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April 29, 2020

Mr. Dale Kroop
Hamden Government Center
Finance Department
2750 Dixwell Avenue
Hamden, Connecticut 06518

RE: Pre-Acquisition Hazardous Building Materials Assessment
High Meadows
825 Hartford Turnpike
Hamden, Connecticut 06517
BL Project No. 2000201

Dear Mr. Kroop:

BL Companies has completed a Hazardous Building Materials (HBM) Assessment for the High Meadows property in Hamden, Connecticut (the Site). The assessment included a review of historical documents, a visual survey of the buildings and assumptions regarding suspect materials. This assessment was performed to provide information regarding the hazardous building materials that could impact renovation or demolition at the project Site. This property is being reviewed for potential acquisition by the Town of Hamden and possible future development.

The results of the assessment are presented in the attached report.

BL Companies appreciates the opportunity to assist you with this project. If you have any questions regarding the information provided herein, please feel free to contact the undersigned at 203-630-1406.

Sincerely,

BL Companies

Clare Olesen

Clare Olesen
Senior Project Manager

Attachment

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PRE-ACQUISITION
HAZARDOUS BUILDING MATERIALS ASSESSMENT

High Meadows
825 Hartford Turnpike
Hamden, Connecticut

Prepared for:

City of Hamden
2750 Dixwell Ave
Hamden, CT

Prepared By:

BL Companies, Inc.
355 Research Parkway
Meriden, Connecticut 06450

Date: April 2020
BL Companies Project No. 2000201

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APPENDICES

1.0 INTRODUCTION

BL Companies was retained by the Town of Hamden to provide Hazardous Building Materials Assessment services at the Site located at the High Meadows 825 Hartford Turnpike in Hamden, Connecticut. The property is currently vacant and is being reviewed for possible acquisition by the Town of Hamden in preparation for reuse or development.

An inventory of Asbestos Containing Materials (ACMs) is included in **Appendix A.** Photographs are included in **Appendix B** and a Site Map with building locations is included in **Appendix C**.

2.0 ASBESTOS CONTAINING MATERIALS ASSESSMENT

2.1 Introduction

Building construction materials that contain asbestos are found in a variety of types and uses with the most common being vinyl floor tile, linoleum flooring and adhesive (mastic), ceiling tile, spray-applied acoustical/decorative ceiling materials and fireproofing, plaster, wallboard and wallboard joint compound, pipe and boiler insulation, roofing and flashing, and many other materials.

Many ACMs such as roofing, roofing tar, sheet rock joint compound and adhesives remain in use today. Materials that contain greater than one percent (1%) asbestos are considered ACMs and must be handled according to the Occupational Safety and Health Administration (OSHA) and USEPA guidelines, as well as state and local regulations.

2.2 Historical Document Review

On March 25, 2020, Clare Olesen, a Connecticut licensed asbestos inspector (License No. 000627) and Lead Inspector/Risk Assessor (License No. 000827) from BL Companies visited the Site to review and collect documentation available at the property. The Site was used as a reform school and then subsequently as swing space for vocational technical schools during renovation of those schools. Complete Asbestos Hazard Emergency Response Act (AHERA) documentation was available including the most recent Three Year AHERA Reinspection dated 2015. The property was vacated shortly after the 2015 Reinspection.

The review of the documents included previous sampling, abatement records and ACM material condition assessments. Numerous abatement projects have been completed at the project Site to remove the majority of the interior ACMs. No records of testing for exterior materials were provided.

On April 1, 2020 Ms. Olesen visited the Site to return documents and verify Site conditions after document review. At the time of the assessment, the Site was unoccupied, and the buildings were observed to be in good condition with the exception of the gymnasium. The gymnasium had indications of roof deterioration and leaking. The rubber floor in the gymnasium had staining and puddled water and was heaved and uneven.

Ms. Olesen reviewed a copy of historical sampling documents including AHERA Reinspections and Abatement Reports to incorporate the findings in this assessment. An inventory of the ACMs identified in these reports and newly identified suspect ACMs is included in **Appendix A**.

In accordance with the Agreement dated February 25, 2020, no samples were collected from suspect materials. No destructive investigation was conducted to identify suspect materials that may be present behind walls or otherwise hidden from view.

2.3 ACM Findings

The available reports provided detailed information regarding ACMs inside the buildings. The exterior materials were not previously assessed and have been incorporated into the tables in **Appendix A.**

The window and door caulks/glazing have been assumed to be ACM as well as expansion caulks located at the exterior of the buildings. The roofing has been assumed to be ACM and if intact and nonfriable could be removed during demolition.

Additional materials that may be present and which have the potential to contain asbestos are incorporated into the tables in **Appendix A**. These materials include foundation waterproofing tar, underground piping and blind flashing tar behind brick facades. These materials may be encountered during building renovation or demolition and, if so, will need to be analyzed before commencing renovation/demolition activities that would disturb them.

2.4 Summary and Recommendations

The building has been previously inspected for ACM and many of the ACMs have been abated. No previous assessment of exterior ACMs has been conducted. All renovations require an asbestos inspection prior to impacting any suspect materials regardless of the age of the materials.

This HBM Assessment identified asbestos-containing materials in the property. Presumed Asbestos Containing Materials (PACMs) have been noted at the exterior of the buildings. The previous findings and additional PACMs have been included in **Appendix A**.

The ACMs identified in this report require abatement in accordance with Federal and State regulations if they will be disturbed by renovation. Material quantities listed in this report are estimates only and are not guaranteed.

This assessment was limited to accessible areas and typical floors as well as mechanical areas. Additional ACMs may be present in areas not accessible for inspection, such as behind walls, under concrete floors, or below grade. Assumed and suspect ACMs discovered in areas not screened should be treated as ACMs until further evaluation and laboratory analysis can be performed. A comprehensive National Emission Standards for Hazardous Air Pollutants (NESHAP) compliant inspection must be performed prior to any renovation or demolition.

3.0 LEAD BASED PAINT

3.1 Introduction

The Regulations of Connecticut State Agencies Section 19a-111-1 defines "Lead-based" paint as paint containing a toxic level of lead. The regulations further define "toxic level of lead" as a level of lead which "when present in dried paint, plaster or other accessible surface in a residential dwelling contains more than 0.50 percent lead by dry weight as measured by atomic absorption spectrophotometry (AAS), graphite furnace AAS (GFAAS), or inductively coupled plasma atomic emission spectrophotometry (ICP-AES) by a laboratory approved by the department for lead analysis, or more than 1.0 milligrams lead per square centimeter of surface as measured on-site by an x-ray fluorescence analyzer (XRF) or other equipment deemed sufficiently accurate and reliable by the commissioner".

Currently, there are no Federal or State regulations requiring the removal of LBP from commercial or industrial buildings prior to renovation or demolition activities that would disturb the LBP.

3.2 Lead Based Paint – Visual Survey

The buildings were constructed between 1955 and 1985 and those constructed prior to 1978 may have lead paint. Building #7 and #8 were constructed after 1980 and are therefore not included in the Lead Based Paint (LBP) timeframe. Buildings #1, 3-6 and 9 were constructed prior to 1978 and are likely to contain LBP. It is possible that structural steel has lead based primer even post 1978.

Painted surfaces were observed to be intact, and most have been remodeled and painted in the intervening years. LBP is most likely to be present on steel structures (as primer or final coat) and the painted metal windows.

3.3 Summary and Recommendations

Lead Paint Management

Any renovation that requires removal and disposal of painted surfaces should include samples of construction or demolition waste to determine if the waste is hazardous for disposal purposes. The required analytical test to determine which of these classifications is appropriate for a given quantity of lead-containing debris is the Toxicity Characteristic Leachate Procedure, or TCLP. If representative samples of demolition debris are found to contain over 5.0 mg/L of lead by the TCLP, the demolition debris is considered to be hazardous waste. Hazardous wastes must be disposed of according to Federal, State, and local regulations.

Metal components containing LBP should be segregated and recycled at an approved recycling facility by the demolition contractor.

4.0 PCB-CONTAINING BUILDING MATERIALS

4.1 Introduction

No historical sampling for polychlorinated biphenyl (PCB)-containing building materials was available or expected. There is the potential for PCB-containing materials for those building constructed prior to 1978. The assessment for PCBs should be addressed at the time of any renovation. In Building #1 the windows appear to have been replaced since the original construction date of 1955. It is likely that the caulk was removed at the time of the window replacement. The substrate adjacent to the windows may have become contaminated from the original caulk and should be addressed if renovation will impact these substrates. Additionally, if the original caulk was PCB-containing (>50 PPM) the contaminated substrate may have also contaminated the newly installed caulk. Any contaminated materials (>1 PPM PCB) that have been separated from the source (original caulk >50 PPM PCB) must be treated as PCB Remediation Waste.

Suspect PCB-Containing Materials
High Meadows Hamden, CT

Material	Locations	Approximate Quantity
Buildings #1, 3 4, 5, 9		
Moisture Barrier/Tar	Behind Brick Facade	Unknown
Window Glazing/Caulk	Exterior Windows	Unknown
Original Caulk	Roof, Expansion Joints, Roof Penetrations	Unknown
Interior Caulk	Pipe/Electrical Penetrations	Unknown
Building #6		
Window Glazing/Caulk	Windows	Unknown
Exterior Caulk	Metal Siding	Unknown
Interior Caulk	Pipe/Electrical Penetrations	Unknown

4.2 Summary and Recommendations

There could be PCBs associated with caulks, glazing and adhesives at the Site. The largest concern is any caulk/sealants associated with the windows and doors. Windows typically require ongoing maintenance that may have introduced PCB-containing caulks over the years. There are some areas where there appears to be sealant applied over the original installation as repair for leaks. These sealants/caulks may have PCBs if they were installed prior to 1978 when the use of PCBs in these applications were banned.

Window replacement records should be reviewed, if available, to determine the locations and quantity of windows replaced. This would allow the owner to more fully assess the potential PCB risk. See **Appendix B** for representative photos of the suspect materials including PCB materials.

The original caulks and sealants could be PCB-containing. Until these materials are impacted it is recommended to assume they are PCB-containing and not perform sampling unless necessary. The suspect PCB source materials may be removed as assumed PCB Bulk Product Waste under 40 CFR 761.62.

5.0 MERCURY CONTAINING FLOORING

5.1 Introduction

Numerous schools have discovered mercury in gymnasium flooring throughout the United States. The findings indicate that rubberized gymnasium flooring installed in the 1960's through the 1990's can release mercury vapor. These rubber-like polyurethane floors using 1,000 to 2,000 parts per million (ppm) of phenyl mercuric acetate (PMA) catalyst have been installed in schools and elsewhere since the 1960's. PMA breaks down and releases odorless, colorless mercury vapor. The floors and items that have been in contact with them emit mercury vapor indefinitely.

Testing can include bulk sampling and air testing to determine the presence of mercury and risk of exposure. Typically, multiple bulk samples are collected for analysis and amounts >1 PPM Hg are considered mercury-containing. The materials can then be sampled and analyzed by TCLP to determine disposal requirements. Materials found to leach > 0.2 mg/L must be disposed of as hazardous mercury waste in compliance with the Resource Conservation and Recovery Act (RCRA).

In some cases, the mercury has been found to leach from the flooring into the slab (or substrate) below at high enough levels to require disposal as hazardous waste.

5.2 Summary and Recommendations

The flooring has not been sampled for mercury contamination. Since this flooring is in poor condition it will likely be removed as part of a renovation or demolition of the Gymnasium – Building #4. This flooring and the associated substrate should be sampled for mercury prior to removal of these materials. See **Appendix B** for representative photos of the flooring.

6.0 LIMITATIONS

The conclusions stated above are based solely on the information described in this report. The data and observations generated during this investigation reflect the conditions found on the project Site on the dates and at the locations specified. Where visual observations are included in the report, they represent conditions at the time of investigation, and may not be indicative of past or future conditions. The data cannot be extrapolated to locations on the Site that were not tested, or to compounds for which tests were not conducted.

Latent conditions and other information may become evident in the future based on currently unavailable evidence. BL Companies assumes no responsibility for such conditions or for the inspection, engineering, or repair that might be required to discover or correct such factors. Should such evidence arise, it should be forwarded to BL Companies so that additional conclusions and recommendations may be evaluated as necessary.

Appendix A

Asbestos-Containing Material Tables

Building #1- Boys Dormitory						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
Aircell pipe insulation	Basement- throughout 1st floor- throughout	NF	Unknown	No damage	TSI	Partially abated, located within wall cavities
Paper wrap pipe insulation	Basement- throughout 1st floor- throughout	NF	Unknown	No damage	TSI	Partially abated. Located within wall cavities
Mudded pipe fitting	Basement-throughout 1st floor- throughout	NF	Unknown	No damage	TSI	Partially abated. Located within wall cavities
Black window glaze (picture windows)	1st floor- room 122 into entry foyer	NF	100 LF	No damage	M	Known ACM
Ceramic tile grout and setting compound	1st floor bathrooms 130, 138, 136, 151, basement bathrooms B09, B10	NF	700 LF	No damage	M	Known ACM
Caulks/Glazing	Windows/Doors/Expansion Joints	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)
Blind Flashing	Under Brick Façade around Windows	NF	Unknown	No Damage	M	Assumed (PACM)

Note: All floor tile and associated mastics were abated from building in 2012

F = Friable, NF = Nonfriable, SF = Square feet, LF = Linear feet, X = not applicable,
TSI = Thermal System Insulation, M = Miscellaneous

Building #3- Senn Building						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
Glue behind tack board- gray	Upper level-room 303, 307, 332 and 333	NF	125 SF	No damage	M	Room 307 is exposed Known ACM
Boiler insulation beneath metal jacket	Lower level-boiler room	NF	200 SF	No damage	TSI	Material exposed due to displaced metal jacket Known ACM
Brown wood panel adhesive on walls	Upper level- room 357	NF	150 SF	No damage	M	Small Exposed area by radiator Known ACM
Caulks/Glazing	Windows/Doors/Expansion Joints	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)
Blind Flashing	Under Brick Façade around Windows	NF	Unknown	No Damage	M	Assumed (PACM)

Note: All floor tile and associated mastics were abated in 2012

F = Friable, NF = Nonfriable, SF = Square feet, LF = Linear feet, X = not applicable,
TSI = Thermal System Insulation, M = Miscellaneous

Building #4- Gymnasium						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
9" light brown vinyl floor tile and underlying mastic	Attic above gym office	NF	60 SF	No damage	M	Known ACM
Joint compound- tan	Room 409, 410, boy's locker room, stage, and corridor	NF	4,000 SF	No damage	M	Damage mostly in girl's locker room and stage Known ACM
Interior door caulk	Rooms 408, 409, 410, boy's locker room, storage areas, attic, gym	NF	255 LF	No damage	M	Known ACM
Interior door window glaze- Gray hard	Entry doors for gym	NF	50 LF	No damage	M	Known ACM
Ceramic tile setting compound	Boy's locker room, girl's locker room	NF	500 SF	Damage	M	Damaged baseboard in boy's room Assumed
Caulks/Glazing	Windows/Doors/Expansion Joints	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)
Blind Flashing	Under Brick Façade around Windows	NF	Unknown	No Damage	M	Assumed (PACM)

F = Friable, NF = Nonfriable, SF = Square feet, LF = Linear feet, X = not applicable,
TSI = Thermal System Insulation, M = Miscellaneous

Building #5- Kitchen/Dining						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
1'x1' Ceiling tile with pin Holes	Kitchen area rooms 116, 112	NF	900 SF	No damage	M	Assumed
Glue daubs for 1'x1' ceiling tile with pin holes	Kitchen area rooms 116, 112	NF	900 SF	No damage	M	Assumed
Joint compound at ceiling with 1'x1' ceiling tiles	Kitchen Area Room 116, 112, Dining 117 entrances	NF	1100 SF	No damage	M	Known ACM 1 SF of Material Damage in 117 Entrance
Quarry tile setting compound and grout	Cooking area 118	NF	1000 SF	Damage	M	Assumed
Pipe insulation	Wall cavities	NF	Unknown	No damage	M	Known ACM
Caulks/Glazing	Windows/Doors/Expansion Joints	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)
Blind Flashing	Under Brick Façade around Windows	NF	Unknown	No Damage	M	Assumed (PACM)

F = Friable, NF = Nonfriable, SF = Square feet, LF = Linear feet, X = not applicable,
TSI = Thermal System Insulation, M = Miscellaneous

Building #6 – Activity Center						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
9” beige vinyl floor tile and underlying black mastic	Ground floor - electrical room 605	NF	60 SF	Damage	M	3 SF damaged Known ACM
Ceramic floor tile setting compound	Bathrooms 603, 604	NF	160 SF	No damage	M	Assumed
Caulks/Glazing	Windows/Doors/Expansion Joints/Metal Siding	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)
Blind Flashing	Under Brick Façade around Windows	NF	Unknown	No Damage	M	Assumed (PACM)

F = Friable, NF = Nonfriable, SF = Square feet, LF = Linear feet, X = not applicable,
TSI = Thermal System Insulation, M = Miscellaneous

Building #7 – Cottage						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
White/tan/gray pebble floor sheeting	1st floor- bathroom and custodial closet 2nd floor- central bath and northwest bath	NF	350 SF	No damage	M	Known ACM
White/purple sink undercoating	1st floor- kitchen	NF	2 EA	No damage	M	Known ACM
Transite panel behind furnace	Basement- furnace room	NF	30 SF	Damage	M	1 broken panel Known ACM
Caulks/Glazing	Windows/Doors/Expansion Joints	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)

F = Friable, NF = Nonfriable, SF = Square feet, LF = Linear feet, X = not applicable,
TSI = Thermal System Insulation, M = Miscellaneous

Building #8- Grounds Garage						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
Ceramic floor/wall tile grout	Room 802 bathroom	NF	100 SF	No damage	M	Assumed
Ceramic floor/wall tile setting compound/adhesive	Room 802 bathroom	NF	100 EA	No damage	M	Assumed
Caulks/Glazing	Windows/Doors/Expansion Joints	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)
Blind Flashing	Under Brick Façade around Windows	NF	Unknown	No Damage	M	Assumed (PACM)

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TSI = Thermal System Insulation, M = Miscellaneous

Building #9- Maintenance/ HVAC						
Material Description	**Locations**	**Friability**	**Amount**	**Condition**	**Type**	**Comments**
Ceramic Floor/wall tile grout	Room 902 Bathroom	NF	100 SF	No damage	M	Assumed
Ceramic flor/wall tile setting compound/adhesive	Room 902 Bathroom	NF	100 EA	No damage	M	Assumed
Exterior Caulks	Windows/Doors/Expansion Joints	NF	Unknown	No Damage	M	Assumed (PACM)
Roof Materials	Roof	NF	Unknown	No Damage	M	Assumed (PACM)
Foundation Waterproofing/tar	Underground	NF	Unknown	No Damage	M	Assumed (PACM)
Blind Flashing	Under Brick Façade around Windows	NF	Unknown	No Damage	M	Assumed (PACM)

F = Friable, NF = Nonfriable, SF = Square feet, LF = Linear feet, X = not applicable,
TSI = Thermal System Insulation, M = Miscellaneous

Appendix B

Photographs

Building #3 Senn Building - Basement – Boiler Insulation (ACM)

Building #3 Senn Building - Roof – Roofing (PACM)

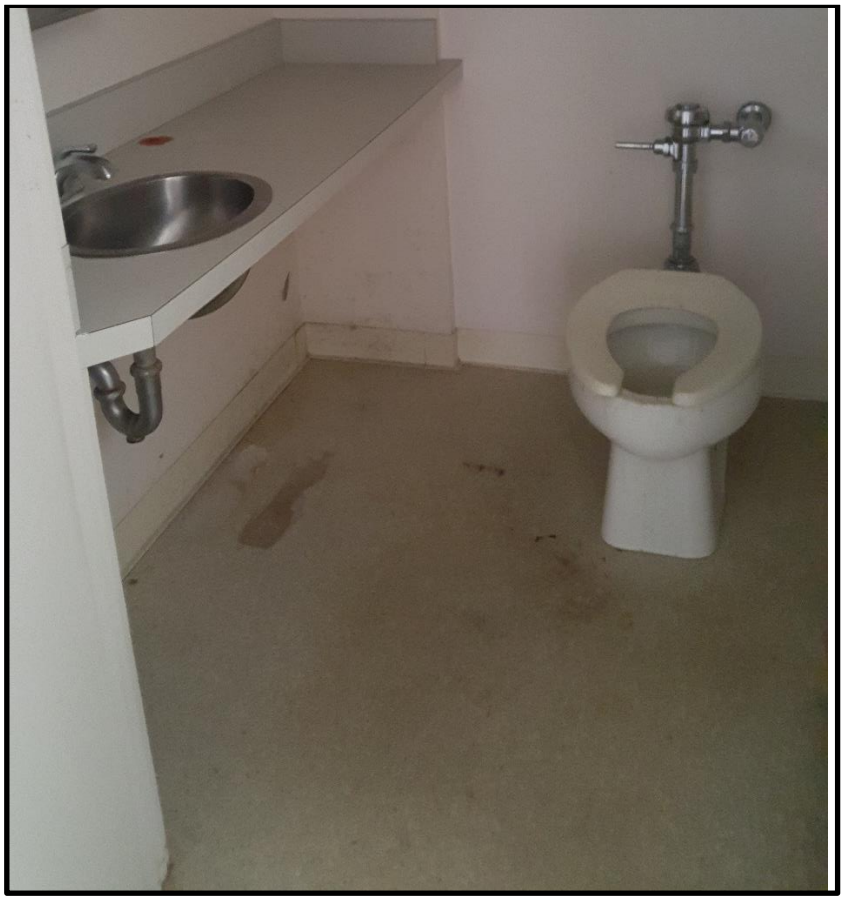
Building #3 Senn Building - Elevation – Window Caulk/Glazing, Blind Flashing (PACM/Suspect PCB)

Building #4 - Gymnasium – Suspect Mercury Flooring

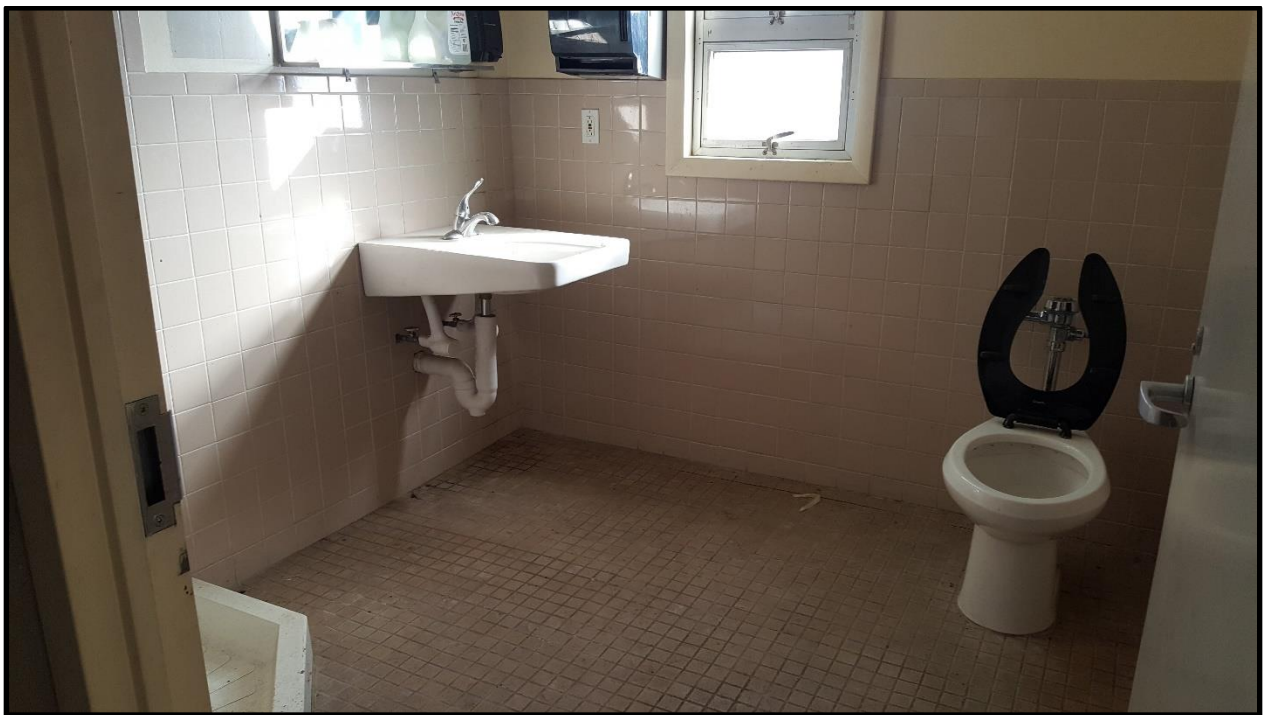
Building #5 Kitchen/Dining – First Floor – 1’x1’ Ceiling Tile with Glue Daubs (ACM)

Building #5 Kitchen/Dining - Basement – Pipe Insulation (ACM & NonACM))

Building #6 – Activity Center – Exterior Caulks (PACM, Suspect PCB)



Building #7 – Cottage - Pebble Flooring (ACM)

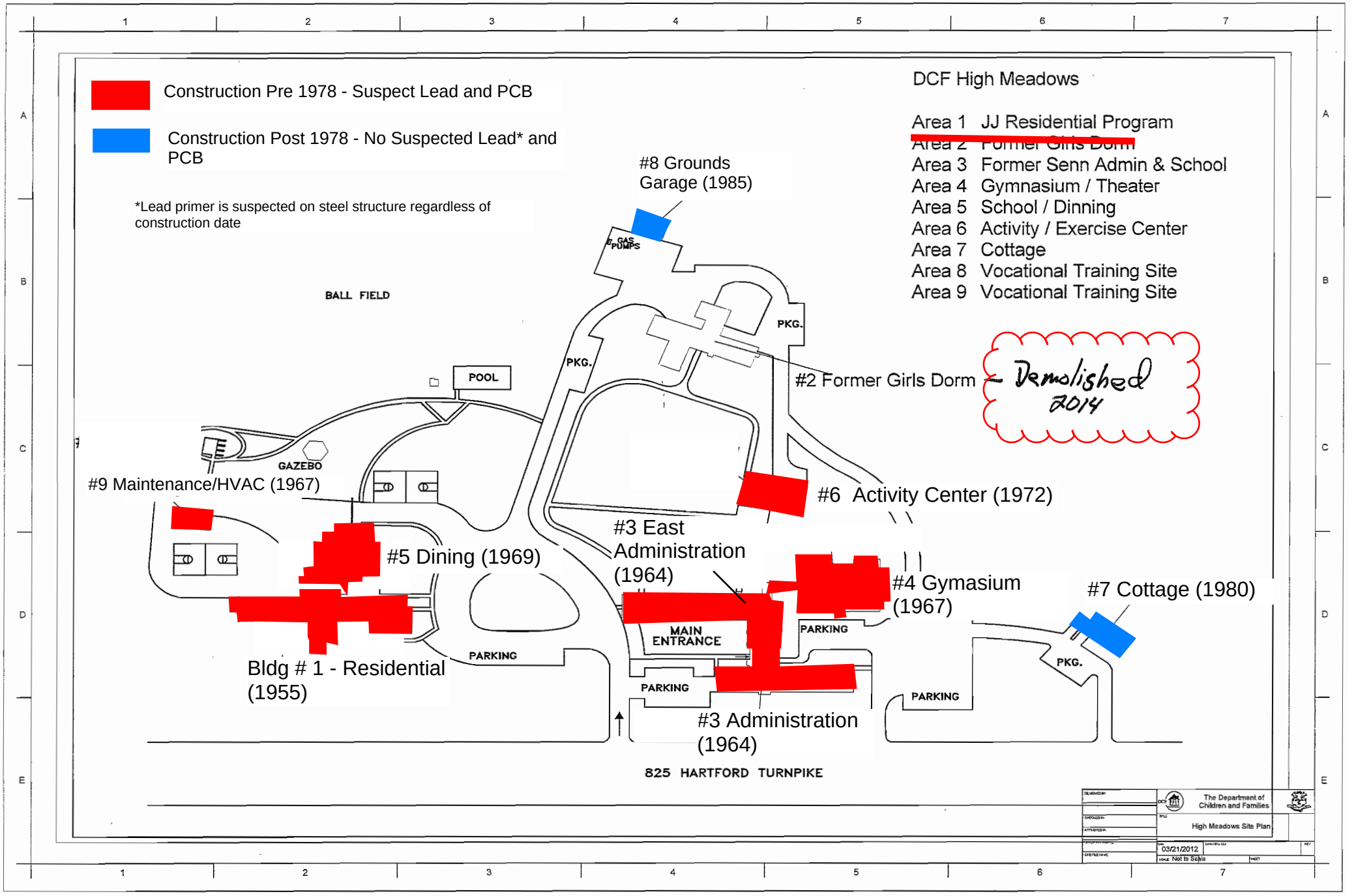


Building #9 – Maintenance/HVAC – Ceramic Tile Grout/Adhesive (ACM)

Building #9 – Maintenance/HVAC – Exterior Window Caulk (PACM/ Suspect PCB)

Appendix C

Site Map – Building Locations


Construction Pre 1978 - Suspect Lead and PCB
Construction Post 1978 - No Suspected Lead* and PCB
*Lead primer is suspected on steel structure regardless of construction date
DCF High Meadows
Area 1 JJ Residential Program
Area 2 Former Girls Dorm
Area 3 Former Senn Admin & School
Area 4 Gymnasium / Theater
Area 5 School / Dinning
Area 6 Activity / Exercise Center
Area 7 Cottage
Area 8 Vocational Training Site
Area 9 Vocational Training Site
#8 Grounds Garage (1985)
GAS PUMPS
BALL FIELD
PKG.
PKG.
POOL
#2 Former Girls Dorm
Demolished 2014
GAZEBO
#9 Maintenance/HVAC (1967)
#6 Activity Center (1972)
#3 East Administration (1964)
#5 Dining (1969)
#4 Gymasium (1967)
#7 Cottage (1980)
MAIN ENTRANCE
PARKING
PARKING
PARKING
PARKING
PKG.
Bldg # 1 - Residential (1955)
#3 Administration (1964)
825 HARTFORD TURNPIKE
The Department of Children and Families
High Meadows Site Plan
03/21/2012
Not to Scale