



Environmental, Health and Safety Solutions.™



November 1, 2021

Dewberry Engineers, Inc. - ReBuild Phase 2
1545 Peachtree Street NE, Suite 250
Atlanta, Georgia 30309

RE: Asbestos Inspection

148 Cemetery Lane, Lillington, North Carolina 27546

EI Project No: IHMO210289.00

ReBuild NC Batch ID: APP-07184 , INSP-0009354

Dear Ms. Copelia Street-Madzivanyika:

Per the contract outlined by The North Carolina Office of Recovery and Resiliency (NCORR), The EI Group, Inc. performed a limited asbestos inspection for the residence located at 148 Cemetery Lane in Lillington, North Carolina. The inspection was performed by Mr. Tom Majkowski (NC Asbestos Inspector #12221) on October 22, 2021 and limited to the residence's accessible interior and exterior.

Methodology

Asbestos Containing Materials (ACM)

In order to complete the required ACM Survey, EI performed this survey in general accordance with 40 CFR 763 Subpart E. The survey and sampling methods used as part of this survey are described below.

ACM Visual Survey Methodology

For the building structure a limited visual survey of building materials within the designated construction area was completed. The purpose of this was for the certified inspection staff to identify the locations of all suspected ACM. The inspector touched all suspected ACM to determine whether they are friable or non-friable materials. Based upon the AHERA regulations, friable materials can be determined as those materials, that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure, and includes non-friable materials that have become damaged to a point where they may also meet this determination. This visual survey was also completed to identify all homogeneous areas of suspected ACM and to assess the physical condition of each of these materials.

A homogeneous area is defined as an area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color and texture. Once these homogeneous areas are established for the various inspected building, bulk samples were collected per the sampling methodology described below.

ACM Sampling Methodology

All sampling methods were collected in general accordance with NESHAP regulations. Depending on the type of building materials, various sampling methodologies were employed and are described below.

Surfacing Materials

Surfacing materials are defined as material that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes. All surfacing materials were collected with at least three (3) bulk samples by an accredited inspector in a statistically random manner that is representative of the previously identified homogeneous area.

Miscellaneous Materials

Miscellaneous materials are defined as building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and does not include surfacing material or TSI. All miscellaneous materials were collected by an accredited inspector in a manner sufficient to determine whether material is ACM or not ACM. An accredited inspector collected bulk samples from each identified homogeneous area.

Thermal System Insulation

Thermal System Insulation (TSI) includes pipe insulation, boiler insulation, tank insulation, any insulation and other insulation needed for heating/cooling processes. At least three (3) samples of TSI were collected in a statistically random matter.

ACM Analytical Methodology

An appropriate number of samples, per the described methodology, were collected and submitted for analysis to Eurofins CEI, an NC NVLAP accredited laboratory. Samples were analyzed by the Environmental Protection Agency (EPA) 600/R-93/116 Method using Polarized Light Microscopy. Per the EPA if any homogenous material contains >1% asbestos by weight that material is considered asbestos containing and is therefore regulated. A positive stop protocol was also employed. This directive to the lab stops analysis of samples at the first positive analysis of a homogeneous material group, eliminating multiple analyses of the same material.

EPA allows the drywall system components (wallboard, tape and joint compound) to be composited for analysis. See 40 CFR Part 61 (FRL-4821-7) "Asbestos NESHAP Clarification Regarding Analysis of Multi-layered Systems" as published on page 542 of the Federal Register Vol. 59, No. 3 dated January 8th, 1994.

Occupational Safety and Health Administrations (OSHA) considers any percentage of asbestos fiber in building material as a hazard and the building owner must ensure demolition contractor adhere all OSHA regulations regarding building materials containing asbestos fiber.

Findings/Results

Suspect asbestos-containing materials that were visible/accessible within the residence consisted of the following:

- 002 - Beige Floor, Sheet Vinyl Paper Backing
- 003 - Gypsum Wallboard Surface Texture/Skim Coat
- 004 - Gypsum Wallboard System (Wallboard, Joint Tape, and Joint Compound)
- 001 - Roofing, Composite Shingle

Of the suspected asbestos containing materials collected, 3 types were found by analytical analysis to be regulated asbestos materials (>1% by weight). These materials are summarized below:

Material	Floor/Section	Location	Asbestos Amount	Condition	Approximate Quantity
002 - Beige Floor, Sheet Vinyl Paper Backing & Associated Yellow Mastic	Main Floor	Bathroom & Kitchen	40% & 3 % Chrysotile (Serpentine group)	Good	100 sq. ft.
White Ceiling Texture	Main Floor	Throughout	3% Chrysotile (Serpentine group)	Good	1150 sq. ft.

Conclusion/Recommendations

If the above identified materials containing >1 % asbestos are to be disturbed the owner must then adhere to all local, state and federal regulations regarding the removal and disposal of asbestos-containing materials (National Emission Standards for Hazardous Air Pollutants, Section 40 CFR Part 61.150). Any additional suspect materials identified outside of this survey should be presumed positive for ACM until further testing is completed.

Enclosed, please find copies of all chains of custody, laboratory analytical data, and licensure. If you have any questions regarding this information, please feel free to contact me at your earliest convenience.

Sincerely,
The EI Group, Inc.

A handwritten signature in cursive script that reads "Kristen D. Ballina-Switzer". The signature is written in black ink and is positioned below the typed name.

Ms. Kristen Switzer
Industrial Hygienist

Appendix A: Chain of Custody & Laboratory Analytical Data

Appendix B: Certifications & Licensure

Appendix C: Sample Location Maps

Appendix D: Photographs

APPENDIX A: CHAIN OF CUSTODY AND LABORATORY ANALYTICAL DATA



October 28, 2021

The EI Group
2101 Gateway Centre Blvd., Ste. 200
Morrisville, NC 27560

CLIENT PROJECT: APP-07184, INSP-0009354, IHMO210289.00
CEI LAB CODE: B219827

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on October 25, 2021. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

A handwritten signature in black ink, appearing to read "Tianbao Bai".

Tianbao Bai, Ph.D., CIH
Laboratory Director



730 SE Maynard Road • Cary, NC 27511 • 919.481.1413

ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for
The EI Group

CLIENT PROJECT: APP-07184, INSP-0009354, IHMO210289.00

LAB CODE: B219827

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 10/28/21

TOTAL SAMPLES ANALYZED: 6

SAMPLES >1% ASBESTOS: 3

PROJECT: APP-07184, INSP-0009354,
IHMO210289.00

LAB CODE: B219827

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
001A		B157263	Black	Shingle	None Detected
001B		B157264	Black	Shingle	None Detected
002A		B157265A	Off-white	Sheet Vinyl Paper Backing	Chrysotile 40%
002A		B157265B	Yellow	Mastic	Chrysotile 3%
002B		B157266		Sample Not Analyzed per COC	
003A		B157267	Off-white	Texture	Chrysotile 3%
003B		B157268		Sample Not Analyzed per COC	
003C		B157269		Sample Not Analyzed per COC	
003D		B157270		Sample Not Analyzed per COC	
003E		B157271		Sample Not Analyzed per COC	
004A		B157272	Off-white,White	Wallboard/joint Compound & Tape	Chrysotile <1%
004B		B157273	Off-white,White	Wallboard/joint Compound & Tape	Chrysotile <1%

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: The EI Group
 2101 Gateway Centre Blvd., Ste. 200
 Morrisville, NC 27560

Lab Code: B219827
Date Received: 10-25-21
Date Analyzed: 10-28-21
Date Reported: 10-28-21

Project: APP-07184, INSP-0009354, IHMO210289.00

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous	Fiberglass	Non-Fibrous		
001A B157263	Shingle	Heterogeneous Black Fibrous Bound	50%	Fiberglass	40% 10%	Tar Gravel	None Detected
001B B157264	Shingle	Heterogeneous Black Fibrous Bound	50%	Fiberglass	40% 10%	Tar Gravel	None Detected
002A B157265A	Sheet Vinyl Paper Backing	Heterogeneous Off-white Fibrous Bound	25%	Cellulose	35%	Binder	40% Chrysotile
002A B157265B	Mastic	Homogeneous Yellow Non-fibrous Bound			97%	Mastic	3% Chrysotile
002B B157266	Sample Not Analyzed per COC						
003A B157267	Texture	Heterogeneous Off-white Fibrous Bound			57% 35% 5%	Binder Calc Carb Paint	3% Chrysotile
003B B157268	Sample Not Analyzed per COC						
003C B157269	Sample Not Analyzed per COC						
003D B157270	Sample Not Analyzed per COC						
003E B157271	Sample Not Analyzed per COC						

Client: The EI Group
2101 Gateway Centre Blvd., Ste. 200
Morrisville, NC 27560

Lab Code: B219827
Date Received: 10-25-21
Date Analyzed: 10-28-21
Date Reported: 10-28-21

Project: APP-07184, INSP-0009354, IHMO210289.00

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous	Cellulose	Non-Fibrous		
004A B157272	Wallboard/joint Compound & Tape	Heterogeneous	20%	Cellulose	75%	Gypsum	<1% Chrysotile
		Off-white,White			5%	Calc Carb	
		Fibrous Bound			<1%	Paint	
Lab Notes: 2% Chrysotile in joint compound only; <1% overall.							
004B B157273	Wallboard/joint Compound & Tape	Heterogeneous	20%	Cellulose	75%	Gypsum	<1% Chrysotile
		Off-white,White			5%	Calc Carb	
		Fibrous Bound			<1%	Paint	
Lab Notes: 2% Chrysotile in joint compound only; <1% overall.							

LEGEND: Non-Anth = Non-Asbestiform Anthophyllite
Non-Trem = Non-Asbestiform Tremolite
Calc Carb = Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REPORTING LIMIT FOR POINT COUNTS: 0.25% by 400 Points or 0.1% by 1,000 Points


REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

ANALYST: 
Valerie King

APPROVED BY: 
Tianbao Bai, Ph.D., CIH
Laboratory Director





The EI Group, Inc.
2101 Gateway Centre Boulevard, Suite 200
Morrisville, North Carolina 27560

B219827

B157263- B157273



ZHQUAP

(11)

Chain of Custody

Laboratory: Eurofins CEI
Project: APP-07184 , INSP-0009354
Additional Project Number: HMO210289.00
Site Location: Copelia Street-Madzivanyka
148 Cemetery Lane
Lillington, North Carolina 27546
Sampled By: Tom Majkowski (tmajkowski@ei1.com)
Purpose: NESHAP Compliance (Pre-Renovation/Pre-Demolition)

**EUROFINS CEI, INC
SAMPLES ACCEPTED**

JB

Turn-Around Time Request

3 Day

Laboratory Notes

Stop after first positive for each HM

Samples

Sample ID	Material	Floor / Section	Space	Analysis
001A	001 - Roofing, Composite Shingle	Main Floor	Side A	EPA Test Method 600/R-93/116 (PLM)
001B	001 - Roofing, Composite Shingle	Main Floor	Side C	EPA Test Method 600/R-93/116 (PLM)
002A	002 - Beige Floor, Sheet Vinyl Paper Backing	Main Floor	Kitchen	EPA Test Method 600/R-93/116 (PLM)
002B	002 - Beige Floor, Sheet Vinyl Paper Backing	Main Floor	Bathroom	EPA Test Method 600/R-93/116 (PLM)
003A	003 - Gypsum Wallboard Surface Texture/Skim Coat	Main Floor	Living Room	EPA Test Method 600/R-93/116 (PLM)
003B	003 - Gypsum Wallboard Surface Texture/Skim Coat	Main Floor	Kitchen	EPA Test Method 600/R-93/116 (PLM)
003C	003 - Gypsum Wallboard Surface Texture/Skim Coat	Main Floor	Bedroom 1	EPA Test Method 600/R-93/116 (PLM)

Sample ID	Material	Floor / Section	Space	Analysis
003D	003 - Gypsum Wallboard Surface Texture/Skim Coat	Main Floor	Bedroom 2	EPA Test Method 600/R-93/116 (PLM)
003E	003 - Gypsum Wallboard Surface Texture/Skim Coat	Main Floor	Bedroom 3	EPA Test Method 600/R-93/116 (PLM)
004A	004 - Gypsum Wallboard System (Wallboard, Joint Tape, and Joint Compound)	Main Floor	Hallway	EPA Test Method 600/R-93/116 (PLM)
004B	004 - Gypsum Wallboard System (Wallboard, Joint Tape, and Joint Compound)	Main Floor	Bedroom 3	EPA Test Method 600/R-93/116 (PLM)

Sampled By	Date	Time
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Received By	Date	Time
Relinquished By	Date	Time

Received By	Date	Time
Relinquished By	Date	Time

Received By	Date	Time
Relinquished By	Date	Time

Analysis By	Date	Time
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APPENDIX B: LICENSES AND CERTIFICATIONS



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor

MANDY COHEN, MD, MPH • Secretary

MARK T. BENTON • Assistant Secretary for Public Health,

Division of Public Health

August 27, 2021

Thomas V Majkowski
1622 Glengarry Dr
Cary, NC 27511

Dear Mr. Majkowski:

Based upon the review of your accreditation application, the Health Hazards Control Unit (HHCU) has determined that you have fulfilled the requirements and are eligible for asbestos accreditation as a(n) INSPECTOR. Your assigned North Carolina accreditation number is 12221, which is reflected on your enclosed North Carolina Accreditation card. Please be sure to take this card with you to any asbestos work site where you are employed. The State requires that all persons conducting asbestos abatement or asbestos management activities be accredited and have their identification card on site.

Your North Carolina Inspector accreditation will expire on AUGUST 31, 2022. It is NOT the policy of the HHCU to issue renewal notices. If you wish to continue working as a(n) Inspector after this expiration date, you must successfully complete the required training and submit a completed application to this office prior to August 31, 2022. If you should continue to perform asbestos management activities as a(n) Inspector without a valid North Carolina accreditation, you will be in violation of State regulations and may be cited for noncompliance.



Thomas V Majkowski
1622 Glengarry Dr
Cary, NC 27511

133611

North Carolina
Asbestos Accreditation

EXPIRATION				
08-31-2022				
DOB	SEX	HT	WT	
06-18-1970	M	5'7"	163	
CLASS	#	EXP		
INSPECTOR	12221	08-22		

Sincerely,

Ed Norman
Program Manager
Health Hazards Control Unit

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH

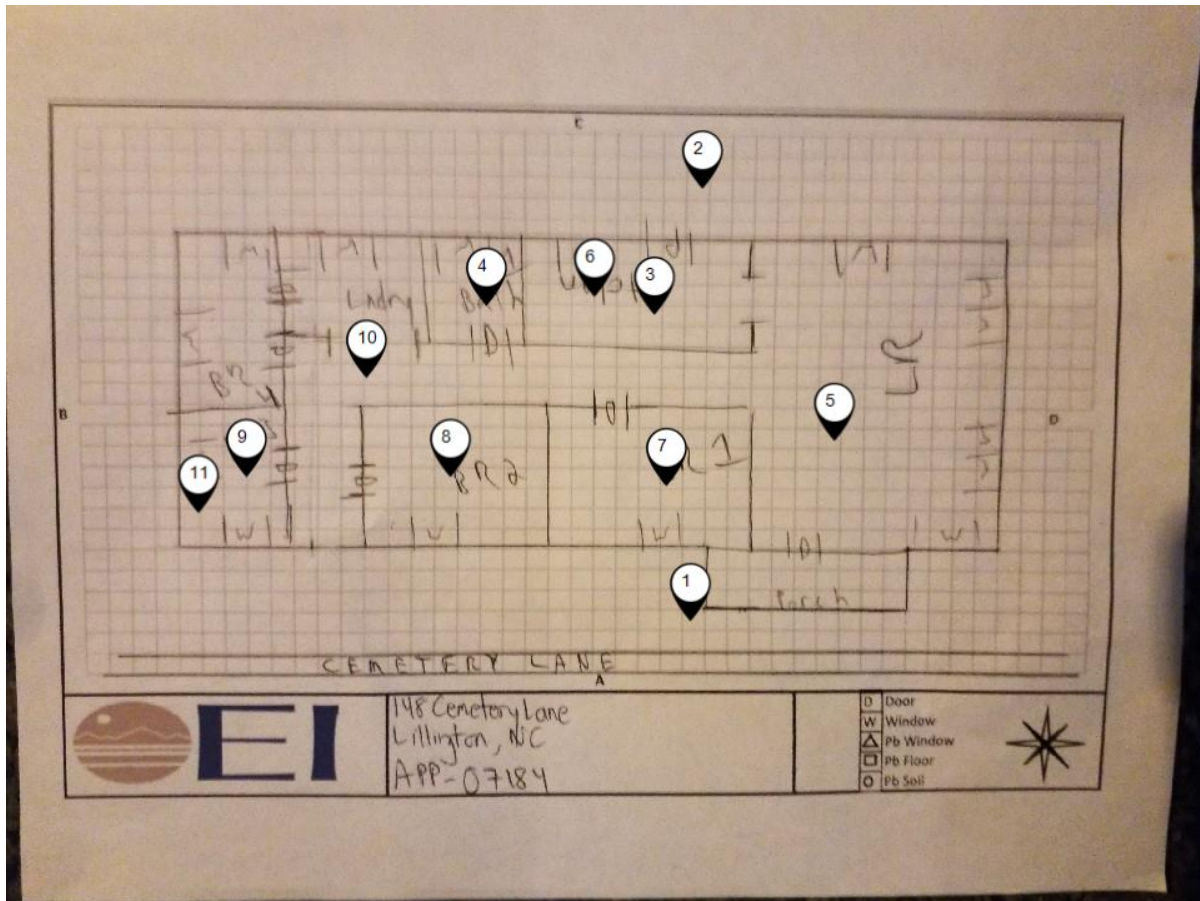
LOCATION: 5505 Six Forks Road, Building 1, Raleigh, NC 27609
MAILING ADDRESS: 1912 Mail Service Center, Raleigh, NC 27699-1912
www.ncdhhs.gov . TEL: 919-707-5950 . FAX: 919-870-4808

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

12221, 08/31/2022, North Carolina, Tom Majkowski

APPENDIX C: SAMPLE LOCATION MAPS

All Sample Locations for Main Floor



Map ID	Sample ID	Section Name	Space Name	Material	Lab Result	Analytical Result
1	001A	Main Floor	Side A	001 - Roofing, Composite Shingle	Tested Negative by Lab (No Asbestos Detected)	N/A
2	001B	Main Floor	Side C	001 - Roofing, Composite Shingle	Tested Negative by Lab (No Asbestos Detected)	N/A
3	002A	Main Floor	Kitchen	002 - Beige Floor, Sheet Vinyl Paper Backing	Greater Than 1% Asbestos by Lab (ACM)	40% Chrysotile (Serpentine group)
3 & 4	002A	Main Floor	Kitchen/Bathroom	002- Yellow Mastic	Greater Than 1% Asbestos by Lab (ACM)	3% Chrysotile (Serpentine group)

Map ID	Sample ID	Section Name	Space Name	Material	Lab Result	Analytical Result
4	002B	Main Floor	Bathroom	002 - Beige Floor, Sheet Vinyl Paper Backing	Assumed Positive (Not Tested by Lab)	N/A
5	003A	Main Floor	Living Room	003 - Gypsum Wallboard Surface Texture/Skim Coat	Greater Than 1% Asbestos by Lab (ACM)	3% Chrysotile (Serpentine group)
6	003B	Main Floor	Kitchen	003 - Gypsum Wallboard Surface Texture/Skim Coat	Assumed Positive (Not Tested by Lab)	N/A
7	003C	Main Floor	Bedroom 1	003 - Gypsum Wallboard Surface Texture/Skim Coat	Assumed Positive (Not Tested by Lab)	N/A
8	003D	Main Floor	Bedroom 2	003 - Gypsum Wallboard Surface Texture/Skim Coat	Assumed Positive (Not Tested by Lab)	N/A
9	003E	Main Floor	Bedroom 3	003 - Gypsum Wallboard Surface Texture/Skim Coat	Assumed Positive (Not Tested by Lab)	N/A
10	004A	Main Floor	Hallway	004 - Gypsum Wallboard System (Wallboard, Joint Tape, and Joint Compound)	Less Than or Equal to 1% Asbestos by Lab (Trace)	N/A
11	004B	Main Floor	Bedroom 3	004 - Gypsum Wallboard System (Wallboard, Joint Tape, and Joint Compound)	Less Than or Equal to 1% Asbestos by Lab (Trace)	N/A

APPENDIX D: PHOTOGRAPHS

Asbestos-Containing Material (Tested Greater Than 1%) Photographs



002A, 002 - Beige Floor, Sheet Vinyl Paper Backing, Kitchen, Main Floor



003A, 003 - Gypsum Wallboard Surface Texture/Skim Coat, Living Room, Main Floor

Asbestos-Containing Material (Assumed Positive) Photographs

No images found for homogenous materials that are assumed positive containing asbestos

Trace Positive Material (Equal to or Less Than 1% Asbestos) Photographs



004A, 004 - Gypsum Wallboard System (Wallboard, Joint Tape, and Joint Compound), Hallway, Main Floor

Materials That Tested Negative for Asbestos Photographs



001A, 001 - Roofing, Composite Shingle, Side A, Main Floor

Elevation Photos



Elevation A



Elevation B



Elevation C



Elevation D



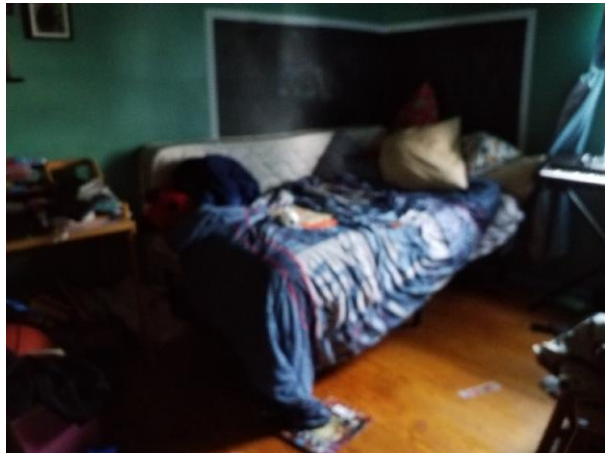
Living Room, Main Floor



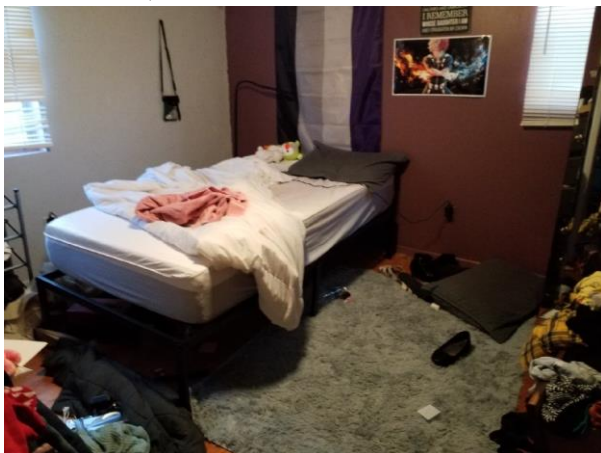
Kitchen, Main Floor



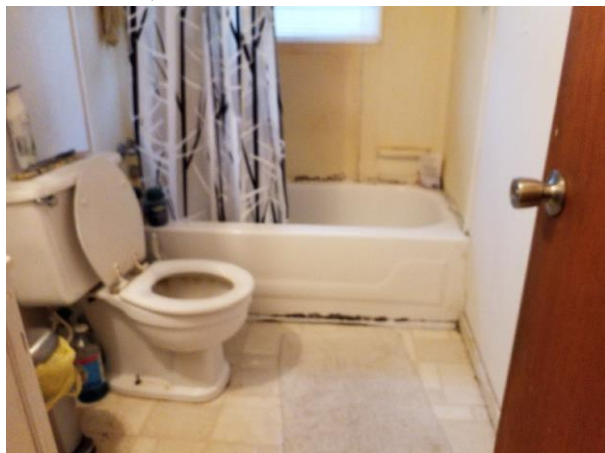
Bedroom 1, Main Floor



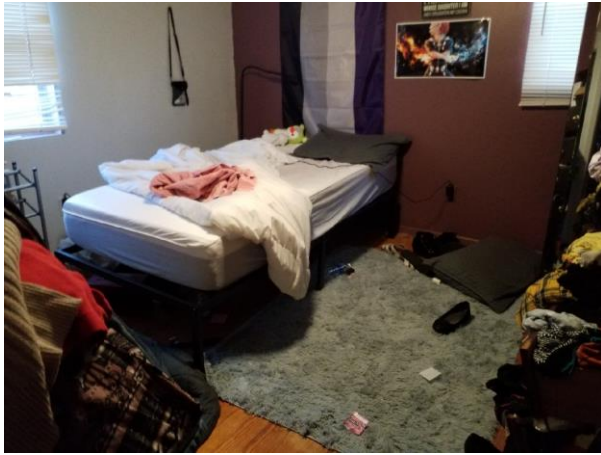
Bedroom 2, Main Floor



Bathroom, Main Floor



Bathroom, Main Floor



Bedroom 3, Main Floor



Bedroom 4, Main Floor