathroom 2nd Floor</td>
<td>12” x 12” Floor Tile Mastic (Black)</td>
<td>2% Chrysotile</td>
</tr>
</tbody>
</table>

*Key:*

NAD – No asbestos detected
3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 Asbestos-Containing Materials

Non-Friable Asbestos-Containing Material

Asbestos (18% Chrysotile) was detected in one (1) sample collected of a typical transite panel located underneath wood siding on the D2 type structures in the apartment complex. This material is classified under US EPA and NESHAP regulations as a Category II non-friable ACM. Similar material found underneath similar wood sidings on D2 type structures should be assumed to contain asbestos. It is recommended that this material be abated by a licensed asbestos abatement contractor if it is to be disturbed by renovation/demolition activities.

Asbestos (5% Chrysotile) was detected in one (1) sample collected of caulking below transite panels as described above. This material is classified under US EPA and NESHAP regulations as a Category II non-friable ACM. Similar material found underneath wood sidings on D2 type structures should be assumed to contain asbestos. It is recommended that this material be abated by a licensed asbestos abatement contractor if it is to be disturbed by renovation/demolition activities.

Asbestos (2% Chrysotile) was detected in one (1) sample collected of the original tan 12” x 12” floor tile and associated black mastic located underneath bathtubs in the bathrooms. This material is classified under US EPA NESHAP regulations as a Category I non-friable ACM. All similar material found in the units should be assumed to contain asbestos. It is recommended that this material be abated by a licensed asbestos abatement contractor if it is to be disturbed by renovation/demolition.

Non Asbestos Containing Materials

No asbestos was detected in samples collected of the new beige 12” x 12” floor tile and associated brown mastic.

General Recommendations

Response actions should be performed by properly trained and licensed personnel in general accordance with applicable state and federal regulations.

If additional suspect asbestos-containing materials are uncovered during demolition of the structures which were not accessible during this survey, or if renovation work impacts areas or materials not covered under this survey, it is recommended that these materials/areas be sampled for asbestos content in accordance with 29 CFR 1926.1101.

As good practice and in general accordance with OSHA regulations (29 CFR 1926.1101) an Operations and Maintenance program is recommend for the building to properly manage asbestos materials in-place.
4.0 LIMITATION

The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of NNRHA. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS and NNRHA.

Our recommendations are in part based on federal and local regulations and guidelines. ECS does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies any conditions at the site that may present a potential danger to public health, safety, or the environment. Under this scope of services, ECS assumes no responsibility regarding any response actions initiated as a result of these findings. General compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements.

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.
APPENDIX I

ASBESTOS ANALYTICAL TEST RESULTS AND CHAIN-OF-CUSTODY
# Asbestos Bulk Analysis Report

**Client:** ECS-Mid-Atlantic LLC - Richmond  
2119 D North Hamilton St  
Richmond, VA 23230

**Report Number:** 11-05-03379  
**Received Date:** 05/25/2011  
**Reported Date:** 05/26/2011  
**Laboratory Results**

<table>
<thead>
<tr>
<th>Lab Sample Number</th>
<th>Client Sample Number</th>
<th>Layer Type</th>
<th>Lab Gross Description</th>
<th>Asbestos</th>
<th>Other Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-05-03379-001</td>
<td>1</td>
<td>Gray Cementitious</td>
<td>18% Chrysotile</td>
<td>82% Non-Fibrous</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Asbestos: 18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-05-03379-002</td>
<td>2</td>
<td>Gray Gran.; White Paint-Like</td>
<td>5% Chrysotile</td>
<td>95% Non-Fibrous</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Asbestos: 5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-05-03379-003A</td>
<td>3</td>
<td>Tile</td>
<td>Beige Gran.</td>
<td>NAD</td>
<td>100% Non-Fibrous</td>
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<tr>
<td>11-05-03379-003B</td>
<td>3</td>
<td>Mastic</td>
<td>Brown Adhes.</td>
<td>NAD</td>
<td>100% Non-Fibrous</td>
</tr>
<tr>
<td>11-05-03379-004A</td>
<td>4</td>
<td>Tile</td>
<td>Tan Gran.</td>
<td>2% Chrysotile</td>
<td>98% Non-Fibrous</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Asbestos: 2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-05-03379-004B</td>
<td>4</td>
<td>Mastic</td>
<td>Black Adhes.</td>
<td>2% Chrysotile</td>
<td>2% Cellulose 96% Non-Fibrous</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Asbestos: 2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lab Sample Number | Client Sample Number | Layer Type | Lab Gross Description | Asbestos | Other Materials
--- | --- | --- | --- | --- | ---
QC Sample: | 70-M12000-3 | | | |
QC Blank: | SRM 1866 Fiberglass | | | |
Reporting Limit: | 1% Asbestos | | | |
Method: | EPA Method 600/R-93/116 | | | |
Analyst: | Timothy Harris | | | |

Reviewed By Authorized Signatory: Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected
# Asbestos Chain-of-Custody

**Company Name:** ECS Mid Atlantic  
**Address:** 2119 D North Hamilton  
**City/State/Zip:** Richmond, VA

**Phone:** 804-441-2976  
**Fax:** ()  
**E-mail:** Isantasana@ecslimited.com  
**Acct. Number:**

**Project Name/Testing Address:** Marshall Courts Additional  
**City/State (Required):** Newport News, VA

**Collected by:** Israel Santana III

**Turn Around Times:**
- If no TAT is specified, sample(s) will be processed and charged as 3-day TAT.
- ____ 1-Day  ____ 2-Day  ____ 3-Day  ____ Same Day (Must Call Ahead)  ____ Weekend (Must Call Ahead)

<table>
<thead>
<tr>
<th>No.</th>
<th>Client Sample ID</th>
<th>Date Collected</th>
<th>PLM</th>
<th>PLM Nail Coat 400</th>
<th>PLM Nail Coat 1000</th>
<th>PLM NY Processed</th>
<th>PCN</th>
<th>TDA/Crawford (Rb)</th>
<th>TDA/HERA (Air)</th>
<th>Time On</th>
<th>Time Off</th>
<th>Flow Rate (L/min)</th>
<th>Total Time (minutes)</th>
<th>Volume (Total Liters)</th>
<th>COMMENTS</th>
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<tbody>
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<td>1</td>
<td>5-25-11</td>
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</table>

**Released by:** Israel Santana III  
**Received by:** R Tyler

**Date/Time:** 5-25-11

**Signature:**

**Date/Time:** 5-25-11

**Signature:**

**Due Date:** 05/30/2011 (Monday)
APPENDIX II

VIRGINIA ASBESTOS INSPECTOR LICENSE
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

VIRGINIA ASBESTOS LICENSE
INSPECTOR LICENSE

ISRAEL SANTANA III
6240 CROWNE CREEK DR. APT 204
MIDLOTHIAN, VA 23112

Gordon N. Dixon, Director

(ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)